NEWHALL RANCH™
Newhall Ranch Company

DRAFT
ENVIRONMENTAL IMPACT REPORT

Project# 94087
SCH# 95011015

NEWHALL RANCH SPECIFIC PLAN
and
WATER RECLAMATION PLANT

REVISED

This Revised Draft Environmental Impact Report contains the Newhall Ranch Specific Plan and Water Reclamation Plant Draft EIR as published in July 1996 and incorporates revisions resulting from comments received on the Draft and Final EIRs and responses to those comments, as provided for under the CEQA review process, through February 1999. Deleted information is shown in "~~strikethrough~~" text and new information is shown in "double underline" text; additionally, revised contents are indicated by a revision line in the margin adjacent to the revised text.

This Revised Draft EIR has been published to facilitate easy reference of the revisions made to the Draft EIR resulting from the CEQA review process.

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INTRODUCTION

1. *PURPOSE*

This introduction is included to provide the reader with general information regarding: (1) the purpose of an environmental impact report (EIR); (2) standards for EIR adequacy; (3) an introduction to the format and content of this EIR; and, (4) the EIR processing requirements for the Newhall Ranch Specific Plan and water reclamation plant. Environmental documents can be confusing; therefore, the purpose of this section is to educate the reader regarding the intent, format, and content of this EIR so that it can be more useful.

2. PURPOSE OF THIS ENVIRONMENTAL IMPACT REPORT

The project applicant, The Newhall Ranch Company, is proposing to implement the Newhall Ranch Specific Plan. The purpose of this environmental impact report (State Clearinghouse Number 95011015) is to analyze the potential environmental impacts of the proposed Specific Plan and related activities, including a proposed water reclamation plant. Subsequent to the passage of the California Environmental Quality Act (CEQA)[1] in 1970, a process was established that would: (1) inform the public of the potential environmental impacts of a proposed project; (2) identify methods (i.e., mitigation measures) that could reduce the impact potential of a project; and (3) identify alternative projects that could reduce environmental impacts or propose more effective uses of a project site. This information is the basis of any Environmental Impact Report (EIR).

The purpose of an EIR is quite simple. In its truest form, its intent is to provide a "verbal preview" of the future environmental condition on a project site and in its vicinity, should the project under review be implemented. Wherever potentially significant impacts are identified, the EIR must recommend feasible mitigation measures and/or project alternatives that would minimize impact potential or avoid the impact all together.

When reviewing this or any EIR, the reader should look for an accurate and complete description of the existing environment (i.e., the existing conditions sections), a discussion of potential project-specific and cumulative impacts, and an array of tools (mitigation measures and alternatives) that might minimize or avoid a project's impact on its immediate and surrounding environment. This information can then be used to assess the relative merits of the proposal from an environmental perspective.

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1 California, State of, Guidelines for CEQA, as amended January 1, 1995, Section 15002(a) of the California Administrative Code, Title 14, Chapter 3.

3. EIR ADEQUACY

The principal use of an EIR is as input to a comprehensive planning analysis. The "staff report," prepared by County staff, synthesizes pertinent environmental and planning information into a single document which is presented to the Regional Planning Commission and Board of Supervisors. Given the important role of the EIR in this planning and decision-making process, it is imperative that the information presented in the EIR be factual, adequate, and complete. The standards for adequacy of an EIR, defined in Section 15151 of the CEQA Guidelines, are as follows:

> An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

As indicated in CEQA, Public Resources Code Section 21082.2.(e), "Statements in an environmental impact report and comments with respect to an environmental impact report shall not be deemed determinative of whether the project may have a significant effect on the environment." The required findings of the certifying decision-making body will ultimately determine the significant effects of the project being considered. This EIR has been prepared by the County of Los Angeles in accordance with the CEQA Guidelines and County Environmental Document Reporting Procedures and Guidelines for the implementation of CEQA.

4. TYPE OF EIR AND LEVEL OF ANALYSIS DETAIL

Section 15165 of the CEQA Guidelines, which addresses "Multiple and Phased Projects," such as the Newhall Ranch Specific Plan, allows that "where individual projects are, or a phased project is, to be undertaken and where the total undertaking comprises a project with significant environmental effect, the lead agency shall prepare a single program EIR for the ultimate project as described in Section 15168." Section 15168 of the CEQA Guidelines, which defines a "Program EIR," states the following:

> (a) General. A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either: (1) Geographically, (2) As logical parts in the chain of contemplated actions, (3) in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program. . .

The Newhall Ranch Specific Plan meets the definition of a document that provides "rules, regulations, plans, or other general criteria to govern the conduct of a continuing program."

The CEQA Guidelines [Section 15168 (b)] state that Program EIRs have several advantages. They:

> . . . (1) provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action, (2) ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis, (3) avoid duplicative reconsideration of basic policy considerations, (4) allow the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts. . .

The CEQA Guidelines acknowledge that later, more detailed environmental analysis may be required as the specific details about a development program (such as the Newhall Ranch Specific Plan) become known. Specifically, the Guidelines state [in Section 15168 (c) Use With Later Activities] that:

> . . . [s]ubsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared. (1) If the later activity would have effects that were not examined in the program EIR, a new initial study would need to be prepared leading to either an EIR or a negative declaration. . .

The level of detail a Program EIR should go to in analyzing the environmental effects of a development program are directly linked to the number and depth of project details which are known at the time of the program analysis. As is common with specific plans, the Newhall Ranch Specific Plan proposes a broad program for development, the details of which will be determined in phases over the next twenty-five to thirty years. As is allowed with Program EIRs, this EIR analyzes the potential environmental effects of the Newhall Ranch Specific Plan at buildout and not the individual actions, or phases, that would characterize its buildout. The order and timing of the individual phases are not known at this time as they are dependent on many forces outside of the applicant's control (e.g., economic conditions, changes in the housing market, and demands for employment to name just a few). To attempt to predict the order and timing of individual phases at this time would be speculative. It is acknowledged that as the details regarding individual project actions or phases become known in the future, additional and more detailed environmental documentation may be required.

Contained within this EIR is a project-level analysis of the potential impacts associated with the construction and operation of the proposed water reclamation plant (WRP). This EIR is intended to provide the environmental information and documentation necessary for Los Angeles County to make final approval of the WRP on the Specific Plan site.

5. REPORT FORMAT

This EIR has been prepared in accordance with the environmental review requirements established under CEQA (1970, as amended), the Guidelines for implementation of the Act as prepared by the State Office and Planning and Research and adopted by the Secretary for Resources, and County of Los Angeles Environmental Document Reporting Procedures and Guidelines. Among the principal objectives of CEQA are that the environmental review process be a public one, and that the EIR be an information document that will inform members of the general public, County decision-makers, and technical reviewers of the physical impacts associated with a proposed project.

As indicated above, The Newhall Ranch Company is proposing to implement the Newhall Ranch Specific Plan. One component of the Specific Plan is a water reclamation plant, the purpose of which is to treat and dispose of the wastewater generated by the Specific Plan. The environmental impact analysis presented in this EIR is divided into two major sections. The first impact analysis section, titled "4.0 Existing Conditions, Specific Plan Impacts and Mitigation Measures, Cumulative Impacts and Mitigation Measures, and Unavoidable Specific Plan Significant Impacts," describes the existing conditions present in the area surrounding the Specific Plan and water reclamation plant sites; predicts the potential individual and cumulative impacts attributable to the Specific Plan (including the water reclamation plant) and the future cumulative growth expected to occur independent of the Specific Plan; presents mitigation measures that are intended to minimize or avoid significant impacts caused by the Specific Plan; and identifies the significant impacts which would occur even after implementation of mitigation measures. The presentation of Specific Plan Mitigation Measures is divided into two types: the first mitigation measure type includes those that are already incorporated into the Specific Plan; the second mitigation measure type includes those that are recommended by this EIR. An attempt is made to list measures that are required by Los Angeles County codes and by State and Federal law (such as Title 24 of the California Administrative Code and the Federal Clean Water Act, etc.). Because such legally required measures will be imposed on this Specific Plan by the responsible governmental agency whether or not they are contained in this EIR, the listing contained herein is not intended to be, nor does it need to be, all inclusive. It is likely that tens if not hundreds of mitigation measures will be legal requirements of this Specific Plan outside of those ultimately contained in the Los Angeles County Conditions of Approval.

The second impact analysis section, titled "5.0 Water Reclamation Plant Impacts, Mitigation Measures, and Unavoidable Significant WRP Impacts," predicts the potential impacts attributable solely to the water reclamation plant, presents mitigation measures that are intended to minimize or avoid significant impacts caused by the water reclamation plant, and identifies the significant impacts which would occur even after implementation of mitigation measures.

To facilitate review of this EIR, and to meet the requirements and objectives of CEQA, specific features have been incorporated into this EIR to make it more understandable for non-technical reviewers, while at the same time providing the technical input necessary for agency personnel. Specific features are briefly described below.

- Each major section of the EIR includes a brief explanation of the purpose of that section.

- Each technical environmental section (i.e., traffic, air quality, etc.) of the EIR that focuses on the Specific Plan is initiated with a brief summary of the potential impacts of the proposed Specific Plan as they relate to the topic discussed in that section.

- In each technical section, an attempt has been made to present information in a manner that is understandable to the lay person. More technical information is incorporated in the Appendix of this report for review by agencies with technically-oriented staff and/or interested individuals.

6. EIR CONTENT

To determine which environmental topics should be addressed in this EIR, the County of Los Angeles prepared an Initial Study, and circulated it along with a Notice of Preparation (NOP) in order to receive input from interested public agencies and private parties. Copies of these preliminary planning documents are presented in **Appendix I (a) and I (b)** of this EIR. Input from interested public agencies and private parties was received in written form, copies of which are presented in **Appendix I (b) of this EIR**. The Initial Study and NOP resulted in the following topics being addressed in this document:

- Geotechnical and Soil Resources
- Flood
- Cultural/Paleontological Resources
- Agricultural Resources
- Environmental Safety
- Biota
- Visual Qualities
- Traffic/Access
- Noise
- Air Quality
- Water Resources

- Wastewater Disposal
- Natural Gas
- Electricity
- Solid Waste Disposal
- Education
- Police Services
- Fire Services and Hazards
- Libraries
- Parks, Recreation and Trails
- Population, Housing and Employment

A fiscal impact study was also prepared as part of this EIR. Fiscal impact studies are not a required element of an EIR. Section 15131 of the CEQA Guidelines states that "economic or social information may be included in an EIR or may be presented in whatever form the agency desires." Each of the above topical sections has a discussion of fiscal impacts if appropriate to that topic. Additionally, Section 6.0, Fiscal Impacts of Specific Plan, summarizes the fiscal impact of the Specific Plan to Los Angeles County and to the adjacent City of Santa Clarita.

In addition to these technical sections, other important information is incorporated as part of this EIR. As required by CEQA, this EIR also includes: (1) an accurate and complete description of the existing environmental and regulatory setting that exists in the Specific Plan site's vicinity; (2) an accurate and complete description of the ultimate buildout of the proposed Specific Plan and water reclamation plant (i.e., the Project Description); (3) a description and analysis of plans that could reduce the Specific Plan's and water reclamation plant's impact potential (i.e., the Alternatives section); and, (4) integrative sections that generally summarize cumulative, long-term, and irreversible effects associated with the proposed Specific Plan and water reclamation plant.

7. EIR PROCESSING

The Los Angeles County Department of Regional Planning directed and supervised the preparation of this Draft EIR. During the Draft EIR's preparation, many informal documentation reviews were held with County Department of Regional Planning staff, Department of Public Works staff, and other County agency staff (such as the Office of the Sheriff, the Fire Department, etc.). In addition, informal review or informational meetings were held with non-County agencies, including the South Coast Air Quality Management District, the Southern California Association of Governments, State of California Department of Transportation (Caltrans), the Metropolitan Transportation Authority, and the County of Ventura. The Draft EIR has been made available for a 30-day Los Angeles County internal agency

review and comment period and, subsequently, an additional 90-day public review and comment period which exceeds the 45-day public review period mandated by CEQA. During these review periods, written comments concerning the adequacy of the document may be submitted by interested public agencies and private parties to the County of Los Angeles, Department of Regional Planning, 320 West Temple Street, Los Angeles, California 90012; Attention: Mr. Lee Stark.

A public hearing(s) will be held before the Los Angeles County Regional Planning Commission regarding the Specific Plan, the water reclamation plant (WRP), other requested changes, and the adequacy of the Draft EIR, at which time public comments will be heard. Following the public hearing(s), written responses to all comments will be compiled into a Final EIR. As required by CEQA, responses to comments submitted by responsible public agencies will be distributed to those agencies for review prior to consideration of the Final EIR by the Regional Planning Commission. At the conclusion of the EIR public hearing process, the Regional Planning Commission will vote on whether to recommend approval of the Specific Plan, the WRP, and other requested changes, and whether to recommend certification of the adequacy of the EIR to the Los Angeles County Board of Supervisors. If a recommendation for certification is made by the Regional Planning Commission, the Board of Supervisors will be asked to uphold the EIR certification, and will then adopt findings relative to the Specific Plan's and WRP's environmental effects after implementation of mitigation measures, and take action to recommend outright approval, conditional approval, or denial of the proposed Specific Plan, the WRP, and other requested changes.

Executive Summary

EXECUTIVE SUMMARY

1. *PURPOSE*

It is the intent of the Executive Summary to provide the reader with a clear and simple description of the proposed Specific Plan and water reclamation plant (WRP), and their potential environmental impacts. Section 15123 of the CEQA Guidelines requires that the summary identify each significant effect, recommended mitigation measures, and alternatives that would minimize or avoid potential significant impacts. The summary is also required to identify areas of controversy known to the lead agency, including issues raised by agencies and the public and issues to be resolved, including the choice among alternatives and whether or how to mitigate significant effects. This section focuses on the major areas of the Specific Plan and WRP that are important to decision-makers and utilizes non-technical language to promote understanding.

2. INTRODUCTION

This environmental impact report (EIR; State Clearinghouse Number 95011015) addresses a request for approval of the Newhall Ranch Specific Plan (and associated actions including approval of the WRP) from the County of Los Angeles for the Newhall Ranch site, which is located within the Santa Clarita Valley, in the northwestern portion of unincorporated Los Angeles County. The Specific Plan is for the development of a community composed of a broad range of residential and non-residential land uses within five urban villages that would be situated on the approximately northern half of the 11,963-acre Newhall Ranch site.

The 1992 Land Use Policy Map of the County of Los Angeles General Plan designates the Specific Plan site as Non-urban and Significant Ecological Area. The Land Use Policy Map of the Santa Clarita Valley Area Plan designates the Specific Plan site as Non-urban 1 (0.5 and 0.05 dwelling units/acre), Non-urban 2 (1.0 dwelling unit/acre), Commercial, Industry, Floodway/Flood Plain, Floodway/Flood Plain/Significant Ecological Area, Hillside Management, and Hillside Management/Significant Ecological Area. The existing zoning of the Specific Plan site is Heavy Agricultural (A-2), with a 2.0 acre minimum lot size north of State Route 126 (A-2-2) and a minimum lot size of 5.0 acres south of State Route 126 (A-2-5), and Manufacturing (M-1.5). The proposed Specific Plan requires amendments to portions of the County of Los Angeles General Plan and the Santa Clarita Valley Area Plan, including changes to the Master Plan of Highways, Master Plan of Trails, Significant Ecological Area (SEA) boundaries, demographic projections for the Santa Clarita Planning Area, and other changes which may be deemed necessary by the County. The proposed Specific Plan also requires a change of zone to

Specific Plan and adoption of the Specific Plan document, which would implement the zoning. Prior to obtaining the necessary approvals for implementation of the Specific Plan and the WRP, the County of Los Angeles, acting as the Lead Agency, must also certify that this EIR adequately describes and recommends feasible measures to mitigate the potential significant environmental impacts of the Specific Plan and WRP.

3. SITE LOCATION

The Specific Plan site is located within the Santa Clarita Valley, in the northwestern portion of unincorporated Los Angeles County. The site is located approximately one-half mile west of the Golden State Freeway (I-5) and largely southwest of the junction of I-5 and State Route 126 (generally located between the Magic Mountain Theme Park on the east and the Los Angeles/Ventura County line on the west). The WRP site is located within the Specific Plan site boundary, on the south side of SR-126, adjacent to the Santa Clara River, and near the Los Angeles/Ventura County boundary.

4. SPECIFIC PLAN BACKGROUND

CEQA asks that proper site planning be done at the beginning of a project's inception when a greater amount of flexibility is available rather than at the end of the environmental review process when an applicant may be committed to a certain design without fully understanding the consequences of the project.

a. Relationship of the Project to the Region

Newhall Ranch lies within the fast growing North Los Angeles County region, which added nearly 70,000 people and 18,000 jobs to the County between 1990 and 1994, despite the severe recession.[1] The Southern California Association of Governments (SCAG) projects that North Los Angeles County, which includes both the Santa Clarita and Antelope Valleys, will grow by nearly one million people by the year 2020, necessitating annual construction of over 12,000 homes. The Newhall Ranch Specific Plan, with its planned 24,680 dwelling units and up to 538 Second Units, would provide just under a two-year housing supply for the North Los Angeles County region.[2]

Early in the planning process, a comprehensive set of Specific Plan objectives was established. These are contained in Chapter 2 of the Specific Plan and Section 1.0, Project Description, of this EIR.

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1 Growth estimates are based on Department of Finance statistics for 1994 compared to 1990 Census.

2 Draft projections by SCAG for the North Los Angeles County region.

b. Project Design Features

The Newhall Ranch Specific Plan was designed with an attempt to avoid environmental impacts or to minimize impacts where avoidance is not feasible. The design process incorporated consideration of the extensive environment-related studies associated with this EIR. These project design features include the following:

1. Approximately 4,763 acres, or 40 percent of the site, are being retained as a regionally significant natural open area system composed of the Santa Clara River and High Country Special Management Areas, or SMAs. This system preserves biological resources found in County SEAs 20 and 23 on the property, as well as Salt Canyon, a major wildlife habitat and movement corridor.

2. Total major open area within the Newhall Ranch Specific Plan site, including the SMAs and additional Open Area, is approximately 5,852 acres, or 49 percent of the site. This total does not include further open area which will be delineated in the future for uses, such as neighborhood parks, local trails, and recreation centers.

3. A Santa Clara River Corridor has been designed to retain the River's significant riparian vegetation and habitat while providing flood protection to Los Angeles County standards.

4. Bridge crossings of the River are elevated, rather than at ground level, which lessens biological impacts.

5. The visually dominant River bluffs and steep, oak woodland-filled canyons along the southern side of the River are being preserved as Open Area.

6. The Specific Plan preserves oak woodlands and savannas both within the SEAs and in the development area of the community. While planning has emphasized conservation of oak resources rather than individual trees, of the estimated 16,314 oak tees within the property, approximately 648 (approximately 4 percent) would potentially be impacted by development.

7. Major drainages throughout the property will be soft bottom. The Specific Plan will meet the requirements of the National Pollutant Discharge Elimination System (NPDES) for ensuring the quality of water entering the Santa Clara River.

8. Prominent physical features, such as Sawtooth Ridge and Ayers Rock, have been preserved within Open Area as landmarks for the community.

9. Cultural sites, including the Asistencia (the site of the historical annex to the San Fernando Mission) and archeological sites, are being preserved and are contained within Open Area.

5. SPECIFIC PLAN DESCRIPTION

a. Description of the Specific Plan Site

The 11,963-acre Newhall Ranch is an irregularly-shaped site, the northern portion of which is transected by both the Santa Clara River and State Route 126. While the northern half of the site is generally characterized by the Santa Clara River flood plain, River bluffs, and mesas separated by wide canyon bottoms that were gouged out by streams, the southern half of the site is characterized by steep topography and rugged terrain. Present (and historical) land uses on the Newhall Ranch include: vacant land with oil and natural gas operations; agriculture primarily along the Santa Clara River Corridor, on the mesas overlooking the River and in the wider canyon bottoms; and cattle grazing in Potrero Canyon, along the River, and in other upland and mountainous portions of the Ranch. In addition, there are major Southern California Edison Company electrical transmission lines and Southern California Gas Company pipelines within easements traversing the property.

b. Description of the Specific Plan

The proposed Specific Plan is embodied in a document entitled, Draft Newhall Ranch Specific Plan (July 1996), which proposes the development of a new master planned community on approximately the northern half of the Newhall Ranch site that would comprise a broad range of residential and non-residential uses within five Villages. Specifically, approval of the Specific Plan would establish the zoning necessary for the Ranch to be developed with the following uses:

- 24,680 dwelling units (plus up to 538 Second Units in the Estate Residential designation[3]),
- 598 acres of Mixed-Use development, including 4,493 of the 24,680 dwelling units indicated above,
- 90.7 acres of Commercial uses,
- 256.3 acres of Business Park uses,

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3 Chapter 3.0 of the proposed Newhall Ranch Specific Plan specifies that Second Units are permitted by right in Estate Residential land use designation areas, and in Low Residential land use designation areas only through a one for one conversion of a single family detached dwelling unit. A Second Unit is defined as an additional dwelling unit located on the same lot as a single family detached residence which may contain its own kitchen facilities and may be rented, but not sold. Throughout this entire environmental impact report and in order to analyze a worst-case environmental condition, the proposed Specific Plan is analyzed as if it would actually result in the construction of 24,680 standard dwelling units plus the 538 Second Units (or a total of 25,218 total dwelling units).

- 36.7 acres of Visitor-Serving uses,
- 1,088.8 acres of Open Area, including
  - 274 acres of Community Parks, and
  - 814.8 acres in other Open Area,
- 4,762.9 acres in Special Management Areas (permanent open area),
- 12 neighborhood parks,
- a 15-acre lake,
- a public trail system,
- a golf course,
- two fire stations,
- one library,
- the reservation of five elementary school sites, one junior high school site, and one high school site,
- a 2-acre electrical substation,
- a 7.7-million gallon per day water reclamation plant within a new sanitation district, and
- other associated community facilities, such as roads and bridges.

In addition, permitted uses within certain land use categories may include, but are not limited to, religious institutions, and sheriff, hazardous materials, paramedic, and medical service facilities.

The Specific Plan applicant is requesting the following approvals:

- Amendments to the County General Plan and Santa Clarita Valley Area Plan, including:
  - Amendments to Land Use and other Policy Maps,
  - Amendment to the County Master Plan of Highways to delete Pico Canyon Road as a Major Highway, add other highways, and change the designations of certain highways,
  - Amendment of demographic projections for the Specific Plan area,
  - Amendment to the Master Plan of Trails to permit realignment of the Pico Canyon Trail,
  - Amendment to the Scenic Highways Map to delete SR-126 as a First Priority Route for Further Study and replace with Specific Plan provisions;
- Adoption of the Newhall Ranch Specific Plan as zoning;
- A large lot (40 acre minimum lot size) parcel map;
- a Development Agreement; and
- Construction of a new water reclamation plant.

6. WATER RECLAMATION PLANT DESCRIPTION

a. Description of the Water Reclamation Plant Site

The roughly 15-acre proposed WRP site is located near the western edge of the Specific Plan area, along the south side of SR-126, within an approximately 39-acre area bound by the Santa Clara River on the south and SR-126 on the north. The site is nearly level and has been used for the production of row crops of various types over the years. Soils present consist of alluvial sediments of the River, and the site has been classified as "prime farmland" by the California Department of Conservation based on the physical and chemical characteristics of the soils, which are highly suitable for row crop farming, and on the recent agricultural production on the site. Given its proximity to the Santa Clara River, the limits of the Los Angeles County 50-year Capital Flood Plain and the Federal Insurance Administration 100-year flood plain encroach onto a portion of the WRP site.

b. Description of the Water Reclamation Plant

The proposed WRP would have a treatment capacity of 7.7 million gallons per day (mgd) and a maximum peak flow of 15.4 mgd. It has been sized to exclusively serve the needs of the Newhall Ranch Specific Plan. A new sanitation district would also be formed; its boundary would coincide with that of the Specific Plan site. The new district is proposed because the Specific Plan site is located in unincorporated territory within the County of Los Angeles, and is downstream from the nearest existing County sanitation district [County Sanitation Districts of Los Angeles County (CSDLAC)] No. 32, which maintains and operates the Valencia WRP.

7. TOPICS OF KNOWN CONCERN

Issues relative to the development of the Specific Plan on the Newhall Ranch site (including the proposed WRP) were identified by the County of Los Angeles [via the Initial Study and the Notice of Preparation which are presented in EIR **Appendices I (a) and I (b)**], and by State and local agencies, as well as private parties (via responses to the Notice of Preparation, Community Task Force meetings, and public outreach efforts). As a result of efforts to obtain input into the development of the Specific Plan early in its planning process, and as a result of the responses to the Notice of Preparation, specific environmental concerns were identified and are appropriately addressed in this EIR under one or more of the following topics (please refer to **Appendix I (b)** for the responses to the Notice of Preparation):

- Geotechnical and Soil Resources
- Flood

- Cultural/Paleontological Resources
- Agricultural Resources
- Environmental Safety
- Biota
- Visual Qualities
- Traffic/Access
- Noise
- Air Quality
- Water Resources
- Wastewater Disposal
- Natural Gas
- Electricity
- Solid Waste Disposal
- Education
- Police Services
- Fire Services and Hazards
- Libraries
- Parks, Recreation and Trails
- Population, Housing and Employment

Analyses of the potential impacts associated with each of these topics is presented in **Section 4.0, Existing Conditions, Specific Plan Impacts and Mitigation Measures, Cumulative Impacts and Mitigation Measures, and Unavoidable Significant Specific Plan Impacts** and **Section 5.0, Water Reclamation Plant Impacts, Mitigation Measures, and Unavoidable Significant WRP Impacts** of this EIR.

8. IMPACTS, MITIGATION MEASURES, AND UNAVOIDABLE SIGNIFICANT IMPACTS

This EIR has been prepared to assess each potentially significant impact to the environment that could result from implementation of the proposed Specific Plan. For a detailed discussion regarding potential impacts, refer to **Section 4.0** of this EIR.

One component of the Specific Plan is a proposed water reclamation plant (WRP). Los Angeles County seeks to use this EIR as the environmental review document for both the Specific Plan and the WRP. It is for this reason that particular attention is given to the WRP and its potential impacts. **Section 5.0, Water Reclamation Plant Impacts, Mitigation Measures, and Unavoidable Significant WRP Impacts** provides a detailed discussion of WRP impacts.

In accordance with the CEQA Guidelines, summaries of the Specific Plan's and the WRP's impacts are provided in the following Summary Tables. Also provided in the Summary Tables is a list of the proposed mitigation measures that are recommended in response to the significant impacts identified in this EIR, as well as a determination of the level of significance of the impact after implementation of the recommended mitigation measures.

9. ALTERNATIVES

In response to the significant impacts created by the proposed Specific Plan and WRP, the comments received in response to the Notice of Preparation, discussions with County staff, discussions at 26 Community Task Force meetings, and many discussions with members of the community and community groups, a wide range of alternatives to the Specific Plan and WRP have been defined.

Section 8.0, Alternatives, discusses the following six on-site alternatives to the proposed Specific Plan:

- Alternative 1, The No Project Alternative. This alternative is required by the CEQA Guidelines, and it compares the impacts which might occur if the site is left in its present condition with those that would be generated by the Specific Plan as proposed;
- Alternative 2, Site Buildout under the Santa Clarita Valley Area Plan and the County's Zoning Code. The purpose of this alternative is to describe the impacts of developing the site as allowed by the Santa Clarita Valley Area Plan and to compare such impacts with those generated by the proposed Specific Plan;
- Alternative 3, The Clustered Alternative (same amount of development, smaller footprint). The primary purpose of this alternative is to minimize or avoid potentially significant biological impacts by reducing the footprint of the proposed Specific Plan. In doing so, many other impacts which could occur as a result of land surface disturbance (e.g., impacts to cultural resources, geotechnical resources, fugitive dust impacts generated by grading, etc.) might also be reduced in magnitude by a reduction in the footprint of the proposed Specific Plan;

- Alternative 4, The 19,750 Unit Alternative (20 percent reduction in development, same footprint). The primary purpose of this alternative is to minimize or avoid potentially significant traffic, air quality, noise, indirect biological, utility (e.g., water demand, wastewater generation), and public service (e.g., fire department, sheriff department) impacts by generally decreasing the amount of development (e.g., the number of dwelling units) on the site;
- Alternative 5, The 15,000 Unit Alternative (39 percent reduction, smaller footprint). The primary purpose of this alternative is to avoid or minimize the potentially significant direct and indirect biological impacts created by the proposed Specific Plan by reducing the amount of development and by reducing the footprint upon which such development would occur. In doing so, many other impacts which could occur as a result of site development might also be reduced in magnitude; and
- Alternative 6, The 8,000 Unit Alternative (68 percent reduction, smaller footprint). The primary purpose of this alternative is to avoid or minimize the potentially significant visual and biological impacts created by the proposed Specific Plan. In doing so, many other impacts which could occur as a result of site development might also be reduced in magnitude.

In addition to the six on-site alternatives, three sites within the region were evaluated as possible alternative sites for the proposed Newhall Ranch Specific Plan. The same methodology employed to assess Specific Plan-related environmental impacts in **Section 4.0** was employed in **Section 8.0, Alternatives,** in order to assess the relative impacts of each alternative and the relative suitability of each alternative site for the Specific Plan. As a result of the alternatives analysis, and as required by the California Environmental Quality Act [Section 15126 (d)], it was determined that Alternative 6, the 8,000 Unit Alternative, is environmentally superior to the proposed Newhall Ranch Specific Plan.

Section 8.0, Alternatives, also discusses the following eight on- and off-site alternatives to the proposed WRP:

- No WRP Alternative (On Site)
- Upstream Location Alternative (On Site)
- Non-River Location Alternative (On Site)
- Septic System Alternative (On Site)
- Expand an Existing WRP (Valencia WRP, District No. 32) (Off Site)
- New WRP Site Upstream of Specific Plan Site (Off Site)
- New WRP Site Downstream of Specific Plan site in Ventura County (Off Site)

None of the alternatives analyzed, including the No Project WRP Alternative, are environmentally superior to the proposed WRP.

10. ISSUES TO BE RESOLVED/AREAS OF CONTROVERSY

The following approvals or permits may be required prior to Specific Plan and/or water reclamation plant construction:

Responsible Agency	Action Required
• U.S. Army Corps of Engineers	Section 404 permit of the Federal Clean Water Act
• U.S. Fish and Wildlife Service	Section 7 and/or Section 10 consultations as required by the Federal Endangered Species Act
• California Department of Fish and Game	Section 1601/1603 permit of the State Fish and Game Code
• California Department of Transportation	Encroachment Permit
• Regional Water Quality Control Board	National Pollutant Discharge Elimination System permit and Section 401 permit of the Federal Clean Water Act
• South Coast Air Quality Management District	Various permits for air emissions regulation found in the Air Quality Management Plan
• Local Agency Formation Commission	Approval of new County sanitation district
• County/State Board of Education	Adjustment to Newhall School District, Castaic Union School District boundaries

This table is not intended to provide the complete and final listing of future actions required to implement the Specific Plan. This is an attempt to identify those actions which are known at this time to be required in the future.

This list is not complete, nor is it a final listing of future actions required by each of the Responsible Agencies to construct the Specific Plan; rather, it is an attempt to identify those actions which are known at this time to be required in the future.

Although not necessary concurrent with the approval of the Newhall Ranch Specific Plan, its development would eventually require approval by the County of the various subdivision maps, parcel maps, conditional use permits, and/or oak tree permits necessary to implement the Specific Plan. Additional permits or approvals would also be required from various Responsible Agencies.

Many comments were received in response to the Notice of Preparation. Copies of the comments are presented in EIR **Appendix I (b)**. Clearly, one of the most frequently identified issues is the conversion of a large open area to urban and suburban land uses, and the impacts that might result. Most, but not all, of the specific environmental issues raised concerned the potential Specific Plan impacts on biological resources, traffic and circulation, public services including water availability, and air quality. Please refer to **Appendix I (b)** for the complete list of issues raised by the public during the Notice of Preparation response period.

PROJECT IMPACTS		MITIGATION MEASURES	RESIDUAL IMPACT
GEOTECHNICAL AND SOIL RESOURCES			
The Newhall Ranch site is traversed by the Salt Creek and Del Valle Faults and the Holser Structural Fault Zone. In addition, and similar to geotechnical characteristics elsewhere in the area, some portions of the site have soils that are poorly consolidated, subject to hydroconsolidation and liquefaction, are prone to failure during intense rainfall and/or earthquake generated ground motions, and are potentially very expansive.	4.1-1.	The standard building setbacks from ascending and descending man-made slopes are to be followed in accordance with Section 1806.~~42907 (d)~~ of the Los Angeles County Building Code, unless superseded by specific geologic and/or soils engineering evaluations. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 44)	Not Significant
	4.1-2.	The existing Grading Ordinance for planting and irrigation of cut-slopes and fill slopes is to be adhered to for grading operations within the project site. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 44)	
	4.1--3.	In order to safeguard against major seismic-related structural failures, all buildings within the project boundaries are to be constructed in conformance with the Los Angeles County Uniform Building Code, as applicable.	
	4.1-4.	The location and dimensions of the exploratory trenches and borings undertaken by Allan E. Seward Engineering Geology, Inc. and R.T. Frankian & Associates are to be noted on all grading plans relative to future building plans, unless the trenches and/or borings are removed by future grading operations. If future foundations traverse the trenches or borings, they are to be reviewed and approved by the project Geotechnical Engineer. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 45)	
	4.1--5.	Wherever the Pacoima Formation is exposed, it may be potentially expansive; therefore, it is to be tested by the project Soils Engineer at the grading plan stage to determine its engineering characteristics and mitigation requirements, as necessary.	
	4.1-6.	Should any expansive soils be encountered during grading operations, they are not to be placed nearer the finished surface than 8 feet below the bottom of the subgrade elevation. This depth is subject to revision depending upon the expansive potential measured during grading. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	4.1-7.	If expansive materials are encountered at subgrade elevation in cut areas, the soils are to be removed to a depth of 8 feet below the "finished" or "subgrade" surface and the excavated area backfilled with nonexpansive, properly compacted soils. This depth is subject to revision depending upon the expansive potential measured during grading. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
GEOTECHNICAL AND SOIL RESOURCES (cont.)	4.1-8. At the time of subdivision, which allows construction, areas subject to liquefaction are to be mitigated to the satisfaction of the project Geotechnical Engineer prior to site development. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	4.1-9. Subdrains are to be placed in areas of high ground water conditions (Potrero Canyon, in particular) or wherever extensive irrigation is planned. The systems are to be designed to the specifications of the Newhall Ranch Specific Plan Geotechnical Engineer.	
	4.1-10. Subdrains are to be placed in the major and minor canyon fills, behind stabilization blankets, buttress fills, and retaining walls, and as required by the Geotechnical Engineer during grading operations. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	4.1-11. Canyon subdrains may be installed in "V"-ditches or in a rectangular trench excavated to expose competent material or bedrock as approved by the Geotechnical Engineer.	
	4.1-12. The vertical spacing of subdrains behind buttress fills, stabilization blankets, etc. are to be a maximum of 15 feet. The gradient is to be at least 2 percent to the discharge end. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	4.1-13. Geological materials subject to hydroconsolidation (containing significant void space) are to be removed prior to the placement of fill. Specific recommendations relative to hydroconsolidation are to be provided by the project Geotechnical Engineer at the subdivision stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 44)	
	4.1-14. Proposed structures on ridgelines will have a minimum 20-foot horizontal setback from the margin of the bedrocks to prevent perched or ground water levels where relatively impermeable materials can block downward migration.	
	4.1-15. Subsurface exploration is required to delineate the depth and lateral extent of the landslides shown on the geologic map. This work shall ~~is to~~ be undertaken at the subdivision ~~map~~ stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 15) Landslides must ~~are to~~ be mitigated through stabilization, removal, and/or building setbacks as determined by the Newhall Ranch Specific Plan Geotechnical Engineer, and to the satisfaction of the Los Angeles County Department of Public Works.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
GEOTECHNICAL AND SOIL RESOURCES (cont.)	4.1-16. At the subdivision stage, the existence of landslides designated with "3" on **Figure 4.1-2, Existing Landslide Areas**, and within or adjacent to the development area is to be confirmed. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994,p. 15) If landslides are confirmed in these areas, they are to be mitigated through stabilization, removal, and/or building setbacks as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.	
	4.1-17. The existence, or lack thereof, of landslides on or adjacent to the roadway alignments for the extension of Magic Mountain Parkway and Valencia Boulevard will be evaluated by subsurface investigations at the subdivision stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 13 December 1995, p. 11) If landslides are confirmed in these areas, they are to be mitigated through stabilization, removal, and/or building setbacks as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.	
	4.1-18. The potential hazards associated with debris flow scars and other possible surficial failures located in proximity to the roadway alignments for the extension of Magic Mountain Parkway and Valencia Boulevard will be evaluated at the subdivision stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 13 December 1995, p. 11) These areas are to be mitigated as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.	
	4.1-19. Remove debris from surficial failures during grading operations prior to the placement of fill. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 16)	
	4.1-20. All soils and/or unconsolidated slopewash and landslide debris is to be removed prior to the placement of compacted fills. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 45)	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
GEOTECHNICAL AND SOIL RESOURCES (cont.)	4.1-21. Cut-slopes which will expose landslide material are to undergo geologic and geotechnical evaluation at the subdivision stage to determine their stability and degree of consolidation. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 15) Several options are available to mitigate potential landslide failure in the proposed cut-slopes. Landslides may be stabilized with buttress fills or shear keys designed by the Newhall Ranch Specific Plan Geotechnical Engineer; landslide material can be entirely removed and replaced with a stability fill; or the slope can be redesigned to avoid the landslide. Landslides underlying cut pad or road areas may be removed or partially removed if the Newhall Ranch Specific Plan Geologist and Geotechnical Engineer conclude that the landslide is stable and sufficiently consolidated to build on. Landslides located on ascending natural slopes above proposed graded areas will also require evaluation for stability. Unstable landslides on natural slopes above graded areas will either require stabilization, removal or building setbacks to mitigate potential hazards.	
	4.1-22. Additional geologic investigations are required prior to approval of future tentative maps which allow construction, or grading plans to determine the geologic and geotechnical feasibility of the fifteen (15) lots proposed in the High Country SMA.	
	4.1-23. Prior to construction of the road embankment located within landslide Qls II, a compacted fill shear key will be constructed at the property boundary. (R.T. Frankian & Associates, 19 September 1994, p. 6)	
	4.1-24. Landslides which will not affect the proposed grading concept are to be placed in Restricted Use Areas on the Final Maps. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 43)	
	4.1-25. Surficial stability of cut-slopes designated with a "G" are to be fully evaluated at the subdivision stage, due to the possibility of wedge failures or surficial material in the slope. Corrective grading measures are to be presented in detail as mitigation at both the subdivision and Grading Plan stages of development. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, pp. 17, 43)	
	4.1-26. Cut slopes designated as "P" are potentially unstable and are to be fully evaluated at the subdivision stage to ascertain whether they are stable as designed. Corrective grading measures are to be presented in detail as mitigation at both the subdivision and Grading Plan stages of development. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, pp. 17, 43)	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
GEOTECHNICAL AND SOIL RESOURCES (cont.)	4.1-27. Cut-slopes designated with a "U" are to be further investigated at the subdivision stage to confirm underlying geologic conditions and slope stability. Corrective grading measures are to be presented in detail as mitigation at both the subdivision and Grading Plan stages of development. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, pp. 17, 43)	
	4.1-28. Cut-slopes associated with the construction of the proposed extensions of Magic Mountain Parkway and Valencia Boulevard are to be further investigated at the subdivision stage to confirm the underlying geologic conditions and slope stability. Corrective measures are to be required if it is determined that the cut-slopes will not be stable. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 13 December 1995, pp. 11 & 12)	
	4.1-29. Orientations of the bedrock attitudes are to be evaluated by the Newhall Ranch Specific Plan Engineering Geologist to identify locations of required buttress fills. Buttress fill design and recommendations, if necessary, are to be presented as mitigation during the grading plan stage. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	4.1-30. All fills, unless otherwise specifically designed, are to be compacted to at least 90 percent of the maximum dry unit weight as determined by ASTM Designation D 1557-91 Method of Soil Compaction. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	4.1-31. No fill is to be placed until the area to receive the fill has been adequately prepared and approved by the Geotechnical Engineer. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	4.1-32. Fill soils are to be kept free of all debris and organic material. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	4.1-33. Rocks or hard fragments larger than 8 inches are not to be placed in the fill without approval of the Geotechnical Engineer, and in a manner specified for each occurrence. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	4.1-34. Rock fragments larger than 8 inches are not to be placed within 10 feet of finished pad grade or the subgrade of roadways or within 15 feet of a slope face. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
GEOTECHNICAL AND SOIL RESOURCES (cont.)	4.1-35. Rock fragments larger than 8 inches may be placed in windrows, below the limits given above, provided the windrows are spaced at least 5 feet vertically and 15 feet horizontally. Granular soil must be flooded around windrows to fill voids between the rock fragments. The granular soil is to be wheel rolled to assure compaction. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	4.1-36. The fill material is to be placed in layers which, when compacted, is not to exceed 8 inches per layer. Each layer is to be spread evenly and is to be thoroughly mixed during the spreading to insure uniformity of material and moisture. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	4.1-37. When moisture content of the fill material is too low to obtain adequate compaction, water is to be added and thoroughly dispersed until the soil is approximately 2 percent over optimum moisture content. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	4.1-38. When the moisture content of the fill material is too high to obtain adequate compaction, the fill material is to be aerated by blading or other satisfactory methods until the soil is approximately two percent over optimum moisture content. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	4.1-39. Where fills toe out on a natural slope or surface, a keyway, with a minimum width of 16 feet and extending at least 3 feet into firm, natural soil, is to be cut at the toe of the fill. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	4.1-40. Where the fills toe out on a natural or cut slope and the natural or cut slope is steeper than 5 horizontal to 1 vertical, a drainage bench with a width of at least 8 feet is to be established at the toe of the fill. Fills may be placed over cut slopes if the visible contact between the fill and cut is steeper than 45 degrees. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	4.1-41. When placing fills over slopes, sidewall benching is to extend into competent material, approved by the Geotechnical Engineer, with vertical benches not less than 4 feet. (R.T. Frankian & Associates, 19 September 1994, Appendix I) Competent material is defined as being free of loose soil, heavy fracturing or compressive soils.	
	4.1-42. When constructing fill slopes, the grading contractor is to avoid spillage of loose material down the face of the slope during the dumping and compacting operations. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
GEOTECHNICAL AND SOIL RESOURCES (cont.)	4.1-43. The outer faces of fill slopes are to be compacted by backing a sheepsfoot compactor over the top of the slope, and thoroughly covering all of the slope surface with overlapping passes of the compactor. Compaction of the slope is to be repeated after each 4 feet of fill has been placed. The required compaction must be obtained prior to placement of additional fill. As an alternate, the slope can be overbuilt and cut back to expose a compacted core. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	4.1-44. All artificial fill associated with past petroleum activities as well as other existing artificial fill, are to be evaluated by the Newhall Ranch Specific Plan Geotechnical Engineer at the subdivision and/or Grading Plan Stage. (Allan~~Allen~~ E. Seward Engineering Geology, 19 September 1994, Inc., p. 45) Unstable fills are to be mitigated through removal, stabilization, or other means as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.	
	4.1-45. Surface runoff from the future graded areas is not to run over any natural, cut, or fill slopes. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)	
	4.1-46. Runoff from future pads and structures is to be collected and channeled to the street and/or natural drainage courses via non-erosive drainage devices. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)	
	4.1-47. Water is not to stand or pond anywhere on the graded pads. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)	
	4.1-48. Oil and water wells that might occur on site are to be abandoned in accordance with State and local regulations. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 45)	
	4.1-49. If any leaking or undocumented oil wells are encountered during grading operations, their locations are to be surveyed and the current well conditions evaluated immediately. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 21) Measures are to be taken to document the wells, abandonment, and remediate the well sites (if necessary) in accordance with State and local regulations.	
	4.1-50. The exact status and location of the Exxon (Newhall Land & Farming) oil well #31 will be evaluated at the subdivision stage. If necessary, the well will be abandoned in accordance with State and local regulations. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 13 December 1995, p. 12)	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
GEOTECHNICAL AND SOIL RESOURCES (cont.)	4.1-51. Survey control will be required to precisely locate the Salt Creek and Del Valle Faults at the subdivision stage. (AllanAllen E. Seward Engineering Geology, Inc., 19 September 1994, p. 33)	
	4.1-52. Additional subsurface trenching will be performed within the Holser Structural Zone on Newhall Ranch during the subdivision stage to evaluate its existence. Within Potrero Canyon, additional subsurface evaluation will be performed during the subdivision stage to confirm that nontectonic alluvial movement was the cause of surface ground cracking during the January 17, 1994 earthquake, and to evaluate the potential for shallow-depth faults. (Allan E. Seward Engineering Geology, Inc. 19 September 1994, p. 42, as revised above.)~~Additional subsurface trenching is to be performed within the Holser Structural Zone on Newhall Ranch during the subdivision stage to evaluate its existence. (Allen E. Seward Engineering Geology, Inc., 19 September 1994, p. 42)~~	
	4.1-53. Precise Building Setback Zones for the Newhall Ranch Specific Plan site are to be defined at the subdivision stage.	
	4.1-54. Due to the potential activity of the Salt Creek and Del Valle Faults, site development is to remain outside of Building Setback Zones around fault traces, and the possible fault zone connecting them (see **Figure 4.1-4**). (AllanAllen E. Seward Engineering Geology, Inc., 19 September 1994, p. 42)	
	4.1-55. To minimize potential hazards from shattered ridge effects, structures and storage tanks proposed on ridgelines are to have a minimum 20 foot setback from the margins of the bedrock. Designation of specific building setbacks will require evaluation at the subdivision stage. (AllanAllen E. Seward Engineering Geology, Inc., 19 September 1994, p. 40) Building setback zones are to be identified on all site plans and tract maps for the site.	
	4.1-56. The potential for ground motion and ground failure associated with a seismic event in proximity to the planned roadway alignments of Magic Mountain Parkway and Valencia Boulevard will be evaluated at the subdivision stage. (AllanAllen E. Seward Engineering Geology, Inc., 13 December 1995, p. 11) Mitigation to reduce associated significant impacts will also be identified at that time.	

PROJECT IMPACTS		MITIGATION MEASURES	RESIDUAL IMPACT
FLOOD			
Newhall Ranch would not increase site runoff during a Capital storm and would not result in upstream or downstream flooding. Nor would it subject any on- or off-site improvements to flood hazards beyond the thresholds set forth by the County of Los Angeles Department of Public Works, Flood Control Division. Therefore, development of the proposed Specific Plan would not result in significant on- or off-site flooding impacts.	4.2-1.	All on- and off-site flood control improvements necessary to serve the Newhall Ranch Specific Plan are to be constructed to the satisfaction of the County of Los Angeles Department of Public Works Flood Control Division.	Not Significant
During construction, the Newhall Ranch Specific Plan would have the potential for discharging sediment downstream during storm events. Upon buildout, downstream sedimentation would be reduced. The reduction in sediment in flood waters would reduce the amount of sediment that would be available to replenish beaches down-current of the Santa Clara River mouth, but this impact is not considered significant.	4.2-2.	All necessary permits or letters of exemption from the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and Game, and the Regional Water Quality Control Board for Specific Plan-related development are to be obtained prior to construction of drainage improvements. The performance criteria to be used in conjunction with 1603 agreements and/or 404 permits are described in Section 4.6, Biological Resources, M~~m~~itigation M~~m~~easures 4.6-1 through 4.6-10 (restoration) and 4.6-11 through 4.6-16 (enhancement)..	
	4.2-3.	All necessary streambed agreement(s) are to be obtained from the California Department of Fish and Game wherever grading activities alter the flow of streams under CDFG jurisdiction. The performance criteria to be used in conjunction with 1603 agreements and/or 404 permits are described in Section 4.6, Biological Resources, ~~m~~Mitigation M~~m~~easures 4.6-1 through 4.6-10 (restoration) and 4.6-11 through 4.6-16 (enhancement).	
	4.2-4.	Conditional Letters of Map Revision (CLOMR) relative to adjustments to the 100-year FIA flood plain are to be obtained by the applicant after the proposed drainage facilities are constructed.	
	4.2-5.	Prior to the approval and recordation~~recording~~ of each subdivision map, a ~~Final~~ Hydrology Plan, ~~a Final~~ Drainage Plan, and ~~a Final~~ Grading Plan (including an Erosion Control Plan if required) for each subdivision must~~are to~~ be prepared by the applicant of the subdivision map to ensure that no significant erosion, sedimentation, or flooding impacts would occur during or after site development. These plans shall be prepared to the satisfaction of the County of Los Angeles Department of Public Works.	
	4.2-6.	Install permanent erosion control measures, such as desilting and debris basins, drainage swales, slope drains, storm drain inlet/outlet protection, and sediment traps in order to prevent sediment and debris from the upper reaches of the drainage areas which occur on the Newhall Ranch site from entering storm drainage improvements. These erosion control measures shall be installed to the satisfaction of the County of Los Angeles Department of Public Works.	

PROJECT IMPACTS		MITIGATION MEASURES	RESIDUAL IMPACT
FLOOD (cont.)	4.2-7.	The applicant for any subdivision map permitting construction shall satisfy all applicable requirements of the NPDES Program in effect in Los Angeles County to the satisfaction of the County of Los Angeles Department of Public Works. These requirements currently include preparation of an Urban Storm Water Mitigation Plan (USWMP) containing design features and Best Management Practices (BMPs) appropriate and applicable to the subdivision. In addition, the requirements currently include preparation of a Storm Water Management Pollution Prevention Plan (SWPPP) containing design features and BMPs appropriate and applicable to the subdivision. The County of Los Angeles Department of Public Works shall monitor compliance with those NPDES requirements. ~~The Newhall Ranch Specific Plan is to adopt a Storm Water Management Program in accordance with NPDES regulations, which is to be incorporated into the development design of drainage facilities as part of each future subdivision map approval. The Storm Water Management Program is to also include BMPs which would inhibit trespassing, illegal dumping and filling, and other acts of encroachment into open channels that would traverse development areas of the site.~~	
CULTURAL/PALEONTOLOGICAL RESOURCES			
An intensive Phase I archaeological survey of the Newhall Ranch site revealed eight prehistoric and two historical archaeological sites and established that the Specific Plan area has a very low density of prehistoric and archaeological remains (primarily concentrated along the Santa Clara River). The Phase II test excavations/determinations of significance indicate a potential for adverse impacts to four of the prehistoric archaeological sites during Specific Plan development.	4.3-1.	Any adverse impacts to CA-LAN-2133, -2235, and the northern portion of -2233 are to be mitigated by avoidance and preservation. Should preservation of these sites be infeasible, a Phase III data recovery (salvage excavation) operation is to be completed on the sites so affected, with archaeological monitoring of grading to occur during subsequent soils removals on the site. This will serve to collect and preserve the scientific information contained therein, thereby mitigating all significant impacts to the affected cultural resource.	Not Significant
The Specific Plan proposes development on geologic formations with high potential for the discovery of fossil remains; therefore, it could have significant impacts on the region's paleontological resources.	4.3-2.	Any significant effects to CA-LAN-2241 are to be mitigated through site avoidance and preservation. Should this prove infeasible, an effort is to be made to relocate, analyze and re-inter the disturbed burial at some more appropriate and environmentally secure locale within the region.	
	4.3-3.	In the unlikely event that additional artifacts are found during grading within the development area or future roadway extensions, an archaeologist will be notified to stabilize, recover and evaluate such finds.	

PROJECT IMPACTS		MITIGATION MEASURES	RESIDUAL IMPACT
CULTURAL/PALEONTOLOGICAL RESOURCES (cont.)	4.3-4.	As part of an inspection testing program, a Los Angeles County Natural History Museum-approved inspector is to be on site during an appropriate number of excavations into the Pico Formation, Saugus Formation, Quaternary Terrace Deposits, and Quaternary Older Alluvium. Should the excavations yield significant paleontological resources, excavation is to be stopped or redirected until the extent of the find is established and the resources are salvaged.	
AGRICULTURAL RESOURCES			
Of the 1,490 acres of cultivated land found on the Specific Plan site, 595 acres are considered prime agricultural land. This acreage is found on many small, sometimes isolated parcels that are more difficult and less economical to farm than larger parcels of land. Although this land has diminished agricultural productivity, the conversion of prime agricultural land is irreversible. It is a continuing trend by the County to convert cultivated lands to urban uses to accommodate growth; therefore, the loss of agricultural productivity on the land is not considered a significant impact. Land use conflicts may occur when urban uses are placed in close proximity to agricultural uses.	4.4-1.	Purchasers of homes located within 1,500 feet of an agricultural field or grazing area are to be informed of the location and potential effects of farming uses prior to the close of escrow.	Unavoidably Significant Impact relative to the conversion of prime agricultural land to urban uses.
	4.4-2.	New homes within 1,500 feet of farming uses within Ventura County, if any, are to be informed that agricultural activities within Ventura County are protected under the County's right-to-farm ordinance, and are to be provided with copies of the County's Amended Ordinance 3730-5/7/85.	
ENVIRONMENTAL SAFETY			
Development would occur in and adjacent to portions of the site that are occupied by oil and natural gas production operations. Electrical transmission lines traverse portions of the site. Only recreation, open area, utilities, drainage structures, parking, and roadway uses are proposed within the power line easements.	4.5-~~13~~12.	All final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100-110 kV lines; 150 feet from 220-230 kV lines; and 250 feet from 345 kV lines.	Not Significant
	4.5-~~24~~23.	Only non-habitable structures shall be located within SCE easements.	
Development is proposed in close proximity to high pressure gas mains. California Public Utility Commission mandated safety requirements for regular inspection and maintenance of these mains reduces fire and explosion hazards associated with them to below a level of significance. A portion of the site lies in the dam inundation area of the Castaic/Forebay Reservoirs and, although dam failure is a rare occurrence in the State, flooding of the site as a result of dam inundation is remotely possible, but is not considered significant.	4.5-~~31~~30.	Prior to issuance of grading permits, all abandoned oil and natural gas-related sites must be remediated to the satisfaction of the California Department of Oil and Gas, the Los Angeles County Hazardous Materials Control Program, the South Coast Air Quality Management District, and/or the Regional Water Quality Control Board (Los Angeles region).	
	4.5-~~42~~41.	All on-going oil and natural gas operational sites adjacent to or in close proximity to residential, mixed-use, commercial, business park, schools, and local and Community Parks shall be secured by fencing and emergency access to these locations shall be provided.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
ENVIRONMENTAL SAFETY (cont.)		
No Proposition 65 pesticides would be used in the common or public areas of the site, or in areas of the site that will continue to be farmed until developed. No significant impacts relative to pesticide exposure would occur.	4.5-5. The Specific Plan is to meet the requirements of SCGC in terms of pipeline relocation, grading in the vicinity of gas mains, and development within Southern California Gas Company easements. These requirements would be explicitly defined by SCGC at the future tentative map stage.	
	4.5-6. All potential buyers or tenants of property in the vicinity of Southern California Gas Company transmission lines are to be made aware of the line's presence in order to assure that no permanent construction or grading occurs over and within the vicinity of the high-pressure gas mains.	
	4.5-7. In accordance with the provisions of the Los Angeles County Building Code, Section 308(d), all buildings and enclosed structures that would be constructed within the Specific Plan located within 25 feet of oil or gas wells shall be provided with methane gas protection systems. Buildings located between 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current rules and regulations of the State of California Division of Oil and Gas.	
	4.5-8. In accordance with the provisions of the Los Angeles County Building Code, Section 308(c), all buildings and structures located within 1,000 feet of a landfill containing decomposable material (in this case the Chiquito Canyon Landfill) shall be provided with a landfill gas migration protection and/or control system.	
	4.5-9. In accordance with the provisions of the Los Angeles County Code, Title 11, Division 4, Underground Storage of Hazardous Materials regulations, the County of Los Angeles Department of Public Works shall review, prior to the issuance of building permits by the County of Los Angeles, any plans for underground hazardous materials storage facilities (e.g., gasoline) that may be constructed or installed within the Specific Plan.	
BIOTA		
Development of the Newhall Ranch Specific Plan would occur in sensitive upland and riparian habitats. Implementation of the Specific Plan would, before mitigation, also significantly impact endangered, rare, or sensitive plant and animal species, and would significantly impact the ability of animals to move across portions of the site. Therefore, the Newhall Ranch Specific Plan would have significant impacts on the biological resources located on the site.	4.6-1. The restoration mitigation areas located within the River Corridor SMA shall be in areas that have been disturbed by previous uses or activities. Mitigation shall be conducted only on sites where soils, hydrology, and microclimate conditions are suitable for riparian habitat. First priority will be given to those restorable areas that occur adjacent to existing patches (areas) of native habitat that support sensitive species, particularly endangered or threatened species. The goal is to increase habitat patch size and connectivity with other existing habitat patches while restoring habitat values that will benefit sensitive species.	Unavoidably Significant for sensitive upland resources, animal movement, and sensitive species.
	4.6-2. A qualified biologist shall prepare or review revegetation plans. The biologist shall also monitor the restoration effort from its inception through the establishment phase.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
BIOTA (cont.)	4.6-3. Revegetation Plans may be prepared as part of a California Department of Fish and Game 1603 Streambed Alteration Agreement and/or an U.S. Army Corps of Engineers Section 404 Permit, and shall include: • Input from both the Project ~~Specific Plan~~ proponent and resource agencies to assure that the Project ~~Specific Plan~~ objectives applicable to the River Corridor SMA and the criteria of this RMP are met. • The identification of restoration/mitigation sites to be used. This effort shall involve an analysis of the suitability of potential sites to support the desired habitat, including a description of the existing conditions at the site(s) and such base line data information ~~deemed~~ necessary by the permitting agency.	
	4.6-4. The revegetation effort shall involve an analysis of the site conditions such as soils and hydrology so that site preparation needs can be evaluated. The revegetation plan shall include the details and procedures required to prepare the restoration site for planting (i.e. grading, soil preparation, soil stockpiling, soil amendments, etc.), including the need for a supplemental irrigation system, if any.	
	4.6-5. Restoration of riparian habitats within the River Corridor SMA shall use plant species native to the Santa Clara River. ~~whenever and to the extent possible. When possible,~~ Cuttings or seeds of native plants shall be gathered within the River Corridor SMA or purchased from nurseries with local supplies to provide good genetic stock for the replacement habitats. Plant species used in the restoration of riparian habitat shall be listed on the approved project plant palette (Specific Plan Table 2.6-1, Recommended Plant Species for Habitat Restoration in the River Corridor SMA) or as approved by the permitting State and Federal agencies.	
	4.6-6. The final revegetation plans shall include notes that outline the methods and procedures for the installation of the plant materials. Plant protection measures identified by the project biologist shall be incorporated into the planting design/layout.	
	4.6-7. The revegetation plan shall include guidelines for the maintenance of the mitigation site during the establishment phase of the plantings. The maintenance program shall contain guidelines for the control of non-native plant species, the maintenance of the irrigation system, and the replacement of plant species.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
BIOTA (cont.)	4.6-8. The revegetation plan shall provide for monitoring to evaluate the growth of the developing habitat. Specific performance goals for the restored habitat shall be defined by qualitative and quantitative characteristics of similar habitats on the River (e.g., density, cover, species composition, structural development). The monitoring effort shall include an evaluation of not only the plant material installed, but the use of the site by wildlife. The length of the monitoring period shall be determined by the permitting state and/or federal agency. ~~The revegetation plan shall provide for monitoring to evaluate the growth of the developing habitat. Specific goals for the restored habitat shall be defined by qualitative and quantitative characteristics of similar habitats on the River (e.g., density, cover, species composition, structural development). The monitoring effort shall include an evaluation of not only the plant material installed, but the use of the site by wildlife.~~	
	4.6-9. Monitoring reports for the mitigation site shall be reviewed by the permitting State and/or Federal agency.	
	4.6-10. Contingency plans and appropriate remedial measures shall also be outlined in the revegetation plan.	
	4.6-11. Habitat enhancement as referred to in this document means the rehabilitation of areas of native habitat that have been moderately disturbed by past activities (e.g., ~~cattle~~ grazing, roads, oil and natural gas operations, etc.) or have been invaded by non-native plant species such as giant cane (*Arundo donax*) and tamarisk (*Tamarix* sp.).	
	4.6-12. Removal of ~~cattle~~ grazing is an important means of enhancement of habitat values. Without ongoing disturbance from cattle, many riparian areas will recover naturally. Grazing except as permitted as a long-term resource management activity will be removed from the River Corridor SMA pursuant to the Long-Term Management Plan set forth in (b) 4. in Section 4.6 of the Specific Plan EIR.	
	4.6-13. To provide guidelines for the installation of supplemental plantings of native species within enhancement areas, a revegetation plan shall be prepared prior to implementation of mitigation (see guidelines for revegetation plans above). These supplemental plantings will be composed of plant species similar to those growing in the existing habitat patch (see Specific Plan Table 2.6-1).	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
BIOTA (cont.)	4.6-14. Not all enhancement areas will necessarily require supplemental plantings of native species. Some areas may support conditions conducive for rapid "natural" re-establishment of native species. The revegetation plan may incorporate means of enhancement to areas of compacted soils, poor soil fertility, trash or flood debris, and roads as a way of enhancing riparian habitat values.	
	4.6-15. Removal of non-native species such as giant cane (*Arundo donax*), salt cedar or tamarisk (*Tamarix* sp.), tree tobacco (*Nicotiana glauca*), castor bean (*Ricans communis*), if included in a revegetation plan to mitigate impacts, shall be subject to the following standards: • First priority shall be given to those habitat patches that support or have a high potential for supporting sensitive species, particularly endangered or threatened species. • All non-native species removals shall be conducted according to a resource agency approved exotics removal program. • Removal of non-native species in patches of native habitat shall be conducted in such a way as to minimize impacts to the existing native riparian plant species.	
	4.6-16. Mitigation banking activities for riparian habitats will be subject to State and Federal regulations and permits. Mitigation banking for oak resources shall be conducted pursuant to the Oak Resources Replacement Program. Mitigation banking for elderberry scrub shall be subject to approval of plans by the County Forester.	
	4.6-17. Access to the River Corridor SMA for hiking and biking shall be limited to the River trail system (including the Regional River Trail and various Local Trails) as set forth in this Specific Plan. • The River trail system shall be designed to avoid impacts to existing native riparian habitat, especially habitat areas known to support sensitive species. Where impacts to riparian habitat are unavoidable, disturbance shall be minimized and mitigated as outlined above under Mitigation Measures 4.6-1 through 4.6-8~~habitat restoration~~. • Access to the River Corridor SMA will be limited to day time use of the designated trail system. • Signs indicating that no pets of any kind will be allowed within the River Corridor SMA, with the exception that equestrian use is permitted on established trails, shall be posted along the River Corridor SMA. • No hunting, fishing, or motor or off-trail bike riding shall be permitted. • The trail system shall be designed and constructed to minimize impacts on native habitats.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
BIOTA (cont.)	4.6-18. Where development lies adjacent to the boundary of the River Corridor SMA a transition area shall be designed to lessen the impact of the development on the conserved area. Transition areas may be comprised of Open Area, natural or revegetated manufactured slopes, other planted areas, bank areas, and trails. Exhibits 2.6-4, 2.6-5, and 2.6-6 indicate the relationship between the River Corridor SMA and the development (disturbed) areas of the Specific Plan. The SMAs and the Open Area as well as the undisturbed portions of the development areas are shown in green. As indicated on the exhibits, on the south side of the River the River Corridor SMA is separated from development by the River bluffs, except in one location. The Regional River Trail will serve as transition area on the north side of the River where development areas adjoin the River Corridor SMA (excluding Travel Village). 4.6-19. The following are the standards for design of transition areas: • In all locations where there is no steep grade separation between the River Corridor and development, a trail shall be provided along this edge. • Native riparian plants shall be incorporated into the landscaping of the transition areas between the River Corridor SMA and adjacent development areas where feasible for their long-term survival. Plants used in these areas shall be those listed on the approved plant palette (Specific Plan Table 2.6-2 of the Resource Management Plan [Recommended Plants for Transition Areas Adjacent to the River Corridor SMA]). • Roads and bridges that cross the River Corridor SMA shall have adequate barriers at their perimeters to discourage access to the River Corridor SMA adjacent to the structures. • Where bank stabilization is required to protect development areas, it shall be composed of ungrouted rock, or buried bank stabilization as described in Section 2.5.2.a, except at bridge crossings and other locations where public health and safety requirements necessitate concrete or other bank protection. ~~Where bank stabilization is required to protect development areas, it shall be composed of ungrouted rock except at bridge crossings and other locations where public health and safety requirements necessitate concrete or other bank protection.~~	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
BIOTA (cont.)	• A minimum 100 foot wide buffer adjacent to the Santa Clara River should be required between the top river-side of bank stabilization and development within the Land Use Designations Residential Low Medium, Residential Medium, Mixed-Use and Business Park unless, through Planning Director review in consultation with the staff biologist, it is determined that a lesser buffer would adequately protect the riparian resources within the River Corridor or that a 100 foot wide buffer is infeasible for physical infrastructure planning. The buffer area may be used for public infrastructure, such as: flood control access; sewer, water and utility easements; abutments; trails and parks, subject to findings of consistency with the Specific Plan and applicable County policies.	
	4.6-20. The following guidelines shall be followed during any grading activities that take place within the River Corridor SMA: • Grading perimeters shall be clearly marked and inspected by the project biologist prior to grading occurring within or immediately adjacent to the River Corridor SMA. • The project biologist shall work with the grading contractor to avoid inadvertent impacts to riparian resources.	
	4.6-21. Upon final approval of the Newhall Ranch Specific Plan, the Special Management Area designation for the River Corridor SMA shall become effective. The permitted uses and development standards for the SMA are governed by the Development Regulations, Chapter 3 of the Specific Plan.	
	4.6-22. Upon completion of development of all land uses, utilities, roads, flood control improvements, bridges, trails, and other improvements necessary for implementation of the *Specific Plan* within the River Corridor in each subdivision allowing construction within or adjacent to the River Corridor, a permanent, non-revocable *conservation and public access easement* shall be offered to the County of Los Angeles pursuant to Mitigation Measure 4.6-23 below over the portion of the *River Corridor SMA* within that subdivision. ~~Upon completion of development of all land uses, utilities, roads, flood control improvements, bridges, trails, and other improvements necessary for the implementation of the Specific Plan within the River Corridor in each subdivision allowing construction within or adjacent to the River Corridor, a permanent, non-revocable conservation and public access easement shall be recorded over the portion of the River Corridor SMA immediately adjacent to or wihtin that subdivision.~~	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
BIOTA(cont.)	4.6-23. The *River Corridor SMA conservation and public access easement* shall be offered to the County of Los Angeles prior to the transfer of the *River Corridor SMA* ownership, or portion thereof to the management entity described in Mitigation Measure 4.6-26 below. ~~The River Corridor SMA conservation and public access easement shall be granted to the County of Los Angeles or to such other public or private entity, with the expertise to perform long-term conservation management, on which the County and the land owner agree.~~	
	4.6-24. The *River Corridor SMA conservation and public access easement* shall prohibit grazing, except as a long-term resource management activity, and agriculture within the River Corridor and shall restrict recreation use to the established trail system. Agricultural land uses and grazing for purposes other than long-term resource management activities within the River Corridor shall be extended in the event of the filing of any legal action against Los Angeles County challenging final approval of the Newhall Ranch Specific Plan and any related project approvals or certification of the Final EIR for Newhall Ranch. Agricultural land uses and grazing for purposes other than long-term resource management activities within the River Corridor shall be extended by the time period between the filing of any such legal action and the entry of a final judgment by a court with appropriate jurisdiction, after exhausting all rights of appeal, or execution of a final settlement agreement between all parties to the legal action, whichever occurs first. ~~The River Corridor SMA conservation and public access easement shall prohibit grazing (except as a long-term resource management activity) and agriculture within the River Corridor, and shall restrict recreation use to the established trail system. Grazing for purposes other than long-term resource management activities within the River Corridor shall be removed upon final approval of the Specific Plan.~~	
	4.6-25. The River Corridor SMA conservation and public access easement shall be consistent in its provisions with any other conservation easements to State or Federal resource agencies which may have been granted as part of mitigation or mitigation banking activities.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
BIOTA(cont.)	4.6-26. Prior to the recordation of the *River Corridor SMA conservation and public access easement* as specified in Mitigation Measure 4.6-23 above, the land owner shall provide a plan to the County for the permanent ownership and management of the *River Corridor SMA*, including any necessary financing. This plan shall include the transfer of ownership of the *River Corridor SMA* to the Center for Natural Lands Management, or if the Center for Natural Lands Management is declared bankrupt or dissolved, ownership will transfer or revert to a *joint powers authority* consisting of Los Angeles County (4 members), the City of Santa Clarita (2 members), and the Santa Monica Mountains Conservancy (2 members).~~Prior to the recordation of the River Corridor SMA conservation and public access easement as specified in the measures defined above, the land owner shall provide a plan to the County for the permanent ownership and management of the River Corridor SMA, including any necessary financing. This plan may include the transfer of ownership of the River Corridor SMA to an entity agreeable to the County and the land owner. This entity may include the County, a public or private organization or agency, or a Newhall Ranch owner's association.~~	
	4.6-26a Two types of habitat restoration may occur in the *High Country SMA*: 1) riparian revegetation activities principally in Salt Creek Canyon; and 2) oak tree replacement in, or adjacent to, existing oak woodlands and savannahs. • Mitigation requirements for riparian revegetation activities within the *High Country SMA* are the same as those for the *River Corridor SMA* and are set forth in Mitigation Measures 4.6-1 through 4.6-11 and 4.6-13 through 4.6-16 above. • Mitigation requirements for oak tree replacement are set forth in Mitigation Measure 4.6-48 below.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
BIOTA(cont.)		
	4.6-27. Removal of grazing from the High Country SMA except for those grazing activities associated with long-term resource management programs, is a principal means of enhancing habitat values in the creeks, brushland and woodland areas of the SMA. The removal of grazing in the High Country SMA is discussed below under (b) 4. Long Term Management. All enhancement activities for riparian habitat within the High Country SMA shall be governed by the same provisions as set forth for enhancement in the River Corridor SMA. Specific Plan Table 2.6-3 of the Resource Management Plan provides a list of appropriate plant species for use in enhancement areas in the High Country SMA.	
	4.6-28. Mitigation banking activities for riparian habitats will be subject to State and Federal regulations and permits. Mitigation banking for oak resources, shall be conducted pursuant to the Oak Resource Replacement Program. Mitigation banking for elderberry scrub shall be subject to approval of plans by the County Forester.	
	4.6-29. Access to the High Country SMA will be limited to day time use of the designated trail system.	
	4.6-30. No pets of any kind will be allowed within the High Country SMA, with the exception that equestrian use is permitted on established trails.	
	4.6-31. No hunting, fishing, or motor or trail bike riding shall be permitted.	
	4.6-32. The trail system shall be designed and constructed to minimize impacts on native habitats.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
BIOTA (cont.)	4.6-33. Construction of buildings and other structures (such as patios, decks, etc.) shall only be permitted upon developed pads within Planning Areas OV-04, OV-10, PV-02, and PV-28 and shall not be permitted on southerly slopes facing the High Country SMA (Planning Area HC-01) or in the area between the original SEA 20 boundary and the High Country boundary. If disturbed by grading, all southerly facing slopes which adjoin the High Country SMA within those Planning Areas shall have the disturbed areas revegetated with compatible trees, shrubs and herbs from the list of plant species for south and west facing slopes as shown in Table 2.6-3, Recommended Plant Species For Use In Enhancement Areas In The High Country. Transition from the development edge to the natural area shall also be controlled by the standards of wildfire fuel modification zones as set forth in Mitigation Measure 4.6-49. Within fuel modification areas, trees and herbs from Table 2.6-3 of the Resource Management Plan should be planted toward the top of slopes; and trees at lesser densities and shrubs planted on lower slopes.~~Transition from the development edge to the natural area shall be controlled by the standards of wildfire fuel modification zones as set forth in Specific Plan Section 2.6, paragraph 4 of the Resource Management Plan.~~ 4.6-34. Grading perimeters shall be clearly marked and inspected by the project biologist prior to impacts occurring within or adjacent to the High Country SMA. 4.6-35. The project biologist shall work with the grading contractor to avoid inadvertent impacts to biological resources outside of the grading area. 4.6-36. Upon final approval of the Newhall Ranch Specific Plan, the Special Management Area designation for the High Country SMA shall become effective. The permitted uses and development standards for the SMA are governed by the Development Regulations, Chapter 3.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
BIOTA(cont.)	4.6-37. The *High Country SMA* shall be offered for dedication in three approximately equal phases of approximately 1,400 acres each proceeding from north to south, as follows: 1) The first offer of dedication will take place with the issuance of the 2,000th residential building permit of Newhall Ranch; 2) The second offer of dedication will take place with the issuance of the 6,000th residential building permit of Newhall Ranch; and 3) The remaining offer of dedication will be completed by the 11,000th residential building permit of Newhall Ranch. 4) The Specific Plan applicant shall provide a quarterly report to the Departments of Public Works and Regional Planning which indicates the number of residential building permits issued in the Specific Plan area by subdivision map number.~~Prior to the issuance of the 15,000th residential building permit within the Specific Plan area, or the 4,000th residential building permit within the Potrero Valley Village, which ever occurs earlierUpon completion of development of all land uses, utilities, roads, flood control improvements, trails, and other improvements necessary for Planning Area PV-01 (the Visitor Center area), a permanent, non-revocable conservation and public access easement shall be recorded over the High Country SMA. The conservation and public access easement shall allow the permitted uses pursuant to Chapter 3, Development Regulations of the Specific Plan.~~	
	4.6-38. Prior to dedication of the *High Country SMA* a *conservation and public access easement* shall be offered to the County of Los Angeles and a conservation and management easement offered to the Center for Natural Lands Management. The *High Country SMA conservation and public access easement* shall be consistent in its provisions with any other *conservation easements* to State or federal resource agencies which may have been granted as part of mitigation or mitigation banking activities.~~The High Country SMA conservation and public access easement shall be granted to the County of Los Angeles, or to such other public or private entity with the expertise to perform long-term conservation management, on which the County and the land owner agree.~~	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
BIOTA (cont.)	4.6-39. The High Country SMA conservation and public access easement shall prohibit grazing within the High Country, except for those grazing activities associated with the long-term resource management programs, and shall restrict recreation to the established trail system.	
	4.6-40. The High Country SMA conservation and public access easement shall be consistent in its provisions with any other conservation easements to State or Federal resource agencies which may have been granted as part of mitigation or mitigation banking activities.	
	4.6-41. The *High Country SMA* shall be offered for dedication in fee to a *joint powers authority* consisting of Los Angeles County (4 members), the City of Santa Clarita (2 members), and the Santa Monica Mountains Conservancy (2 members). The *joint powers authority* will have overall responsibility for recreation within and conservation of the High Country. ~~Prior to the recordation of the High Country SMA conservation and public access easement as specified in the measures identified above, the land owner shall provide a plan to the County for the permanent ownership and management of the High Country SMA. This plan may include the transfer of ownership of the High Country SMA to an entity agreeable to the County and the land owner. This entity may be the County, a public or private organization, or a Newhall Ranch owner's association.~~	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
BIOTA (cont.)	4.6-42 An appropriate type of service or assessment district shall be formed under the authority of the Los Angeles County Board of Supervisors for the collection of up to $24 per single family detached dwelling unit per year and $15 per single family attached dwelling unit per year, excluding any units designated as Low and Very Low affordable housing units pursuant to Section 3.10, Affordable Housing Program of the *Specific Plan*. This revenue would be assessed to the homeowner beginning with the occupancy of each dwelling unit and distributed to the *joint powers authority* for the purposes of recreation, maintenance, construction, conservation and related activities within the *High Country Special Management Area*.	
	4.6-43~~2~~. Suitable portions of *Open Area* may be used for mitigation of riparian, *oak resources*, or elderberry scrub. Mitigation activities within *Open Area* shall be subject to the following requirements, as applicable. • *River Corridor SMA* Mitigation Requirements, including: Mitigation Measures 4.6-1 through 4.6-11 and 4.6-13 through 4.6-16; and • *High Country SMA* Mitigation Requirements, including: and Mitigation Measures 4.6-27, 4.6-29 through 4.6-42, and • *Mitigation Banking* — Mitigation Measure 4.6-16.~~Suitable portions of Open Area may be used for mitigation of riparian, oak resources or elderberry scrub. Mitigation Requirements applicable to Open Area include:~~ ~~• River Corridor SMA Mitigation Requirement [paragraph 2a (2)(a) of the Resource Management Plan]~~ ~~— Mitigation Through Restoration [2a (2)(a) of the Resource Management Plan]~~ ~~— Mitigation Banking [2a (2)(c) of the Resource Management Plan]~~ ~~• High Country SMA Mitigation Requirement [2b (2) of the Resource Management Plan]~~ ~~— Mitigation Requirements [2b (2)(a) of the Resource Management Plan]~~ ~~— Enhancement of Habitat [2b (2)(b) of the Resource Management Plan]~~ ~~— Mitigation Banking [2b (2)(c) of the Resource Management Plan]~~	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
BIOTA (cont.)	~~4.6-43. Mitigation Banking activities are permitted within Open Area. Mitigation banking activities for riparian habitats will be subject to State and Federal regulations. Mitigation banking for oak resources shall be conducted pursuant to the Oak Resources Replacement Program. Plans for elderberry scrub mitigation banking shall be subject to approval by the County Forester.~~	
	4.6-44. Drainages with flows greater than 2,000 cfs will have soft bottoms. Bank protection will be of ungrouted rock, or buried bank stabilization as described in Section 2.5.2.a, except at bridge crossings and other areas where public health and safety considerations require concrete or other stabilization.~~Drainages with flows greater than 2,000 cfs will have soft bottoms. Bank protection will be of ungrouted rock except at bridge crossings and other areas where public health and safety considerations require concrete or other stabilization.~~	
	4.6-45. The precise alignments and widths of major drainages will be established through the preparation of drainage studies to be approved by the County at the time of subdivision maps which permit construction.	
	4.6-46. While Open Area is generally intended to remain in a natural state, some grading may take place, especially for parks, major drainages, trails, and roadways. Trails are also planned to be within Open Area.	
	4.6-47. At the time that final subdivision maps permitting construction are recorded, the *Open Area* within the map will be offered for dedication to the Center for Natural Lands Management. Community Parks within *Open Area* are intended to be public parks. Prior to the offer of dedication of *Open Area* to the Center for Natural Lands Management, all necessary *conservation and public access easements,* as well as easements for infrastructure shall be offered to the County.~~At the time that final subdivision maps permitting construction are recorded, Open Area within that subdivision being recorded will be offered for dedication to the County. (Community Parks are intended to be public parks.)~~	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
BIOTA(cont.)	4.6-47a Mitigation Banking will be permitted within the *River Corridor SMA*, the *High Country SMA*, and the *Open Area land use designations*, subject to the following requirements: • Mitigation banking activities for riparian habitats will be subject to State and federal regulations, and shall be conducted pursuant to the mitigation requirements set forth in Mitigation Measure 4.6-1 through 4.6-15 above. • Mitigation banking for *oak resources* shall be conducted pursuant to 4.6-48 below. • Mitigation banking for elderberry scrub shall be subject to approval of plans by the County Forester. 4.6-48. Standards for the restoration and enhancement of oak resources within the High Country SMA and the Open Area include the following (oak resources include oak trees of the sizes regulated under the County Oak Tree Ordinance, southern California black walnut trees, Mainland cherry trees, and Mainland cherry shrubs): • To mitigate the impacts to oak resources which may be removed as development occurs in the Specific Plan Area, replacement trees shall be planted in conformance with the oak tree ordinance in effect at that time. • Oak resource species obtained from the local gene pool~~, if economically feasible,~~ shall be used in restoration or enhancement. • Prior to recordation of construction-level final subdivision maps, an oak resource replacement plan shall be prepared that provides the guidelines for the oak tree planting and/or replanting. The Plan shall be reviewed by the Los Angeles Department of Regional Planning and the County Forester and shall include the following: site selection and preparation, selection of proper species including sizes and planting densities, protection from herbivores, site maintenance, performance standards, remedial actions, and a monitoring program. • All plans and specifications shall follow County oak tree guidelines, as specified in the County Oak Tree Ordinance. 4.6-49. To minimize the potential exposure of the development areas, Open Area, and the SMAs to fire hazards, the Specific Plan is subject to the requirements of the Los Angeles County Fire Protection District (LACFPD), which provides fire protection for the area. At the time of final subdivision maps permitting construction in development areas that are adjacent to Open Area and the High Country SMAs, a wildfire fuel modification plan shall be prepared in accordance with the fuel modification ordinance standards in effect at that time and shall be submitted for approval to the County Fire Department.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
BIOTA(cont.)	4.6-50. The wildfire fuel modification plan shall depict a fuel modification zone the size of which shall be consistent with the County fuel modification ordinance requirements. Within the zone, tree pruning, removal of dead plant material and weed and grass cutting shall take place as required by the fuel modification ordinance.	
	4.6-51. In order to enhance the habitat value of plant communities which require fuel modification, fire retardant plant species containing habitat value may be planted within the fuel modification zone. Typical plant species suitable for Fuel Modification Zones are indicated in Specific Plan Table 2. 6-5 of the Resource Management Plan. Fuel modification zones adjacent to SMA's and Open Areas containing habitat of high value such as oak woodland and savannas shall utilize a more restrictive plant list which shall be reviewed by the County Forester.	
	4.6-52. The wildfire fuel modification plan shall include the following construction period requirements: (a) a fire watch during welding operations; (b) spark arresters on all equipment or vehicles operating in a high fire hazard area; (c) designated smoking and non-smoking areas; and (d) water availability pursuant to the County Fire Department requirements.	
	4.6-53. If at the time subdivisions permitting construction are processed, the County determines through an Initial Study that there may be rare threatened or endangered species on the property being subdivided, then a site specific survey shall be conducted to define the presence or absence of such species and any necessary mitigation measures shall be determined and applied.	
	4.6-54. Prior to development within or disturbance to occupied unarmored threespine stickleback habitat, a formal consultation with the USFWS ~~and a Section 2081 Agreement with the CDFG~~ shall occur.	
	4.6-55. Prior to development or disturbance within wetlands or other sensitive habitats, permits shall be obtained from pertinent Federal and State agencies and the Specific Plan shall conform with the specific provisions of said permits. Performance criteria shall include that described in M~~m~~itigation M~~m~~easures 4.6-1 through 4.6-16 and 4.6-42 through 4.6-47 for wetlands, and ~~m~~Mitigation ~~m~~Measures 4.6-27, 4.6-28, and 4.6-42 through 4.6-48 for other sensitive habitats.	
	4.6-56. All lighting along the perimeter of natural areas shall be downcast luminaries with light patterns directed away from natural areas.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
BIOTA (cont.)	4.6-57. Where bridge construction is proposed and water flow would be diverted, blocking nets and seines shall be used to control and remove fish from the area of activity. All fish captured during this operation would be stored in tubs and returned unharmed back to the River after construction activities were complete.	
	4.6-58. To limit impacts to water quality the Specific Plan shall conform with all provisions of required NPDES permits and water quality permits that would be required by the State of California Regional Water Quality Control Board.	
	4.6-59. Prior to development within or disturbance to habitat occupied by species listed as endangered, a formal consultation with the USFWS and a Section 2081 Permit~~Agreement~~ with the CDFG shall occur.	
	4.6-60. If at the time subdivisions permitting construction are processed, the County determines through an Initial Study that there may be elderberry scrub vegetation on the property being subdivided, then a site specific survey shall be conducted to define the presence or absence of such habitat and any necessary mitigation measures shall be determined and applied.	
	4.6-61. If at the time subdivisions permitting construction are processed, the County determines through and Initial Study that there may be mainland cherry trees and/or mainland cherry shrubs on the property being subdivided, then a site specific survey shall be conducted to define the presence or absence of such habitat and any necessary mitigation measures shall be determined and applied.	
	4.6-62. When a map revision or Substantial Conformance determination on any subdivision map or Conditional Use Permit would result in changes to an approved oak tree permit, then the oak tree report for that oak tree permit must be amended for the area of change, and the addendum must be approved by the County Forester prior to issuance of grading permits for the area of the map or CUP being changed.	
	4.6-63. Riparian resources that are impacted by buildout of the Newhall Ranch Specific Plan shall be restored with similar habitat at the rate of one acre replaced for each acre lost.	
	4.6-64 The operator of the golf course shall prepare a Golf Course Maintenance Plan which shall include procedures to control storm water quality and ground water quality as a result of golf course maintenance practices, including irrigation, fertilizer, pesticide and herbicide use. This Plan shall be prepared in coordination with the County biologist and approved by the County Planning Director prior to the issuance of a Certificate of Occupancy~~completion of golf course construction~~.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
VISUAL QUALITIES		
Approximately 5,852 acres (or 49 percent) of the Newhall Ranch site would remain in major open space; nonetheless, development proposed adjacent to the Santa Clara River Corridor that parallels SR-126 would significantly alter the visual characteristics of the River Corridor. Views in Chiquito Canyon would also be significantly altered as a result of Specific Plan implementation. Development proposed near the River Corridor would be a significant change from the existing characteristics of the site and would introduce sources of outdoor illumination, which is an essential safety feature in development projects.	4.7-1. In conjunction with the development review process set forth in Chapter 5 of the Specific Plan, all future subdivision maps and other discretionary permits which allow construction shall incorporate the Development Guidelines (Specific Plan Chapter 3) and Design Guidelines (Specific Plan Chapter 4), and the design themes and view considerations listed in the Specific Plan. 4.7-2 In design of residential tentative tract maps and site planning of multifamily areas and Commercial and Mixed -Use *land use designations* along SR-126, the following Design Guidelines shall be utilized. • Where the elevations of buildings will obstruct the views from SR-126 to the south, the location and configuration of individual buildings, driveways, parking, streets, signs and pathways shall be designed to provide view corridors of the River, bluffs and the ridge lines south of the River. Those view corridors may be perpendicular to SR-126 or oblique to it in order to provide for views of passengers within moving vehicles on SR-126. • The Community Park between SR 126 and the Santa Clara River shall be designed to promote views from SR-126 of the River, bluffs and ridge lines to the south of the River. • Residential site planning guidelines set forth in Section 4.3.1 Residential and Architectural Guidelines set forth Section 4.4.1 Residential shall be employed to ensure that the views from SR-126 are aesthetically pleasing and that views of the River, bluffs and ridge lines south of the River are preserved to the extent practicable. • Mixed-Use and the Commercial site planning guidelines set forth in Section 4.3.2 and Architectural Guidelines set forth Section 4.4.2 shall be incorporated to the extent practicable in the design of the Riverwood Village Mixed-Use and Commercial land use designations to ensure that the views from SR-126 are aesthetically pleasing and to preserve views of the River, bluffs and ridge lines south of the River. • Landscape improvements along SR 126 shall incorporate the Landscape Design guidelines, set forth in Section 4.6 in order to ensure that the views from SR-126 are aesthetically pleasing and to preserve views of the River, bluffs and ridge lines south of the River.	Unavoidable Significant Impact

PROJECT IMPACTS		MITIGATION MEASURES	RESIDUAL IMPACT
TRAFFIC/ACCESS			
The Specific Plan would generate approximately 387,000 average daily trip ends, 52 percent of which would remain on site. Eight arterial highway segments and five freeway interchange ramps would be significantly impacted under the County Base Highway Network. Under the Alternative Highway Plan, two arterial locations and seven freeway interchange ramps would be significantly impacted. The Specific Plan would also contribute to a need for augmented capacity along seventeen arterials under the Alternative Highway Plan. In addition, the Specific Plan would impact a portion of SR-126 in the site vicinity under both the County Base Highway Network and Alternative Highway Plan. The Specific Plan exceeds its mitigation goal as required by the Congestion Management Program which offsets any Specific Plan impacts to the regional transportation system (i.e., CMP governed facilities).	4.8-1.	The applicants for future subdivision maps which permit construction shall be responsible for funding and constructing all on-site traffic improvements except as otherwise provided below. The obligation to construct improvements shall not preclude the applicants' ability to seek local, State or Federal funding for these facilities.	Not Significant
	4.8-2.	Prior to the approval of each subdivision map which permits construction, the applicant for that map shall prepare a transportation performance evaluation which shall indicate the specific improvements for all on-site roadways which are necessary to provide adequate roadway and intersection capacity as well as adequate right-of-way for the subdivision and other expected traffic. Transportation performance evaluations shall be approved by Los Angeles County Department of Public Works according to standards and policies in effect at that time. The transportation performance evaluation shall form the basis for specific conditions of approval for the subdivision.	
	4.8-3.	The applicants for future subdivisions shall provide the traffic signals at the 15 locations labeled "B" through "P" in **Figure 4.8-17** as well as any additional signals warranted by future subdivision design. Signal warrants shall be prepared as part of the transportation performance evaluations noted in **Mitigation 2.**	
	4.8-4.	All development within the Specific Plan shall conform to the requirements of the Los Angeles County Transportation Demand Management (TDM) Ordinance.	
	4.8-5.	The applicants for all future subdivision maps which permit construction shall consult with the local transit provider regarding the need for, and locations of, bus pull-ins on highways within the Specific Plan area. All bus pull-in locations shall be approved by the Department of Public Works, and approved bus pull-ins shall be constructed by the applicant.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
TRAFFIC/ACCESS (cont.)	4.8-6. Prior to the recordation of the first subdivision map which permits construction, the applicant for that map shall prepare a transportation performance evaluation which shall determine the specific improvements needed to each off-site arterial and related costs in order to provide adequate roadway and intersection capacity for the expected Specific Plan and General Plan buildout traffic trips. The transportation performance evaluation shall be based on the Master Plan of Highways in effect at that time and shall be approved by the Los Angeles County Department of Public Works. The applicant shall be required to fund its fair share of improvements to these arterials, as stated on **Table 4.8-18**. The applicants total funding obligation shall be equitably distributed over the housing units and non-residential building square footage (i.e. Business Park, Visitor-Serving, Mixed-Use, and Commercial) in the Specific Plan, and shall be a fee to be paid to the County and the City at each building permit. For off-site areas within the County unincorporated area, the applicant may construct improvements for credit against or in lieu of paying the fee.	
	4.8-7. Each future performance evaluation which shows that a future subdivision map will create significant impacts on SR-126 shall analyze the need for additional travel lanes on SR-126. If adequate lane capacity is not available at the time of subdivision, the applicant of the subdivision shall fund or construct the improvements necessary to serve the proposed increment of development. Construction or funding of any required facilities shall not preclude the applicant's ability to seek State, federal or local funding for these facilities.	
	4.8-8. Project-specific environmental analysis for future subdivision maps which allow construction shall comply with the requirements of the Congestion Management Program in effect at the time that subdivision map is filed.	

PROJECT IMPACTS		MITIGATION MEASURES	RESIDUAL IMPACT
TRAFFIC/ACCESS (cont.)	4.8-9.	Prior to the recordation of the first subdivision map which permits construction, the applicant for that map shall prepare a transportation evaluation including all of the Specific Plan land uses which shall determine the specific improvements needed to the following intersections with SR-126 in the City of Fillmore and community of Piru in Ventura County: ~~those listed on Table 4.8-18 and at~~ "A", "B", "C", "D" and "E" Streets, Old Telegraph, Olive, Central, Santa Clara, Mountain View, ~~and~~ El Dorado Road, and Pole Creek ~~Mobile Home Park~~(Fillmore), and Main/Torrey and Center (Piru). The related costs of those intersection improvements and the project's fair share shall be estimated based upon the expected Specific Plan traffic volumes. The transportation performance evaluation shall be based on the Los Angeles County Master Plan of Highways in effect at that time and shall be approved by the Los Angeles County Department of Public Works. The applicant's total funding obligation shall be equitably distributed over the housing units and non-residential building square footage (i.e., Business Park, Visitor Center, Mixed Use, and Commercial) in the Specific Plan, and shall be a fee to be paid to the City of Fillmore and the County of Ventura at each building permit.~~Prior to the recordation of the first subdivision map which permits construction, the applicant for that map shall prepare a transportation performance evaluation which shall determine the specific improvements needed to intersections with SR-126 in Fillmore and Piru listed on Table 4.8-18 and related costs in order to provide adequate intersection capacity for the expected Specific Plan traffic volumes. The transportation performance evaluation shall be based on the Master Plan of Highways in effect at that time and shall be approved by the Los Angeles County Department of Public Works. The applicant's total funding obligation shall be equitably distributed over the housing units and non-residential building square footage (i.e. Business Park, Visitor-Serving, Mixed-Use, and Commercial) in the Specific Plan, and shall be a fee to be paid to the City of Fillmore and the County of Ventura at each building permit.~~	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
TRAFFIC/ACCESS (cont.)	4.8-10. The Specific Plan is responsible to construct or fund its fair-share of the intersections and interchange improvements indicated on Table 4.8-18. Each future transportation performance evaluation required by Mitigation 4.8-2 which identifies a significant impact at these locations due to subdivision map-generated traffic shall address the need for additional capacity at each of these locations. If adequate capacity is not available at the time of subdivision map recordation, the performance evaluation shall determine the improvements necessary to carry Specific Plan generated traffic, as well as the fair share cost to construct such improvements. If the future subdivision is conditioned to construct a phase of improvements which results in an overpayment of the fair-share cost of the improvement, then an appropriate adjustment (offset) to the fees paid to Los Angeles County and/or City of Santa Clarita pursuant to ~~m~~**Mitigation** ~~m~~**Measure 4.8-6** above shall be made.	
	4.8-11 The applicant of the Newhall Ranch Specific Plan shall participate in an Interstate 5 developer fee program, if adopted by the Board of Supervisors for the Santa Clarita Valley.	
	4.8-12 The applicant of the Newhall Ranch Specific Plan shall participate in a transit fee program, if adopted for the entire Santa Clarita Valley by Los Angeles County and City of Santa Clarita.	
	4.8-13 Prior to the approval of each subdivision map which permits construction, the applicant for that map shall prepare a traffic analysis approved by the Los Angeles County Department of Public Works. The analysis will assess project and cumulative development (including an existing plus cumulative development scenario under the County's Traffic Impact Analysis Report Guidelines (TIA) and its Development Monitoring System (DMS)). In response to the traffic analysis, the applicant may construct off-site traffic improvements for credit against, or in lieu of paying, the mitigation fees described in Mitigation Measure 4.8-6 above. If future subdivision maps are developed in phases, a traffic study for each phase of the subdivision map may be submitted to determine the improvements needed to be constructed with that phase of development.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
NOISE		
Construction activities could cause Noise Ordinance standards to be exceeded for an extended period of time at existing off-site and future on-site residential uses, which would be a potentially significant impact.	4.9-1. All construction activity occurring on the Newhall Ranch Specific Plan site shall adhere to the requirements of the "County of Los Angeles Construction Equipment Noise Standards," County of Los Angeles Ordinance No. 11743, §12.08.440 as identified in **Table 4.9-3**.	Not Significant
Noise at Specific Plan buildout would be from traffic generated by the Specific Plan, as well as human activities on the site. On-site residences and schools could potentially be exposed to roadway and stationary noise levels that exceed County standards, which would be a significant impact. Travel Village RV Park along SR-126 would also be significantly impacted by traffic noise from Newhall Ranch as well as cumulative projects.	4.9-2. Limit all construction activities near occupied residences to between the hours of 6:30 A.M. and 8:00 P.M., and exclude all Sundays and legal holidays pursuant to County Department of Public Works, Construction Division standards. 4.9-3. When construction operations occur adjacent to occupied residential areas, implement appropriate additional noise reduction measures that include changing the location of stationary construction equipment, shutting off idling equipment, notifying adjacent residences in advance of construction work, and installing temporary acoustic barriers around stationary construction noise sources. 4.9-4. Locate construction staging areas on-site to maximize the distance between staging areas and occupied residential areas. 4.9-5. Where new single family residential buildings are to be constructed within an exterior noise contour of 60 dB(A) CNEL or greater, or where any multi-family buildings are to be constructed within an exterior noise contour of 65 dB(A) CNEL or greater, an acoustic analysis shall be completed prior to approval of building permits. The acoustical analysis shall show that the building is designed so that interior noise levels resulting from outside sources will be no greater than 45 dB(A) CNEL. 4.9-6. For single family residential lots located within the 60 dB(A) CNEL or greater noise contour, an acoustic analysis shall be submitted prior to tentative approval of the subdivision. The acoustic analysis shall show that exterior noise in outdoor living areas (e.g., back yards, patios etc.) will be reduced to 60 dB(A) CNEL or less. 4.9-7. For multi-family residential lots located within the 65 dB(A) CNEL or greater noise contour, an acoustic analysis shall be submitted prior to tentative approval of the subdivision. The acoustic analysis shall show that exterior noise in outdoor living areas (e.g., back yards, patios etc.) will be reduced to 65 dB(A) CNEL or less. 4.9-8. For school sites located within the 70 dB(A) CNEL or greater noise contour, an acoustic analysis shall be submitted prior to tentative approval of the subdivision. The acoustic analysis shall show that noise at exterior play areas will be reduced to 70 dB(A) CNEL or less. 4.9-9. All residential air conditioning equipment installed within the Newhall Ranch Specific Plan site shall adhere to the requirements of the "County of Los Angeles Residential Air Conditioning and Refrigeration Noise Standards," County of Los Angeles Ordinance No. 11743, §12.08.530.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
NOISE (cont.)	4.9-10. All stationary and point sources of noise occurring on the Newhall Ranch Specific Plan site shall adhere to the requirements of the County of Los Angeles Ordinance No. 11743, §12.08.390 as identified in Table 4.9-2, County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources.	
	4.9-11. Loading, unloading, opening, closing, or other handling of boxes, crates, containers, building materials, garbage cans or similar objects between the hours of 10:00 P.M. and 6:00 A.M. in such a manner as to cause a noise disturbance is prohibited in accordance with the County of Los Angeles Ordinance No. 11743, §12.08.460.	
	4.9-12. Loading zones and trash receptacles in commercial and Business Park areas shall be located away from adjacent residential areas, or provide attenuation so that noise levels at residential uses do not exceed the standards identified in §12.08.460 of the Ordinance No. 11743.	
	4.9-13. Where residential lots are located with direct lines of sight to the Magic Mountain Theme Park, an acoustic analysis shall be submitted to show that exterior noise on the residential lots generated by activities at the park do not exceed the standards identified in §12.08.390 of the Ordinance No. 11743 as identified in Table 4.9-2, County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources.	
	4.9-14. After the time that occupancy of uses on the Newhall Ranch Specific Plan site occurs, AND when noise levels at the Travel Village RV Park reach 70 dB(A) CNEL at locations where recreational vehicles are inhabited, the applicant shall construct a noise abatement barrier to reduce noise levels at the RV Park to 70 dB(A) CNEL or less.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
NOISE (cont.)	4.9-15 Despite the absence of a significant impact, a~~A~~pplicants for all building permits of Residential, Mixed-Use, Commercial, and Business Park land uses (Project) shall pay to the Santa Clara Elementary School District, prior to issuance of building permits, the project's pro rata share of the cost of a sound wall to be located between SR-126 and the Little Red School House. The project's pro rata share shall be determined by multiplying the estimated cost of the sound wall by the ratio of the project's estimated contribution of average daily trips on SR-126 (ADT) at the Little Red School House (numerator) to the total projected cumulative ADT increase at that location (denominator).[1] The total projected cumulative ADT increase shall be determined by subtracting the existing trips on SR-126[2] from the projected cumulative trips as shown in Table 1 of Topical Response 5 - Traffic Impacts to State and Local Roads in Ventura County after adding the total Newhall Ranch ADT traveling west of the City of Fillmore.	

1 Cost of Sound Wall X (Project ADT on SR-126 @ LRSH*/Total Projected Cumulative ADT Increase on SR-126 @ LRSH*) * LRSH = Little Red School House.

2 25,165 ADT using linear extrapolation from Table 1 of Topical Response 5 - Traffic Impacts to State and Local Roads in Ventura County.

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
NOISE (cont.)	4.9-16 Despite the absence of a significant impact, the applicant for all building permits of Residential, Mixed-Use, Commercial and Business Park land uses (Project) shall participate on a fair-share basis in noise attenuation programs developed and implemented by the City of Moorpark to attenuate vehicular noise on SR-23 just north of Casey Road for the existing single-family homes which front SR-23. The mitigation criteria shall be to reduce noise levels to satisfy State noise compatibility standards. The project's pro rata share shall be determined by multiplying the estimated cost of attenuation by the ratio of the project's estimated contribution of average daily trips on SR-23 (ADT) north of the intersection of SR-23 and Casey Road (numerator) to the total projected cumulative ADT increase at that location (denominator).[3] The total projected cumulative ADT increase shall be determined by subtracting the existing trips on SR-23 north of Casey Road[4] from the projected cumulative trips as shown in **Topical Response 5** - Traffic Impacts to State and Local Roads in Ventura County after adding the total Newhall Ranch ADT traveling south of the City of Fillmore.	

3 Cost of mitigation x (Project ADT on SR-23 north of Casey Road/Total Projected cumulative ADT Increase on SR-23 north of Casey Road).

4 ADT using linear extrapolation from Table 1 of **Topical Response 5** - Traffic Impacts to State and Local Roads in Ventura County.

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
NOISE (cont.)	4.9-17 Prior to the approval of any subdivision map which permits construction within the Specific Plan area, the applicant for that map shall prepare an acoustical analysis assessing project and cumulative development (including an existing plus project analysis, and an existing plus cumulative development analysis including the project). The acoustical analysis shall be based upon State noise land use compatibility criteria and shall be approved by the Los Angeles County Department of Health Services. In order to mitigate any future impacts resulting from the project's contribution to significant cumulative noise impacts to development in existence as of the adoption of the Newhall Ranch Specific Plan and caused by vehicular traffic on off-site roadways, the applicant for building permits of Residential, Mixed-Use, Commercial, Visitor Serving and Business Park land uses shall, prior to issuance of building permits, pay a fee to Los Angeles County, Ventura County, the City of Fillmore or the City of Santa Clarita. The amount of the fee shall be the project's fair-share under any jurisdiction-wide or Santa Clarita Valley-wide noise programs adopted by any of the above jurisdictions.	

PROJECT IMPACTS		MITIGATION MEASURES	RESIDUAL IMPACT
AIR QUALITY			
During construction of the Specific Plan, emissions of carbon monoxide (CO), reactive organic compounds (ROC), oxides of nitrogen (NO_X) and particulate matter-10 micron (PM_{10}) would exceed thresholds of significance recommended by the South Coast Air Quality Management District (AQMD). Operational emissions generated by the Specific Plan would exceed AQMD thresholds for CO, ROC, NO_X, oxides of sulfur (SO_X), and PM_{10}. No feasible mitigation exists which would reduce these emissions to below the AQMD's recommended thresholds of significance. Therefore, the proposed Specific Plan's construction-related and operation-related emissions would be considered unavoidably significant. The Specific Plan would, however, be consistent with the AQMP, indicating that the Specific Plan should not jeopardize attainment of State and Federal ambient air quality standards.	4.10-1.	The Specific Plan will provide Commercial and Service uses in close proximity to residential subdivisions.	Unavoidably Significant
	4.10-2.	The Specific Plan will locate residential uses in close proximity to Commercial uses, Mixed-Uses, and Business Parks.	
	4.10-3.	Bus pull-ins will be constructed throughout the Specific Plan site.	
	4.10-4.	Pedestrian facilities, such as sidewalks, and community regional, and local trails, will be provided throughout the Specific Plan site.	
	4.10-5.	Roads with adjacent trails for pedestrian and bicycle use will be provided throughout the Specific Plan site connecting the individual Villages and community.	
	4.10-6.	The applicant of future subdivisions shall implement all rules and regulations adopted by the Governing Board of the SCAQMD which are applicable to the development of the subdivision (such as Rule 402 - Nuisance, Rule 403 - Fugitive Dust, Rule 1113 - Architectural Coatings) and which are in effect at the time of development. The purpose of Rule 403 is to reduce the amount of particulate matter entrained in the ambient air as a result of man-made fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 applies to any activity or man-made condition capable of generating fugitive dust such as the mass and remedial grading associated with the project as well as weed abatement and stockpiling of construction materials (i.e., rock, earth, gravel). Rule 403 requires that grading operations either (1) take actions specified in Tables 1 and 2 of the Rule for each applicable source of fugitive dust and take certain notification and record keeping actions; or (2) obtain an approved Fugitive Dust Control Plan. A complete copy of the SCAQMD's Rule 403 Implementation Handbook, which has been included in **Appendix 4.10**, provides guideline tables to demonstrate the typical mitigation program and record keeping required for grading operations (Tables 1 and 2 and sample record keeping chart). The record keeping is accomplished by on-site construction personnel, typically the construction superintendent.	
		Each future subdivision proposed in association with the Newhall Ranch Specific Plan shall implement the following if found applicable and feasible for that subdivision:	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
AIR QUALITY (cont.)	4.10-6. (cont.) GRADING a. Apply non-toxic soil stabilizers according to manufacturers' specification to all inactive construction areas (previously graded areas inactive for ten days or more). b. Replace groundcover in disturbed areas as quickly as possible. c. Enclose, cover, water twice daily, or apply non-toxic soil binders according to manufacturers' specifications, to exposed piles (i.e., gravel, sand, dirt) with 5 percent or greater silt content. d. Water active sites at least twice daily. e. Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph. f. Monitor for particulate emissions according to District-specified procedures. g. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer) in accordance with the requirements of CVC Section 23114. PAVED ROADS h. Sweep streets at the end of the day if visible soil material is carried onto adjacent public paved roads (recommend water sweepers with reclaimed water). i. Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip. UNPAVED ROADS j. Apply water three times daily, or non-toxic soil stabilizers according to manufacturers' specifications, to all unpaved parking or staging areas or unpaved road surfaces. k. Reduce traffic speeds on all unpaved roads to 15 mph or less. l. Pave construction roads that have a traffic volume of more than 50 daily trips by construction equipment, 150 total daily trips for all vehicles. m Pave all construction access roads at least 100 feet on to the site from the main road. n. Pave construction roads that have a daily traffic volume of less than 50 vehicular trips.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
AIR QUALITY (cont.)	4.10-7. Prior to the approval of each future subdivision proposed in association with the Newhall Ranch Specific Plan, each of the construction emission reduction measures indicated below (and in Tables 11-2 and 11-3 of the SCAQMD's *CEQA Air Quality Handbook,* as amended~~amended~~) shall be implemented if found applicable and feasible for that subdivision.~~The applicant of future subdivisions shall implement all applicable and feasible construction measures that are identified in Tables 11-2 and 11-4 of the SCAQMD's CEQA Air Quality Handbook, or which are in effect at that time.~~ Tables of currently applicable measures are provided for reference in EIR **Appendix 4.10.**	

ON-ROAD MOBILE SOURCE CONSTRUCTION EMISSIONS:

a. Configure construction parking to minimize traffic interference.
b. Provide temporary traffic controls when construction activities have the potential to disrupt traffic to maintain traffic flow (e.g., signage, flag person, detours).
c. Schedule construction activities that affect traffic flow to off-peak hours (e.g., between 7:00 P.M. and 6:00 A.M. and between 10:00 A.M. and 3:00 P.M.).
d. Develop a trip reduction plan to achieve a 1.5 average vehicle ridership (AVR) for construction employees.
e. Implement a shuttle service to and from retail services and food establishments during lunch hours.
f. Develop a construction traffic management plan that includes the following measures to address construction traffic that has the potential to affect traffic on public streets:
   - Rerouting construction traffic off congested streets;
   - Consolidating truck deliveries; and
   - Providing temporary dedicated turn lanes for movement of construction trucks and equipment on and off of the site.
g. Prohibit truck idling in excess of two minutes.

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT

4.10-7 (cont.)

OFF-ROAD MOBILE SOURCE CONSTRUCTION EMISSIONS:

h. Use methanol-fueled pile drivers.
i. Suspend use of all construction equipment operations during second stage smog alerts.
j. Prevent trucks from idling longer than two minutes.
k. Use electricity from power poles rather than temporary diesel-powered generators.
l. Use electricity from power poles rather than temporary gasoline-powered generators.
m Use methanol- or natural gas-powered mobile equipment instead of diesel.
n. Use propane- or butane-powered on-site mobile equipment instead of gasoline.

4.10-8. The applicant of future subdivisions shall implement all rules and regulations adopted by the Governing Board of the SCAQMD which are applicable to the development of the subdivision (such as Rule 402 - Nuisance, Rule 1102 - Petroleum Solvent Dry Cleaners, Rule 1111 - NOx Emissions from Natural Gas-Fired, Fan-Type Central Furnaces, Rule 1146 - Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters) and which are in effect at the time of occupancy permit issuance.

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
AIR QUALITY (cont.)	4.10-9. Prior to the approval of each future subdivision proposed in association with the Newhall Ranch Specific Plan, each of the operational emission reduction measures indicated below (and ~~The applicant of future subdivisions shall implement all applicable and feasible operational measures that are identified~~ in Tables 11-6 and 11-7 of the SCAQMD's CEQA Air Quality Handbook, as amended) shall be implemented if found applicable and feasible for that subdivision~~or which are in affect at that time~~. Tables of currently applicable measures are provided for reference in **Appendix 4.10.**	
	ON-ROAD MOBILE SOURCE OPERATIONAL EMISSIONS:	
	RESIDENTIAL USES	
	a. Include satellite telecommunications centers in residential subdivisions.	
	b. Establish a shuttle service from residential subdivisions to commercial core areas.	
	c. Construct on-site or off-site bus stops (e.g., bus turnouts, passenger benches, and shelters).	
	d. Construct off-site pedestrian facility improvements, such as overpasses and wider sidewalks.	
	e. Include retail services within or adjacent to residential subdivisions.	
	f. Provide shuttles to major rail transit centers or multi-modal stations.	
	g. Contribute to regional transit systems (e.g., right-of-way, capital improvements, etc.).	
	h. Synchronize traffic lights on streets impacted by development.	
	i. Construct, contribute, or dedicate land for the provision of off-site bicycle trails linking the facility to designated bicycle commuting routes.	
	COMMERCIAL USES	
	j. Provide preferential parking spaces for carpools and vanpools and provide 7'2" minimum vertical clearance in parking facilities for vanpool access.	
	k. Implement on-site circulation plans in parking lots to reduce vehicle queuing.	
	l. Improve traffic flow at drive-throughs by designing separate windows for different functions and by providing temporary parking for orders not immediately available for pickup.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
AIR QUALITY (cont.)	4.10-9. (cont.) m Provide video-conference facilities. n. Set up resident worker training programs to improve job/housing balance. o. Implement home dispatching system where employees receive routing schedule by phone instead of driving to work. p. Develop a program to minimize the use of fleet vehicles during smog alerts (for business not subject to Regulation XV (now Rule 2202) or XII). COMMERCIAL USES q. Use low-emissions fleet vehicles: - TLEV - ULEV - LEV - ZEV r. Reduce employee parking spaces for those businesses subject to Regulation XV (now Rule 2202). s. Implement a lunch shuttle service from a worksite(s) to food establishments. t. Implement compressed work-week schedules where weekly work hours are compressed into fewer than five days. - 9/80 - 4/40 - 3/36 u. Develop a trip reduction plan to achieve 1.5 AVR for businesses with less than 100 employees or multi-tenant worksites. v. Utilize satellite offices rather than regular worksite to reduce VMT. w. Establish a home-based telecommuting program. x. Provide on-site child care and after-school facilities or contribute to off-site development within walking distance. y. Require retail facilities or special event centers to offer travel incentives such as discounts on purchases for transit riders. z. Provide on-site employee services such as cafeterias, banks, etc. aa. Establish a shuttle service from residential core areas to the worksite. ab. Construct on-site or off-site bus stops (e.g., bus turnouts, passenger benches, and shelters).	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
AIR QUALITY (cont.)	4.10-9. (cont.) ac. Implement a pricing structure for single-occupancy employee parking and/or provide discounts to ridesharers. ad. Include residential units within a commercial project. ae. Utilize parking in excess of code requirements as on-site park-n-ride lots or contribute to construction of off-site lots. af. Any two of the following: - Construct off-site bicycle facility improvements, such as bicycle trails linking the facility to designated bicycle commuting routes, or on-site improvements, such as bicycle paths. - Include bicycle parking facilities, such as bicycle lockers and racks. - Include showers for bicycling employees' use. ag. Any two of the following: - Construct off-site pedestrian facility improvements, such as overpasses, wider sidewalks. *Commercial Uses* - Construct on-site pedestrian facility improvements, such as building access which is physically separated from street and parking lot traffic and walk paths. - Include showers for pedestrian employees' use. ah. Provide shuttles to major rail transit stations and multi-modal centers. ai. Contribute to regional transit systems (e.g., right-of-way, capital improvements, etc.). aj. Charge visitors to park. ak. Synchronize traffic lights on streets impacted by development. al. Reschedule truck deliveries and pickups to off-peak hours. am. Set up paid parking systems where drivers pay at walkup kiosk and exit via a stamped ticket to reduce emissions from queuing vehicles. an. Require on-site truck loading zones. ao. Implement or contribute to public outreach programs. ap. Require employers not subject to Regulation XV (now Rule 2202) to provide commuter information area.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
AIR QUALITY (cont.)	4.10-9. (cont.) BUSINESS PARK USES aq. Provide preferential parking spaces for carpools and vanpools and provide 7'2" minimum vertical clearance in parking facilities for vanpool access. ar. Implement on-site circulation plans in parking lots to reduce vehicle queuing. as. Set up resident worker training programs to improve job/housing balance. at. Implement home dispatching system where employees receive routing schedule by phone instead of driving to work. au. Develop a program to minimize the use of fleet vehicles during smog alerts (for business not subject to Regulation XV (now Rule 2202) or XII). *Business Park Uses* av. Use low-emissions fleet vehicles: - TLEV - ULEV - LEV - ZEV aw. Require employers not subject to Regulation XV (now Rule 2202) to provide commuter information area. ax. Reduce employee parking spaces for those businesses subject to Regulation XV (now Rule 2202). ay. Implement compressed work-week schedules where weekly work hours are compressed into fewer than five days. - 9/80 - 4/40 - 3/36 az. Offer first right of refusal, low interest loans, or other incentives to employees who purchase or rent local residences. ba. Develop a trip reduction plan to achieve 1.5 AVR for businesses with less than 100 employees or multi-tenant worksites. bb. Provide on-site child care and after-school facilities or contribute to off-site development within walking distance. bc. Provide on-site employee services such as cafeterias, banks, etc. bd. Establish a shuttle service from residential core areas to the worksite.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
AIR QUALITY (cont.)	4.10-9. (cont.) be. Construct on-site or off-site bus stops (e.g., bus turnouts, passenger benches, and shelters) bf. Implement a pricing structure for single-occupancy employee parking and/or provide discounts to ridesharers. bg. Utilize parking in excess of code requirements as on-site park-n-ride lots or contribute to construction of off-site lots. bh. Any two of the following: - Construct off-site bicycle facility improvements, such as bicycle trails linking the facility to designated bicycle commuting routes, or on-site improvements, such as bicycle paths. - Include bicycle parking facilities, such as bicycle lockers and racks. - Include showers for bicycling employees' use. bi. Any two of the following: - Construct off-site pedestrian facility improvements, such as overpasses, wider sidewalks. - Construct on-site pedestrian facility improvements, such as building access which is physically separated from street and parking lot traffic and walk paths. - Include showers for pedestrian employees' use. ***Business Park Uses*** bj. Provide shuttles to major rail transit stations and multi-modal centers. bk. Contribute to regional transit systems (e.g., right-of-way, capital improvements, etc.). bl. Synchronize traffic lights on streets impacted by development. bm. Reschedule truck deliveries and pickups to off-peak hours. bn. Implement a lunch shuttle service from a worksite(s) to food establishments. bo. Require on-site truck loading zones. bp. Install aerodynamic add-on devices to heavy-duty trucks. bq. Implement or contribute to public outreach programs.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
AIR QUALITY (cont.)	4.10-9. (cont.)	

Stationary Source Operational Emissions

Residential Uses

br. Use solar or low emission water heaters.
bs. Use central water heating systems.
bt. Use built-in energy-efficient appliances.
bu. Provide shade trees to reduce building heating/cooling needs.
bv. Use energy-efficient and automated controls for air conditioners.
bw. Use double-paned windows.
bx. Use energy-efficient low-sodium parking lot lights.
by. Use lighting controls and energy-efficient lighting.
bz. Use fuel cells in residential subdivisions to produce heat and electricity.
ca. Orient buildings to the north for natural cooling and include passive solar design (e.g., daylighting).
cb. Use light-colored roofing materials to reflect heat.
cc. Increase walls and attic insulation beyond Title 24 requirements.

COMMERCIAL USES

cd. Use solar or low emission water heaters.
ce. Use central water heating systems.
cf. Provide shade trees to reduce building heating/cooling needs.
cg. Use energy-efficient and automated controls for air conditioners.
ch. Use double-paned windows.
ci. Use energy-efficient low-sodium parking lot lights.
cj. Use lighting controls and energy-efficient lighting.
ck. Use light-colored roofing materials to reflect heat.
cl. Increase walls and attic insulation beyond Title 24 requirements.
cm. Orient buildings to the north for natural cooling and include passive solar design (e.g., daylighting).

Business Park Uses

cn. Provide shade trees to reduce building heating/cooling needs.
co. Use energy-efficient and automated controls for air conditioning.
cp. Use double-paned windows.

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
AIR QUALITY (cont.)	4.10-9. (cont.) cq. Use energy-efficient low-sodium parking lot lights. cr. Use lighting controls and energy-efficient lighting. cs. Use light-colored roofing materials to reflect heat. ct. Orient buildings to the north for natural cooling and include passive solar design (e.g., daylighting). cu. Increase walls and attic insulation beyond Title 24 requirements. cv. Improved storage and handling or source materials. cw. Materials substitution (e.g., use water-based paints, life-cycle analysis). cx. Modify manufacturing processes (e.g., reduce process stages, closed-loop systems, materials recycling). cy. Resource recovery systems that redirect chemicals to new production processes. 4.10-10. All non-residential development of 25,000 gross square feet or more shall comply with the County's Transportation Demand Management (TDM) Ordinance (Ordinance No. 93-0028M) in effect at the time of subdivision. The sizes and configurations of the Specific Plan's non-residential uses are not known at this time and the Ordinance specifies different requirements based on the size of the project under review. All current provisions of the ordinance are summarized in **Appendix 4.10.** 4.10-11. Subdivisions and buildings shall comply with Title 24 of the California Code of Regulations which are current at the time of development. 4.10-12. Lighting for public streets, parking areas, and recreation areas shall utilize energy efficient light and mechanical, computerized or photo cell switching devices to reduce unnecessary energy usage. 4.10-13. Any on-site subterranean parking structures shall provide adequate ventilation systems to disperse pollutants and preclude the potential for a pollutant concentration to occur. 4.10-14. The sellers of new residential units shall be required to distribute brochures and other relevant information published by the SCAQMD or similar organization to new homeowners regarding the importance of reducing vehicle miles traveled and related air quality impacts, as well as on local opportunities for public transit and ridesharing.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
WATER RESOURCES		
The projected total water demand for the Specific Plan is 19,345 acre-feet per year. Of this amount, 10,094 acre-feet would be required for potable uses (e.g., drinking) and 9,251 acre-feet would be required for non-potable/landscape irrigation uses. Of the 10,094 acre-feet per year of potable water demand, as much as 6,547 to 8,635 acre-feet per year could, after use and tertiary treatment at the proposed water reclamation plant, be reclaimed for non-potable/landscape irrigation water uses. The remaining 12,082 to 13,320 acre-foot Specific Plan demand would be met through the use of The Newhall Land and Farming Company's rights to Castaic Creek flood flows and by deliveries from the Castaic Lake Water Agency (CLWA) and the Valencia Water Company (VWC).	4.11-1. The proposed Specific Plan shall implement a water reclamation system in order to reduce the Specific Plan's demand for imported potable water. The Specific Plan shall install a distribution system to deliver non-potable reclaimed water to irrigate land uses suitable to accept reclaimed water, pursuant to Los Angeles County Department of Health Standards.	Not Significant
	4.11-2. Landscape concept plans shall include a palette rich in drought-tolerant and native plants.	
	4.11-3. Major manufactured slopes shall be landscaped with materials that will eventually naturalize, requiring minimal irrigation.	
	4.11-4. Water conservation measures as required by the State of California shall be incorporated into all irrigation systems.	
Although representatives of the VWC and CLWA have indicated that they intend to serve the Specific Plan, the agencies do not, at the time of this writing, have all of the water resources that would ultimately be needed as the Specific Plan and other projects in the CLWA service area build out. Therefore, implementation of the Specific Plan would potentially result in a significant impact on water availability.	4.11-5. The area within each future subdivision within Newhall Ranch shall be annexed to the Valencia Water Company prior to issuance of building permits.	
	4.11-6. Prior to recordation of any final subdivision map that allows construction, and in accordance with the requirements of the Los Angeles County Development Monitoring System (DMS), as amended, Los Angeles County shall require the applicant of the subdivision to obtain written confirmation from the retail water agency that a water source is available to supply the subdivision concurrent with need. If the applicant of the subdivision cannot obtain confirmation that a water source is available for buildout of the subdivision, the subdivision shall be phased with the timing of an available water source. ~~Prior to recordation of final subdivision maps which allow construction, the applicant of that subdivision will demonstrate water availability.~~	
The Newhall Ranch Specific Plan would not have a significant impact on the either surface water quality of the Santa Clara River or the groundwater quality of the Alluvial and Saugus Aquifers.	4.11-7 Prior to commencement of use, all uses of recycled water shall be reviewed and approved by the State of California Health and Welfare Agency, Department of Health Services.	
	4.11-8 Prior to the issuance of building ~~permits recordation of any final subdivision map~~ that allows construction, the applicant of the subdivision shall finance the expansion costs of water service extension to the subdivision through the payment of connection fees to the appropriate water agency(ies).	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
WATER RESOURCES (cont.)	4.11-9 Pursuant to Public Resources Code §21081(a)(2), the County shall recommend that the Upper Santa Clara Water Committee, made up of the Castaic Lake Water Agency, Los Angeles County Waterworks District No. 36, Newhall County Water District, Santa Clarita Water Company and the Valencia Water Company, prepare an annual water report that will discuss the status of groundwater levels within the Alluvial and Saugus Aquifers, and State Water Project water supplies as they relate to the Santa Clarita Valley. In those years when the Committee does not prepare such a report, the applicant at his expense shall cause the preparation of such a report that is acceptable to the County to address these issues. This annual report should be provided to Los Angeles County who may use the report as part of the local land use decision-making process.	
	4.11-10 In conjunction with the submittal of applications for and prior to approval of tentative tract and parcel maps which permit construction, a letter from the retail water provider will be submitted to the County identifying the source(s) of supply of water for the land uses within that tentative tract or parcel map. The source(s) of water identified shall not result in the net use of groundwater over that which is planned for the Santa Clarita water basin, which is identified as the annual safe perennial yield of the Alluvial Aquifer and the annual recharge rate of the Saugus Aquifer in the Final EIR for the Newhall Ranch Specific Plan or subsequent environmental documentation.	
WASTEWATER DISPOSAL		
The proposed Specific Plan would generate approximately 5.8 to 7.7 million gallons of wastewater on a daily basis, all of which would be treated at an on-site water reclamation plant proposed as part of the Specific Plan. Consequently, the Specific Plan would not cause a significant impact to County wastewater disposal services.	4.12-1. The Specific Plan shall reserve a site of sufficient size to accommodate a water reclamation plant to serve the Newhall Ranch Specific Plan.	Not Significant
	4.12-2. A 5.8 to 6.9~~7.7~~ mgd water reclamation plant shall be constructed on the Specific Plan site, pursuant to County, State and Federal design standards, to serve the Newhall Ranch Specific Plan.	
	4.12-3. The Conceptual Backbone Sewer Plan shall be implemented pursuant to County, State and Federal design standards.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
WASTEWATER DISPOSAL (cont.)	4.12-4. Prior to recordation of each subdivision permitting construction, the applicant of each subdivision shall obtain a letter from the new County sanitation district stating that treatment capacity will be adequate for that subdivision.	
	4.12-5. All facilities of the sanitary sewer system will be designed and constructed for maintenance by the County of Los Angeles Department of Public Works and the County Sanitation Districts of Los Angeles County, and/or the new County sanitation district or similar entity in accordance with their manuals, criteria, and requirements.	
	4.12-6. Pursuant to Los Angeles County Code, Title 20, Division 2, all industrial waste pretreatment facilities shall, prior to the issuance of building permits, be reviewed by the County of Los Angeles Department of Public Works, Industrial Waste Planning and Control Section and/or the new County sanitation district, to determine if they would be subject to an Industrial Wastewater Disposal Permit.	
	4.12-7 ~~Prior to recordation of e~~Each subdivision permitting construction~~, the applicant of each subdivision~~ shall be required to be annexed ~~the subdivision~~ into the Los Angeles County Consolidated Sewer Maintenance District.	

PROJECT IMPACTS	MITIGATION MEASURES		RESIDUAL IMPACT
NATURAL GAS			
The Specific Plan would not have a significant impact on natural gas resources provided by Southern California Gas Company. Development within the Specific Plan area, however, would be required to obtain service commitments from SCGC and to comply with Title 24 conservation requirements. Implementation of the Specific Plan may require relocation of SCGC infrastructure located within the site boundaries.	4.13-1.	All development within the Specific Plan area shall comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the California Administrative Code), as applicable.	Not Significant
	4.13-2.	A letter from Southern California Gas Company or other gas provider is to be obtained prior to recordation of all future subdivisions stating that service can be provided to the subdivision under recordation.	
	4.13-3.	The Specific Plan is to meet the requirements of SCGC in terms of pipeline relocation, grading in the vicinity of gas mains, and development within Southern California Gas Company easements. These requirements would be explicitly defined by SCGC at the future tentative map stage.	
	4.13-4.	All potential buyers or tenants of property in the vicinity of Southern California Gas Company transmission lines are to be made aware of the line's presence in order to assure that no permanent construction or grading occurs over and within the vicinity of the high-pressure gas mains.	
ELECTRICITY			
The Specific Plan would not have a significant impact on electrical resources provided by Southern California Edison. Development within the Specific Plan area, however, would be required to obtain service commitments from SCE and to comply with Title 24 conservation requirements. Implementation of the Specific Plan may require relocation of SCE infrastructure located within the site boundaries. SCE staff have voiced a concern that SCE infrastructure in the proposed High Country Special Management Area remain accessible.	4.14-1.	All development within the Specific Plan area shall comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the California Administrative Code), as applicable.	Not Significant
	4.14-2.	Southern California Edison or other energy provider is to be notified of the nature and extent of future development on the Specific Plan site prior to recordation of all future subdivisions.	
	4.14-3.	All future tract maps are to comply with Southern California Edison or other energy provider guidelines for grading, construction, and development within SCE easements.	
	4.14-4.	Electrical infrastructure removals and relocations are to be coordinated between the Specific Plan engineer and Southern California Edison or other energy provider as each tract is designed and constructed.	
	4.14-5.	All future tract maps are to be reviewed by Los Angeles County to ensure adequate accessibility to Edison or other energy provider facilities as a condition of their approvals.	
	4.14-6.	Upon transfer of the High Country Special Management Area to another entity for long-term maintenance, continued and adequate access to all Southern California Edison facilities in the High Country Special Management Area is to be ensured within the transfer agreement.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
SOLID WASTE DISPOSAL		
Assuming no recycling activities occur within its boundaries, the Specific Plan would generate approximately 53,524 tons of solid waste annually upon buildout. Until the County can demonstrate that approved landfill space or other disposal alternatives will be adequate to serve existing and future uses for the foreseeable future, solid waste impacts within the County are considered significant.	4.15-1. Each future subdivision which allows construction within the Newhall Ranch Specific Plan shall meet the requirements of all applicable solid waste diversion, storage, and disposal regulations that are in effect at the time of subdivision review. Current applicable regulations include recycling areas that are: • compatible with nearby structures; • secured and protected against adverse environmental conditions; • clearly marked, and adequate in capacity, number and distribution; • in conformance with local building code requirements for garbage collection access and clearance; • designed, placed and maintained to protect adjacent developments and transportation corridors from adverse impacts, such as noise, odors, vectors, or glare; • in compliance with Federal, State, or local laws relating to fire, building, access, transportation, circulation, or safety; and • convenient for persons who deposit, collect, and load the materials.	Unavoidably Significant
	4.15-2. Future multi-family, commercial, and industrial projects within the Specific Plan shall provide accessible and convenient areas for collecting and loading recyclable materials. These areas are to be clearly marked and adequate in capacity, number, and distribution to serve the development.	
	4.15-3. The first purchaser of each residential unit within the Specific Plan shall be given educational or instructional materials which will describe what constitutes recyclable and hazardous materials, how to separate recyclable and hazardous materials, how to avoid the use of hazardous materials, and what procedures exist to collect such materials.	
	4.15-4. The applicant of all subdivision maps which allow construction within the Specific Plan shall comply with all applicable future State and Los Angeles County regulations and procedures for the use, collection and disposal of solid and hazardous wastes.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
EDUCATION		
In order to provide more efficient educational services on the Specific Plan site, the Specific Plan proposes the reorganization of elementary and junior high/middle School District boundaries. Currently, the Specific Plan site is located with the Newhall, Castaic Union, and the Wm. S. Hart Union High School Districts. Under the reorganization, public elementary school education (grades K through 6) would be provided to the Newhall Ranch Specific Plan site by the Newhall School District, while public middle school (grades 7 through 8) and high school (grades 9 through 12) education would be provided by the William S. Hart Union High School District. With reorganization, it is estimated that 5,714 elementary students, 1,610 junior high school students and 2,750 high school students would be generated. Without reorganization, it is estimated that 5,468 elementary students, 1,811 middle/junior high school students and 2,750 high school students would be generated. Neither the Newhall School District, the Castaic Union School District, nor the Wm. S. Hart Union High School District have the capacity presently to accommodate the students generated. The Specific Plan has reserved land for five elementary school sites, one junior high school site, and one high school site within the Specific Plan boundaries with sufficient size to construct schools to accommodate the estimated number of students generated. Despite the fact that the Castaic Union and Wm. S. Hart Union High School Districts have not enacted measures currently available to them to increase capacity and thereby qualify for State matching funds, these School Districts believe that State funding is uncertain, and therefore believe the Specific Plan's impact is significant.	4.16-1. The Specific Plan developer shall reserve five elementary schools sites, one middle school site and one high school site, of 7 to 10, 20 to 25, and 40 to 45 acres in size, respectively, depending upon adjacency to local public parks and joint use agreements. 4.16-2. The developer of future subdivisions which allow construction will comply with the terms and conditions of the School Facilities Funding Agreement between The Newhall Land and Farming Company and the Newhall School District. 4.16-3. The developer of future subdivisions which allow construction will comply with the terms and conditions of the School Facilities Funding Agreement between The Newhall Land and Farming Company and the William S. Hart Union High School District.~~The builder of future residential dwelling units for which building permits are issued ("the Project") is required to mitigate the impacts to the William S. Hart Union High School District ("Hart") through the payment of fees for the Project's pro rata share of all grades 7-12 school facility construction required by the Project. Such mitigation fee shall be provided consistent with, and only to the extent of, the laws, rules, and regulations for eligibility for State school facility construction funds, classroom loading standards, "Priority one" funding eligibility standards, construction cost guidelines and allowances and overall accounting principles approved by the State Allocation Board for funding school facility construction pursuant to the Leroy F. Green State School Building Lease-Purchase Law of 1976, (Education Code §17700 *et seq.*).Prior to recordation of all subdivision maps which allow construction, the developer of future subdivisions which allow construction is to provide to the County of Los Angeles and the William S. Hart Union High School District an executed agreement to provide for payment for junior and senior high school educational facilities, in either the form set forth in the Valley-Wide Joint Fee Resolution, Exhibit A, or a separate agreement which achieves the equivalent mitigation.~~	Not Significant (However, in the event that State funds are not available, both the Castaic Union School District and the Wm. S. Hart Union High School District feel the impact of the Specific Plan is unavoidably significant)

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
EDUCATION (cont.)	4.16-3. (cont.)	

~~Prior to receiving individual building permits for one or more units in the Project, the builder shall pay to Hart 50 percent of the pro rata share of costs of grades 7-12 school facility construction attributable to those units, except those units within the overlapping Castaic Union School District in which case it shall be for costs of grades 9-12 school facilities. For these purposes, the Project's pro rata share of school facility construction costs shall be determined by dividing the number of Project students estimated to attend the facility in the mitigation fee calculation by the total student capacity of the facility. The builder shall, at the same time, make a deposit into an escrow, or provide a bond or such other form of guarantee of payment agreed to by the builder, in an amount equal to 50 percent of the mitigation fee for such school facility construction costs attributable to the Project. The escrow or form of guarantee shall provide as follows:~~

1. ~~Hart shall apply for and comply with State rules, laws, regulations and procedures necessary to qualify as "Priority one" eligibility for state 50 percent matching funds for such school facility construction projects;~~
2. ~~If, prior to construction of any school facility for which the fees are being collected, Hart qualifies for and receives State matching funds sufficient to pay 50 percent of such school facility construction costs, the escrow shall be canceled or the guarantee shall be released as to such construction, the funds returned to the builder, and the builder shall have no obligation to pay any additional amounts to Hart toward such school facility construction. If Hart receives State matching funds but in some lesser amount, the amount of the escrow deposit or guarantee shall be reduced by the amount of the Project's pro rata share of matching funds which are received by Hart from the State;~~

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
EDUCATION (cont.)	4.16-3. (cont.) ~~3. If Hart applies for and complies with State rules, regulations, and procedures necessary to qualify as "Priority one" for state 50 percent matching funds for such school facility construction projects, but does not receive the full 50 percent matching funds prior to construction, the escrow or guarantee amount, or such portion of it equal to the amount of the Project's pro rata share of costs not covered by state matching funds or previous payments by the builder, shall be transferred to Hart (in some form of transfer agreeable to the builder and Hart) and Hart will provide assurance that such amount will be repaid to the builder, if appropriate. This transfer shall be conditioned on the following: (i) Hart shall apply for "Priority one" eligibility for all future years, if any, in which State matching funds for the specific school facility construction projects for which mitigation fees have been collected may still be obtained; and (ii) Hart shall agree, in a form acceptable to the builder, to pay the builder on the transfer of the Project's pro rata share of such State matching funds if and when such State matching funds are obtained by Hart;~~ ~~4. If Hart obtains a determination from the State that it may no longer obtain State matching funds for such specific school facility construction projects, then the transfer or such portion of it which remains unpaid after transfer to the builder of any matching funds which were received, shall be released and Hart shall have no further obligation with respect to the repayment of such amounts;~~	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
EDUCATION (cont.)	4.16-3. (cont.) ~~5. If Hart fails to apply for and comply with State rules, laws, regulations, and procedures necessary to qualify as "Priority one" for state 50 percent matching funds for such school facility construction projects, the escrow shall be canceled or the guarantee shall be released. The builder shall have no further obligation with respect to payment of school mitigation fees, and the school fees which are required by the County for the Project shall be limited to the 50 percent of the pro rata share of costs of school facility construction paid initially the builder. In such a case, the County finds that, with respect to the significant impacts of the Project on school facility construction not mitigated by such initial payment, there are changes or alterations within the responsibility and jurisdiction of Hart that can and should be adopted by Hart which would fully mitigate such significant impacts.~~ ~~6. If the builder and Hart reach an overall agreement concerning school fees before all building permits are issued, the builder shall include the units for which building permits have not been issued as part of that agreement and that agreement shall constitute the full mitigation required for school facilities construction impacts.~~ ~~4.16-4 The developer of future subdivisions which allow construction is to pay to the William S. Hart Union High School District the statutory school fee for commercial/industiral square footage pursuant to Government Code Sections 65995 and 65996, unless a separate agreement to the contrary is reached with the District.~~	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
EDUCATION (cont.)	4.16-~~45~~. The developer of future subdivisions which allow construction will comply with the terms and conditions of the School Facilities Funding Agreement between The Newhall Land & Farming Company and the Castaic Union School District.~~In the event that School District boundaries on the Specific Plan site remain unchanged, prior to recordation of all subdivision maps which allow construction, the developer of future subdivisions which allow construction is to provide to the County of Los Angeles and the Castaic Union School District an executed agreement to provide for payment for elementary and middle school educational facilities, in either the form set forth in the Valley-Wide Joint Fee Resolution, Exhibit A, or a separate agreement which achieves the equivalent mitigation.~~ 4.16-~~56~~. In the event that School District boundaries on the Specific Plan site remain unchanged, prior to recordation of all subdivision maps which allow construction, the developer of future subdivisions which allow construction is to pay to the Castaic Union School District the statutory school fee for commercial/industrial square footage pursuant to Government Code Sections 65995 and 65996, unless a separate agreement to the contrary is reached with the District.	

PROJECT IMPACTS		MITIGATION MEASURES	RESIDUAL IMPACT
POLICE SERVICES			
The proposed Specific Plan would significantly increase the demand for police protection and traffic-related services from the Los Angeles County Sheriff's Department in terms of personnel and equipment. These service demands, however, can be met through the allocation of funding to the Department that would be generated by the Specific Plan as it builds out. The Specific Plan would also increase demands for CHP services in the Specific Plan area. Increased revenues generated by the Specific Plan as it builds out would be available to the CHP for staffing and equipment.	4.17-1.	As subdivision maps are submitted to the County for approval in the future, the applicant shall incorporate County Sheriff's Department design requirements (such as those pertaining to site access, site security lighting, etc.) which will reduce demands for Sheriff's service to the subdivisions and which will help ensure adequate public safety features within the tract designs.	Not Significant
FIRE SERVICES AND HAZARDS			
The Specific Plan applicant proposes to reserve two sites for fire stations within the Specific Plan boundaries and to upgrade the Del Valle Fire Training Center to an operating fire station. To provide such facilities, the Specific Plan applicant proposes to either 1) contribute financing to construct these stations through contributions to the Developer Fee Program, or 2) build, the two stations on the site and upgrade the Del Valle Station. Fire service to the Specific Plan can be met through these improvements. By keeping all but 15 residential units out of the High Country Special Management Area and with implementation of the proposed Wildfire Fuel Modification Program, residents, employees, visitors, and others at the Specific Plan site would not be significantly affected by wildland fires in Fire Hazard Zones 3 and 4.	4.18-1.	At the time of final subdivision maps permitting construction in development areas that are adjacent to Open Area and the High Country SMA, a Wildfire Fuel Modification Plan shall be prepared and submitted for approval by the County Fire Department. The Wildfire Fuel Modification Plan shall include the following construction period requirements: (a) a fire watch during welding operations; (b) spark arresters on all equipment or vehicles operating in a high fire hazard area; (c) designated smoking and non-smoking areas; and (d) water availability pursuant to County Fire Department requirements. The wildfire fuel modification plan shall depict a fuel modification zone in conformance with the Fuel Modification Ordinance in effect at the time of subdivision. Within the zone, tree pruning, removal of dead plant material and weed and grass cutting shall take place as required by the County Forester. Fire resistant plant species containing habitat value may be planted in the fuel modification zone.	Not Significant
	4.18-2.	Each subdivision and site plan for the proposed Specific Plan shall provide sufficient capacity for fire flows of 1,250 gallons per minute (gpm) at 20 pounds per square inch (psi) residual pressure for a two hour duration for single family residential units, and 5,000 gpm at 20 psi residual pressure for a five-hour duration for multi-family residential units and commercial/retail uses, or whatever fire flow requirement is in effect at the time of subdivision and site plan approval.	
	4.18-3.	Each subdivision map and site plan for the proposed Specific Plan shall comply with all applicable building and fire codes and hazard reduction programs for Fire Zones 3 and 4 that are in effect at the time of subdivision map and site plan approval.	

PROJECT IMPACTS		MITIGATION MEASURES	RESIDUAL IMPACT
FIRE SERVICES AND HAZARDS (cont.)	4.18-4.	The developer will provide funding for three fire stations to the Consolidated Fire Protection District of Los Angeles County (the "Fire District") in lieu of developer fees. The developer will dedicate two fire station sites for the two fire stations located in Newhall Ranch. The Fire District will dedicate the site for the fire station to be located at the Del Valle Training Facility. Each fire station site will have a building pad consisting of a net buildable area of one acre. If the cost of constructing the three fire stations, providing and dedicating the two fire station sites, and providing 3-engines, 1 paramedic squad and 63 percent of a truck company exceeds the developer's developer fee obligation for the Newhall Ranch development as determined by the Fire District, the Fire District will fund the costs in excess of the fee obligation. Two of the three fire stations to be funded by the developer will not exceed 6,000 square feet; the third fire station to be funded by the developer will not exceed 8,500 square feet. The Fire District, will fund the cost of any space/square footage of improvement in excess of these amounts as well as the cost of the necessary fire apparatus for any such excess square footage of improvements. The cost of three fire engines, a proportionate share of a truck and one squad to be provided by the developer will be determined based upon the apparatus cost at the time the apparatus is placed in service.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
FIRE SERVICES AND HAZARDS (cont.)	The Fire District and the developer will mutually agree to the requirements of first-phase protection requirements based upon projected response/travel coverage. Such mutual agreement regarding first-phase fire protection requirements ("fire protection plan") and the criteria for timing the development of each of the three fire stations will be defined in a Memorandum of Understanding between the developer and the Fire District. Delivery of fire service for Newhall Ranch will be either from existing fire stations or one of the three fire stations to be provided by the developer pursuant to this section. Prior to the commencement of the operation of any of the three fire stations, fire service may be delivered to Newhall Ranch from existing fire stations or from temporary fire stations to be provided by the developer at mutually agreed-upon locations, to be replaced by the permanent stations which will be located within the Newhall Ranch development. The developer and the Fire District will annually review the fire protection plan to evaluate development and market conditions and modify the Memorandum of Understanding accordingly. ~~Prior to issuance of building permits, the applicant shall pay the fees in effect under the Fire Department's Developer Fee Program, or participate in the construction of fire protection facilities, to the satisfaction of the County of Los Angeles Fire Department.~~	

PROJECT IMPACTS		MITIGATION MEASURES	RESIDUAL IMPACT
LIBRARIES Development of the Specific Plan would create a demand for a 23,983 square foot County Library facility with 137,048 items (books, magazines, periodicals, etc.).	4.19-1.	The developer will provide funding for a maximum of two libraries (including the site(s), construction, furniture, fixtures, equipment and materials) to the County Librarian. The developer will dedicate a maximum of two library sites for a maximum of two libraries located in Newhall Ranch in lieu of the land component of the County's library facilities mitigation fee, in accordance with the provisions of Section 22.72.090 of Section 2 of Ordinance No. 98-0068. The actual net buildable library site area required and provided by the developer will be determined by the actual size of the library building(s), the Specific Plan parking requirements, the County Building Code, and other applicable rules. The total library building square footage to be funded by the developer will not exceed 0.35 net square feet per person. The developer's funding of construction of the library(s) and furnishings, fixtures, equipment and materials for the library(s) will be determined based on the cost factors in the library facilities mitigation fee in effect at the time of commencement of construction of the library(s). Prior to County's issuance of the first residential building permit of Newhall Ranch to the developer, the County Librarian and the developer will mutually agree upon the library construction requirements (location, size, funding and time of construction) based upon the projected development schedule and the population of Newhall Ranch based on the applicable number of average persons per household included in the library facilities mitigation fee in effect at the time. Such mutual agreement regarding the library construction requirements ("Library Construction Plan") and the criteria for timing the completion of the library(s) will be defined in a Memorandum of Understanding between the developer and the County Librarian. Such Memorandum of Understanding shall include an agreement by the developer to dedicate sufficient land and pay the agreed amount of fees on a schedule to allow completion of the library(s) as described below. The developer's funding for library facilities shall not exceed the developer's fee obligation at the time of construction under the developer fee schedule.	Not Significant

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
PARKS, RECREATION AND TRAILS	If two libraries are to be constructed, the first library will be completed and operational by the time of County's issuance of the 8,000th residential building permit of Newhall Ranch, and the second library will be completed and operational by the time of County's issuance of the 15,000th residential building permit of Newhall Ranch. If the County Librarian decides that only one library will be constructed, the library will be completed and operational by the time of County's issuance of the 10,000th residential building permit of Newhall Ranch. No payment of any sort with respect to library facilities will be required under Section 2.5.3.d. of the Specific Plan in order for the developer to obtain building permits for nonresidential buildings. ~~The applicant shall pay the proposed interim fee (which is $336 per new residential unit at the time of this writing) to the County Library to offset the demand for the library items (books, magazines, periodicals, etc.) and building square footage generated by the Newhall Ranch Specific Plan. The library mitigation payment would be made on a building permit by building permit basis, and would be adjusted each year based on increases in the Consumer Price Index. If the Board of Supervisors adopts an ordinance creating a developer fee for library facilities pursuant to Government Code Section 66000 et seq., the applicant would pay that fee with respect to all building permits issued after the adoption of the fee. There would be no retroactive adjustment for any library mitigation payments made for building permits issued prior to the adoption of a developer fee ordinance.~~ ~~OR:~~ ~~The applicant shall agree to construct a 23,983 square foot library and provide 137,048 items per the County Library standards 0.35 square feet of library facilities per capita and 2.0 library books per capita.~~	
Newhall Ranch Specific Plan includes land for community and neighborhood parks for local residents, as well as 3,949.9 acres of High Country Special Management Area and 813 acres of River Corridor Special Management Area for open area use. The Specific Plan is in compliance with County and Quimby Act parkland standards, and would not result in significant impacts to local parks and recreation facilities. The cost to maintain and operate the park and recreation facilities is covered by increased revenue accrued to the Parks Department and the County general fund generated by Newhall Ranch. Implementation of the Specific Plan, with its proposed Open Area, local parkland, and trail network, would beneficially impact the region.	4.20-1. Development of the Newhall Ranch Specific Plan will provide the following acreages of parks and Open Area: • Ten~~twelve~~ public Neighborhood Parks totaling 5~~560~~ acres; • Open Areas totaling 1,106~~1,088.8~~ acres of which 186~~274~~ acres are Community Parks, • High Country Special Management Area of 4,214~~3,949.9~~ acres, • River Corridor Special Management Area of 819~~813~~ acres, • a 15-acre Lake, • an 18-hole Golf Course, and • a trail system consisting of: - Regional River Trail, - Community Trails, and - Unimproved Trails.	Beneficial Impact

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
PARKS, RECREATION AND TRAILS (cont.)	4.20-2. Prior to the construction of the proposed trail system, the project applicant shall finalize the alignment of trails with the County Department of Parks and Recreation.	
	4.20-3. Trail construction shall be in accordance with the County of Los Angeles Department of Parks and Recreation trail system standards.	
POPULATION, HOUSING & EMPLOYMENT		
Newhall Ranch Specific Plan would add 25,218 dwelling units (including as many as 538 Second Units), 68,524 residents, and 19,323 jobs to the Santa Clarita Valley Planning Area. The Specific Plan is inconsistent with the 1990 Santa Clarita Valley Area Plan population and housing projections, but is consistent with the Southern California Association of Governments' 1994 population, housing, and employment forecasts for the Valley. Since the Specific Plan is consistent with SCAG forecasts, by amending the County growth forecast to include the Specific Plan within growth projections, the Specific Plan would not have a significant impact on either regional or local population, housing, or employment. Cumulative population would be consistent with SCAG population projections, but would exceed Los Angeles County projections. Cumulative housing would be within the SCAG projections, but would be in excess of County projections. Cumulative employment in the Valley would exceed both SCAG and County projections; however, because the Santa Clarita Valley is considered to be housing rich and jobs poor, having more employment opportunities in the Planning Area than what is projected is considered beneficial.	4.21-1. The Los Angeles County General Plan and the Santa Clarita Valley Area Plan ~~of the County of Los Angeles General Plan~~ shall be amended by Los Angeles County ~~Regional Planning Department~~ to accommodate the ~~Mixed-Use master planned community proposed by the~~ Newhall Ranch Specific Plan.	Population and Housing: Not Significant; Employment: Beneficial

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
GEOTECHNICAL AND SOIL RESOURCES		
The water reclamation plant improvements would be on raised and compacted fill and elevated above the alluvial sediments of the Santa Clara River flood plain and would not be subject to hazards associated with expansive soils or liquefaction. Surface and near surface soils throughout the site are poorly consolidated, commonly contain void space and are subject to hydroconsolidation, which causes settlement and can be potentially hazardous to overlying structures.	5.0-1. Prior to construction of the water reclamation plant, prepare a detailed geotechnical report that will outline the geotechnical performance requirements for placing and compacting the fill at the water reclamation plant site and along on-site sewer line alignments to ensure that none of the wastewater conveyance or treatment facilities would be subject to hazards caused by expansive soils. Construction of wastewater conveyance and treatment facilities shall comply with the requirements identified in the report.	Not Significant
	5.0-2. Should any expansive soils be encountered during grading operations, they shall not be placed nearer the finished surface than 8 feet below the bottom of the subgrade elevation. If expansive materials are encountered at subgrade elevation in cut areas, the soils shall be removed to a depth of 8 feet below the subgrade surface and the excavated area backfilled with nonexpansive, properly compacted soils. These depths are subject to revision depending upon the expansive potential measured during grading.	
	5.0-3. Prior to ~~the issuance of~~ grading ~~permits of for the~~ WRP site and the associated sewer lines, a detailed geotechnical performance report is to be prepared and approved by the WRP Operator~~County~~, which will assess liquefaction potential along sewer line alignments, and which will identify design measures for potential liquefaction hazards. WRP collection and treatment facilities construction is to comply with the measures identified in the performance report.	
	5.0-4. All water reclamation plant structures and facilities are to be constructed according to Uniform Building Code standards for the appropriate Seismic Risk Zone (Zone 4).	
	5.0-5. If the height of the fill exceeds the shear strength of such saturated soils, settlement and ground failure could occur, resulting in damage to structures and/or injury to people, potentially consolidatible materials are to be properly removed and the fill material is to be properly compacted and protected against the erosive effects of storm and River flows.	
	5.0-6. All fills, unless otherwise specifically designed, are to be compacted to at least 90 percent of the maximum dry unit weight as determined by ASTM Designation D 1557-91 Method of Soil Compaction. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	5.0-7. No fill is to be placed until the area to receive the fill has been adequately prepared and approved by the Geotechnical Engineer. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
GEOTECHNICAL AND SOIL RESOURCES (cont.)	5.0-8. Fill soils are to be kept free of all debris and organic material. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	5.0-9. Rocks or hard fragments larger than 8 inches are not to be placed in the fill without approval of the Geotechnical Engineer, and in a manner specified for each occurrence. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	5.0-10. Rock fragments larger than 8 inches are not to be placed within 10 feet of finished pad grade or the subgrade of roadways or within 15 feet of a slope face. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	5.0-11. When moisture content of the fill material is too low to obtain adequate compaction, water is to be added and thoroughly dispersed until the soil is approximately 2 percent over optimum moisture content. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	5.0-12. When the moisture content of the fill material is too high to obtain adequate compaction, the fill material is to be aerated by blading or other satisfactory methods until the soil is approximately two percent over optimum moisture content. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	
	5.0-13. Surface runoff from the future graded areas is not to run over any natural, cut, or fill slopes. (Allan~~Allen~~ E. Seward Engineering Geology, 19 September 1994, Inc., p. 20)	
	5.0-14. Runoff from future pads and structures is to be collected and channeled to the street and/or natural drainage courses via non-erosive drainage devices. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)	
	5.0-15. Water is not to stand or pond anywhere on the graded pads. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)	
FLOOD A portion of the WRP site is within the Los Angeles County 50-Year Capital Floodplain and the Federal Insurance Administration 100-year flood plain. Site preparation would include the placement of sufficient fill material across the site to provide a minimum of one foot of freeboard above the level of the 50-Year Capital Flood. During construction, uncovered soils could be blown or washed by rainwater into the Santa Clara River, with significant erosion and sedimentation impacts.	5.0-16. Prepare and implement a County-approved erosion control plan to be implemented during the construction of the WRP.	Not Significant
	5.0-17. All on- and off-site flood control improvements necessary to alleviate flood hazards and provide proper drainage controls are to be constructed to the satisfaction of the County of Los Angeles Department of Public Works, Flood Control Division.	
	5.0-18. All necessary permits or letters of exemption from the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and Game, and the Regional Water Quality Control Board for WRP-related development are to be obtained.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
FLOOD (cont.)	5.0-19. Conditional Letters of Map Revision (CLOMR) relative to adjustments to the 100-year FIA flood plain are to be obtained by the applicant after the proposed drainage facilities are constructed.	
	5.0-20. Prior to ~~issuance of a grading permit~~, a Final Hydrology Plan, a Final Drainage Plan, and a Final Grading Plan (including an Erosion Control Plan, as required) are to be prepared by the applicant and approved by the Department of Public Works, where applicable, to ensure that no significant erosion, sedimentation, or flooding impacts would occur during or after site development.	
CULTURAL/PALEONTOLOGICAL RESOURCES		
No known cultural or paleontological resources were identified at the site of the proposed water reclamation plant during the field surveys conducted for the Specific Plan. The alluvial sediments which comprise this site's near surface geological structure are not considered a potential source of paleontological (fossil-containing) materials.	5.0-21. No significant impact to cultural or paleontological resources are anticipated from construction of the WRP. However, should such resources be found during site grading, a professional archaeologist or paleontologist will be retained to evaluate the significance of the finding and to identify appropriate methods of preserving or cataloguing any significant resources.	Not Significant
AGRICULTURAL RESOURCES		
Development of the plant would result in the loss of 15 acres of prime agricultural land. This acreage is already economically impaired by its small size, its narrow, triangular configuration, and its location, and is more difficult and less economical to farm than larger parcels of land. Although this land has diminished agricultural productivity, the conversion of prime agricultural land is a significant and irreversible impact. It is a continuing trend by the County to convert cultivated lands to urban uses to accommodate growth; therefore, the loss of agricultural productivity on the land is not considered a significant impact.	No mitigation measures are available that could reduce the impact of conversion of prime agricultural land to an urban use to less than significant.	Unavoidably Significant Impact relative to the conversion of Prime Agricultural land to urban uses.
ENVIRONMENTAL SAFETY		
Operation of the plant would involve the storage, use and disposal of a variety of hazardous chemicals, primarily for application in the various stages of the waste treatment process. Treatment facilities would also generate various toxic air emissions, as well as biosolids that contain traces of chemical pollutants and pathogen-laden bacteria. Accidents or catastrophic natural events (such as an earthquake or flooding) could result in significant risks to the environment or human health from release of the various hazardous materials and emissions at the plant.	5.0-22. Design and operate the WRP in accordance with an NPDES ~~Industrial Discharge~~ Permit that must be obtained from the California Regional Water Quality Control Board, Los Angeles Region.	Not Significant
	5.0-23. Prepare and implement worker safety programs in accordance with Cal-OSHA requirements.	
	5.0-24. Prepare and implement preventive and contingency plans for controlling accidental discharges of wastewater or chemicals used and stored at the WRP, and for minimizing the effects of such events. Such plans shall be integrated into the CSDLAC's overall preventive (fail-safe) and contingency (emergency response) plans and programs.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
ENVIRONMENTAL SAFETY (cont.)	5.0-25. A Stormwater Pollution Prevention Plan (SWPPP) shall be prepared and implemented, in accordance with the U.S. Environmental Protection Agency's Industrial Stormwater Permit.	
	5.0-26. Any industrial wastewater that may be produced from manufacturing, commercial processing operations, acute care medical facilities and laboratories, etc. that would be allowed in the Commercial, Mixed-Use or Business Park land use designations as regulated by the Specific Plan, shall comply with the Wastewater Ordinance of the County Sanitation Districts of Los Angeles County (April 1, 1972, as amended November 1, 1989). A permit from the CSDLAC would be required for any such facility to allow discharge into the Newhall Ranch sewer system.	
	5.0-27. Prepare and implement an "Integrated Emergency Response Plan" (IERP). The IERP provides procedures for personnel medical emergencies, evacuation procedures and mitigation and abatement procedures for hazardous chemicals. The plan must conform to multiple regulatory requirements, including Title 8 §3220, Emergency Action Plan, §3221, Fire Prevention Plan, §5192 Emergency Response to Hazardous Substances Releases, and Title 22, §66265.50-66265.56, Contingency Plan and Emergency Procedures.	
	5.0-28. Biosolids treatment and disposal methods shall meet California Title 22, Division 4.5, Chapter 11, Article 3, which contains Toxicity Characteristic Leaching Procedure (TCLP) and Soluble Threshold Limit Concentration (STLC) limits.	
	5.0-29. Obtain permits to construct and operate all new sources of air toxic emissions, at each stage of WRP development, and whenever any new sources are added or replaced, pursuant to SCAQMD Regulation XIV.	
	~~5.0-30 Comply with California Title 22, Division 4.5, Chapter 11, Article 3, which contains Toxicity Characteristic Leaching Procedure (TCLP) and Soluble Threshold Limit Concentration (STLC) relative to the treatment and disposal of biosolids.~~	
BIOTA		
No rare, threatened or endangered species have been identified on the WRP site. Grading/site preparation would directly impact 9.8 acres along the edge of the River, which contains sensitive habitat, including cottonwood willow riparian forest (6.43 acres) and mule fat scrub (3.39 acres).	5.0-30. Comply with permit requirements established by the California Department of Fish and Game, the U.S. Army Corps of Engineers, and/or the U.S. Fish and Wildlife Service, relative to removal and replacement of riparian habitat.	Not Significant
	5.0-31. Obtain and implement an NPDES construction permit to avoid significant erosion or sedimentation impacts.	
	5.0-32. Comply with permit requirements of Federal, State and regional agencies with jurisdiction over discharge of reclaimed water to the Santa Clara River relative to potential impacts on the River's biological values.	

Summary of Water Reclamation Plant Impacts and Mitigation Measures

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
VISUAL QUALITIES		
Without proper screening, the WRP site would contrast sharply with the neighboring environment and with natural landscape features found in the background. This can be mitigated to below a level of significance through appropriate landscaping and fencing techniques. Uncontrolled outdoor lighting could significantly contrast with the surrounding rural environment.	5.0-33. To soften views of the reclamation plant from SR-126, provide vegetation, walls, fencing, and/or other appropriate techniques and combinations of techniques. Walls and fencing shall comply with the Specific Plan Design Guidelines.	Unavoidably Significant
	5.0-34. Landscaping themes shall be consistent with the themes developed for adjacent Business Park development to provide visual continuity and minimize contrast between the WRP facilities and their surroundings.	
The WRP site would contrast sharply with the scenic qualities of the River Corridor and surrounding natural landscapes, and would result in an unavoidable significant impact on the scenic visual quality of that area, both during and following construction.	5.0-35. Place, orient and shield light fixtures to illuminate only those areas where it is needed and to prevent stray light from spilling off site.	
TRAFFIC/ACCESS		
Roughly 100 vehicles would arrive and depart the plant site daily, which would not be a significant impact on SR-126. If the WRP is constructed while SR-126 is still a two-lane roadway, and construction equipment, vehicles and activities are not properly managed, some interference with normal traffic flow could occur.	5.0-36. If SR-126 is still a two-lane highway at the time of WRP construction, a construction traffic management plan shall be prepared and implemented. This plan shall address site access, staging and storage areas, hours of construction, work crew parking, warning and traffic control signs and devices, flag men, temporary detouring, etc., as appropriate, to avoid a significant impact on SR-126.	Not Significant
	5.0-37. An encroachment permit shall be obtained from Caltrans, for access to the plant site from SR-126.	
NOISE		
If any part of the WRP is constructed after planned residential development occurs in the western-most part of the Newhall Ranch, construction noise could be an issue for residents located near the plant site, on the opposite (north) side of SR-126.	5.0-38. All construction activity occurring on the water reclamation plant site shall adhere to the requirements of the "County of Los Angeles Construction Equipment Noise Standards," County of Los Angeles Ordinance No. 11743.	Not Significant
	~~55~~.39-. Limit all construction activities occurring near occupied residences to between the hours of 6:30 A.M. and 8:00 P.M., and exclude all Sundays and legal public holidays, pursuant to County Construction Section standards.	
	5.0-40. All operational activity occurring on the water reclamation plant site shall adhere to the requirements of the "County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources," pursuant to §12.08.390 of County of Los Angeles Ordinance No. 11743.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
AIR QUALITY		
Grading would generate quantities of dust that would exceed the AQMD's daily threshold of significance, even after application of all available dust controls that would reduce the amount of dust by roughly 61 percent. Failure of odor control equipment or management programs could result in odor impacts to off-site sensitive receptors.	5.0-41. Prepare and implement a fugitive dust emission control plan which conforms to the requirements of SCAQMD Rule 403. The plan shall include the following specific measures and be submitted to the SCAQMD for review and approval: a. Apply approved non toxic chemical soil stabilizers according to manufacturer specifications to all inactive construction areas (previously graded areas inactive for four days or more). b. Replace ground cover in disturbed areas as quickly as possible. c. Enclose, cover, water twice daily, or apply approved soil binders to exposed piles (i.e. gravel, sand, dirt) according to manufacturer's specifications. d. Water active grading sites at least twice daily. e. Suspend all excavating and grading operations when wind speeds (as instantaneous gusts exceed 25 mph). f. Provide temporary wind fencing with 50 percent or less porosity along the perimeter of sites that have been cleared or are being graded. g. All trucks hauling dirt, sand, soil or other loose materials are to be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer), in accordance with Sections 23114 of the California Vehicle Code. h. Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip. i. Sweep streets at the end of the day if visible soil material is carried over to adjacent roads, (recommend water sweepers using recycled water if readily available). j. Apply water three times daily or chemical soil stabilizers according to manufacturer's specifications to all unpaved parking or staging areas or unpaved road surfaces. k. Enforce maximum traffic speed limits of 15 mph on all unpaved roads. l. Where appropriate, pave all construction access roads at least 100 feet onto the site from the main road. 5.0-42. Building materials, architectural coatings, and cleaning solvents used in developing the WRP shall comply with all applicable SCAQMD rules and regulations. 5.0-43. The application of architectural coatings shall occur via hand application or spray equipment that emits volatile organic compound emissions at rates which are comparable to High Volume, Low Pressure (HVLP) spray equipment (i.e., equipment which is operated at an air pressure between 0.1 and 10 pounds per square inch).	Grading Impacts Unavoidably Significant Odor - Not Significant

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
AIR QUALITY (cont.)	5.0-44. Building construction shall utilize low-polluting construction materials and coatings (i.e., bricks, stones, pre-coated or naturally colored materials, water-based paints or similar types of coating materials containing relatively low levels of volatile organic compounds) to the greatest extent feasible.	
	5.0-45. Comply with SCAQMD Regulation IX, Subpart O, which establishes specific air quality performance standards for wastewater treatment plants.	
	5.0-46. Provide odor control equipment, covers, seals, etc., at all locations where odorous gases could be released into the atmosphere; implement managerial controls, including routine monitoring of control equipment and regular field surveys of surrounding areas; and conduct a complaint response program that achieves resolution to odor complaints within thirty minutes of receiving a complaint.	
	5.0-47. Obtain permits to construct and operate all new sources of criteria air pollutants, at each stage of WRP development, and whenever any new sources are added or replaced, pursuant to SCAQMD Regulation XIII.	
	5.0-48. Obtain permits to construct and operate all new sources of air toxic emissions at each stage of WRP development, and whenever any new sources are added or replaced, pursuant to SCAQMD Regulation XIV.	
	5.0-49. Comply with the provisions of Title V of the Federal Clean Air Act, relative to maximum, facility-side toxic air emissions.	
WATER RESOURCES		
The proposed water reclamation plant would not have a significant impact on water availability during construction.	5.0-50. The site of the proposed water reclamation plant shall be annexed to the Valencia Water Company prior to issuance of building permits for the WRP.	Not Significant
The plant would require 11,606 gallons of water per day. The plant would not have a significant impact on water resources, but would have to be annexed to the Valencia Water Company before receiving VWC water.	5.0-51. Prior to construction of the proposed water reclamation plant, the WRP operator ~~applicant~~ shall demonstrate water availability for both construction and operation demands.	
WASTEWATER DISPOSAL		
Improperly treated wastewater that is discharged to the Santa Clara River could contribute to degradation of the water quality within the River to below the standards set by the Regional Water Quality Control Board, Los Angeles Region in its Basin Plan for Region 4.	5.0-52. A new County sanitation district shall be formed to administer operation of the Newhall Ranch water reclamation plant. The district shall encompass the entire Newhall Ranch Specific Plan site.	Not Significant
	5.0-53. The Newhall Ranch water reclamation plant shall be designed and operated to satisfy the requirements of Title 22 of the California Administrative Code, which regulates reuse of reclaimed water.	

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
WASTEWATER DISPOSAL (cont.)	5.0-54. The Newhall Ranch water reclamation plant shall be designed and operated to satisfy the California Regional Water Quality Control Board, Los Angeles Region discharge limits for reclaimed water discharged to the Santa Clara River and for the irrigation of landscaped areas.	
	5.0-55. The Newhall Ranch water reclamation plant shall obtain a National Pollutant Discharge Elimination System permit from the California Regional Water Quality Control Board, Los Angeles Region for reclaimed water discharged to the Santa Clara River and for the irrigation of landscaped areas.	
	5.0-56 All facilities of the sanitary sewer system will be designed and constructed for maintenance by the County of Los Angeles Department of Public Works and County Sanitation Districts of Los Angeles County, and/or the new County sanitation district or similar entity in accordance with their manuals, criteria, and requirements.	
NATURAL GAS		
The WRP would not have a significant impact on natural gas resources.	5.0-57~~6~~. WRP design shall comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the California Administrative Code).	Not Significant
ELECTRICITY		
The WRP would not have a significant impact on electrical resources.	5.0-58~~7~~. Plant design shall comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the California Administrative Code).	Not Significant
SOLID WASTE DISPOSAL		
Landfill disposal of the biosolids produced as a by-product of the water reclamation process would contribute to an unavoidable significant impact on landfill facilities, because such facilities are limited in number and have finite capacity and new facilities are expensive and difficult to develop.	5.0-59~~8~~. The operators ~~constructors~~ of the water reclamation plant shall ensure that all solid waste diversion, storage, and disposal requirements that are in effect at the time the WRP is constructed, including AB 939 and all others, will be implemented so that the waste generated by the WRP will not impede the County's waste reduction and diversion requirements during construction and operation.	Unavoidably Significant
EDUCATION		
The WRP would have no impact on school facilities.	No impact on schools would result from construction or operation of the WRP; therefore, no mitigation measures are required or recommended.	Not Significant

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
POLICE SERVICES		
Construction of the water reclamation plant would increase traffic near the site during working hours because commuting construction workers, trucks, and other large construction vehicles would be added to normal traffic. Implementation of routine construction traffic controls will ensure that adequate access by emergency vehicles will be maintained throughout the plant construction period. During operation, the WRP would place an incremental, but less-than-significant increase in demand upon Los Angeles County Sheriff services for non-traffic-related calls.	5.0-6059. If construction of the WRP occurs while SR-126 is still a two-lane highway, a construction traffic management plan shall be prepared and implemented. This plan shall address site access, staging and storage areas, hours of construction, work crew parking, warning and traffic control signs and devices, flag men, temporary detouring, etc., as appropriate. 5.0-610. Consult with the CHP and the Sheriff's Department to incorporate measures into the risk management and prevention plan to optimize their abilities to provide assistance in the event of a hazardous materials incident at the operating WRP site. 5.0-621. Prepare and implement worker safety programs in accordance with Cal-OSHA requirements. 5.0-632. Prepare and implement an "Integrated Emergency Response Plan" (IERP). The IERP provides procedures for personnel medical emergencies, evacuation procedures and mitigation and abatement procedures for hazardous chemicals. The plan must conform to multiple regulatory requirements, including Title 8 §3220, Emergency Action Plan, §3221, Fire Prevention Plan, §5192 Emergency Response to Hazardous Substances Releases, and Title 22, §66265.50-66265.56, Contingency Plan and Emergency Procedures.	Not Significant
FIRE SERVICES AND HAZARDS		
Construction of the water reclamation plant would increase traffic near the site during working hours because commuting construction workers, trucks, and other large construction vehicles would be added to normal traffic. Implementation of routine construction traffic controls will ensure that adequate access by emergency vehicles will be maintained throughout the plant construction period. During operation, the WRP would place an incremental, but less-than-significant increase in demand upon the Los Angeles County Fire Department. Because the WRP would be required to prepare and implement a risk management prevention plan pursuant to AB 3777, impacts on the Fire Department relative to accidental chemical releases at the WRP would be less than significant.	5.0-643. If construction of the WRP occurs while SR-126 is still a two-lane highway, a construction traffic management plan shall be prepared and implemented. This plan shall address site access, staging and storage areas, hours of construction, work crew parking, warning and traffic control signs and devices, flag men, temporary detouring, etc., as appropriate. 5.0-654. Consult with the Fire Department and its Hazardous Materials Unit to incorporate measures into the risk management and prevention plan, to optimize its abilities to respond to a hazardous materials incident at the operating WRP site. 5.0-665. Prepare and implement worker safety programs in accordance with Cal-OSHA requirements. 5.0-676. Prepare and implement an "Integrated Emergency Response Plan" (IERP). The IERP provides procedures for personnel medical emergencies, evacuation procedures and mitigation and abatement procedures for hazardous chemicals. The plan must conform to multiple regulatory requirements, including Title 8 §3220, Emergency Action Plan, §3221, Fire Prevention Plan, §5192 Emergency Response to Hazardous Substances Releases, and Title 22, §66265.50-66265.56, Contingency Plan and Emergency Procedures.	Not Significant

Summary of Water Reclamation Plant Impacts and Mitigation Measures

PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
LIBRARIES		
The plant would not generate a residential population; therefore, it will not have a impact on public library services within Los Angeles County.	No adverse library impacts have been identified; therefore no mitigation measures are required.	Not Significant
PARKS, RECREATION AND TRAILS		
The plant would have no impact on park and recreation facilities within Los Angeles County because it would not generate a resident population.	5.0-687. A fence shall be constructed along the southern perimeter of the WRP site to prevent access to the WRP from the Regional River Trail.	Not Significant
POPULATION, HOUSING & EMPLOYMENT		
Approximately fifty people could be employed at the WRP at any given time during construction. When fully operational, the plant would generate an estimated eighteen jobs, which would be a beneficial impact. Because plant employees are expected to reside in the Santa Clarita Valley, it would not have an impact on housing or residential population.	No significant population, housing, or employment impacts have been identified; therefore, no mitigation measures are required.	Population and Housing: Not Significant; Employment: Beneficial Impact

1.0 Project Description

1.0 PROJECT DESCRIPTION

1. *PURPOSE*

The purpose of the Project Description is to describe the project that is the basis for the Specific Plan for the public, reviewing agencies, and decision-makers. A complete Project Description, for the purpose of CEQA, contains the following information: (1) the location and boundaries of the proposed project; (2) a statement of project objectives; (3) a general description of the project's technical, economic and environmental characteristics; and (4) a statement briefly describing the intended uses of the EIR. An adequate Project Description need not be exhaustive, but should supply the detail necessary for evaluation and review of the environmental impact of the project. The Newhall Ranch Specific Plan, which is incorporated by reference as part of the EIR, provides additional details on all aspects of the proposed project.

2. LEAD AGENCY

Los Angeles County
320 West Temple Street
Los Angeles, California 90012
Contact: Mr. Lee Stark, Department of Regional Planning
(213) 974-6419

3. KNOWN RESPONSIBLE AGENCIES

- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- California Department of Fish and Game
- Regional Water Quality Control Board
- California Department of Transportation
- South Coast Air Quality Management District
- Local Agency Formation Commission

4. PROJECT APPLICANT

The Newhall Ranch Company, a division of The Newhall Land and Farming Company
23929 Valencia Boulevard, Suite 207
Valencia, California 91355
Contacts: Mr. James Harter, Ms. Gloria Glenn, and Mr. David Crowder
(805) 222-2598

5. PROJECT SUMMARY

From a CEQA point of view, the "project" being analyzed as part of this EIR is the Draft Newhall Ranch Specific Plan (Project #94087, SCH# 95011015) prepared by FORMA for the Newhall Ranch Company (July 1996), and Vesting Tentative Parcel Map 24500 (the Parcel Map is included within EIR **Appendix I(A)**). One component of the Specific Plan is a proposed water reclamation plant (WRP). Los Angeles County seeks to use this EIR as the environmental review document for both the Specific Plan and the WRP. It is for this reason that particular attention is given to the WRP and its potential impacts. For a detailed discussion regarding the proposed WRP, including a description of the WRP and its potential environmental impact, see **Section 5.0, Water Reclamation Plant Impacts, Mitigation Measures, and Unavoidable Significant WRP Impacts**, of this EIR.

The applicant is currently requesting approval of the Newhall Ranch Specific Plan (and associated actions) which would establish the zoning necessary for the Specific Plan site to ultimately be developed with the following:

- 24,680 dwelling units (plus up to 538 Second Units in the Estate Residential designation[1]),
- 598 acres of Mixed-Use development, including 4,493 of the 24,680 dwelling units indicated above,
- 91 acres of Commercial uses,
- 256 acres of Business Park uses,
- 37 acres of Visitor-Serving uses,

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[1] Chapter 3.0 of the proposed Newhall Ranch Specific Plan specifies that Second Units are permitted by right in Estate Residential land use designation areas, and in only Low Residential land use designation areas through a one for one conversion of a single family detached dwelling unit. A Second Unit is defined as an additional dwelling unit located on the same lot as a single family detached residence which may contain its own kitchen facilities and may be rented, but not sold. Throughout this entire environmental impact report and in order to analyze a worst-case environmental condition, the proposed Specific Plan is analyzed as if it would actually result in the construction of 24,680 standard dwelling units plus the 538 Second Units (or a total of 25,218 total dwelling units).

- 1,089 acres of Open Area, including
  - 274 acres of Community Parks, and
  - 815 acres in other Open Area,
- 4,763 acres in Special Management Areas (permanent open area),
- 12 neighborhood parks,
- a 15-acre lake,
- a public trail system,
- a golf course,
- two fire stations,
- one library,
- the reservation of five elementary school sites, one junior high school site, and one high school site,
- a two-acre electrical substation,
- a 7.7-million gallon per day water reclamation plant within a new sanitation district, and
- other associated community facilities, such as roads and bridges.

Please refer to Subsection 9 below for a more detailed description of the proposed land uses and development plans. If greater project detail is desired than that found in Subsection 9 of this EIR, the reader is referred to the actual Specific Plan document. A copy of this document may be reviewed at the Los Angeles County Department of Regional Planning, 320 West Temple Street, Los Angeles, California; selected Los Angeles County Public Libraries (these include the five regional County Libraries and the Canyon Country, Newhall, and Valencia County Libraries located in the Santa Clarita Valley); and the California State Clearinghouse, Office of Planning and Research, in Sacramento, California.

The 1992 Land Use Policy Map of the County of Los Angeles General Plan designates the Specific Plan site as Non-urban and Significant Ecological Area. The Land Use Policy Map of the Santa Clarita Valley Area Plan designates the Specific Plan site as Non-urban 1 (0.5 and 0.05 dwelling units/acre), Non-urban 2 (1.0 dwelling unit/acre), Commercial, Industry, Floodway/Flood Plain, Floodway/Flood Plain/Significant Ecological Area, Hillside Management, and Hillside Management/Significant Ecological Area. The existing zoning of the Specific Plan site is Heavy Agricultural (A-2), with a 2.0 acre minimum lot size north of State Route 126 (A-2-2) and a minimum lot size of 5.0 acres south of State Route 126 (A-2-5), and Manufacturing (M-1.5). The proposed Specific Plan requires amendments to portions of the Los Angeles County General Plan and the Santa Clarita Valley Area Plan, including changes to the Master Plan of Highways, Master Plan of Trails, Significant Ecological Area (SEA) Boundaries, demographic projections for the Santa Clarita Planning Area, and other changes which may be deemed necessary by the County. The proposed Specific Plan requires a change of zone to Specific Plan

and adoption of the Specific Plan document, which would implement the zoning. In addition, the applicant is requesting a Significant Ecological Area (SEA) Conditional Use Permit for the Specific Plan, land uses and the permitted uses within the SEAs, the proposed changes in SEA boundaries, and for the large lot parcel map (VTPM 24500).

6. PROJECT LOCATION

The Specific Plan site is located in an unincorporated portion of the Santa Clara River Valley in northwestern Los Angeles County. The site, approximately 11,963 acres in size, is located one-half mile west of the Golden State Freeway (I-5) and largely southwest of the junction of I-5 and State Route 126 (SR-126). Both the Santa Clara River and SR-126 transect the northern portion of the Specific Plan site. The regional location map (**Figure 1.0-1, Regional Location**) and the site vicinity map (**Figure 1.0-2, Vicinity Map**) illustrate the Specific Plan site in its regional and local contexts, respectively.

7. PROJECT APPROVALS AND ENTITLEMENTS

The 1992 Land Use Policy map of the County of Los Angeles General Plan designates the Specific Plan site as Non-Urban and Significant Ecological Area. The Land Use Policy Map of the Santa Clarita Valley Area Plan designates the Specific Plan site as Non-Urban 1 (0.5 and 0.05 dwelling units/acre), Non-Urban 2 (1.0 dwelling units/acre), Commercial, Industry, Floodway/Flood Plain, Floodway/Flood Plain/Significant Ecological Area, Hillside Management, and Hillside Management/Significant Ecological Area. The existing zoning of the Specific Plan site is Heavy Agricultural (A-2), with a 2.0 acre minimum lot size north of SR-126 (A-2-2) and a minimum lot size of 5.0 acres south of SR-126 (A-2-5), and Manufacturing (M-1.5). Therefore, the Specific Plan would require not only approval of the Newhall Ranch Specific Plan, but approval of a General Plan Amendment (including an amendment to the existing SEA boundaries), a Zone Change (to Specific Plan), and amendments to the County's Master Plan of Highways, Master Plan of Trails, and to the County's demographic projections for the Santa Clarita Valley Area Plan. **Table 1.0-1, Requested Planning Designation Changes** summarizes the changes requested for implementation of the proposed Specific Plan. For a more detailed discussion regarding the proposed General Plan and Area Plan amendments, and zone changes requested as part of this Specific Plan, please refer to **Section 2.0 (Environmental and Regulatory Setting)** of this EIR.

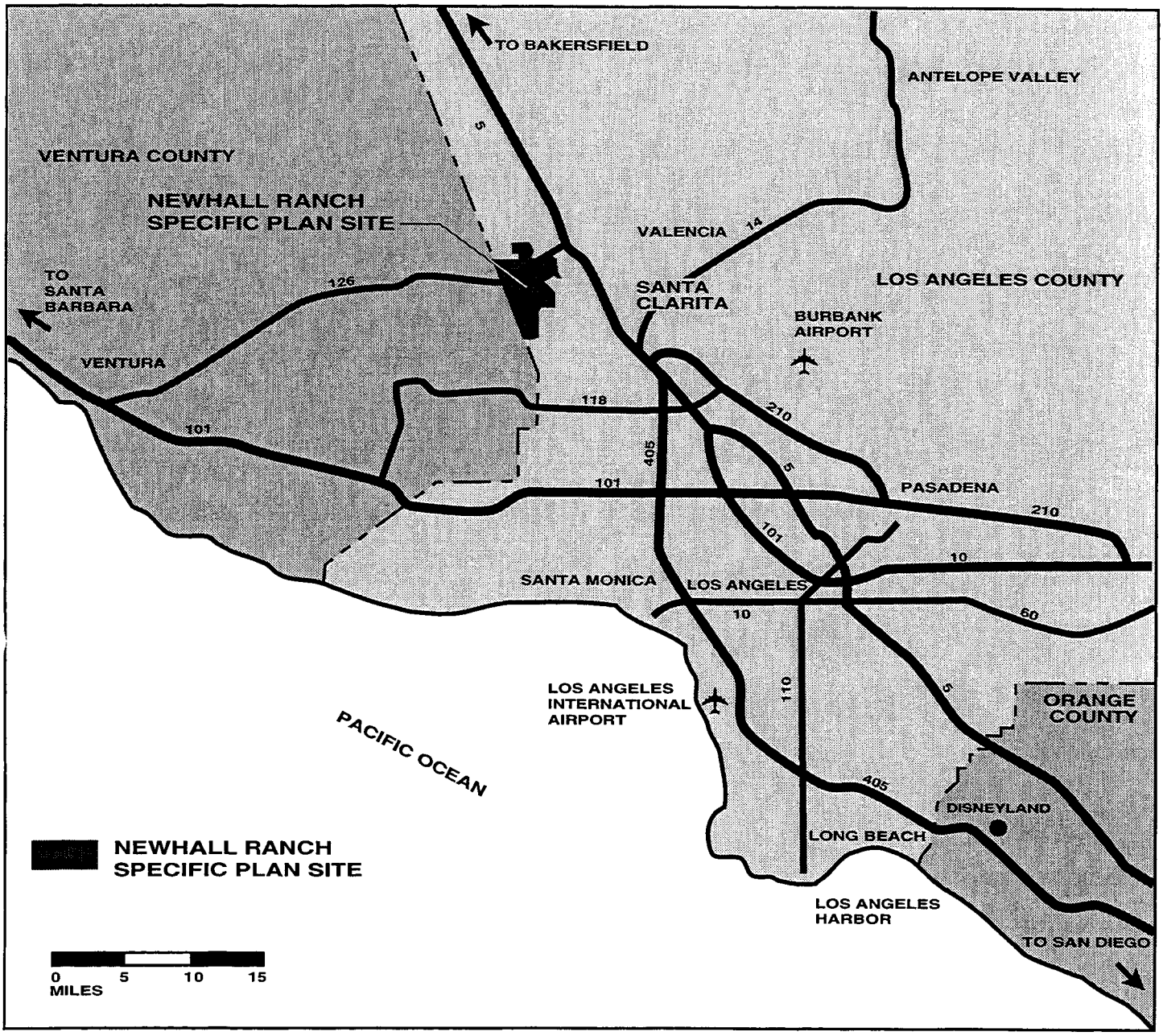

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FIGURE 1.0-1
REGIONAL LOCATION

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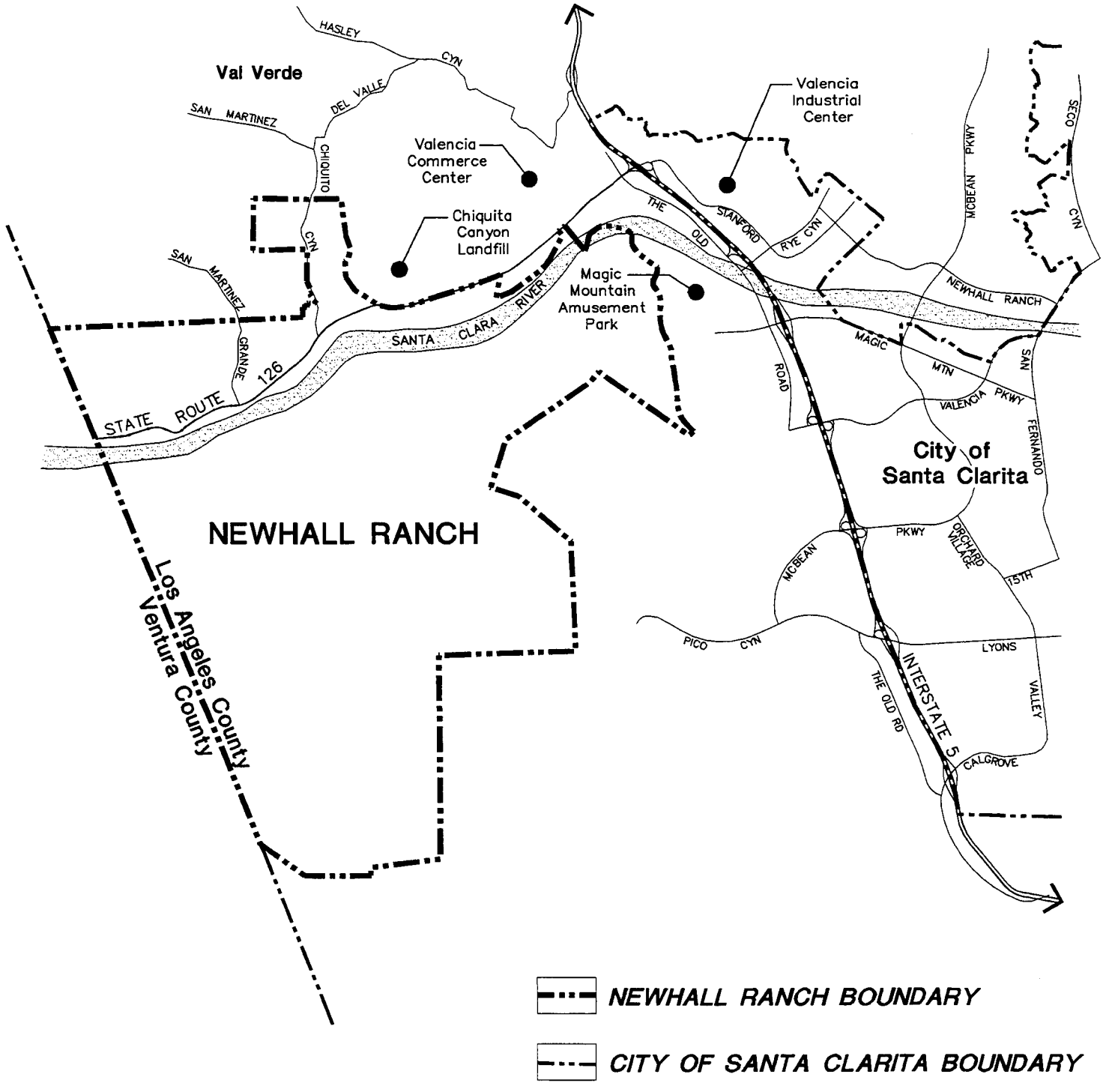

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FIGURE 1.0-2
VICINITY MAP

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Table 1.0-1
Requested Planning Designation Changes

	Existing Designation	Proposed Designation
County General Plan	- Non-urban - Significant Ecological Area	- Specific Plan
Santa Clarita Valley Area Plan	- Non-urban 1 (0.5 DU/acre) - Non-urban 1 (0.05 DU/acre) - Non-urban 2 (1.0 DU/acre) - Commercial - Industry - Hillside Management (HM) - HM/Significant Ecological Areas (SEA) - Floodway/Flood Plain (W) - W/SEA	- Specific Plan
County Zoning Ordinance	- Heavy Agricultural (A-2-2)[1] - Heavy Agricultural (A-2-5)[1] - Manufacturing (M-1.5)	- Specific Plan

Source: Draft Newhall Ranch Specific Plan (July 1996).
[1]*With a 2.0 acre minimum lot size north of SR-126 (A-2-2), and a minimum lot size of 5.0 acres south of SR-126 (A-2-5).*

The Specific Plan applicant is requesting the following approvals:

- Amendments to the County General Plan and Santa Clarita Valley Area Plan, including:
  - Amendments to Land Use and other Policy Maps,
  - Amendment to the County Master Plan of Highways to delete Pico Canyon Road as a Major Highway, add other highways, and change the designations of certain highways,
  - Amendment of demographic projections for the Specific Plan area,
  - Amendment to the Master Plan of Trails to permit realignment of the Pico Canyon Trail,
  - Amendment to the Scenic Highways Map to delete SR-126 as a First Priority Route for Further Study and replace with Specific Plan provisions;
- Approval of a Significant Ecological Area Conditional Use Permit for the Specific Plan, land uses and permitted uses within the SEAs, proposed changes in SEA boundaries, and the large parcel map (VTPM 24500).
- Adoption of the Newhall Ranch Specific Plan as zoning;
- Approval of a large lot (40 acre minimum lot size) parcel map;
- Approval of a Development Agreement; and
- Approval for the Construction of a new water reclamation plant.

In addition, this EIR could be used as input for the approvals or permits identified in **Table 1.0-2, Future Responsible Agency Actions,** which are known at this time to be needed.

Table 1.0-2
Future Responsible Agency Actions[1]

Responsible Agency	Action Required
• U.S. Army Corps of Engineers	Section 404 permit of the Federal Clean Water Act
• U.S. Fish and Wildlife Service	Section 7 and/or Section 10 consultations as required by the Federal Endangered Species Act
• California Department of Fish and Game	Section 1601/1603 permit of the State Fish and Game Code
• California Department of Transportation	Encroachment Permit
• Regional Water Quality Control Board	National Pollutant Discharge Elimination System permit and Section 401 permit of the Federal Clean Water Act
• South Coast Air Quality Management District	Various permits for air emissions regulation found in the Air Quality Management Plan
• Local Agency Formation Commission	Approval of new County sanitation district
• County/State Board of Education	Adjustment to Newhall School District, Castaic Union School District boundaries
• State Public Utilities Commission	Annexation into the Valencia Water Company service area

[1]*This table is not intended to provide the complete and final listing of future actions required to implement the Specific Plan. This is an attempt to identify those actions which are known at this time to be required in the future*

In order to grant such approvals, the County of Los Angeles, acting as the Lead Agency, must certify that this EIR has adequately described the potential impacts of the proposed Specific Plan and water reclamation plant.

Although not necessary concurrent with the approval of the Newhall Ranch Specific Plan, its development would eventually require approval by the County of the various subdivision maps, parcel maps, conditional use permits, and/or oak tree permits necessary to implement the Specific Plan. Additional permits or approvals would also be required from various Responsible Agencies. For a listing of known Responsible Agencies and future actions, please reference **Table 1.0-2**. This EIR could be used in some form as input to such permit or approval processes.

8. SPECIFIC PLAN OBJECTIVES

The California Environmental Quality Act (CEQA, 1970 as amended) requires that an environmental impact report (EIR) include a statement of the objectives sought by a proposed project [Section 15124(b) of the CEQA Guidelines].

a. Land Use Planning Objectives

1. Create a major new community with inter-related Villages that allows for residential, commercial and industrial development, while preserving significant natural resources, important land forms and open area.

2. Avoid leapfrog development and accommodate projected regional growth in a location which is adjacent to existing and planned infrastructure, urban services, transportation corridors, and major employment centers.

3. Cluster development within the site to preserve regionally significant natural resource areas, sensitive habitat, and major land forms.

4. Provide development and transitional land use patterns which do not conflict with surrounding communities and land uses.

5. Arrange land uses to reduce vehicle miles traveled and energy consumption.

6. Provide a complementary and supportive array of land uses which will enable development of a community with homes, shopping, employment, schools, recreation, cultural and worship facilities, public services, and open area.

7. Organize development into Villages to create a unique identity and sense of community for each.

8. Design Villages in which a variety of higher intensity residential and non-residential land uses are located in proximity to each other and to major road corridors and transit stops.

9. Establish land uses and development regulations which permit a wide range of housing densities, types, styles, prices, and tenancy (for sale and rental).

10. Designate sites for needed public facilities, such as schools, fire stations, library, water reclamation plant, and parks.

11. Allow for the development of community services and amenities by the public and private sectors, such as medical facilities, child care, colleges, worship facilities, cultural facilities, and commercial recreation.

12. Create a physically safe environment by avoiding building on fault lines and avoiding or correcting other geologically unstable landforms; by constructing flood control improvements to protect urban areas; and by implementing a fuel modification program to protect against wildfire.

b. Economic Objectives

1. Adopt development regulations which provide flexibility to respond to and adjust to changing economic and market conditions over a long period of time.

2. Provide a tax base to support public services.

3. Adopt development regulations and guidelines which allow site, parking, and facility sharing and other innovations which reduce the costs of providing public services.

4. Earn a reasonable return on investment.

c. Mobility Objectives

1. Design a mobility system which includes alternatives to automobile use.

2. Provide a safe, efficient, and aesthetically attractive street system with convenient connections to adjoining regional transportation routes.

3. Facilitate public transit by reserving right-of-way for a future Metrolink line, space for a park and ride and/or Metrolink station, and by providing bus pull-ins along highways.

4. Provide an efficient street circulation system that minimizes impacts on residential neighborhoods and environmentally sensitive areas.

5. Establish a diverse system of pedestrian and bicycle trails, segregated from vehicle traffic, to serve as an alternative to the automobile.

d. Parks, Recreation, and Open Area Objectives

1. Retain a major open area which could act as a regional recreational park and an ecological preserve.

2. Provide for the recreational use of open area that is compatible with protection of significant natural resources.

3. Provide neighborhood and community parks and improvements which satisfy park dedication requirements and meet the recreational needs of local residents.

4. Locate neighborhood parks adjacent to schools and establish joint-use agreements between park and school districts.

5. Provide a range of recreational opportunities, including passive and active parks, an 18-hole golf course, and a recreational lake.

6. Provide an extensive system of pedestrian, bicycle, and hiking trails within the Villages and hiking trails in the High Country, and other open areas.

e. Resource Conservation Objectives

1. Protect wetland and endangered species in the Santa Clara River.

2. Preserve the Santa Clara River corridor and adjacent uplands containing significant natural resources for their resource value, open area, and recreational use.

3. Retain a major open area and its natural vegetation as a wildlife or ecological preserve.

4. Preserve significant stands of oak trees.

5. Preserve the site of the historical Asistencia (San Fernando Mission Annex).

6. Identify and protect significant resources within the two Los Angeles County Significant Ecological Areas.

7. Preserve or minimally impact the most significant ridgelines and other major topographical land forms.

8. Provide a water reclamation plant and supplementary distribution systems to use reclaimed water.

9. Promote water conservation through design guidelines that encourage use of drought-tolerant and native plants.

9. TECHNICAL, ECONOMIC, AND ENVIRONMENTAL CHARACTERISTICS

The State CEQA Guidelines require an EIR to provide "[a] general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities." [CEQA Guidelines Section 15124 (c)]

- The proposed Specific Plan is envisioned as a community which provides land uses which are mutually supporting (e.g., new housing would be provided to support new and existing employment opportunities; Commercial land uses would provide services for new residents). Parts of the Specific Plan (including certain Mixed-Use areas and the Business Parks) would serve a more regional market, including travelers on Interstate 5 and State Route 126, as well as employees in the Valencia Commerce Center, Valencia Industrial Center and Corporate Center.

- The Specific Plan residents and businesses would generate revenue in the form of sales taxes, property taxes, fees, etc., which would be available to the County to fund operation of public services to the site. As the proposed Specific Plan is in unincorporated Los Angeles County, the County would provide various public services to the Specific Plan site, including but not limited to, fire and police service, flood control, library service, street maintenance, and wastewater treatment. Revenues for capital improvements would also be generated by the Specific Plan directly through various forms of development fees, including, but not limited to, fire facilities fees, wastewater connection fees and school fees. The Specific Plan would pay library impacts fees in order to fully mitigate the impacts of new development on the County Public Library. Financing mechanisms for needed infrastructure improvements and supporting public service facilities could possibly include, but are not limited to, private financing, assessment districts, fee districts, and Mello-Roos districts.

- Infrastructure components (e.g., roads, water lines, wastewater lines, etc.) needed to support land uses proposed are described within the Newhall Ranch Specific Plan. A series of Plans are presented in the Specific Plan, including the Backbone Circulation Plan, the Master Trails Plan, the Conceptual Backbone Drainage Plan, the Conceptual Backbone Sewer Plan, and the Conceptual Backbone Water Plan. Each of these are described below.

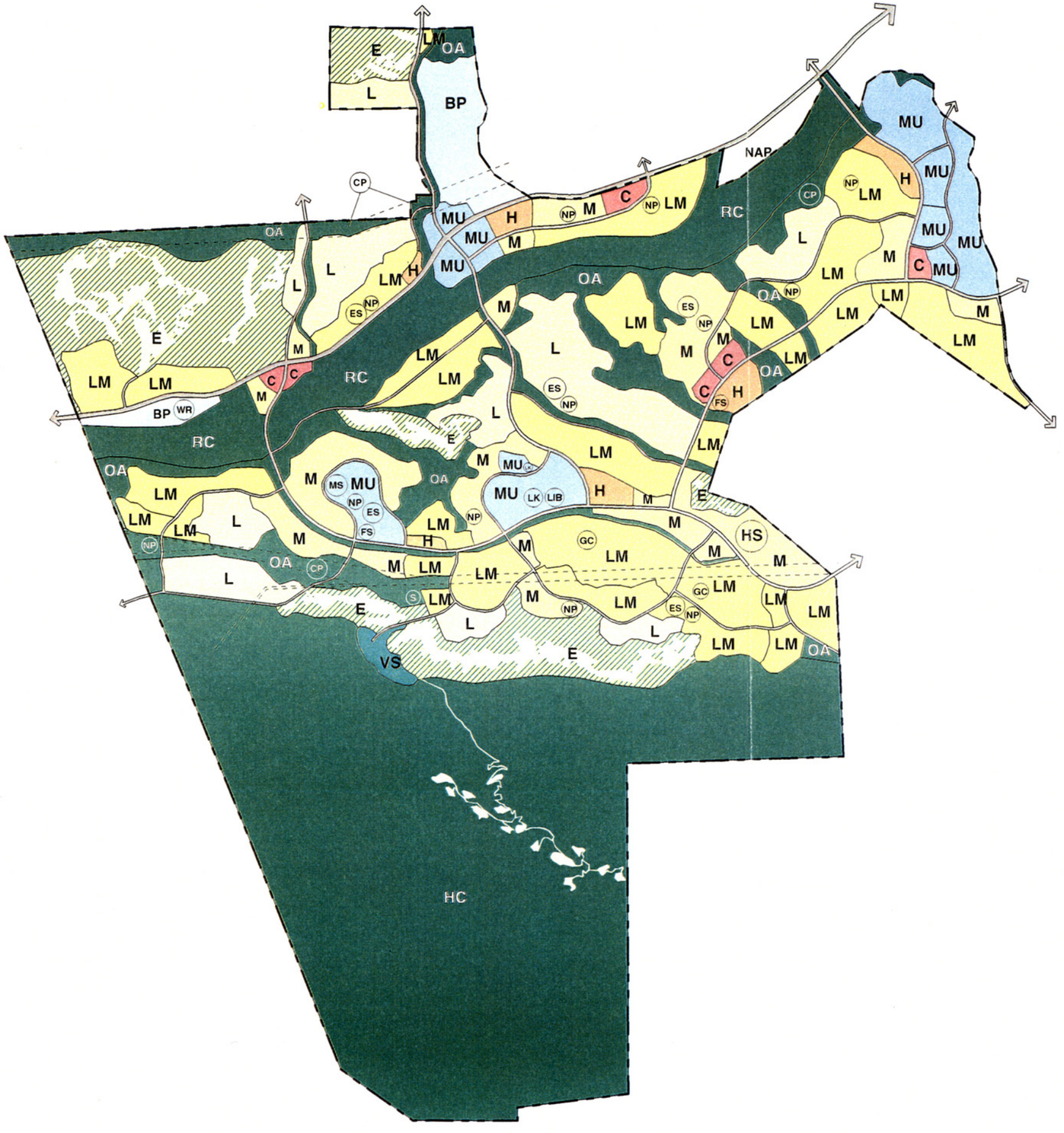
a. Proposed Land Uses

The following discussion provides an overview of the types and amount of land uses proposed by the Specific Plan, the relationship of these land uses within the framework of the land plan, and the infrastructure improvements necessary to construct the development as proposed. This description is intended to provide a sufficient level of detail from which an evaluation and review of the environmental impact of this Specific Plan can be addressed. For additional information on the proposed Specific Plan, please refer to the Newhall Ranch Specific Plan.

The Land Use Plan, shown in **Figure 1.0-3, Land Use Plan**, and summarized below in **Table 1.0-3, Newhall Ranch Statistical Summary**, provides the overall framework for development within the Specific Plan area. The community is organized into the following five Villages (see **Figure 1.0-4, Village Plan**):

- Riverwood,
- Oak Valley,
- Potrero Valley,
- Long Canyon, and
- The Mesas.

The Land Use Plan provides for the arrangement of various land uses within the Specific Plan area. Major land uses include five Residential Land Use Designations, Mixed-Use (which includes residential and non-residential uses), Commercial (retail/office), Business Park, Visitor-Serving, Community Parks, Community Open Areas, and two Special Management Areas (which are also Significant Ecological Areas). The Land Use Designations are similar to zones in that they may contain specific uses. For example, the Commercial land use designation may contain specific uses, such as supermarkets, drug stores, office buildings and the like. The specific uses permitted in each land use designation are shown in the Permitted Uses Matrix in Chapter 3 of the Specific Plan. Chapter 3 also provides Development Standards and other requirements affecting the Land Use Designations and specific land uses.



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Newhall Ranch Company

L E G E N D

- E — ESTATE RESIDENTIAL
- L — LOW RESIDENTIAL
- LM — LOW-MEDIUM RESIDENTIAL
- M — MEDIUM RESIDENTIAL
- H — HIGH RESIDENTIAL
- MU — MIXED USE
- C — COMMERCIAL (RETAIL/OFFICE)
- BP — BUSINESS PARK
- VS — VISITOR SERVING
- OA — OPEN AREA
- RC — RIVER CORRIDOR
  SPECIAL MANAGEMENT AREA (SEA #23)
- HC — HIGH COUNTRY
  SPECIAL MANAGEMENT AREA (SEA #20)
- ROADS
- SCE/UTILITY EASEMENTS

LAND USE OVERLAYS (POTENTIAL LOCATIONS):

- (CP) COMMUNITY PARK
- (NP) NEIGHBORHOOD PARK
- (ES) ELEMENTARY SCHOOL
- (MS) MIDDLE SCHOOL
- (HS) HIGH SCHOOL
- (GC) GOLF COURSE
- (LK) COMMUNITY LAKE
- (FS) FIRE STATION
- (S) ELECTRICAL SUBSTATION
- (LIB) LIBRARY
- (WR) WATER RECLAMATION PLANT

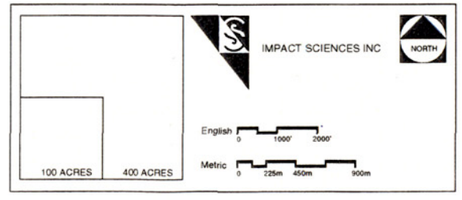
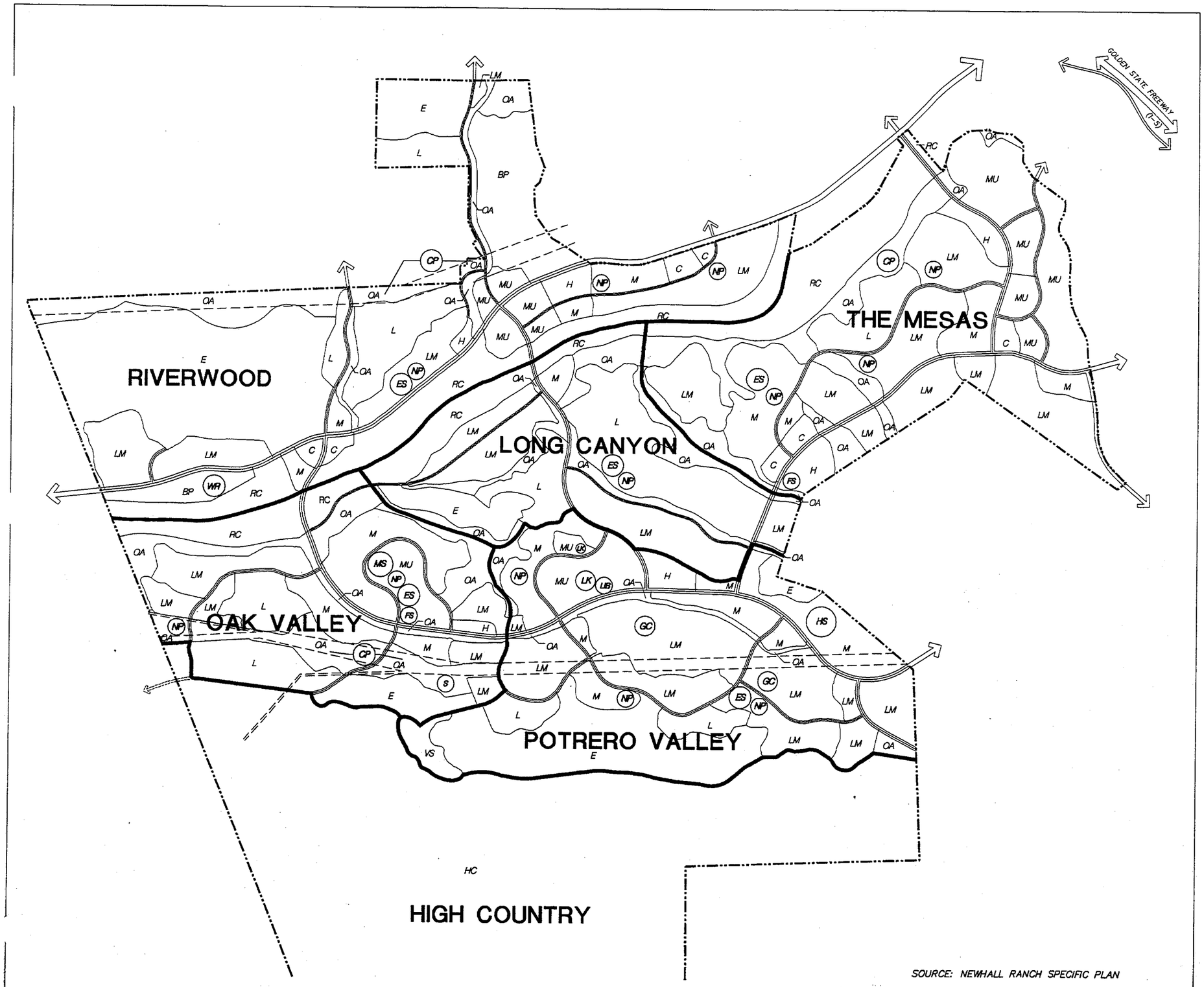


FIGURE 1.0-3

LAND USE PLAN



SOURCE: NEWHALL RANCH SPECIFIC PLAN

NEWHALL RANCH™

Newhall Ranch Company

L E G E N D

- E — ESTATE RESIDENTIAL
- L — LOW RESIDENTIAL
- LM — LOW-MEDIUM RESIDENTIAL
- M — MEDIUM RESIDENTIAL
- H — HIGH RESIDENTIAL
- MU — MIXED-USE
- C — COMMERCIAL (RETAIL/OFFICE)
- BP — BUSINESS PARK
- VS — VISITOR SERVING
- OA — OPEN AREA
- RC — RIVER CORRIDOR SPECIAL MANAGEMENT AREA
- HC — HIGH COUNTRY SPECIAL MANAGEMENT AREA
- ROADS
- SCE/UTILITY EASEMENTS

LAND USE OVERLAYS (POTENTIAL LOCATIONS):

- (CP) COMMUNITY PARK
- (NP) NEIGHBORHOOD PARK
- (ES) ELEMENTARY SCHOOL
- (MS) MIDDLE SCHOOL
- (HS) HIGH SCHOOL
- (LIB) LIBRARY
- (GC) GOLF COURSE
- (LK) COMMUNITY LAKE
- (FS) FIRE STATION
- (S) ELECTRICAL SUBSTATION
- (WR) WATER RECLAMATION PLANT

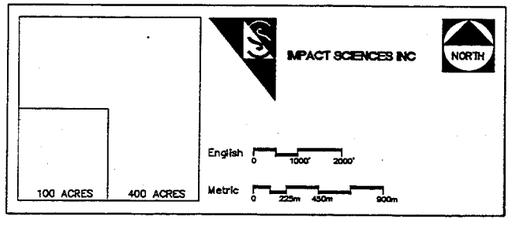


FIGURE 1.0-4

VILLAGE PLAN

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Certain other specific land uses are shown as Land Use Overlays in the Land Use Plan. These include neighborhood and community parks, schools, a golf course, water reclamation plant, two fire stations, a lake, a library facility, one electrical substation, and arterial roads. Each of these facilities, with the exception of the water reclamation plant, will be precisely sited during the future subdivision processes. A site plan has been prepared for the water reclamation plant and is discussed in **Section 5.0, Water Reclamation Plant Impacts, Mitigation Measures, and Unavoidable Significant WRP Impacts,** of this EIR.

The following discusses the Land Use Designations:

(1) Residential Land Use Designation

Five residential Land Use Designations are proposed on a total of 5,130.2 gross acres. These include Estate Residential, Low Residential, Low-Medium Residential, Medium Residential, and High Residential. **Table 1.0-4, Residential Use Categories**, generally describes each of these categories. Together, the Residential Land Use Designations provide for a range of housing product types from estate lots and homes, to single family detached and attached (duplex), and a variety of townhomes, condominiums, and apartments. The Specific Plan specifies that Second Units are permitted by right in Estate Residential land use designation areas, and in Low Residential land use designation areas only through a one for one conversion of a single family detached dwelling unit. Throughout this entire EIR, and in order to analyze a worst-case environmental condition, the proposed Specific Plan is analyzed as if it would actually result in the construction of 24,680 standard dwelling units plus the 538 Second Units (or a total of 25,218 total dwelling units). The provisions for such transfers are discussed in Chapter 3 of the Specific Plan.

Table 1.0-4
Residential Use Categories

Residential Use Category	Description
Estate Residential[1]	single-family detached estate residential development on lots that are a minimum of 20,000 square feet
Low Residential	single-family detached residential development on lots that are a minimum of 7,500 square feet
Low-Medium Residential	single-family detached, and single-family attached, and clustered single family detached and attached residential development on lots that are a minimum of 2,500 square feet
Medium Residential	single-family attached, clustered single family detached and attached, and multi-family residential development
High Residential	multi-family residential development

Source: Daft Newhall Ranch Specific Plan (July 1996).
[1] Each Estate Lot is permitted one (1) Second Unit, which may increase the number of total dwelling units by 538.

The adjustment/transfer provisions of the Specific Plan permit a total of 10 acres of residential land use designations per Village to be converted to Mixed-Use or Commercial with certain limitations. In addition, the provisions of the Specific Plan permit the transfer of dwelling units and non-residential square footage between Planning Areas.[2] The extent to which these conversions would occur and their possible locations are unknown at this time. They will be determined in the future if market conditions warrant and are, therefore, not shown in **Figure 1.0-3, Land Use Plan.** In addition, transfers and conversions are restricted by the Specific Plan so as not to permit the addition of any dwelling units or non-residential square footage.

(2) Mixed-Use

There are four Mixed-Use Village centers proposed on 597.8 gross acres in the Land Use Plan. The Mixed-Use centers would permit a combination of Commercial, office, residential, and public service and recreation uses. Depending on their location, the Mixed-Use Village centers are intended to serve a larger area than the immediate Village in which they are located. Access to the Mixed-Use centers would be facilitated by major highways, and by pedestrian trails and bikeways. The locations of these centers were selected to reduce automobile trips and to maximize pedestrian and bicycle access. The conversion provisions of the Specific Plan permit a total of 20 acres of Mixed-Use land use designations per Village to be converted to Residential with certain limitations. Also, the transfer provisions of the Specific Plan permit the transfer of commercial square footage between Commercial, Mixed-Use, or Visitor-Serving with certain limitations.

(3) Commercial (Retail/Office)

Commercial centers covering 90.7 gross acres would permit uses, such as retail, food service, banking, entertainment, and automobile-related uses. The centers would be located to provide direct access to highways. The conversion provisions of the Specific Plan permit a total of 20 acres of Commercial land use designations per Village to be converted to Residential with certain limitations. Also, the transfer provisions of the Specific Plan permit the transfer of commercial square footage between Commercial, Mixed-Use, or Visitor-Serving with certain limitations.

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[2] A Planning Area is defined in the Specific Plan as a defined geographic area within the Specific Plan (as depicted on Exhibit 5.4-1, Annotated Land Use Plan) that contains a land use designation and acreage.

(4) Business Park

Business Park uses are proposed at two locations in the Riverwood Village totaling 256.3 gross acres. One Business Park is located north of the intersection of Chiquito Canyon Road and SR-126, and the second Business Park is located on the south side of SR-126, just east of the Los Angeles/Ventura County line. The Business Parks would accommodate local and regional employment needs, and would enhance the housing/employment balance. This land use would provide for a wide range of businesses, including research and development, manufacturing, warehouse and distribution facilities, some retail uses, offices, some recreational uses, and other supporting uses. The water reclamation plant is located within the Business Park Planning Area along SR-126 near the Los Angeles/Ventura County line. The transfer provisions of the Specific Plan permit the transfer of Business Park square footage between Business Park Planning Areas with certain limitations.

(5) Visitor-Serving

A 36.7 gross acre Visitor-Serving land use is proposed to provide a cultural, recreational, and commercial amenity, as well as to serve the Newhall Ranch community. The center is proposed adjacent to the High Country Special Management Area (SMA) and is intended to accommodate low impact Visitor-Serving uses and provide controlled access to the High Country SMA. The specific uses permitted are more limited than in most other Land Use Designations. The transfer provisions of the Specific Plan would permit the transfer of commercial square footage between Commercial, Mixed-Use, or Visitor-Serving with certain limitations.

(6) Open Areas

Approximately 5,852 gross acres of land are proposed for major open area within the Specific Plan, including the 3,949.9-acre High Country SMA, the 813.0-acre River Corridor SMA, and 1,088.8 acres of Open Area, which include 274 acres of Community Parks.

(a) High Country Special Management Area

The High Country SMA is designed to protect the natural resources within Los Angeles County's Significant Ecological Area (SEA) 20, which includes oak savannas, high ridgelines, and various canyon drainages, including Salt Creek, a regionally significant wildlife corridor which provides an important habitat link to the Santa Clara River. Fifteen Estate Residential lots are also proposed in the north-central portion of this SMA, along with a system of unimproved trails.

(b) River Corridor Special Management Area

The Santa Clara River Corridor SMA (River Corridor) is designed to protect the sensitive biological resources in SEA 23, which include wetlands and habitats for the endangered Unarmored Threespine Stickleback fish and the least Bell's vireo bird.

(c) Open Area

The Open Area land use designation (1,088.8 acres) includes Community Parks and other Open Area which includes major drainages, significant landforms, oak woodlands and savannas outside of the SEAs, and cultural sites. This Open Area functions as a differentiation between development areas and protects significant land forms and natural resources that are to be preserved. Some of the Open Area is anticipated to be used for active recreation, such as hiking on trails, and passive recreational opportunities, such as the Community Park or vista points and picnic areas.

Included in the Open Area are three large Community Parks totaling 274 acres, which are planned for both active and passive recreational uses: Riverwood Community Park, Potrero Canyon Community Park, and The Mesas Community Park. Community Parks are typically located adjacent to natural and open areas to maximize the variety of recreational uses. The parks would be accessed by the proposed roadway system, as well as by pedestrian trails. This Open Area would allow for a wide variety of recreational and support uses, such as ball fields, picnic areas, and parking lots. Please refer to **Section 4.20 (Parks, Recreation and Trails)** and the Specific Plan for further discussion of Potrero Canyon Community Park, Riverwood Community Park, and The Mesas Community Park. The final configuration and determination of uses in each park would be determined during the subdivision process.

The balance of the Open Area (814.8 acres) includes major drainages, significant landforms, oak woodlands and savannas outside of the SEAs, and cultural sites.

b. Land Use Overlays

Land use overlays proposed for the Specific Plan site are for neighborhood parks (60 acres), schools (95 acres), a golf course (180 acres), two fire stations (2 acres), one library (2 acres), a water reclamation plant (15 acres), a lake (15 acres), three Community Parks (274 acres), one electrical substation (2 acres), and arterial roads (331 acres). With the exception of the WRP site, the locations and acreages of these

overlays are approximate and are provided for purposes of this environmental analysis. Final siting of these overlays would occur in conjunction with future subdivision maps. The specific location of the proposed WRP is described above and illustrated in **Section 5.0, Water Reclamation Plant Impacts, Mitigation Measures, and Unavoidable Significant WRP Impacts,** of this EIR (see **Figures 5.0-1** through **5.0-3**).

(1) Neighborhood Parks

Twelve 5-acre neighborhood parks are proposed within the Residential and Mixed-Use areas of the Specific Plan, five of which are anticipated to be located adjacent to elementary schools. These parks would provide a wide variety of active and passive recreational uses to the community, as well as support facilities, such as parking and maintenance areas.

(2) Schools

The Newhall Ranch Specific Plan site presently lies within the Newhall (K-6), Castaic Union (K-8), and William S. Hart Union High (7-12) School Districts. It is proposed that school district boundaries would be adjusted such that the entire Newhall Ranch Specific Plan would be served by the Newhall School District for grades K through 6, and by the William S. Hart Union High School District for grades 7 through 12. Based on preliminary projections, the Land Use Plan reserves sites for five elementary schools, one junior high school, and one high school. One elementary school is proposed in each of the five Villages. One junior high school is proposed in the Village of Oak Valley and one high school is proposed in the Village of Potrero Valley. The specific locations of the schools would be finalized during the future subdivision process.

(3) Golf Course

One eighteen-hole golf course is proposed in the residential Village of Potrero Valley. The golf course may include accessory features, such as a clubhouse and other recreational facilities, and would complement the public systems of parks, trails, and Open Area. The golf course would encompass land within residential land uses, utility easements, and Open Areas, and is intended to serve the growing market for golf within the Santa Clarita Valley region, as well as the future residents of Newhall Ranch.

(4) Fire Stations

Two new fire stations are proposed on the Land Use Plan; one in the Village of Oak Valley and the other in The Mesas Village. These approximately one-acre sites will have direct access to Highways, with final locations determined at the subdivision stage. A third station off the Newhall Ranch site would be required to serve the Specific Plan. It would be located on the west side of Chiquito Canyon Road at the present location of the Los Angeles County Fire Department Del Valle Fire Training Center.

(5) Library

One library site (approximately two acres in size) is integrated into the Land Use Plan. It is tentatively planned for inclusion into the Potrero Valley Mixed-Use Planning Area.

(6) Water Reclamation Plant

A 7.7-million gallon per day water reclamation plant (WRP) on approximately 15 acres is proposed in the Village of Riverwood, adjacent to the Santa Clara River and within a proposed Business Park. Additional detail regarding the WRP is provided below in this section of the EIR and a project-level environmental analysis is provided in **Section 5.0, Water Reclamation Plant Impacts, Mitigation Measures, and Unavoidable Significant WRP Impacts.**

(7) Community Lake

A man-made community lake consisting of approximately 15 acres of water area is proposed within the Mixed-Use core located in the Village of Potrero Valley.

(8) Electrical Substation

An electrical substation on approximately 2 acres is located within the Community Open Area between Oak Valley and Potrero Valley.

(9) Arterial Roadways

Major roadways would comprise approximately 331 gross acres of the Specific Plan area. They include the southern extensions of San Martinez Grande Road (as Potrero Valley Road), Chiquito Canyon Road (as Long Canyon Road), and Commerce Center Drive, as well as the western extensions of Magic Mountain Parkway and Valencia Boulevard. Construction of the former three roadways would entail the construction of three bridges over the Santa Clara River to serve Oak and Potrero Valleys, Long Canyon, and The Mesas, respectively.

c. Development Plans

In addition to the land uses already described, the Specific Plan includes several development plans, including the Land Use Plan; a Mobility Plan; Conceptual Backbone Drainage, Water and Sewer Plans; and a Conceptual Grading Plan. Each is discussed below.

(1) Land Use Plan

The Land Use Plan (discussed above), along with the statistical summary for the Specific Plan (**Table 1.0-3, Newhall Ranch Statistical Summary**), provide the overall framework for development within the Specific Plan area, which is organized into the five Villages of Riverwood, Oak Valley, Potrero Valley, Long Canyon, and The Mesas (see **Figure 1.0-4, Village Plan**). The physical boundaries of each of these Villages are defined by natural landmarks and topographical features. Each Village would contain a focal point or activity core, differing in size and amenities according to the population and market served, with the four largest Villages to be anchored by a Mixed-Use center or core containing retail, office, residential, recreational, and public uses.

(2) Mobility Plan

The Mobility Plan (**Figure 1.0-5, Backbone Circulation Plan**) for the Specific Plan proposes a hierarchical[3] and integrated approach to transportation and circulation. The following is a discussion of the proposed roadway network, trails system, and measures to facilitate transit. Please refer to Sections **4.8 (Traffic/Access)** and **4.20 (Parks, Recreation and Trails)** for a detailed discussion of the existing and proposed roadway and trail networks, respectively.

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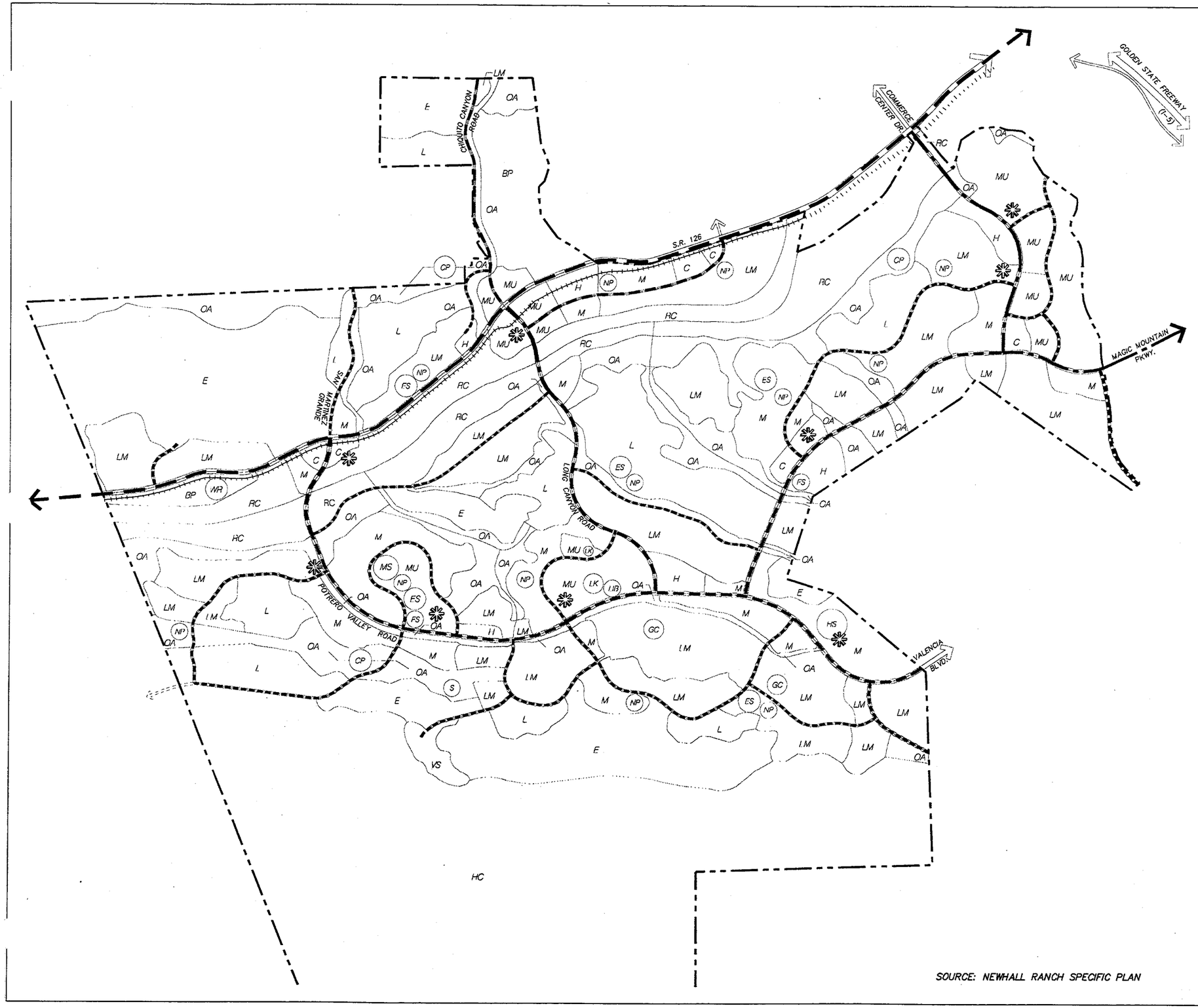
3 The Newhall Ranch hierarchy of roads is designed to correspond to the Los Angeles County Subdivision Planning and Zoning Code, Chapter 21.24.



SOURCE: NEWHALL RANCH SPECIFIC PLAN

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L E G E N D

- STATE HIGHWAY
- MAJOR HIGHWAY
- SECONDARY HIGHWAY
- COLLECTOR
- RAIL TRANSIT ROW
- BUS PULL-IN

IMPACT SCIENCES INC

NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

10 ACRES | 40 ACRES | 180 ACRES

FIGURE 1.0-5
BACKBONE CIRCULATION PLAN

2/19/96

(a) Proposed Roadway Improvements

The roadway network of the Newhall Ranch Mobility Plan has been designed as an extension of the regional circulation system. Primary access to the Specific Plan site would continue to be from SR-126; additional access is proposed through linkages of internal Specific Plan roadways with existing and/or planned off-site extensions of Valencia Boulevard and Magic Mountain Parkway which would connect with I-5. Local streets would be designed at the subdivision map processing stage and would also be consistent with Los Angeles County local street standards.

The Master Circulation Plan of the Specific Plan identifies SR-126 as an eight-lane State Highway from the I-5 Freeway to its intersection with Commerce Center Drive where it transitions to a six-lane State Highway until it reaches Potrero Valley Road (San Martinez Grande Road). It would then transition to a four-lane State Highway west of Potrero Valley Road to the County Boundary. Between I-5 and Chiquito Canyon Road, SR-126 would ultimately be constructed as a State Highway with grade separated crossings and interchanges at Chiquito Canyon Road, Wolcott Way, and Commerce Center Drive. The road and interchanges will be built to Caltrans' standards.

Commerce Center Drive would be improved to Major (6-lane) Highway standards and would extend from SR-126, south into the Village of The Mesas where it would intersect with the proposed Magic Mountain Parkway extension. This connection would provide easy access to the off-site employment and commercial land uses of the Valencia Commerce Center and would link the more intense Mesas Village Center with the SR-126 and I-5 interchanges. Commerce Center Drive would incorporate a community trail within an expanded parkway.

Chiquito Canyon Road north of SR-126 is proposed to be realigned to provide safer access than currently exists to off-site residential areas located to the north in the Community of Val Verde, and would connect one of the proposed Newhall Ranch Business Parks with SR-126. The road would be designed as a Limited Secondary Highway and its ultimate alignment would conform with SR-126 intersection requirements. South of SR-126, Chiquito Canyon Road would become Long Canyon Road, which would be designed as a Major (6-lane) Highway in the vicinity of its intersection with SR-126 and would transition to a Secondary (4-lane) Highway south of the River. Additional parkway width would be provided to incorporate a community trail.

San Martinez Grande Road north of SR-126 would be realigned so as to connect with Potrero Valley Road at its intersection with SR-126. It would be designed as an urban collector and would feature a trail that would provide access to both the Riverwood Community Park and the Regional River Trail (discussed below). South of SR-126, San Martinez Grande Road would become Potrero Valley Road, which would be improved as a Secondary (4-lane) Highway. Additional parkway width would be provided to incorporate a community trail.

Valencia Boulevard would be extended westerly from its current terminus at the I-5 along an existing easement on the adjacent property, and would transition into the proposed Potrero Valley Road. This extension would be categorized as a Secondary (4-lane) Highway. Additional parkway width will be provided adjacent to the road for a Community Trail.

Magic Mountain Parkway would be extended from its existing terminus at Magic Mountain Theme Park westerly through the eastern portion of the property, and would intersect the proposed Potrero Valley Road in Potrero Valley. This roadway extension would be categorized as a Major (6-lane) Highway east of Commerce Center Drive, and as a Secondary (4-lane) Highway west of Commerce Center Drive. The parkway would also incorporate a community trail (discussed below). **Figure 1.0-6, Off-Site Road Alignments,** illustrates the generalized off-site alignments for the proposed extensions of Magic Mountain Parkway and Valencia Boulevard.

As part of the Specific Plan, the applicant is requesting the deletion of Pico Canyon Road from the County's Master Plan of Highways. For further discussion on circulation, please refer to **Section 4.8 (Traffic/Access)** of this EIR, and the Specific Plan.

(b) Master Trails Plan

The Master Trails Plan, illustrated in **Figure 1.0-7,** proposes a comprehensive system of bicycle and pedestrian circulation throughout the Specific Plan site which would provide connections to a regional trail system. This community-wide system of pedestrian, bicycle, and unimproved trails would implement the County trail network in the area. The Plan includes the following hierarchy of trails:

- Regional River Trail,
- Community Trails,
- Pathways,
- Local Trails, and
- Unimproved Trails.

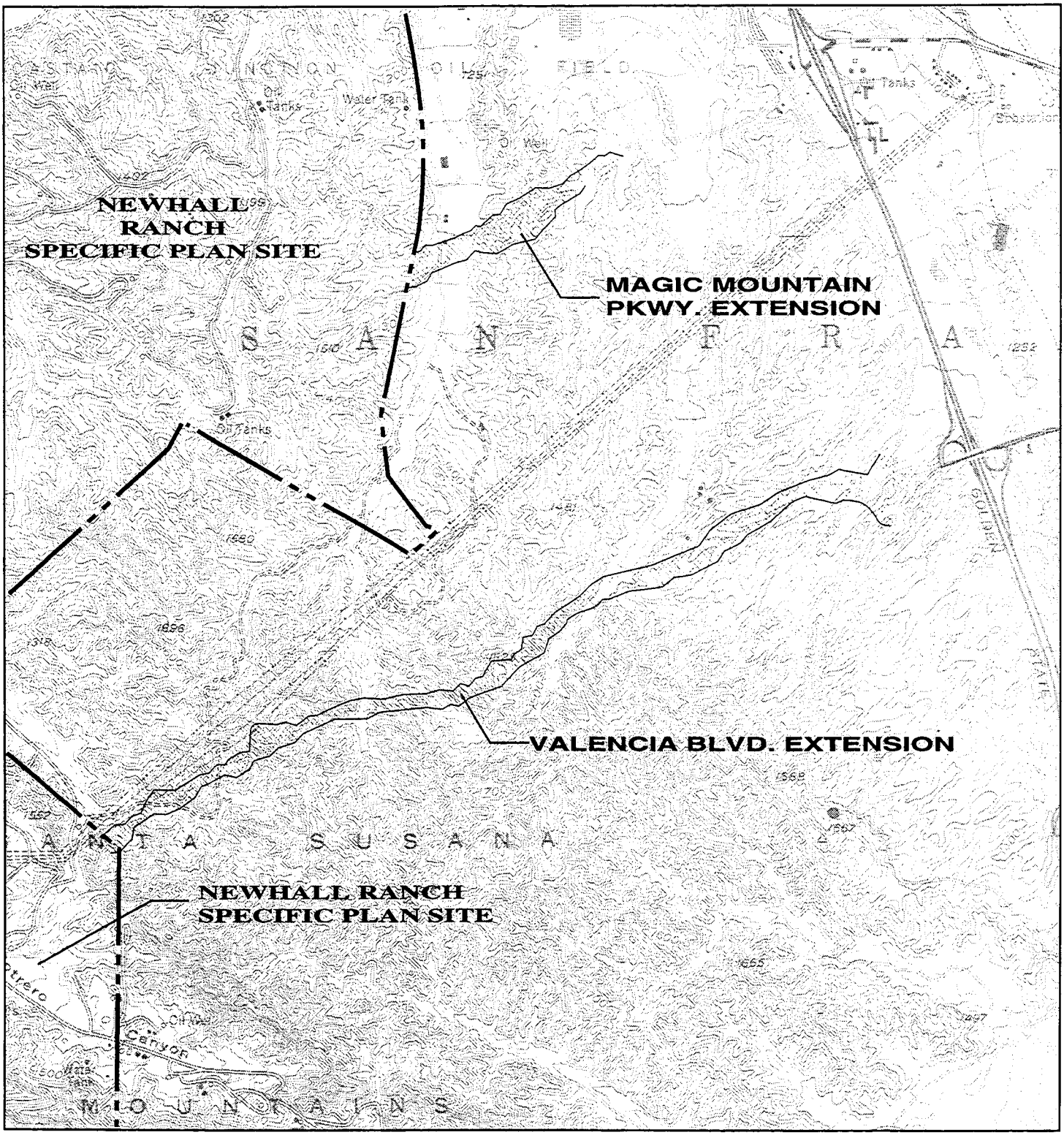

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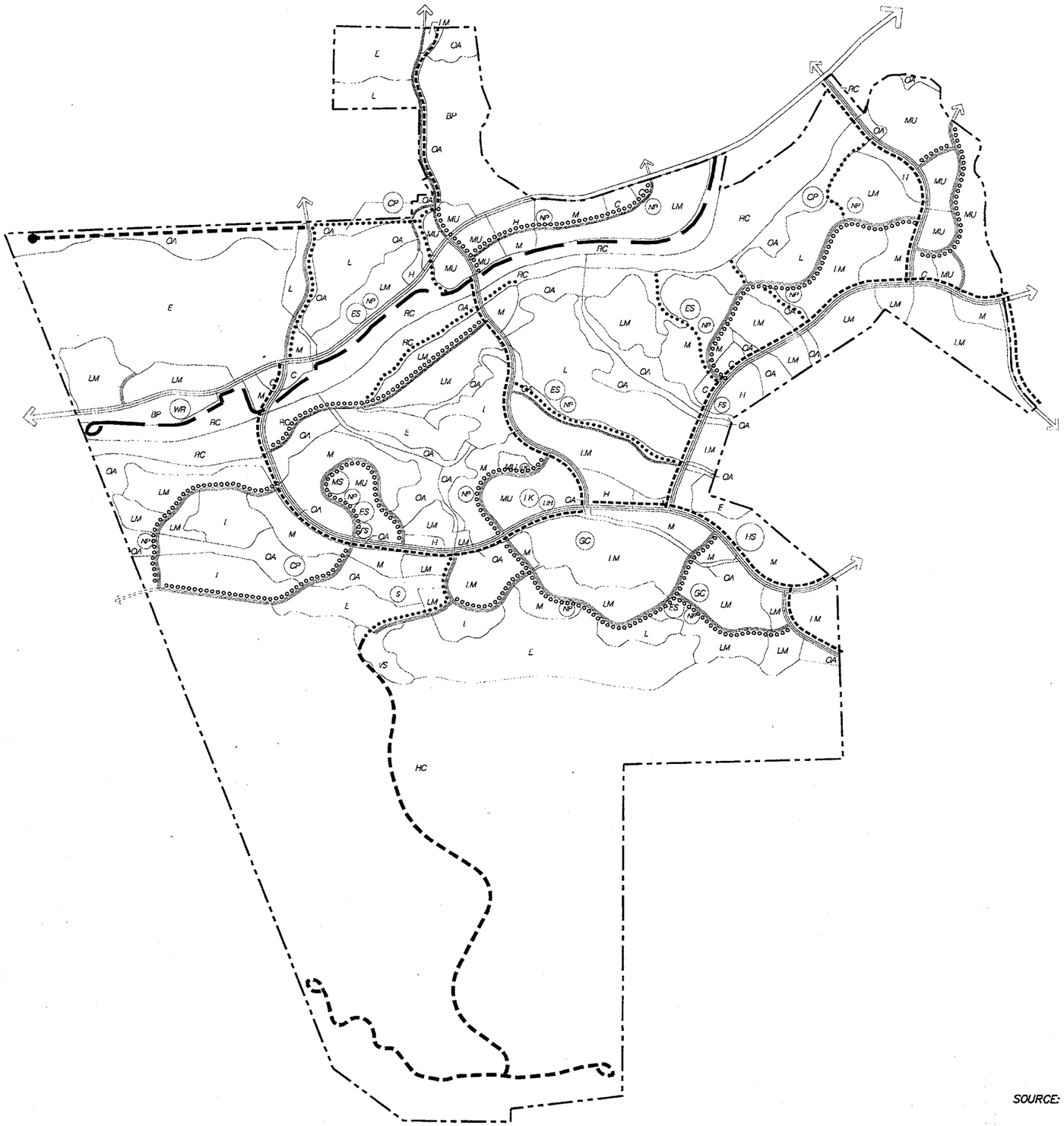
FIGURE 1.0-6

OFFSITE ROADWAY ALIGNMENTS



SOURCE: NEWHALL RANCH SPECIFIC PLAN

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L E G E N D

- REGIONAL RIVER TRAIL
- COMMUNITY TRAIL
- LOCAL TRAIL
- PATHWAYS
- UNIMPROVED TRAILS

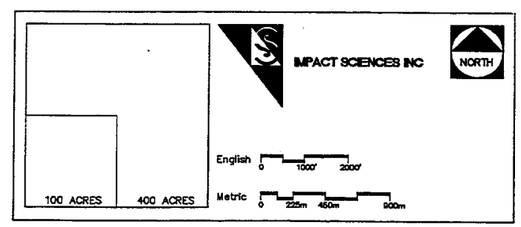


FIGURE 1.0-7
MASTER TRAILS PLAN

2/19/96

As a result of Specific Plan implementation, the portions of the County's Santa Clara River Trail and the Pico Canyon Trail, which are located on the Specific Plan site, would be constructed. However, to facilitate the construction of the Pico Canyon Trail, the applicant is requesting an amendment to the County's Master Plan of Trails to allow for its realignment. Please refer to **Section 4.20 (Parks, Recreation and Trails)** for further discussion of the Master Trails Plan.

(c) Transit Improvements

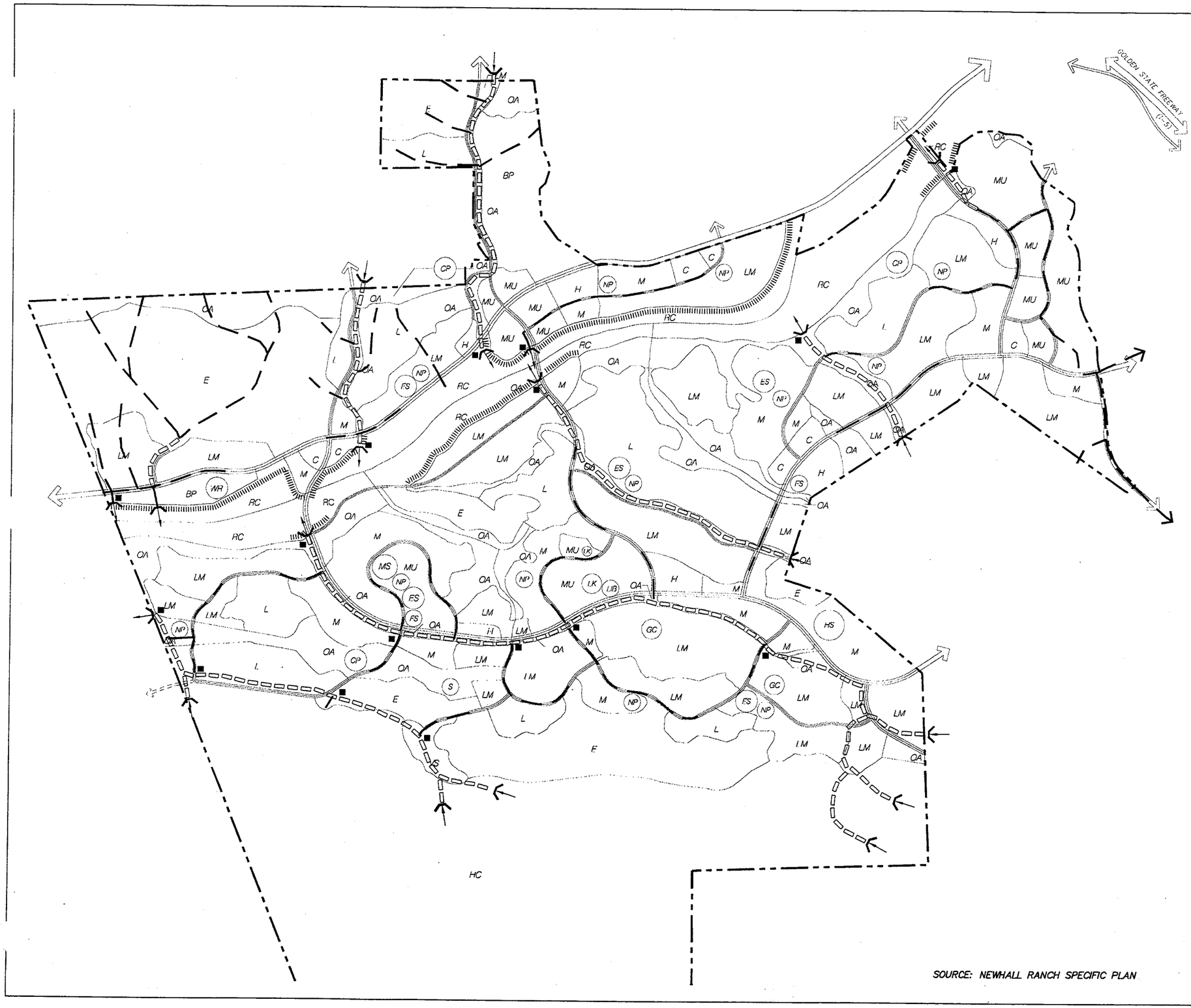
The road system would serve as the basic transit infrastructure with collector roads serving Village neighborhoods and major and secondary highways linking Village centers and providing inter-Village connections.

The major roadways of the community would feed into SR-126 at Commerce Center Drive, Chiquito Canyon/Long Canyon Road, and San Martinez Grande Road/Potrero Valley Road for regional access. Other major access points would be located along the eastern side of the community, providing possible transit access to the Magic Mountain area and the employment centers adjacent to the I-5 Freeway corridor. Major and Secondary Roadway design would incorporate provisions for bus pull-ins to be consistent with transit needs. These locations would be central to pedestrian activity in each Village.

The Mobility Plan anticipates the eventual extension of a Metrolink rail line along the SR-126 corridor, linking Los Angeles and Ventura Counties. Parallel to, south of, and adjacent to SR-126, a transit corridor would be reserved along the east/west length of Newhall Ranch to provide the opportunity for future rail service. Adjacent to this transit corridor, an interim park-and-ride lot is proposed south of SR-126 near the existing intersection with Wolcott Way, which could ultimately transition into a rail/transit station.

(3) Conceptual Backbone Drainage Plan

The Conceptual Backbone Drainage Plan (**Figure 1.0-8**) is designed to provide drainage and flood protection to the Specific Plan and to maintain storm water flows from the Specific Plan during and after build-out at a level approximately equal to or less than pre-development levels. The Santa Clara Riverbed would largely be left in its natural state and a soft bottom retained; bank stabilization would be placed along and outside of its floodway only in areas necessary to protect adjacent development. Drainage courses that are tributary to the Santa Clara River would be open drainage systems where the runoff flows would exceed 2,000 cubic feet per second. Some tributary drainages may be relocated. Please refer to **Section 4.2 (Flood)** for additional discussion of the Conceptual Backbone Drainage Plan.



SOURCE: NEWHALL RANCH SPECIFIC PLAN

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L E G E N D

- OPEN DRAINAGE
- CLOSED SYSTEM
- INLET
- OUTLET
- N.P.D.E.S. WATER QUALITY BASIN
- BANK STABILIZATION

IMPACT SCIENCES INC

NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

10 ACRES 40 ACRES 160 ACRES

FIGURE 1.0-8

CONCEPTUAL BACKBONE DRAINAGE PLAN

(4) Conceptual Backbone Water Plan

On-site storage and distribution systems to provide the Specific Plan with required levels of water service are illustrated in the Conceptual Backbone Water Plan (**Figure 1.0-9**). The Specific Plan is within the service territory of the Castaic Lake Water Agency (CLWA), the wholesale provider of water from the State Water Project. The Valencia Water Company is expected to be the retail water provider for this Specific Plan. Sources of new water for the Specific Plan are anticipated to be imported State water, reclaimed water from the water reclamation plant proposed as part of the Newhall Ranch Specific Plan, and flood flows from Castaic Creek.

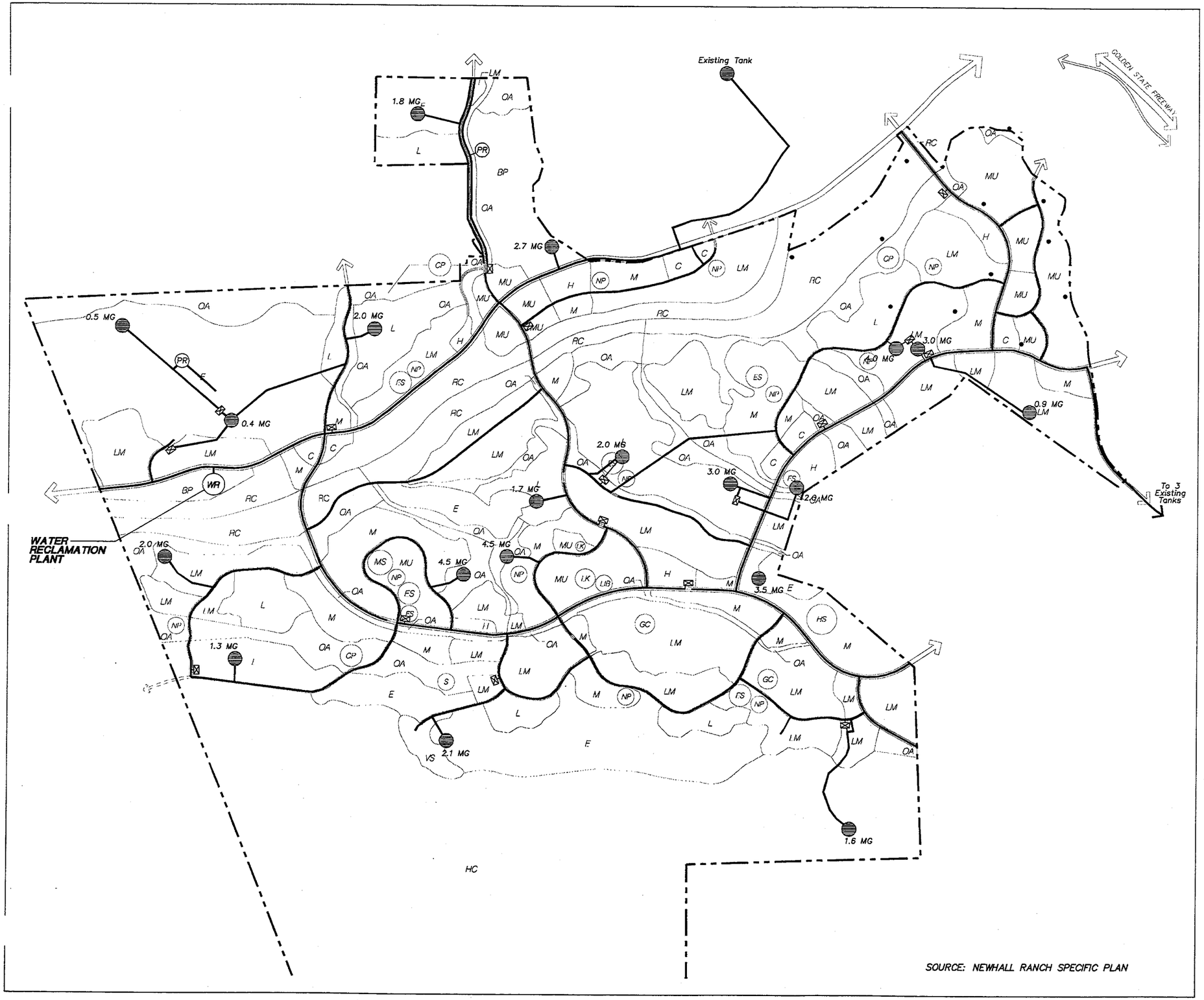
Reclaimed water from the proposed water reclamation plant would be used for irrigating multi-family residential common areas, community Open Areas, the golf course, major road and parkway landscaping, school yard and park landscaping, and landscaping around commercial/office/community facilities. It could also be the water source for the community lake. Wherever mandated by the County of Los Angeles, potable water would be used for park and recreation area irrigation. Please refer to **Section 4.11 (Water Resources)** for further discussion on this topic.

(5) Conceptual Backbone Sewer Plan

A wastewater collection and treatment system comprised of gravity flow and force mains, pump stations, and a water reclamation plant (WRP) is proposed within the Conceptual Backbone Sewer Plan (**Figure 1.0-10**).

The water quality limits for treated WRP effluent, as established by Federal and State regulations, are determined by the end use of the treated effluent. Treated Newhall Ranch WRP effluent is intended for reclamation and reuse on the Newhall Ranch Specific Plan site; however, some discharge of treated effluent to the River may occur during winter months, when the reclaimed water supply could exceed demand.

The proposed Newhall Ranch WRP would consist of primary, secondary, and tertiary treatment facilities, as well as solids handling and disinfection facilities. Several accessory facilities would be needed to support the water reclamation facilities: an operations and administration building, a maintenance and repair facility, and a chemical handling building. Please refer to **Section 4.12, Wastewater Disposal,** and **Section 5.0, Water Reclamation Plant Impacts, Mitigation Measures, and Unavoidable Significant WRP Impacts**, for further discussion on this topic.



SOURCE: NEWHALL RANCH SPECIFIC PLAN

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L E G E N D

- WATER TANK SITE (POTABLE AND/OR RECLAIMED)
- PUMP STATION
- PRESSURE REDUCTION STATION
- POTENTIAL AQUIFER STORAGE AND RECOVERY WELLS (ASR)
- WATER AND/OR RECLAIMED WATER LINES
- WR WATER RECLAMATION PLANT

IMPACT SCIENCES INC

NORTH

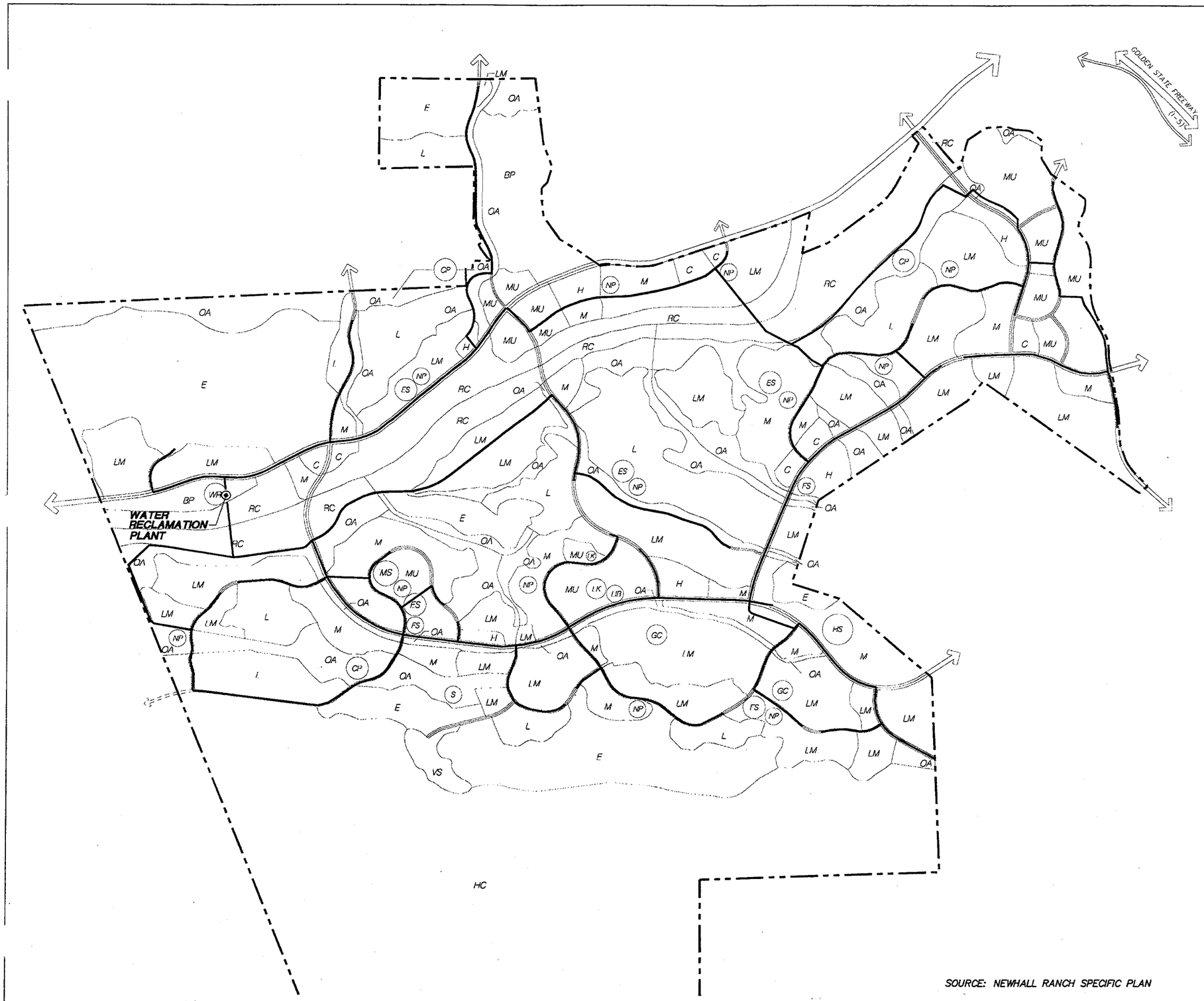
10 ACRES 40 ACRES 160 ACRES

English 0 1000' 2000'

Metric 0 225m 450m 900m

FIGURE 1.0-9
CONCEPTUAL BACKBONE WATER PLAN

2/19/96



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L E G E N D

SEWER LINE SYSTEM

PROPOSED WATER RECLAMATION PLANT

IMPACT SCIENCES INC

NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

10 ACRES 40 ACRES 160 ACRES

FIGURE 1.0-10

CONCEPTUAL BACKBONE SEWER PLAN

2/19/96

(6) Resource Management Plan

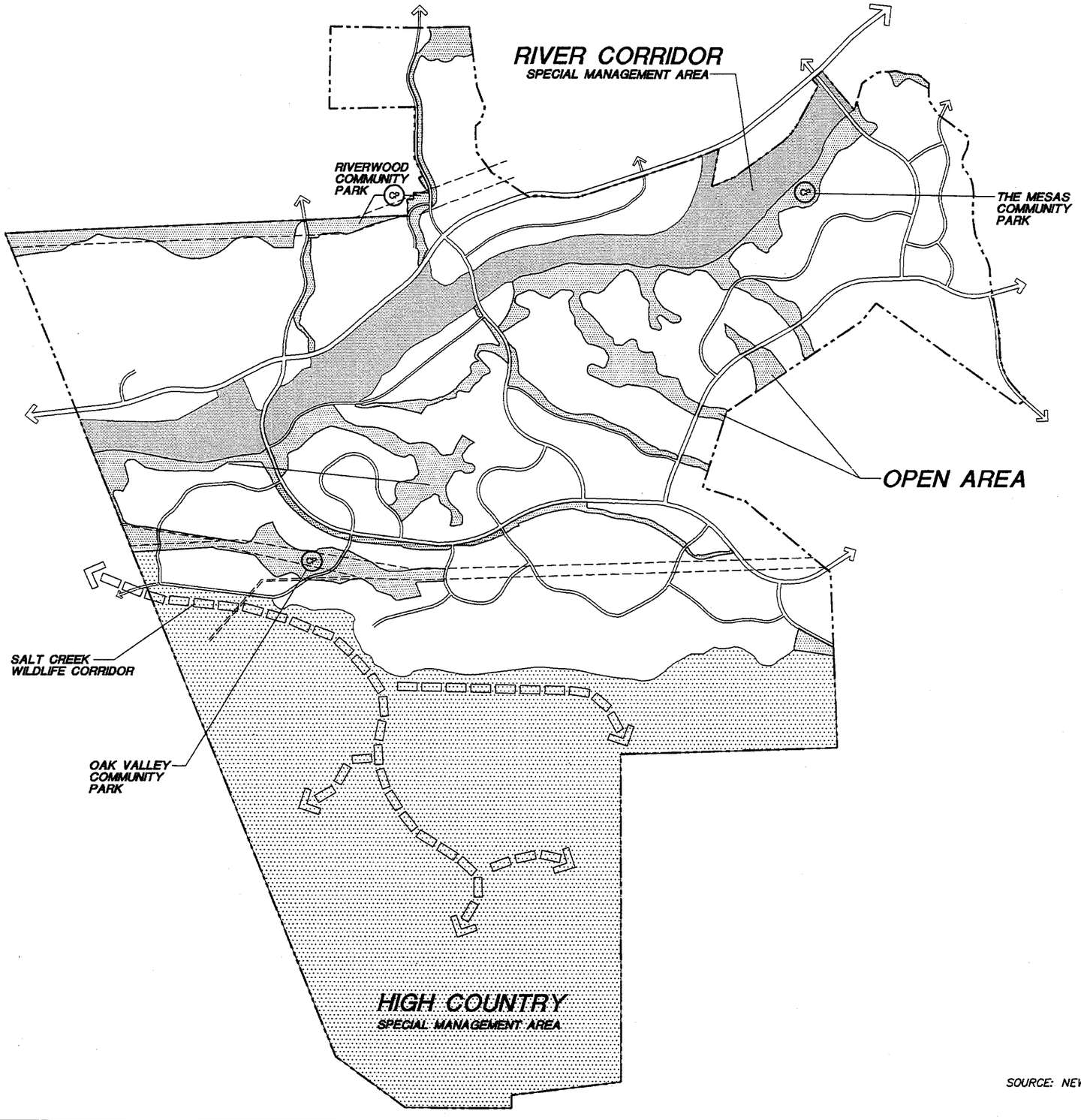
The size, topography, and other characteristics of the Specific Plan site made it possible, and desirable, to set aside a large portion of the site as Open Area in order to preserve biological resources. To facilitate this, a Resource Management Plan (RMP) was prepared as part of the Specific Plan to manage important biological and other features of the site and to effectively incorporate them into the overall Specific Plan design (see **Figure 1.0-11, Major Open Areas and Figure 1.0-12, Candidate Riparian Restoration/Enhancement Areas**). Resources and issues addressed within the Resource Management Plan include:

- the Santa Clara River SMA corridor (813 acres),
- the High Country SMA, a large block of relatively undisturbed habitats on higher elevations of the Santa Susana Mountains (3,949.9 acres),
- the Salt Creek drainage corridor (part of the High Country SMA), which serves as a major wildlife corridor,
- Open Area (1,088.8 acres),
- cultural resources, such as the Asistencia historical site,
- oak resources, and
- wildfire fuel modification for fire protection.

If necessary for Specific Plan impact mitigation, restoration and/or enhancement could occur in portions of the site that are identified in the Resources Management Plan contained in the Specific Plan. For further discussion on these biological resources and restoration plans, please refer to **Section 4.6 (Biota) and Appendix 4.6** of this EIR, and the proposed Specific Plan.

(7) Recreation/Open Area Plan

The Recreation/Open Area Plan, illustrated in **Figure 1.0-13,** is consistent with the Los Angeles County General Plan and Santa Clarita Valley Area Plan goals and objectives [see **Section 4.20 (Parks, Recreation, and Trails)** for further discussion of Specific Plan consistency with these plans], and delineates approximately 6,175 acres for parks, recreation, and Open Area.



SOURCE: NEWHALL RANCH SPECIFIC PLAN

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L E G E N D

OPEN AREA
- SIGNIFICANT LANDFORMS
- MAJOR CREEKS AND DRAINAGES
- OAK WOODLAND AND SAVANNAHS
- COMMUNITY PARKS (CP)
- CULTURAL SITES

RIVER CORRIDOR
- SPECIAL MANAGEMENT AREA (SEA #23)

HIGH COUNTRY
- SPECIAL MANAGEMENT AREA (SEA #20)
- SALT CREEK WILDLIFE CORRIDOR

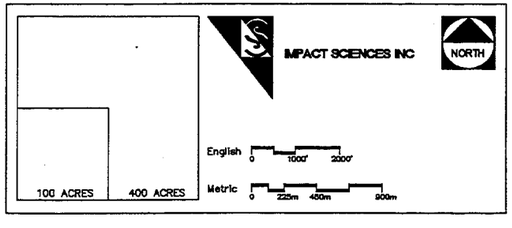
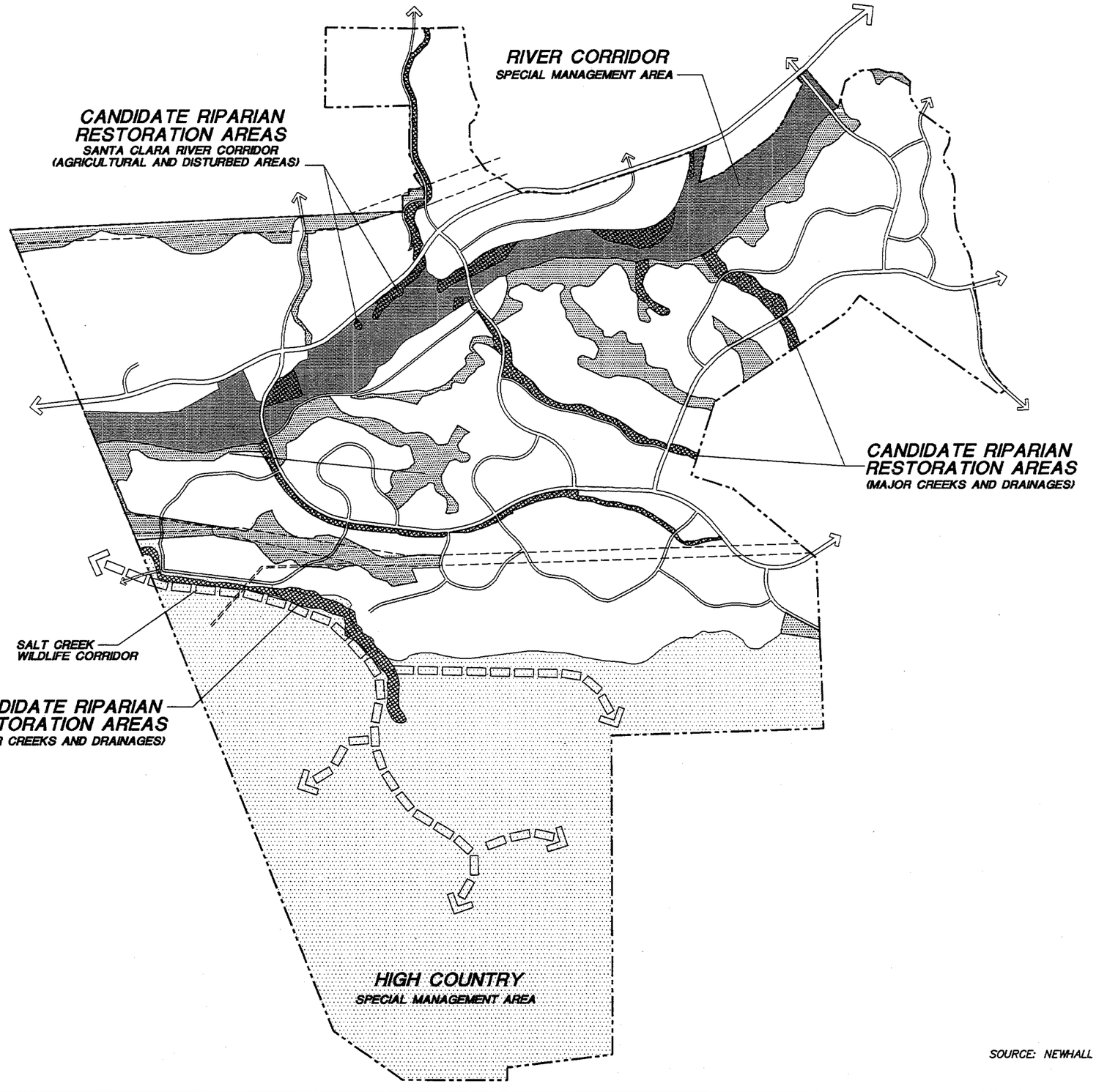


FIGURE 1.0-11
MAJOR OPEN AREAS

1/96



SOURCE: NEWHALL RANCH SPECIFIC PLAN

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Newhall Ranch Company

L E G E N D

- CANIDATE RIPARIAN RESTORATION AREAS
- OPEN AREA
- RIVER CORRIDOR SPECIAL MANAGEMENT AREA
- HIGH COUNTRY SPECIAL MANAGEMENT AREA
- WILDLIFE CORRIDOR

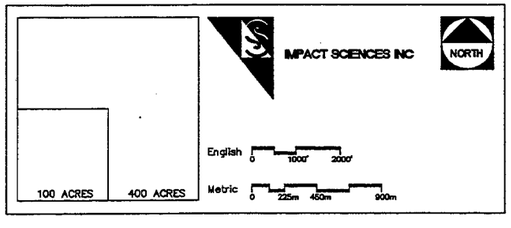
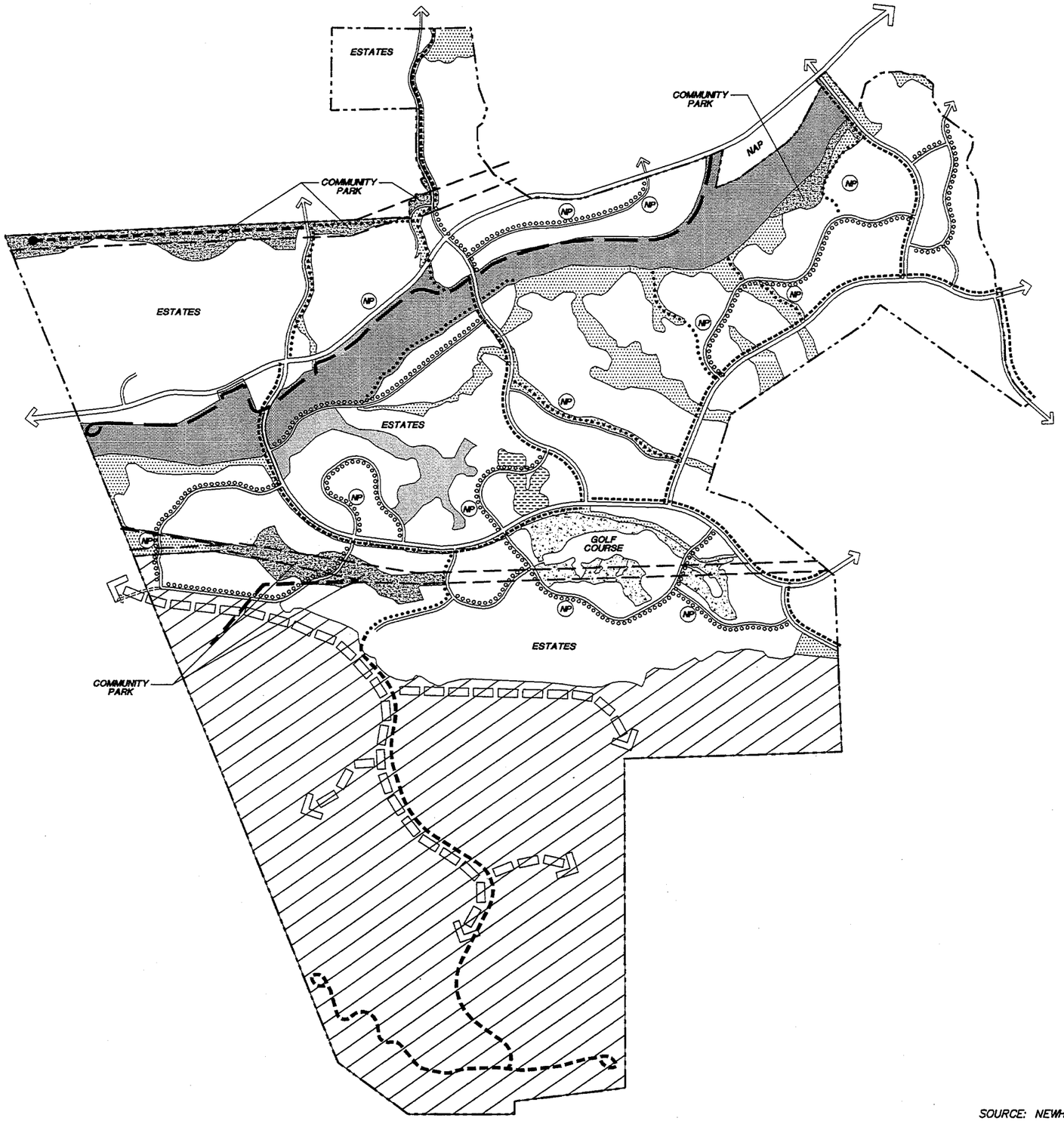


FIGURE 1.0-12
CANDIDATE RIPARIAN RESTORATION/ ENHANCEMENT AREAS



SOURCE: NEWHALL RANCH SPECIFIC PLAN

NEWHALL RANCH™
Newhall Ranch Company

L E G E N D

RECREATION AREAS

- NEIGHBORHOOD PARK (Conceptual locations)
- COMMUNITY PARKS
- GOLF COURSE (Conceptual location)
- COMMUNITY LAKE (Conceptual location)
- REGIONAL RIVER TRAIL
- COMMUNITY TRAIL
- LOCAL TRAIL
- PATHWAYS
- UNIMPROVED TRAILS

MAJOR OPEN AREAS

- OPEN AREA
- SPECIAL MANAGEMENT AREA - RIVER CORRIDOR
- SPECIAL MANAGEMENT AREA - HIGH COUNTRY
- WILDLIFE CORRIDOR

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NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

100 ACRES 400 ACRES

FIGURE 1.0-13
RECREATION/ OPEN AREA PLAN

2/19/96

This area includes:

- twelve public Neighborhood Parks totaling 60 acres,
- 274 acres of public Community Parks,
- 815 acres of other Open Area,
- a 15-acre lake,
- a Golf Course (approximately 180 acres),
- 3,950 acres of High Country SMA,
- 813 acres of Santa Clara River Corridor SMA, and
- approximately 68 acres of trails.

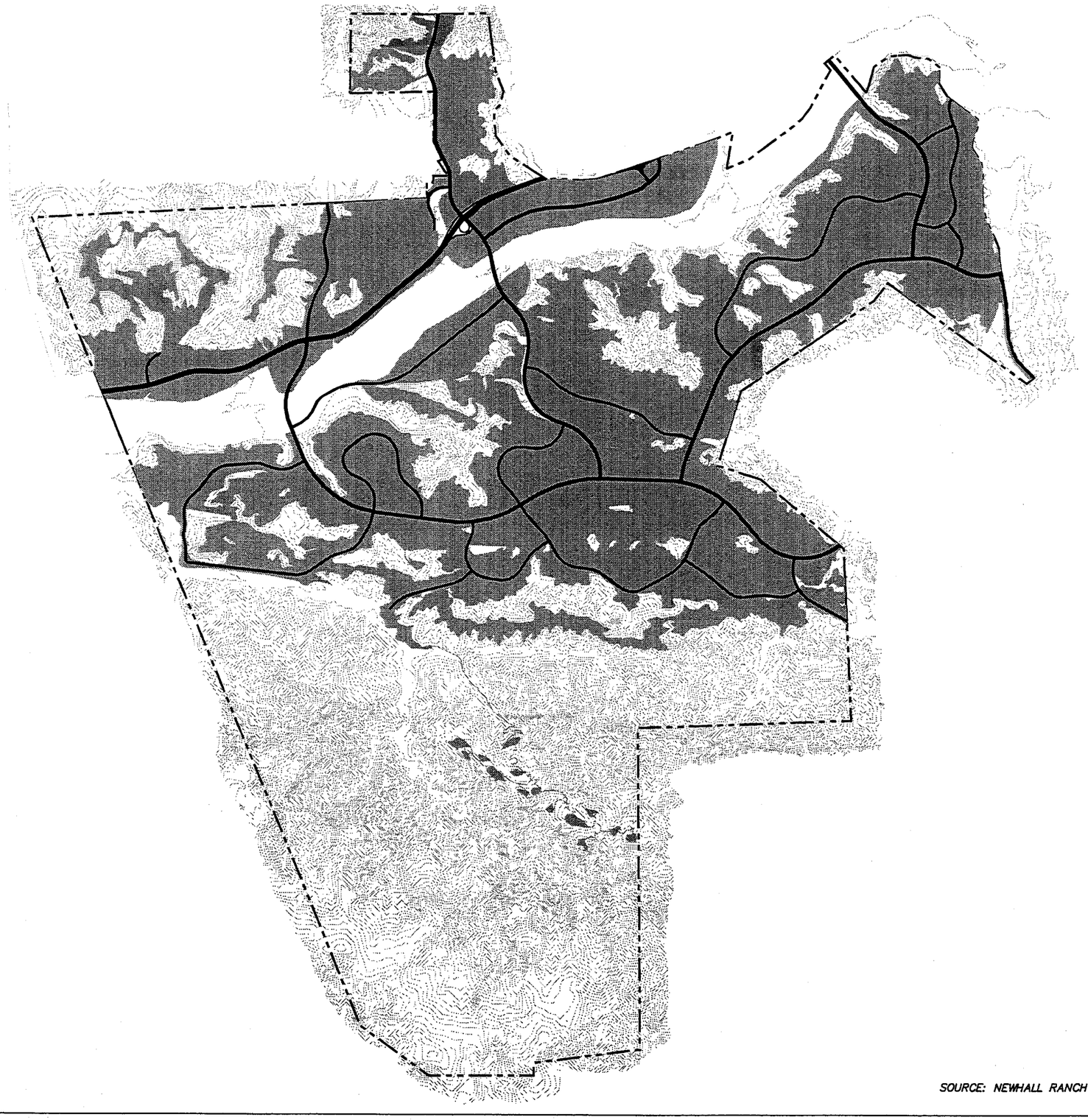
Land resources devoted to parks and Open Area for passive and active recreational uses, as well as preservation, make up approximately 52 percent of the Specific Plan area.

The Parks and Recreation/Open Area Plan delineates three Community Parks, twelve neighborhood parks, a network of trails and pathways, a golf course, and a community lake, as well as Open Area. The parks and Open Area are designed to provide for active and passive recreation, as well as for the preservation of environmentally sensitive resource areas. For further discussion on these biological resources and restoration plans, please refer to **Section 4.20 (Parks, Recreation, and Trails)** of this EIR, and the Specific Plan.

(8) Conceptual Grading Plan

The Conceptual Grading Plan **(Figure 1.0-14)**, which identifies areas of proposed grading activities, would preserve major ridgelines and steep slope areas, and would balance cut and fill amounts on site. Within the development areas, site contours would be reconfigured to reduce slopes for efficient utilization and development of the property.

The Plan incorporates the Hillside Design Guidelines established by the Los Angeles County Department of Regional Planning (December 1987). The Design Guidelines in Chapter 4 of the Specific Plan contain grading guidelines designed to achieve the above goals.



SOURCE: NEWHALL RANCH SPECIFIC PLAN

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L E G E N D

GRADED AREA
OPEN AREA

100 ACRES 400 ACRES

IMPACT SCIENCES INC

NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

FIGURE 1.0-14
CONCEPTUAL GRADING PLAN

Specific Plan site grading would require the movement of approximately 95 million cubic yards of earth. The grading would be balanced on site and would entail mass grading for development areas, final grading for development pads, remedial grading (depending upon future site-specific soils and geological investigations[4]), and custom grading.

Mass grading would consist of rough grading operations that would provide for major roads and infrastructure, and for developable sites for the various land uses within the Specific Plan. For each individual development project, a detailed final grading plan in accordance with Los Angeles County regulations would be submitted to the County for review and approval concurrently with the submittal of construction-level subdivision maps, and other construction-level infrastructure improvement plans. Slope stabilization measures, such as buttresses, may be included as part of remedial grading operations, depending upon the findings of detailed geotechnical studies that would be submitted along with future grading permit applications. Finally, custom grading would utilize limited grading techniques tailored to achieve specific estate home site design objectives, and would occur within parts of the Estate Residential Planning Areas of the Villages and in limited areas of the High Country Special Management Area.

d. Specific Plan Implementation

It is expected that the Newhall Ranch Specific Plan would be implemented in conformance with the regulations and guidelines contained in the Specific Plan, and the proposed Development Agreement. Please refer to Chapter 5 of the Specific Plan for further details on its implementation.

4 Geotechnical conditions requiring remediation may include slope instability, settlement, and seismic conditions.

2.0 Environmental and Regulatory Setting

2.0 ENVIRONMENTAL AND REGULATORY SETTING

1. *PURPOSE*

The following discussion of the Environmental and Regulatory Setting addresses those physical and regulatory conditions which characterize not only the Specific Plan site, but also local and regional areas in the Specific Plan vicinity. As required by Section 15125 of the CEQA Guidelines, this discussion should include the following:

"An EIR must include a description of the environment in the vicinity of the project, as it exists before the commencement of the project, from both a local and regional perspective. The description shall be no longer than is necessary to an understanding of the significant effects of the proposed project and its alternatives.

(a) Knowledge of the regional setting is critical to the assessment of environmental impacts. Special emphasis should be placed on environmental resources that are rare or unique to that region and would be affected by the project.

(b) The EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans. Such regional plans include, but are not limited to, the applicable Air Quality Management Plan (or State Implementation Plan once adopted), area-wide waste treatment and water quality control plans, regional transportation plans, regional housing allocation plans, and regional land use plans for the protection of the coastal zone, Lake Tahoe Basin, San Francisco Bay, and Santa Monica Mountains.

(c) Where a proposed project is compared with an adopted plan, the analysis shall examine the existing physical conditions as well as the potential future conditions discussed in the plan."

2. ENVIRONMENTAL SETTING

a. Regional Setting

The Specific Plan site is located in the northern portion of unincorporated Los Angeles County, in the Santa Clara River Valley (see **Figure 1.0-1** for regional location). The proposed Newhall Ranch Specific Plan site is within the County's Santa Clarita Valley Planning Area. The WRP site is located within the Specific Plan site boundary, on the south side of SR-126, adjacent to the Santa Clara River,

and near the Los Angeles/Ventura County boundary. The Santa Clarita Valley Planning Area is generally bound by the Los Padres and Angeles National Forest areas to the north; Agua Dulce and the Angeles National Forest to the east; the major ridgeline of the Santa Susana Mountains which separates the Santa Clarita Valley from the San Fernando and Simi Valleys to the south; and the Ventura County line to the west.

East of the Specific Plan site and Interstate 5 (I-5) is the Santa Clarita Valley, which is divided into two political regions: (1) the unincorporated areas in Los Angeles County and (2) the City of Santa Clarita. The City of Santa Clarita is located in the central portion of the Santa Clarita Valley, with the unincorporated County area surrounding the City. Southeast of the Specific Plan site, over the Santa Susana Mountains, lie the City of Los Angeles and the San Fernando Valley. To the south and southwest of the site, on the south-facing slope of the Santa Susana Mountains, lies unincorporated Ventura County with the City of Simi Valley beyond at the foot of the mountains. West of the Specific Plan site is unincorporated Ventura County, the small unincorporated community of Piru approximately 5 miles west of the County line, and the City of Fillmore approximately 15 miles west of the County line. North of the site is land located within unincorporated portions of Los Angeles County, including the rural areas/communities of San Martinez Grande, Val Verde, and Hasley Canyon, and the urban developments along I-5 north of State Route (SR) 126, as well as the community of Castaic **(Figure 1.0-2, Vicinity Map)**.

The Santa Clarita Valley Planning Area is a major point of convergence for regional transportation and utility facilities. Interstate 5, the Antelope Valley Freeway (State Route 14), SR-126, and a Southern Pacific railroad right-of-way pass through the Valley. Electrical transmission, oil, natural gas and water lines traverse the Valley. Three water reservoirs serve this region, all of which are connected with the State Water Project system: Castaic Lake located approximately 5 miles to the north in Los Angeles County, Lake Piru located approximately 6 miles to the northwest in Ventura County, and Pyramid Lake located approximately 18 miles to the north in Los Angeles County. Castaic and Pyramid Lakes are operated by the California Department of Water Resources, and Lake Piru is operated by the United Water Conservation District. The Santa Clara River flows westerly through the northern portion of the Santa Clarita Valley Planning Area on its way to the Pacific Ocean, while San Francisquito Creek and Bouquet Creek drain into the Valley (and the Santa Clara River) from the north. The south fork of the Santa Clara River flows in a northerly direction through the Valley towards its confluence with the main body of the River. Just west of the Santa Clarita Valley and north of the site, Castaic Creek flows from Castaic Lake south to the Santa Clara River. Further west of both the Santa Clarita Valley and the Specific Plan site, Piru Creek flows southerly from Lake Piru to the Santa Clara River.

b. Local Setting

As illustrated in **Figure 1.0-2, Vicinity Map**, the 11,963-acre Newhall Ranch Specific Plan site (which includes the proposed water reclamation plant site) is an irregularly-shaped site generally located between the Magic Mountain Theme Park on the east and the Los Angeles/Ventura County line on the west. The City of Santa Clarita is located east of the Specific Plan site just beyond I-5, approximately one mile from the Specific Plan site. SR-126 and the Santa Clara River transect the Specific Plan site from east to west; a majority of the Specific Plan area occurs south of SR-126 and the Santa Clara River. Land use types surrounding the site locally include: to the north, relatively sparse rural residential uses (the communities of Val Verde and San Martinez Grande), landfill uses (Chiquita Canyon), oil and natural gas production uses, high intensity business park uses (Valencia Commerce Center), urban single family homes and low intensity commercial uses (Castaic corridor), and undeveloped land; on the east, a water reclamation plant (Valencia WRP), a California Highway Patrol station, high intensity commercial/recreational uses (Magic Mountain Theme Park), hotels, restaurants and service stations adjacent to I-5, urban density residential uses (Stevenson Ranch), and undeveloped land; on the south, undeveloped land; and on the west, citrus orchards, oil and natural gas production uses and vacant undeveloped land.

c. Public Services

The Santa Clarita Valley Planning Area is served by one wholesale water agency, the Castaic Lake Water Agency (CLWA), which serves four local retail water purveyors: Santa Clarita Water Company, Valencia Water Company, Newhall County Water District, and Los Angeles County Water District #36 (Val Verde Water District).

Two water reclamation plants (WRPs) provide wastewater treatment service for the Santa Clarita Valley Planning Area: District No. 26, which operates and maintains the Saugus WRP, and District No. 32, which operates and maintains the Valencia WRP. The Saugus WRP, a tertiary treatment plant, is located southeast of the intersection of Soledad Canyon Road and San Fernando Road. The Valencia WRP, also a tertiary treatment plant, is located on The Old Road, north of Magic Mountain Parkway. These two facilities have been interconnected to form a regional treatment system known as the Santa Clarita Valley Joint Sewerage System (SCVJSS). The relationship between the two districts was established through a joint powers agreement that created the regional treatment system and permits the Valencia WRP to accept flows that exceed the capacity of the Saugus WRP.

Primary police protection service for the Specific Plan site and the surrounding Santa Clarita Valley area is provided by the County of Los Angeles Sheriff's Department. Additionally, the California Highway Patrol provides traffic regulation enforcement, emergency incident management, service and assistance on Interstate 5, State Route 126, State Route 14, and other major roadways in the unincorporated Santa Clarita Valley area. Fire protection and emergency medical response services for the Specific Plan site and the surrounding area are provided by the Los Angeles County Fire Department. Currently, eight fire stations and three fire camps provide fire protection services for the Santa Clarita Valley area.

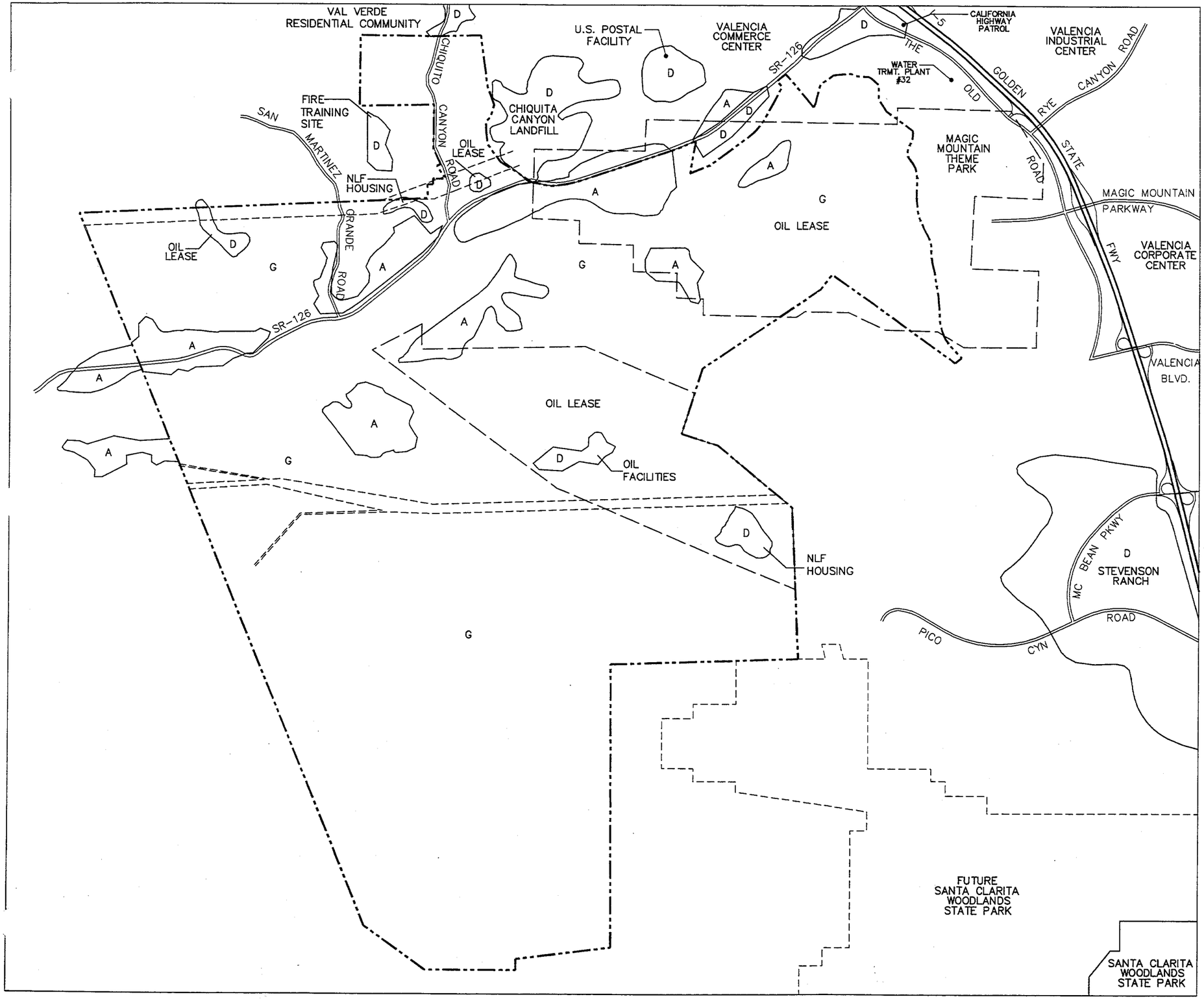
Primary and secondary public education in the Specific Plan area is provided by the Castaic Union School District, the Newhall School District, and William S. Hart Union High School District. The portion of the Specific Plan site north of the Santa Clara River is within the Castaic Union School District which provides elementary and junior high school service, while the Specific Plan site south of the River is within the Newhall School District, which provides elementary school service. The William S. Hart Union High School District serves the entire Specific Plan area for high schools and the Specific Plan area south of the River for junior high schools.

Library services for the Specific Plan site and the Santa Clarita Valley area are provided by the County of Los Angeles Public Library system. The Santa Clarita Valley area is currently served by three County libraries (Valencia, Newhall, and Canyon Country) and a mobile library service.

There are several existing and proposed parks within close proximity to the Specific Plan site. Such facilities include parks maintained by Los Angeles County, the City of Santa Clarita, Ventura County, the State of California, and the Federal government. There is an extensive existing and proposed trail system in the Santa Clarita Valley area. This system includes approximately five existing or proposed trails, of which there are three regional trails and two local trails.

d. Site Characteristics

Present (and historical) land uses on the Newhall Ranch Specific Plan site include vacant land with oil and natural gas operations; agriculture primarily along the Santa Clara River Corridor (including the proposed WRP site), on the mesas overlooking the River, and in the wider canyon bottoms; and cattle grazing in Potrero Canyon, along the River, and in other upland and mountainous portions of the Ranch (see **Figure 2.0-1, Existing Land Use**). Newhall Ranch is also periodically used by the movie industry for set locations. Several employee homes, an oil company office, and miscellaneous other



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L E G E N D

- A — *AGRICULTURE*
- D — *DEVELOPMENT*
- G — *CATTLE GRAZING*
- *SCE/UTILITY EASEMENTS*

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NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

100 ACRES 400 ACRES

FIGURE 2.0-1

EXISTING LAND USE

structures are also on site. Related to the oil and natural gas operations on the site, the central and northeastern portions of the property are heavily traversed with dirt and asphalt roads, which provide access to numerous graded oil well pads and pipelines, and pumping, storage and transmission facilities.

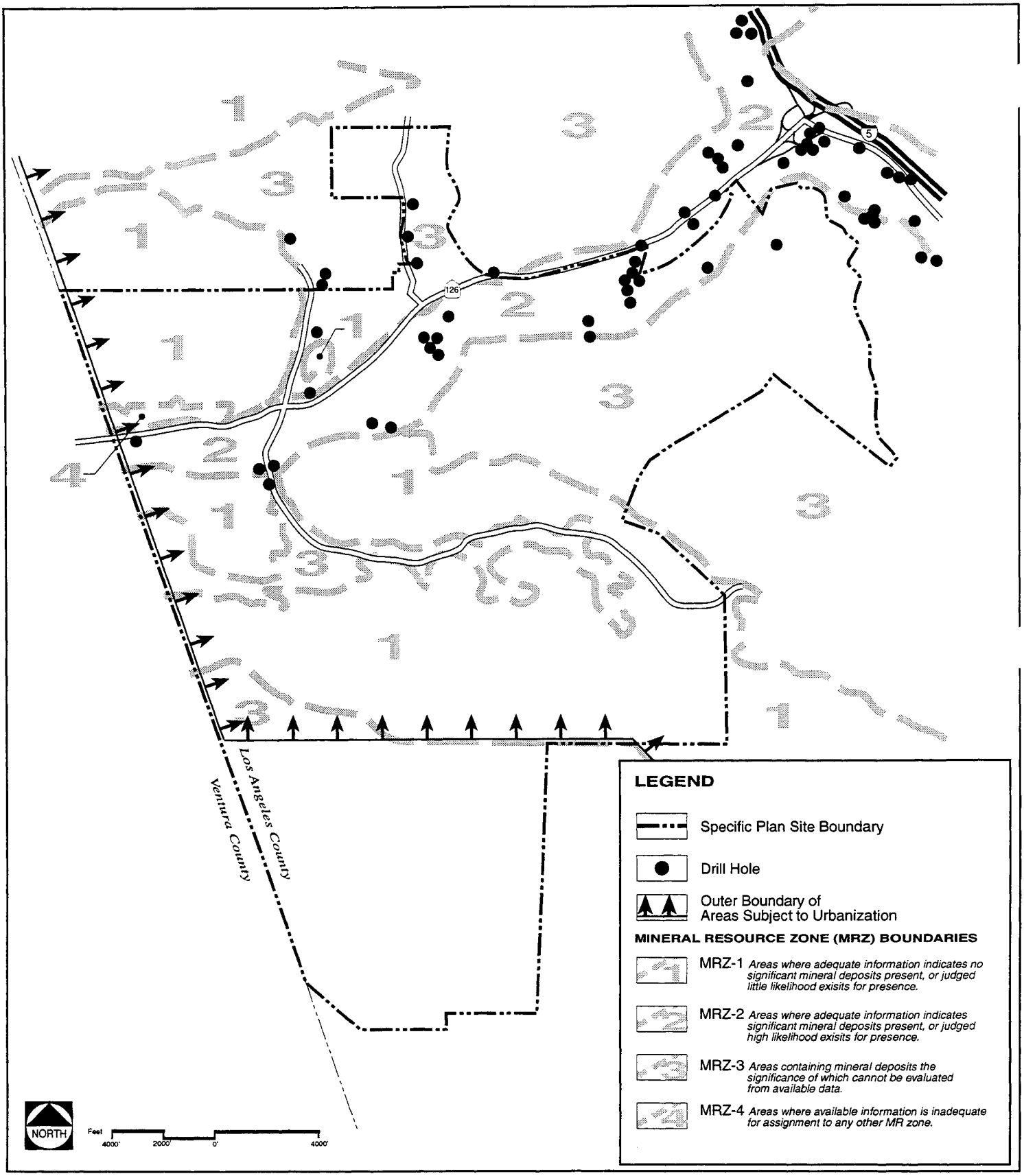
The Newhall Land and Farming Company (NLF) presently leases out portions of the Specific Plan site for on-going oil and natural gas operations, as well as for cattle grazing and limited irrigated row crop and dryland agricultural operations. However, the oil and natural gas operations are slowly phasing out due to decreasing production values. There are major Southern California Edison Company (SCE) electrical transmission lines and Southern California Gas Company (SCGC) pipelines within easements traversing the property which would remain in place or be relocated. There are also a variety of electrical distribution lines and smaller natural gas and water lines which are either to remain in place, be relocated, or be removed during development.

(1) Geotechnical Resources

The Specific Plan site, located within the tectonically active Transverse Ranges of southern California, is cut by segments of the potentially active Del Valle and Salt Creek Faults. The very northeastern tip of the site is part of the Holser Structural Zone and may include the Holser Fault. Bedrock formations found on the site include the Modelo, Towsley, Pico, Saugus, and Pacoima Formations, as well as Quaternary Terrace Deposits. Surficial deposits include quaternary alluvium, slopewash, soil, and artificial fill. In addition, numerous landslides, ranging from shallow surficial failures to large megalithic landslides, are present on the Newhall Ranch.

The Specific Plan site is also underlain by mineral and gravel deposits and contains three types of Mineral Resource Zones (MRZ) as identified by the California Department of Conservation, Division of Mines and Geology. As shown on **Figure 2.0-2, Site Mineral Resource Zones**, the predominant source of such deposits is found along the Santa Clara River, which is designated as an MRZ-2 zone. This zone indicates that information exists which identifies a substantial deposit of mineral and/or gravel resources in this area. The vast majority of the site, primarily within the Santa Susana Mountains, is designated as an MRZ-3 zone. This zone indicates that mineral deposits are expected to occur in this area, but the extent of such deposits is unknown at the present time. The remainder of the property not identified as a MRZ-2 or -3 zone is classified as a MRZ-1 zone, which indicates that information exists that indicates no substantial deposits of mineral or gravel are found within this area.

Please refer to **Sections 4.1 and 5.1 (Geotechnical and Soil Resources)** for additional information on the geotechnical and soil resources of the Specific Plan and WRP sites.



SOURCE: California Department of Conservation, Division of Mines and Geology; Mineral Land Classification Map, Aggregate Resources Only, 1987.

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FIGURE 2.0-2
MINERAL RESOURCE ZONES

(2) Biology

Habitat types that occur in the area include:

- Riparian habitats - mulefat scrub, southern willow scrub, southern willow riparian woodland, southern cottonwood/willow riparian forest, cottonwood/oak woodland, and sycamore-alder riparian woodland.

- Wetland habitats - valley freshwater marsh, ponds, and mesic meadows. The Santa Clara River habitat along the entire length of the Specific Plan site has been designated as critical habitat for the endangered least Bell's vireo (bird), and is also habitat for the endangered southwestern willow flycatcher (bird), arroyo toad (amphibian), and unarmored threespine stickleback (fish).

- Upland Woodland habitats - coast live oak woodland, valley oak woodland, valley oak savanna, California walnut woodland, and mainland cherry forest.

- Non-native Grassland habitats - non-native grassland habitats occur in the upland portions of the site, and are found in both a disturbed and an undisturbed condition.

- Upland Shrub habitat - coastal sage scrub and chaparral.

Two Significant Ecological Areas (SEAs) overlie portions the Specific Plan site: SEA 20 and SEA 23. SEA 20 is primarily noted for its diverse oak woodland habitat and its facilitation of species movement between the San Gabriel and Santa Monica Mountains via the Simi Hills.[1] The Santa Clara River Corridor SEA (SEA 23) is noted for its wetlands and habitat for the unarmored threespine stickleback (UTS) fish.[2] It should be noted that, within SEA 23 on the Specific Plan site, the United States Fish and Wildlife Service has identified critical habitat for the least Bell's vireo bird. Approximately 5,237 acres (43.8 percent) of the Specific Plan site are within these significant ecological areas.

Please refer to **Sections 4.6 and 5.6 (Biota)** for additional information on the Specific Plan (and WRP) site's biological resources and **Appendix 2.0** for a discussion regarding the Specific Plan's consistency with the General Plan Design Compatibility Criteria for Significant Ecological Areas.

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1 Los Angeles County Department of Regional Planning and Environmental Systems Research Institute, Los Angeles County Significant Ecological Area Study, (1976), page E-24.

2 Los Angeles County Department of Regional Planning and Environmental Systems Research Institute, Los Angeles County Significant Ecological Area Study, (1976), page E-27.

(3) Topography

The Specific Plan site is part of the Ventura Basin of southern California, which is a westerly-plunging depositional basin produced by tectonic downwarping initiated during the early Miocene period (13 to 25 million years before the present). Site topography (**Figure 2.0-3, Topography and Place Names**) is dominated by east-, west-, and northwest-trending primary ridges with generally north- and south-trending secondary ridges. Site elevations range from approximately 825 feet above mean sea level in the Santa Clara River bottom at the County line (and nearby the WRP site) to approximately 3,200 feet above mean sea level on the ridgeline of the Santa Susana Mountains along the southern edge of the site. Slope gradients vary from moderate to steep in the hillside areas to very gentle within the Santa Clara River flood plain, in major tributary canyons, and on uplifted terrace (mesa) surfaces adjacent to the River. Approximately 46 percent of the Specific Plan site is comprised of slopes less than 25 percent in gradient.

Distinctive elevated features include Sawtooth Ridge along the northeastern side of Long/Adobe Canyon, Ayers Rock at the northern edge of Potrero Canyon, and various mesas which lie above the River along its southern bank. There are other numerous distinctive ridges within the Santa Susana Mountains which compose the southernmost portion of the property.

(4) Drainage Characteristics

The Specific Plan site is within the Santa Clara Valley River basin and contains ten drainage areas, all of which drain into the Santa Clara River which transects the northern portion of the Specific Plan site from east to west. Salt Creek, Potrero Creek, Chiquito Creek, Long Canyon Creek, San Martinez Grande Creek, and other unnamed drainages also either originate on or flow through the site.

The 50-Year Capital Flood Plain (as defined by the Flood Control Division of the Los Angeles County Department of Public Works) is located on the Specific Plan site along the Santa Clara River, Potrero Canyon, Salt Canyon, San Martinez Grande Canyon, San Martinez Chiquito Canyon, and in another drainage in the eastern portion of the site. Potrero, Salt, Chiquito, and San Martinez Grande Canyons have running water only part of the year. The Santa Clara River is, in part, fed by treated wastewater from the Valencia and Saugus WRPs, and flows during the entire year through the Planning Area.

Beneath the surface of the Specific Plan site, ground water is found within the alluvium, as well as within the Saugus and Pico formations. Please refer to **Sections 4.2 and 5.2 (Flood)** for additional information on the Specific Plan (and WRP) site drainage characteristics.

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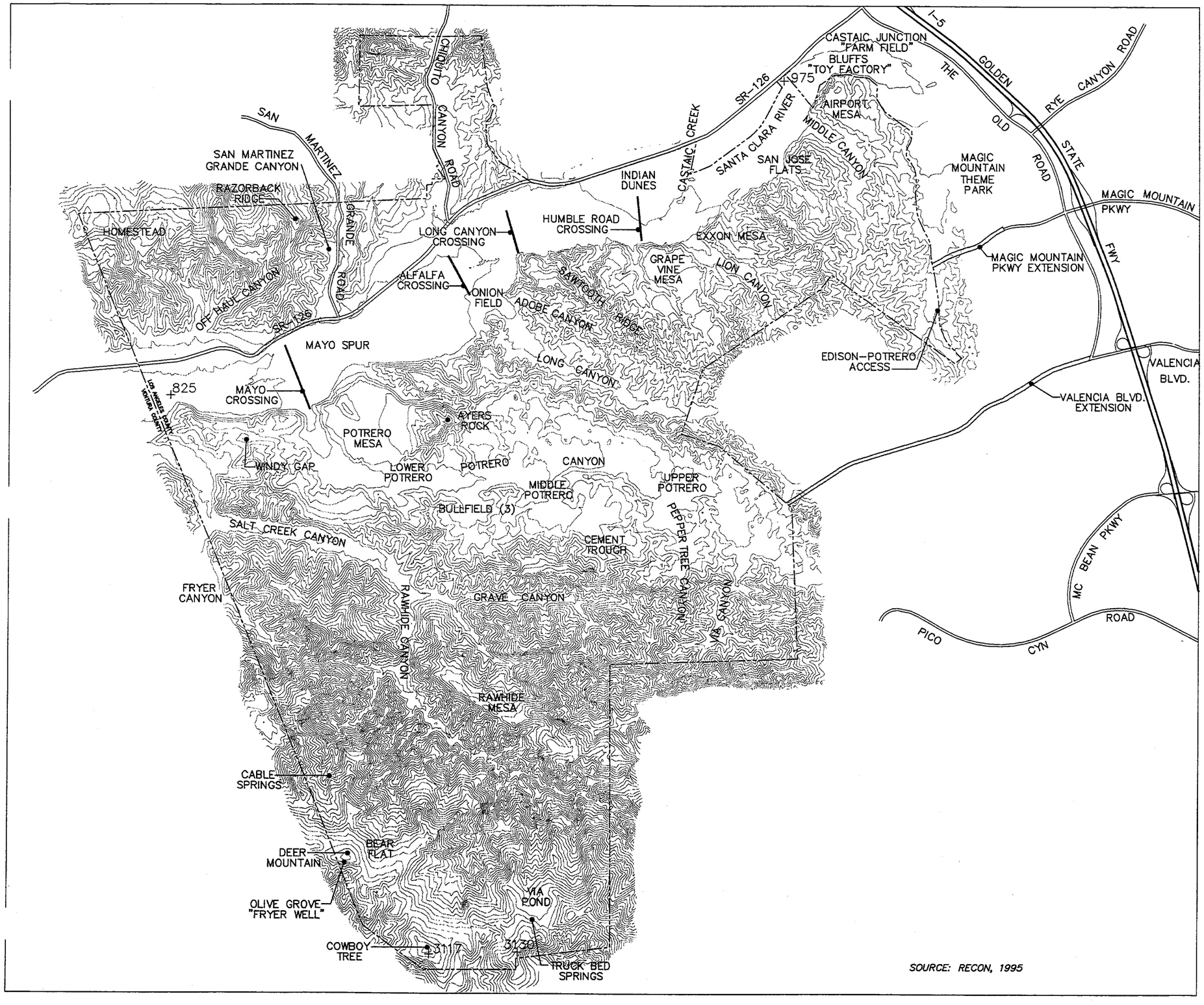

SOURCE: RECON, 1995

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NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

100 ACRES 400 ACRES

FIGURE 2.0-3
TOPOGRAPHY AND PLACE NAMES

2/19/96

(5) Cultural Resources

Paleontologically, the Pico Formation, Saugus Formation, and Quaternary Terrace Deposits, all of which exist on the site, are known to have a high to moderate potential for yielding paleontological resources. The Modelo and Towsley Formations also exist on the Specific Plan site and are also known to have a high potential for yielding paleontological resources; however, they are located in the High Country which would remain undeveloped with the exception of the proposed fifteen Estate Residential sites. Archaeologically, eight prehistoric archaeological sites and one isolated artifact were identified on the Specific Plan site. Historical resources on the Specific Plan site include the Asistencia de San Francisco Xavier. Overall, the Specific Plan area has a very low density of prehistoric and historic archaeological remains.

Please refer to **Section 4.3 and 5.3 (Cultural/Paleontological Resources)** for additional information on the archaeological and paleontological resources of the Specific Plan and WRP site.

(6) Noise

Vehicular traffic is the dominant source of noise in the vicinity of the Specific Plan site. State Route 126 carries approximately 17,000 vehicle trips per day and generates the greatest amount of vehicular noise on the site. All other roadways on the Specific Plan site carry a small amount of vehicular traffic (approximately 120 trips per day combined) and, therefore, do not generate appreciable amounts of roadway noise.

On the Specific Plan site, point source noise is generated by the existing oil and natural gas operations, stationary internal combustion engines used to drive oil pumps, and flaring operations where natural gas is burned off when pumps are temporarily not operating. Other point sources of noise on the site include the existing agricultural operations and the activities associated with on-site residences, offices, and the occasional use of the site by the movie industry; however, these uses generate very little on-site noise. The WRP site is primarily affected by noise generated by motor vehicles traveling on SR-126.

Point sources of noise in the Specific Plan vicinity include the Magic Mountain Theme Park and the Chiquita Canyon Landfill. The primary sources of noise at Magic Mountain include ride operations and loud speaker use. Most of the noise at the Chiquita Canyon Landfill is generated by truck traffic traveling to and from the landfill. Noise levels generated by landfill operations are very low [50 dB(A) or less] at the landfill property boundary and are hardly perceptible on the Newhall Ranch site.

See **Sections 4.9 and 5.9 (Noise)** for additional information on the existing noise conditions on and in the vicinity of the Specific Plan (and WRP) site.

(7) Air Quality

The Specific Plan site is located within the South Coast Air Basin, which includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. It is also located in the transitional microclimatic zone of the basin between two climatic types (termed valley marginal and high desert), and in source receptor area (SRA) 13, which encompasses the Santa Clarita Valley. The station that monitors the air quality of this SRA, located at a Los Angeles County Fire Station on North San Fernando Road, has registered values above State and Federal standards for Ozone (O_3) and the State standard for PM_{10} (particulates that are 10 microns or smaller in size). Concentrations of carbon monoxide and nitrogen dioxide have not been exceeded within the Santa Clarita Valley and concentrations of two other criteria pollutants -- sulfur dioxide and lead -- have not been exceeded anywhere within the basin for several years.

Please refer to **Sections 4.10 and 5.10 (Air Quality)** for additional information on ambient air quality on and in the vicinity of the Specific Plan (and WRP) site.

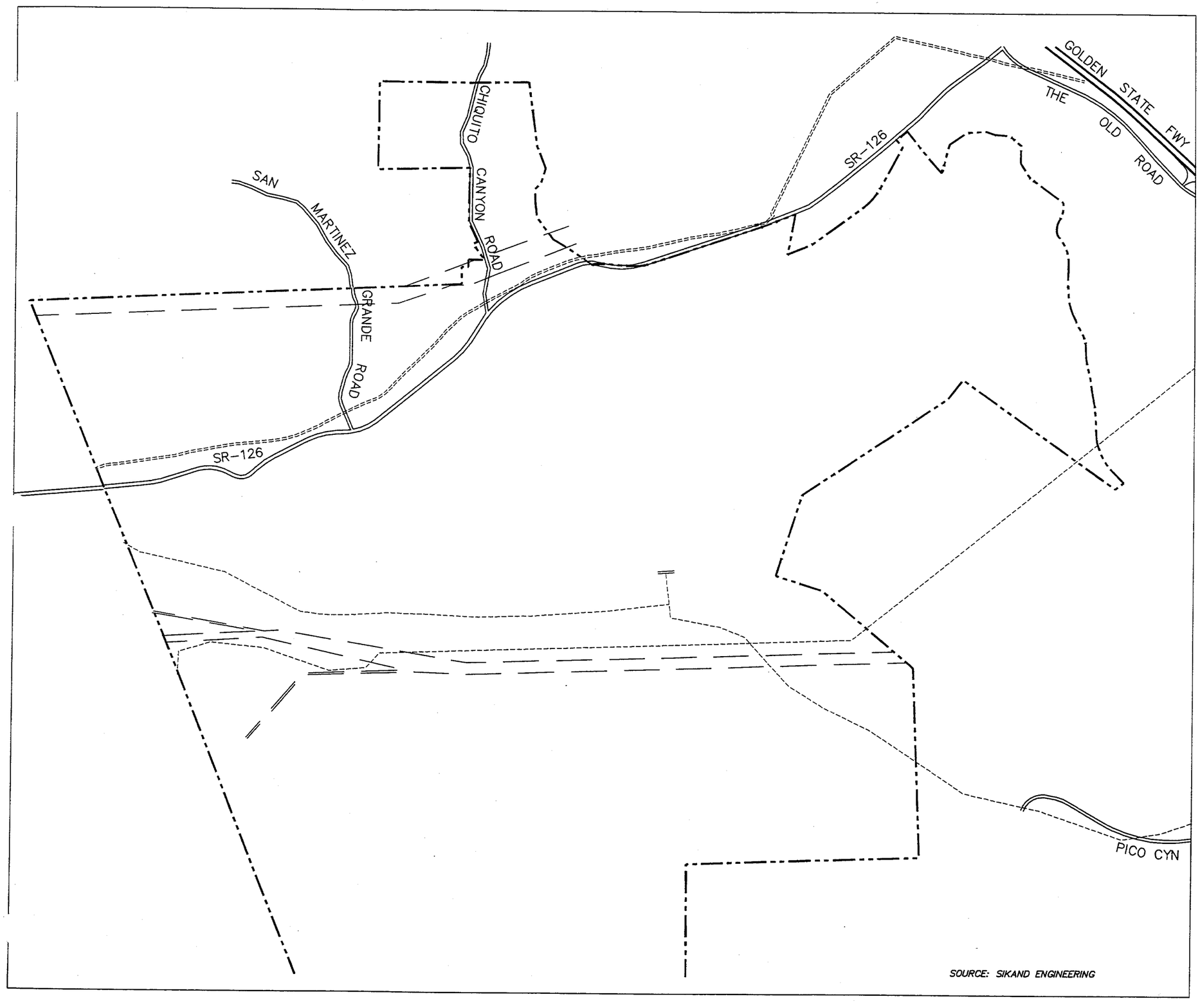
(8) Existing Roadway Network

Direct access to the Specific Plan site is currently provided by SR-126. The I-5/SR-126 interchange is located approximately one half mile east of the site. San Martinez Grande Road and Chiquito Canyon Road, north of SR-126, provide access to the northern portion of the site. South of SR-126, the site is criss-crossed by a network of paved and unpaved roads which were established to serve the oil and natural gas operation sites, as well as cattle and agricultural uses.

Please refer to **Sections 4.8 and 5.8 (Traffic/Access)** for additional information on the existing roadway network on the Specific Plan (and WRP) site and within its vicinity.

(9) Existing Easements/Encumbrances/Leases

Numerous easements cross the Newhall Ranch Specific Plan site (see **Figure 2.0-4, Selected Utility Easements**). Specifically, 66 kilovolt (kV) and 220 kV regional transmission lines exist within a 300-foot wide easement on the northern portion of the site, and 66 kV and 230 kV regional transmission lines exist within easements ranging from 75 feet to 240 feet in width through the central portion of the site. The northerly-located transmission lines originate at the Pardee Substation at the Valencia Industrial



SOURCE: SIKAND ENGINEERING

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L E G E N D

SCE/UTILITY EASEMENTS

SCG NATURAL GAS LINES

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NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

100 ACRES 400 ACRES

FIGURE 2.0-4
SELECTED
UTILITY EASEMENTS

2/19/96

Park east of I-5 and north of the Santa Clara River, and the centrally-located transmission lines originate at the Saugus Substation east of I-5 across from the Magic Mountain Theme Park. The lines terminate in Chatsworth, Fillmore, Thousand Oaks, Ventura, and Bakersfield. Pole-mounted electrical distribution lines occur throughout the property to serve the various uses which still occupy the site. Southern California Gas Company (SCGC) gas is delivered to the Specific Plan vicinity via a medium-pressure main which parallels SR-126.[3] In addition to this main, there are two high pressure mains on the site, including a 34-inch main within a 25- to 30-foot-wide easement which traverses the central portion of the site, and a 12- to 16-inch main which originates at the Ventura County line and generally follows Potrero Canyon to Pico Canyon Road and on to I-5. In addition, there are numerous other oil, natural gas, electrical, telephone, and water easements which traverse the site. No such easements traverse the proposed WRP site.

The Newhall Land and Farming Company leases out portions of the Specific Plan site for oil and natural gas production operations, ranching and farming, and for film making. Medallion is an oil company which leases land on larger areas, with oil and natural gas operations on lease sites totaling approximately 1,470 acres in size. Several other oil companies lease smaller areas of land for oil and natural gas operations along the northern edge of the site. Tejon Ranch presently leases land for cattle grazing purposes, and annual/seasonal farming leases occur on certain other portions of the Specific Plan site. Please refer to the following sections: **4.4 and 5.4 (Agricultural Resources), 4.5 and 5.5 (Environmental Safety), 4.8 and 5.8 (Traffic/Access), 4.13 and 5.13 (Natural Gas), and 4.14 and 5.14 (Electricity)** for further discussion.

3. REGULATORY SETTING

a. Los Angeles County General and Area Plan, and Planning and Zoning Code

Two general plans govern unincorporated land development in the Santa Clarita Valley Planning Area. These include the County of Los Angeles General Plan and the Santa Clarita Valley Area Plan. The County of Los Angeles General Plan serves as the overall policy document for the unincorporated portions of the County, including the Specific Plan site. The land use designations are very broad in nature, as are the types of uses permitted within each designation. More detailed Area Plans have been prepared for various planning areas throughout the County. The Santa Clarita Valley Area Plan is the Community Plan which provides detailed policy statements, land uses, and development

[3] This main was damaged in the Northridge Earthquake; however, it is still functional and its replacement is pending an upgrade needs analysis.

standards for the unincorporated Newhall Ranch Specific Plan area. The County of Los Angeles Planning and Zoning Code provides precise development guidelines (i.e., permitted and conditionally permitted land uses, minimum lot sizes, building heights, maximum square footage, etc.). The following is a discussion of each of these documents and its relationship to the proposed Specific Plan site.

(1) On-Site and Surrounding General Plan and Area Plan Land Uses Designations

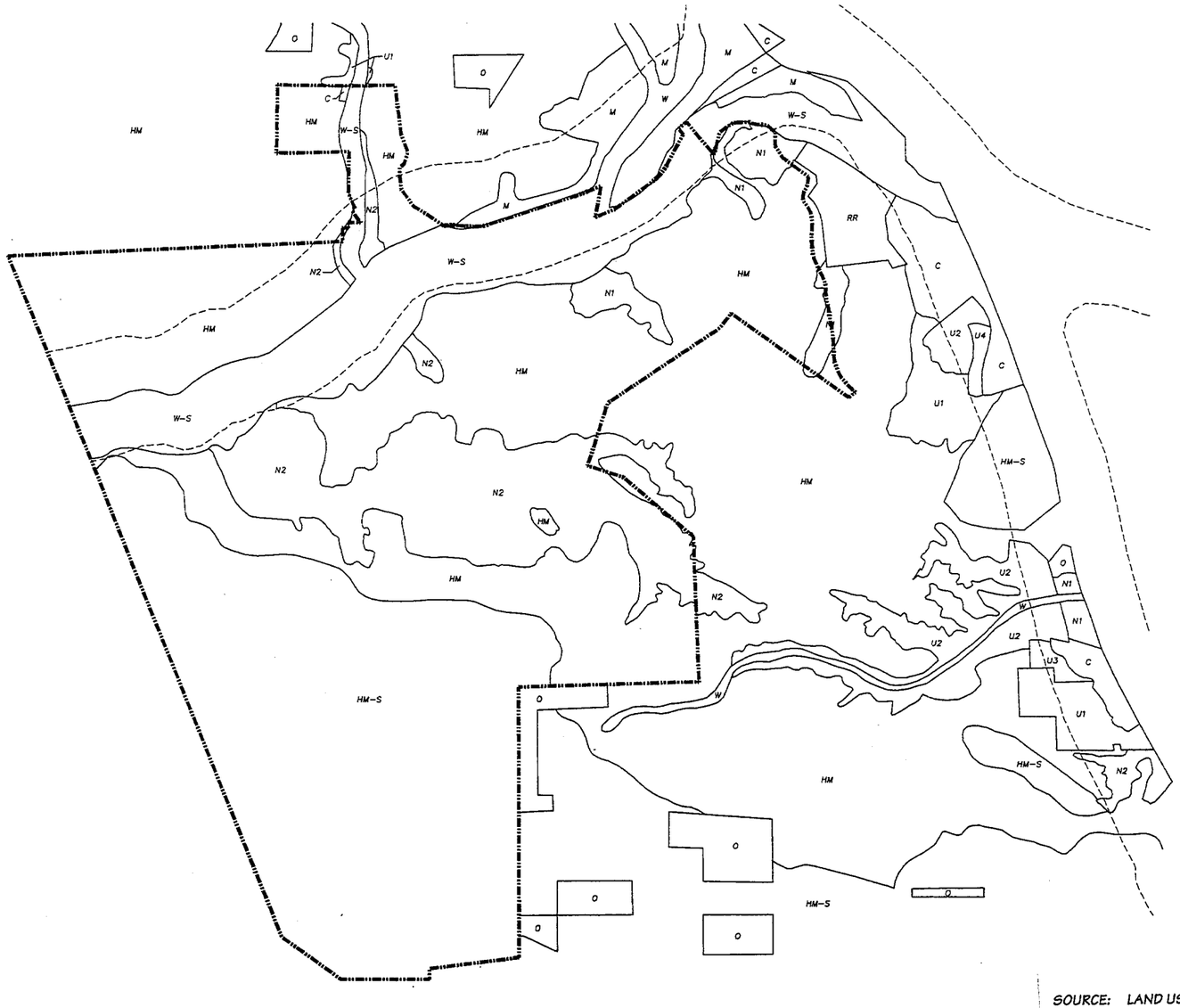
(a) On-Site Designations

As indicated in **Table 2.0-1** and illustrated on the 1992 Land Use Policy Map, the County of Los Angeles General Plan designates the Specific Plan site as Non-Urban and Significant Ecological Area. **Figure 2.0-5, Existing Area Plan Land Use Designations,** illustrates that the Land Use Policy Map of the Santa Clarita Valley Area Plan designates the Specific Plan site as Non-Urban 1 (0.5 and 0.05 dwelling units/acre), Non-Urban 2 (1.0 dwelling units/acre), Commercial, Industry, Floodway/Flood Plain, Floodway/Flood Plain/Significant Ecological Area, Hillside Management, and Hillside Management/Significant Ecological Area. The existing zoning of the Specific Plan site is Heavy Agricultural (A-2), with a 2.0 acre minimum lot size north of SR-126 (A-2-2) and a minimum lot size of 5.0 acres south of SR-126 (A-2-5), and Manufacturing (M-1.5). The Land Use Policy Map of the Santa Clarita Valley Area Plan designates the WRP site as Floodway/Flood Plain/Significant Ecological Area. The existing zoning of the WRP site is Heavy Agricultural (A-2), with a minimum lot size of 5.0 acres (A-2-5).

Table 2.0-1
Requested Planning Designation Changes

	Existing Designation	Proposed Designation
County General Plan	- Non-urban - Significant Ecological Area	- Specific Plan
Santa Clarita Valley Area Plan	- Non-urban 1 (0.5 DU/acre) - Non-urban 1 (0.05 DU/acre) - Non-urban 2 (1.0 DU/acre) - Commercial - Industry - Hillside Management (HM) - HM/Significant Ecological Areas (SEA) - Floodway/Flood Plain (W) - W/SEA	- Specific Plan
County Zoning Ordinance	- Heavy Agricultural (A-2-2)[1] - Heavy Agricultural (A-2-5)[1] - Manufacturing (M-1.5)	- Specific Plan

Source: Draft Newhall Ranch Specific Plan (July 1996).
[1]*With a 2.0 acre minimum lot size north of SR-126 (A-2-2), and a minimum lot size of 5.0 acres south of SR-126 (A-2-5).*



SOURCE: LAND USE POLICY MAP
SANTA CLARITA VALLEY AREA PLAN
LOS ANGELES COUNTY
DEPARTMENT OF REGIONAL PLANNING

NOTE: INCLUDES AMENDMENTS THROUGH
MARCH 23, 1992

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L E G E N D

N1	NONURBAN 1 (0.5 AND 0.05 DU/AC)
N2	NONURBAN 2 (1.0 DU/AC)
U1	URBAN 1 (1.1–3.3 DU/AC)
U2	URBAN 2 (3.4–6.6 DU/AC)
U3	URBAN 3 (6.7–15.0 DU/AC)
U4	URBAN 4 (15.0–40.0 DU/AC)
C	COMMERCIAL
RR	RESORT RECREATIONAL
M	INDUSTRY
O	OPEN SPACE
HM	HILLSIDE MANAGEMENT
S	SIGNIFICANT ECOLOGICAL AREAS
W	FLOODWAY/FLOODPLAIN
	NOISE IMPACT CORRIDOR

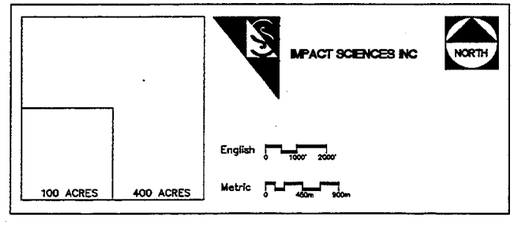

FIGURE 2.0-5

EXISTING AREA PLAN LAND USE DESIGNATIONS

2/19/96

3.0 CUMULATIVE IMPACT ANALYSIS METHODOLOGY

1. *PURPOSE*

The purpose of this section is to explain the methodology for the cumulative project analysis presented in this EIR. This section is important because, in many cases, the impact of a single project may not be significant, while when combined with other projects the "cumulative" impact may be greater. Section 15355 of the State CEQA Guidelines defines "cumulative impacts" as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." The Guidelines [Section 15130(b)] state that " the discussion [of cumulative impacts] need not provide as great detail as is provided of the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness."

Cumulative impacts can occur from the interactive effects of a single project. For example, the combination of noise and dust generated during construction activities can be additive and can have a greater impact than either noise or dust alone. However, substantial cumulative impacts more often result from the combined effect of past, present, and future projects that are located in proximity to the project under review. For example, the water demand generated by a proposed project may not be significant when analyzed alone; however, when analyzed in combination with other approved or proposed projects, the water demands may exceed the resource capabilities of the water agency, resulting in a significant cumulative impact. Therefore, it is important for a cumulative impacts analysis to be viewed over time and in conjunction with other related past, present, and reasonably foreseeable future development whose impacts might compound or interrelate with those of the project under review. Furthermore, the cumulative impact analysis is an important part of an EIR as it allows the environmental analysis to provide a better forecast of the future environmental condition and more reasonably gauge the impact potential of a project.

2. CUMULATIVE GROWTH FORECASTING METHODOLOGY

In order to analyze the cumulative impacts of the Newhall Ranch Specific Plan in combination with other expected future growth, the amount and location of growth expected to occur in addition to that of the proposed Specific Plan must be predicted. Section 15130(b) of the CEQA Guidelines allows two methods of prediction as described below: "(A) a list of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the agency, or (B) a summary of projections contained in an adopted general plan or related planning document which is designed to evaluate regional or areawide conditions." In order to analyze a worst-

case condition, this EIR uses a combination of both methods as discussed below, which provides a reasonable and comprehensive estimate of cumulative impacts. For this EIR, some impact analysis sections present two separate cumulative development scenarios in order to not only meet CEQA requirements, but to also meet the Los Angeles County requirement that the project under review be assessed under the Development Monitoring System wherever applicable.

It should be noted that the list of cumulative projects used in this EIR to assess cumulative impacts is an ever changing, and not static, list. From time to time the list of cumulative projects is increased or decreased as specific development proposals are applied for, withdrawn, approved, or denied by the lead agencies. An attempt has been made as part of this EIR to be as current as possible; however, it is possible that the list of projects maintained by the County of Los Angeles or other surrounding jurisdictions will change while this EIR is being reviewed by the public. To account for possible changes in County/City project filings which might occur prior to or during the EIR's public circulation, this EIR's cumulative analysis incorporates an additional unfilled 400 dwelling units. Examples of how the list of cumulative projects can change are provided below. A General Plan Amendment (GPA) request (Case Number 96044, Tract Map 48086) was recently filed with Los Angeles County. The site for this project request, constituting 499 single family residential dwelling units and one fire station on 548 acres, is located generally north of SR-14 past Pine Tree in Spring Canyon. In association with this GPA request, the project applicant is asking that the land use designation for the site be changed from Non-Urban (N)2 and Hillside Management (HM) to Urban (U)1. This GPA is incorporated into the "DMS Buildout Scenario" but not the "Santa Clarita Valley (SCV) Cumulative Buildout Scenario" described below. Another recent change to the cumulative project list relates to the Tesoro Del Valle project proposed north of the community of Valencia. The cumulative analysis assumes that the project contains approximately 3,000 residential dwelling units. Recently, the Los Angeles County Regional Planning Commission recommended approval of the project, but at a smaller size (approximately 2,500 units). When combining the effects of these two changes to the cumulative project list, the cumulative analysis slightly over-states the amount of cumulative development that is being requested of local jurisdictions. In any case, these changes to the list are statistically insignificant with respect to the conclusions drawn from the cumulative impact analysis (the change to the 156,139 dwelling units analyzed as part of the SCV Cumulative Buildout Scenario would be less than one percent).

a. DMS Buildout Scenario

Added to housing units already existing in the Santa Clarita Valley, the first scenario (herein referred to as the "DMS Buildout Scenario") entails buildout of subdivision projects listed in the County's Development Monitoring System (DMS) plus the proposed Specific Plan (for a description regarding the purpose and use of the DMS, see Section 2.0, Environmental and Regulatory Setting, subsection 3.a.(3)). The analysis of this cumulative development scenario is required by the County General Plan for the cumulative analysis of certain utilities and services, including schools, water service, wastewater disposal, and libraries. County DMS data used for this analysis include all pending, recorded and approved projects for which land divisions have been filed within County unincorporated lands and within the City of Santa Clarita. The City plus County unincorporated area together constitute the County's Santa Clarita Valley Planning Area, the area for which DMS is run. A list of the future Planning Area development activity that is contained within DMS is presented in **Table 3.0-1**. The listing presented in **Table 3.0-1** is not a comprehensive estimate of future development activity in the Valley in that it does not include General Plan Amendment requests (the Santa Clarita Valley Cumulative Buildout Scenario, which follows, is considered comprehensive).

Table 3.0-1
Cumulative Development Activity - DMS Buildout Scenario
- Santa Clarita Valley Planning Area -

Land Use Types	DMS Buildout w/o Specific Plan[1]	Newhall Ranch Specific Plan [2]	DMS Buildout w/ Specific Plan
Single Family	48,929 du[3]	11,025 du	59,954 du
Multi-Family	32,700 du	13,655 du	46,355 du
Mobile Home	2,628 du	0 du	2,628 du
Second Units		538 du	538 du
Commercial Retail	7,798,836 sf[3]	1,718,000 sf	9,516,836 sf
Hotel	69,000 sf		69,000 sf
School	809 sta[3]	400 sta	1,209 sta
College	1,152 sta		1,152 sta
Hospital	228,000 sf		228,000 sf
Library	226,000 sf	25,000 sf	251,000 sf
Church	366,000 sf		366,000 sf
Business Park	3,312,000 sf	1,513,000 sf	4,825,000 sf
Industrial/Manufact.	28,658,691 sf		28,658,691 sf
Utilities	1,321,000 sf	35,000 sf	1,356,000 sf
Commercial/Med. Office	3,094,836 sf	2,489,000 sf	5,583,836 sf
Golf Course/Park	281 ac[3]	313 ac	594 ac
Special Generator (Fire Stations)	33,200 sf	24,000 sf	57,200 sf

[1] *Los Angeles County Department of Regional Planning, 6 June 1996. Includes existing development as contained in the Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (June 1995).*
[2] *Draft Newhall Ranch Specific Plan, July 1996.*
[3] *du = dwelling unit; sf = square feet; sta = staff; ac = acres*

b. Santa Clarita Valley Cumulative Buildout Scenario

The second scenario [herein referred to as the "Santa Clarita Valley (SCV) Cumulative Buildout Scenario"] - which also adds to existing development - entails buildout of all lands under the current land use designations indicated in the Los Angeles County Santa Clarita Valley Area Plan and the City of Santa Clarita General Plan, plus the proposed Specific Plan, plus all known active pending General Plan Amendment requests for additional urban development in the County unincorporated area and the City of Santa Clarita. Because this scenario combines both of the CEQA future development prediction methods [i.e., (A) the listing of known projects, plus (B) a summary of development projections from an adopted general plan], the Santa Clarita Valley Cumulative Buildout Scenario is considered a worst-case projection of future development activity. It also allows a comprehensive analysis of the infrastructure, services, and other impacts of the region's buildout. The source of data for the Santa Clarita Valley Cumulative Buildout Scenario is the June 1995 Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (SCVCTM) which was used in the traffic analysis. The SCVCTM was developed jointly by the City of Santa Clarita and the County of Los Angeles Department of Public Works. The modeled area extends from the Ventura County line east to where the Antelope Valley Freeway (SR-14) passes out of the Santa Clarita Valley near Vasquez Rocks Park. The northern boundary is the Grapevine area north of Castaic and to the south the model area extends to the confluence of the I-5 and SR-14 freeways south of Newhall Pass (this is the area that is the subject of the County's Santa Clarita Valley Area Plan). In this EIR, the SCVCTM area is often referred to as the "Valley." A list of the future development activity expected in the Valley under the Santa Clarita Valley Cumulative Buildout Scenario is presented in **Table 3.0-2**. The Los Angeles County Santa Clarita Valley Area Plan can be reviewed at the County of Los Angeles Department of Regional Planning, 320 West Temple Street, Los Angeles, California, and the City of Santa Clarita General Plan can be reviewed at the City of Santa Clarita, Community Development Department, 23920 Valencia Boulevard, Suite 300, Santa Clarita, California.

3. CUMULATIVE IMPACT ANALYSIS METHODOLOGY

The specific group of projects that interact to produce cumulative impacts can differ from environmental topic to environmental topic. For example, the William S. Hart Union High School District serves the Specific Plan site, but also serves the City of Santa Clarita and unincorporated County land. The potential for cumulative high school impacts would be analyzed for that large area. On the other hand, the Newhall School District also serves the Newhall Ranch site, but provides elementary school education to only a portion of the City of Santa Clarita and a smaller amount of unincorporated County land. Thus, a smaller geographical area (and therefore a smaller amount of future growth) is

analyzed for cumulative elementary school impacts in the Newhall School District. **Figure 3.0-1, Cumulative Impact Analysis Methodology**, illustrates this concept. The topics in this EIR which fit this type of service boundary-driven cumulative impact analysis methodology include water resources, wastewater disposal, education, and libraries.

Table 3.0-2
Cumulative Development Activity
- Santa Clarita Valley Cumulative Buildout Scenario -

Land Use Types	Cumulative Buildout w/o Specific Plan[1]	Newhall Ranch Specific Plan [2]	Cumulative Buildout w/ Specific Plan
Single Family	89,015 du[3]	11,025 du	100,040 du
Multi-Family	38,729 du	14,193 du[4]	52,922 du
Mobile Home	3,177 du		3,177 du
Commercial Retail	20,107,660 sf[3]	1,718,000 sf	21,825,660 sf
Hotel	336,420 sf		336,420 sf
School	3,049 sta[3]	400 sta	3,449 sta
College	1,152 sta		1,152 sta
Hospital	285,470 sf		285,470 sf
Library	226,000 sf	25,000 sf	251,000 sf
Church	399,170 sf		399,170 sf
Business Park	7,773,730 sf	1,513,000 sf	9,286,730 sf
Industrial/Manufact.	33,480,250 sf		33,480,250 sf
Utilities	1,421,160 sf	35,000 sf	1,456,160 sf
Commercial/Med. Office	8,653,790 sf	2,489,000 sf	11,142,790 sf
Golf Course/Park	1,314 ac[3]	313 ac	1,627 ac
Special Generator	53,600 sf	24,000 sf	77,600 sf

[1] *Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (June 1995). Includes existing development and active pending general plan amendment requests.*
[2] *Draft Newhall Ranch Specific Plan, July 1996.*
[3] *du = dwelling unit; sf = square feet; sta = staff; ac = acres*
[4] *Includes 538 Second Units.*

Other environmental impacts do not confine themselves to specific service boundaries. For example, the area affected by cumulative traffic and circulation system impacts can be more difficult to determine, given the current structure of the regional and local roadway system, variables in driving behavior, future modifications to the circulation system, and uncertainty with respect to the pace of buildout of other development projects that would affect the same elements of the circulation system. However, in order to analyze such cumulative impacts (such as traffic impacts) with some focus, a broad geographical study area has to be defined. In these cases, the broad geographical area used is the Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (SCVCTM) Planning Area described above for the Santa Clarita Valley Cumulative Buildout Scenario. The topics in this EIR which fit this type of cumulative impact analysis methodology include traffic; noise (because it relies on traffic data from the SCVCTM); natural gas and electricity; solid waste; parks, recreation and trails; and population, housing and employment.

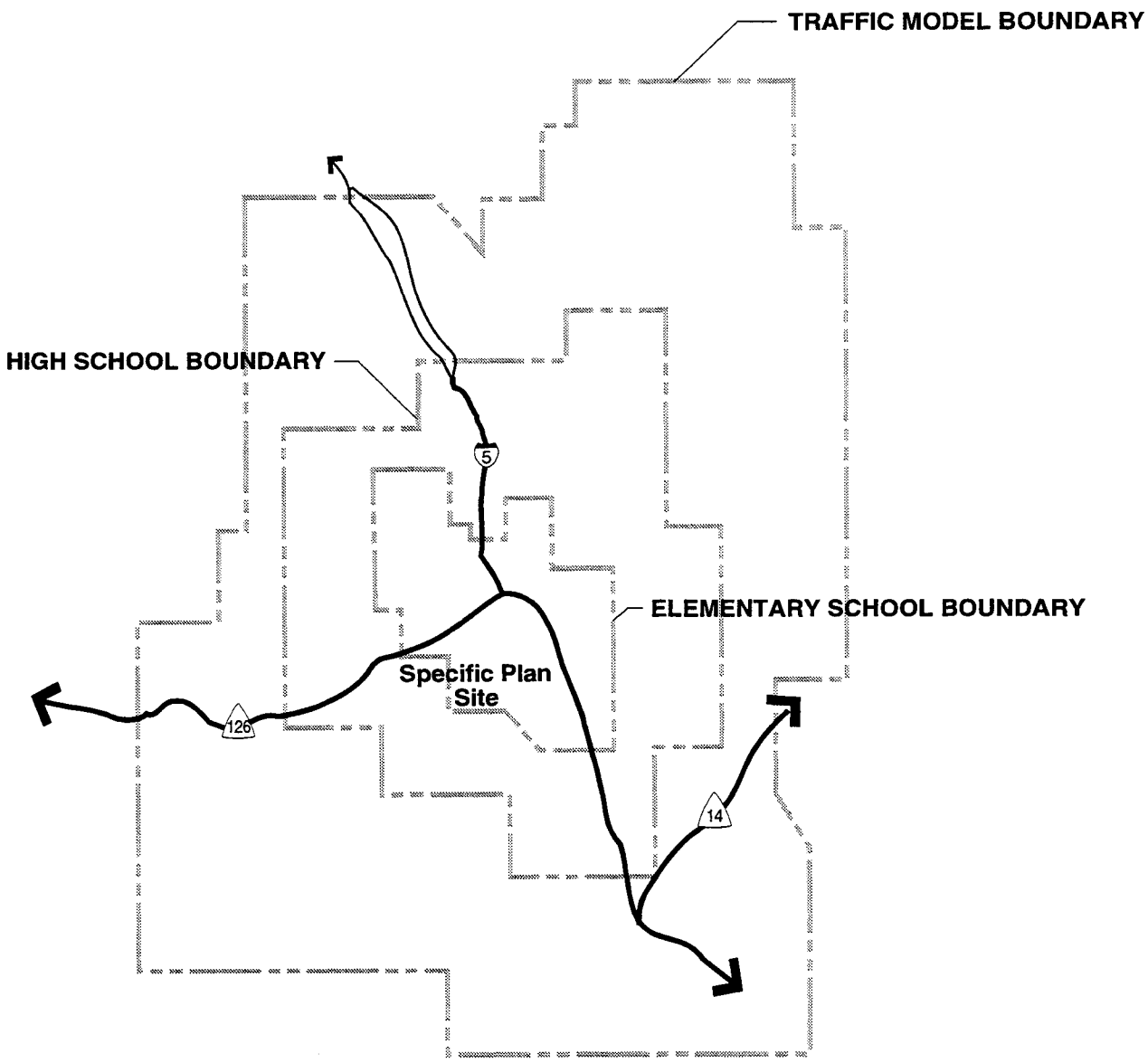

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FIGURE 3.0-
CUMMULATIVE IMPACT ANALYSIS METHODOLOGY

The potential cumulative effects relating to another group of environmental topics can be felt beyond the (SCVCTM) Planning Area referred to in the previous paragraph. For example, cumulative impacts on biological resources can occur regionally, particularly when sensitive resources that occur over a large regional context are involved. For instance, a freeway may be proposed in a way that cuts off the regional movement of animals from one large open area to another, and thereby have a regional impact that is not restricted to a planning area, but likely affects the biological environment in areas that are related topographically. The topics in this EIR which fit this type of cumulative impact analysis methodology include flood, agricultural resources, biota and visual qualities.

The assessment of cumulative air quality impacts relies on project-specific methods suggested by South Coast Air Quality Management District rather than the aforementioned growth predictions. The Air Quality Management District's methods are based on performance standards and emission reduction targets necessary to attain the Federal and State air quality standards identified in the Air Quality Management Plan (AQMP). The 1994 AQMP was prepared to accommodate growth, to reduce the high levels of pollutants within the South Coast Air Basin, to meet State and Federal air quality standards, and to minimize the fiscal impact pollution control measures have on the local economy. If the analysis shows that a project does not comply with the standards, then cumulative impacts are considered to be significant unless there is other pertinent information available to the contrary.

Lastly, some cumulative impacts confine themselves to the Newhall Ranch site. Examples include geotechnical and cultural resources impacts. For these, the effects of two or more projects which occur at different locations are not affected by, and would not impact, the same piece of land. The topics in this EIR which fit this type of cumulative impact analysis methodology include geotechnical resources, cultural/paleontological resources, and environmental safety.

The first step in evaluating cumulative impact potential is to predict the amount of future cumulative growth that is expected to occur. As indicated previously in this EIR section, such predictions have been completed under two growth scenarios, the DMS Buildout Scenario and the Santa Clarita Valley Cumulative Buildout Scenario. Where the boundaries of an affected service district are precisely defined, the growth prediction was adjusted to estimate future growth on a district-by-district basis. Where boundaries are not as narrowly defined, the total cumulative growth prediction for the SCVCTM is utilized. For those impacts that are isolated to just the Newhall Ranch site, or for an expected tributary area as with the proposed water reclamation plant, the prediction of future growth beyond that proposed for the site or the expected tributary area is not needed. The databases (growth predictions) that will be used to assess cumulative impacts are provided in **Appendix 3.0** of this EIR.

4.0 EXISTING CONDITIONS, SPECIFIC PLAN IMPACTS AND MITIGATION MEASURES, CUMULATIVE IMPACTS AND MITIGATION MEASURES, AND UNAVOIDABLE SIGNIFICANT SPECIFIC PLAN IMPACTS

PURPOSE

This section provides information on the Specific Plan site's existing conditions, Specific Plan and cumulative impact potential, and Specific Plan and cumulative mitigation measures (see EIR Sections 4.1, Geotechnical and Soil Resources, through 4.21, Population, Housing and Employment). As proposed, the Specific Plan would be developed over a 25 year period. Mitigation measures are designed to reduce the Specific Plan's impact potential. This section also describes the significant impacts which would occur after mitigation measures have been applied. Technical topics addressed in the EIR were defined by the Lead Agency through the Initial Study and Notice of Preparation process.

4.1 Geotechnical and Soil Resources

4.1 GEOTECHNICAL AND SOIL RESOURCES

1. SUMMARY

There are geologic formations in the proposed development areas of the Newhall Ranch Specific Plan site that, in their current states, are not suitable for development. Specifically, the Specific Plan proposes development in areas of the site that are subject to landslides, surficial failure, hydroconsolidation, and liquefaction, as well as in areas of expansive soils. In addition, the site will be subject to hazards associated with seismic activity in the region. Development in areas of geologic instability on the site would result in a significant impact because it would expose people and structures to geologic hazards. However, implementation of the mitigation measures proposed in this section would reduce these geologic impacts to below the level of significance and no unavoidable significant geologic impacts would occur.

2. INTRODUCTION

This section summarizes the following soils and geologic reports prepared for the entire Newhall Ranch Specific Plan site:

- Preliminary Geologic Report [for] Newhall Ranch, by Allan E. Seward Engineering Geology, Inc. (September 19, 1994);

- Addendum No.1 Preliminary Geologic Report [for] Newhall Ranch, by Allan E. Seward Engineering Geology, Inc. (December 4, 1995);

- Preliminary Geologic Feasibility Report [for] Offsite Extensions of Magic Mountain Parkway and Valencia Boulevard to Newhall Ranch, by Allan~~Allen~~ E. Seward Engineering Geology, Inc. (December 13, 1995);

- Geologic Report - Addendum No. 2 Response to County Comments [for] Newhall Ranch Specific Plan, by Allan E. Seward Engineering Geology, Inc. (May 13, 1996);

- Report of Geotechnical Reconnaissance [for the] Proposed Newhall Ranch Project, by R.T. Frankian & Associates (September 19, 1994);

- Geotechnical Response to Letter Dated July 31, 1995 From County of Los Angeles Department of Public Works, by R.T. Frankian & Associates (December 6, 1995);

- Preliminary Geotechnical Review [of the] Proposed Extensions of Valencia Boulevard and Magic Mountain Parkway to Newhall Ranch, Valencia California, by R.T. Frankian & Associates (December 12, 1995); and

- Response to County Remarks; Geotechnical Review Sheet Dated March 28, 1996 [for] Newhall Ranch Specific Plan, by R.T. Frankian & Associates (May 15, 1996).

Allan E. Seward Engineering Geology, Inc.'s reports evaluate the Salt Creek and Del Valle Fault Zones, delineate the approximate extent of on-site landslides, provide preliminary recommendations relative to the proposed grading concept for the Newhall Ranch Specific Plan, and evaluate the feasibility of the proposed extensions of Magic Mountain Parkway and Valencia Boulevard from Interstate 5 to Newhall Ranch.

R.T. Frankian & Associates' geotechnical reconnaissance of the site supplements Allan~~Allen~~ E. Seward Engineering Geology, Inc.'s reports with respect to future potential earthquake ground motion and liquefaction on the site and within the proposed off-site roadway extensions.

All reports are summarized in this section and presented in their entireties in **Appendix 4.1** of this environmental impact report. The methodologies utilized in each of these reports is presented below:

a. Preliminary Geologic Report

Allan~~Allen~~ E. Seward Engineering Geology, Inc.'s on-site geologic investigation included the following:

- review of in-house data; published and unpublished maps and documents; the 1992 Munger Map Book for California-Alaska, Oil and Gas Fields, aerial photographs of the Newhall Ranch Specific Plan area from 1928, 1945, 1977, and 1994; the topographic base maps of the subject site; and data gathered by the U.S. Geological Survey (U.S.G.S.) at Potrero Canyon following the Northridge Earthquake;

- geologic logging of forty-seven trenches (totaling 3,827 lineal feet) and dozer cuts excavated to a maximum depth of 11 feet;

- delineation of landslides present on the Newhall Ranch Specific Plan site;

- delineation of the Salt Creek and Del Valle Fault Zones as they occur in the Newhall Ranch Specific Plan development area[1] and designation of geologically recommended preliminary Building Setback Zones;

- preliminary review of the proposed grading concepts; and

- coordination with the Newhall Ranch Specific Plan Geotechnical (Soils) Engineer, R.T. Frankian & Associates and the grading engineer, Alliance Land Planning and Engineering.

Allan~~Allen~~ E. Seward Engineering Geology, Inc.'s investigation for the off-site roadway extensions included review of in-house data; published and unpublished maps and documents; the 1992 Munger Map Book for California-Alaska, Oil and Gas Fields, aerial photographs of the Newhall Ranch Specific Plan area from 1928; and the topographic base maps of the proposed alignments of the roadway extensions.

b. Geotechnical Reconnaissance

R.T. Frankian & Associates geotechnical reconnaissance of the site and off-site roadway extensions supplements Allan~~Allen~~ E. Seward Engineering Geology, Inc.'s investigations with respect to future potential earthquake ground motion and liquefaction, and evaluates the site within twenty-one distinct geographic areas. Each area was given a number and a name in accordance with the preliminary earthwork map prepared by Alliance Land Planning and Engineering. Each area is described below along with findings relative to its development potential.

3. EXISTING CONDITIONS

The Newhall Ranch Specific Plan site is part of the Ventura Basin of southern California, which is a westerly-plunging depositional basin produced by tectonic downwarping initiated during the early Miocene (thirteen to twenty-five million years before present); its axis approximately coincides with the Santa Clara River. Site topography (**Figure 2.0-2, Site Topography**) is dominated by east-west- and northwest-trending primary ridges with generally north- and south-trending secondary ridges. Slope gradients vary from moderate to steep in the hillside areas to very gentle within the Santa Clara River flood plain, major tributary canyons, and on uplifted terrace (mesa) surfaces adjacent to the River.

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1 The projected trace of the Holser Fault Zone traverses the Castaic Junction area approximately 1,200 feet northeast of the proposed development area.

The following discussion on existing conditions has been broken down into the following subtopics:

- Earth Materials,
- Mass Movement Deposits,
- Geologic Structure,
- Seismicity,
- Ground Water, and
- the findings of R.T. Frankian & Associates' Geotechnical Reconnaissance.

a. Earth Materials

This subsection is a discussion of the bedrock formations and surficial deposits found on the Newhall Ranch Specific Plan site.

(1) Bedrock Formations

Bedrock formations found on the Newhall Ranch Specific Plan site include the Modelo and Towsley Formations, the Pico Formation, the Saugus Formation, the Pacoima Formation, and Quaternary Terrace Deposits. Bedrock found at the Newhall Ranch Specific Plan site is moderately consolidated, indicating that grading operations can be performed with conventional equipment. Each of these geologic units is discussed below, and mapable units are designated on the geologic map (**Figure 4.1-1, Geologic Map**).

(a) Modelo and Towsley Formations

The Miocene marine Modelo Formation and Miocene to Pliocene (two to thirteen million years before present) marine Towsley Formation are present on the southern portion of the property which would not be developed except for the area in which the fifteen Estate lots would be located. The Modelo Formation consists of white weathering, thin bedded, fissile, semi-siliceous shale with thin calcareous beds and local tan semi-friable sandstone interbeds. This unit is prone to landslide failure and is the source of many large landslides on the southern portion of the property. The Towsley Formation consists of light-gray sandstone and local conglomerate with interbeds of grayish-brown siltstone which commonly contains gypsum. The Modelo and Towsley Formations do not crop out (protrude above ground surface) in the area planned for development and, therefore, will not be impacted by the proposed Newhall Ranch Specific Plan.

Figure 4.1-1

See Oversized Map Pocket at End of This EIR Volume

(b) Pico Formation (Tp/Tps)

The Pico Formation, deposited above the Towsley Formation in a shallow to deep marine environment of the Ventura Basin during Pliocene times, is the most areally extensive unit on the site. It consists of light-gray to light greenish-gray sandstone and conglomerate interbedded with light greenish-gray to olive-gray sandy siltstone, siltstone and rare dark-gray mudstone. A thick section of siltstone underlies the Potrero Canyon area. The Pico Formation is generally moderately hard and well bedded, except for the siltstone units which are commonly fractured near the surface and poorly bedded. It should be noted that the contacts with the underlying Towsley Formation and overlying Saugus Formation are gradational, and the upper portion of the Pico Formation, as depicted on the geologic map, may in part be equivalent to the basal portion of the Saugus Formation. Heavy single shank ripping will probably be required in the indurated sandstone and conglomerate beds of the Pico Formation. Dark-green to greenish-gray clayey siltstone and mudstone within the Pico Formation are potentially very expansive.[2]

(c) Saugus Formation (TQs)

The Plio-Pleistocene Saugus Formation is exposed in the northeastern portion of Newhall Ranch. This formation was deposited in a fluvial environment between 2.5 million and 750,000 years ago and consists of moderately hard, light-gray to yellowish-gray sandstone and conglomerate, greenish-gray siltstone and sandy siltstone, and reddish-brown mudstone. Heavy single shank ripping will probably be required in the indurated sandstone and conglomerate beds of the Saugus Formation. The siltstone and mudstone of the Saugus Formation are potentially expansive.

(d) Pacoima Formation (Qp)

A portion of Newhall Ranch west of Magic Mountain and southwest of Airport Mesa (the East Mesas Area) has been alternately mapped as either Saugus Formation or Pacoima Formation by previous workers. Geologic investigations by Allan E. Seward Engineering Geology, Inc. to the east of the Newhall Ranch Specific Plan site suggest that the Pacoima Formation is locally present stratigraphically above the Saugus Formation and below the uplifted Quaternary Terrace Deposits (the actual extent of the Pacoima Formation on the Newhall Ranch Specific Plan site will be

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2 Expansive soils expand or swell when wet and contract or shrink when dried.

evaluated during future field investigations of the area). The Pacoima Formation is lithologically transitional between the Saugus Formation and the Terrace Deposits and generally consists of moderately- to well-consolidated, light yellowish-gray sandstone and conglomerate with interbeds of light yellowish-brown to pale reddish-brown siltstone and silty sandstone.

The Pacoima Formation is similar to the Saugus Formation relative to engineering characteristics and lithology, except that it generally is not as well bedded and contains fewer fine-grained deposits and very little mudstone. Where these fine-grained units are exposed, however, they may be potentially expansive and will require standard testing by the Newhall Ranch Specific Plan Soils Engineer at the grading plan stage to determine their engineering characteristics and other pertinent information relative to the formations in which they are found.

(e) Quaternary Terrace Deposits (Qt)

At least two different levels of terrace deposits are present on Newhall Ranch. The most prominent terraces (including Potrero Mesa, Grapevine Mesa and Airport Mesa) occur on the southern margin of the Santa Clara River, and north of the River between San Martinez Grande and Chiquito Canyons. An extensive area of probable terrace deposits is present south of Magic Mountain and east of the proposed grading. The terrace deposits consist of light-brown to yellowish-brown silty pebbly sand and pebble to cobble conglomerate, which is generally firm and poorly bedded. A substantial soil zone has developed over the older terrace surfaces. The approximate extent of the more prominent terrace deposits is presented on the geologic map.

(2) Surficial Deposits

Surficial deposits found on the Newhall Ranch Specific Plan site include quaternary alluvium, slopewash, soil, and artificial fill. Each of these deposits is discussed individually below.

(a) Quaternary Alluvium (Qal)

Quaternary alluvium, as shown on the geologic map, includes the active alluvium and flood plain deposits in the Santa Clara River and its tributaries, as well as older uplifted and dissected alluvium on the margins of the Santa Clara River and tributary canyons (areas designated as Qal also include agricultural areas which are underlain by Qal and alluvial areas affected by minor grading and road

building). The alluvium in the Santa Clara River area consists of moderately consolidated to unconsolidated silt, sand and gravel deposits. The alluvium present in the tributary canyons consists of poorly-to moderately-consolidated silt and silty pebbly sand, depending on the types of source rock present in the canyon.

The alluvium in Potrero Canyon below approximately 5 feet is commonly saturated and trench excavations are prone to caving. The phenomenon of collapsing soils is the result of water interacting with void-bearing sediments. Water in the sediments reorganizes sediment particles into a more compact arrangement, causing reduction of the void space. This causes settlement (hydroconsolidation) of the material, which is potentially hazardous to overlying structures.

(b) Slopewash (Qsw)

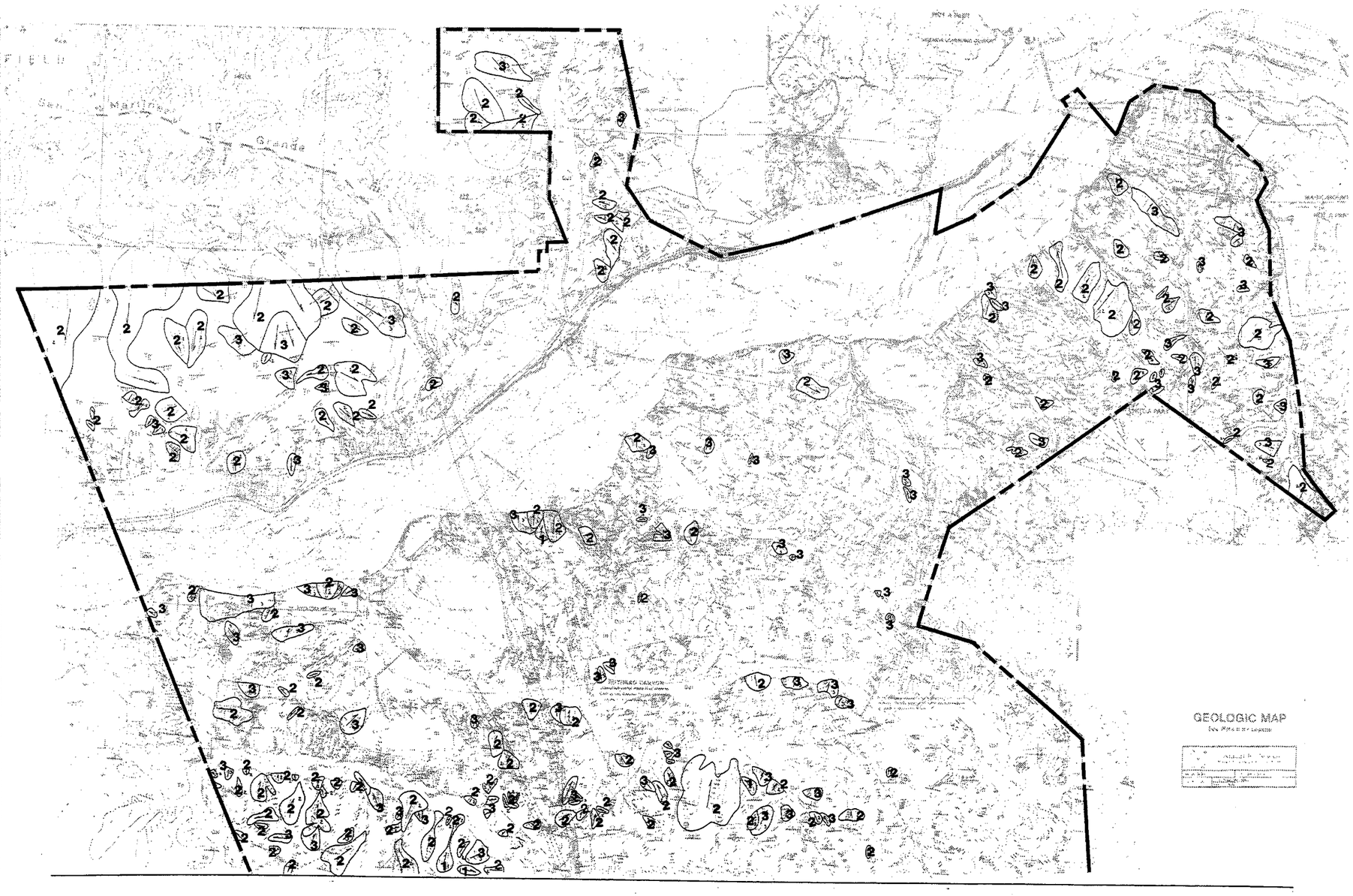
Slopewash (not shown on the geologic map) is a non-bedded, heterogeneous accumulation of soil and weathered bedrock deposited by gravity on nearly all of the slopes on the site. The thickest accumulations occur at the toes of slopes and at the heads of tributary canyons, and consist of yellowish-brown to light greenish-gray silty sand with scattered pebbles and clasts of sandstone and siltstone, depending on the source rock (the maximum thickness of slopewash encountered in Allan~~Allen~~ E. Seward Engineering Geology, Inc.'s excavations was 6.5+ feet). This unit also includes landslide graben backfills, colluvium and minor debris flow deposits. Slopewash commonly contains void space and is also subject to hydroconsolidation.

(c) Soil

Soil (also not shown on the geologic map) has developed as a mantle over much of the site on shallow to moderate slopes and consists of moderate to yellowish-brown and grayish-brown silty sand to sandy mud with scattered pebbles and cobbles. The maximum thickness of soil noted in Allan~~Allen~~ E. Seward Engineering Geology, Inc.'s excavations was 5.5 feet.

(d) Artificial Fill (af)

Artificial fill has been placed on the site primarily during construction of pads and roads for oil well drilling operations. Additional minor fill has been placed for gas line easements, for roads which traverse the site, and for various tanks and small structures present on the site. The more prominent fill areas have been shown on the geologic map, but additional fill areas are also present.



SOURCE: ALLAN E. SEWARD ENGINEERING GEOLOGY INC.

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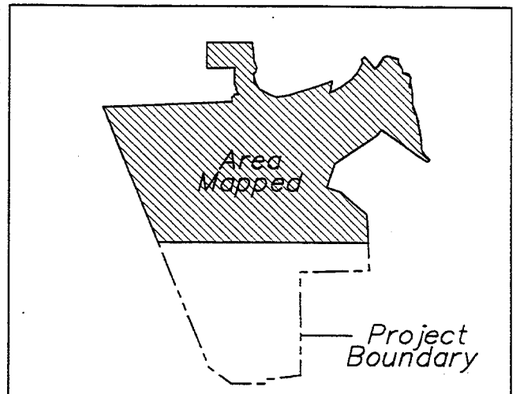
L E G E N D

1 RECENT LANDSLIDE-
Activated or reactivated during the January 17, 1994 Northridge Easrthquake.

2 QUATERNARY LANDSLIDE-
Landslides mapped with moderate certainty, arrows indicate approximate direction of movement.

3 QUATERNARY LANDSLIDE-
Existence and/or extent uncertain.



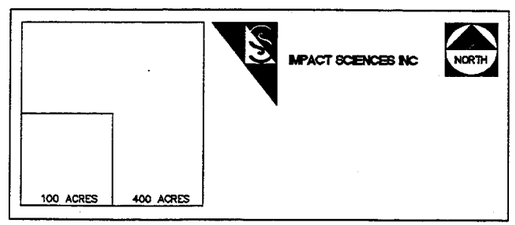


FIGURE 4.1-2
EXISTING LANDSLIDE AREAS

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Landslides mapped on Newhall Ranch primarily moved in the direction of bedding dip or a component of the dip. Landslides south of the Santa Clara River generally moved toward the north in the Pico Formation and toward the northeast in the Saugus Formation. North of the Santa Clara River and the Santa Clara Syncline, the landslides moved primarily to the south and southeast. Many of the mapped landslides show a cross bedding component.

A large topographic anomaly on the southern side of Potrero Canyon was originally mapped by Allan~~Allen~~ E. Seward Engineering Geology, Inc. as a terrace deposit. This designation was based on the generally flat nature of the surface and on its topographic compatibility with the large distinctive terrace (Potrero Mesa) mapped on the northern side of the canyon. Subsequent geologic mapping of this feature indicates that, at six separate locations along the margins of the anomaly, terrace material was exposed overlying the Pico Formation sandstone and conglomerate. Several exposures showed cobble to boulder rich terrace material directly overlying the Pico Formation bedrock. The detailed mapping indicates that the northern Qt/Tp contact is approximately 25 feet lower than originally believed and that the questioned landslide on the western margin of the terrace is probably actually an eroded remnant of the same terrace.

Of the landslides mapped on Newhall Ranch, eighteen are greater than 1,000 feet in width. The location of these landslides are presented on Plates A & B of Addendum #1 to the Preliminary Geologic Report [for] Newhall Ranch, which is found in **Appendix 4.1** of this document. The following **Table 4.1-1, Summary of On-Site Landslides Greater than 1,000 Feet in Width,** summarizes the expected nature of each landslide and the geologic units involved.

(b) Off-Site Roadway Extensions

Review of pertinent literature indicates no significant landslides have been mapped within 400 feet of either roadway alignment. A subsequent review of site topography and aerial photographs also indicated that no major landslides are present along the proposed roadway extensions. While subsurface investigations are necessary at the subdivision stage prior to construction, the shallow dipping, coarse-grained Pacoima Formation is not generally prone to landslide failure. Bedrock of the Saugus and Pico Formations found along the proposed Valencia Boulevard alignment generally dips at 45 to 60 degrees to the northeast and, therefore, bedding plane failures are considered unlikely.

Table 4.1-1
Summary of On-Site Landslides
Greater than 1,000 Feet in Width

Landslide No.	Units Involved	Nature of Landslide
I	Tp	Extends off-site to north and west; moved in dip direction, but has likely cross bedding component; lateral margins uncertain. Qls-I to Qls-V related to "Homestead anticline."
II	Tp	Extends off site to north; moved in dip direction, but has likely cross-bedding component.
III	Tp	Possible cross-bedding failure which is largely off-site to the north, probably shallow.
IV	Tp	Extends off-site to north; moved in dip direction, but likely has cross-bedding component; lateral limits are uncertain.
V	Tp	Extends off-site to north; moved in dip direction, but has likely cross-bedding component; lateral limits are uncertain; it is associated with "Homestead anticline" and Del Valle Fault zone.
VI	Tp	Queried landslide; failed in dip direction, but has probable cross-bedding component.
VII	Tp	Possible landslide; failed in dip direction, but has probable cross-bedding component.
VIII	Tp/Qt	Probable landslide; failed down dip; toe area along trace of syncline.
IX	Tp	Probable landslide; failed along dip component; margin of Del Valle anticline.
X	Tp/Qal	Possible cross-bedding failure across Santa Clara syncline; indicated by closed depression.
XI	Tp	Queried cross-bedding failure north of Santa Clara syncline; central portion failed during Northridge earthquake; relatively shallow.
XII	Tp	Queried landslide; failed in dip direction with probable cross-bedding component.
XIII	Tp	Bedding plane failure as indicated in Trench T-7; possibly overlain by Qt; possibly associated with Salt Creek Fault.
XIV	Tp	Landslide indicated by trenches T-12 and T-13; lateral limits uncertain.
XV	Tp	Probable composite landslide; failed in dip direction with probable cross-bedding component; lateral limits uncertain.
XVI	TQs/Op	Queried bedding plane failure.
XVII	TQs	Probable bedding plane failure; lateral limits uncertain.
XVIII	TQs/Qp	Probable bedding plane failure.

(2) Surficial Failures

(a) Newhall Ranch Specific Plan Site

Numerous shallow failures and rock falls/debris flows were activated on the steeper slopes of the site by strong ground motion from the Northridge Earthquake. Surficial failures which occurred prior to the Northridge Earthquake are also common on the site, especially on the steeper hillsides around Potrero

Canyon. The steeper hillsides around Potrero Canyon are underlain largely by siltstone, the upper 5 to 10 feet of which are generally highly fractured and weathered, and prone to failure during intense rainfall and/or earthquake-generated ground motions. This debris commonly accumulates into thick, poorly consolidated deposits of heterogeneous material at the base of steep slopes and is generally unsuitable for building foundations.

Shallow surficial failures involving soil, slopewash and weathered bedrock have not been delineated on the geologic map at this time; however, their locations will be shown in more detail on larger scale maps during site subdivision.

(b) Off-Site Roadway Extensions

Small surficial failures involving soil, slopewash, and weathered bedrock may be encountered along the proposed roadway alignments. Several debris flow scars can be found along the proposed Valencia Boulevard extension within the Saugus Formation.

c. Geologic Structure

(1) Newhall Ranch Specific Plan Site

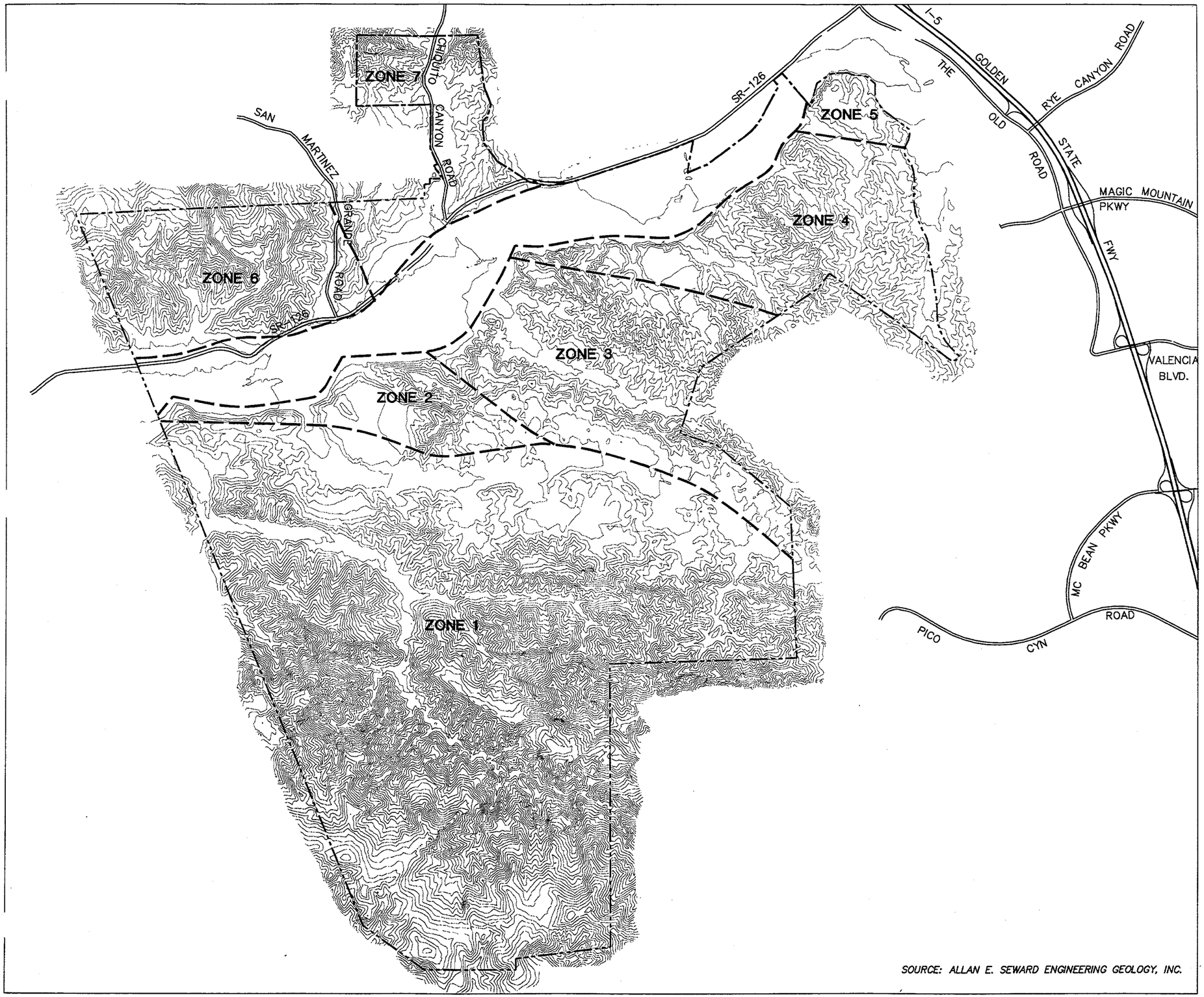
The Newhall Ranch Specific Plan site can be divided into seven zones based on structural similarity. Each of these zones is illustrated on the Structural Zone Map (**Figure 4.1-3, Geologic Structure Zones**) and is discussed individually below.

(a) Zone 1

Zone 1, located south of Potrero Canyon and south of the Santa Clara Syncline, is characterized by moderately to steeply, generally north-dipping bedding of the Pico Formation. Zone 1 includes the Salt Creek Fault Zone and coincides with the South Upper Potrero Canyon, Golf Course, South Lower Potrero Canyon, Salt Ridge and most of the Quarry and Windy Gap areas.

(b) Zone 2

Zone 2 encompasses the area south of the Santa Clara River, north of Potrero Canyon and in between the Santa Clara Syncline and the Newhall-Potrero Anticline. Although the anticline is expressed in the subsurface all the way across the Newhall Ranch Specific Plan site, it is not present as a distinct



SOURCE: ALLAN E. SEWARD ENGINEERING GEOLOGY, INC.

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L E G E N D

STRUCTURE ZONE BOUNDARY

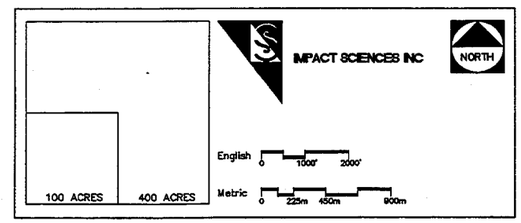

EXHIBIT 4.1-3
GEOLOGIC STRUCTURE ZONES

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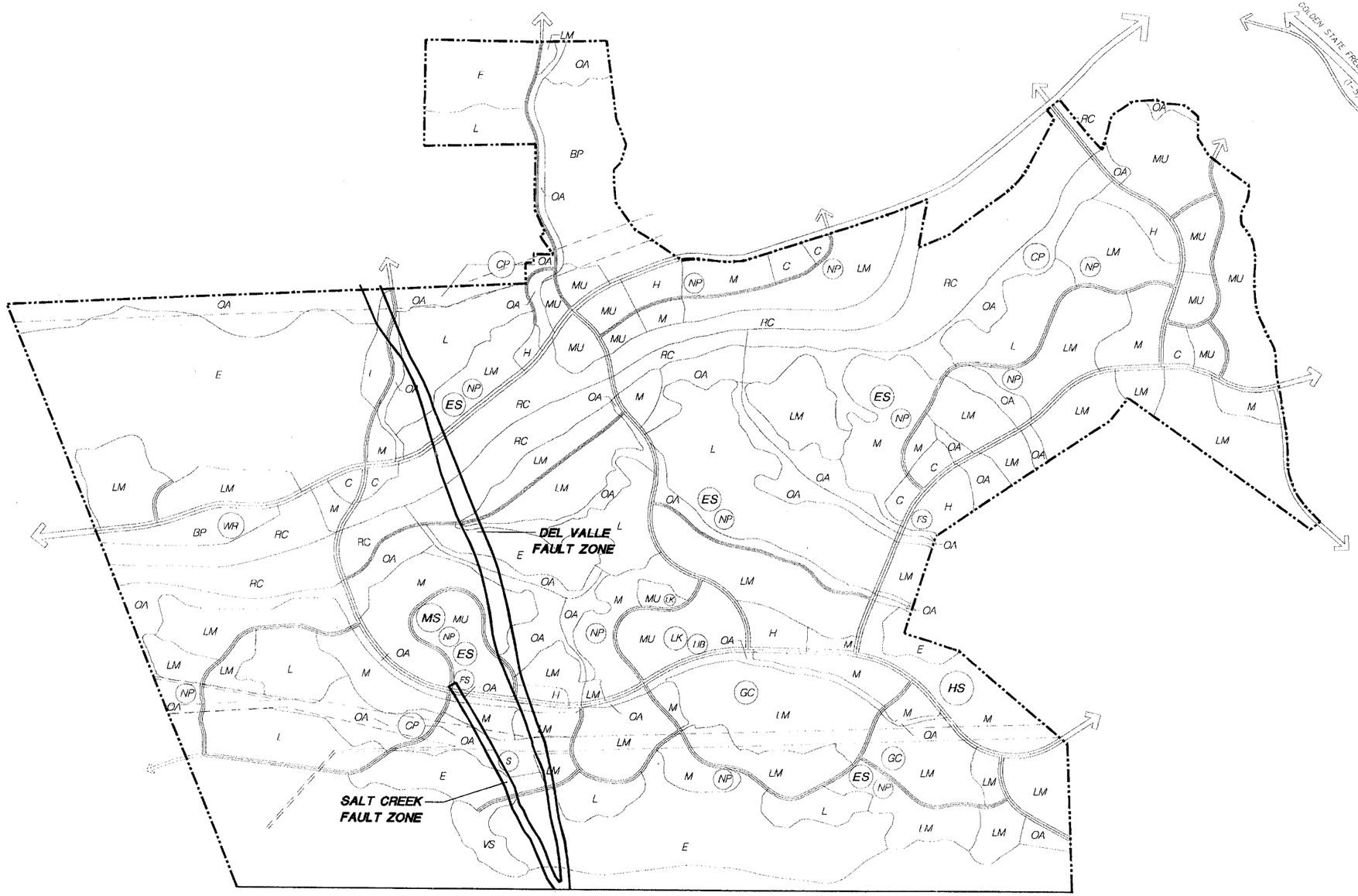

SOURCE: ALLAN E. SEWARD ENGINEERING GEOLOGY, INC.

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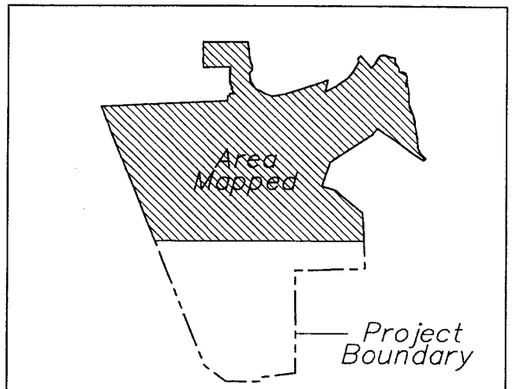
L E G E N D

RECOMMENDED SEISMIC BUILDING SETBACK ZONES



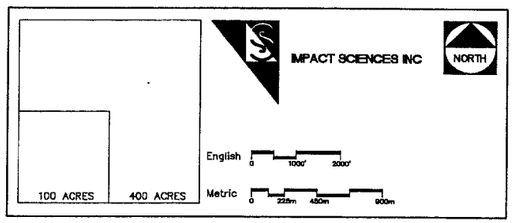


FIGURE 4.1-4
RECOMMENDED BUILDING SETBACK ZONES

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(4) Newhall Ranch Specific Plan Area Seismic Hazards

Three common types of geologic hazards may be produced during a seismic event (earthquake) in the Newhall Ranch Specific Plan vicinity. These include ground rupture, ground motion, and ground failure, and each is discussed individually below. Other less common geologic hazards are also discussed.

(a) Ground Rupture

Newhall Ranch is traversed by a series of west-northwest-trending folds, including four anticlines. Using the fault plane solutions measured from the main shock and aftershocks from the January 17, 1994 Northridge Earthquake (magnitude of 6.8), which caused the Santa Susana Mountains to be uplifted 40-70 centimeters, and the depth and distribution of aftershocks, the fault plane was calculated to project to the surface in the vicinity of Potrero Canyon. It appears, at this point, that the earthquake occurred on a "blind thrust," which is a reverse fault that does not reach the surface. Deformation within approximately 5 kilometers of the surface was apparently taken up by folding rather than fault displacement, which may involve uplift and tensional cracking, tilting, and/or flexural slip along bedding.[9]

Significant distress, including shattered ridge effects, ground cracks and fissures, rock falls, activation and reactivation of landslides, and liquefaction features were discovered on the Newhall Ranch Specific Plan site (these features are generally attributed to strong ground motions generated by the earthquake rather than fault ground rupture). Ground cracks and fissures were common along the margins of Potrero Canyon and were particularly concentrated in the area mapped by the U.S. Geological Survey (U.S.G.S.). Most of the cracks found on the site displayed normal offset down toward the canyon and are interpreted to be the result of dynamic compaction and lateral spreading of the canyon alluvium. However, some of the cracks on the southern margin of Potrero Canyon show reverse offset and were initially interpreted as surface ground rupture. Bedrock offset at the ground surface or in the excavated trenches was neither observed by Allan E. Seward Engineering Geology, Inc. nor indicated in the detailed trench logs provided by the U.S.G.S. U.S.G.S. has subsequently concluded that no ground rupture occurred at Potrero Canyon and that the cracks are the result of strong ground motion and associated ground lurching and differential settlement (dynamic compaction) of the valley

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9 The approximate orientation and location of the fault plane which produced the Northridge Earthquake was determined based on first motion fault plane solutions and the subsurface distribution of the aftershocks. Cross sections by Davis and Namson (1994) illustrate that the aftershock distribution reaches the surface in a broad zone between the Pico Anticline and the Santa Clara Synclinorium, which is the location of Potrero Canyon. It should be noted, however, that actual rupture along the fault plane during the Northridge Earthquake ended between 5 and 8 kilometers below the ground surface and deformation above this was taken up by folding rather than ground rupture. Brian Swanson, Allan E. Seward Engineering Geology, Inc., correspondence to Impact Sciences, Inc., 13 April 1995.

alluvium.[10] This is a very significant finding because it indicates that the distress in Potrero Canyon was not the result of primary fault displacement of the ground surface. If ground rupture had occurred, a large area surrounding the noted ground rupture would have been placed in an Alquist-Priolo Earthquake Fault Zone and any proposed development within this area would have required detailed geologic investigation to determine the exact extent of faulting. In addition, a minimum 50-foot setback would have been designated on either side of any mapped faults. However, because ground rupture did not occur at Potrero Canyon, such measures are not required.[11]

(b) Ground Motion

Ground motion is generated during an earthquake as two blocks of the earth's crust slip past each other. In general, ground motion is generally greatest near the epicenter, and decreases with increasing distance and increases with increasing earthquake magnitude. However, the ground motion measured at a given site is modified by a number of criteria, including focal depth, proximity to projected or actual fault rupture, fault mechanism, duration of shaking, local structure, source direction of earthquake, underlying earth material characteristics and topography. All of these factors make it difficult to accurately predict potential ground motions at a given site in the geologically and topographically complex southern California area. Current methods of ground motion prediction should, therefore, be considered approximations rather than precise facts.

There are a number of ways in which the strength of an earthquake and the measurement of ground movement associated with a seismic episode can be expressed. The following represents a discussion of the faults most likely to have an effect on the Newhall Ranch Specific Plan site and briefly describes the various methods utilized to obtain such measurements.

Earthquake magnitude is a quantitative measure of the strength of an earthquake or the strain energy released by it, as determined by seismographic or geologic observations. This differs from intensity, which is a qualitative measure of the effects a given earthquake has on people, structures, or objects. Earthquake magnitude is measured on the Richter scale, while intensity is described by the Modified Mercalli intensity scale.

The highest predicted maximum credible earthquake (MCE) for faults most likely to have an effect on the Newhall Ranch Specific Plan site is associated with the San Andreas, with a reading of 8.3 on the Richter scale. MCE is defined as the maximum earthquake that appears capable of occurring under the

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10 Brian Swanson, Allan E. Seward Engineering Geology, Inc., correspondence to Impact Sciences, Inc., 13 April 1995.

11 Brian Swanson, Allan E. Seward Engineering Geology, Inc., Newhall, California, correspondence to Impact Sciences, Inc., 27 April 1995.

presently known tectonic framework. It is a rational and believable event that is in accord with all known geologic and seismologic facts. The San Andreas fault is also capable of producing the greatest maximum probable earthquake (MPE) of 8.1. The MPE is defined as the maximum earthquake that is likely to occur during a one hundred year interval. It is regarded as a probable occurrence, not an assured event that will occur at a specific time.

A related form of measurement is peak ground acceleration. This is a measure of ground shaking during an earthquake. Peak acceleration values are reported in units of gravity (g) as recorded from nearby seismic stations. As discussed above, this value is influenced by a variety of factors including distance from the epicenter, underlying earth materials, etc. The highest predicted peak acceleration on the Newhall Ranch Specific Plan site is 0.70g associated with activity on the San Cayetano fault.

The Maximum Credible Ground Acceleration (MCGA) represents another form of ground shaking measurement. The MCGA is the peak horizontal acceleration at the site which may be produced by the maximum credible earthquake. The predicted maximum credible earthquake which would have the greatest effect on the site would be a 7.1 magnitude earthquake on the San Cayetano fault, which would produce a peak acceleration of 0.70g.

Numerous studies have indicated that a single peak acceleration measured during a seismic event is not indicative of the associated ground motion. As such, peak acceleration is of little use in structural design. The Repeatable High Ground Acceleration (RHGA) and the duration of ground motion will more closely approximate a "Design Acceleration" than the maximum peak bedrock accelerations. The RHGA is calculated as 65 percent of the peak bedrock acceleration for sites within 20 miles of the earthquake epicenter. The maximum RHGA value expected at the Newhall Ranch Specific Plan site is 0.45g, which would be produced by a 7.1 magnitude event on the San Cayetano Fault.

The Maximum Probable Ground Acceleration (MPGA) is defined as the peak horizontal acceleration at the site which may be produced by the maximum probable earthquake. This value should not be lower than the maximum acceleration recorded at that site during historic time. The Oak Ridge fault would produce a MPGA of 0.59g at the Newhall Ranch Specific Plan site during a 6.8 magnitude event.

Finally, a contour map based upon historical ground motion records of the United States has been compiled which illustrates the spatial variation of Peak Horizontal Ground Acceleration with a 10 percent probability of exceedence in fifty years. Review of this map indicates that the property lies between the .4g and .6g contours.

In the recent past, the Northridge Earthquake produced large ground acceleration values in the Santa Clarita Valley. Based on current data and the degree of earthquake distress which occurred in the vicinity of Potrero Canyon, it is probable that the Newhall Ranch area experienced peak ground accelerations of 0.6g or greater during the Northridge Earthquake. The duration of strong ground motion in the Santa Clarita Valley varied from ten to fifteen seconds. The vertical acceleration measured at the Newhall Fire Station was as large as the horizontal acceleration.[12] Based on this data and the dip-slip nature of most of the nearby faults, it should be assumed that vertical accelerations from future earthquakes may equal horizontal accelerations on Newhall Ranch. Ground motions may originate from any direction due to the presence of large active and potentially active faults located to the north, south, east and west of the site.

(c) Ground Failure

Ground failure is a general term describing seismically-induced secondary permanent ground deformation caused by strong ground motion, including liquefaction, lateral spreading, settlement of poorly consolidated materials (dynamic compaction), differential materials response, slope failures, sympathetic movement on weak bedding planes or non-causative faults, and shattered ridge effects (ground lurching). Most, if not all, of the distress in Potrero Canyon appears to be related to lateral spreading and settlement of the canyon alluvium. Distress features noted on the slopes and ridges adjacent to Potrero Canyon are discontinuous and appear to be the result of slope failure and shattered ridge effects.

(d) Liquefaction

Liquefaction is the process in which water-saturated, usually loose-to-moderately dense, fine-to-medium sands temporarily lose strength due to strong ground motion and behave as a viscous fluid. The loose sand grains rearrange into a more stable orientation which transfers the overburden pressure from the grain-to-grain contacts to the fluid. Because liquids cannot support shear stresses, the sediment/water mixture loses strength and may flow like a viscous fluid if a gradient is present. As water escapes from the collapsing void space between the grains, the sediment settles and water escapes to the surface. When a buried sand zone is liquefied, the overburden pressure forces the excess water to the surface, commonly causing sand boils and sand volcanoes.

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12 Maximum horizontal accelerations recorded at the Newhall Fire Station (approximately 5 miles east of the Newhall Ranch Specific Plan site) during the Northridge Earthquake varied from 0.61g to 0.63g, and the maximum vertical acceleration was recorded at 0.62g. Brian Swanson, Allan E. Seward Engineering Geology, Inc., correspondence to Impact Sciences, Inc., 13 April 1995.

According to R.T. Frankian & Associates, the Santa Clara River area sands and adjacent sandy areas are generally dense and have a low potential for liquefaction, even when assuming a conservative value for the bedrock acceleration of 0.6g. Shallow liquefaction features occurred on Newhall Ranch during the Northridge Earthquake, primarily in recent shallow sand deposits in and around the Santa Clara River area. These features are the result of shallow liquefaction that produced relatively small sand boils. Local liquefaction features, such as sand boils/blows were observed in Potrero Canyon by Allan E. Seward Engineering Geology, Inc., and by the U.S. Geological Survey following the Northridge Earthquake.[13]

(e) Lateral Spreading

Lateral spreading is a type of liquefaction where sediments/materials spread laterally down slope due to temporary loss of shear strength. Lateral spreading may occur on slopes as shallow as 1 to 2 degrees. Minor lateral spreading of side hill fills in association with dynamic compaction occurred during the Northridge Earthquake. Lateral spreading and settlement was observed to have occurred in the soft sediments of Potrero Canyon.

(f) Dynamic Compaction

Dynamic compaction refers to seismically-induced settlement and permanent movement of poorly consolidated materials. Strong ground motion causes particles within the material to reorganize into a more compact arrangement, which decreases the void space and causes settlement at the surface. Where the consolidation or thickness of the material varies, differential settlement will occur. The manifestation of dynamic compaction may also be related to the ability of certain fine-grained soils to deform excessively under low stresses.

(g) Differential Materials Response

Differential materials response refers to the different responses various materials display when subjected to seismic waves. In particular, this refers to widely observed distress along bedrock/fill and bedrock/alluvium contacts from the Northridge Earthquake. Materials with different density characteristics transmit seismic energy at different wave lengths. Where materials with different densities are in contact, differential response to the seismic energy may cause distress along the contact. The combination of dynamic compaction and differential settlement, along with differential materials response, is a source of future potential hazard along cut/fill and bedrock/alluvium contacts.

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13 Brian Swanson, Allan E. Seward Engineering Geology, Inc., correspondence to Impact Sciences, Inc., 13 April 1995.

(h) Slope Failure

Earthquake related slope failures include activation and reactivation of landslides, rock falls, debris flows and surficial failures. Slope failures of all types were generated on Newhall Ranch by the Northridge Earthquake. Most of the larger failures occurred south of the proposed development area on the southern side of Salt Creek Canyon (earthquake-activated landslides and scarps are shown on the geologic map; earthquake-induced rock falls, debris flows and surficial failures are not shown). Rock fall and debris flows are concentrated below steep outcrops of coarser-grained bedrock, while surficial failures generally occurred on slopes underlain by siltstone with thick weathered zones of slopewash.

(i) Sympathetic Movement

Strong ground motion may cause sympathetic movement along weak inclined planes, such as clay beds, or non-causative faults. Movement may be related to strong ground motion or flexual slip during folding of beds. Evidence of sympathetic slip along bedding planes of the Pico Formation was noted by the U.S.G.S. during its investigation of Potrero Canyon. Other evidence of sympathetic movement related to the Northridge Earthquake has been found east of Newhall Ranch in the Santa Clarita Valley. The specific location of future potential slippage along weak planes cannot be reliably predicted at this time.

(j) Shattered Ridge Effects

Shattered ridge effects (ground lurching) consist of fractures, fissures and minor slumps which are concentrated on narrow ridgelines. The effects are most prominent on ridges tangent to the seismic waves. Current theory suggests that amplification of ground motion at ridge tops is frequency dependent and is most prominent for seismic waves with wave lengths approximately the same width as the ridge or mountain. Complex amplification and reamplification can occur on the slope, possibly leading to dangerous differential motion at the top of the ridge, producing cracks and fissures at the crest.

The Northridge Earthquake produced shattered ridge effects on most of the steeper ridgelines on Newhall Ranch. Distress was concentrated on east-west-trending ridgelines. The exact location and extent of shattered ridge effects which may be produced on Newhall Ranch during future earthquakes cannot be predicted at this time.

e. Ground Water

(1) Newhall Ranch Specific Plan

Shallow ground water is present on the site within the Santa Clara River Valley alluvium and alluvium of the major tributary canyons. Saturated alluvium was noted within 5 feet of the surface in Potrero Canyon and minor seepage was noted along Salt Creek at a depth of approximately 7 feet. Potrero, Salt, Chiquito, and San Martinez Grande Canyons have running water part of the year. It is likely that perched ground water zones will be encountered in areas wherever downward migration of surface water is impeded. Ground water is not expected to be an issue in the elevated areas of the site; however, it should be noted that watering and irrigation associated with future development may produce perched or raised ground water levels. However, a minimum 20-foot horizontal setback from the margin of the bedrocks is recommended for proposed structures on ridgelines to prevent perched or ground water levels where relatively impermeable materials can block the downward migration of surface water.

(2) Off-Site Roadway Extensions

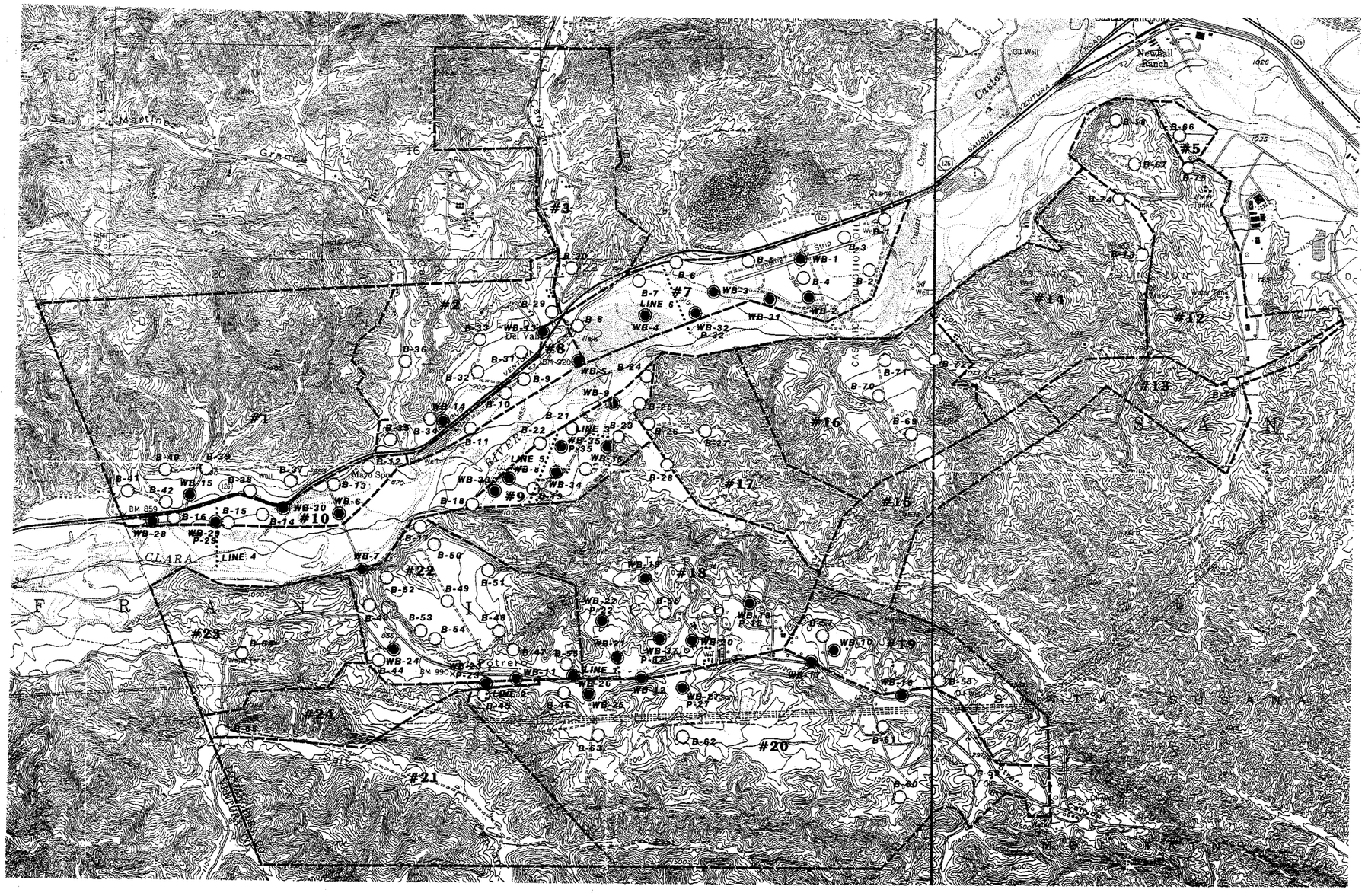
Ground water may be present at depth in the alluvium where the road extensions would traverse the larger existing canyons.

f. Geotechnical Reconnaissance

The following is a summary of R.T. Frankian & Associates' findings for each of the twenty-one geographic (not geologic) areas within the Newhall Ranch Specific Plan boundaries that were investigated during their geotechnical reconnaissance. Each area is delineated in **Figure 4.1-5, Geotechnical Reconnaissance Study Areas** and described below.

(1) Area 1

Area 1, Homestead, occupies two relatively flat benches formed as river terraces, four small, narrow, flat bottomed canyons, and five moderately- to gently-sloping mesas; the remainder of the area is relatively rugged ridges. Homestead contains approximately 850 acres and has a maximum elevation difference of approximately 790 feet. At the time of R.T. Frankian & Associates' geotechnical reconnaissance, the benches and mesas were being cultivated. Vegetation is sparse over the remainder of the area, and generally consists of low brush and weeds. Land uses proposed in Area 1 include Estate, Low-Medium Residential, and Open Area.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Generally, soil encountered in the upper bench area consists largely of silt and clayey silt with some silty fine sand to a depth of about 27 feet. Boulders and cobbles were found to occur at random in layers up to 5 feet thick. Soils at the mouth of small canyons generally were found to contain a larger amount of silty sands and have low to no liquefaction potential.

The natural soils are generally poorly consolidated to a depth that ranges between 5 to 11 feet below the existing ground surface and exhibit a moderate amount of compression when flooded with water while placed under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(2) Area 2

Area 2, San Martinez, contains a moderately sloping to nearly flat bench at the northern edge of the Santa Clara River valley extending between Chiquito Canyon and San Martinez Grande Canyon. San Martinez contains approximately 340 acres, has a maximum elevation difference of approximately 300 feet, includes a section of San Martinez Grande Canyon about 4,000 feet in length. Most of the level areas on this site were being cultivated at the time of R.T. Frankian & Associates' reconnaissance. Land uses proposed in Area 2 include Low, Low-Medium, Medium, and High Residential; Mixed Use; Community and Neighborhood Park; and Elementary School.

Generally, the upper 5 feet of soil on the floor of Chiquito Canyon is silty, fine sand, and is underlain largely by gravelly to very gravelly, fine to very coarse sand to a depth of about 30 feet. The soil encountered within San Martinez Grande Canyon generally consists largely of silt and clayey silt that becomes dense at about 8 feet below the existing ground surface. At the mouth of the canyon, the soil was found to change to soil similar to that found between the two canyons. The soils underlying the two benches between the two canyons are similar, and consist largely of silt, clayey silt or silty sand, but random occurring layers of relatively clean fine sand, clayey sand, and cobbly gravel in layers 1 to 5 feet thick were also encountered. The soils have low to no liquefaction potential.

Natural soils in Area 2 are generally poorly consolidated to a depth that ranges between 5 to 11 feet below the existing ground surface. Samples of the soils within this depth range showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(3) Area 3

Area 3, Chiquito, includes the southern 6,000 foot section of Chiquito Canyon, the westerly-facing portion of ridges east of Chiquito Canyon, and the high portion of a ridge on the western side of Chiquito Canyon. The more level portion of the canyon floor has an average gradient of about 3 percent. Chiquito contains approximately 430 acres and its maximum elevation difference is approximately 450 feet. A portion of the canyon floor was being cultivated at the time of R.T. Frankian & Associates' reconnaissance. Land uses proposed in Area 3 include Estate, Low, and Low-Medium Residential; Mixed Use, Business Park; and Open Area.

Soil encountered in the upper 3 to 8 feet consists largely of silty, fine sand that grades downward into fine clean sand. At a depth of about 10 feet, the soil changes to gravelly to very gravelly, fine to very coarse sand that generally continues to a depth of about 27 feet. Cobbles are common in the lower half this section, and below a depth of about 20 feet, the gravel and cobble portion of some layers exceed the sand content.

A liquefaction potential analysis was not performed in this area because of the character of the materials in the area. R.T. Frankian & Associates found the area to consist of a relatively thin soil layer underlain by rock and felt that the probability of encountering water within the soil zone would be low. These observations were confirmed by the bucket-auger boring drilled within the area.

Natural soils are generally poorly consolidated to a depth that ranges between 5 to 8 feet below the existing ground surface. Samples of the soils within this depth range show a moderate amount of compression when flooded with water while the sample is under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(4) Area 4

This area is not within the Newhall Ranch Specific Plan boundaries.

(5) Area 5

Area 5, Toy Factory, is roughly triangular in shape with sides about 1,900 and 1,600 feet long, contains approximately 30 acres, and has a maximum elevation difference of approximately 1,000 feet. The southern part of this area is a narrow bench formed as a terrace by the Santa Clara River, and includes a portion of an alluvial fan formed at the mouth of a small canyon. The northern and the larger part of the site is an eroded portion of the bench that slopes from the level of the bench to the current Santa Clara River flood plain. No development is proposed in Area 5.

Generally, soil encountered in Area 5 consists largely of silty or clayey, gravelly, fine to coarse sand to a depth of about 27 feet, except that within the mouth of a small canyon layers of silt up to about 4 feet thick occur. The soils are dense at depths ranging from 2 to 10 feet below the existing surface. Artificial fill 2 to 5 feet thick occurs where pads have been previously graded for residential structures.

Ground water was encountered in the borings within this area, and ranged in depth from 19.5 to 31 feet. A liquefaction potential analysis was not performed in this area because of the character of the materials in the area. Based upon their reconnaissance, R.T. Frankian & Associates found the area to consist of a relatively thin soil layer underlain by rock. They felt that the probability of encountering water within the soil zone would be low. These observations were confirmed by bucket-auger borings drilled within the area.

Natural soils in Area 5 are generally poorly consolidated to a depth that ranges between 3 to 5 feet below the existing ground surface. Samples of the soils within this depth range show a moderate amount of compression when flooded with water while the sample is under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(6) Area 6

This area is not within the Newhall Ranch Specific Plan boundaries.

(7) Area 7

Area 7, Indian Dunes, is situated on a bench above the Santa Clara River and is bound by State Route 126 on the north and by the Santa Clara River flood plain on the south. The Castaic Creek drainage channel forms the eastern edge of this area. It is over 8,000 feet long and up to 1,800 feet wide, and was being cultivated during the geotechnical reconnaissance. Indian Dunes contains approximately 310 acres and has a maximum elevation difference of approximately 70 feet.

This area is relatively flat at its northern edge, and slopes gently southward towards the Santa Clara River. It has probably formed as a river terrace, and now forms a bench 10 to 25 feet above the river floor. Generally, the upper soils encountered on the bench consist of 1 to 5 feet of silty fine sand underlain to depths of roughly 20 feet largely by clean to gravelly or very gravelly, fine or fine to coarse sands, interlayered with thin zones of silt, gravel and silty sand. Clayey silt and clayey sand are common below that depth, and probably belong to an older river terrace that extends well below the current river bottom. Land uses proposed in Area 7 include Low-Medium, Medium, and High Residential; Mixed Use, Commercial, River Corridor, and Neighborhood Park.

Soils encountered generally become dense at a depth of 5 to 10 feet, or at the base of the upper silty, fine sands, which attain thickness of up to about 10 feet. Along the southern portion of Indian Dunes where at least the silty fine sand has been removed by erosion, generally the depth to dense soils varies from about 2 to 4 feet.

Area 7 is underlain by dense sands. The water level at the time of R. T. Frankian & Associates' investigation varied between a depth of 6 feet and 27 feet below the ground surface. During the Northridge event the ground water level was within a few feet of the twenty year high. Shortly after the Northridge event, the area was examined for signs of liquefaction, such as sand boils, cracks, settlement or other visible signs of distress. No surface features were noted that would indicate that liquefaction had occurred in this area. Densification of the surface soils in areas where there will be cuts and fills, or construction at grade may be required, or desirable, for other reasons, but it is the conclusion of R.T. Frankian & Associates that it is not required to prevent future liquefaction.

Natural soils in Area 7 are generally poorly consolidated to a depth that ranged between 5 to 10 feet below the existing ground surface. Samples of the soils within this depth range showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(8) Area 8

Area 8, Alfalfa, is roughly 5,000 feet long and 200 to 1,000 feet wide. It contains approximately 60 acres and has a maximum elevation difference of approximately 50 feet. The northern half occupies a bench that is the southeastern part of the same river terrace that forms the lower bench in San Martinez,

Area No. 2 and was being cultivated at the time of the geotechnical reconnaissance. The southern half slopes gently to moderately steep to the level of the Santa Clara River flood plain and generally consists of sparse to thick cottonwood trees and willows. Land uses proposed in Area 8 include Low-Medium Residential, Mixed Use, and River Corridor.

Generally, the soil encountered in the upper 2 to 5 feet in the northern part of the site consists of silty fine sand. The surface soils are underlain largely by gravelly to very gravelly, fine to medium or fine to very coarse sand to at least a depth of about 8 feet. A few thin layers of silt, silty fine sand and gravel were also encountered. Ground water was encountered in a few borings within this area, and ranged in depth from 5 to 11.5 feet. A review of the water well records in the area reveal that during the Northridge event the ground water level was within a few feet of the twenty year high.

Shortly after the Northridge event, the area was examined for signs of liquefaction, such as sand boils, cracks, settlement or other visible signs of distress. No surface features were noted that would indicate that liquefaction had occurred in this area. Densification of the surface soils in areas where there will be cuts and fills, or construction at grade may be required, or desirable, for other reasons, but it is the conclusion of R.T. Frankian & Associates that it is not required to prevent future liquefaction.

The natural soils in Area 8 are generally poorly consolidated to a depth that ranged between 5 to 8 feet below the existing ground surface. Samples of the soils within this depth range showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(9) Area 9

Area 9, Onion Field, is located on the southern side of the Santa Clara River and at the river's junction with Long Canyon. Area No. 9 occupies a bench formed as a terrace by the river, with the northeastern portion raised in elevation by alluvial fan soils at the mouth of Long Canyon that slopes northward at a gradient of about 5 degrees. The site is about 8,000 feet long and up to 1,800 feet wide, contains approximately 180 acres, and has a maximum elevation difference of approximately 45 feet. Land uses proposed in Area 9 include Low-Medium and Medium Residential and Open Area.

Soils encountered vary from one part of the area to another, but generally consist of 2 to 5 foot thick layers of silty, fine sand, or gravelly to very gravelly, fine to coarse sand. Occasional silt layers 1 to 2 feet thick occur below a depth of about 15 feet, and occasional layers of clean, fine or fine to medium

sand up to about 4 feet thick were also encountered. Ground water was encountered in a few of the borings within this area and ranged in depth from 5 to 25 feet. A review of the water well records in the area reveal that, during the Northridge event, the ground water level was within a few feet of the twenty year high.

Shortly after the Northridge event, the area was examined for signs of liquefaction, such as sand boils, cracks, settlement or other visible signs of distress. No surface features were noted that would indicate that liquefaction had occurred in this area. Densification of the surface soils in areas where there will be cuts and fills, or construction at grade may be required, or desirable, for other reasons, but it is the conclusion of R.T. Frankian & Associates that it is not required to prevent future liquefaction.

Natural soils in Area 9 are generally poorly consolidated to a depth that ranged between 5 to 13 feet below the existing ground surface. Samples of the soils within this depth range showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(10) Area 10

Area 10, Mayo Spur, is about 7,000 feet in length and about 150 to 2,000 feet wide, contains approximately 100 acres, and has a maximum difference in elevation of approximately 50 feet. Mayo Spur is located on a bench formed by a terrace of the Santa Clara River, and is part of the same bench on which the lower portion of Area No. 1, Homestead, is located. Generally, the soil encountered in the upper 5 to 15 feet of soil is silty to very silty, fine sand, which grades downwards into gravelly, fine to coarse sand. A few layers of silt, or very silty fine sand up to 3 feet thick were found to occur at random. Land uses proposed in Area 10 include Medium Residential, Commercial, Business Park, River Corridor, and the proposed water reclamation plant.

Ground water was encountered in a few of the borings within this area and ranged in depth from 7 to 31 feet. A review of the water well records in the area reveal that during the Northridge event the ground water level was within a few feet of the twenty year high. Shortly after the Northridge event, the area was examined for signs of liquefaction, such as sand boils, cracks, settlement or other visible signs of distress. No surface features were noted that would indicate that liquefaction had occurred in this area. Densification of the surface soils in areas where there will be cuts and fills, or construction at grade may be required, or desirable, for other reasons, but it is the conclusion of R.T. Frankian & Associates that it is not required to prevent future liquefaction.

Natural soils in Area 10 are generally poorly consolidated to a depth that ranged between 5 to 16 feet below the existing ground surface. Samples of the soils within this depth range showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(11) Area 11

This area is not within the Newhall Ranch Specific Plan boundaries.

(12) Area 12

Area 12, Airport/Commercial, occupies the northern half of a long, large, arcuate-shaped ridge. The area is about 7,000 feet long and roughly 2,000 feet wide, contains approximately 360 acres, and has a maximum elevation difference of approximately 400 feet. The area is generally covered with thick, low grass and scattered low brush and small oak trees. A number of oil or gas wells exist in the area, as well as a few oil lines and tanks. Land uses proposed in Area 12 include Mixed Use, Commercial, and Community Park.

Soils encountered on the mesa and ridges generally reflect the underlying bedrock, which predominately is gravelly sandstones, but locally conglomerates, siltstones and clayey sandstones occur. On Airport Mesa, soils are generally 3 to 10 feet thick and consist of silty to very silty, gravelly, fine or fine to coarse gap graded sand. Bedrock is weakly consolidated, silty to very silty, gravelly, fine to medium sandstone with interbedded thin layers of conglomerate and siltstone. The soils are generally dense at a depth of 4 to 5 feet below the ground surface.

The valley fill west of Airport Mesa generally consists of silt or silty to very silty, fine or fine to medium sand to depths of 5 to 15 feet. Below that depth the soil changes to gravelly, fine to medium or fine to coarse sand that in part is very gravelly with cobbles, and interlayered with silty fine sand grading to silt. These soils generally become dense at a depth of about 10 feet.

At the eastern edge of Area No. 12, Airport/Commercial, the valley fill largely consists of silty fine sand to a depth of about 15 feet, where it changes to gravelly to very gravelly with occasional cobbles, fine to coarse sand. Soils in these valleys generally become dense at a depth of about 8 to 10 feet. Soil encountered in the small valleys at the northeastern border of the Area generally resemble those east of the area, but contain a greater portion of silt and very silty fine sand. These soils generally become dense at a depth of about 10 feet.

Ground water was encountered at 31 feet. A liquefaction potential analysis was not performed in this area because of the character of the materials in the area. Based upon their reconnaissance, R.T. Frankian & Associates found the area to consist of a relatively thin soil layer underlain by rock. They felt that the probability of encountering water within the soil zone would be low. These observations were confirmed by bucket-auger borings drilled within the area.

This reconnaissance revealed that the natural soils encountered are generally poorly consolidated to a depth that ranged between 4 to 13 feet below the existing ground surface. Samples of the soils within this depth range showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(13) Area 13

Area 13, Southeast Mesas, encompasses the southern and higher portions of the ridge area on which Area No. 12 is located. The ridge is more highly dissected than Area 12, and is quite rugged topographically. It contains approximately 130 acres, and has a maximum elevation difference of approximately 225 feet. Land uses proposed in Area 13 include Low-Medium and Medium Residential.

Generally, soils encountered in the smaller side canyons are silty, fine sands which tend to become dense at a depth of about 6 to 10 feet and deeper in the main canyon along the eastern edge of the site. These soils are generally underlain by gravelly fine to fine to coarse sands and gravels.

No ground water was encountered in the boring within this area. A liquefaction potential analysis was not performed in this area because of the character of the materials in the area. Based upon their reconnaissance, R.T. Frankian & Associates found the area to consist of a relatively thin soil layer underlain by rock. They felt that the probability of encountering water within the soil zone would be low. These observations were confirmed by the bucket-auger boring drilled within the area.

Natural soils encountered are generally poorly consolidated to a depth of about 6 feet below the existing ground surface. Samples of the soils above this depth showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(14) Area 14

Area 14, East Mesas, is bound by the Santa Clara River on the northwest and by two moderately-sized, bow shaped, flat bottomed canyons on its north, east and west. Area 14 contains approximately 380 acres and has a maximum elevation difference of approximately 425 feet. Oil or gas wells, oil lines, and supporting structures and asphalt surfaced, narrow roads exist in the area. Vegetation in the area generally consists of sparse, low grass and scattered low brush. A few small oak and other trees exist in the lower portions of the larger canyons. Land uses proposed in Area 14 include Low, Low-Medium, Medium, and High Residential; Open Area, River Corridor, and Community and Neighborhood Park.

Generally, soils encountered on the eastern ridge valleys are very similar to those described for Area 12. In the remainder of East Mesas, surface soils in the flat bottomed portions of canyons are normally silty to very silty, gravelly, fine to coarse sand. Below 2 to 5 feet in the flat portions of canyons and valley fill in the narrow canyons, the soils largely consist of fine to coarse, or gravelly to very gravelly, fine to very coarse sand. Cobbles are abundant in the very gravelly soils. In this portion of East Mesas soils are generally relatively thin on the higher portion of slopes and top of ridges, and reflect the underlying bedrock.

Ground water was encountered at a depth of 30 feet. A liquefaction potential analysis was not performed in this area because of the character of the materials in the area. Based upon their reconnaissance, R.T. Frankian & Associates found the area to consist of a relatively thin soil layer underlain by rock. They felt that the probability of encountering water within the soil zone would be low. These observations were confirmed by bucket-auger borings drilled within the area.

Natural soils encountered are generally poorly consolidated to a depth that ranged between 5 to 10 feet below the existing ground surface. Samples of the soils within this depth range showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(15) Area 15

Area 15, South Grapevine, is a long narrow area about 7,000 feet long and 500 to 2,000 feet wide, and abuts the southeastern boundaries of Area 17 and Area 16. South Grapevine contains approximately 150 acres, has a maximum elevation difference of approximately 260 feet, is fairly rugged topographically, and includes short reaches of two canyons and portions of four ridges. The proposed development would include excavating the tops of ridges and filling some canyons with compacted fill. Land uses proposed in Area 15 include Estate, Low-Medium, Medium and High Residential; Open Area; and Fire Station.

No borings were located in this area, but numerous road cuts and erosional gullies were examined and observed to be generally similar to the Areas 16 and 17. Soils in the canyons are expected to be generally silty sands and gravels, while soils on the ridges and steep slopes are expected to reflect the soft micaceous claystone or siltstone, very silty fine sandstone and silty, gravelly fine to coarse sandstone underlying them.

A liquefaction potential analysis was not performed in this area because of the character of the materials in the area. Based upon their reconnaissance, R.T. Frankian & Associates found the area to consist of a relatively thin soil layer underlain by rock, and believe that the probability of encountering water within the soil zone would be low. In addition, the depth of the poorly consolidated soils is expected to be relatively minor - between 3 to 5 feet.

(16) Area 16

Area 16, Grapevine Mesa, is immediately south of the Santa Clara River flood plain, and includes the Grapevine Mesa and the eastern half of a high, broad ridge. It contains approximately 260 acres, has a maximum elevation difference of approximately 675 feet, and is a remnant of an older land surface, probably an ancient terrace of the Santa Clara River that has been dissected by erosion.

The large ridges west of the Grapevine Mesa are more than 400 feet in height above the Santa Clara River flood plain, and rise almost 300 feet above the mesas. Land uses proposed in Area 16 include Low-Medium and Medium Residential; Commercial; Open Area; River Corridor; Neighborhood Park; and Elementary School.

Generally, the old soil horizons encountered on the mesas are over 25 feet thick above bedrock and consist of silt or silty to very silty fine sand adjacent to the Santa Clara River Valley, and grade to more sandy and gravelly soils at higher levels of the mesas to the southeast. These soils generally grade to dense at depths of about 5 to 8 feet below the ground surface. Soils encountered in the flat bottomed valleys are generally underlain by silty, fine sand to depths of 2 to 4 feet below ground surface, but gravelly to very gravelly, fine to very coarse sand with occasional cobbles is normally found below those depths. Soil encountered on ridges and steep slopes is normally not more than 2 to 4 feet thick, except at the toe of slopes where the accumulation of loose soils from numerous small landslides is commonly 10 to 15 feet in thickness. These soils vary and generally reflect the underlying bedrock. The bedrock largely consists of soft micaceous claystone or siltstone, and very silty, fine sandstone, but it also includes silty, gravelly fine to coarse sandstone.

No ground water was encountered in the borings within this area. A liquefaction potential analysis was not performed in this area because of the character of the materials in the area, the lack of ground water, and the relatively thin soil layer underlain by rock.

Natural soils encountered are generally poorly consolidated to a depth that ranged between 4 to 5 feet below the existing ground surface. Samples of the soils within this depth range showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(17) Area 17

Area 17, Long Adobe, includes the northern side of Long Canyon and five major tributary canyons that branch towards the east. Long Adobe, is about 6,000 feet long and roughly 1,000 to 2,000 feet wide, contains approximately 190 acres, and has a maximum elevation difference of approximately 450 feet. Land uses proposed in Area 17 include Low Residential, Open Area, Neighborhood Park, and Elementary School.

Generally, soils encountered in Adobe Canyon, and in the lower part of Long Canyon are largely silty, partly gravelly, fine sand to a depth of about 4 to 15 feet. Below that, the soil changes to gravelly to very gravelly, fine to coarse sand, with occasional cobbles. In the upper reaches of Long Canyon, the soils are similar but more variable in that silty soils are absent in some areas and the prevalent soil in other areas, and coarse gravel and cobbles appear to be more ubiquitous.

No ground water was encountered in the borings within this area. A liquefaction potential analysis was not performed in this area because of the character of the materials in the area, the lack of water, and the relatively thin soil layer underlain by rock. Natural soils encountered are generally poorly consolidated to a depth that ranged between 4 to 5 feet below the existing ground surface. Samples of the soils within this depth range showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(18) Area 18

Area 18, Long/Potrero, includes a portion of the north central side of Potrero Canyon and the western half of the southern side of Long Canyon. Area 18 contains approximately 590 acres and has a maximum elevation difference of approximately 400 feet.

Potrero Canyon in Area 18 is broad with a relatively level floor; its tributary valleys are short and broad, have relatively low gradients, and terminate at the toe of a long steep ridge. The intervening ridges between tributaries have been eroded into low, rounded knobs or small, low ridges. The portion of Area 18 located in Long Canyon is about 6,000 feet long and constitutes the southern side of the western half of the "U"-shaped Long Valley. Many of the tributary canyons to Potrero Canyon have small springs in the upper reaches of the canyons. Vegetation generally consists of a nearly continuous cover of low grass, with brush up to 15 feet in height surrounding spring areas. Both Long and Potrero Canyon contain a large number of oil and gas wells, pipe lines and oil storage tanks. Land uses proposed in Area 18 include Estate, Low, Low-Medium, Medium, and High Density Residential; Mixed Use; Open Area; Neighborhood Park; Community Lake; and Library.

Generally, soils encountered in Potrero Canyon consist of silt, clayey to very clayey silt, or silty or clayey fine sand. Thin layers of clean, fine sand, and layers of gravel up to about 5 feet thick were occasionally encountered. Soils in the tributary valleys normally consist of silty to very silty, fine sand to depths of about 5 to 20 feet below ground surface, and below that clayey to very clayey silt. Within Area 18, the floor of Potrero Canyon is comprised of soft, saturated silt and clay soils, and the water level during the investigation, and after the Northridge event, was within a few feet of the ground surface. Elsewhere within Area 18, ground water was encountered at depths ranging from 7 to 31 feet.

The northern portion of this area is mountainous and performed well seismically, probably due to the deeper water level in this portion of the area. The soils in the floor of Potrero Canyon, on the other hand, were severely deformed during the Northridge Earthquake, demonstrating linear cracks in the soil formed parallel to the axis of the canyon principally along the southern and northern margins of the canyon. Ground cracking appeared to be most pronounced at the base of small hills along the margins of the main canyon walls. Plasticity indices for the floor of Potrero Canyon were high enough to consider the soils to be non-liquefiable. However, for this report it will be assumed that the soft, fine grained soils within Area 18, if left in their present condition, will produce significant deformation under a similar dynamic loading as experienced during the Northridge event of January 17, 1994.

Natural soils encountered in Area 18 are generally poorly consolidated to a depth that ranges between 7 to 31 feet below the existing ground surface. Samples of the soils within this depth range showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(19) Area 19

Area 19, North Upper Potrero, includes the northern side of the upper third of Potrero Canyon, which is topographically similar to the portion of Potrero Canyon described for Area 18. It contains approximately 210 acres, has a maximum elevation difference of approximately 250 feet, and contains an abundance of oil wells, pipe lines and storage tanks. No springs were observed in it. Land uses proposed in Area 19 include Estate and Medium Residential, Open Area, and High School.

Generally the Potrero Canyon valley floor, where explored, is underlain by clayey silt with occasional layers of clayey sand or gravel. Soils encountered in tributary valleys consist largely of silty fine sand to a depth of up to about 20 feet. Below that, the soil generally changes to clayey to very clayey silt. Ground water was encountered in a few of the borings within this area and ranged in depth from 23 to 26 feet. The soils have low to no liquefaction potential.

The northern portion of this area is at a higher elevation and performed well seismically; however, soils in the floor of the lower portion of Potrero Canyon were severely deformed during the Northridge Earthquake. Although cracking was not as severe in this portion of Potrero Canyon, linear cracks in the soil formed parallel to the axis of the canyon, principally along the southern and northern margins of the canyon. Ground cracking appeared to be most pronounced at the base of small hills along the margins of the main canyon walls.

Soils in the upper Potrero Canyon are primarily silts and clays and have a plasticity index ranging from 7 to 18 percent. The few zones of sand that were encountered below the water table were found to be generally dense. For this report it will be assumed that the soft, fine grained soils, if left in their present condition, will experience significant deformation under a similar dynamic loading as experienced during the Northridge event of January 17, 1994.

Natural soils in Area 19 are generally poorly consolidated to a depth that ranges between 5 to 8 feet below the existing ground surface. Samples of the soils within this depth range showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(20) Area 20

Area 20, South Upper Potrero includes the southern side of the eastern two-thirds of Potrero Canyon and four large tributary canyons. The area is approximately 2.5 miles long and 0.5 to 1.0 mile wide, contains approximately 1,390 acres, and has a maximum elevation difference of approximately 900 feet. Oil and gas wells, pipelines and storage tanks are abundant in the northern and eastern parts of the area. Land uses proposed in Area 20 include Estate, Low, Low-Medium, and Medium Residential; Open Area; Neighborhood Park; and Golf Course.

Soils encountered are predominantly silty clay to clayey silt, or silty to very silty fine sand. Occasional relatively thin layers of gravelly silt and gravelly, silty, fine sand were encountered in borings.

The portions of Area 20 which are in the floor of Potrero Canyon represent a special concern because of the soft, saturated silt and clayey soils present. The water level during the investigation, and when examined shortly after the Northridge event, was within a few feet of the ground surface in the lower portion of the area (the floor of Potrero Canyon). In higher elevations, water was encountered at depths ranging between approximately 14 and 28 feet.

The portions of this area that are mountainous performed well seismically; however, the soils in the floor of Potrero Canyon were severely deformed during the Northridge Earthquake. Linear cracks in the soil formed parallel to the axis of the canyon principally along the southern and northern margins of the canyon. Ground cracking appeared to be most pronounced at the base of small hills along the margins of the main canyon walls.

The plasticity index for the soils range from 7 to 18 percent, and many of the plasticity indices were high enough to consider the soils to be non-liquefiable. However, for this report it will be assumed that the soft, fine grained soils of South Upper Potrero Canyon, if left in their present condition, will produce significant distortion under a similar dynamic loading as experienced during the Northridge event of January 17, 1994.

Natural soils in Area 20 are generally poorly consolidated to a depth that ranges between 5 to 10 feet below the existing ground surface. Samples of the soils within this depth range showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(21) Area 21

Area No. 21, Salt View, contains approximately 3,810 acres and has a maximum elevation difference of approximately 2,200 feet. The area is to be developed for a major street, and consists of a narrow strip that starts at the Los Angeles County line and includes the northern side of Salt Canyon and a portion of a relatively flat topped ridge. Land uses proposed in Area 21 include Estate Residential, Visitor-Serving, and High Country Special Management Area.

Soils along Salt Creek consist largely of very gravelly, fine to very coarse sand and sandy, cobbly, fine to coarse gravel. The ridges in this area reflect the nature of the underlying siltstone and sandstone bedrock materials from which they come. Hence, the relatively thin soil layer on the ridges is generally fine sands and sandy silts with gravels.

Ground water was encountered in the borings within this area, and ranged in depth from 7 to 14 feet. A liquefaction potential analysis was not performed in this area because of the character of the materials in the area. Based upon their reconnaissance, R.T. Frankian & Associates found the area to consist of a relatively thin soil layer underlain by rock and felt that the probability of encountering water within the poorly consolidated soil zone would be low. These observations were confirmed by bucket-auger borings drilled within the area.

Natural soils in Area 21 are generally poorly consolidated to a depth that ranges between 7 to 8 feet below the existing ground surface. Samples of the soils within this depth range showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(22) Area 22

Area 22, Potrero Mesa, contains approximately 460 acres, has a maximum elevation difference of approximately 575 feet, and includes three primary topographic features: the Potrero Mesa, an alluvial valley west of the Potrero Mesa, and a narrow bench along the southern side of Santa Clara River. Land uses proposed in Area 22 include Estate, Medium, and High Residential; Mixed Use; Open Area; River Corridor; Neighborhood Park; Elementary and Junior High School; and Fire Station.

Soils encountered on the Potrero Mesa are largely silty to very silty, fine to very fine sands and silts or clayey silts. Soils encountered in the alluvial valley generally consist of fine sand-silt mixtures and clay or clay-silt mixtures. The soils encountered in the narrow bench along the southern side of the Santa Clara River largely consist of fine to medium grained sands and silty, clayey or gravelly sands. Ground water ranges in depth from 4 to 28 feet.

The portions of Area 22 which are in the floor of Potrero Canyon represent a special concern because of the soft, saturated silt and clay soils present, and the water level, which, when examined shortly after the Northridge event, was within a few feet of the ground surface. These soils were severely deformed during the Northridge Earthquake: linear cracks in the soil formed parallel to the axis of the canyon principally along the southern and northern margins of the canyon. Ground cracking appeared to be most pronounced at the base of small hills along the margins of the main canyon walls. No water was encountered in the northern portion of this area which is at a higher elevation, and it performed well seismically.

The plasticity index for the soils ranges from 1 to 25 percent, and many of the indices were high enough to consider the soils to be non-liquefiable. For this report, however, it will be assumed that the soft, fine grained soils within this area, if left in their present condition, will experience significant deformation under a similar dynamic loading as experienced during the Northridge event of January 17, 1994 and would require special foundation and site preparation considerations even without the problems associated with their behavior during an earthquake. The few zones of sand that were encountered below the water table were found to be generally dense.

Natural soils in Area 22 are generally poorly consolidated to a depth that ranged between 5 to 10 feet below the existing ground surface. Samples of the soils within this depth range showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(23) Area 23

Area 23, Windy Gap, contains approximately 240 acres and has a maximum elevation difference of approximately 350 feet. Topographically, the area largely consists largely of small rounded, moderately sloping ridges and four "U"-shaped canyons tributary to Potrero Canyon or Salt Canyon. Soil encountered in canyons tributary to Salt Canyon consists largely of silt or silty, very fine to fine sand that changes to clayey to very clayey at a depth of about 25 feet below ground surface. In Potrero

Canyon, the soils are largely clayey to very clayey silt or fine sand. On ridges, bedrock normally occurs at 1 to 3 feet below ground surface. The soil normally reflects the character of the bedrock, which largely consists of clayey siltstone or silty fine sandstone. Land uses proposed in Area 23 include Low, Low-Medium, and Medium Residential; Open Area; and Neighborhood Park.

Ground water was not encountered in the boring within this area. A liquefaction potential analysis was not performed in this area because of the character of the materials in the area and the lack of water.

Natural soils are generally poorly consolidated to a depth that ranged between 7 to 8 feet below the existing ground surface. Samples of the soils within this depth range showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

(24) Area 24

Area 24, Quarry, consists almost entirely of steep ridges and a small portion of the western central part of Potrero Canyon itself. It contains approximately 170 acres and has a maximum elevation difference of approximately 400 feet. Soil types in its ridges are expected to be very similar to those in Area 21, which are clayey silts and fine or silty fine sands. Soils encountered in the portion of Potrero Canyon in this site generally consist of clay and silty clay to a depth of almost 40 feet. These soils are generally underlain by silty sands and sand-silt mixtures. Ground water ranged in depth from 7 to 10 feet. Land uses proposed in Area 24 include Low Residential, Open Area, High Country, and Community Park.

The portions of Area 24 which are in the floor of Potrero Canyon represent a special concern because of the soft, moist silt and clay soils present. The water level during the geological reconnaissance was at a depth of 10 feet below the ground surface in the eastern portion of the area which is in the floor of Potrero Canyon. Soils in the floor of the lower portion of Potrero Canyon were severely deformed during the Northridge Earthquake: linear cracks in the soil formed parallel to the axis of the canyon principally along the southern and northern margins of the canyon. Ground cracking appeared to be most pronounced at the base of small hills along the margins of the main canyon walls. The western portion of this area is at a higher elevation and would have performed well seismically.

Soils in the southern margin of Potrero Canyon are primarily silts and clays and have a plasticity index ranging from 8 to 17 percent, with many of the plasticity indices high enough to consider the soils to be non-liquefiable. However, for this report, it will be assumed that the soft, fine grained soils of Area 24, if left in their present condition, will experience significant deformation under a similar dynamic loading as experienced during the Northridge event of January 17, 1994. The few zones of sand that were encountered below the water table were found to be generally dense.

Natural soils encountered in Area 24 are generally poorly consolidated to a depth ranging between 7 to 8 feet below the existing ground surface. Samples of the soils within this depth range showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths.

4. SPECIFIC PLAN IMPACTS

a. Significance Threshold Criteria

The CEQA Guidelines defines a "significant effect" as a "...substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project..." (Section 15382). In order to assist in determining whether a project will have a significant effect on the environment, the CEQA Guidelines have identified criteria which may be deemed to constitute a significant physical, social, and/or economic change to the environment. Specifically, Appendix G (r) of the Guidelines states that a project will normally have a significant effect on the environment if it will "expose people or structures to major geologic hazards."

b. Specific Plan Impacts

There are geologic formations in the proposed development areas of the Newhall Ranch Specific Plan site that, in their current state, are not suitable for development. For instance, portions of the Newhall Ranch Specific Plan site are subject to landslides, surficial failures, expansive bedrock, liquefaction, and hydroconsolidation. In addition, the site would be subject to hazards associated with regional seismic activities.

(1) Landslides

(a) Newhall Ranch Specific Plan Site

Several landslides were encountered during fault investigations by Allan E. Seward Engineering Geology, Inc. Numerous landslides, which vary from small shallow failures to large megalithic landslides, have been mapped on the site which will require stabilization, or removal and replacement unless proposed cut slopes can be designed to avoid the landslide areas.

Five landslides (Qls-I to Qls-V) are located within the northwestern portion of the Newhall Ranch Specific Plan site in areas designated for estate lots. Several landslides are located in an area of the site to be designated as Restricted Use Areas on Final Tract Maps and will not affect future development. Subsurface investigations will be required at the subdivision stage to evaluate the lateral extent, depth, bearing capacity and stability of landslides Qls-II & V, as well as any smaller landslides that may be present in this area. Unless mitigated, development on landslides would present a hazard to future development, which would be a significant impact.

(b) Off-Site Roadway Extensions

No major landslides have been identified within 400 feet of either the Magic Mountain Parkway or the Valencia Boulevard future roadway alignments. Assuming the lack of such features, no significant impacts are expected with construction of either roadway alignment.

(2) Surficial Failures

(a) Newhall Ranch Specific Plan Site

Portions of the proposed development area are underlain largely by siltstone, the upper 5 to 10 feet of which are generally highly fractured and weathered, and prone to failure during intense rainfall and/or earthquake generated ground motions. Surficial failures and rock fall/debris flow deposits are common on the steeper slopes of the site. This debris commonly accumulates into thick, poorly-consolidated deposits of heterogeneous material at the base of the steep slopes and is unsuitable for building. Without mitigation, development of the roadways over surficial failures would be significant.

(b) Off-Site Roadway Extensions

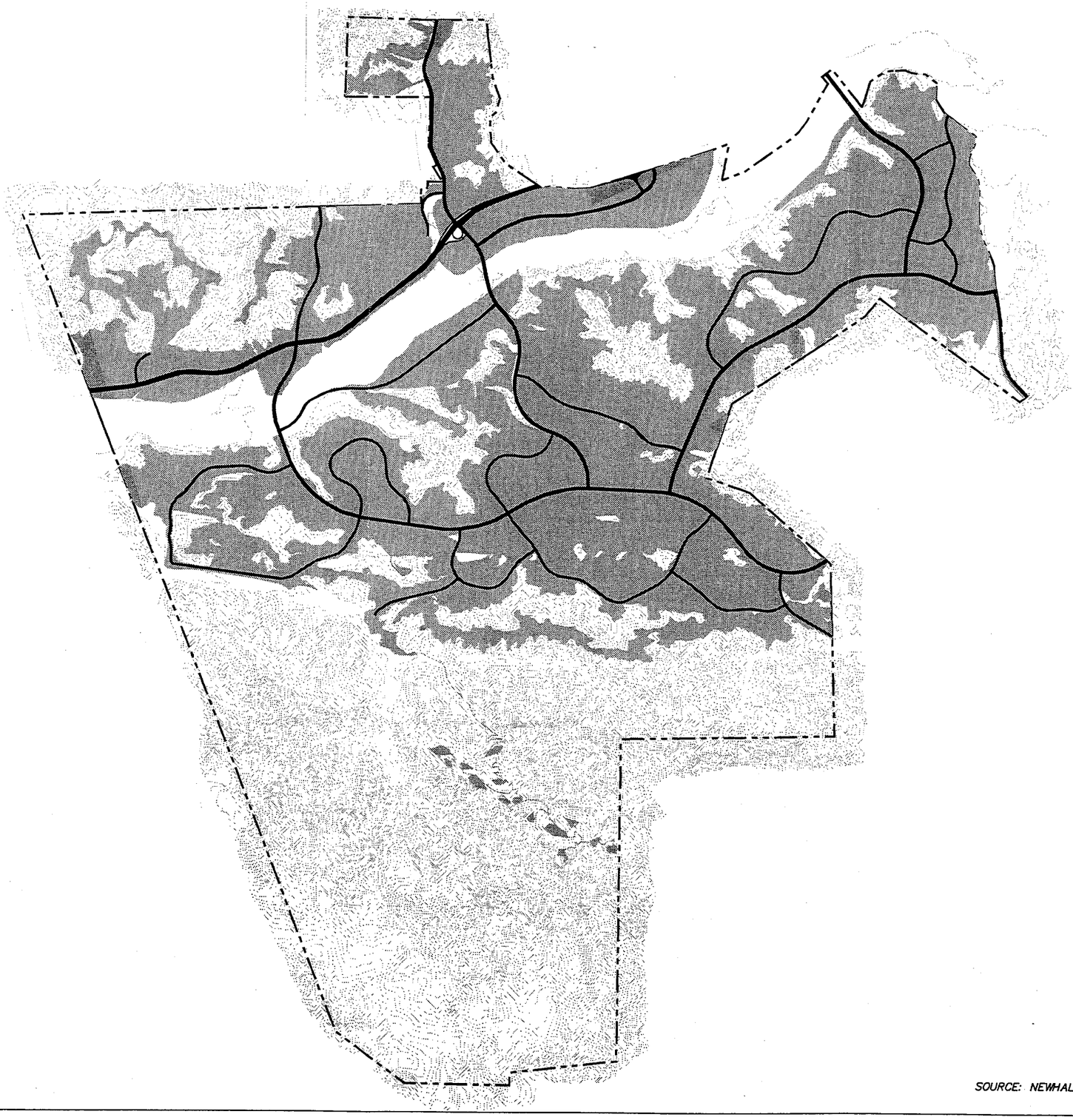
Several debris flow scars have been mapped within 400 feet of the western portion of the Valencia Boulevard alignment, which represent a potential hazard to this roadway extension. Without mitigation, development on surficial failures would be significant.

(3) Cut Slopes

(a) Newhall Ranch Specific Plan Site

In addition to evaluating the development potential of existing geologic formations on the Newhall Ranch Specific Plan site, Allan E. Seward Engineering Geology, Inc. also evaluated the Newhall Ranch Specific Plan grading concept, which proposes cut-slopes at a gradient of 2:1 or shallower (see **Appendix 4.1**). Cut-slopes shown on the grading concept plan have been classified into three categories ("G," "P," and "U") based on their stability relative to the underlying geologic conditions (see **Figure 4.1-6, Conceptual Grading Plan**). Cut-slopes designated with a "G" are considered grossly stable as designed. Bedding is either antidip, neutral or steeper than the cut-slope, negating the possibility for translational bedding plane failures. Cut-slopes designated with a "P" are classified as potentially unstable without corrective measures. These slopes either will expose queried landslide material, possible daylighted bedding, and/or significant Qt/Qal/Qsw material. Finally, cut-slopes designated with a "U" are classified as unstable without corrective measures. These slopes will most likely expose landslide material and/or a daylighted bedding component (bedding planes dipping out of slope).

Cross sections (1-1, 2-2, and 3-3) represent the most probable severe geologic geometric conditions within the Newhall Ranch Specific Plan site and are composed of the Pico Formation. Preliminary slope stability analysis was performed for these cross sections (which represent a worst-case scenario) using the computer program TSLOPE, as well as a program written by the County of Los Angeles to verify the results. The results of the modeling indicate that, with proper engineering design and implementation of the pertinent mitigation measures, all cut slopes will meet the required safety factor of 1.5. Mitigation measures recommended later on in this section would ensure their stability. Please refer to **Appendix 4.1** for detailed information on slope stability.



SOURCE: NEWHALL RANCH SPECIFIC PLAN

NEWHALL RANCH™
Newhall Ranch Company

L E G E N D

GRADED AREA
OPEN AREA

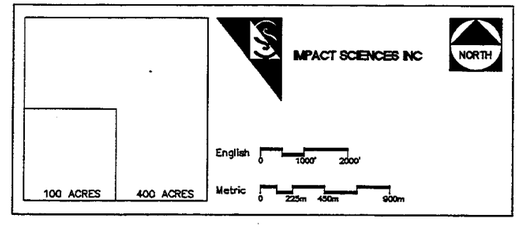


EXHIBIT 4.1-6
CONCEPTUAL GRADING PLAN

(b) Off-Site Roadway Extensions

Cut slopes are required for the proposed extension of Magic Mountain Parkway and the eastern half of the Valencia Boulevard extension. This activity will expose subhorizontal to shallow northeasterly-dipping, moderately consolidated deposits of the Pacoima Formation. Due to the nature of this formation, such cuts are expected to be grossly stable. However, special measures may be required to prevent ravelling and erosion of the Pacoima Formation in the future cut-slopes.

Cut-slopes along the western portion of the Valencia Boulevard extension will expose moderately to steeply northeasterly-dipping bedding of the Saugus and Pico Formations. Southeasterly-facing slopes should be grossly stable relative to bedding plane failures, but northwesterly-facing slopes may expose a daylighted bedding component. Daylighted cut-slopes which are determined to be unstable may require redesign or stabilization. Without mitigation, development on unstable slopes would result in a significant impact.

(4) Ground Water

(a) Newhall Ranch Specific Plan Site

Shallow ground water is present on the site within the Santa Clara River Valley alluvium and alluvium of the major tributary canyons. Saturated alluvium is noted within 5 feet of the surface of Potrero Canyon and minor seepage was noted along Salt Creek at a depth of approximately 7 feet. A seep is characterized by an oozing of water rather than a flowing from a slope. Seeps do not typically cause slope failure. Therefore ground water is not expected to be an issue in the elevated areas of the site.

(b) Off-Site Roadway Extensions

Ground water may be present at depth in the alluvium where the road extensions traverse the larger existing canyons. However, due to the elevated nature of the proposed road extensions, ground water is not anticipated to have a significant impact.

(5) Expansive Bedrock

(a) Newhall Ranch Specific Plan Site

Reddish-brown mudstone and dark-green to greenish-gray clayey siltstone and mudstone within the Saugus and Pico Formations are potentially very expansive.

Because the Specific Plan improvements would be on raised and compacted fill and elevated above the alluvial sediments of the Santa Clara River flood plain, they would not be subject to hazards associated with expansive soils; however, there is potential for structural damage if improvements are constructed over expansive soils. Therefore, without mitigation, construction over expansive soils would result in a significant impact.

(b) Off-Site Roadway Extensions

Siltstone and mudstone beds within the Pacoima, Saugus and Pico Formations are potentially very expansive. Expansive beds will require selective grading and placement of fill material relative to the final road grades. Without mitigation, construction of the roadways over expansive soils would result in a significant impact.

(6) Hydroconsolidation

(a) Newhall Ranch Specific Plan Site

Soils throughout the site are poorly consolidated, and rapidly buried silty sediments, such as thick slopewash (Qsw) and portions of the alluvium (Qal), commonly contain void space and are subject to hydroconsolidation, which causes settlement and can be potentially hazardous to overlying structures. Development over these soils without mitigation would result in a significant geotechnical impact.

(b) Off-Site Roadway Extensions

Rapidly buried silty sediments, such as thick slopewash and portions of the alluvium found along the alignment, commonly contain void space and are subject to hydroconsolidation. Construction of the proposed roadways over these soils without mitigation would result in a significant geotechnical impact.

(7) Liquefaction Potential

(a) Newhall Ranch Specific Plan Site

Soils in the floor of Potrero Canyon in Areas 18, 19, 20, 22, and 24 have been determined by R.T. Frankian & Associates to have liquefaction potential. Subdrain systems will be required in areas with high ground water conditions (Potrero Canyon in particular) or where extensive irrigation is planned. Unless grading removal and recompaction and/or improvement of the existing alluvium to reduce the potential for liquefaction and lateral spreading occurs where unsuitable materials are currently present, development in areas of liquefaction potential would result in a significant geotechnical impact.

The Los Angeles County Department of Public Works has expressed the opinion that a maintenance district or other maintenance program would be necessary in the event that permanent dewatering, monitoring, and maintenance facilities requiring pumping facilities are required within Potrero Canyon for permanent stability. Based on existing information, geotechnical consultants believe that control of liquefaction is feasible without installation of permanent facilities. Dewatering will be accomplished by the installation of an extensive system of subdrains during grading operations. The general concept will be to install subdrains in the alluvial bottoms at regular horizontal intervals in the bottom of Potrero Canyon to prevent a potential rise in ground water from the alluvium into the overlying fill. Subdrains will be placed at vertical intervals of 5 to 15 feet along the south side of Potrero Canyon to collect water migrating into the canyon along the regional north-dipping bedding. Additional subdrains will also be installed along specific porous and permeable beds exposed in the Pico Formation and adjacent to the terrace deposits along Potrero Canyon if they will be present in the subgrade adjacent to the fill. Temporary dewatering activity may be necessary to remove the alluvium in order to construct the subdrains. Potential hazards from ground water will also be reduced by raising the proposed grade in Potrero Canyon. Drainage from these structures will be by gravity flow and are not expected to require pumping facilities.

(b) Off-Site Roadway Extension

Soils underlying portions of the proposed roadway alignments contain unconsolidated silt, sand, and gravel deposits. Given the composition of soils along the alignment and the potential presence of ground water within larger canyons, the potential for liquefaction of soils may exist under appropriate conditions. Without mitigation, construction of the roadways in areas of liquefaction potential would result in a significant impact.

(8) Oil Wells

(a) Newhall Ranch Specific Plan Site

There are numerous oil wells on Newhall Ranch, particularly in or adjacent to areas planned for development. Unless non-operational wells are properly abandoned following the recommendations of the Division of Oil and Gas of the California Department of Conservation, they may interfere with site preparations. Because the wells would not expose structures or people to geologic hazards, they would not result in a significant geotechnical and soil resources impact (refer to Section 4.5, Environmental Safety, for a discussion of these wells relative to their abandonment and local soil remediation, if necessary).

(b) Off-Site Roadway Extensions

Review of the 1992 Munger Map Book indicates that the Magic Mountain Parkway extension will traverse part of the Castaic Junction Oil Field. This alignment will come in close proximity to the Exxon (Newhall Land and Farming Company) #31 Oil Well. The exact status and location of the Exxon #31 oil well will require evaluation at the subdivision stage. The Valencia Boulevard alignment will traverse part of the Newhall-Potrero Oil Field, although this alignment will not pass in close proximity to an existing oil well. Because the wells would not expose structures or people to geologic hazards, they would not result in a significant geotechnical and soil resources impact.

(9) Seismic Hazards

(a) Newhall Ranch Specific Plan Site

The Newhall Ranch Specific Plan site lies within the seismically active southern California region and would be subject to typical earthquake hazards, such as ground motion, ground failure, liquefaction, dynamic compaction, differential materials response, slope failure, sympathetic movement, and shattered ridge effects. Review of available geologic information for the Newhall Ranch Specific Plan area indicate that the Salt Creek and Del Valle Faults are potentially active, but not in Alquist-Priolo Special Study Zones. However, it is reasonable to assume that moderate or large magnitude earthquakes will affect the Newhall Ranch Specific Plan site during the life of a given structure.

As throughout California, significant ground shaking can be expected at the site during a significant earthquake on regional active faults. Structural design for buildings and other improvements constructed on the Newhall Ranch Specific Plan site would accommodate peak ground acceleration from

the most likely significant earthquake (which will be generated by the San Andreas fault or San Gabriel fault) because these peak acceleration levels are expected to be within the levels addressed by the Uniform Building Code. Because Newhall Ranch Specific Plan site development and construction would be required to comply with Los Angeles County requirements and the Uniform Building Code as they pertain to seismic safety, seismic effects on Newhall Ranch Specific Plan improvements are expected to be less than significant.

(b) Off-Site Roadway Extensions

No active earthquake faults are known to traverse either of the proposed roadway alignments. However, given that the region is seismically active and the alignments would be subject to ground shaking and associated events, the potential effect of ground motion and ground failure on improvements along these alignments could be significant. Construction of these roadways would also be required to comply with Los Angeles County requirements and the Uniform Building Code as they pertain to seismic safety. Therefore, seismic effects on the roadways, which are expected to be at levels addressed by the County and the Uniform Building Code, would be less than significant.

c. Conclusion

Development in landslide areas, and in areas of surficial and slope failure, expansive soils, hydroconsolidation, and liquefaction would be significant because it would expose people and structures to geologic hazards. Therefore, measures are proposed in the following Subsection 5., Specific Plan Mitigation Measures, which would mitigate these impacts to below the thresholds of significance identified earlier in this section.

5. SPECIFIC PLAN MITIGATION MEASURES

a. Mitigation Measures Already Incorporated into Specific Plan

The Newhall Ranch Specific Plan does not contain any specific measures to mitigate impacts on Geotechnical and Soil Resources.

b. Mitigation Measures Recommended by the EIR

4.1-1. The standard building setbacks from ascending and descending man-made slopes are to be followed in accordance with Section 1806.4 ~~2907 (d)~~ of the Los Angeles County Building Code, unless superseded by specific geologic and/or soils engineering evaluations. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 44)

4.1-2. The existing Grading Ordinance for planting and irrigation of cut-slopes and fill slopes is to be adhered to for grading operations within the Newhall Ranch Specific Plan site. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 44)

4.1-3. In order to safeguard against major seismic-related structural failures, all buildings within the Newhall Ranch Specific Plan boundaries are to be constructed in conformance with the Los Angeles County Uniform Building Code, as applicable.

(1) Mitigation for Geologic Hazards:

4.1-4. The location and dimensions of the exploratory trenches and borings undertaken by Allan E. Seward Engineering Geology, Inc. and R.T. Frankian & Associates are to be noted on all grading plans relative to future building plans, unless the trenches and/or borings are removed by future grading operations. If future foundations traverse the trenches or borings, they are to be reviewed and approved by the Newhall Ranch Specific Plan Geotechnical Engineer. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 45)

4.1-5. Wherever the Pacoima Formation is exposed, it may be potentially expansive; therefore, it is to be tested by the Newhall Ranch Specific Plan Soils Engineer at the grading plan stage to determine its engineering characteristics and mitigation requirements, as necessary.

4.1-6. Should any expansive soils be encountered during grading operations, they are not to be placed nearer the finished surface than 8 feet below the bottom of the subgrade elevation. This depth is subject to revision depending upon the expansive potential measured during grading. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-7. If expansive materials are encountered at subgrade elevation in cut areas, the soils are to be removed to a depth of 8 feet below the "finished" or "subgrade" surface and the excavated area backfilled with nonexpansive, properly compacted soils. This depth is subject to revision depending upon the expansive potential measured during grading. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-8. At the time of subdivision, which allows construction, areas subject to liquefaction are to be mitigated to the satisfaction of the Newhall Ranch Specific Plan Geotechnical Engineer prior to site development. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-9. Subdrains are to be placed in areas of high ground water conditions (Potrero Canyon, in particular) or wherever extensive irrigation is planned. The systems are to be designed to the specifications of the Newhall Ranch Specific Plan Geotechnical Engineer.

4.1-10. Subdrains are to be placed in the major and minor canyon fills, behind stabilization blankets, buttress fills, and retaining walls, and as required by the Geotechnical Engineer during grading operations. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-11. Canyon subdrains may be installed in "V"-ditches or in a rectangular trench excavated to expose competent material or bedrock as approved by the Geotechnical Engineer.

4.1-12. The vertical spacing of subdrains behind buttress fills, stabilization blankets, etc. are to be a maximum of 15 feet. The gradient is to be at least 2 percent to the discharge end. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-13. Geological materials subject to hydroconsolidation (containing significant void space) are to be removed prior to the placement of fill. Specific recommendations relative to hydroconsolidation are to be provided by the Newhall Ranch Specific Plan Geotechnical Engineer at the subdivision stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 44)

4.1-14. Proposed structures on ridgelines will have a minimum 20-foot horizontal setback from the margin of the bedrocks to prevent perched or ground water levels where relatively impermeable materials can block downward migration.

4.1-15. Subsurface exploration is required to delineate the depth and lateral extent of the landslides shown on the geologic map. ~~is to~~ This work shall be undertaken at the subdivision ~~map~~ stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 15) Landslides ~~are to~~ must be mitigated through stabilization, removal, and/or building setbacks as determined by the Newhall Ranch Specific Plan Geotechnical Engineer, and to the satisfaction of the Los Angeles County Department of Public Works.

4.1-16. At the subdivision stage, the existence of landslides designated with "3" on **Figure 4.1-2, Existing Landslide Areas**, and within or adjacent to the development area is to be confirmed. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994,p. 15) If landslides are confirmed in these areas, they are to be mitigated through stabilization, removal, and/or building setbacks as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.

4.1-17. The existence, or lack thereof, of landslides on or adjacent to the roadway alignments for the extension of Magic Mountain Parkway and Valencia Boulevard will be evaluated by subsurface investigations at the subdivision stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 13 December 1995, p. 11) If landslides are confirmed in these areas, they are to be mitigated through stabilization, removal, and/or building setbacks as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.

4.1-18. The potential hazards associated with debris flow scars and other possible surficial failures located in proximity to the roadway alignments for the extension of Magic Mountain Parkway and Valencia Boulevard will be evaluated at the subdivision stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 13 December 1995, p. 11) These areas are to be mitigated as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.

4.1-19. Remove debris from surficial failures during grading operations prior to the placement of fill. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 16)

4.1-20. All soils and/or unconsolidated slopewash and landslide debris is to be removed prior to the placement of compacted fills. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 45)

4.1-21. Cut-slopes which will expose landslide material are to undergo geologic and geotechnical evaluation at the subdivision stage to determine their stability and degree of consolidation. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 15) Several options are available to mitigate potential landslide failure in the proposed cut-slopes. Landslides may be stabilized with buttress fills or shear keys designed by the Newhall Ranch Specific Plan

Geotechnical Engineer; landslide material can be entirely removed and replaced with a stability fill; or the slope can be redesigned to avoid the landslide. Landslides underlying cut pad or road areas may be removed or partially removed if the Newhall Ranch Specific Plan Geologist and Geotechnical Engineer conclude that the landslide is stable and sufficiently consolidated to build on. Landslides located on ascending natural slopes above proposed graded areas will also require evaluation for stability. Unstable landslides on natural slopes above graded areas will either require stabilization, removal or building setbacks to mitigate potential hazards.

4.1-22. Additional geologic investigations are required prior to approval of future tentative maps which allow construction, or grading plans to determine the geologic and geotechnical feasibility of the fifteen (15) lots proposed in the High Country SMA.

4.1-23. Prior to construction of the road embankment located within landslide Qls II, a compacted fill shear key will be constructed at the property boundary. (R.T. Frankian & Associates, 19 September 1994, p. 6)

4.1-24. Landslides which will not affect the proposed grading concept are to be placed in Restricted Use Areas on the Final Maps. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. ~~43~~)

4.1-25. Surficial stability of cut-slopes designated with a "G" are to be fully evaluated at the subdivision stage, due to the possibility of wedge failures or surficial material in the slope. Corrective grading measures are to be presented in detail as mitigation at both the subdivision and Grading Plan stages of development. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, pp. 17, 43)

4.1-26. Cut slopes designated as "P" are potentially unstable and are to be fully evaluated at the subdivision stage to ascertain whether they are stable as designed. Corrective grading measures are to be presented in detail as mitigation at both the subdivision and Grading Plan stages of development. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, pp. 17, 43)

4.1-27. Cut-slopes designated with a "U" are to be further investigated at the subdivision stage to confirm underlying geologic conditions and slope stability. Corrective grading measures are to be presented in detail as mitigation at both the subdivision and Grading Plan stages of development. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, pp. 17, 43)

4.1-28. Cut-slopes associated with the construction of the proposed extensions of Magic Mountain Parkway and Valencia Boulevard are to be further investigated at the subdivision stage to confirm the underlying geologic conditions and slope stability. Corrective measures are to be required if it is determined that the cut-slopes will not be stable. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 13 December 1995, pp. 11 & 12)

According to Allan E. Seward Engineering Geology, Inc., unstable cut-slopes can either be redesigned or stabilized using various corrective grading techniques. Redesign options for unstable cut-slopes include reorientation, relocation and reducing the proposed slope gradient. Options for corrective grading include the construction of buttress fills, stability fills, shear keys, and complete removal of the landslide material.

4.1-29. Orientations of the bedrock attitudes are to be evaluated by the Newhall Ranch Specific Plan Engineering Geologist to identify locations of required buttress fills. Buttress fill design and recommendations, if necessary, are to be presented as mitigation during the grading plan stage. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-30. All fills, unless otherwise specifically designed, are to be compacted to at least 90 percent of the maximum dry unit weight as determined by ASTM Designation D 1557-91 Method of Soil Compaction. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-31. No fill is to be placed until the area to receive the fill has been adequately prepared and approved by the Geotechnical Engineer. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-32. Fill soils are to be kept free of all debris and organic material. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-33. Rocks or hard fragments larger than 8 inches are not to be placed in the fill without approval of the Geotechnical Engineer, and in a manner specified for each occurrence. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-34. Rock fragments larger than 8 inches are not to be placed within 10 feet of finished pad grade or the subgrade of roadways or within 15 feet of a slope face. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-35. Rock fragments larger than 8 inches may be placed in windrows, below the limits given above, provided the windrows are spaced at least 5 feet vertically and 15 feet horizontally. Granular soil must be flooded around windrows to fill voids between the rock fragments. The granular soil is to be wheel rolled to assure compaction. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-36. The fill material is to be placed in layers which, when compacted, is not to exceed 8 inches per layer. Each layer is to be spread evenly and is to be thoroughly mixed during the spreading to insure uniformity of material and moisture. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-37. When moisture content of the fill material is too low to obtain adequate compaction, water is to be added and thoroughly dispersed until the soil is approximately 2 percent over optimum moisture content. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-38. When the moisture content of the fill material is too high to obtain adequate compaction, the fill material is to be aerated by blading or other satisfactory methods until the soil is approximately two percent over optimum moisture content. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-39. Where fills toe out on a natural slope or surface, a keyway, with a minimum width of 16 feet and extending at least 3 feet into firm, natural soil, is to be cut at the toe of the fill. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-40. Where the fills toe out on a natural or cut slope and the natural or cut slope is steeper than 5 horizontal to 1 vertical, a drainage bench with a width of at least 8 feet is to be established at the toe of the fill. Fills may be placed over cut slopes if the visible contact between the fill and cut is steeper than 45 degrees. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-41. When placing fills over slopes, sidewall benching is to extend into competent material, approved by the Geotechnical Engineer, with vertical benches not less than 4 feet. (R.T. Frankian & Associates, 19 September 1994, Appendix I) Competent material is defined as being free of loose soil, heavy fracturing or compressive soils.

4.1-42. When constructing fill slopes, the grading contractor is to avoid spillage of loose material down the face of the slope during the dumping and compacting operations. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-43. The outer faces of fill slopes are to be compacted by backing a sheepsfoot compactor over the top of the slope, and thoroughly covering all of the slope surface with overlapping passes of the compactor. Compaction of the slope is to be repeated after each 4 feet of fill has been placed. The required compaction must be obtained prior to placement of additional fill. As an alternate, the slope can be overbuilt and cut back to expose a compacted core. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

4.1-44. All artificial fill associated with past petroleum activities as well as other existing artificial fill, are to be evaluated by the Newhall Ranch Specific Plan Geotechnical Engineer at the subdivision and/or Grading Plan Stage. (Allan~~Allen~~ E. Seward Engineering Geology, 19 September 1994, Inc., p. 45) Unstable fills are to be mitigated through removal, stabilization, or other means as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.

4.1-45. Surface runoff from the future graded areas is not to run over any natural, cut, or fill slopes. (Allan~~Allen~~ E. Seward Engineering Geology, 19 September 1994, Inc., p. 20)

4.1-46. Runoff from future pads and structures is to be collected and channeled to the street and/or natural drainage courses via non-erosive drainage devices. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)

4.1-47. Water is not to stand or pond anywhere on the graded pads. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)

4.1-48. Oil and water wells that might occur on site are to be abandoned in accordance with State and local regulations. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 45)

4.1-49. If any leaking or undocumented oil wells are encountered during grading operations, their locations are to be surveyed and the current well conditions evaluated immediately. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 21) Measures are to be taken to document the wells, abandonment, and remediate the well sites (if necessary) in accordance with State and local regulations.

4.1-50. The exact status and location of the Exxon (Newhall Land & Farming) oil well #31 will be evaluated at the subdivision stage. If necessary, the well will be abandoned in accordance with State and local regulations. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 13 December 1995, p. 12)

(2) Mitigation for Seismic Hazards

4.1-51. Survey control will be required to precisely locate the Salt Creek and Del Valle Faults at the subdivision stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 33)

4.1-52. Additional trenching will be performed within the Holser Structural Zone on Newhall Ranch during the subdivision stage to evaluate its existence. Within Potrero Canyon, additional subsurface evaluation will be performed during the subdivision stage to confirm that nontectonic alluvial movement was the cause of surface ground cracking during the January 17, 1994, earthquake, and to evaluate the potential for shallow-depth faults. ~~Additional subsurface trenching is to be performed within the Holser Structural Zone on Newhall Ranch during the subdivision stage to evaluate its existence.~~ (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 42, as revised above.)

No distinct evidence for Holocene activity on any of the faults traversing the Newhall Ranch Specific Plan site was observed during Allan E. Seward Engineering Geology, Inc.'s investigation; however, based on the distinct nature of faulting, the possible association of minor seismic activity, and compatible orientation of the faulting in relation to the current stress regime of the Transverse Ranges, preliminary Building Setback Zones have been designated around the mapped fault zones **(see Figure 4.1-4)**.

4.1-53. Precise Building Setback Zones for the Newhall Ranch Specific Plan site are to be defined at the subdivision stage.

4.1-54. Due to the potential activity of the Salt Creek and Del Valle Faults, site development is to remain outside of Building Setback Zones around fault traces, and the possible fault zone connecting them (see **Figure 4.1-4**). (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 42)

The zone shown around the possible fault connecting the Del Valle and Salt Creek Faults may be deleted if future work shows that this fault segment does not exist.

4.1-55. To minimize potential hazards from shattered ridge effects, structures and storage tanks proposed on ridgelines are to have a minimum 20 foot setback from the margins of the bedrock. Designation of specific building setbacks will require evaluation at the subdivision stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 40) Building setback zones are to be identified on all site plans and tract maps for the site.

4.1-56. The potential for ground motion and ground failure associated with a seismic event in proximity to the planned roadway alignments of Magic Mountain Parkway and Valencia Boulevard will be evaluated at the subdivision stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 13 December 1995, p. 11) Mitigation to reduce associated significant impacts will also be identified at that time.

6. CUMULATIVE IMPACTS

Geotechnical impacts tend to be site specific rather than cumulative in nature and each development site is subject to, at minimum, uniform site development and construction standards relative to seismic and other geologic conditions that are prevalent within the region. Because the development of each site would have to be consistent with Los Angeles County requirements and the Uniform Building Code as they pertain to protection against known geologic hazards, impacts of cumulative development would be less than significant given known geologic considerations.

7. CUMULATIVE MITIGATION MEASURES

No impacts would occur related to cumulative development, therefore mitigation is not required.

8. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Specific Plan Impacts

With implementation of the above identified mitigation measures, no unavoidable significant impacts associated with geotechnical hazards are anticipated.

b. Cumulative Impacts

No unavoidable significant impacts related to cumulative development are anticipated.

4.2 Flood

4.2 FLOOD

1. SUMMARY

a. Santa Clara River Corridor Concept

It is a goal of the Newhall Ranch Specific Plan to preserve the Santa Clara River as a resource. In order to meet this goal, several generalized criteria regarding the form and function of the River were identified early in the planning process which formed the basis of the River Corridor concept for the Newhall Ranch site. The criteria used include the following:

- *the flood corridor must allow for the passage of Los Angeles County Capital Flood flow without the permanent removal of natural River vegetation (except at bridge crossings);*
- *the banks of the River will generally be established outside of the "waters of the United States," as defined by Federal laws and regulations, and as determined by the delineation completed by the United States Army Corps of Engineers (ACOE) in August 1993;*
- *where the ACOE delineation width is insufficient to contain the Capital Flood flow, the flood corridor will be widened by an amount sufficient to carry the Capital Flood flow without the necessity of permanently removing vegetation or significantly increasing velocity;*
- *where development is proposed within the existing Los Angeles County 50-Year Capital Flood Plain, the land where development is to occur will be elevated in accordance with Los Angeles County policies to remove it from the flood plain; and*
- *bank stabilization will occur only where necessary to protect against erosion.*

b. Summary of Drainage Characteristics, Improvements, Potential Impacts, and Mitigation Measures

(1) Drainage Characteristics

The Newhall Ranch site is located within the Santa Clara River basin and its watershed. The portion of the Santa Clara River watershed located upstream, or generally east of the site, is approximately 640 square miles in size, while the entire watershed is 1,634 square miles in size. The Newhall Ranch site represents approximately 2.9 percent of the 640-acre watershed and 1.1 percent of the entire watershed. The Newhall Ranch site overlies ten drainage areas, all of which are part of the Santa

Clara River watershed. With the exception of drainage crossings under State Route (SR) 126, all of the other watercourses within the Newhall Ranch boundaries are unimproved. According to Sikand Engineering Associates, there are no known flow constraints, such as blockages caused by debris, along any of the unimproved drainages.

(2) Newhall Ranch Improvements

The Backbone Drainage Concept Plan for the Newhall Ranch Specific Plan delineates the conceptual backbone system for open and closed systems with the criterion of maintaining the existing natural drainage condition and vegetation within the Santa Clara River, and soft bottom, open drainage systems for the larger tributaries, with side bank stabilization. The Backbone Drainage Concept Plan also proposes to utilize natural drainage courses, open channels, and subsurface drainage conduits to channel storm runoff through the development areas and into the Santa Clara River. As required by the Los Angeles County Department of Public Works, open drainage systems would be installed within the lower elevations of the tributary drainage courses wherever post-development runoff flows would exceed 2,000 cubic feet per second (cfs). Bank stabilization would be installed only where required by the Los Angeles County Department of Public Works to protect against erosion.

Approximately 313 acres (28 percent) of the Los Angeles County Department of Public Works-defined Capital Flood Plain of the Santa Clara River that are located within the Newhall Ranch site would be filled with an average of 10 feet of fill in order to accommodate development along the River Corridor, thereby removing it from the flood plain. Bank stabilization will be installed along approximately 80 percent of the northern River Corridor boundary and along approximately 30 percent of the southern River Corridor boundary to prevent erosion. Bank stabilization is proposed to be ungrouted rock in all areas except at outlet structures, access ramps, and bridge abutments, which will be either grouted rock or reinforced concrete in accordance with Los Angeles County Department of Public Works standards for public health and safety. Of the approximately 92,500 linear feet of blueline streams which exist on the site, 44,800 linear feet would be either retained in or returned to a soft-bottom state, including all stream segments with flow rates of 2,000 cfs or greater.

(3) Potential Impacts - Newhall Ranch Specific Plan

Of the approximately 5,533 acres of the Newhall Ranch site that would be set aside for development, [1]approximately 3,187 acres (4.98 square miles) would be covered with impervious surfaces (e.g., homes, streets, commercial buildings, etc.) as a result of the Newhall Ranch Specific Plan. This acreage represents 0.3 percent of the entire 1,634 square mile Santa Clara River watershed (4.98 square miles covered/1,634 square miles = 0.0030 or 0.3 percent).

Implementation of the Conceptual Backbone Drainage Plan would maintain post-development storm water flows from each drainage area at a level approximately equal to or less than storm flows under existing conditions during a 50-year Capital Flood storm event. More specifically, as a result of proposed development, total post Newhall Ranch storm flows would decrease by approximately 12 percent and total debris volume would be reduced by approximately 30 percent. The amount of burned and bulked runoff would be reduced from 52,729 cfs to 46,550 cfs, and the amount of debris volume would be reduced from 1,203,790 cubic yards (cy) to a total of 842,370 cy. Such reductions in flow and debris volume are due to the reduction in erosive areas on the site that are capable of producing bulked flows containing debris. Because construction of Newhall Ranch would not increase site runoff during a Capital storm, it could not result in upstream or downstream flooding, nor could it subject any on- or off-site improvements to flood hazards beyond the thresholds set forth by the County of Los Angeles. Therefore, development of the proposed Specific Plan would not result in significant on- or off-site flooding impacts.

As future subdivision maps are prepared to allow construction, detailed grading and engineering plans consistent with the Backbone Drainage Concept Plan would be prepared with more exact specifications as to how development would be protected from flood and erosion hazards. Grading and engineering plans will meet the requirements of the Los Angeles County Department of Public Works (LACDPW) Flood Control Division with respect to protecting the development from Capital Flood hazards and with respect to reducing erosion and sedimentation impacts associated with the development to below levels of significance.

Construction of Newhall Ranch (particularly site clearing and grading operations) would have the potential for discharging sediment downstream during storm events. Therefore, the use of temporary erosion control measures in disturbed areas of the site during construction is recommended. These may include minimizing existing vegetation removal; using temporary soil covers, such as hydroseeding, to

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1 This acreage includes gross acreage for all Residential, Mixed Use, and Non-Residential uses identified in Table 1.0-3 in Section 1.0, Project Description, with the exception of the Estate residential category. Net acreage of 324 acres from the proposed Grading Plan was used for the Estate residential category.

protect exposed soil from wind and rain; and installing silt fencing, berms, and dikes to protect storm drain inlets and drainage courses. The drainage areas which occur on the Newhall Ranch site would not be completely developed as part of the Specific Plan ;therefore, storm flows from their upper reaches would contain sediment and vegetative debris. In order to prevent this sediment and debris from entering storm drainage improvements, permanent erosion control measures, such as installing desilting and debris basins, drainage swales, slope drains, storm drain inlet/outlet protection, and sediment traps are recommended as mitigation.

The development area of the Newhall Ranch Specific Plan would be covered with non-erosive surfaces, including pavement and permanent vegetation, which would reduce the amount of sediment that would occur in site runoff compared to existing conditions.

By installing temporary and permanent erosion/sedimentation control measures, Newhall Ranch would not result in significant sedimentation or debris-related impacts either within or downstream of the Newhall Ranch site. In fact, the construction of the Newhall Ranch Specific Plan would have a beneficial post-construction impact on downstream sedimentation because, as the site builds out, some steep slopes would be graded to flatter slopes, and many of the areas of the site that have been subject to the vegetation-denuding effects of grazing and wildfires would become developed with vegetation and other non-erodable development. In other words, the bulking of the floodwaters by sedimentation would be reduced, thereby resulting in lower flood flow rates. Conversely, however, the reduction in sediment in flood waters could negatively impact beaches, as incrementally less sediment material would be available to replenish beaches down-current of the Santa Clara River mouth. However, debris produced by the Newhall Ranch site at buildout would only be reduced by a minor amount [361,420 cubic yards (1,203,790 cy - 842,370 cy = 361,420 cy)] for the 1,634-acre watershed. No threshold of significance exists for beach sand *replenishment impacts.*

In conclusion, mitigation is identified in this section which, in combination with the many flood control requirements of Los Angeles County Department of Public Works Flood Control Division, would ensure that storm flows are not impeded, that erosion and sedimentation from the Newhall Ranch site would be minimized both during construction and at buildout, that both artificial and natural open drainage channels would be protected, and that development would meet National Pollutant Discharge Elimination System requirements.

With implementation of the mitigation measures identified, no unavoidable significant flooding, erosion, or sedimentation-related impacts from the proposed Specific Plan are expected to occur.

2. INTRODUCTION

The following information is supported by a drainage analysis for the Newhall Ranch Specific Plan entitled, Drainage Report for Newhall Ranch, prepared by Sikand Engineering Associates (26 January 1996). Sikand Engineering Associates' report is presented in its entirety in Appendix 4.2 of this environmental impact report.

Other references used to prepare this section include:

- Agricultural and Forest Hydrology, L.L. Harrold, G.O. Schwab, B.C. Bondurant, Agricultural Engineering Department, Ohio State University, Columbus, Ohio, 1976,
- Water Quality Control Plan [for the] Los Angeles Region (4) prepared by the California Regional Water Quality Control Board, Los Angeles Region (approved 23 February 1995),
- Los Angeles County Department of Public Works Floodway Maps for the Santa Clara River (July 1985),
- Los Angeles County Department of Public Works Hydrology Manual (December 1991) and Sedimentation Manual (June 1993), and
- Los Angeles County Department of Public Works letter entitled "Level of Flood Protection," File No. 2-15.321 (31 March 1986).

This impact analysis focuses only on the potential hydrologic impacts of the Newhall Ranch Specific Plan. The potential impacts to wetlands and the biological resources which are within and around drainages are addressed in **Section 4.6 (Biota).**

The following are definitions to several terms which are frequently used in this section of the EIR.

100-year FIA Q	The Federal Insurance Administration (FIA) method of determining storm flow rates based on historic runoff as measured with stream gauges. Structures built above the elevation of the 100-year FIA Q are considered reasonably safe and free from flood hazard and are, therefore, eligible for Federal flood insurance through the National Flood Insurance Program.

100-year storm	A flood that has a 1/100, or one percent, chance of occurring in any given year.
Alluvial Aquifer	A principal hydrogeologic unit within the Santa Clara River Valley and underlying the Newhall Ranch site which consists of alluvial (stream-deposited) sediments associated with the Santa Clara River and its tributaries.
Best Management Practice (BMP)	In water pollution control, the best means available to control pollution of waterways from non-point sources, as opposed to best available technology, which applies to pollution control for point sources.
Burned and Bulked Runoff	Runoff from burned areas that is laden with burned vegetation, fines, rocks, and other debris.
Capital Flood (Qcap)	The runoff resulting from a theoretical storm based on Los Angeles County Department of Public Works methodology. The "model" storm is derived from 50-year frequency rainfall values which occur in a time sequence patterned after actual major extra-tropical storms occurring in the Los Angeles Region. The calculations of runoff are also based on the soil types and amount of impervious surfaces in a watershed area, and on the assumption that undeveloped portions of the watershed are burned, resulting in significant amounts of debris and sediment being added to the runoff.
Capital Flood Plain	In Los Angeles County, that area of land adjoining a continuous watercourse which would be temporarily covered by water during a Capital Flood.
Capital Floodway	In Los Angeles County, the channel of a river or other watercourse necessary to discharge the waters from the Capital Flood without increasing the water surface elevation of that flood more than one foot at any point, or increasing the velocity to more than 10 feet per second.
Clear Runoff	Runoff that is absent of fines, rocks, vegetation, and other debris.

Closed Drainage System	A series of covered or enclosed drainage conduits used to convey storm runoff. Proposed in lower elevations of the tributary drainage courses wherever least development runoff flows would be less than 2,000 cubic feet per second.
Coefficient of Runoff	Variable in the rational runoff formula which is dependent upon soil type, rainfall intensity, and the percent of imperviousness.
Depression Storage	Water stored in surface depressions and, therefore, not available for producing surface runoff.
Erosion	The wearing away of land surfaces by water, wind, and ice, or by gravity (as in landslides).
Evaporation	Conversion of liquid to vapor.
Evapotranspiration	Water transpired by vegetation plus that evaporated from the soil.
Freeboard	The vertical distance between a water surface and the top of the channel through which the water is flowing.
Impervious	A substance that will not permit water to flow through it.
Infiltration	Downward entry of water into soil.
Interception	That portion of precipitation intercepted by vegetation. Intercepted precipitation is disposed of by drip, stem flow, or evaporation (or sometimes sublimation, in the case of snow, sleet, hail, or freezing rain).
Open Drainage System	A series of uncovered or unenclosed drainages used to convey storm runoff. Proposed in lower elevations of the tributary drainage courses wherever least development runoff flows would exceed 2,000 cubic feet per second.
Outcrop	That part of a rock formation that protrudes at the earth's surface.
Percolation	A qualitative term usually applied to the downward movement of water through soil. (See infiltration)

Q	Peak runoff measured in cubic feet per second.
Q50bb	Peak runoff from a 50-year rainfall intensity storm from undeveloped areas that is laden with burned vegetation, fines, rocks, and other debris.
Q50c	Peak runoff from a 50-year rainfall intensity storm from developed areas or from undeveloped areas that are not assumed to be burned or bulked.
Runoff	The portion of rainfall, melted snow, or irrigation water that flows across the ground surface rather than filtrating into the soil.
Saugus Aquifer	A principal hydrogeologic unit underlying the Newhall Ranch site. It consists of a thick sequence of consolidated and folded sediments, underlying about 53 square miles of the Santa Clara River Valley at generally a greater depth than the Alluvial Aquifer.
Sedimentation	Deposition of waterborne sediments due to a decrease in water velocity and a corresponding reduction in the size and amount of sediment which can be carried by the flowing water.
Soft Bottom Channel	A drainage channel that has been either left in or returned to as natural state as possible, with an earthen or grassy bed.
Time of Concentration	The amount of time required for a droplet of storm runoff to flow from the most remote point of a drainage area to a point of discharge, once the soil nears saturation and minor surface depressions are filled.
Velocity	The rate of speed at which water flows either over land or through a channel.
Waters of the U.S.[2]	All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; all interstate waters including interstate wetlands; all other waters, such as interstate lakes,

2 United States, Federal Register, Volume 51, Number 219, Thursday, November 13, 1986.

rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters: (1) which are or could be used by interstate or foreign travelers for recreational or other purposes; or (2) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (3) which are used or could be used for industrial purposes by industries in interstate commerce. Also included are all impoundments of waters otherwise defined as waters of the United States under the definition; tributaries of water identified above; the territorial seas; and wetlands adjacent to waters (other than the waters that are themselves wetlands) identified above.

Wetlands[3] — Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

3. METHODOLOGY

Methodology is presented in this section to provide the reader (1) background hydrological information regarding the methods used to analyze the potential flood-related implications of the proposed Specific Plan, and (2) information regarding the regulatory background under which buildout of the Specific Plan would occur.

a. Hydrology Background

(1) Explanation of County Capital Flood[4]

In 1931, the Los Angeles County Flood Control District (LACFCD) (now the Flood Control Division of the County's Department of Public Works) began development of a Comprehensive Plan of flood control facilities to collect and convey flows from the mountainous canyons, the alluvial fans, and the urbanized coastal plain.

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3 United States, Federal Register, Volume 51, Number 219, Thursday, November 13, 1986.

4 Los Angeles County Department of Public Works, Hydrology Manual, (Alhambra, California: December 1990).

The major needs in designing the system were: the reduction of damage due to high canyon flows, the conveyance of large volumes of water in a major storm, and the ability to meet future flood control needs. The design of the flood protection system for the County is based upon the Department of Public Work's Capital Flood hydrology.

The Department's 50-year Capital Flood (or Qcap) hydrology is based on a "design," or model, theoretical storm event which is based on several assumptions as described below. The design storm event is derived from 50-year frequency rainfall values and is patterned after actual major extra-tropical storms observed in the Los Angeles region. The 50-year frequency design storm is assumed to occur over a period of four days, with the maximum rainfall falling on the fourth day.

Analysis of recorded major storms reveals that, during the twenty-four-hour period of maximum rainfall, rainfall intensity typically increases during the first 70 to 90 percent of the period and decreases in the remaining time. Furthermore, approximately 80 percent of the amount of the twenty-four-hour rainfall falls within the same 70 to 90 percent of the period. In developing the Capital Flood (or Qcap), the 50-year frequency design storm is assumed to fall on saturated soils. In converting rainfall to runoff, rainfall that is not lost due to the hydrologic processes of interception, evaporation, transpiration, depression storage, infiltration, or percolation is assumed to be surface runoff. The effect of snowfall or snow melt on rainfall-runoff relationships is a consideration only in a very limited portion of the County (i.e., only the higher elevations of the County where snowfall accumulates in winter).

Another assumption made in developing a Capital Flood design flow rate is that natural portions of the watershed have been burned by fire. When a watershed burns, the soil infiltration rate decreases due to the loss of vegetation and physical changes in the soil. The County has run field infiltrometer tests in order to quantify the effect that burning has on the coefficient of runoff. The effect of burning the watershed can increase the design runoff rate from 10 percent to 20 percent.

The final factor in adjusting the Capital Flood design flow rate is referred to as a bulking factor. In the area where a watershed is burned, the runoff will carry with it a large layer of eroded top soil. This sediment, along with the associated burned trees and brush, is referred to as debris. In order to account for these quantities of debris, the design flow rate is artificially increased by a percentage increase in flow rate, or bulking factor.

The bulking factor is a function of not only soil type, but also the steepness of the terrain and the size of the drainage area. The bulking factors for larger drainage areas range from about 1.20 to 1.50, or from 20 percent to 50 percent over and above the burned flow rate.

In summary, the County's Qcap is based on a theoretical four-day storm event occurring right after the watershed has been burned with the resulting flow rate being increased again by a bulking factor. The burning increase is from 10 to 20 percent and the bulking factor is between 20 and 50 percent, thereby yielding a peak flow rate that is 32 to 80 percent higher than a 50-year storm over an unburned-unbulked drainage area. The probability of all of the theoretical assumptions identified in the County's Capital Flood happening at the same time is extremely small. The combination of the 50-year frequency storm with the theoretical burning and bulking factors yield greater design flows under the County's methodology than methodology used by Federal Insurance Administration (FIA) for calculating the 100-year and 500-year floods. For example, FIA 100 and 500-year storm flows at the Los Angeles/Ventura County line are 60,000 and 119,000 cfs, respectively, while the County's Qcap at the County line is 163,000 cfs, 2.7 times the FIA 100-year storm and 1.4 times the FIA 500-year storm. **Figure 4.2-1, Los Angeles County 50-year Capital Flood Plain**, illustrates the bounds of the County 50-year Capital Flood Plain.

(2) Method of Drainage Analysis

The engineering term for the methods used to properly size pipes and channels is "hydraulic analysis." To determine the proper sizes of pipes and channels, assumptions must be made regarding the amount of rainfall to design for and the amount and type of development that will take place in the drainage area. An estimate must also be made as to how often that amount of rainfall could occur. This is referred to as the storm recurrence interval, or its reciprocal value - storm frequency. For example, a storm that has a 10 percent recurrence interval is a storm that has a 10 percent chance of occurring in any given year. The reciprocal of this number (1/10) is also known as a 10-year frequency. The most important concept to keep in mind is that a pipe or channel is "designed" for a rate of flow (measured in cubic feet per second), not a volume of flow (measured in cubic feet or acre feet). A dam or a lake is designed for storing or containing a certain volume, or amount, of water. A pipe of a fixed size, on the other hand, can carry different flow rates, depending on the pressure being placed on the water. Similarly, a river or channel can carry various flow rates of water depending on different depths of flow in that river or channel.

In the case of a river or channel, of concern from a flood control aspect is the depth of water in the river or channel, which will vary based on the flow rate (or Q value). For example, in designing a pipe or a channel, it does not matter if a 3-foot deep river flows 3-feet deep for a week or a year, it only matters that the river never gets deeper than 3-feet so the property adjacent to the river or channel does not become flooded.



SOURCE: COUNTY OF LOS ANGELES DEPT. OF PUBLIC WORKS
SANTA CLARA RIVER FLOODWAY MAPS

NEWHALL RANCH
Newhall Ranch Company

L E G E N D

L.A. COUNTY 50 YEAR CAPITAL FLOOD PLAIN

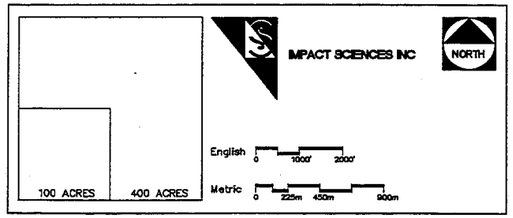


FIGURE 4.2-1
L.A. COUNTY 50 YEAR CAPITAL FLOOD PLAIN

2/19/96

In designing a storm drain system, the size of a pipe or channel that will safely carry a predicted rate of flow (expressed in cubic feet per second - cfs) must be calculated. A one-foot square box which is one foot deep (a cubic foot) can hold 7.5 gallons of water. From this fact, the amount of storm water passing through a pipe or channel in one second can, very simply put, be calculated by multiplying the cross sectional area of the flow in the pipe (in square feet) by the rate in feet per second at which the storm flows pass through the pipe. Hence the expression, "cubic feet per second."

With the above concepts in mind, the effects of development on natural ground can be considered. Buildings, driveways, patios, and roads all create new impervious covers to the natural ground which prevents the ground from absorbing rain water. This covering of the ground not only results in small storms creating a higher amount, or volume, of runoff, but also a higher flow rate of runoff (identified as the "Q") in developed areas than in undeveloped areas.

(3) Explanation of Design Hydrology

The following is a discussion of the effects of soil type, imperviousness, and burning and bulking on storm runoff quantities.

(a) Effects of Soil Type and Amount of Imperviousness on Runoff Rates

The increase in runoff is directly related to the type of soil. Certain soil types accept water faster (are more pervious) than other soils. Therefore, the types of soils present on a site are used in the calculations of runoff. Different soil types have very different water infiltration (or absorption) rates. If a sandy soil (highly pervious) is paved over, the coefficient of runoff (C) would greatly increase, whereas if a clay soil (not highly pervious) is paved over, runoff values would go up, but not as high as in the case of sandy soil because the sandy soil absorbs water faster. In small storms, some soils can absorb 100 percent of the rainfall. For example, soil type 015, Tujunga Fine Sandy Loam, can completely absorb a 0.5 inch per hour (in/hr) storm and almost completely absorb a 1.0 in/hr storm, thereby yielding extremely low runoff rates. For a 200-acre parcel with soil types 015 (Tujunga Fine Sandy Loam) and 012 (Ramona Clay Loam), radically different runoff quantities for the same rainfall events occur. For an intense storm, I = 1.0 inch per hour, and the very pervious soil type 015 (Tujunga Fine Sandy Loam), the runoff rate would be 20 cfs. For the same size parcel on a very impervious soil, such as soil type 012 (Ramona Clay Loam), the runoff rate would be 168 cfs.

As an alternative to calculating the undeveloped coefficient of runoff for each intensity and each soil type, the County created coefficient of runoff curves for the various soil types. For the five soils located in the Newhall Ranch drainage basin (soil types 20, 91, 92, 94, and 97), and using the County runoff

curves, **Table 4.2-1, Coefficients of Runoff by Soil Type,** has been prepared so that various coefficients of runoff can be compared in the undeveloped condition with no man-made impervious surfaces (0 percent imperviousness) to coefficients of runoff in developed conditions with 50 percent, 75 percent, and 100 percent impervious surfaces.

Table 4.2-1
Coefficients of Runoff (C) by Soil Type
(for 0.5 in/hr and 1.0 in/hr storms)

	Developed Coefficient of Runoff (percent imperviousness)[1]							
	0 percent		50 percent		75 percent		100 percent	
Project Site Soil Types	@ 0.5 in/hr	@ 1.0 in/hr	@ 0.5 in/hr	@ 1.0 in/hr	@ 0.5 in/hr	@ 1.0 in/hr	@ 0.5 in/hr	@ 1.0 in/hr
20	0.1	0.35	0.50	0.62	0.70	0.76	0.90	0.90
91	0.45	0.63	0.68	0.77	0.79	0.83	0.90	0.90
92	0.55	0.69	0.73	0.80	0.81	0.85	0.90	0.90
94	0.57	0.74	0.74	0.82	0.82	0.86	0.90	0.90
97	0.26	0.53	0.58	0.72	0.74	0.81	0.90	0.90

Source: Sikand Engineering Associates (26 January 1996).
[1]*Percent imperviousness is the percent of the drainage area that is covered with roofs, patios, driveways etc.; a 0 percent coefficient implies an undeveloped condition.*

On the Newhall Ranch site, only soil type 20 is a sandy soil. Within the ten drainage areas of which the Newhall Ranch site is a part, there are 1,960 acres in sandy soil type 20 versus 18,764 acres in the more impervious soil types 91, 92, 94, and 97. Because the majority of development is proposed on the more impervious soil types, the increases in coefficients of runoff resulting from development would not be as great as if these soils were more sandy. As shown in **Table 4.2-1**, in a 1.0-inch per hour storm in sandy soil (type 20) with 50 percent impervious coverage, the runoff rate would increase by 77 percent over the undeveloped condition (0.62/0.35 = 1.77, or an increase of 77 percent). Taking the same example with soil type 92 for a 1.0-inch per hour storm with 50 percent impervious coverage, the runoff rate would increase by only 16 percent over the undeveloped condition (0.80/0.69 = 1.16, or an increase of 16 percent). Therefore, when the effect of soil type is considered, as shown in the table, there is an increase in the runoff rate even in low intensity storms; however, the increase in the amount of runoff is greater with sandy soils than with clayey soils, and the effects of covering soils that are already more impervious (such as clay) with totally impervious surfaces (such as cement) are less influential in calculating the design peak flow rate than are more pervious soils. This is especially true for Newhall Ranch, where the sandy soil (type 20) in almost all cases is found in drainage bottoms which would generally not be covered with impervious surfaces.

The following describes the coefficients of runoff for the Newhall Ranch site in a Capital Flood storm. Soil type 20 is not used in this calculation since development would not occur over this soil type in any appreciable amount. In a Capital Flood storm, it is assumed to have been raining for three days prior to the peak intensity coming during the fourth day. The rainfall intensities that would be expected on the fourth day would range from 2.1 to 3.75 inches per hour (in/hr), depending on the time of concentration. If there is a great amount of paving, the runoff would join together and flow quickly to the River. The effect of 50 percent impervious surfaces on the undeveloped coefficients of runoff (C) for the Newhall Ranch site at varying rainfall intensities would appear as follows in **Table 4.2-2, Capital Flood Coefficients of Runoff.**

Table 4.2-2
Capital Flood Coefficients of Runoff

On-Site Soil Types	C_u (undeveloped, with 0 Percent imperviousness)[1] @ 2.0 in/hr	@ 2.5 in/hr	@ 3.0 in/hr	@ 3.5 in/hr	@ 4.0 in/hr	C_d (developed with 50 Percent imperviousness)[1] @ 2.0 in/hr	@ 2.5 in/hr	@ 3.0 in/hr	@ 3.5 in/hr	@ 4.0 in/hr
91	0.75	0.775	0.795	0.81	0.82	0.825	0.84	0.85	0.86	0.86
92	0.78	0.805	0.82	0.83	0.84	0.84	0.85	0.86	0.865	0.87
94	0.85	0.87	0.88	0.89	0.90	0.875	0.88	0.89	0.895	0.90
97	0.68	0.71	0.73	0.75	0.78	0.79	0.80	0.815	0.825	0.84

Source: Sikand Engineering Associates (26 January 1996).
[1]*Imperviousness identifies the percent of the drainage area that is covered with roofs, patios, driveways etc.*

As shown on this table, as Capital Flood storm intensities of 2.0 to 3.0 inches per hour are reached, the undeveloped coefficient of runoff, C_u, is not significantly affected by even a 50 percent covering of the area. For example, with a 2.0 in/hr storm intensity on soil type 91, the coefficient of runoff increases by only 10 percent in the developed condition (0.825/0.75 = 1.10, or a 10 percent increase). As the intensity of the storm increases to 3.5 in/hr on soil type 91, the coefficient of runoff increases by just 6.2 percent in the developed condition (0.86/0.81 = 1.062, or a 6.2 percent increase). The reason for such a small increase when a site develops is due to the fact that, in the Capital storm, undeveloped areas are assumed to have been burned and then to produce debris during the storm which, is combined with the rain water. Developed areas are not subject to the same burning and bulking assumptions that undeveloped lands are, which eliminates the debris found in the rain water as it makes its way to drainage courses, thereby reducing the volume of runoff in the drainage course.

(b) Effects of Burning and Bulking

Downstream drainage courses are generally changed by an increase in runoff from the impervious areas created by development. In the pre-development Capital Flood flow rate calculations (see **page 4.2-10 above)**, the watershed is assumed to be completely burned. Burning the area causes the coefficient of runoff to increase. Further, after increasing the coefficient of runoff for burning, the flow rate is then multiplied by a bulking factor which is used to account for the amount of mud and debris that would be contained within the flow from the burned watershed (see **Table 4.2-3, Bulking Factors for Newhall Ranch,** for bulking factors for Newhall Ranch). In the case of Newhall Ranch, the increase in runoff, or flow rates, due to an increase in the coefficient of runoff (C) to account for burning is from 10 to 20 percent. Application of the bulking factor to account for debris production would increase runoff quantities by 20 to 50 percent over and above the burned flow rate.

Table 4.2-3
Bulking Factors for Newhall Ranch

Debris Production Area	Drainage Area (square miles)			
	1.0	2.0	5.0	10.0
3	1.47	1.45	1.44	1.42
5	1.35	1.33	1.32	1.31
8	1.26	1.25	1.23	1.22
9	1.16	1.15	1.13	1.11

Source: Sikand Engineering Associates (26 January 1996).

Table 4.2-3 indicates that, for Newhall Ranch, the increase in peak flow rates after applying the bulking factor to account for debris production in a Capital storm ranges from 11 percent in Debris Production Area 9 (with a 10 square mile drainage area) to 47 percent in Debris Production Area 3 (with a 1.0 square mile drainage area).

b. Regulatory Setting

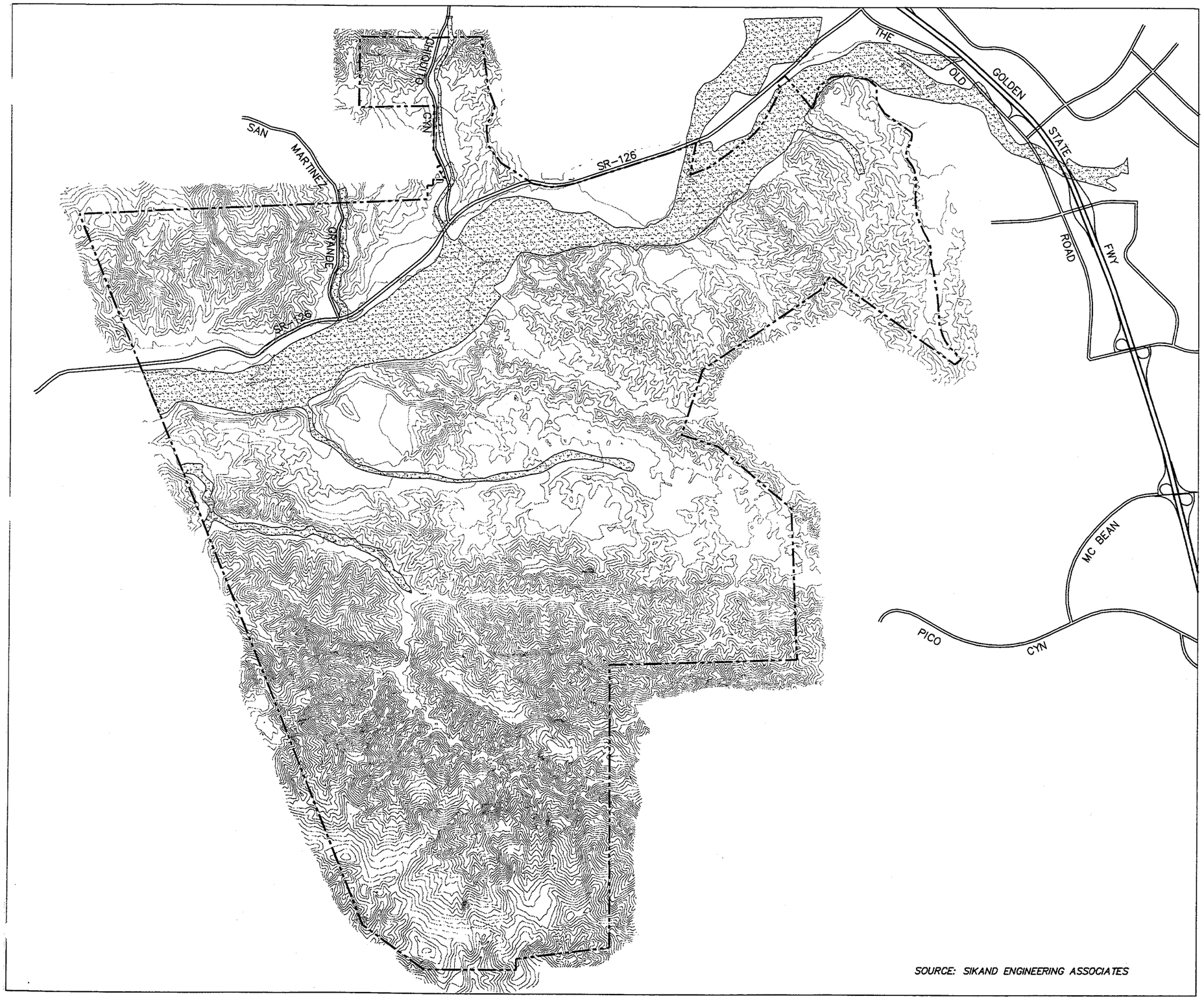
The discussion below first summarizes various Federal flood control regulations to which the proposed Specific Plan would be subject, in addition to those already discussed above for the County. Also discussed are the environmental regulations to which the Specific Plan would be subject, which are necessitated by flood control activities associated with the Newhall Ranch Specific Plan.

(1) Federal Insurance Administration (FIA)

The previous section summarized various LACDPW Flood Control Division design guidelines and development criteria. In addition to County flood control requirements, the Federal Insurance Administration (FIA) is also involved in establishing standards in order to facilitate flood insurance coverage. The FIA maps 100- and 500-year floods based on historical records. The standard set by FIA for flood insurance is the 100-year flood level (also termed the 100-year FIA Q). This level is based on historic runoff records as actually measured with stream gauges. Since this is an insurance program, a method of setting damage rates had to be developed. It was concluded that the rates were to be set based upon the depths of flooding that have been recorded throughout history (the higher the water, the more likely flood damage would occur). It was decided that the 100-year flood level would become the "base flood." Any land that was above this 100-year, or base flood, elevation would be considered reasonably safe and free from flood hazard. For major drainage basins like the Mississippi River, which receives runoff from its tributary watersheds year-round and which has many years of stream gauge records, the 100-year flood calculation is a very reliable predictor of flood hazard. However, in Los Angeles County's arid climate, there are no large rivers that have year-round surface flows during their entire lengths; consequently, the determination of the South Western States FIA base flood was more difficult to create than the Mississippi River base flood due to a lesser amount of data. In addition, the west is much more subject to fires, with resultant bulk flows. Burning and bulking are not considered in FIA flood levels. Los Angeles County Department of Public Works does not use the 100-year FIA Q for design purposes in part for the reasons cited above.

When drainage protection facilities are proposed to be constructed within the 100-year FIA Q flow line, adjustments to the FIA Flood Insurance Rate Maps (FIRMS) are required. These changes are administered by the Federal Emergency Management Agency (FEMA) and changes are made through Conditional Letters of Map Revision (CLOMR). A Preliminary Study was prepared for the revised 100-year FEMA limits of the Santa Clara River in Newhall Ranch and is provided in **Appendix 4.2.**

The areas of Newhall Ranch that are subject to 100-year flood hazard according to the Federal Insurance Administration (FIA) are shown on **Figure 4.2-2, FIA 100-Year Flood Plain**.



SOURCE: SIKAND ENGINEERING ASSOCIATES

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FIA 100 YEAR FLOOD PLAIN

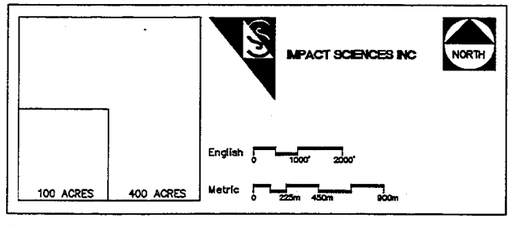

FIGURE 4.2-2

FIA 100 YEAR FLOOD PLAIN

2/19/96

(2) Environmental Regulations

Development which discharges storm runoff into and/or encroaches upon natural drainages, wetlands, and/or flood plains is subject to the requirements of Federal, State and local agencies, including the U.S. Army Corps of Engineers (ACOE) and the California Regional Water Quality Control Board (RWQCB) per the Federal Clean Water Act, the California Department of Fish and Game (CDFG) per the State CDFG Code, the Flood Control Division of the Los Angeles County Department of Public Works.

In addition to Los Angeles County development criteria, guidelines, and procedures summarized above, the Newhall Ranch Specific Plan would be subject to Federal permit requirements under Sections 404, 402, and 301 of the Federal Clean Water Act (CWA). Section 404 of the CWA regulates activities that result in the discharge of dredged or fill material into "waters of the U.S.," which include wetlands along with non-wetland habitats, such as streams (including intermittent streams), rivers, lakes, ponds, etc. The Newhall Ranch Specific Plan would discharge fill material into "waters of the U.S.," which requires a permit from the ACOE. In August 1993, the ACOE prepared a delineation of the "waters of the U.S." for the Santa Clara River from Castaic Creek to downstream of the Los Angeles/Ventura County line (see **Figure 4.2-3, L.A. County 50-Year Capital Flood Plain and ACOE Wetland Delineation,** for an illustration of its boundaries). The "waters" delineation also represents an approximation of the limits of wetlands within the Santa Clara River in this area. For a further discussion of on-site wetland resources and impacts, please refer to **Section 4.6, Biota.**

Section 402 of the CWA contains the National Pollutant Discharge Elimination System program (NPDES) that is administered by the U.S. Environmental Protection Agency and, in 1987, the CWA was amended by adding Section 402(p) which established regulations for municipal and industrial storm water discharges under the NPDES program. In 1990, the U. S. Environmental Protection Agency (U.S. EPA) published final regulations that establish storm water permit application requirements for specified categories of industries. The regulations require that discharges of storm water associated with construction activity (storm water discharges) from soil disturbance of five (5) acres or more are regulated as an industrial activity and are covered by a NPDES permit. CWA Section 301 prohibits the discharge of any pollutant without a permit. The State Water Resources Control Board has given the responsibility to regulate these discharges to the Regional Water Quality Control Board (RWQCB). The Newhall Ranch Specific Plan would have construction activity that disturbs more than 5 acres which, therefore, requires a NPDES permit.



SOURCE: COUNTY OF LOS ANGELES DEPT. OF PUBLIC WORKS
SANTA CLARA RIVER FLOODWAY MAPS

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L E G E N D

L.A. COUNTY 50 YEAR CAPITAL FLOOD PLAIN

SANTA CLARA RIVER
ACOE WETLAND DELINEATION

IMPACT SCIENCES INC

NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

100 ACRES 400 ACRES

FIGURE 4.2-3
L.A. COUNTY 50 YEAR CAPITAL FLOOD PLAIN AND ACOE WETLAND DELINEATION

2/19/96

Under Sections 1600-1607 of the California Fish and Game Code, the CDFG regulates activities that would alter the flows, beds, channels or banks of streams and lakes. The term "stream" can include intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blueline streams and watercourses with subsurface flows. The Newhall Ranch Specific Plan would have grading activities that would alter the flow of some streams under CDFG jurisdiction. In such cases, a streambed alteration agreement will be required.

4. EXISTING CONDITIONS

Provided below is information regarding the existing drainage characteristics of the Newhall Ranch site and its surroundings. Specifically provided are discussions regarding the Santa Clara River watershed and the ten drainage areas of which the Newhall Ranch site is a part, watercourses present on the site, and the amount of runoff which flows from the site.

a. Watersheds and Drainage Areas

(1) Santa Clara River Watershed

The Newhall Ranch site is located within the Santa Clara River basin and its watershed which, in its entirety, is 1,634 square miles in area. The portion of the Santa Clara River watershed that is located upstream, or generally east of the Ventura/Los Angeles County line, is approximately 640 square miles in size, and drains portions of the Los Padres National Forest from the north, the Angeles National Forest from the northeast and east, and the Santa Susana Mountains from the south and southeast. The Newhall Ranch site represents approximately 18.7 square miles (2.9 percent) of the 640 square mile watershed (11,963.4 acres/640 acres per square mile = 18.7 square miles).

(2) Drainage Areas

The Newhall Ranch site overlies ten drainage areas, all of which are part of the Santa Clara River watershed. Combined, the ten drainage areas total 20,724 acres, 11,963.4 acres of which are on the Newhall Ranch site (approximately 8,760.6 acres are off the Newhall Ranch site). The drainage areas are located within an area that is generally delineated by SR-126 and lower portions of San Martinez Grande and San Martinez Chiquito Canyons on the north, the Magic Mountain Theme Park on the east, the crest of the Santa Susana Mountains on the south, and the Los Angeles/Ventura County

line on the west. **Figure 4.2-4, Existing Drainage Areas**, illustrates the locations of the drainage areas, identifying them as Drainage Areas 1 through 10, and illustrates the locations of the blueline streams found on the site. Each of the drainage areas are described in **Table 4.2-4, Existing Drainage Areas,** in terms of its acreage and length within the Newhall Ranch Specific Plan boundaries.

Table 4.2-4
Existing Drainage Areas

Drainage Area	Tributary Drainage Course	Acreage[1]	Linear Feet[2]
1	Unnamed	1,726	3,000
2	Salt Canyon	4,035	55,670
3	Potrero Canyon	3,220	33,330
4	Unnamed	1,305	8,830
5	Unnamed	1,268	12,420
6	Unnamed	1,265	17,040
7	San Martinez Grande Canyon	2,433	5,250
8	San Martinez Chiquito Canyon	4,114	8,330
9	Unnamed	391	8,500
10	Unnamed	967	1,920
	Totals	**20,724**	**154,290**

Source: Sikand Engineering Associates (26 January 1996).
[1]*The acreages are for the entire drainages, portions of which are located off the Newhall Ranch site. Each was calculated by Sikand Engineering Associates.*
[2]*The lengths shown are for watercourses within the Newhall Ranch boundaries only, and were calculated by Impact Sciences Inc. to the nearest 10 feet.*

b. Watercourses

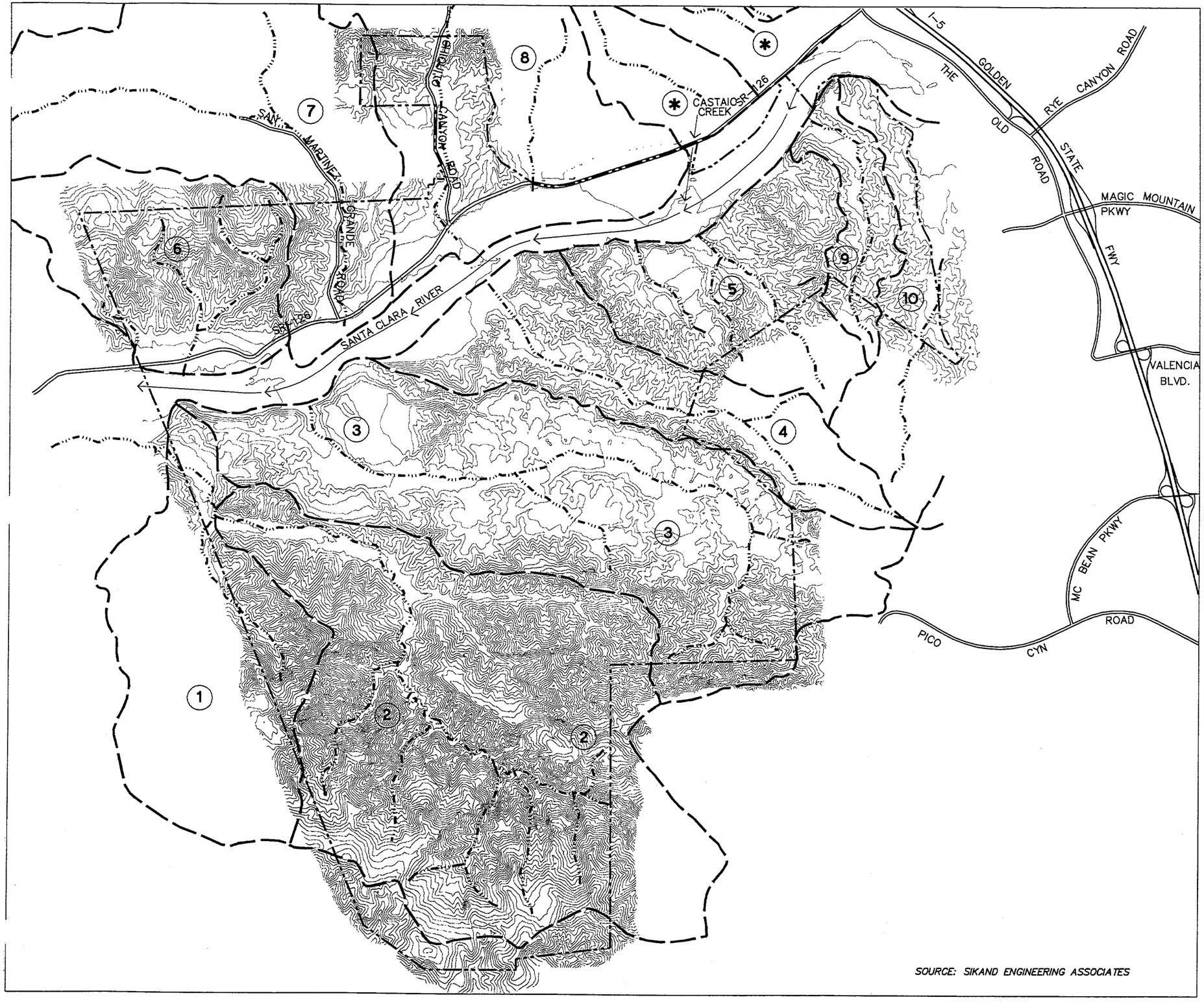
(1) Santa Clara River

The Santa Clara River, which is the largest river system in southern California that remains in a relatively natural state,[5] is the largest watercourse on the Newhall Ranch site. It flows through the northern portion of the site from east to west. **Figure 4.2-1, Los Angeles County 50-Year Capital Flood Plain** illustrates its flood plain,[6] which was defined by the Los Angeles County Department of Public Works (LACDPW) and is based upon the flow path of a Capital Flood Q. The River has a Capital Flood Q (Qcap) of 139,000 cubic feet per second (cfs) at a point upstream of Castaic Creek, and a Capital Flood Q (Qcap) of 163,000 cfs at the Ventura County line.[7]

5 California Regional Water Quality Control Board, Los Angeles Region, Water Quality Control Basin Plan [for the] Los Angeles Region (4), (Monterey Park, California: approved 23 February 1995), p. 1-18.

6 The Santa Clara River flood plain and floodway were delineated by the Los Angeles County Department of Public Works in July 1985. The portions of the floodway and flood plain that are within the Newhall Ranch Specific Plan boundaries are illustrated on County Floodway Map Nos. 43-ML23 through 43-ML26 (adopted by Ordinance No. 85-0134 by the County Board of Supervisors on 6 August 1985).

7 These Capital Flood flow rates were provided to Sikand Engineering Associates by Los Angeles County Department of Public Works, Flood Control Division.



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L E G E N D

- DRAINAGE BOUNDARY
- 9 DRAINAGE AREA NUMBER
- * NOT WITHIN PROJECT DRAINAGE AREAS
- BLUELINE STREAMS

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NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

100 ACRES 400 ACRES

FIGURE 4.2-4
EXISTING DRAINAGE AREAS AND BLUELINE STREAMS

2/19/96

(2) Tributary Drainage Courses

With the exception of drainage crossings under SR-126, all of the other watercourses within the Newhall Ranch boundaries are unimproved (see **Figure 4.2-4, Existing Drainage Areas** for their locations). Regarding the SR-126 drainage crossings, Caltrans is designing a roadway widening project for SR-126 at the time of this writing which includes existing drainage structure modification. A Caltrans title sheet and preliminary plans showing approximate locations of proposed Caltrans drainage crossings are provided in **Appendix 4.2.**

Each of the on-site drainages have been mapped as blueline streams by the U.S. Geological Survey (U.S.G.S.). While it is the intent of the U.S.G.S. to indicate that blueline streams are flowing perennial streams, in arid states such as California and, particularly in southern California, this is not always the case. In an example from the Newhall Ranch site, the blueline stream mapped by the U.S.G.S. in upper Potrero Canyon contains water only during rainy periods; during non-rainy periods (which is the majority of the time in southern California), this stream contains no water and is an ephemeral stream. The same is true for each of unimproved drainages found on the Newhall Ranch site. The length of each watercourse within the Newhall Ranch boundaries is listed in **Table 4.2-4** by the drainage area in which it is located. According to Sikand Engineering Associates, there are no known flow constraints, such as blockages caused by debris, along any of the unimproved drainages.

c. Existing Runoff Conditions

Existing Newhall Ranch site runoff conditions were calculated for each drainage area based on a Capital Flood design storm (clear and burned and bulked); runoff quantities are provided in **Table 4.2-5, Pre-Newhall Ranch Runoff Conditions** (an explanation of a Capital Flood design storm was previously provided on **page 4.2-10)**. Clear flows for the entire 20,724 acres within the ten drainage areas total 34,031 cfs, and burned and bulked flows total 52,729 cfs for a 50-year Capital storm. Total debris volume during a 50-year Capital storm would be 1,203,790 cubic yards (cy).

Table 4.2-5
Pre-Newhall Ranch Runoff Conditions

Drainage Area	Acreage	Q50c[1] (cfs)	Q50bb[2](cfs)	Debris Volume (cy)
1	1,726	3,141	5,245	134,840
2	4,035	5,851	9,596	321,010
3	3,220	4,669	7,330	168,810
4	1,305	2,375	3,515	40,840
5	1,268	1,686	2,394	26,180
6	1,265	2,808	4,296	87,990
7	2,433	4,331	6,583	108,350
8	4,114	7,364	11,193	265,360
9	391	520	738	8,050
10	967	1,286	1,839	42,360
Totals	**20,724**	**34,031**	**52,729**	**1,203,790**

Source: Sikand Engineering Associates (26 January 1996). The pre-Newhall Ranch Q used to prepare this table was determined in consultation with representatives of the Los Angeles County Department of Public Works Hydraulic/Water Conservation Division, as were the factors used to prepare this table.

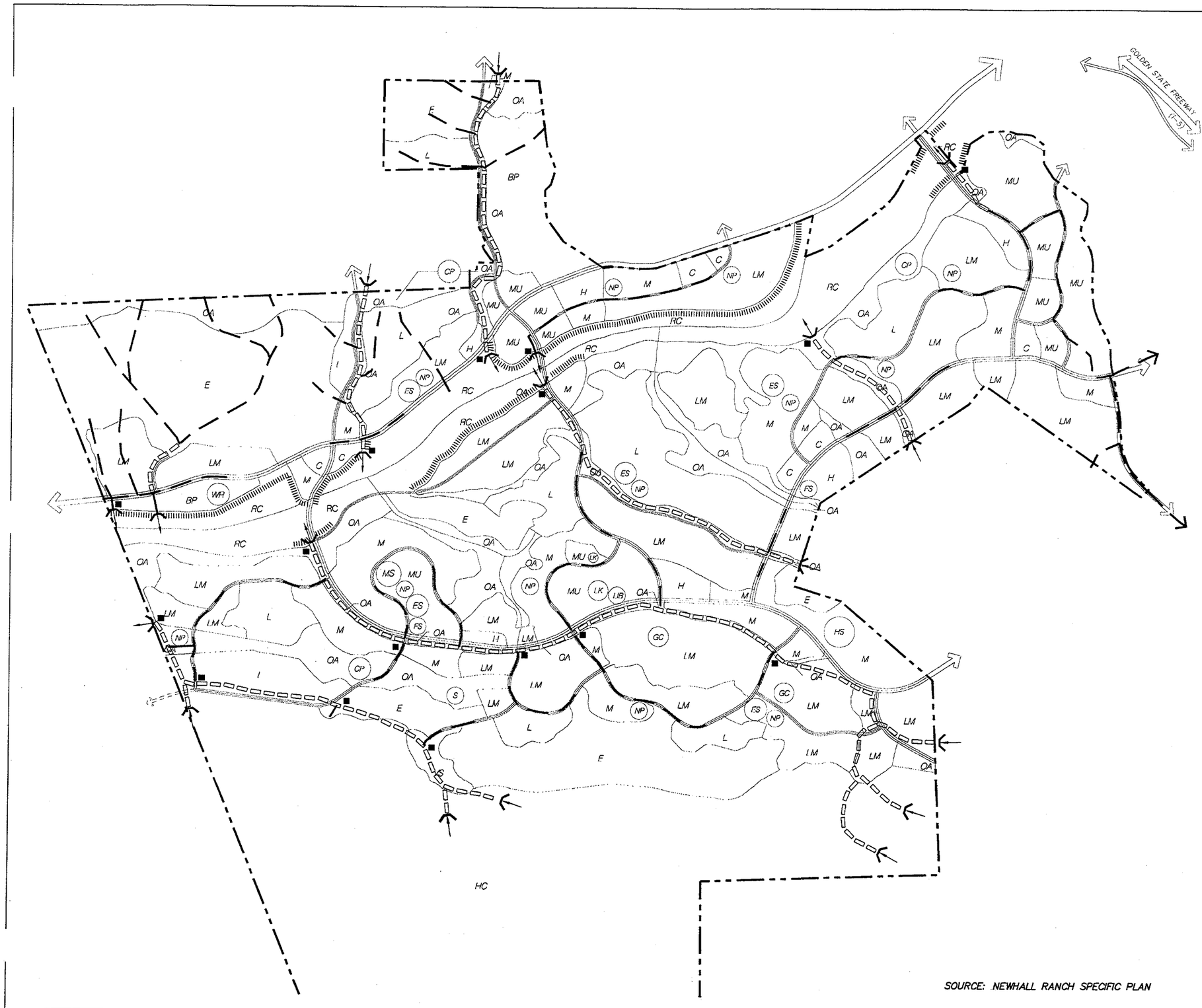
[1]*Q50c - 50-year rainfall intensity clear flow from undeveloped areas*

[2]*Q50bb - 50-year rainfall intensity burned and bulked flow from undeveloped areas*

5. PLANNED IMPROVEMENTS

a. Newhall Ranch Drainage Concept

The Conceptual Backbone Drainage Plan prepared by Sikand Engineering Associates is the proposed drainage plan for the development area of the Newhall Ranch site. The locations of open and closed drainage systems, inlets, outlets, bank stabilization, and NPDES water quality basins are shown in **Figure 4.2-5, Conceptual Backbone Drainage Plan**. **Figure 4.2-6, Post Development Drainage Areas,** illustrates the post-development drainage patterns for the Newhall Ranch site which would result from site grading. Post-Newhall Ranch drainage areas would conform to the existing drainage areas in configuration and area. In addition, storm flows through the site would largely follow existing drainage patterns, and would be channeled through the site in open and closed drainage systems as discussed above. According to Section 2.5, Public Services/Facility Plan of the Draft Newhall Ranch Specific Plan (July 1996), flood control facilities would maintain storm water flows from the site during and after buildout at a level approximately equal to or less than development.



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L E G E N D

- OPEN DRAINAGE
- CLOSED SYSTEM
- INLET
- OUTLET
- N.P.D.E.S. WATER QUALITY BASIN
- BANK STABILIZATION

IMPACT SCIENCES INC

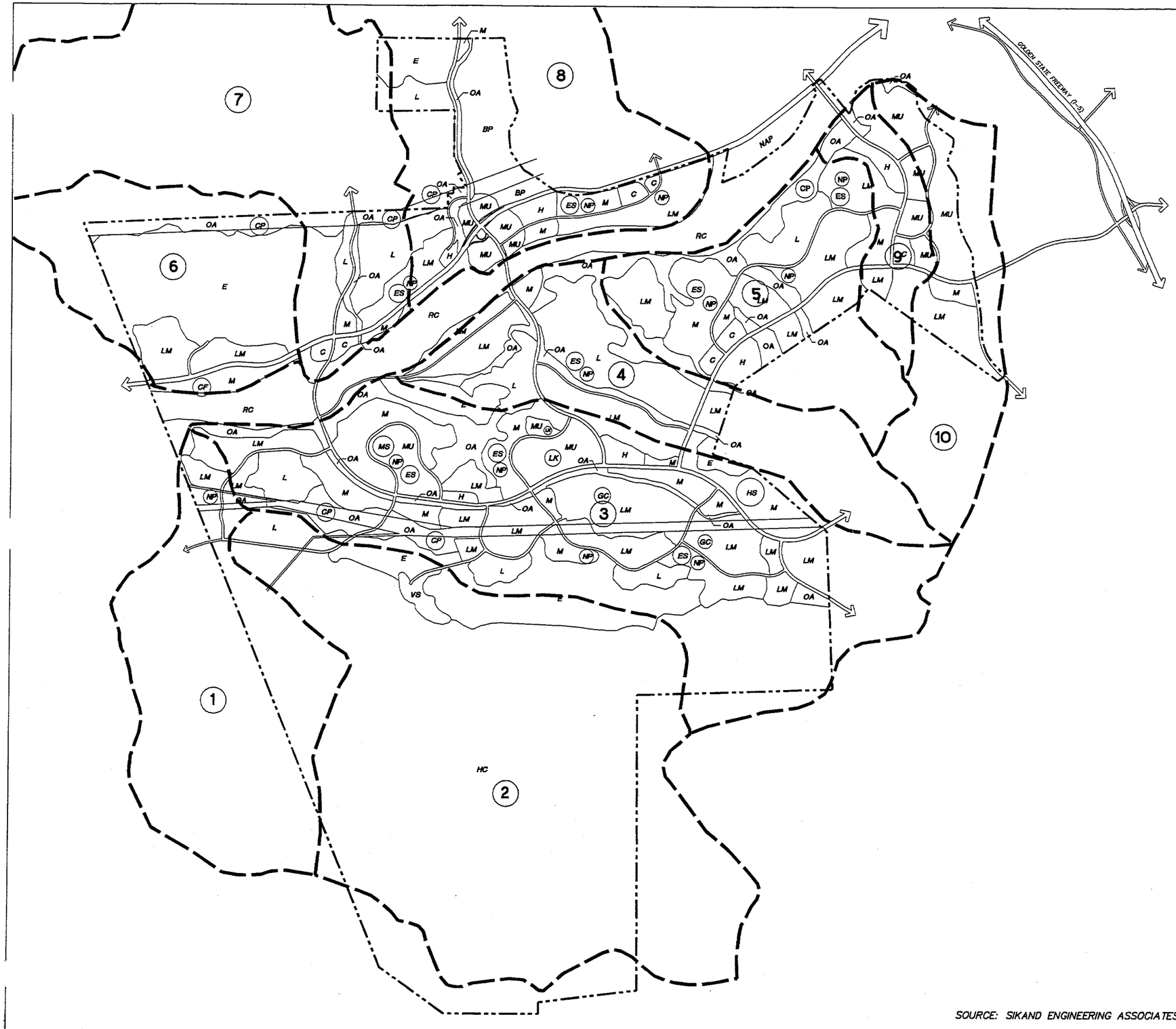
NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

10 ACRES 40 ACRES 160 ACRES

FIGURE 4.2-5
CONCEPTUAL
BACKBONE DRAINAGE PLAN



SOURCE: SIKAND ENGINEERING ASSOCIATES

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L E G E N D

DRAINAGE BOUNDARY

9 DRAINAGE AREA NUMBER

IMPACT SCIENCES INC

NORTH

100 ACRES 400 ACRES

English 0 1000' 2000'

Metric 0 225m 450m 900m

FIGURE 4.2-6
POST DEVELOPMENT DRAINAGE AREAS

1/96

b. Santa Clara River Corridor Concept

It is a goal of the Newhall Ranch Specific Plan to preserve the Santa Clara River as a resource. In order to meet this goal, several generalized criteria regarding the form and function of the River were identified early in the planning process which formed the basis of the River Corridor concept. The criteria used include the following:

- the flood corridor must allow for the passage of Los Angeles County Capital Flood Flow without the permanent removal of natural River vegetation (except at bridge crossings);
- the banks of the River will generally be established outside of the "waters of the United States," as defined by Federal laws and regulations, and as determined by the delineation completed by the United States Army Corps of Engineers (ACOE) in August 1993;
- where the ACOE delineation width is insufficient to contain the Capital Flood flow, the flood corridor will be widened by an amount sufficient to carry the Capital Flood flow without the necessity of permanently removing vegetation or significantly increasing velocity ;
- where development is proposed within the existing Los Angeles County 50-Year Capital Flood Plain, the land where development is to occur will be elevated in accordance with Los Angeles County policies to remove it from the flood plain; and
- bank stabilization will occur only where necessary to protect against erosion.

These criteria will also be used in designing future tract maps adjacent to the River. Exact engineering criteria will be determined at the subdivision stage of development which allows construction.

Approximately 1,105 acres of the County's 50-Year Capital Flood Plain for the Santa Clara River occur within the Newhall Ranch boundaries; development is proposed on approximately 313 of these acres (see **Figure 4.2-3**). This development would be elevated and would, therefore, no longer be within either the County Capital flood plain or the 100-year FIA flood plain. Adjustments to the 100-year FIA flood plain would be accomplished through Conditional Letters of Map Revision (CLOMR) after the proposed drainage facilities are constructed, and finally through Letters of Map Revision when the revisions have been accepted.

Bank stabilization would occur on approximately 30 percent of the southern side and 80 percent of the northern side of the River Corridor to protect adjacent development from erosion. Bank stabilization is proposed to be ungrouted rock in all areas except at outlet structures, access ramps, bridge abutments, and

only in other areas where it is expected that grouted rock or reinforced concrete will be required to meet Los Angeles County Department of Public Works standards for public health and safety. Increased stabilization (e.g., concrete stabilizers within the channel bottom) in the River Corridor will not be necessary as velocities in the River will not be materially increased as a result of the Specific Plan.

All flood control improvements would be constructed to the satisfaction of the Flood Control Division of the Los Angeles County Department of Public Works (LACDPW). The drainage analysis and calculations are based upon criteria from the LACDPW Hydrology Manual, revised December 1991. The design criteria used for Newhall Ranch runoff calculations, the flow rates for the Santa Clara River, and the minimum standards for open and closed drainage systems are provided in **Appendix 4.2.**

c. Drainage Concept for Other Drainage Courses

Post development storm runoff would be channeled through the Newhall Ranch site to the Santa Clara River via natural drainage courses, open channels, and subsurface drainage conduits which would follow existing, on-site drainage patterns. As required by the LACDPW, open drainage systems would be installed within the lower elevations of the tributary drainage courses wherever post-development runoff flows would exceed 2,000 cfs.[8] Preliminary calculations based on LACDPW Flood Control Division criteria for tributary soft bottom channels indicate that widths would range from approximately 76 feet to approximately 166 feet. This assumes a 10-foot maximum depth with 3 feet of freeboard and 2:1 (horizontal:vertical) side slopes. Bank stabilization would be installed wherever required by the Department of Public Works to protect development from erosion. Bank stabilization is proposed to be ungrouted rock in all areas except at outlet structures, access ramps, and bridge abutments where it is expected that grouted rock or reinforced concrete will be required to meet Los Angeles County Department of Public Works standards for public health and safety. Locations and sizes of appurtenant facilities, such as catch basins, manholes, inlet and outlet structures, and access roads would be determined as part of the subdivision process.

d. Other Drainage-Related Improvements

Other drainage improvements that will be implemented as a result of the Specific Plan focus on minimizing the amount of debris that would enter the drainage system, minimizing the amount of sedimentation that would occur, and maintaining the quality of water within the drainage system at a level consistent with the Federal Clean Water Act. Such improvements are discussed below.

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8 Los Angeles County policy requires that drainage courses with design runoff exceeding 2,000 cubic feet per second (burned and bulked) must be maintained as open systems with soft bottom embankment protection unless a variance is approved by the Department of Public Works for use of a closed system.

(1) Debris Basins

Some upstream portions of the drainage areas which occur on the Newhall Ranch site would not be developed with impervious surfaces and would continue to contribute debris (sediment, vegetation, etc.) to storm runoff. Debris that is allowed to enter into improved drainages and conduits can create blockages and result in upstream flooding impacts. In some of the smaller watersheds that exist on the Newhall Ranch site, debris basins may be required per County criteria in order to intercept debris before it enters existing and proposed storm drainage improvements. Various types of debris basins are proposed wherever storm flows would enter open channels and natural drainage courses (including the Santa Clara River) and wherever debris volumes are expected to exceed 1,000 cubic yards in Debris Production Areas 5, 8, and 9, which are located in the High Country Special Management Area (refer to **Appendix 4.2** for locations of the Debris Production Areas within the Newhall Ranch site). According to the LACDPW Sedimentation Manual (p. 4-1), sediment control is generally not needed where sediment production is less than 250 cubic yards. Therefore, debris basins are proposed wherever volumes would exceed 250 cubic yards in Debris Production Area 3 for closed systems where the slope is less than 5 percent (unless a reduction is approved by the Department of Public Works) and there are side inlets to the closed system.

(2) Sedimentation Control

Temporary erosion control to protect property which is in the development process is required by County ordinance and will be implemented as part of the subdivision as the Newhall Ranch Specific Plan builds out. Temporary erosion control measures may include minimizing removal of existing vegetation; using temporary soil covers (such as hydroseeding, mulch/binder and erosion control blankets) to protect exposed soil from wind and rain; and installing silt fencing, berms, and dikes to protect storm drain inlets and drainage courses.

Permanent erosion control measures, such as installing drainage swales, subsurface drains, slope drains, storm drain inlet/outlet protection, and sediment traps; check dams to reduce flow velocities; and permanent desilting basins, will be designed as part of final drainage plans prepared during the subdivision process.

(3) Water Quality Control

The Newhall Ranch Specific Plan will be subject to Section 402(p) of the Federal Clean Water Act which regulates construction, municipal and industrial storm water discharges under the National Pollutant Discharge Elimination System (NPDES) program. This program requires that all flood

control facilities be in compliance with the General Permit for Los Angeles County or under conditions placed upon individual NPDES permits, should an individual permit be required for any given component of the Newhall Ranch Specific Plan. There are current proposals to amend the Clean Water Act reauthorization and other legislation is pending that could modify these requirements. As the Newhall Ranch Specific Plan builds out, development would comply with those NPDES requirements that are in effect at the time improvements are designed.

The flood control concept for the Newhall Ranch Specific Plan was developed to respond to the NPDES program. Features of the flood control concept that address water quality requirements are listed below.

- Open, soft bottom drainages for water courses with more than 2,000 cfs of flow. Soft-bottom channels and water quality basins will be used in accordance with the NPDES program. The channels will be predominately earthen or grassy, and would provide a water quality benefit by allowing runoff to flow through grassy vegetation and to percolate into the ground so that pollutants may be filtered out and absorbed or adsorbed into the vegetation and soil;

- Water quality basins[9] which will capture and/or filter first flush flows. The "first-flush storm" (first storm after a dry period which is large enough to contain the accumulated pollutants from the watershed) is assumed to be the first 0.5 inch of runoff from the impervious portion of the development; and

- Debris and desilting basins.

In addition to the three features identified above, specific Best Management Practices (BMPs) to minimize pollutants and sedimentation entering the storm drain system will be identified during the subdivision stage as mitigation. Until actual subdivision design occurs, specific BMPs that would be employed cannot be determined.

BMPs are actions and procedures established to reduce the pollutant loadings in storm drain systems. The two main categories of BMPs are "source control" and "treatment control." Source control BMPs are usually the most effective and economical in preventing pollutants from entering storm and non-storm runoff. Examples of source control BMPs that are relevant to the Newhall Ranch Specific Plan include:

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9 It should be noted that, while the Conceptual Backbone Drainage Plan (**Figure 4.2-5**) shows NPDES Water Quality Basins, the LACDPW Flood Control Division has not designed or implemented any of these basins as of the time of this writing. LACDPW has indicated that these basins may not be necessary if other Best Management Practices that satisfactorily meet NPDES requirements are identified as mitigation during the subdivision stage.

- Public Education/Participation activities which make information available to homeowner groups, associations and municipalities for further distribution to homeowners and businesses;
- Materials Management activities, such as:
  1. Materials Use Controls, which include good housekeeping practices (storage, use and cleanup) when handling potentially harmful materials, such as cleaning materials, fertilizers, paint, pool chemicals and where possible using safer alternative products;
  2. Material Exposure Controls, which prevent and reduce pollutant discharge to storm water by minimizing the storage of hazardous materials (such as pesticides) onsite, storing materials in a designated area, installing secondary containment, conducting regular inspections, and training employees and subcontractors; and
  3. Material Disposal and Recycling, which includes storm drain system signs and stenciling with language to discourage illegal dumping of unwanted materials. Household hazardous waste and used oil recycling at collection centers and round-up activities are very productive BMPs.

- Spill Prevention and Cleanup activities which are directed toward reducing the risk of spills during the outdoor handling and transport of chemicals, and toward developing plans and programs to contain and rapidly clean up spills before they get into a storm drain system. This BMP also deals with the prevention and reduction of pollution from vehicle leaks and spills from vehicles during transport, as well as aboveground storage tanks;
- Illegal Dumping Controls which consist of laws, ordinances and public education programs intended to prevent the dumping of waste products (solid waste/liquid waste and yard trash) into storm drain systems and creeks;
- Street and Storm Drain Maintenance activities that control the movement of pollutants and remove them from pavement through catch basin cleaning, storm drain flushing, street sweeping, and by regularly removing illegally dumped material from storm channels and creeks. Modification of channel/creek characteristics to improve hydraulics and increase pollutant removals also enhances aesthetic and habitat value;
- Site design alternatives (i.e., roof over fueling stations and car wash slab, provide spill containment curb around stored material, etc.); and
- Good housekeeping practices.

Treatment Control BMPs involve physical treatment of the runoff, usually through structural means. A variety of treatment control measures have been utilized throughout the country for storm water quality. However, the effectiveness of these controls are highly dependent on local conditions, such as climate, hydrology, soils, groundwater conditions, and extent of urbanization.

Some of the more common Treatment Controls are:

- Oil/water separators which are designed to remove one specific group of contaminants: petroleum compounds and grease. However, separators will also remove floatable debris and settleable solids.

- Infiltration refers to a family of systems in which the majority of the runoff from small storms is infiltrated into the ground rather than discharged to a surface water body. Infiltration systems include: ponds, vaults, trenches, dry wells, porous pavement, and concrete grids.

- Constructed wetlands which have a significant percentage of the facility covered by wetland vegetation.

- Biofilters which are of two types: swale and strip. A swale is a vegetated channel that treats concentrated flow. A strip treats sheet flow and is placed parallel to the contributing surface.

- Extended detention basins which are dry between storms. During a storm, the basin fills and a bottom outlet releases the storm water slowly to provide time for sediments to settle.

- Media Filtration consists of a settling basin followed by a filter. The most common filter medium is sand; some use peat/sand mixture.

- Multiple Systems which are a combination of two or more of the preceding controls in a series.

6. SIGNIFICANCE THRESHOLD CRITERIA

According to the CEQA Guidelines (Appendix G), a project would have a significant impact on the environment if it causes substantial flooding, erosion, or siltation.

In addition, according to the County of Los Angeles Environmental Document Reporting Procedures and Guidelines, County staff are concerned with any development subject to flood hazards and debris flows, including (1) flooding due to its location within a major drainage course, (2) flooding due to its location within a flood plain, and (3) high debris transport and deposition potential.

Therefore, if any of the following events would occur as a result of Newhall Ranch Specific Plan implementation, Specific Plan-related drainage and flooding impacts would be considered significant:

1. Flooding (on and off-site)
2. Increased Erosion
3. Increased Sedimentation and Debris Production

7. SPECIFIC PLAN IMPACTS

The impacts of Specific Plan implementation are discussed below for each of the threshold criteria identified above. Wherever a significance threshold criterion is exceeded or wherever there is the potential for a criterion to be exceeded, mitigation is identified in Subsection 8., Specific Plan Mitigation Measures. This impact analysis focuses only on the potential hydrologic impacts of the Newhall Ranch Specific Plan. The potential impacts to wetlands and the biological resources which are within and around drainages are addressed in **Section 4.6 (Biota).**

a. Impacts Associated with Flooding

The Santa Clara River at the Los Angeles County/Ventura County line has a Capital Flood "Q" of 163,900 cfs coming from 640 square miles of its watershed (409,600 acres) located upstream of the County line. The Newhall Ranch site represents 18.7 square miles (2.9 percent) of the 640 square mile watershed (18.7 square mile Newhall Ranch/640 square miles of watershed = 0.029, or 2.9 percent). Development of the Newhall Ranch site will increase the amount of runoff from those areas of the site that would be covered by roads, buildings, paved parking areas, and other relatively impermeable, or impervious, features. Increased runoff from impermeable surfaces may increase total site runoff which could result in a significant impact if it would cause on- or off-site flooding. For a discussion of the effects of impervious coverage on ground water recharge, refer to **Section 4.11, Water Resources.**

In order to estimate how much of the Newhall Ranch site would be covered with impervious surfaces, each land use category was analyzed in terms of acreage set aside for that land use, and, using LACDPW Flood Control Division data,[10] an assumption was made of the percentage of that land use that would be covered by such surfaces. Lower density residential land uses, for example, would have proportionately less impervious coverage than a commercial use, which would have more surface area coverage for buildings, driveways, and parking lots.

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10 Los Angeles County Department of Public Works, Hydrology Manual, (Alhambra, California: December 1990), p. E-11

Of the approximately 5,533 acres of the Newhall Ranch site that would be set aside for development,[11] approximately 3,187 acres (4.98 square miles) would be covered with impervious surfaces (e.g., homes, streets, commercial buildings, etc.) as a result of the Newhall Ranch Specific Plan. This acreage represents 0.78 percent of the 640 square mile Santa Clara River watershed (4.98 square miles covered/640 square miles = 0.0078 or 0.78 percent). With the imperviousness of each land use category estimated, the amount of runoff from the Newhall Ranch site at buildout can be estimated and compared with existing runoff quantities.

Buildout of the Newhall Ranch Specific Plan would contribute to an approximate 30 percent decrease in total debris volume and a 12 percent decrease in total burned and bulked runoff in the 20,724-acre tributary watershed in which the Newhall Ranch site lies. Specifically, the existing amount of burned and bulked flows totals 52,729 cfs for a 50-year frequency storm, and the current total debris volume is estimated at 1,203,790 cubic yards (cy). As a result of implementation of the Newhall Ranch Specific Plan, the amount of burned and bulked runoff would be reduced by 6,179 cfs to 46,550 cfs. Also as a result of development of the Specific Plan, the amount of debris volume generated would be reduced by 361,420 cy to a total of 842,370 cy. These reductions in flow and debris volume are due to the reduction in the undeveloped acreage of the site that would continue to produce bulked flows containing debris.

As proposed in the Newhall Ranch Specific Plan, implementation of the Conceptual Backbone Drainage Plan would maintain post-development storm water flows from each drainage area at levels approximately equal to or less than storm flows under existing conditions during a Capital Flood event. Furthermore, in order to avoid flooding impacts along the Santa Clara River, those areas along the River that are proposed for development would be elevated above the existing flood plain, thereby removing the development from flood hazard. Because development of the Specific Plan would not increase site runoff during a Capital storm, it could not result in upstream or downstream flooding, nor could it subject any on- or off-site improvements to flood hazards beyond the thresholds set forth by the County of Los Angeles. Therefore, the development of the proposed Specific Plan would not have significant on- or off-site flooding impacts.

Regarding the tributary drainages, approximately 154,290 linear feet occur on the Specific Plan site. Of this total, approximately 92,500 linear feet of blueline drainage courses would be affected by development activity. Of the 92,500 linear feet affected, 44,800 linear feet would be retained in or

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11 This acreage includes gross acreage for all Residential, Mixed Use, and Non-Residential uses identified in Table 1.0-3 in Section 1.0, Project Description, with the exception of the Estate residential category. Net acreage of 324 acres from the proposed Grading Plan was used for the Estate residential category.

returned to an open, soft-bottom channel, including all stream segments with flow rates of 2,000 cfs or greater. As long as the channels are improved to carry storm flows to the satisfaction of LACDPW Flood Control Division standards, the Conceptual Backbone Drainage Plan would not result in significant flood-related impacts in tributary areas.

b. Impacts Associated with Erosion

Bank stabilization would occur along approximately 30 percent of the southern side and 80 percent of the northern side of the River to protect adjacent development from erosion. Bank stabilization is proposed to be ungrouted rock in all areas except at outlet structures, access ramps, etc. Bank stabilization at these locations would be either grouted rock or reinforced concrete per Los Angeles County Department of Public Works standards.

Development would occur on 313 acres within the current Capital Flood Plain for the Santa Clara River. Development along the River would be protected from erosion with bank stabilization built to LACDPW criteria. The average difference between the proposed finished grade of development and the existing elevation is approximately 10 feet. The maximum difference is approximately 25 feet. These elevation differences are required to maintain finished pad elevations approximately one foot above the River flood water surface elevation.

As future subdivision maps are prepared for portions of the proposed development that are within the flood plain and Capital Floodway of the Santa Clara River, detailed grading and engineering plans would be prepared with exact specifications necessary to remove any flood and erosion hazards. These plans would follow the design criteria established for the River Corridor that are identified in Subsection 5.b., Santa Clara River Corridor Concept. Final design may result in adjustments to the Floodway in order to contain the Qcap. Grading and engineering plans will meet the requirements of LACDPW Flood Control Division with respect to protecting the development from Capital Flood hazards. Consequently, no significant erosion impact associated with development along the River Corridor would occur.

During smaller one-year storms (rather than the 50-year Capital Flood design event), the depth of flow in the Santa Clara River at the County line would range from approximately 1.3 feet under pre-development conditions to 1.5 feet under post-development conditions, which represents an increase of 0.2 feet (2.4 inches) in depth. Further, the velocity of flow would increase no more than 10 percent at

the County line due to the development of the Newhall Ranch and, in all cases, the post-development velocity for the one-year storms would be approximately 4 feet per second (fps). This would not result in a substantial increase in erosiveness based on the LACDPW Sedimentation Manual (December 1990). See **Appendix 4.2**, for various velocity calculations for the Santa Clara River.

In the tributary drainages, the Specific Plan proposes to utilize natural drainage courses, open channels, and subsurface drainage conduits to channel storm runoff through the development areas and into the Santa Clara River. As required by the LACDPW, open drainage systems would be installed within the lower elevations of the tributary drainage courses wherever post-development runoff flows would exceed 2,000 cfs. Bank stabilization would be installed wherever required by the Department of Public Works to protect against erosion.

c. Impacts Associated with Sedimentation and Debris Transport

Construction of the Newhall Ranch Specific Plan (particularly site clearing and grading operations) would have the potential for discharging sediment downstream during storm events. Unless mitigated, increases in sedimentation and debris production during construction would be a significant impact.

The drainage areas in which the Newhall Ranch site lies would not be completely developed as part of the Specific Plan; therefore, storm flows from the upper reaches would contain sediment and vegetative debris. The amount of sediment and debris contained in the storm flows would be dependent upon the size of the area being drained and whether or not the area had been subject to burning. If this debris enters and clogs on-site drainages, upstream flooding could occur, which would be a significant impact. In order to prevent sediment and debris from the upper reaches of the drainage areas from entering storm drainage improvements, permanent erosion control measures can be implemented, including the installation of desilting and debris basins, drainage swales, slope drains, storm drain inlet/outlet protection, and sediment traps. The specific improvements for each drainage area would be designed as part of the final Drainage Plan prepared to LACDPW standards during the subdivision process.

Finally, the developed area of the Newhall Ranch Specific Plan would be covered with non-erosive surfaces, including pavement and permanent vegetation which would reduce the sedimentation of site runoff. Other permanent erosion control measures that reduce sediment in runoff include check dams to reduce flow velocities in tributary water courses, drainage swales, slope drains, subsurface drains, storm drain inlet/outlet protection, and sediment traps. The specific improvements for each drainage area would be designed as part of the final Drainage Plan prepared to LACDPW standards during the subdivision process.

With installation of these temporary and permanent erosion/sedimentation control measures, the Newhall Ranch would not result in significant sedimentation or debris-related impacts either on or downstream of the Newhall Ranch site. Instead, the Newhall Ranch Specific Plan would have a beneficial post-construction impact on downstream sedimentation because, as the site builds out, some steep slopes would be graded to flatter slopes, and many of the areas of the site that have been subject to the vegetation-denuding effects of grazing and burning would become overcovered with vegetation and other non-erodable surfaces. These changes to the site would reduce site sedimentation to below existing levels and would reduce debris volume generation throughout the 20,724-acre tributary watershed by 30 percent (1,203,790 cy currently, reduced to a post-Newhall Ranch level of 842,370 cy). This would, in turn, have beneficial downstream impacts because burned and bulked flows from the site would be substantially reduced, resulting in lower flood flow rates.

Conversely, however, the reduction in sediment in flood waters could negatively impact beaches, as incrementally less sediment would be available to replenish beaches. In order to quantify the amount of debris that the Santa Clara River would deliver during a Capital storm at the Los Angeles/Ventura County line, Sikand Engineering Associates divided the 640 square mile upstream tributary area of the River into three major debris production areas (DPAs 3, 5 and 8). By inspection of the hydrologic maps in the County's Hydrology Manual, the 640 square miles were assumed to be 20 percent within DPA 3, 30 percent within DPA 5, and 50 percent within DPA 8. Sikand Engineering Associates calculated that approximately 11,000,000 cubic yards of debris (composed of fines, rocks, and vegetation) would be delivered at the County line during a 50-year Capital storm event under current conditions. Approximately 361,420 cubic yards (approximately 3.3 percent) of this debris would be removed from the Santa Clara River during a same year Capital storm event due to the development of the proposed Newhall Ranch Specific Plan.

By the time the Santa Clara River reaches the Pacific Ocean, its total tributary area is increased by an additional 994 square miles to a total of 1,634 square miles. Although not quantified by Sikand Engineering Associates, it is reasonable to assume that debris production for the entire watershed of the River would be much greater than the 11,000,000 cubic yards of debris that was calculated for the 640-square mile watershed located east of the County line. Consequently, the 361,420 cubic yard reduction in debris volume resulting from construction of Newhall Ranch would represent far less than 3.3 percent of the total debris production of the 1,634 square mile watershed, and would not be considered significant in the overall River system.[12] No CEQA or Los Angeles County threshold of significance exists for impacts on beach sand erosion.

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12 Sikand Engineering Associates, June 1995.

d. Operation and Maintenance Costs

The annual maintenance and operating costs for the various flood control facilities required by the Newhall Ranch Specific Plan over its twenty-five year buildout period is estimated to be approximately $5.7 million. In its twenty-fifth year, its annual maintenance and operating costs are projected to be $330,000. Funding sources for these costs include property taxes and a benefit assessment, which would provide an estimated surplus of $15.3 million over the twenty-five year buildout of the Specific Plan and a $1.1 million annual surplus to the LACDPW Flood Maintenance Division in year twenty-five after fully funding the operation and maintenance of the facilities. Therefore, the cost to operate and maintain the flood control facilities would be covered by established funding sources. Please refer to **Appendix 6.0** of this EIR (Fiscal Impact Study) for additional information.

e. Potential Indirect Human Induced Impacts

There is potential for trespassing, illegal dumping and filling, and other acts of encroachment into open channels that would traverse the development areas of Newhall Ranch. Potentially, dumping and filling could impede storm flows through the channels and cause upstream flooding, while any potential activity that stimulates bank or bed erosion could increase downstream sedimentation. Upstream flooding and downstream sedimentation are considered significant impacts if they occur. Vegetation in soft-bottom, open channels that traverse landscaped areas, such as the golf course, can potentially be affected by herbicides and fertilizers in irrigation and storm runoff. These chemicals may damage, kill or stimulate growth of natural vegetation within the channels. On the one hand, damaging or killing natural vegetation could result in increases in flow velocities of the channels and could increase erosion within them. Increasing vegetation within these channels, on the other hand, could slow down the flow rates within the channels and cause upstream flooding. Upstream flooding and downstream sedimentation would be potentially significant impacts. Examples of BMPs to reduce impacts related to trespassing, illegal dumping and filling, and other acts of encroachment into open channels that traverse the development areas were described on **page 4.2-32**.

8. SPECIFIC PLAN MITIGATION MEASURES

a. Mitigation Measures Already Incorporated into the Specific Plan

4.2-1. All on- and off-site flood control improvements necessary to serve the Newhall Ranch Specific Plan are to be constructed to the satisfaction of the County of Los Angeles Department of Public Works Flood Control Division.

b. Mitigation Measures Recommended by the EIR

4.2-2. All necessary permits or letters of exemption from the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and Game, and the Regional Water Quality Control Board for Specific Plan-related development are to be obtained prior to construction of drainage improvements. The performance criteria to be used in conjunction with 1603 agreements and/or 404 permits are described in Section 4.6, Biological Resources, ~~M~~mitigation ~~M~~measures 4.6-1 through 4.6-10 (restoration) and 4.6-11 through 4.6-16 (enhancement).

4.2-3. All necessary streambed agreement(s) are to be obtained from the California Department of Fish and Game wherever grading activities alter the flow of streams under CDFG jurisdiction. The performance criteria to be used in conjunction with 1603 agreements and/or 404 permits are described in Section 4.6, Biological Resources, ~~M~~mitigation ~~M~~measures 4.6-1 through 4.6-10 (restoration) and 4.6-11 through 4.6-16 (enhancement).

4.2-4. Conditional Letters of Map Revision (CLOMR) relative to adjustments to the 100-year FIA flood plain are to be obtained by the applicant after the proposed drainage facilities are constructed.

4.2-5. Prior to the approval and recordation~~recording~~ of each subdivision map, a ~~Final~~ Hydrology Plan, ~~a Final~~ Drainage Plan, and ~~a Final~~ Grading Plan (including an Erosion Control Plan if required) for each subdivision must~~are to~~ be prepared by the applicant of the subdivision map to ensure that no significant erosion, sedimentation, or flooding impacts would occur during or after site development. These plans shall be prepared to the satisfaction of the County of Los Angeles Department of Public Works.

4.2-6. Install permanent erosion control measures, such as desilting and debris basins, drainage swales, slope drains, storm drain inlet/outlet protection, and sediment traps in order to prevent sediment and debris from the upper reaches of the drainage areas which occur on the Newhall Ranch site from entering storm drainage improvements. These erosion control measures shall be installed to the satisfaction of the County of Los Angeles Department of Public Works.

4.2-7. The applicant for any subdivision map permitting construction shall satisfy all applicable requirements of the NPDES Program in effect in Los Angeles County to the satisfaction of the County of Los Angeles Department of Public Works. These requirements currently include preparation of an Urban Storm Water Mitigation Plan (USWMP) containing design features and Best Management Practices (BMPs) appropriate and applicable to the subdivision. In addition,

the requirements currently include preparation of a Storm Water Management Pollution Prevention Plan (SWPPP) containing design features and BMPs appropriate and applicable to the subdivision. The County of Los Angeles Department of Public Works shall monitor compliance with those NPDES requirements.~~The Newhall Ranch Specific Plan is to adopt a Storm Water Management Program in accordance with NPDES regulations, which is to be incorporated into the development design of drainage facilities as part of each future subdivision map approval. The Storm Water Management Program is to also include BMPs which would inhibit trespassing, illegal dumping and filling, and other acts of encroachment into open channels that would traverse development areas of the site.~~

9. CUMULATIVE IMPACTS

As discussed in Section 3.0, Cumulative Impact Analysis Methodology, two development scenarios were selected for the cumulative impact analysis that is required by CEQA for this EIR. These scenarios include the County's required Development Monitoring System (DMS) Buildout Scenario and the Santa Clarita Valley Cumulative Buildout Scenario (see Section 3.0 for a detailed description of each of these scenarios). Individual or detailed discussion of these scenarios with respect to cumulative flood impacts is not relevant in this section because (1) the County's Development Monitoring System does not monitor projects for the County's Flood Control Division of the Department of Public Works, and (2) the boundary of the 20,724 acre tributary watershed in which the Newhall Ranch Specific Plan is located is much smaller than the boundaries of the Santa Clarita Valley Planning Area. Therefore, attention is focused in this cumulative impact analysis on buildout of the 20,724-acre tributary watershed in which the Newhall Ranch Specific Plan site is located.

The County of Los Angeles General Plan provides for additional development within this tributary watershed. In general, minor drainage courses within the watershed would experience an increase in clear runoff and a decrease in burned and bulked runoff as the hillsides of the watersheds develop; however, discharge quantities into the Santa Clara River from these minor drainages under post-development conditions would be less than under existing conditions because the runoff would be free of the debris that is typical of undeveloped watersheds. According to Sikand Engineering Associates, there are no known flow constraints within the 20,724-acre tributary watershed which would result from cumulative development, as the overall flood control system has been designed to accommodate the LACDPW Capital Flood, which is greater than the predicted post-development clear flow rate. As a policy, the Los Angeles County Department of Public Works prohibits significant increases in flow velocity from a project site; therefore, adherence to this policy would result in no significant cumulative increases in velocity along that portion of the Santa Clara River which drains this watershed.

Because the cumulative project drainage improvements in Los Angeles County would be required to conform to the requirements of the Los Angeles County Department of Public Works in order to handle the Capital Flood from the affected watersheds, no significant cumulative project flooding impacts are expected to occur as the 20,724-acre watershed reaches build out. Erosion and sedimentation, when controlled as required by the County, would also not result in significant cumulative impacts.

It has been estimated that approximately 4 percent of that portion of the Santa Clara River watershed found in Los Angeles County would be developed and approximately 2.5 percent of the portion of the watershed found in Ventura County would be developed.[13] Each development project in the Santa Clara River watershed will be of varying character and size, will have its own unique topographic and geologic characteristics, and will be subject to the development criteria of the jurisdiction in which is it located. Therefore, it is not possible to quantify future sedimentation impacts from the entire 1,634 square mile watershed and their effect on beach sand replenishment.

Buildout of the 20,724-acre tributary watershed in which the Newhall Ranch site is located would occur in the upper reaches of the ten drainage areas which overlie the site and may further incrementally reduce sedimentation of storm flows. Because the drainage facilities within the Specific Plan would include debris basins in the upper reaches of the ten drainages, much of the sediment that would be generated from the remaining watershed at buildout would already be captured by the debris basins before runoff from the upper reaches is discharged to the Santa Clara River. Therefore, although the incremental amount of sediment that would be reduced as a result of tributary watershed buildout has not be calculated, it is not expected to be substantial as debris basins that would be placed in the upper reaches of these drainage would have already captured most of the sediment before it enters the Santa Clara River. No threshold of significance exists for beach sand replenishment impacts.

10. CUMULATIVE MITIGATION MEASURES

Other projects within Los Angeles County would not only be subject to the same general requirements as the proposed Newhall Ranch Specific Plan, but to other requirements that the LACDPW Flood Control Division would specifically identify for them. Therefore, no further mitigation is specified in this section for cumulative development projects relative to downstream flooding, erosion, and sedimentation impacts. Buildout of the 20,724-acre tributary watershed in which the Newhall Ranch site is located would not have an adverse impact on beach sand replenishment at the mouth of the Santa Clara River.

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13 Alex Sheydayi, Deputy Director, Ventura County Public Works Agency, Flood Control Department, statement made at the Santa Clara River Enhancement and Management Plan Steering Committee Meeting, May 30, 1995.

11. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Specific Plan Impacts

Implementation of the aforementioned mitigation measures to the satisfaction of the Los Angeles County Department of Public Works would reduce storm-related flooding, erosion, and sedimentation impacts to less than significant levels. Therefore, no unavoidable significant impacts are anticipated.

b. Cumulative Impacts

Assuming that all development within the tributary watershed of the Santa Clara River complies with LACDPW Flood Control Division requirements to ensure that upstream or downstream flooding does not occur and to ensure that downstream erosion and sedimentation do not occur, no unavoidable significant cumulative flooding, erosion, sedimentation, or beach sand replenishment impacts would be created.

4.3 Cultural/ Paleontological Resources

4.3 CULTURAL/PALEONTOLOGICAL RESOURCES

1. SUMMARY

An intensive Phase I archaeological survey and Phase II test excavations/determinations of significance of the cultural resources found in the Newhall Ranch Specific Plan area were undertaken. The intensive Phase I survey revealed eight prehistoric and two historical archaeological sites and established that the Newhall Ranch Specific Plan area has a very low density of prehistoric and archaeological remains. These are primarily concentrated along the Santa Clara River.

According to W & S Consultants, based on the Phase II fieldwork, there is potential for significant impacts to four of the prehistoric archaeological sites during Newhall Ranch Specific Plan development; however, mitigation is provided which would reduce these potential adverse impacts to below accepted thresholds of significance.

Development of the Newhall Ranch Specific Plan and the proposed extensions of Valencia Boulevard and Magic Mountain Parkway would occur in geologic formations with high potential for the discovery of fossil remains; therefore, the Newhall Ranch Specific Plan could have significant impacts on the region's paleontological resources. However, mitigation is provided which would reduce Newhall Ranch Specific Plan impacts to paleontological resources to below accepted thresholds of significance.

2. INTRODUCTION

Phase I and II archaeological studies of the Newhall Ranch Specific Plan site (including the future extension of Magic Mountain Parkway) were made in 1994 by W&S Consultants. A supplemental archaeological investigation was conducted by W&S Consultants in December 1995 for the proposed extension of Valencia Boulevard. RMW Paleo completed a paleontological study for the Newhall Ranch site in October 1994. Each of these analyses are summarized in this section, and are presented in their entireties in **Appendix 4.3** of this environmental impact report. Their findings are discussed in Subsection 4, entitled "Existing Conditions" of this EIR section.

a. Archaeological Analysis

(1) Phase I Scope and Methodology

Following the CEQA Guidelines, archaeological studies are conducted in three phases. During Phase I, a survey is completed to identify and record all extant archaeological sites, prehistoric and historical, within a project area. Phase II studies, or test excavations, are then conducted on the identified sites to establish their size and contents, and to evaluate their scientific, religious and cultural heritage significance. Phase III data recovery, or salvage excavations, are undertaken to mitigate adverse impacts to sites deemed significant, when avoidance or preservation are not feasible options.

The intensive Phase I archaeological survey of the Newhall Ranch Specific Plan site involved a review of existing published and unpublished references on local prehistory and history (archival records search) and a systematic on-foot survey of the entire Newhall Ranch Specific Plan area. The purpose of the Phase I survey was to identify and to provide a preliminary evaluation of all cultural resources within the proposed development area.

(a) Archival Records Search

The archival records search was completed by the UCLA Archaeological Information Center (AIC) to determine if any prehistoric or historical sites were known on the Newhall Ranch Specific Plan site, and to determine if the Newhall Ranch Specific Plan area had been systematically surveyed by archaeologists previously. The archival search revealed that the Newhall Ranch Specific Plan site had never been systematically surveyed, but that two archaeological sites had been recorded within the study area during previous studies of portions of it: CA-LAN-962H, the historical Asistencia de San Francisco, which is located just outside of the development area, and the prehistoric site of CA-LAN-2133. Both of these sites are described below.

A review of existing, published records and maps to aid in defining the zones most likely to contain extant archaeological sites was also conducted. This search uncovered a map of all known historical Native American villages in the general study region and the original diseño, or land grant map, for the Rancho San Francisco, drawn in 1843. Neither map indicates any historical villages within the study area; however, they do suggest that the primary area of Native American occupation and use would lie immediately along the Santa Clara River. In addition, the diseño depicts the upland portions of the Newhall Ranch Specific Plan study area (i.e., that area lying to the south of the River) as lomas esterilas, or "sterile hills." This suggests that this area was neither occupied by major Native American villages, nor significantly used during the early historical period.

(b) On-Foot Survey

An intensive Phase I archaeological survey was conducted in two phases: June and July of 1993, and February through April, 1994, thereby eliminating constraints imposed by seasonal vegetative cover. Field procedures involved spacing crew members at approximately 15 to 20 meter intervals and then walking the property in transects, generally following the contours of the local topography. The ground surface was examined during these transects to identify evidence of archaeological sites, including surface artifacts, dark organically rich midden soils, fire-cracked rock resulting from earth ovens and roasting pits, and shell and bone that might represent remnants of dietary remains. Particular attention was paid to cut-banks and road-cuts that exposed buried soils, as well as to rodent-hole backdirt piles that revealed subsurface soils. Any identified archaeological sites were carefully examined in order to obtain an initial estimate of the existing artifact inventory, and to assess the current site integrity and size.

(2) Phase II Scope and Methodology

At the request of the Newhall Ranch Specific Plan applicant, W & S Consultants undertook a Phase II study of sites within the development area during August and September, 1994. The purpose of the Phase II study was to determine the size, nature and significance of the Newhall Ranch Specific Plan area's archaeological sites and to provide baseline data from which an assessment of potential Newhall Ranch Specific Plan-related adverse impacts to these resources could be made. This required the collection of a representative sample of artifacts and archaeological indicators from each cultural resource, the establishment of the vertical and horizontal boundaries of each cultural deposit, and an analysis of the recovered artifact assemblage from these archaeological localities.

Procedures included mapping, collecting of artifacts lying on the ground surface, and test excavation of pits to establish the presence or absence of subsurface archaeological deposits, as well as to characterize the vertical (depth) and horizontal (surface area) dimensions of the deposits. Although these procedures were systematized so that the recovered data were comparable between each site, as well as with previous studies in the region, the magnitude of effort varied somewhat between the sites, reflecting the field conditions specific to each locale (i.e., site size and level of disturbance). It should be noted that the California Indian Foundation provided native American monitors during the Phase II study, and assisted with the evaluations and determinations of significance for each site.

(a) Surface Collection

In order to determine the maximum areal extent of each site, the initial field procedure was to locate, map and collect all surface remains present on the ground surface. The general area of each site was walked by crew-members spaced in approximate 2 meter intervals. Artifacts and archaeological indicators were marked with flagging tape. Surface remains found within an area of approximately 3 square meters in size (i.e., within a circle with a one meter radius) were treated as discrete artifact associations and collected as clusters. Transit and stadia were surveyed and subsequently used to map all remains or clusters of remains, which were numbered and collected by these provenience points.

(b) Test Excavations

During the Phase II study, test pits were excavated to ascertain the presence or absence of any subsurface archaeological deposit and, where present, the depth and horizontal extant of such deposits. Excavation units were placed in areas where the probability of deposition was deemed highest on each site, including toeslopes and foots of hills, swales, and areas where active rodent activity or vegetative vigor indicated soil accumulation and depth. Conversely, areas of daylighting bedrock and erosional ridges, hilltops and slopes were tested less intensively, because of the very limited likelihood that they could accumulate buried archaeological remains. Excavation units were sufficiently dispersed across the general area of each site, however, to insure that accurate site boundaries could be established.

Excavation units dug on each site were designated numerically, and each was dug with pick, shovel and trowel in 10 centimeter levels. Spoils from each of these levels were screened through one-eighth inch mesh. All artifacts and archaeological indicators were collected and bagged by unit level. In the initial units excavated on each site, excavation was continued for approximately 50 cm beyond the apparent termination of the cultural deposit, in order to obtain a clear indication of soil stratigraphy. Subsequent to stratigraphic definition and profiling, excavation was continued through two culturally sterile levels (i.e., 20 centimeters), or until decomposing bedrock was encountered.

b. Paleontological Analysis

RMW's assessment of the site's paleontological resources included a review of the geological/paleontological literature, a records search at the Los Angeles County Museum of Natural History, and a walkover survey of the property in August 1994. During the walkover survey, RMW examined the natural and manmade exposures of the various geologic units on the site, and paid particular attention to the geologic formations in the Newhall Ranch Specific Plan's proposed

development area. RMW also analyzed samples from thirteen horizons within the Saugus Formation for fossilized microvertebrate remains (the Saugus Formation within the Newhall Ranch Specific Plan area has a history of producing microvertebrate fossils and is, therefore, the most likely of the geologic formations occurring on the Newhall Ranch Specific Plan site to contain them). Rock samples weighing 50 to 100 pounds were processed through one-eighth inch and 20 mesh screen after being soaked for several hours in water. All but three of the samples broke down sufficiently to be processed through the screens.

3. BACKGROUND INFORMATION

This subsection summarizes the prehistory and history of the Newhall Ranch Specific Plan area, including a description of its early inhabitants. A full discussion of the prehistoric and historic backgrounds of the Newhall Ranch Specific Plan area may be found in **Appendix 4.3** of this environmental impact report

a. Locational Importance

The Newhall Ranch Specific Plan site includes the Santa Clara River and its northern and southern banks from approximately Castaic Junction to the Los Angeles/ Ventura County line; the lower reaches of San Martinez Chiquito Canyon on the northern side of the River; and the uplands and valleys on the southern side of the River to the crest of the Santa Susana Mountains. With the exception of the alluvial flood plain and stream bottom of the Santa Clara River, the Newhall Ranch Specific Plan site generally consists of highly dissected, steeply sided hills, ridges and mountain peaks, with small and narrow intervening drainages. Potrero Canyon, entering the Santa Clara River from the south, comprises a wide and open valley in the otherwise relatively rugged topography of the southern portion of the study area, with the exception of the flat, open upland Potrero, Grapevine and Airport Mesas from west to east, respectively.

The geographic and geologic setting of the Newhall Ranch Specific Plan site is important to the cultural resources studies because, with the exception of the Santa Clara River, the Newhall Ranch Specific Plan site and the surrounding area is notable for its limited water resources, a fact that undoubtedly affected aboriginal and historical use of the property. The study area south of the River, constituting the major portion of the study zone, for example, apparently contains no springs or streams with potable water, and thus is unusually dry, even by inland southern California standards. It is for this reason that the first Spanish map of the West Ranch area likely characterizes this region as lomas esterilas, "sterile hills."

Although historic and recent land-use changes have altered the environment considerably from what existed during prehistoric times, at least four major plant associations probably characterized the study area during the aboriginal period: chaparral, coastal sage scrub, southern oak woodlands, and riparian associations [please refer to **Appendix 4.6 (Biota)** for a full discussion of these plant associations]. Although the chaparral and coastal sage scrub plant associations were undoubtedly of subsistence importance to the aboriginal population of the region, the third association, the southern oak woodland, may have been of primary significance in the inland zones adjacent to the coastal strip because of the great importance placed on the acorn as a food staple by Native Californians, and because of the rarity of this resource on the coastal side of the Santa Monica Mountains. Although currently restricted in distribution, it is likely that this association may once have been found across much of the wide, upper reaches of Potrero Canyon and the mesas on the southern side of the Santa Clara River.

The fourth and final plant association consists of riparian habitats, which are localized and poorly diversified woodlands found in areas of perennial moisture. Although this plant association is limited in distribution, it can still be considered to have had significant economic importance in aboriginal times as a source of raw materials for items like baskets, cordage and netting. In addition to the obvious aboriginal presence of riparian habitats in the Santa Clara River Valley, small riparian habitats were probably once present in some of the ephemeral drainages tributary to the Valley, and in Salt Canyon on the southern side of the River.

b. Early Inhabitants

The Upper Santa Clara Valley region, including the Newhall Ranch Specific Plan site, appears to have been inhabited during the ethnographic past by an ethnolinguistic group known as the Tataviam.[1] The Tataviam are thought to have inhabited the upper Santa Clara River drainage from about Piru eastwards to just beyond the Vasquez Rocks/Agua Dulce area; southwards as far as Newhall and the crests of the San Gabriel and Santa Susana Mountains; and northwards to include the middle reaches of Piru Creek, the Liebre Mountains and the southwesternmost fringe of the Antelope Valley. Their northern boundary most likely ran along the northern foothills of the Liebre Mountains (i.e., the edge of the Antelope Valley), and then crossed to the southern slopes of the Sawmill Mountains and the Sierra Pelona, extending as far east as Soledad Pass. Ethnographically, at least, the Tataviam do not appear to have controlled the Leona Valley or areas to the north, with the exception of Elizabeth Lake where their controlling influence is uncertain.

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1 Some controversy exists in reference to this attribution, as the Tataviam are now extinct and were effectively so prior to the initiation of systematic anthropological studies at the turn of the century. But, based on a few existing word lists, descriptions provided by early travelers, mission place names, and the recollections of other aboriginal informants, the Tataviam are generally accepted as the aboriginal inhabitants of this region.

Known Tataviam villages during the historic period were located both near modern Piru and San Francisquito; on Piru Creek above Piru; near Newhall; in Elizabeth Lake; and near Castaic Junction. A mixed Chumash-Tataviam population lived near modern Rancho Camulos. The putative historical Tataviam village of tsawayung, also known as chaguayabit or tacuyamam, has generated interest, due to its reported location at Castaic Junction and its association with Asistencia de San Francisco. W & S Consultants found no evidence to suggest that this village was located within or adjacent to the Newhall Ranch Specific Plan area during their studies, although they intensively surveyed both sides of the River bank upstream and downstream of this historical Euro-American site.

Culturally-speaking, the Tataviam were in most respects similar to their Fernandeño and Chumash neighbors, to the south and west. In this sense, they were hunters-gatherers, with subsistence emphasizing yucca, acorns, juniper berries, sage seeds and islay. Game was also hunted, with small animals, such as rabbits/hares and rodents, probably representing more significant contributions of meat protein than larger game, such as deer. Almost nothing is known of Tataviam social and political organization; however, based on analogies with surrounding groups, it can be suggested that they were organized in a series of tribelets, and found to be characteristic of much of California aboriginal socio-political organization. It is also likely that Tataviam religion followed the patterns of their surrounding groups, which was based on shamanism.[2]

Although the Tataviam were one of the earliest groups contacted by Spanish missionaries, with a number of their villages described by members of the Portolá expedition of 1769, a general lack of information on this group exists because, by 1810, all Tataviam had been baptized at Mission San Fernando and were quickly absorbed by other groups through intermarriage. The last speaker of Tataviam died in 1916.

c. Archaeological Background

In general terms, the prehistory of the Upper Santa Clara River area appears to parallel that of the Santa Barbara Channel/southern California coastal region. The earliest evidence for human occupation of this region corresponds to the Early Millingstone Period, dated from about 7000 to 4000 years before present (B.P.). This represents a period during which subsistence and adaptation are said to have emphasized the collecting and processing of hard seeds, with inland artifact assemblages,

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2 Shamanism posts a direct and personal relationship between each individual and the supernatural world, with this relationship enacted by entering a trance or hallucinatory state (usually based on the ingestion of psychoto-mimetic plants, such as jimsonweed or native tobacco). Shamans were considered individuals with an unusual degree of supernatural power, who served as ritual specialists for ceremonies and rites which were infrequent in occasion and limited in type. Perhaps most importantly, shamans served as healers or curers, with the etiology of disease as well as its cure held to lie in the supernatural world. Shamans are also known to have produced the rock art of this region, which depicted the hallucinations and spirits they observed in their vision quests.

correspondingly, dominated by mullers and millingstones known as manos and metates. Evidence for an Early Millingstone occupation of the Upper Santa Clara Valley region is, admittedly, very limited, and has been found at only two sites. Both of these are located near Vasquez Rocks, with temporal attribution based on the presence of a small number of Olivella barrel beads (such bead types have subsequently proven unreliable temporal indicators, throwing doubt on human inhabitation of this region before about 4000 years ago). Further, recent excavations at one of these putative early locales, the Escondido Canyon Site, failed to uncover evidence for occupation prior to about 2700 years B.P.

The second temporal unit is the Intermediate Period, dated from 3500 to 1500 years B.P. It is marked by a shift to the mortar and pestle, with an increased emphasis on hunting and hunting tools in artifact assemblages. Population appears to have increased during this period, with more temporary camps founded. Evidence for Intermediate Period occupation of the Upper Santa Clara Valley region is substantial in that it has been found at a number of sites and has been based on radiocarbon, obsidian hydration and typological dating.[3] Furthermore, the Intermediate Period appears to represent a time during which a substantial exploitation of mid-altitude environments first began, with considerable use, for example, of portions of the nearby Hathaway Ranch located to northwest of the study area beginning at this time.

Site complexes first occupied in the Intermediate Period continued to be inhabited during the Late Prehistoric Period, lasting from 1500 years B.P. to about 200 years B.P., although these complexes increased in size, with more specialized and diversified sites added to the kinds of sites present. The principal distinction between Intermediate and Late Prehistoric sites in the inland regions is a change in certain diagnostic artifact types, notably, projectile points, with a shift from spear points to bow and arrow points, and the fact that the patterns of lifeways recorded for the ethnographic period were fully in operation. Sometime during this period the Tataviam can be hypothesized to have occupied this region, although it is possible that they may have appeared somewhat earlier.

During the Historic Period, the aboriginal population appears to have dropped considerably. This, without doubt, can be attributed to the effects of missionization and its attendant relocation of the aboriginal population to centralized locales, along with the depredations of introduced Old World diseases. The Upper Santa Clara River region appears to be one of those inland zones, like the Antelope Valley to the north, that quickly and completely lost its aboriginal population. In particular, the aboriginal population from the Upper Santa Clara Valley was moved into Mission San Fernando, in the San Fernando Valley, and the area was effectively depopulated.

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3 The Agua Dulce village complex, for example, includes occupation extending back to the Intermediate Period, at which time population of the village may have been 50 or more people.

d. Historical Background

Newhall Ranch played an important role in both local and State historical events. Although the major portions of the Newhall Ranch Specific Plan study area were peripheral to these events, it nonetheless contained the first European settlement and building in the region; was associated with a number of important historical figures; and played a role in a series of historical incidents, including the rescue of the Death Valley '49ers, the first discovery of gold in the State, the development of southern California's oil industry, and the Saint Francis Dam catastrophe of 1928.

Euro-American mention of the Newhall Ranch region first occurred in the chronicles of the Portolá expedition of 1769, which passed through the San Fernando Valley, Newhall, and the Castaic Junction area on its way to Monterey. Although the Upper Santa Clara Valley region was traversed by a number of Spanish explorers in subsequent years, it initially remained isolated due to rugged topography even though Portolá had suggested it as a locale for a mission. However, as the San Buenaventura and San Fernando missions increased in size and their herds grew, it became necessary for many of them to establish mission ranchos, or estancias, to allow their cattle to graze some distance from the mission vineyards and fields. With this geographical expansion of mission influence and activities, the Upper Santa Clara Valley region became important, if not pivotal, in a number of events central to the development of southern California. San Francisco Xavier, which served as the estancia for Mission San Fernando, was established in 1804 and comprised the upper reaches of the Santa Clara Valley down to what would eventually become the Newhall Ranch. The headquarters of Estancia San Francisco Xavier was constructed at Castaic Junction, on a bluff overlooking the confluence of the Santa Clara River and Castaic Creek. Eventually, the Estancia was raised in status to an Asistencia, or sub-mission, most likely to serve a growing ranch population.

The Asistencia de San Francisco Xavier represents the first European settlement of the Castaic Junction region. During this period, its primary function was as a ranching and perhaps agricultural out-station, although it undoubtedly served as a religious outpost as well. Placed at the location suggested for a mission by the Portolá expedition, it consisted of two rectangular adobe buildings, one of which included a tiled sacristy. Eventually a third adobe structure, referred to as the "Old Milk House," was constructed downhill from the main structures.

In 1839, the Asistencia's land was granted as Rancho San Francisco to Antonio del Valle by Governor Alvarado and it was no longer an adjunct to Mission San Fernando. At the time of the land grant, the rancho contained slightly more than 46,000 acres. The Asistencia buildings served as a ranch headquarters for one of a number of del Valle's properties, while he and his family continued to live in Los Angeles. In 1845, the rancho passed to Antonio del Valle's son, Ygnacio.[4]

Forced to fight off efforts by Pedro Carrillo to obtain the western portions of Rancho San Francisco, Ygnacio built a corral at Camulos (the approximate site of the Chumash-Tataviam village of kamulus) in 1841, the Camulos Adobe in 1864, and one of the first commercial wineries in the State in 1867. The Camulos Adobe, which then became the del Valle family home, was visited by Helen Hunt Jackson in 1882, and served as the setting for her famous early California novel Ramona. The D.W. Griffith film "Ramona," starring Mary Pickford, was also filmed at the adobe in 1911. However, prior to the development of Camulos, the del Valle ranch headquarters remained at the old site of the Asistencia de San Francisco, above Castaic Junction. Furthermore, it was to the Asistencia that the lead group of the Manly-Walker party, the "Death Valley '49ers," first emerged out of the wilderness from their efforts to cross the Mojave Desert.

Following established California agrarian practices, the del Valles primarily used Rancho San Francisco for raising cattle, although Mexican law also required the establishment of an orchard and other agricultural endeavors to validate a land claim. Historical records show that del Valle raised 600 head of cattle on the ranch and planted wheat in a marshy area below Camulos.

Del Valle sold the majority of Rancho San Francisco in 1865 for $1.25/acre, retaining only 1500 acres around Rancho Camulos. This 1865 sale was precipitated by the discovery of tar seeps in Pico Canyon, immediately to the south of the original land grant, where oil had been discovered in 1859. The purchasers of the ranch were Thomas A. Scott and Thomas Bard, representing the Philadelphia and California Petroleum Company. Because they believed that ranching and oil were incompatible activities, Scott and Bard subsequently sold 39,503 acres of the ranch to Henry Mayo Newhall, a San Francisco financier, in January, 1875, for $2.20/acre. Shortly thereafter Newhall placed 7000 acres of the ranch under cultivation for wheat and barley, and raised 700 head of cattle and 10,000 sheep. Headquarters for the ranch was adjacent to the Asistencia, in the area of the modern Magic Mountain Theme Park parking lot.

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4 Ygnacio del Valle ultimately became a prominent politician in southern California, serving as Alcalde (mayor) of Los Angeles during the Mexican period, as a member of the Territorial Deputation when California was admitted into the Union in 1850, and in the State Legislature.

The following year, the Southern Pacific Railroad Company placed a rail line down the Santa Clara Valley to the coast at Ventura, and the town of Newhall was born. The Southern Pacific rail line provided an outlet for the agricultural and ranching products of the ranch, and greatly stimulated oil production in the immediate area. For obvious reasons, both circumstances stimulated the commercial development of the Newhall Ranch. Due to frequent sandstorms, the town's six buildings and name of Newhall were moved 3 miles to the south in 1878, and the original townsite became known as Saugus.

Henry Mayo Newhall was thrown from his horse on the ranch and died, in San Francisco, in 1883. The ranch then passed to his heirs, who incorporated The Newhall Land and Farming Company. The Newhall financial empire subsequently went into decline, coming close to liquidation in 1930. At that point Athol McBean, son-in-law of William Mayo Newhall, was appointed chairman. McBean reorganized The Newhall Land and Farming Company and, aided by a restitution award of three-quarters of a million dollars resulting from the Saint Francis Dam catastrophe (see below), moved the ranch and company back onto sound financial footing. The company has continued as the major agricultural/ranching and land development concern in the region to the present time.

The Rancho San Francisco/Newhall Ranch and the upper reaches of the Santa Clara Valley also figured in three other important episodes in southern California history, two of which are landmarks in the economic history of the State: the first discovery of gold in the State, the development of southern California's oil industry, and the Saint Francis Dam catastrophe of 1928.

The first documented discovery of gold in California occurred in 1842 when Francisco Lopez, then a resident at Rancho San Francisco, found the placer deposits in Placerita Canyon, southeast of the Newhall Ranch Specific Plan area. A minor gold rush to the region soon ensued. A variety of lines of historical evidence suggest, however, that gold may have been mined in the Santa Clara Valley region one to three decades before the Placerita Canyon discovery. According to a local tale, a group of about twenty men, led by one Santiago Feliciano, left Mission San Fernando in 1820 to explore the Castaic region. After reaching the Castaic Junction area, they traveled up Hasley Canyon north of the Newhall Ranch Specific Plan area for about 10 miles. There they discovered gold, and the mining camp, "San Feliciano" (from which San Feliciano Canyon apparently gets its name), was born. The region from San Feliciano to Soledad Canyon was subsequently prospected and mined (mostly for placer deposits) for a number of years.

Although there is no clear verification for this tale, there is, nonetheless, fairly strong evidence that the Placerita discovery in 1842 was by no means the first in this region. In 1832, for example, Ewing Young discovered an old ore smelting oven in San Emigdio Canyon, suggesting that gold mining in the area had occurred for one or two decades prior to the 1842 event, and a number of other sources indicate that the presence of gold in the area was known at least a few years prior to the famous Francisco Lopez discovery.

Not only was this region the first in California in which gold was discovered, it was also the first where true oil drilling occurred, which led to discoveries of oil on Rancho San Francisco and, ultimately, throughout the Santa Clara Valley region. This first major discovery of oil on Rancho San Francisco, which followed shortly after the discovery of oil in Pico Canyon to the south of the ranch, resulted when Ygnacio del Valle sold the majority of his Rancho San Francisco holdings to Thomas Bard, representing Senator Thomas A. Scott, in 1865. Seven weeks later, the first oil well came in on the southern side of the Santa Clara River, on property acquired by Bard, near the del Valle adobe, but outside of the Newhall Ranch Specific Plan area. This discovery, of course, was instrumental in the regional oil boom that ensued, and the Upper Santa Clara Valley region became renowned both for oil and gold. The study area is surrounded by, and includes, a number of oil fields, including the Hasley Canyon and the Castaic Junction Oil Fields to the north, and the Pico Oil Field with its historical settlement of Mentryville to the south, that were first developed in this period.

The third local event of historical importance was the collapse of Los Angeles Department of Water and Power's St. Francis Dam and the resulting flood of the Santa Clara River Valley on March 12 and 13, 1928. With the failure of the dam close to midnight on March 12, water raged down San Francisquito Canyon to the small hamlet of Castaic Junction, which it effectively leveled, and then on to Fillmore, Santa Paula and ultimately to the Pacific Ocean, causing great loss of life and destruction along the way. All told, at least 336 known deaths were caused by the flood, 101 individuals were missing and can now be presumed dead, 909 homes were destroyed, and countless acres of orchards were flattened. Within the original Newhall Ranch, outside of the Newhall Ranch Specific Plan study area at Blue Cut in Ventura County, the flood waters rose to the level of the highway. The restriction of the Santa Clara River stream course at this spot momentarily bottled the flood, resulting in a temporary upsurge of waters against the flood current, creating a whirlpool. An Edison Company work camp of tents housing 150 men, established immediately east of Blue Cut, was inundated by the upsurge. When the flood waters receded, eighty-four of these men had been drowned by the catastrophe.

4. EXISTING CONDITIONS

This subsection summarizes the findings of the archeological (Phase I and Phase II) assessments and of the paleontological survey. A detailed description of the findings of these studies are presented in **Appendix 4.3** of this EIR.

a. Archaeological Findings

(1) Phase I Field Results

The Newhall Ranch Specific Plan study area was found to have a very low density of archaeological remains, with site locations closely conforming to the expectations derived from the archival records search. With only two exceptions, identified sites are concentrated along the Santa Clara River.

(a) Prehistoric Archaeological Sites

A total of eight prehistoric archaeological sites and one isolated artifact were identified during the intensive Phase I survey. Six sites were found along or near the Santa Clara River, and are referred to as CA-LAN-2133, -2241, -2235, -2234, -2233, and -2242. The other two prehistoric archaeological sites are CA-LAN-2236 and -2240. The locations of the sites have intentionally been left out of this report in order to prevent unqualified persons from visiting and possibly vandalizing the sites. Those qualified persons interested in knowing the locations of the sites can contact the County of Los Angeles, Department of Regional Planning, 320 West Temple Street, 13th Floor, Los Angeles, CA 90012.

(b) Historical Archaeological Sites

During the Phase I survey, one historical site was found on the Newhall Ranch Specific Plan site and another was found immediately off site. Both are concentrated in what can best be considered a single locality: the northeastern end of the property. This area includes the on-site Asistencia de San Francisco Xavier (CA-LAN-962H), and the off-site, original Newhall Ranch headquarters (CA-LAN-961H), the built structures of which were removed from this locale a number of years ago. Neither of the two sites are listed in the National Register for Historic Places or the California Register of Historic Resources; however, because the Rancho San Francisco is listed as a California Historical Landmark, the Asistencia is also technically listed as such.[5]

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5 Interview with Joe Simon, W & S Consultants, Simi Valley, California, 21 February 1996.

(2) Off-Site Roadway Extensions

The supplemental Phase I investigation for the proposed extension of Valencia Boulevard failed to identify any archeological or cultural resources within the 800 foot wide by 2.6 mile long study area. The alignment of the proposed extension of Magic Mountain Parkway was surveyed separately as part of the study conduced for the Newhall Ranch Specific Plan site. This study failed to locate any archeological or cultural resources along, or in the vicinity of, the Magic Mountain Parkway alignment.

(3) Phase II Field Results

In order to accurately determine the size, nature, significance and current condition of the eight prehistoric sites falling within the development area, Phase II fieldwork was conducted. This involved mapping, the collection of surface artifacts, the hand excavation of test pits, and field and laboratory analyses of site conditions and artifacts recovered from sites CA-LAN-2133, -2241, -2235, -2234 -2233, -2236, -2240 and -2242. The area containing the two historical sites, CA-LAN-961H and -962H, proved to fall outside of the development area and would not be potentially significantly impacted by the Newhall Ranch Specific Plan; therefore, these two sites were excluded from Phase II fieldwork. The field results for the prehistoric sites are summarized below; please refer to **Appendix 4.3** of this environmental impact report for a detailed discussion of the recovered archaeological remains from these sites and a summary of the procedures by which these collections were processed and analyzed. It should be noted that the California Indian Foundation provided native American monitors during the Phase II study, and assisted with the evaluations and determinations of significance for each site.

CA-LAN-2133 proved to comprise a subsurface archaeological deposit that was partly covered by natural downslope soil movement, and was found to measure approximately 11,550 square meters in size. Artifacts recovered from the site include waste flakes from stone tool manufacturing and a small quantity of stone tools, animal bone and shellfish. Judging from these artifacts, the site appears to represent a small campsite or habitation, probably occupied by a single extended family on a seasonal basis. Temporally diagnostic artifacts from the site indicate that it was inhabited sometime during the Intermediate Period, or between about 3500 to 800 years B.P.; however, direct chronometric assays on obsidian flakes from the site support an occupation restricted to the latter half of the Intermediate Period, from 160 BC to AD 1160. As of the time of this writing, CA-LAN-2133 is in moderate to good condition. A graded road and disking have impacted the upper levels of the site, and its western end has been truncated by an eroded cut leading down to the River; otherwise, it is largely intact.

CA-LAN-2241 appears to have once represented a very small archaeological site that contained one, and possibly two, isolated human burials, and a small number of plant processing (groundstone) tools. No intact portions of this site could be located during the Phase II test, however, with the small number of recovered artifacts found in heavily disturbed contexts. Specifically, the groundstone tools and a few fragmentary pieces of human bone were found on the ground surface of a graded dirt road and in a large disturbed area adjacent to the road, within alluvial overbank (flood) deposits. A second human burial was also observed on the site in an immediately adjacent arroyo bottom. It had eroded out of the side-wall of the arroyo and had fallen to the stream bed when first located, but a subsequent arroyo side-wall collapse buried this interment under a very large volume of dirt. Efforts to expose and record this second burial by hand excavation were unsuccessful due to the volume of collapsed soils covering it. It is assumed that this burial is prehistoric in origin. However, there is currently no positive empirical evidence in support of this inference, and the apparent stratigraphic context of the burial in flood deposits suggests the possibility that it may actually represent one of the many unrecovered bodies of a victim from the 1928 San Francisquito Dam disaster. Inspector Nils Lander of the Los Angeles County Coroner's Office was notified of these human remains, while consultation with and monitoring by the California Indian Council Foundation occurred during the fieldwork to determine the initial treatment of the human remains.

With the exception of the currently buried skeleton, the few artifacts and fragmentary human remains found in disturbed areas on the ground surface of CA-LAN-2241 have been removed from the site area. There are currently no intact portions of this site still in existence, although the disturbed burial of unknown origin, discussed above, is present in the arroyo bottom on the western side of the site.

CA-LAN-2235 consists of a subsurface archaeological deposit measuring approximately 3800 square meters in size. It was found to represent a small, probably seasonally occupied, camp or habitation site, most likely used by a single extended family during their seasonal subsistence rounds. Artifacts from the site include waste flakes, stone tools, a single bone tool and a small quantity of animal bone. These indicate that the site dates to the Intermediate Period; chronometric assays on obsidian flakes from this locale, however, suggest an occupation beginning immediately before the start of the Intermediate Period, at 2250 BC, and extending to AD 940. Although the earlier obsidian dates from this site are slightly anomalous, they nonetheless are generally consistent with the temporal assignment based on the artifact assemblage recovered during the testing. CA-LAN-2235 is currently in poor condition. A modern house, driveway and sewage leach field are located within the approximate middle of the site, and have resulted in the complete destruction of approximately 24 percent of it, while the remainder has been less severely impacted by modern land-use around this house.

CA-LAN-2234 was found to comprise introduced fill used for erosion control. This fill was apparently derived from site CA-LAN-2233, and thus was itself artifact-bearing. Although a small quantity of archaeological artifacts and specimens was, accordingly, recovered from this putative site, these are out-of-original context, therefore entirely lacking in integrity, and thus of little or no scientific value. That is, the Phase II testing determined that CA-LAN-2234 did not represent an extant archaeological site.

CA-LAN-2233 consists of two components or loci, now separated by Highway 126. To the north is a subsurface archaeological deposit covering approximately 9000 square meters. This deposit contains a small habitation site apparently related to nearby site CA-LAN-2235. As at CA-LAN-2235, the northern portion of CA-LAN-2233 appears to represent a seasonally occupied single family camp. Artifacts from the deposit included stone tools, waste flakes, and a small quantity of animal bone. These indicate that the site dates to the Intermediate Period. This is confirmed by obsidian hydration ages from the site, which indicate an occupation range of at least AD 236 to AD 808. The northern portion of CA-LAN-2233 is in moderate condition. Its southern end has been truncated by Highway 126, plowing and disking have impacted its upper levels, and the development and ultimate removal of a historical orchard has resulted in considerable stratigraphic mixing within the subsurface deposit at the site. The southern portion of CA-LAN-2233 was determined to be a low density surface lithic scatter that had been very seriously and adversely impacted: a portion of it had been borrowed and used as fill; a railroad track and frontage road had been placed across the site, with the rail line subsequently removed; it has been plowed and disked for a number of years; and portions of it have been buried by Highway 126. Surface collecting during the Phase II test resulted in the recovery of all extant archaeological remains at this locale; therefore, there are no longer any extant archaeological remains within the southern portion of CA-LAN-2233.

CA-LAN-2236 was found to consist of a small, very low density surface lithic scatter, measuring only 300 square meters in size and consisting of only six waste flakes found on the ground surface. No temporally diagnostic artifacts or chronometrically datable materials were found on this site. It appears to have served as a non-specialized stone chipping station, probably created in concert with some other economic activity, such as plant gathering or hunting. Phase II fieldwork at this site resulted in the collection of all extant archaeological remains from this locale.

CA-LAN-2240 represents a small rockshelter. Although during the Phase I survey it was inferred that this rockshelter would contain archaeological remains, subsurface excavation during Phase II demonstrated that no archaeological remains of any kind are present at this locale; therefore, CA-LAN-2240 does not represent an extant cultural resource.

CA-LAN-2242 is a small cave covering approximately 15 square meters. Test excavations resulted in the recovery of a small quantity of miscellaneous artifacts. These indicate that the cave had been used to cache Native American tools and implements, perhaps as late as the early part of the nineteenth century. However, the large majority of the cave had been thoroughly looted. Only a few archaeological specimens were still present when test excavated during the Phase II survey, and all of these were collected. There are no longer any extant archaeological remains at this locale.

The final cultural resource located in the vicinity of Potrero and Chiquito Canyons was an isolated artifact, found within the flood channel of the River on its northern side. This consisted of a broken, basket-hopper mortar, found immediately west of the mouth of San Martinez Grande Canyon. It is likely that it washed down the River (perhaps from the sites discovered near the mouth of Chiquito Canyon) during some flood season. This artifact was salvaged during the Phase I survey.

b. Paleontological Findings

The following is a discussion of the paleontological background of the Santa Clarita Valley, an identification of the geologic formations found on the Newhall Ranch Specific Plan site and along the proposed roadway extensions, and a discussion of the potential for each one of the formations to yield significant paleontological resources.

The Newhall Ranch study area is underlain by rocks ranging in age from the late Miocene Epoch (approximately 8 million years B.P.) to the Recent. Geologically, Newhall Ranch is at the eastern margin of the Ventura structural basin. Two types of rock units are found on the Newhall Ranch Specific Plan site: Pre-Quaternary and Quaternary (see **Table 4.3-1, Geologic Time Scale**, for a graphic depiction of these time periods). The Pre-Quaternary rock units were deposited on site during the final retreat of the sea from the Ventura basin and they record the transition from a deep marine basin to a non-marine flood plain environment over a period of several million years. The Quaternary age rock units found on site are deposits of more recent stream, river, and runoff waters. Geologic units found in the Newhall Ranch Specific Plan area, and presented in ascending order (from deepest to the most shallow), are the Modelo Formation, Towsley Formation, the Pico Formation, the Saugus Formation, Quaternary Terrace Deposits, Quaternary Older Alluvium, and Quaternary (Recent) Alluvium/Colluvium. Section 4.1, Geotechnical and Soil Resources, also identifies the Pacoima Formation in the Newhall Ranch area (specifically, west of the Magic Mountain Theme Park and southwest of Airport Mesa, and along the proposed extension of Magic Mountain Parkway). This formation lies stratigraphically above the Saugus Formation and has, in the past, been alternately mapped as either Saugus Formation or Pacoima Formation. Therefore, depending upon the map used, the Pacoima Formation may or may not be shown as a geologic unit in the Newhall Ranch area. The

geologic map used by RMW Paleo to classify the paleontological potential of the Newhall Ranch site does not map the Pacoima Formation in the Newhall Ranch area, but does map the Saugus Formation. The Pacoima Formation is identified in the County's Environmental Document Reporting Procedures and Guidelines as a common fossil-bearing formation; therefore, it may have moderate or high potential for paleontological resources. The Saugus Formation has a high potential for these resources.

With the exception of the Pacoima Formation, each of the geologic units listed above is discussed below.

Table 4.3-1
Geologic Time Scale

Era	Period	Epoch	Years Before Present
Cenozoic	Quaternary	Holocene (Recent)	11,000
		Pleistocene (Glacial)	500,000 to 2,000,000
	Tertiary	Pliocene	13,000,000
		Miocene	25,000,000
		Oligocene	36,000,000
		Eocene	58,000,000
		Paleocene	63,000,000
Mesozoic	Cretaceous		135,000,000
	Jurassic		180,000,000
	Triassic		230,000,000
Paleozoic	Permian		280,000,000
	Pennsylvanian Upper Carboniferous		310,000,000
	Mississippian Lower Carboniferous		345,000,000
	Devonian		405,000,000
	Silurian		425,000,000
	Ordovician		500,000,000
	Cambrian		600,000,000
Precambrian			

Source: Compiled by Impact Sciences, Inc. (August 1995).

(1) Newhall Ranch Specific Plan Site

(a) Modelo Formation

The Modelo Formation is composed primarily of sandstones and shales which were deposited under deep water marine conditions. A late Miocene Epoch marine unit (12 to 8 million years ago), the Modelo Formation is known for its fish, bird, and marine mammal fossils. Mollusks, plants, and foraminifera (microscopic animal members of the marine plankton) have also been collected from this unit. A fossil walrus was collected in the formation in Gillibrand Canyon to the southwest of the Newhall Ranch Specific Plan area in Ventura County.

The Modelo Formation is exposed along the southern boundary of the Newhall Ranch Specific Plan site and in a portion of the site proposed as open area. Because this portion of the site is not proposed for development, RMW's field survey in the area of the Modelo Formation was limited to a brief examination of the natural exposures which revealed fossil fish scales within the formation.

(b) Towsley Formation

The Towsley Formation is a latest Miocene to early Pliocene marine deposit (8 to 4 million years ago). The shales, sandstones, and conglomerates of the Towsley Formation were deposited in a gradually receding marine basin where the waters became shallower and shallower. Portions of this unit were deposited as submarine sediment flows, bringing sand and rocks up to boulder size into the deep seas. This formation has yielded fossilized marine vertebrates and invertebrates east of the study area along Interstate 14, including the remains of fossilized whales, sea cows (manatees), a distant relative of the walrus, and numerous invertebrates.

Within the Newhall Ranch Specific Plan site, the Towsley Formation is exposed in Rawhide Canyon and in the High Country Special Management Area in the south-central portion of the Newhall Ranch Specific Plan site (an area proposed for open space). RMW's efforts in the area of the Towsley Formation exposures were limited to a brief examination of a few road cuts and natural exposures in this formation. No fossils were located.

(c) Pico Formation

The siltstones, sandstones, and conglomerates of the Pico Formation span the period between four and two million years ago. Within the Newhall Ranch Specific Plan area, these rocks are known to contain the remains of numerous invertebrates and occasional vertebrates. For instance, immediately adjacent to the study area, an extensive invertebrate fauna and at least one recorded vertebrate locality has been reported.

Within the Newhall Ranch Specific Plan site, the Pico Formation is exposed in Long Canyon, Potrero Canyon, Salt Canyon, Graves Canyon, and west of Chiquito Canyon to the site boundary. The Pico Formation was deposited in a gradually receding marine basin where the waters became shallower and shallower. Its base was deposited in deep waters, while its top, which interfingers with the overlying Saugus Formation, was deposited in shallow marine or lagoonal waters. Invertebrates were found at several localities in Potrero Canyon, Long Canyon, and Chiquito Canyon. A fragmentary fossilized bone was discovered in the transition zone between the Pico Formation and the Saugus Formation near the mouth of Long Canyon. Screen washing of matrix from this locality produced a rodent tooth and fragmentary microvertebrate remains.

(d) Saugus Formation

The Saugus Formation records deposition in the region between the late Pliocene Epoch (two million years ago) and the early Pleistocene (1.6 million to 200,000 years ago).[6] In the study area, the formation interfingers with the underlying Pico Formation and contains some marine or brackish water deposits in the lower portion of the unit before becoming exclusively non-marine in the upper portion of the formation.

Although the marine deposits have also been referred to as the Pico Formation, the assignment of these rocks to a particular formation is less important than understanding the events that surround their formation. The Saugus Formation records the last withdrawal of the sea from the Santa Clarita Valley approximately two million years ago. This gradual shallowing of the sea that had covered the region since the Miocene (some 15 million years ago) resulted from the rise of the Santa Susana Mountains and Simi Hills. As a result, marine invertebrates are well known from these deposits in the Moorpark and Simi Valley areas. A diverse assemblage of marine and non-marine vertebrates (including extinct horses, large cats, dogs, elephants, turtles, peccaries, deer, and sharks) is known from other exposures of the Saugus Formation in Simi Valley. For instance, grading at the Valencia

6 The age of the Saugus Formation is in debate because of the lack of age diagnostic fossils, especially in the upper portion of the formation.

Commerce Center, northeast of the study area, produced the remains of an extinct relative of the zebra and a variety of micro-vertebrates including rodents, rabbits, and lizards. In addition, fossil horse teeth were reported from the Saugus Formation near the Del Valle oil field north of the study area.

Within the Newhall Ranch Specific Plan site, the Saugus Formation is exposed on the western side of Chiquito Canyon and northeast of Long Canyon as far east as the Magic Mountain Theme Park. Oil field operations have created extensive exposures of this unit, allowing for an examination of a large part of it. Four occurrences (localities 13, 13A, 14, and 25) represent significant fossil occurrences, because of the presence of abundant identifiable remains in small samples. Unidentifiable vertebrate remains were located at two horizons, one near the top of the formation and the other in the transition zone between the Saugus and Pico Formations. The latter appears to be a fragment of a marine mammal skull based on its size and curvature. Screen washing efforts produced bones and teeth at nine horizons scattered throughout the formation, including rodent teeth, a shell plate from a turtle, a possible bird bone fragment, a fragment of a tooth of a small carnivore, and several unidentifiable bone fragments. The abundance and diversity of fossils discovered in this formation is surprising considering the small size of samples processed during the screen washing activities.

(e) Quaternary Terrace Deposits

Quaternary Terrace Deposits represent the deposits of streams and runoff waters that have flowed across the region during the past 1.6 million years. As many as seven elevated terraces have been recognized in the vicinity of the study area. In the Santa Clara River Valley, just north of the study area, a tooth of a Bison was collected from rocks assigned to either terrace deposits or the older Saugus Formation. Bison are considered age diagnostic, as they first appear in the fossil record of North America no more than 500,000 years ago and probably less than 200,000 years ago. This specimen was identified as a late form of Bison strongly suggesting that it came from the terrace deposits and not the Saugus Formation.

Quaternary Terrace Deposits are exposed in the eastern portion of the Newhall Ranch Specific Plan site surrounding the Magic Mountain Theme Park and on the large mesas of the site, such as Airport Mesa, Potrero Mesa, etc. No fossils were observed in these deposits during RMW's survey.

(f) Quaternary Older Alluvium

Elevated deposits that appear to be older alluvial valley fills are scattered throughout the study area, but are most obvious in Long Canyon. These deposits most likely represent older valley fills that are now elevated above the current valley floors, which suggests that they represent a significant span of time. No fossils were observed in these deposits during RMW's field survey.

(g) Quaternary Alluvium/ Colluvium

Recent alluvium covers the canyon floors within the study area. Although these materials are the deposits of the streams that have flowed across the region during the past 10,000 years (which is too young geologically to contain significant fossils), occasionally older alluvium is found buried beneath these younger deposits and they can contain fossils. No fossils were observed in the alluvial deposits during RMW's survey.

(2) Off-Site Roadway Extensions

The proposed Valencia Boulevard extension traverses land which is underlain by the Pico and Saugus Formations. The proposed Magic Mountain Parkway extension overlies the Saugus Formation. Both of these geologic units have been previously discussed and are considered to represent a high potential for paleontological resources.

5. SPECIFIC PLAN IMPACTS

a. Significance Threshold Criteria

The proposed Newhall Ranch Specific Plan would have a significant adverse effect on archaeological and paleontological resources if grading were permitted to occur in areas containing known archaeological (both prehistoric and historic) and paleontological resources or in areas with high potential for containing these resources without proper surveillance during grading and without adequate mitigation as identified by CEQA and the Los Angeles County Environmental Document Reporting Procedures and Guidelines. For the purposes of this analysis, an historical resource is a resource listed in, or determined eligible for the California Register of Historical Resources (which automatically includes resources included in or eligible for the National Register of Historic Places, as well as certain State Historical Landmarks and Points of Historical Interest).

b. Specific Plan Impacts

(1) Archaeological

(a) Newhall Ranch Specific Plan Site

Sites CA-LAN-2133 and -2235 were found to contain subsurface archaeological deposits and intact prehistoric artifacts that can contribute to the scientific reconstruction of prehistoric lifeways in the Santa Clara River Valley. Development at these locales has the potential to result in significant impacts to cultural resources.

CA-LAN-2233 was found to contain two components: a northern component containing a subsurface archaeological deposit and intact artifacts; and a southern component consisting solely of a surface scatter of stone artifacts. The northern component of CA-LAN-2233 contains scientific information that may contribute to the reconstruction of local prehistory; development of this northern area, therefore, has the potential to result in significant impacts to cultural resources. Phase II fieldwork in the southern portion of CA-LAN-2233 resulted in the recovery of all extant artifacts from this area of the site. This has served to completely and adequately mitigate any potential significant impacts that might occur within the southern portion of the site.

Although there is no longer an intact archaeological deposit at CA-LAN-2241, a burial of unknown origin is still present in a disturbed context within the site area. Development of this area, therefore, has the potential to result in significant impacts to archaeological remains, whether ultimately historical or prehistoric in age.

Phase II fieldwork at CA-LAN-2236 and -2242 resulted in the recovery of all extant artifacts at these two locales. This has served to completely and adequately mitigate any significant impacts to these site that might occur due to development at these locales.

Phase II fieldwork at CA-LAN-2234 and -2240 demonstrated that no intact cultural resources were present at either locale. Accordingly, development at either locale will not result in significant impacts to cultural resources.

The isolated artifact found west of the mouth of the San Martinez Grande Canyon was salvaged during the Phase I survey, which served to completely and adequately mitigate any significant impacts to this resource.

The Asistencia de San Francisco (CA-LAN-962H) and the Newhall Ranch Headquarters (CA-LAN-961H) are located outside of the development area for the Newhall Ranch Specific Plan. Newhall Ranch Specific Plan development, therefore, will not result in significant impacts to these historical cultural resources.

(b) Off-Site Roadway Extensions

The proposed extensions of Valencia Boulevard and Magic Mountain Parkway will not disturb any known archeological or cultural resources and, therefore, no significant impacts should occur with construction of the roadway extensions.

(2) Paleontological

(a) Newhall Ranch Specific Plan Site

Development can have both adverse and beneficial impacts on paleontological resources. Adverse impacts include the destruction of paleontological resources because of the increase in activity in the area and may be either direct or indirect. Direct adverse impacts occur from brushing, grading, trenching, and other earthmoving activities. Indirect adverse impacts result from increased accessibility resulting in unauthorized fossil collecting by amateur collectors, especially in the open space areas; indirect impacts are typically insignificant. Development can have beneficial impacts on the region's paleontological resources if proper measures are implemented during development. Beneficial impacts result when a paleontologist is permitted to monitor the site and to salvage exposed fossils of possible scientific significance.

A way of determining impacts is to estimate the potential for the discovery of fossils, which is a measure of the likelihood that fossils will be discovered during excavations into a given rock unit based on the past discovery of fossils from that rock unit. Paleontological potential does not measure the significance of individual fossils present within the study area because it is impossible to accurately predict what individual fossils will be discovered.

A five-tiered classification system of sensitivity for paleontological resources (shown in **Table 4.3-2, Paleontologic Sensitivity Classification**) has been developed to evaluate the paleontologic potential of rock units within the Newhall Ranch Specific Plan area.[7] Each sensitivity rating reflects the potential for the discovery of fossil resources during site development.

Table 4.3-2
Paleontologic Sensitivity Classification

Potential	Description
NO	This rating applies to igneous rocks whose molten origins preclude fossil remains being preserved.
LOW	Rocks that are too young geologically to contain significant fossils, are altered, or have a poor record of fossil recovery.
MODERATE	Units that fall within this rating contain sedimentary rocks with histories of producing only limited numbers of fossils at many locations.
HIGH	Units that have well-established histories of containing significant fossils and/or fossils located on the study site.
INDETERMINATE	This classification applies to rock units where there is little or no history of fossil discoveries because of a lack of systematic exploration of rock exposures.

Source: RMW (1994).

Based on the results of RMW's field survey, screen washing efforts, literature review, and records search, the Newhall Ranch study area is underlain by geologic units rated from high to low paleontologic potential. The potential for fossil production of the individual formations in the study area is discussed below and summarized in **Table 4.3-3, Paleontologic Potential by Geologic Unit**. Potential impacts on paleontological resources are directly related to the potential for the discovery of fossils in a rock unit and the amount of grading that would occur in that rock unit.

In general, the Modelo Formation is well known for its well-preserved fish and bird skeletons, as well as marine mammals, mollusks, plants, and microplankton; therefore, this formation is considered to have a high paleontologic potential. However, since exposures of the Modelo Formation are restricted to the proposed open space areas, the potential for significant impacts on paleontological resources from this formation is low.

7 The data used to define these potentials came from a review of pertinent paleontological information and literature both within the study site and the surrounding areas, discussion with professional paleontologists, and field experience in southern California.

The Towsley Formation is known to produce numerous remains of invertebrates and the occasional remains of marine vertebrates, and fossils within this formation can occur in locally abundant concentrations or horizons. Although this unit has been examined in only a few areas within the Newhall Ranch Specific Plan site, fossils appear to occur throughout the formation; therefore, the unit is assigned a high paleontological potential. However, because exposures of the Towsley Formation are restricted to proposed open space areas, the potential for significant impacts on paleontological resources within this formation is low.

Table 4.3-3
Paleontologic Potential by Geologic Unit

Geologic Unit	Paleontological Potential[1]	Impact Potential
Modelo	HIGH	low[2]
Towsley	HIGH	low[2]
Pico	HIGH	high
Saugus	HIGH	high
Terrace	MODERATE	moderate
Older Alluvium	MODERATE	moderate
Alluvium/Colluvium	LOW	low

Source: RMW (1994).
[1]*See Table 4.3-2 for definitions.*
[2]*Exposed only in proposed open space areas. If development occurs in open areas, impact potential would be high if grading impacts these geologic units.*

The Pico Formation contains numerous invertebrates within the study area and is known to contain occasional marine vertebrates in other areas. Therefore, this unit is assigned a high potential for the discovery of fossils during development. Because portions of development proposed by Newhall Ranch Specific Plan will take place on exposures of the Pico Formation, where resources exist there is a relatively higher potential for significant impacts on paleontological resources which might exist in this unit.

The Saugus Formation has a record of producing important invertebrates and vertebrate remains at several localities within and near the study area, therefore, it is assigned a high paleontological potential. Because portions of development proposed by Newhall Ranch Specific Plan will take place on exposures of the Saugus Formation, where resources exist there is a relatively higher potential for significant impacts on paleontological resources which might exist in this unit.

The Quaternary Terrace Deposits are assigned a moderate paleontologic potential based on their record of fossil production in the region. Because portions of the development proposed by Newhall Ranch Specific Plan will take place on exposures of Quaternary terrace deposits, where resources exist there is a relatively moderate potential for significant impacts on paleontological resources which might exist in this unit.

The Quaternary Older Alluvium is assigned a moderate potential based on its apparent relationship to the Terrace Deposits. These units are underlain by older, highly fossiliferous deposits, and are in areas where site grading is likely to occur. Therefore, there is a moderate potential for impacts on paleontological resources which might exist in this unit.

The Quaternary Alluvium/Colluvium are assigned a low potential; regardless of the amount of development in these deposits, the potential for significant impacts is low.

In conclusion, the Pico Formation and Saugus Formation within the development area of the Newhall Ranch Specific Plan have a high potential for yielding paleontological resources because there is potential for the exposure of significant fossils in areas of these geologic units that are proposed for grading. Where Quaternary Terrace Deposits and Quaternary Older Alluvium exist in the development area, there is a moderate potential for yielding paleontological resources because there is potential for the exposure of significant fossils in areas of these geologic units. Therefore, Newhall Ranch Specific Plan-related grading activities could have significant impacts on the site's paleontological resources.

(b) Off-Site Roadway Extensions

The Pico and Saugus Formations underlying the proposed roadway extensions have a high potential for yielding paleontological resources. As there is the potential for exposure of significant fossils in areas of these geologic units, grading activities associated with creation of these roadway extensions may have a significant impact on paleontological resources.

6. SPECIFIC PLAN MITIGATION MEASURES

a. Mitigation Measures Already Incorporated into the Specific Plan

The Newhall Ranch Specific Plan does not contain any specific measures to mitigate impacts to cultural/paleontological resources.

b. Mitigation Measures Recommended by the EIR

The following mitigation measures are derived from the Los Angeles County Environmental Document Reporting Procedures and Guidelines for paleontological resources and Appendix K of the CEQA Guidelines for the protection of cultural resources. Both documents require that reasonable efforts be made to reduce significant impacts on cultural resources to levels below identified thresholds of significance.

4.3-1. Any adverse impacts to CA-LAN-2133, -2235, and the northern portion of -2233 are to be mitigated by avoidance and preservation. Should preservation of these sites be infeasible, a Phase III data recovery (salvage excavation) operation is to be completed on the sites so affected, with archaeological monitoring of grading to occur during subsequent soils removals on the site. This will serve to collect and preserve the scientific information contained therein, thereby mitigating all significant impacts to the affected cultural resource.

4.3-2. Any significant effects to CA-LAN-2241 are to be mitigated through site avoidance and preservation. Should this prove infeasible, an effort is to be made to relocate, analyze and re-inter the disturbed burial at some more appropriate and environmentally secure locale within the region.

4.3-3. In the unlikely event that additional artifacts are found during grading within the development area or future roadway extensions, an archaeologist will be notified to stabilize, recover and evaluate such finds.

4.3-4. As part of an inspection testing program, a Los Angeles County Natural History Museum-approved inspector is to be on site during an appropriate number of excavations into the Pico Formation, Saugus Formation, Quaternary Terrace Deposits, and Quaternary Older Alluvium. Should the excavations yield significant paleontological resources, excavation is to be stopped or redirected until the extent of the find is established and the resources are salvaged.

7. CUMULATIVE IMPACTS

Impacts upon cultural resources tend to be site specific and are assessed on a site-by-site basis. Where resources exist, implementation of cumulative development in the region would represent an incremental adverse impact to cultural resources. However, provided that proper mitigation, as defined by CEQA and the Los Angeles County Environmental Document Reporting Procedures and Guidelines, as applicable, is implemented in conjunction with cumulative project development in the

area, no significant cumulative impacts are anticipated. In fact, if mitigation is properly carried out, a positive impact on cumulative cultural resource information would occur; that is, mitigation measures would result in the acquisition of additional scientific information about the prehistory of the region, thereby serving to clarify our reconstruction of prehistoric lifeways, while the artifacts obtained from the sites during mitigation procedures would be preserved for future analysis and study.

8. CUMULATIVE MITIGATION MEASURES

Other than complying with the same mitigation that is required of the Newhall Ranch Specific Plan, no further mitigation is recommended for cumulative projects.

9. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Specific Plan Impacts

Provided that the mitigation measures are properly implemented, no unavoidable significant impacts are expected to result from implementation of the proposed Newhall Ranch Specific Plan or the proposed extensions of Magic Mountain Parkway and Valencia Boulevard.

b. Cumulative Impacts

Provided that the mitigation measures recommended by CEQA and Los Angeles County are properly implemented for each and every project proposed in the area, no unavoidable significant impacts are expected to result as the Newhall Ranch Specific Plan area builds out.

4.4 AGRICULTURAL RESOURCES

1. SUMMARY

Land owned by The Newhall Land and Farming Company (NL&F) has historically comprised the majority of cultivated farmland in the Santa Clarita Valley. The amount of irrigated crop acreage owned by NL&F in the Santa Clarita Valley has been decreasing over the past thirty years and, therefore, so has the total revenue generated from farming activities. Irrigated crop acreage has decreased from 3,224 acres in 1965 to 1,008 acres in 1995, which represents a 69 percent reduction over that time period. These figures reflect the larger and continuing trend in Los Angeles County to convert cultivated farmland to urban land uses to accommodate an ever-growing population.

Of the 1,490 acres of cultivated land found on the Newhall Ranch Specific Plan site, 595 acres are considered prime agricultural land.[1] *The prime agricultural land on the property does not comprise one continuous piece of land. Rather it is found on many small, sometimes isolated parcels which are, in some cases, not level and not irrigated due to their distance from existing water sources. Some of this land is located south of the Santa Clara River and can only be accessed via a series of temporary River crossings which frequently wash out in winter months and are costly to maintain. Such conditions make this land relatively more difficult and less economical to farm than the larger parcels of land owned by The Newhall Land and Farming Company, and others, found to the west in Ventura County.*

The conversion of prime agricultural land is irreversible and is, therefore, considered an unavoidable significant impact. However, in light of the continuing trend by the County to convert cultivated lands to urban uses to accommodate growth, and the fact that the prime agricultural land on the Newhall Ranch site is already impaired (i.e., relatively difficult and less economical to farm) and is, therefore, generally of lower value than larger and better situated parcels found to the west, the loss of agricultural productivity on prime agricultural land under such circumstances is not considered a significant impact. Placement of development on the Newhall Ranch Specific Plan site would not have a significant impact on the agricultural production of the farmlands located to the west of the site.

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1 Because CEQA does not define "prime agricultural land," for the purposes of this impact analysis, prime agricultural land is defined as "Prime Farmland," "Farmland of Statewide Importance," "Unique Farmland," and "Farmland of Local Importance" (as defined by the Department of Conservation).

2. INTRODUCTION

Agricultural operations presently occur on the Specific Plan site and on land to its west in Ventura County. The County zoning of the site is Heavy Agriculture/2 acre minimum lot size (A2-2) and Heavy Agriculture/5 acre minimum lot size (A2-5). Uses allowed in this zone include, but are not limited to: agricultural land uses, such as crop production and livestock feed and sales yards; oil wells; and rural residential land uses with 2- to 5-acre minimum lot sizes.[2]

Agricultural activities in the State of California can be protected through a variety of legislative means, including the California Land Conservation Act and local right-to-farm ordinances and greenbelt agreements. The California Land Conservation Act (LCA), also known as the Williamson Act, was adopted in 1965 in order to encourage the preservation of the State's agricultural lands and to prevent their premature conversion to urban uses. No lands within Los Angeles County have ever been under Williamson Act Contract.[3] Within Ventura County, there are properties under contract located to the west and immediately adjacent to the Specific Plan site. Specifically, The Newhall Land and Farming Company owns 14,926 acres of land located immediately to the west of the Newhall Ranch site. Of this acreage, 11,888 acres are within a Williamson Act Contract that has not been renewed and all 11,888 acres will come out of contract on 28 February 1998. The Department of Conservation categorizes this land as Grazing Land in its Farmland Mapping and Monitoring Program.

Right-to-farm ordinances have been adopted by several California counties to protect farmers in established farming areas from legal action that new residents in nearby urban settings may take against nuisances associated with normal, day-to-day farming activities, such as odor, noise, and dust. Los Angeles County has no right-to-farm ordinance; however, Ventura County has one that applies only to unincorporated lands and, therefore, to the agricultural land adjacent to the Newhall Ranch site which is under the ownership of The Newhall Land and Farming Company.[4]

A greenbelt agreement is a formal joint resolution between interested cities and/or the county to protect open space and agricultural lands and to reassure property owners located in these areas that the lands would not be prematurely converted to agriculturally incompatible uses. No such agreements exist in the Santa Clarita Valley, the portion of the Santa Clara River Valley located in Los Angeles County,[5] or the portion of the river valley located immediately to the west in Ventura County.

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2 Los Angeles County Planning and Zoning Code, Revised October, 1989, Chapter 22.24.

3 Interview with Emily Kishi, California Department of Conservation, Sacramento, California, 6 January 1995.

4 Interview with Milada Allen, Ventura County Resource Management Agency, Ventura, California, 25 January 1995.

5 Interview with Lee Stark, AICP, County of Los Angeles Department of Regional Planning, Los Angeles, California, 9 January 1995.

3. EXISTING CONDITIONS

Land uses on the Specific Plan site at the time of this writing include oil operations, farming activities, grazing, and limited residential uses (ten homes owned by The Newhall Land and Farming Company). Land uses surrounding the site include rural residential developments, the Chiquita Canyon Landfill, the Valencia Commerce Center, commercial and public uses in Castaic Junction, and open area to the north; Los Angeles County Sanitation District 32 Water Reclamation Plant, the Magic Mountain Theme Park, the Stevenson Ranch residential development, various commercial uses along the Interstate 5 corridor, and open area to the east; open area to the south; and agricultural uses and open area to the west in Ventura County.

a. Agricultural Production

(1) Los Angeles County

Agricultural land conversion has a long history in Los Angeles County; the extent of this conversion is reflected in **Table 4.4-1, Los Angeles County Agricultural Production.**

Table 4.4-1
Los Angeles County Agricultural Production
1965 through 1993

	Acreage				
Crop	1965	1970	1980	1993	1965-93 % Change
Fruit and Nut Trees	14,039	7,829	3,032	1,939	-86.19%
Vegetable Crops	12,380	6,592	6,446	2,245	-81.87%
Nursery Products	1,925	1,972	2,280	2,248	16.78
Cut Flowers	565	656	490	289	-48.85%
Field Crops	79,103	57,890	42,298	9,905	-87.48%
Total Crop Production	108,012	74,939	54,546	16,626	-84.61%
Rangeland	200,000	210,000	242,250	230,229	15.11%

Source: Los Angeles County Agricultural Commissioner, Los Angeles County Crop and Live Stock Report, (El Monte, California: 1965 through 1993).

As shown in the chart, acreage in production for fruit and nut trees, vegetable crops, cut flowers, and field crops decreased over the period extending from 1965 to 1993, whereas acreage in production for nursery products and rangeland increased over this period. Of the total acreage under crop production in Los Angeles County in 1993, approximately 60 percent was cultivated for alfalfa, grain, barley, and

miscellaneous field crops, which contributed to only 4.5 percent of the County's total crop revenues of $196.9 million for that year. Conversely, 13.5 percent of the land was used to cultivate nursery products, which made up 73.6 percent of the total 1993 crop revenues. See **Appendix 4.4** for a complete listing of Los Angeles County crops and revenues.

Within Los Angeles County, livestock and poultry production revenues comprised 3.2 percent of total agricultural revenues, or $6.7 million in 1993. Honey, beeswax, milk, wool, eggs, and forest products generated $8.7 million in Los Angeles County, which was 4.1 percent of the County's total 1993 agricultural revenues. An historical overview of livestock, poultry, and apiary production is presented in **Table 4.4-2, Los Angeles County Livestock, Poultry, and Apiary Production** (livestock and poultry information was not available in the 1965 report).

Production for each category shown in the chart shows a decrease over the period extending from 1970 to 1993 except for hog and honey production and for pollination.

(2) Santa Clarita Valley Planning Area

Land owned by The Newhall Land and Farming Company has historically comprised the majority of cultivated farmland in the Santa Clarita Valley. The amount of irrigated crop acreage owned by The Newhall Land and Farming Company in the Santa Clarita Valley and, therefore, the total revenue generated, has been decreasing over the past thirty years. Irrigated crops were cultivated on 1,008 acres in 1995. This represents a 40 percent decrease from the 1,693 irrigated crop acres in 1985, a 60 percent decrease from the 2,491 irrigated crop acres in 1975, and a 69 percent decrease from the 3,224 irrigated crop acres in 1965. These figures reflect the larger and continuing trend by jurisdictions in Los Angeles County to approve the conversion of cultivated farmland to urban land uses to accommodate an ever-growing population. This trend is expected to continue, as demonstrated by the fact that much, if not all, of the remaining agricultural land located east of Interstate 5 has been planned for urban land uses by both Los Angeles County and the City of Santa Clarita.

Table 4.4-2
Los Angeles County Livestock, Poultry, and Apiary Production
1965 through 1993

Category/Unit[1]	Units Produced				
	1965	1970	1980	1993	1970-93 % Change
Chickens/Lb.		2,094,000	1,888,000	981,000	-53.15%
Dairy Cattle/Cwt.		40,000	6,100	3,346	-91.64%
Beef Cattle/Cwt.		37,300	19,500	3,321	-91.10%
Hogs and Pigs/Cwt.		3,500	5,300	4,038	15.37%
Sheep/Cwt.		56,000	85,000	4,285	-92.35%
Misc. Livestock & P'ltry/Ea.		437,000	45,000		
Horses/Head		50,000	83,000		
Honey/Lbs	2,600,000	1,200,000	1,200,000	5,657,500	371.46%
Pollination/Colonies	7,500	8,500	15,000	32,000	276.47%
Beeswax/Lbs.	43,500	20,000	20,000	14,000	-30.00%
Milk/Cwt.		6,481,000	1,430,000	350,061	-94.60%
Wool/Lb.		157,000	500,000	53,971	-65.62%
Eggs/Dozen		23,485,000	5,591,000	2,198,028	-90.64%
Worms/Lb.			783,000		

Source: Los Angeles County Agricultural Commissioner, Los Angeles County Crop and Live Stock Report, (El Monte, California: 1965 through 1993).

[1] *Lb. = pound; Cwt. = hundred weight (hundred pounds); Ea. = each*

(3) Newhall Ranch Specific Plan Site

The Newhall Ranch Specific Plan site has historically been cultivated with grapes, row crops, dryland crops, and walnuts by The Newhall Land and Farming Company. In addition, land has been leased out over the years for corn, mixed vegetable crops (onions, parsley, cilantro, turnips, herbs, spinach, kale, red beets, radishes, and cucumbers), alfalfa, barley, and Christmas tree production. **Figure 4.4-1, Existing Agricultural Uses,** shows land presently cultivated on the site.

Table 4.4-3, On-Site Agricultural Land, indicates the amount of land on the Newhall Ranch site that was under agricultural production in 1995. Agricultural production is defined as land that is either being farmed for crop production or is being used for the grazing of cattle.



SOURCE: THE NEWHALL LAND AND FARMING COMPANY

NEWHALL RANCH™
Newhall Ranch Company

L E G E N D

A	*EXISTING IRRIGATED OR DRY AGRICULTURE*
G	*GRAZING LAND*

IMPACT SCIENCES INC

NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

100 ACRES 400 ACRES

FIGURE 4.4-1
EXISTING AGRICULTURAL USES

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Table 4.4-3
On-Site Agricultural Land
1995

Agricultural Land Use		Acres
Land Under Cultivation		
Irrigated land		858
Dry land		632
	Subtotal	1,490
Grazing Land		8,320
Total Agricultural Land		9,810

Source: The Newhall Land and Farming Company, Agricultural Administration Division, (April 1995).

Of the 1,490 acres under cultivation in 1995, 858 acres were irrigated for the production of carrots, spinach, cilantro, turnips, red beets, barley, alfalfa, onions, kale, sudan grass, permanent pasture, oat hay, and mixed vegetables. The remaining 632 acres under cultivation were dry farmed (not irrigated) for the production of crops such as barley. The total 1,490 acres of cultivated land on the site represents 9.0 percent of the total acreage within Los Angeles County that was under cultivation in 1993 (last data available).

In 1995, 8,320 acres (69.6 percent) of the Newhall Ranch site are used for grazing operations,[6] which represents 3.6 percent of County rangeland for that same year.

(4) Off-Site Roadway Extensions

The proposed roadway extensions would traverse grazing lands, but no cultivated farmlands.

b. Agricultural Water Consumption

Water for the agricultural activities on the Newhall Ranch site is drawn from the alluvial basin of the Santa Clara River. In 1995, the crops and cattle operations on the site consumed 4,065 acre-feet of water from this aquifer.[7]

6 The amount of acreage that is grazed varies from year-to-year, depending upon the lease agreement(s) between The Newhall Land and Farming Company and its tenant(s).

7 Keith Abercrombie, The Newhall Land and Farming Company, memorandum to Dave Crowder, 16 December 1994.

c. Pesticide Use

Pesticides used and stored on the site as of this writing include Dacthal, Pounce, Diazinon, Ridomil, and Caparol. Other on-site materials used for agricultural operations include Diuron, Roundup, PCQ squirrel bait, Gopher Getter (strychnine), Simizine, Karmex, urea fertilizer, 10-34-0 fertilizer, UN-32 fertilizer, livestock medications, animal insecticides, Asana insecticide, and Lannate insecticide. As agricultural activities on the site phase out, so would the use of these chemicals. For a more detailed discussion of on-site pesticide use, please refer to **Section 4.5 (Environmental Safety).**

d. Federal Soil and State Farmland Classifications

Whether a piece of land is farmed or not, the U.S. Department of Agriculture (USDA) classifies soils on that land for both agricultural and engineering purposes, while the State of California Department of Conservation classifies them according to their agricultural value, focusing only on those lands that are or have been farmed within the previous four years. Both of these classification systems, and their applicability to the Newhall Ranch Specific Plan site, are discussed below.

(1) USDA Soil Survey Classifications

(a) Newhall Ranch Specific Plan Site

According to the USDA Soil Conservation Service, there are a total of twenty-three different soil types on the site. **Table 4.4-4, On-Site USDA Soil Suitability,** lists these soils and identifies the agricultural activities for which each soil is most suited (if any), and whether or not the soil meets Soil Conservation Service criteria for prime farmland. These determinations are made regardless of whether or not the soils are farmed.

The USDA also places soils in capability classes that reflect the soils' suitability for farming. **Figure 4.4-2, Site Suitability for Farming,** identifies the areas of the Newhall Ranch site that are suitable for farming based on the site's capability classes (see **Appendix 4.4** for a listing of the capability classes for each of the soils on the site, along with their vegetative soil groups, range site indices, Storie Indices,[8] and soil grades).

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8 The Storie Index numerically expresses the relative degree of suitability of a soil for general intensive agriculture. Four general factors are considered in the index rating, including the characteristics of the soil profile and soil depth, the texture of the soil surface, the dominant slope of the soil body, and other factors more readily subject to management or modification (i.e., drainage, flooding, salinity, sodicity, general nutrient level of the soil, and surface microrelief). See Appendix 4.4 for additional information.

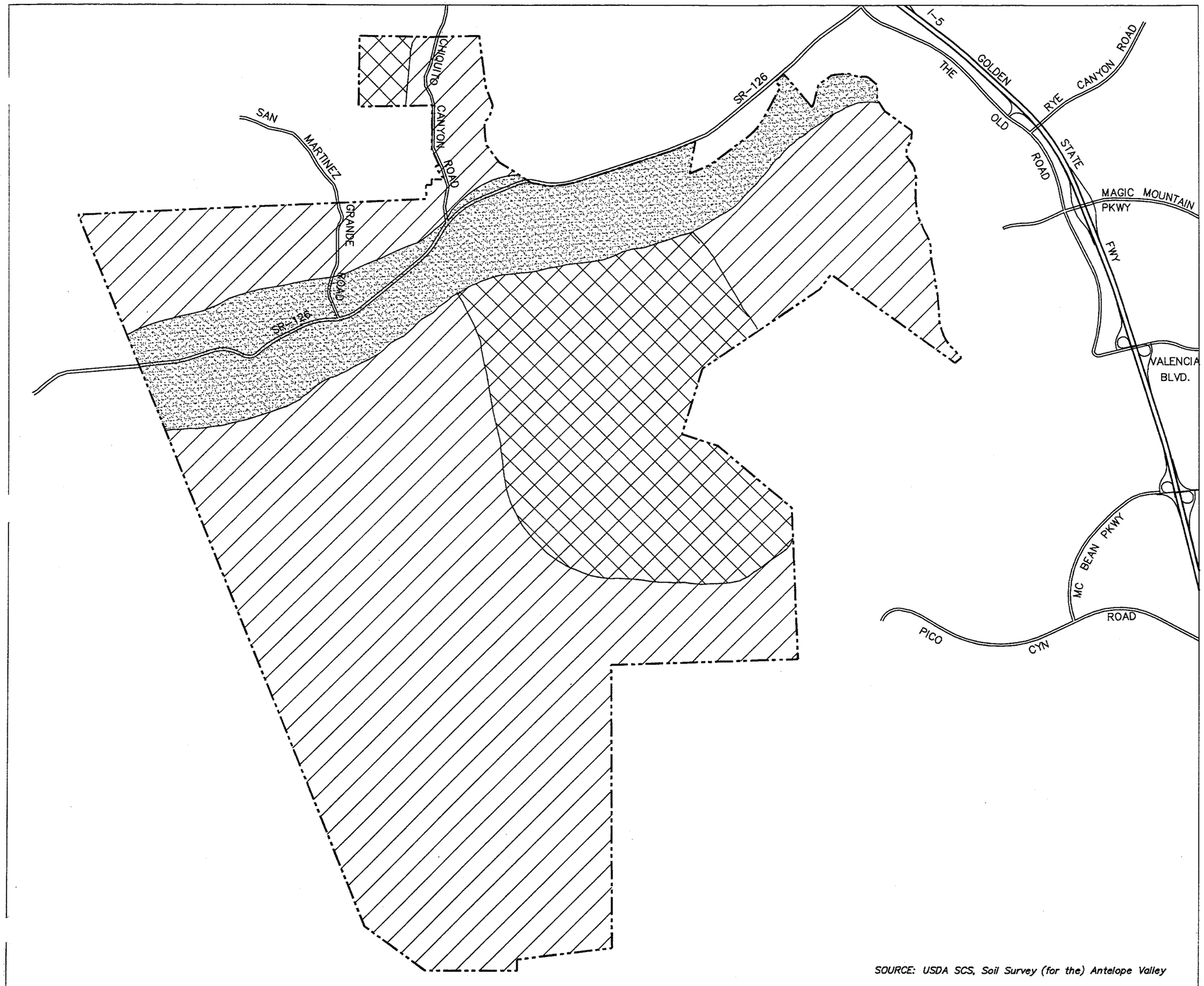
Table 4.4-4
On-Site USDA Soil Suitability[1]

Soil Type	Most Suitable Agricultural Activity for Soil Type	Meet Prime Farmland Criteria?
Castaic Balcom Silty Clay Loams (9 to 15%)	dryland small grains, pasture, and range[2]	yes
Castaic Balcom Silty Clay Loams (15 to 30%)	range	no
Castaic Balcom Silty Clay Loams (30 to 50%)	range	no
Castaic Balcom Silty Clay Loams (50 to 65%)	some grazing	no
Chino Loam	pasture	yes
Cortina Sandy Loam (0 to 2%)	range, dryland small grains, pasture, irrigated alfalfa, and small grains.	no
Castaic and Saugus Soils	none due to steep slopes and severe erosion	no
Gaviota Rocky Sandy Loam (30 to 50%)	range	no
Hanford Sandy Loam (0 to 2%)	irrigated crops, dryland small grains, and range	yes
Hanford Sandy Loam (2 to 9%)	irrigated crops, dryland small grains, and range	yes
Metz Sandy Loam (0 to 2%)	irrigated crops and dryland farming	yes
Metz Sandy Loam (2 to 9%)	irrigated crops and dryland farming	yes
Mocho Loam (0 to 2%)	dryland and irrigated crops	yes
Riverwash	none	no
Sandy Alluvial Land	grazing	no
Saugus Loam (30 to 50%)	range	no
Sorrento Loam (0 to 2%)	irrigated crops	yes
Sorrento Loam (2 to 5%0	irrigated crops, such as alfalfa, green onions, carrots, walnuts, and pasture	yes
Terrace Escarpments	incidental grazing	no
Yolo Loam (0 to 2%)	irrigated crops	yes
Yolo Loam (2 to 9%)	irrigated crops and range	yes
Zamora Loam (2 to 9%)	dryland grains and range	yes
Zamora Loam (9 to 15%)	range	no

Source: Compiled by Impact Sciences, Inc. (February 1995) from the Soil Survey [for the] Antelope Valley.
[1]*Column one indicates the soil type and, if applicable, the percentage of specific soil constituents which indicate their suitability as prime farmland. Column two indicates the activity most suitable for the particular soil type, and the third column indicates whether or not the soil type is suitable as prime farmland.*
[2]*Range is defined as open land used for grazing.*

(b) Off-Site Roadway Extensions

Soils along the proposed roadway extensions are considered either very poor or unsuited for farming.



SOURCE: USDA SCS, Soil Survey (for the) Antelope Valley

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L E G E N D

- CAPABILITY CLASSES I & II — VERY GOOD TO GOOD
- CAPABILITY CLASSES III & IV — FAIR TO POOR
- CAPABILITY CLASSES VI & VII — VERY POOR
- CAPABILITY CLASS VIII — UNSUITED

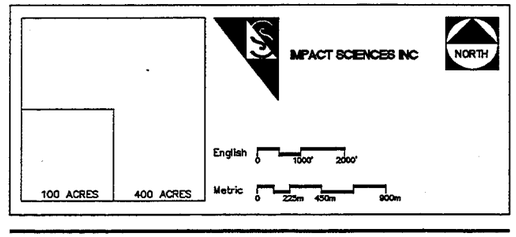

FIGURE 4.4-2
SITE SUITABILITY FOR FARMING

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(2) State of California Department of Conservation Classifications

Using Soil Conservation Service soil classifications, the California Department of Conservation (DOC) and the California Association of Resource Conservation Districts translate soil survey data into an "Important Farmland Series" of maps for the State's agricultural counties. The purpose of the DOC's Farmland Mapping and Monitoring Program (FMMP), which updates its maps biennially, is to provide land use conversion information for decision makers to use in their planning for the present and future of California's agricultural land resources.[9] Thus, these classifications focus only on those lands that have been recently farmed. Land not recently farmed does not show up on the Important Farmland Series of maps.

The important farmland maps and the Advisory Guidelines for the Farmland Mapping and Monitoring Program identify five agriculture-related categories: prime farmland, farmland of statewide importance, unique farmland, farmland of local importance, and grazing land. Each are described below.

(a) Prime Farmland

Prime farmland is land with the best combination of physical and chemical features able to sustain long-term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields (refer to **Appendix 4.4** for a listing of the criteria for prime farmland). The land must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date of 1992 (or since 1988).[10]

(b) Farmland of Statewide Importance

Farmland of statewide importance is land similar to prime farmland, but with minor shortcomings, such as greater slopes or with less ability to hold and store moisture. The land must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date (or since 1988).

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9 Department of Conservation, Farmland Conversion Report: 1990 to 1992, (Sacramento, California, June 1994), p. 1.

10 Since the farmland mapping date for Los Angeles County is 1992, and since update cycles occur biennially, this definition implies that land on the Newhall Ranch site must have been used for the production of irrigated crops at some time since 1988 in order to qualify as prime farmland.

(c) Unique Farmland

Unique farmland is land of lesser quality soils used for the production of the State's leading agricultural crops.[11] This land is usually irrigated, but may include non-irrigated orchards or vineyards, as found in some climatic zones in California. The land must have been cultivated at some time during the two update cycles prior to the mapping date (or since 1988).

(d) Farmland of Local Importance

Farmland of local importance is land of importance to the local agricultural economy, as determined by each County's Board of Supervisors and a local advisory committee. According to the Farmland Conversion Report, farmland of local importance in Los Angeles County includes producing lands that would meet the standard criteria for prime farmland or farmland of statewide importance, but which are not irrigated. In Ventura County, farmland of local importance has been identified as soils that are listed as prime farmland or farmlands of statewide importance that are not irrigated, and soils growing dryland crops -- beans, grain, dryland walnuts, and dryland apricots.

(e) Grazing Land

Grazing land is land on which the existing vegetation is suited to the grazing of livestock. The minimum mapping unit for this category is 40 acres.

The DOC, in its Farmland Conversion Report published in June 1994, has clarified the way unfarmed agricultural lands are removed from their important farmland maps. Before removing unfarmed land from the maps, the DOC now waits two mapping cycles (four years) rather than one to make it easier for the DOC to track changes.[12] The DOC's current definitions for soil classification are provided in **Appendix 4.4**.

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11 Leading agricultural crops include those of high economic value, such as oranges, olives, avocados, rice, grapes, and cut flowers. Los Angeles County's leading agricultural crop includes flowers and foliage.

12 Interviews with Emily Kishi, California Department of Conservation, Sacramento, California, January and April, 1995.

(f) Conversion of Important Farmlands From 1990 to 1992

The conversion of important farmlands for Los Angeles County from 1990 to 1992 is shown in **Table 4.4-5, Important Farmlands in Los Angeles County**. In Los Angeles County, there has been an increase in acreage for all important farmland categories except grazing land, which is explained by the redefinition of the categories in 1994, as well as the conversion of fallow land to irrigated cropland after a long drought.

Table 4.4-5
Important Farmlands in Los Angeles County
1990 to 1992

Category	Acreage 1990	Acreage 1992	% Change
Prime Farmland	22,479	23,951	+6.5%
Farmland of Statewide Importance	925	934	+1.0%
Unique Farmland	708	743	+4.9%
Farmland of Local Importance	30,744	30,945	+0.7%
Grazing Land	220,386	219,042	-0.6%
Total Agricultural Land[1]	275,242	275,615	+0.1%

Source: Department of Conservation, Farmland Conversion Report 1990 to 1992, (Sacramento, California, June 1994), Table 1.

[1]*The acreage for agricultural land is from DOC estimates, and does not necessarily reflect the acreage published in the Los Angeles County crop reports, which report 243,759 acres for 1992 and 246,855 acres for 1993. This is due to the fact that lands mapped by the State may not have actually been in agricultural use for the years shown.*

(3) Important Farmlands on the Newhall Ranch Specific Plan Site

Important farmlands delineated by the DOC on the Newhall Ranch site comprise approximately 11,761 acres of the site. Of this mapped total, approximately 547 acres are defined as prime farmland, and 48 acres are defined as unique farmland, (see **Table 4.4-6, On-Site Farmlands of Importance**). No site acreage is defined as farmland of statewide importance or farmland of local importance.

Table 4.4-6
On-Site Farmlands of Importance

Category		Acreage	Percent of Site
Prime Farmland		547	4.6%
Farmland of Statewide Importance		0	0.0%
Unique Farmland		48	0.4%
Farmland of Local Importance		0	0.0%
	Subtotal	595	5.0%
Grazing Land		11,166	93.4%
	Totals	11,761	98.3%

Acreages of the important farmland categories have been planimetered from Department of Conservation Important Farmlands Maps by Impact Sciences, Inc.

As shown on **Figure 4.4-3, Farmlands of Importance**, the prime farmlands are located along the northern and southern sides of the Santa Clara River, as well as on the mesas (Potrero and Grapevine) elevated above the southern side of the River. The unique farmland is located in one small patch along the northern side of SR-126 and near the Los Angles/Ventura County line, and on another smaller patch on Potrero Mesa.

A total of 11,166 acres of the Newhall Ranch site are categorized as grazing land, which constitutes 93.4 percent of the farmland found on the subject property. Grazing land is, for the most part, spread across the entire site.

As shown in **Figure 4.4-3**, the cultivated farmland is not one continuous piece of property. Rather, it is found on many small, sometimes isolated parcels which are, in some cases, not level and not irrigated due to their distance from existing water sources. Also, land located south of the Santa Clara River on the mesas can only be accessed via a series of temporary River crossings which frequently wash out in winter months and are costly to maintain. Finally, increased traffic volume along the SR 126 makes it difficult to move the farm equipment across the highway between fields. Such conditions make this land relatively more difficult and less economical to farm than the larger parcels of land owned by The Newhall Land and Farming Company, and others, found to the west in Ventura County.

(4) Important Farmlands Along Off-Site Roadway Extensions

The Department of Conservation Important Farmland Maps identify the areas through which the proposed roadways would traverse as Grazing Land.



SOURCE: CALIFORNIA DEPARTMENT OF CONSERVATION

NEWHALL RANCH
Newhall Ranch Company

L E G E N D

P	PRIME FARMLANDS
U	FARMLANDS OF UNIQUE IMPORTANCE
S	FARMLANDS OF STATEWIDE IMPORTANCE
L	FARMLANDS OF LOCAL IMPORTANCE
G	GRAZING LAND
D	URBAN & BUILT UPLAND
X	OTHER (LAND NOT INCLUDED IN ANY OTHER MAPPING CATEGORIES)

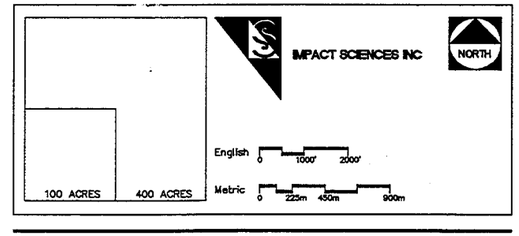

FIGURE 4.4-3
FARMLANDS OF IMPORTANCE

2/19/96

4. SPECIFIC PLAN IMPACTS

a. Significance Threshold Criteria

According to the CEQA Guidelines [item (y) of Appendix G] and the County of Los Angeles (Appendix D of the County's Environmental Document Reporting Procedures and Guidelines), a project has a significant impact on the environment if it converts prime agricultural land to non-agricultural use, or impairs the agricultural productivity of prime agricultural land. Because CEQA does not define "prime agricultural land," for the purposes of this impact analysis, prime agricultural land is defined as "prime farmland," "farmland of statewide importance," "unique farmland," and "farmland of local importance" (as defined by the Department of Conservation). Land that generates "agricultural productivity" is defined as land that is under cultivation on prime farmland, farmland of statewide importance, unique farmland, and farmland of local importance.

b. Specific Plan Impacts

(1) Newhall Ranch Specific Plan Site

(a) Conversion of Prime Agricultural Land

According to the aforementioned significance thresholds, a significant impact would occur if a project converts prime agricultural land to non-agricultural use, with prime agricultural land being defined as "prime farmland," "farmland of statewide importance," "unique farmland," and "farmland of local importance." The Specific Plan would convert 547 acres of prime farmland, no farmland of statewide or local importance, and 48 acres of unique farmland to urban land uses. Consequently, there would be an irreversible loss of 595 acres of prime agricultural land as a result of the Newhall Ranch Specific Plan, which is considered to be a significant project impact.

(b) Impairment of Agricultural Productivity

As indicated above, a significant agricultural impact would occur if a project would impair the agricultural productivity of prime agricultural land. Because the Specific Plan would remove 595 acres of prime agricultural land from production, it would result in the permanent loss of agricultural productivity on this acreage as farming activity ceases and the land is eventually developed.

It is expected that both farming and grazing activities occurring on the Newhall Ranch site would be phased out as development of the Specific Plan occurs. During the development process, which is expected to occur over a period of approximately twenty-five years, urban and agricultural land uses would co-exist. Placing urban uses in close proximity to agricultural uses can be a satisfactory arrangement for home buyers who want to live in a rural area, who respect the urban/agricultural boundary, and who are aware of the potential sights, smells, and sounds of adjacent agricultural operations. However, when home buyers move into an area and are not fully apprised of adjacent agricultural activities and all that goes along with them, the urban/agricultural boundary is oftentimes encroached upon and land use conflicts may occur.

Urban/agricultural land use conflicts can be discussed from the farmers' perspective and from the perspective of residents of the urbanized areas. From the farmers' perspective, agricultural production can be adversely affected as a result of:[13]

- trespassing and pilferage,
- increased personal injury liability as a result of trespassers hurting themselves,
- livestock predation by pets,
- crop damage as a result of increased urban pollutants, such as ozone,
- crop diseases resulting from inadequate care of ornamental plants in adjacent developments,
- flooding from adjacent properties,
- illegal dumping, and
- restrictions on pesticide use and burning.

From the nearby residents' perspective, adjacent agricultural uses can result in a number of nuisances and perceived hazards, such as:

- odors,
- dust,
- flies,
- slow-moving vehicles,
- noise, and
- concern over pesticide and herbicide use on adjacent properties.

13 Many of these land use conflicts were identified by Impact Sciences, Inc. in a 1992 survey of Ventura County farmland owners.

These conflicts can individually or cumulatively decrease the efficiency of farming operations which causes production costs to rise, and high production costs can induce land use conversions. At the same time, nuisances and perceived hazards associated with living adjacent to agricultural operations can result in an increase in the level of complaints against agricultural operations from nearby housing developments. However, it is common in California, and until just recently in the Santa Clarita Valley, to find urban land uses directly adjacent to agricultural activities. Based on the experiences of The Newhall Land and Farming Company, such complaints do occur, but not to a level that impairs operations. Thus, the location of farming activity in proximity to urban areas does not necessarily result in a loss of agricultural productivity.

Further, as indicated previously, agricultural productivity on farmland located on the Newhall Ranch site is already impaired. This land is not one continuous piece of property. Rather it is found many small, sometimes isolated parcels, which are, in some cases, not level and are not irrigated due to their distance from existing water sources. Also, land located south of the Santa Clara River on the mesas can only be accessed via a series of temporary River crossings which frequently wash out in winter months and are costly to maintain. Such conditions make this land relatively more difficult and less economical to farm than larger parcels of land owned by The Newhall Land and Farming Company, and others, found to the west in Ventura County. Therefore, due to the existing impaired conditions under which this land is farmed, the agricultural impact of the Newhall Ranch Specific Plan with respect to the loss of agricultural productivity is not considered significant.

(2) Off-Site Roadway Extensions

Because the proposed roadway extensions would traverse land that has been designated as Grazing Land by the Department of Conservation, their construction would not result in the conversion of prime agricultural land. Therefore, the roadways would not have a significant impact on this agricultural resource.

5. SPECIFIC PLAN MITIGATION MEASURES

a. Mitigation Measures Already Incorporated into the Specific Plan

The Newhall Ranch Specific Plan does not incorporate any specific measures to mitigate impacts on agricultural resources.

b. Mitigation Measures Recommended by the EIR

4.4-1. Purchasers of homes located within 1,500 feet of an agricultural field or grazing area are to be informed of the location and potential effects of farming uses prior to the close of escrow.

4.4-2. New homes within 1,500 feet of farming uses within Ventura County, if any, are to be informed that agricultural activities within Ventura County are protected under the County's right-to-farm ordinance, and are to be provided with copies of the County's Amended Ordinance 3730-5/7/85.

6. CUMULATIVE IMPACTS

Conversion of agricultural land to urban uses has a long history in Los Angeles County. According to Los Angeles County crop reports for the five years between 1988 and 1993, approximately 10,140 acres of cultivated land have been converted to urban uses, which represents a 37.9 percent decrease in agricultural lands during those five years. During the same period, 13,270 acres of rangeland were converted, which represents a 5.5 percent decrease in rangeland.

While it is not within the scope of this document to quantify the amount of prime agricultural land which is under pressure to be converted to urban uses in Los Angeles County and the remainder of southern California, it is highly likely (and probably certain) that such cumulative development pressure exists and will continue with or without implementation of the Newhall Ranch Specific Plan. Cumulative development can result in an ultimate decline of profitability of agriculture such that adjacent farmland owners may be induced to sell their properties in urbanizing areas. Given that implementation of the Newhall Ranch Specific Plan would eliminate 595 acres of prime and unique farmland, the Newhall Ranch Specific Plan's contribution to the cumulative impact of development on prime agricultural land in the region is considered significant. The conversion of agricultural lands to urban uses is a policy issue which lies in the hands of the local jurisdiction. The loss of agricultural production in Los Angeles County is not considered a significant impact, whereas, it may be a significant impact in another jurisdiction. Each cumulative project should be evaluated on a case-by-case basis relative to its impact on local agricultural productivity.

7. CUMULATIVE MITIGATION MEASURES

Because the conversion of agricultural lands to urban uses is a policy issue which lies in the hands of the local jurisdiction, this environmental impact report has no recommendation for mitigation for cumulative development impacts on regional agricultural resources.

8. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Specific Plan Impact

(1) Conversion of Prime Agricultural Land

The Newhall Ranch Specific Plan would result in the conversion of 595 acres of prime agricultural land to urban uses. The conversion of prime agricultural land, an irreplaceable resource, is a significant impact. No feasible mitigation exists for the conversion of 595 acres of prime agricultural land on the site due to implementation of the proposed Specific Plan; therefore, its conversion would be considered an unavoidable significant project impact.

(2) Loss of Agricultural Productivity

Implementation of the proposed Specific Plan would result in the permanent loss of agricultural productivity on 595 acres of prime agricultural land. However, as indicated previously, agricultural productivity on this farmland is already impaired. This land is not one continuous piece of property. Rather it is found in many small, sometimes isolated parcels, which are in some cases not level and are not irrigated due to their distance from existing water sources. Also, land located south of the Santa Clara River on the mesas can only be accessed via a series of temporary River crossings which frequently wash out in winter months and are costly to maintain. Such conditions make this land relatively more difficult and less economical to farm than larger parcels of land owned by The Newhall Land and Farming Company, and others, found to the west in Ventura County. Therefore, due to the existing impaired conditions under which this land is farmed, the agricultural impact of the Newhall Ranch Specific Plan with respect to the loss of agricultural productivity is not considered significant.

b. Cumulative Impact

The cumulative conversion of prime agricultural land to urban uses constitutes a loss of an irreplaceable resource and is considered to be a significant cumulative impact. No feasible mitigation exists for this conversion and it would be an unavoidable significant impact.

4.5 ENVIRONMENTAL SAFETY

1. SUMMARY

The Newhall Ranch Specific Plan is not expected to include any uniquely hazardous land uses. Uses proposed, such as manufacturing, would be expected to use and store chemicals and/or substances which are typically found in such urban settings. A portion of the site is presently used for crude oil and natural gas production. Because crude oil is not considered to be a hazardous material, residential and non-residential development in areas currently occupied by the oil production facilities would not, when remediated to local, State and Federal standards, result in environmental safety hazards to Specific Plan residents, employees, and/or visitors. Permanent development near abandoned oil and natural gas production wells, and development in proximity to remaining oil and natural gas production wells and flaring operations, which is typical of similar oil field operations throughout California, would be subject to the requirements of the California Department of Conservation, Division of Oil and Gas that would allow safe development of these areas to occur.

A series of electrical transmission lines traverse portions of the Newhall Ranch site. At present, there is no scientific consensus as to whether electromagnetic fields (EMFs) related to transmission/distribution lines pose a health threat; therefore, neither the State of California nor the County of Los Angeles has adopted a threshold of significance for EMFs. Only recreation, open areas, utilities, drainage structures, parking and roadway uses are proposed within the power line easements.

Development is proposed in close proximity to high pressure gas mains, which is common within California. California Public Utility Commission mandated safety requirements for regular inspection and maintenance of these mains reduce fire and explosion hazards associated with them to below the level of significance.[1]

A portion of the Newhall Ranch site lies in the dam inundation area of the Castaic/Forebay Reservoirs. Although the California Department of Water Resources Division of Safety of Dams regularly inspects and maintains dams under State jurisdiction, and although dam failure is a rare occurrence in the State, flooding of portions of the site as a result of dam inundation is remotely possible.

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1 Interview with Karen Clark, Operations Planner, Southern California Gas Company, Newhall, California, 11 January 1995.

Within the Specific Plan boundaries, no Proposition 65 pesticides (insecticides, rodenticides, herbicides, and fungicides) would be used in the common and public areas, or in areas that are currently farmed and which would be phased out as development occurs. Humans would not be subject to either acute overexposure or chronic exposure to pesticides if they are used and handled according to State and Federal regulations.

2. INTRODUCTION

The purpose of this discussion is to disclose the potential for environmental safety issues to occur on site and to recommend mitigation that would reduce identified significant impacts to below adopted thresholds of significance. Please refer to **Section 4.1 (Geotechnical and Soil Resources)** for a discussion of potential seismic safety hazards and to **Section 4.18 (Fire Services and Hazards)** for an assessment of the potential for wildfires on the Newhall Ranch site and within its vicinity.

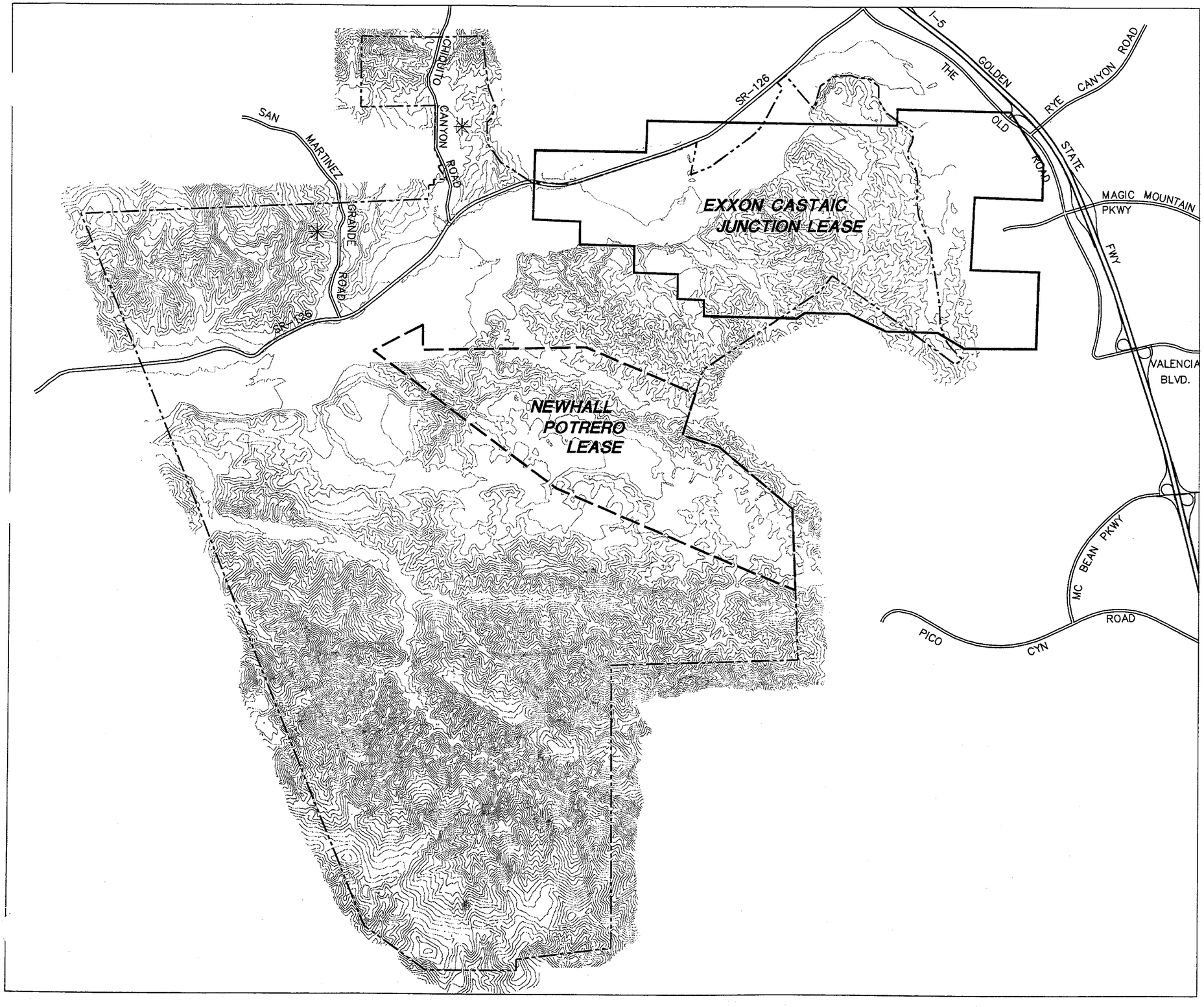
Potential impacts may result if development occurs in the following locations:

- adjacent to historic and continuing oil and natural gas production operations,
- in close proximity to the Southern California Edison electrical transmission lines,
- in close proximity to the SCGC high pressure gas lines,
- adjacent to State Route 126, upon which hazardous wastes are transported,
- in close proximity to Chiquita Canyon Landfill,
- within a dam inundation area, and
- adjacent to on-going agricultural operations.

3. EXISTING CONDITIONS

a. Existing Oil and Natural Gas Production Operations

There are two large oil and natural gas fields on the Newhall Ranch site: the Newhall Potrero Field operated by Medallion, and the Castaic Junction Field (which is in the process of being abandoned and remediated) previously operated by Exxon Company, USA (see **Figure 4.5-1, Major Oil Field Locations**). There are also two smaller fields on-site: the LBTH Field operated by Blair, and the Blackhawk Field operated by Vintage.



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Newhall Ranch Company

L E G E N D

- EXXON CASTAIC JUNCTION LEASE
- NEWHALL-POTRERO LEASE
- OTHER LEASES

IMPACT SCIENCES INC

NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

100 ACRES 400 ACRES

FIGURE 4.5-1
MAJOR OIL FIELD LOCATIONS

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(1) Newhall Potrero Field

The Newhall-Potrero Oil Field (shown in **Figure 4.5-2, Newhall-Potrero Oil Field Site Plan**) is an active field located within the central portion of the Newhall Ranch site. It lies within Potrero Canyon and produces oil and natural gas from an asymmetrical, northwesterly-plunging, faulted anticline that is approximately 4 miles long and 1 mile wide. The oil field comprises 1,470 acres and two leases: the Rancho San Francisco (RSF) lease of 1,270 acres and the Ferguson lease of 100 acres, both of which are operated by Medallion at the time of this writing. Although 100 acres of the oil and natural gas field lie outside of the Newhall Ranch Specific Plan boundaries, this acreage is discussed in this section because operations in this area could affect development on the Specific Plan site.

Shown on **Figure 4.5-2**, the production facility includes 163 well sites, six production satellite stations, a shipping tank area, a shop area, a warehouse area, tank batteries, water tanks, earthen sumps and pits, pipelines, and other production facilities. Of the 163 well sites, 119 are active or idle, and forty-four have been abandoned.

(2) Castaic Junction Field

The Newhall Land and Farming Company has purchased the oil lease for this field from Exxon, and Exxon, at the time of this writing, is in the process of terminating oil and natural gas production operations and remediating locations associated with its operations. As part of the lease purchase agreement, Exxon is responsible for remediating all sites.

The Castaic Junction oil field comprises 4,350 acres and is located within the northeastern portion of the Newhall Ranch site as shown in **Figure 4.5-3, Exxon Castaic Junction Oil Field Site Plan**. The production facility includes water tanks; office facilities; a water disposal system; tank batteries; condensate tanks; oil, injection, and gas wells; sumps; a flare station; a gas compressor plant area with a compressor unit, engine house, gas plant building, cooling towers, tanks for methanol, fuel and glycol, heater units, and miscellaneous other tanks; a chemical storage facility; heater treaters; drill pads; electrical panels with and without overhead transformers; and pumps, trenches, panels, and piping associated with the facilities. The field is partially under the Magic Mountain Theme Park, and there are several minor production facilities at the theme park site, including one drill pad, two productive wells, and one completed and abandoned well.

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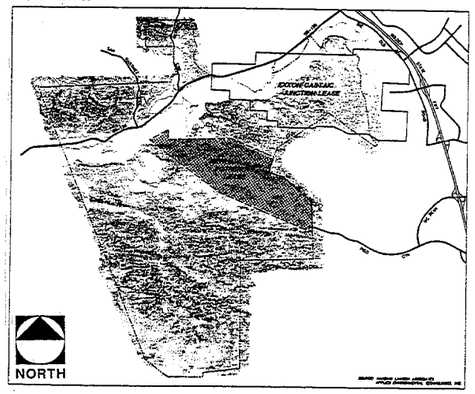
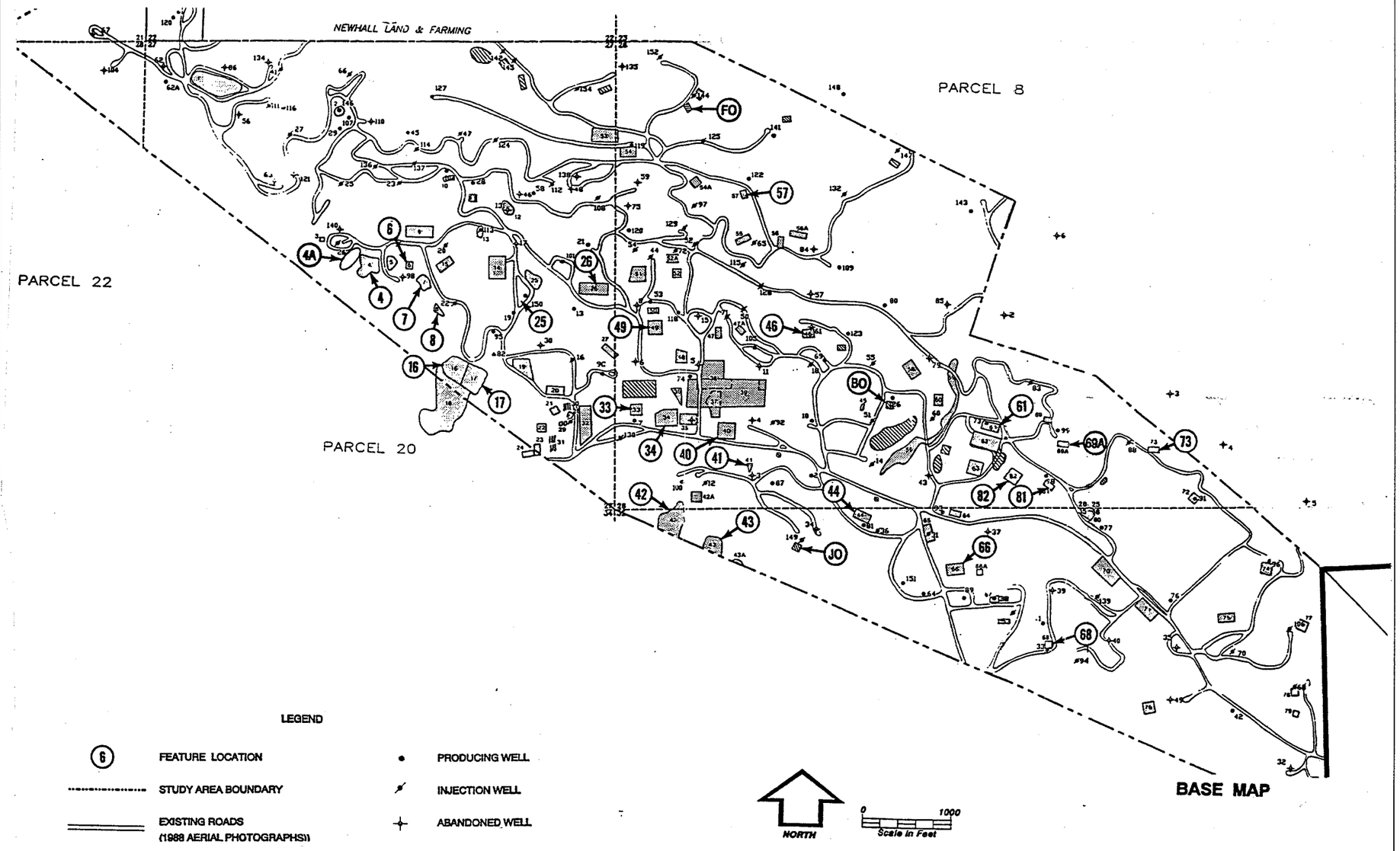
KEY MAP





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NORTH

FIGURE 4.5-2

NEWHALL-POTRERO OIL FIELD SITE PLAN

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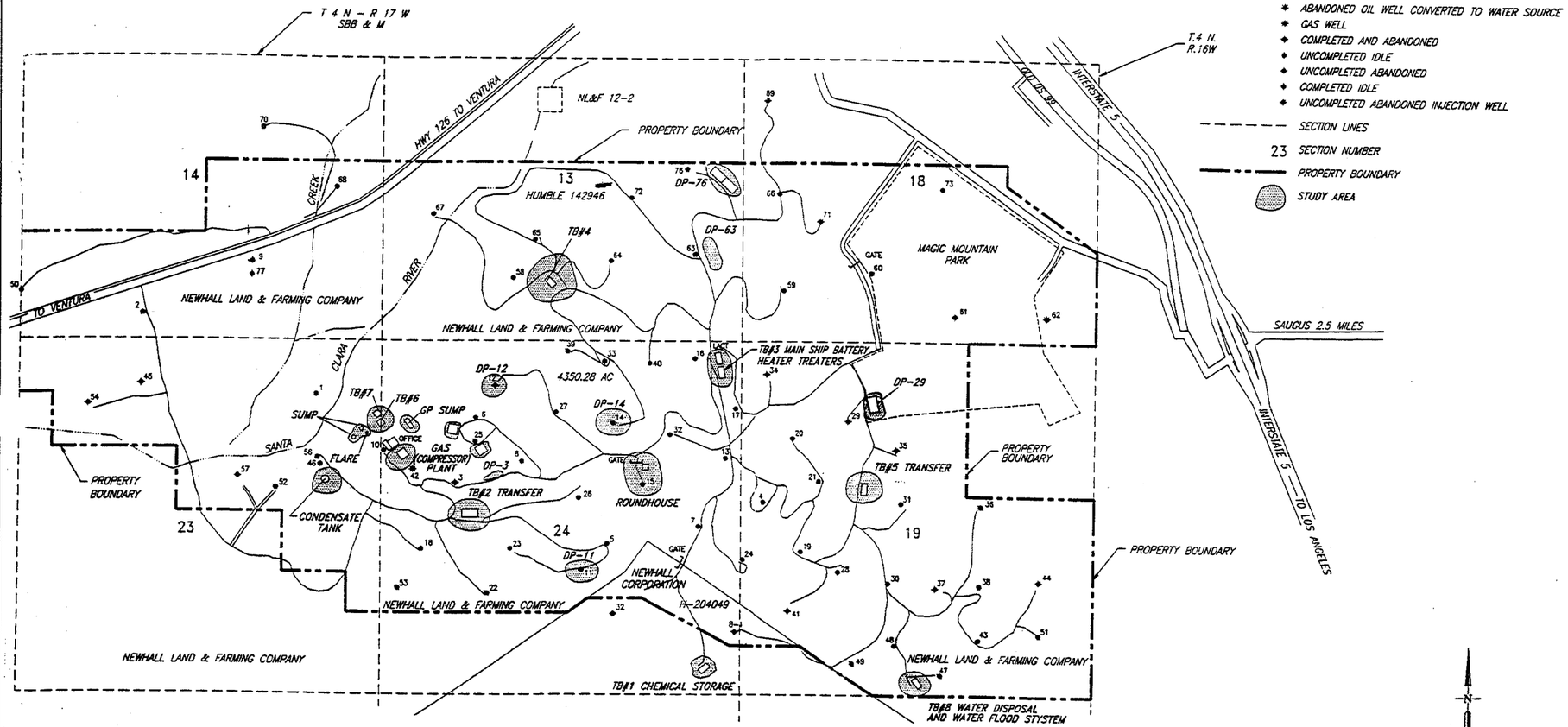

EXPLANATION

- TB TANK BATTERY
- PRODUCING OIL WELL (MUNGER 1991)
- DIRECTIONAL HOLE
- INJECTION WELL
- ABANDONED OIL WELL CONVERTED TO WATER SOURCE
- GAS WELL
- COMPLETED AND ABANDONED
- UNCOMPLETED IDLE
- UNCOMPLETED ABANDONED
- COMPLETED IDLE
- UNCOMPLETED ABANDONED INJECTION WELL
- SECTION LINES
- 23 SECTION NUMBER
- PROPERTY BOUNDARY
- STUDY AREA

NEWHALL RANCH

Newhall Ranch Company

KEY MAP

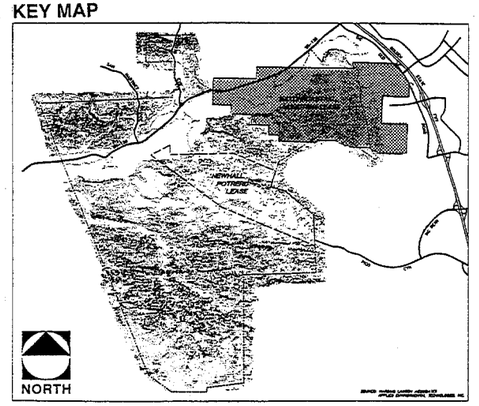

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FIGURE 4.5-3

EXXON CASTAIC JUNCTION OIL FIELD SITE PLAN

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(3) Smaller Fields

The two smaller oil and natural gas fields listed above occur north of the Santa Clara River. The LBTH Field is 40 acres in size and is located approximately one quarter of a mile north of SR-126 along the western side of Chiquito Canyon Road. The Blackhawk Field is 174 acres in size and is located north of SR-126, at the northwestern end of San Martinez Grande (see **Figure 4.5-1**). Both of these fields are active, and have producing wells which will remain in operation until operations are no longer economically justifiable. However, the mineral leases for these fields require that the lands be fully remediated in conjunction with abandonment of oil and natural gas production operations. Furthermore, State and local agencies require that, prior to disposal, the responsible party (or parties) demonstrate that soil containing crude oil does not contain materials designated as hazardous.

(4) Common Substances Found in Oil Fields

Substances that are commonly found on oil and natural gas fields include total petroleum hydrocarbons and aromatic volatile organic compounds. These are briefly described below:

(a) Total Petroleum Hydrocarbons

Total petroleum hydrocarbons (TPH) associated with crude oil production, storage, processing, and transport are the primary substances potentially present in on-site soils.

(b) Aromatic Volatile Organic Compounds

The most frequently occurring volatile organic compounds (VOCs) found in soils at oil and natural gas fields are xylenes and ethylbenzene, followed by toluene and benzene (benzene, toluene, ethylbenzene, and xylenes together are referred to as "BTEX"), all of which are commonly found in crude oil. The most frequently occurring semi-volatile organic compounds (SVOCs) are phenanthrene and 2-methylnaphthalene, and naphthalene, also typical of crude oil. Other SVOCs which could be found in small quantities include acenaphthene, acenaphthylene, benzo(a)anthracene, benzo(b)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, benzyl alcohol, chrysene, fluoranthene, ideno(1,2,3-c,d)pyrene, and pyrene.

Organic vapor may also be detected in an oil field. It is possible that petroleum hydrocarbon-contaminated soils associated with oil fields and abandoned wells are capable of generating methane gas through anaerobic biodegradation. Other potentially toxic organic vapors may also be generated, such as benzene.

b. Existing Southern California Edison Transmission Lines

The Newhall Ranch site is traversed by Southern California Edison 66 kilovolt (kV) and 220 kV transmission lines within a 300-foot easement in the northern portion of the site, and 66 kV and 230 kV transmission lines within a 75- to 240-foot (total width) easement in the central portion of the site.[2] Because high voltage electrical transmission lines create electromagnetic fields (EMFs) and because of on-going debate over the potential health effects of EMFs, they are discussed in this section.

Electromagnetic fields are created as electrical charges (current) pass through conductors and are formed in association with alternating current (AC) electrical power, which serves most of our electrical needs. AC electrical power does not flow steadily in one direction, but alternates back and forth 60 times each second; therefore, it is referred to as 60 hertz (Hz) electrical power. Two kinds of fields associated with 60 Hz power are electric fields which result from the strength of the charge, and magnetic fields which result from the motion of the charge. Taken together, these are referred to as electromagnetic fields. The strength of an electromagnetic field is affected by the distance from the source, the voltage of the object creating it, and the electrical/physical environment in which the conductor is placed.

In analyzing the impacts of EMFs, it is useful to look at the various EMF levels associated with typical household appliances as a benchmark example. The most common unit of measurement of the strength of magnetic fields is the gauss (G). Since the gauss is a large unit of measurement, the milligauss (mG), or 1/1,000 of a gauss, is used to report the strength of magnetic fields associated with most objects. For comparison purposes, the typical American home has a background magnetic field level (away from any appliances) ranging from 0.5 mG to 4 mG.[3] **Table 4.5-1, Magnetic Field Levels for Common Household Appliances** contains a listing of the magnetic field levels associated with various household appliances at varying distances.

2 These regional transmission lines originate at two locations, the Saugus Substation east of Interstate 5 across from the Magic Mountain Park Theme, and at the Pardee Substation at the Valencia Industrial Park east of Interstate 5 and north of the Santa Clara River.

3 United States Environmental Protection Agency, Office of Radiation and Indoor Air Pollution, EMF in Your Environment, Magnetic Field Measurements of Everyday Electrical Devices, (Washington, D.C.: December 1992).

Table 4.5-1
Magnetic Field Levels for Common Household Appliances

Appliance	Distance From Source (feet) 0.5	1.0	2.0	4.0
Blender				
Lowest	30	5	1	-
Median	70	10	2	-
Highest	100	20	3	-
Can Opener				
Lowest	500	40	3	-
Median	600	150	20	2
Highest	1500	300	30	4
Refrigerators				
Lowest	-	-	-	-
Median	2	2	1	-
Highest	40	20	10	10
Color TVs				
Lowest		-	-	-
Median		7	2	-
Highest		20	8	4
Vacuum Cleaners				
Lowest	100	20	4	-
Median	300	60	10	1
Highest	700	200	50	10

Source: U.S. Environmental Protection Agency, EMF in Your Environment; Magnetic Field Measurements of Everyday Electrical Devices, (Washington DC: Radiation and Indoor Air Radiation Studies Division, December 1992).

[1]*The dash (-) indicates that the magnetic field measurement at this distance from the operating appliance could not be distinguished from background measurements taken before the appliance had been turned on.*

According to the United Stated Environmental Protection Agency (U.S. EPA), the magnetic field of a typical 230 kV transmission line would probably be less than 120 mG at a distance of 20 feet, 15 mG at a distance of 100 feet, and less than 2 mG at a distance of 300 feet.[4] From these examples, it is clear that, as the distance from the source of the magnetic or electric field increases, the level of exposure is reduced substantially.

Exposure to 60 Hz EMFs produces weak electric currents inside the body by a process called induction. According to a Library of Congress Congressional Research Service Issue Brief, "a growing amount of research indicates that these currents may alter the binding of molecules to receptors on the surface of

4 U.S. EPA, Questions and Answers about Electric and Magnetic Fields (EMFs), (Washington, D.C., December 1992), p. 3.

the cell membrane [which] may disrupt membrane signaling events, and trigger abnormal biochemical reaction."[5] Just what this finding means in terms of the effects of EMFs on our overall health has been the focus of a number of research efforts. Although many studies have been done on this topic to date, their findings are inconclusive.

For example, to quote from the Journal of the American Medical Association:

> Some, but not all, epidemiological studies of health among populations exposed to ambient low-power frequency EMF show associations between exposure to EMF and health effects. However, because of the poor and inconsistent exposure assessment in these studies, the absence of an appropriate dose-response relationship, and absence of supporting laboratory evidence, any conclusion of human health risks at this time is premature.[6]

In addition, the British National Radiological Protection Board concludes,

> the epidemiological findings that have been reviewed provide no firm evidence of the existence of a carcinogenic hazard from exposure of paternal gonads, the fetus, children, or adults to the extremely low frequency electromagnetic fields that might be associated with residence near major sources of electricity supply, the use of electrical appliances, or work in the electrical, electronic, and telecommunications industry.[7]

Because it is not possible to establish a clear relationship between EMF exposure and human health effects, there are no generally accepted criteria for determining acceptable, or hazardous, levels of electromagnetic fields.

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5 C. Stephen Redhead and Christopher H. Dodge, CRS Issue Brief: Health Effects of Power-Line Electromagnetic Fields (EMFs), (Washington, D.C.: Congressional Research Service, The Library of Congress, Updated February 8, 1993), p. CRS-3.

6 Leonard A. Sagan, M.D., "Epidemiological and Laboratory Studies of Power Frequency Electric and Magnetic Fields," Journal of the American Medical Association 268(5) (August 5, 1992): 628.

7 Leonard A. Sagan, M.D., "Epidemiological and Laboratory Studies of Power Frequency Electric and Magnetic Fields," Journal of the American Medical Association 268(5) (August 5, 1992): 628.

The California Public Utilities Commission (CPUC), in its on-going investigations of EMFs, has also noted that recent studies have failed to establish that an EMF health hazard actually exists, or that there is a clear cause-and-effect relationship between utility property or operations and public health. Thus, rather than establish new regulations based on specific EMF levels, the CPUC has elected to continue research efforts regarding potential health hazards and examine ways to minimize EMF exposures along existing or future transmission line rights-of-way.[8]

(1) Regulatory Controls

There are no Federal regulations for restricting human exposure to power-line EMFs; however, seven states have established limits on electric field strengths at the edge of power-line rights-of-way, and two have established limits on magnetic field strength.[9] In addition, some state utility commissions have issued their own EMF guidelines. There are no similar requirements in California; however, the California State Board of Education requires that schools be sited more than 100 feet from the edge of the right-of-way of 100-110 kV lines; 150 feet from 220-230 kV lines; and 250 feet from 345 kV lines.[10] The Los Angeles County Department of Health Services also has no standards for EMF exposure, has no guidelines for new development in proximity to sources of EMFs, and does not anticipate adopting standards or guidelines in the near future.[11]

(2) On-Site Magnetic Field Levels

While no magnetic field assessment has been performed for the Newhall Ranch site, EMF levels were calculated by SCE[12] just east of the site for the same lines which cross the site. SCE reported that, at the edge of the edge of the right-of-way, EMF levels are 4.3 mG. At a distance of 100 feet from the edge of the right-of-way, EMF levels dropped to 1.1 mG. These levels are consistent with levels found along similar electrical transmission lines throughout California.

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8 Decision 93-11-013, Before the Public Utilities Commission of the State of California, Order Instituting Investigation on the Commission's Own Motion to Develop Policies and Procedures for Addressing the Potential Health Effects of Electric and Magnetic Fields of Utility Facilities, dated 2 November 1993.

9 According to the Congressional Record Service, Florida, Oregon, New York, New Jersey, Minnesota, Montana, and North Dakota have established limits on electric field strength at the edge of transmission line rights-of-way to between 1 and 10 kV/m. Florida and New York have established a limit of 150-250 mG on the magnetic field strength at the edge of rights of way.

10 Louis Slesin, Matthew Connelly, and David Bergman, Electromagnetic Fields and Land-Use Controls, (Washington, D.C.: American Planning Association, December 1991), p. 11.

11 Interview with Kathleen Kaufman, Director of Radiation Management, Los Angeles County Department of Health Services, Los Angeles, California, 31 July 1995.

12 Magnetic Field Assessment of SCE Facilities Adjacent to Tentative Tract 45433, Southern California Edison,

c. Existing SCGC High Pressure Line

There are two Southern California Gas Company (SCGC) high pressure gas mains on the site, including a 34-inch main within a 25- to 30-foot-wide easement which traverses the central portion of the site, and a 12- to 16-inch main which originates at the Ventura County line and generally follows Potrero Valley Road and Pico Canyon Road to I-5.

The Southern California Gas Company has a safety program which has reduced the risk of gas distribution fires by improving welds on the larger diameter (24- to 30-inch) pipelines and by replacing old distribution pipes with flexible plastic pipes.[13] According to SCGC staff, high pressure gas mains are common in developed areas throughout the country, and SCGC lines are inspected regularly and must comply with California Public Utilities Commission mandated safety requirements.[14] However, in the event that a gas main is ruptured, explosion and fire could result.

d. Transport of Hazardous Materials Along SR-126

The transport of hazardous materials throughout the State of California is regulated by the California Highway Patrol (CHP). The Hazardous Materials Section of the CHP, located in Sacramento, licenses companies that haul hazardous materials. Three categories of hazardous materials are regulated by the CHP in that their transport is limited to designated routes and stopping places. These categories include explosives, inhalation hazard materials (i.e., materials that are poisonous if inhaled), and radioactive materials. Title 13, California Code of Regulations, Division 2, Chapter 6, Articles 1., 2.5 and 2.7 identify State Route 126 as a designated route for the transport of explosive and inhalation materials, but not for radioactive materials.[15] Therefore, it is very likely that explosives and inhalation hazard materials are transported on Highway 126 and that, although not common, there is a potential for accidental explosions or releases of hazardous gases to occur.

In the event of a spill, or release of hazardous gases, the Ventura County Environmental Health Division and/or the Los Angeles County Fire Department Hazardous Material Unit (located at Fire Station 72, 27223 Henry Mayo Drive, which is the closest fire station to the Newhall Ranch site in the

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13 County of Los Angeles Department of Regional Planning, "Safety Element" in the County of Los Angeles General Plan (Los Angeles, California: December 1990), p. 4-10.

14 Interview with Karen Clark, Operations Planner, Southern California Gas Company, Newhall, California, 11 January 1995.

15 Brenda Theveny, Brobeck, Phleger & Harrison, correspondence to Impact Sciences, Inc., 30 March 1995.

Santa Clarita Valley) would provide response coordination, spill identification, and clean-up supervision. Local law enforcement and fire authorities would provide traffic control and spill containment. County response personnel would be coordinated with appropriate State, and if necessary, Federal response agencies.

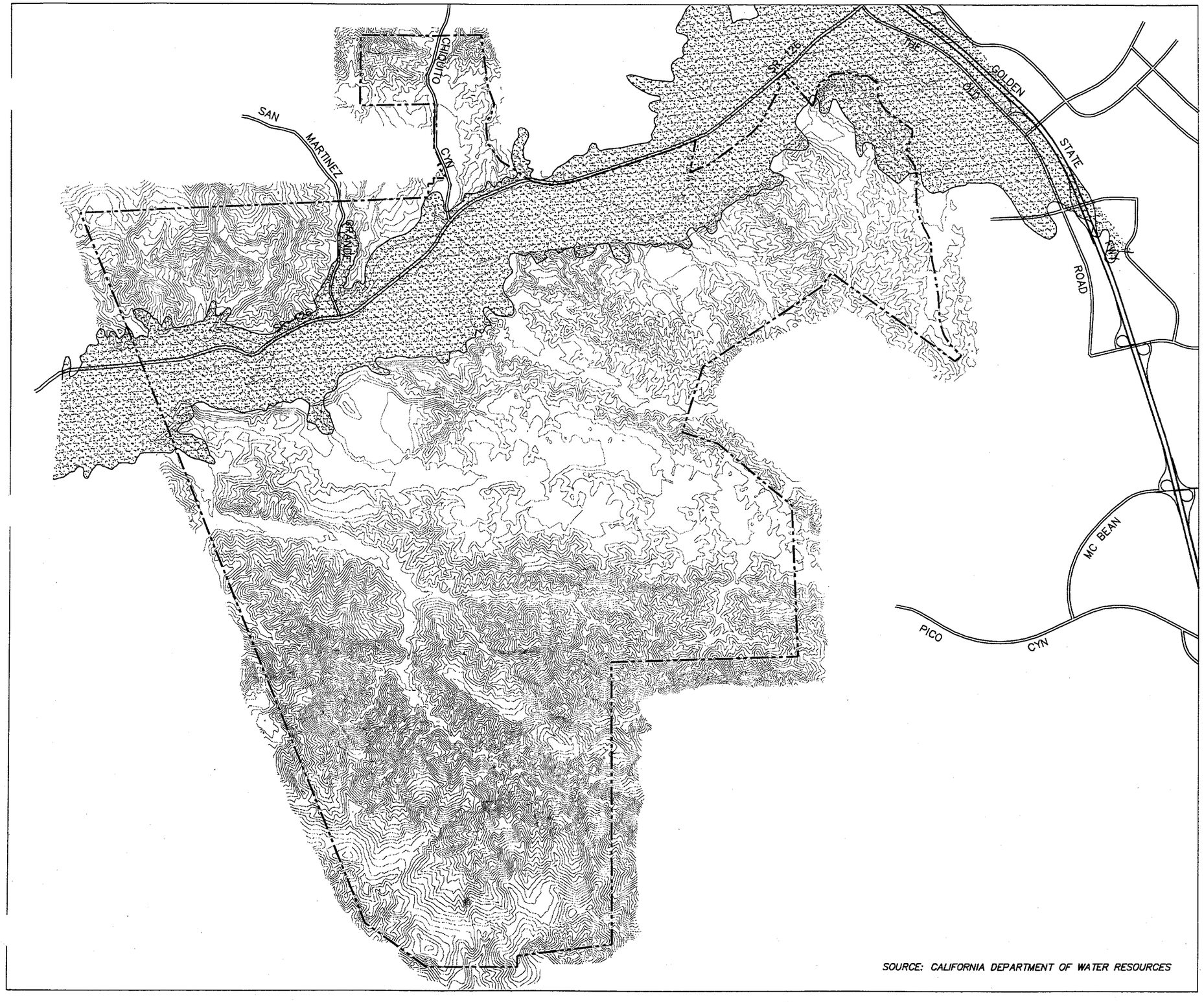
e. Chiquita Canyon Landfill

Chiquita Canyon Landfill, a Class III (non-hazardous) landfill, is located immediately east and north of the Newhall Ranch site. At the time of this writing, it receives approximately 2,500 tons of solid waste daily during a seven-day operating week, and the landfill operators have filed an expansion proposal which includes sedimentation basins, drainage structures, roads, a new flare station, and composting facilities to allow up to 10,000 tons per day. In addition, a Materials Recovery Facility and recyclable household hazardous waste center is proposed at the landfill (please refer to **Section 4.15, Solid Waste Disposal**, for more information on this landfill).

By law, landfills must be lined with clay, synthetic fabric, or other types of liners to not only prevent water from entering the refuse area of the landfill, but also to prevent water and other materials from entering ground or surface waters. In addition, all landfills must have collection systems, monitoring wells, and other surveillance programs established to ensure the environmental safety of the facility both during its operation and upon its closure. Environmental issues which are of concern regarding the operation of a landfill include, but are not limited to the following: odors, leachate, methane gas migration, water quality, dust generation, windblown refuse, and increased truck traffic. These potential impacts, however, are mitigated through landfill design, construction, and maintenance in accordance with Federal, State, and local regulations.

f. Dam Inundation Area

The Castaic and Forebay Reservoirs are contained by earthen dams that were constructed on Castaic Creek in 1974. Based on the California Department of Water Resources Dam Inundation Map for Castaic Dam, approximately 1,960 acres of the Newhall Ranch site are currently located within the dam inundation area. **Figure 4.5-4, Castaic Lake Dam Inundation Area,** shows the Newhall Ranch area which would be affected by dam failure; it is difficult if not impossible to estimate the actual risk of dam failure, which is dependent upon a number of factors, such as the structural integrity of the dam, the probability that the reservoir would be filled to peak capacity, the likelihood of catastrophic earthquake, and many other unknown variables, such as the long-term threat of underlying geologic



SOURCE: CALIFORNIA DEPARTMENT OF WATER RESOURCES

NEWHALL RANCH™
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L E G E N D

INUNDATION AREA

IMPACT SCIENCES INC

NORTH

100 ACRES 400 ACRES

English 0 1000' 2000'

Metric 0 225m 450m 900m

FIGURE 4.5-4
CASTAIC LAKE DAM
INUNDATION AREA

1/96

hazards.[16] The dam inundation area was delineated in 1975 in compliance with Section 8589.5 of the California Government Code. It is based on an assumed catastrophic failure of the dam during peak storage capacity and encompasses all probable routes that a flood might follow after exiting the dam or canyon opening. Division 3 of the California Water Code places the responsibility for dam safety under the jurisdiction of the California Department of Water Resources Division of Safety of Dams. This agency is responsible for regular inspection and maintenance of dams under State jurisdiction. According to the chief of this division, development is permitted within a dam inundation area.[17]

Most failures of earthen dams are caused by foundation failures, inadequate spillways, and poor construction and site selection; less than one percent of the 308 recorded worldwide dam failures between 1766 and 1944 are attributable to earthquakes.[18] The embankments of the Castaic Lake Dam, which are the components of a dam most likely to fail during an earthquake, are composed of strong and densely compacted materials. According to the Los Angeles County Safety Element, "most engineered, mechanically-compacted dam embankments or fills of earth or rock materials have performed well under seismic shaking."[19] The dams held up well during the Northridge Earthquake (magnitude 6.8 on the Richter Scale) with no signs of damage reported, and are likely to hold up well during other earthquakes of similar, if not greater magnitude.[20]

g. Existing On-Site Agricultural Operations/Pesticide Use

The pesticides discussed in this section include insecticides, rodenticides, herbicides, and fungicides, since they are used and stored on and adjacent to the Newhall Ranch site. A pesticide is any substance used to kill crop pests, such as insects, rodents, weeds, and fungi. They are inherently toxic and, used improperly, can have adverse effects on human health and the environment. None of the pesticides used on any land owned by The Newhall Land and Farming Company are hazardous enough to receive a Proposition 65 warning.

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16 County of Los Angeles Department of Regional Planning, "Safety Element" in the County of Los Angeles General Plan (Los Angeles, California: December 1990), p. 3.85.

17 Interview with Vernon Persson, Chief of the Division of Safety of Dams, Department of Water Resources, Sacramento, California, 8 March 1995.

18 County of Los Angeles Department of Regional Planning, "Safety Element" in the County of Los Angeles General Plan (Los Angeles, California: December 1990), p. 3.85.

19 County of Los Angeles Department of Regional Planning, "Safety Element" in the County of Los Angeles General Plan (Los Angeles, California: December 1990), p. 3.85.

20 Interview with Vernon Persson, Chief of the Division of Safety of Dams, Department of Water Resources, Sacramento, California, 14 April 1995.

(1) Regulatory Controls

Pesticides are regulated by the Federal government under the 1947 Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). FIFRA establishes registration and labeling requirements for pesticides, herbicides, and other economic poisons. Registration requires documentation that the pesticide will not damage human health or the environment if used as intended. FIFRA prohibits the sale of any economic poison that has not been registered by the U.S. Environmental Protection Agency (U.S. EPA). The California Department of Food and Agriculture (CDFA) is the principal agency responsible for the regulation of pesticide sales and use in the State. Specifically, it registers and classifies pesticides, licenses professional agricultural pest control operations and advisors, monitors pesticide residues in food samples, and promulgates pesticide use and worker safety regulations. Section 11501 of the California Food and Agricultural Code requires pesticide applications to be confined to their target and to avoid contamination of non-target properties; violations can result in either civil penalties or a revocation of a pesticide use permit.

The California Department of Health Services (DHS) has an advisory role with respect to pesticide use and exposure. It conducts studies and investigates cases of pesticide exposure, conducts toxicological evaluations and risk assessments, and provides educational programs for physicians on diagnosing and treating pesticide poisonings. On a local level, if the U.S. EPA determines that a pesticide has the potential to cause human injury or environmental damage, its use is restricted and a permit from the local agricultural commissioner is required for its purchase and use. Furthermore, restricted pesticides are only available for retail sale to and use by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

(2) Pesticides Used On the Newhall Ranch Specific Plan Site

Specific pesticides used and stored on the Newhall Ranch site are listed in **Table 4.5-2, Pesticides Used on the Newhall Ranch Site**. Agricultural uses are likely to continue on the site as development takes place. Eventually, urban land uses will completely replace the agricultural uses on site. Agricultural activities and pesticide use to the west of the site in Ventura County are assumed to continue indefinitely.

Table 4.5-2
Pesticides Used on the Newhall Ranch Site[1]

Insecticides	Rodenticides	Herbicides	Fungicides
Pounce	PCQ Squirrel Bait	Dacthal	Ridomil
Diazinon	Gopher Getter	Caparol	
Asana Insecticide		Roundup	
Lannate Insecticide		Simazine	
		Krovar/Diuron	
		Karmex/Diuron	

Source: The Newhall Land and Farming Company (December 1994).
[1]*None of the pesticides listed in this table are regulated by Proposition 65.*

Pesticides exert adverse effects on living organisms, including non-target organisms, such as non-pest plants and animals in or near a treated area. The four variables that determine the degree to which a non-target organism is affected include: the chemical and physical properties of pesticides, their mode of application, and their route of entry and rate of absorption into the blood stream.

The chemical and physical properties of a pesticide determine the potential toxic effects it can have on humans. Every pesticide is divided into one or two classes by the U.S. EPA based on its toxicity, its intended use, and its environmental impact. A pesticide listed for general use is considered to present little or no danger to either the applicator or the environment if it is used as directed.

Pesticides may be applied either by broadcast spraying (spraying a fine mist over the target - usually from an aircraft or a land vehicle) or by topical application (placing the pesticide directly on or in the vicinity of the target). Broadcast spraying can result in the dispersion of pesticides into adjacent non-target areas (especially during windy conditions); therefore, some pesticides that are applied in this manner are strictly regulated.

4. SPECIFIC PLAN IMPACTS

a. Significance Threshold Criteria

Significance criteria under CEQA Guidelines state that:

> a project will normally have a significant effect on the environment if it will create a potential public health hazard or involve the use, production or disposal of materials which pose a hazard to people or animal or plant populations in the area affected. (Appendix G, item v.)

There is no known EMF exposure threshold level for biological effects,[21] and the County of Los Angeles has no threshold of significance for EMFs.

b. Specific Plan Impacts

(1) Oil and Natural Gas Production Operations

Crude oil is not listed as a hazardous material in the California Health and Safety Code (Division 20, Chapter 6.5, Article 13, Management of Used Oil). In general, crude oils that have been removed from the ground and placed in pits or sumps have to be certified as non-hazardous according to the California Health and Safety Code. Spilled crude oil which enters either surface or ground water would be subject to clean-up regulations specified by the Regional Water Quality Control Board. There are no established regulatory clean-up levels for dissolved TPH in ground water; rather, clean-up levels are usually determined by appropriate regulatory agencies on a case-by-case basis.

If development is to occur on the site in the areas where oil and natural gas production has occurred, each area must be remediated per State law. If such areas are to be developed in the future, the methods of remediation could include any of the following: stabilization, on-site incineration, off-site landfilling, bioremediation, and use in cold-batch asphalt.

The mineral leases with the operating companies require the clean-up of sites in conjunction with abandonment of the lease. Once these sites have been remediated to local, Federal and State standards, they would be considered safe for development, would not pose a hazard to people, animal, or plant populations, and would, therefore, not result in a significant impact. In addition to development occurring in areas no longer in production, development is likely to encroach in areas where oil and natural gas operations are on-going. Such an occurrence is common in southern California and is generally not a source of significant impacts if on-going oil and natural gas related facilities are secured from public access by proper fencing and are accessible to maintenance crews. Given that all such facilities which would occur in development areas would need to be fenced and gated by State law, the Newhall Ranch Specific Plan would not create a potential public health hazard or involve the use, production or disposal of any materials which pose a hazard to people, animal, or plant life populations from oil and natural gas production operations. Therefore, the Specific Plan would not have a significant effect on the environment relative to development at former or adjacent to on-going oil and natural gas production.

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21 Taylor Moore, "Exploring the Options for Magnetic Field Management," Electric Power Research Institute Journal (October/November 1993), p. 7.

(2) SCE Transmission Lines

As indicated previously, the California State Board of Education requires that no schools be sited 100 feet from the edge of the right-of-way of 100-110 kV lines; 150 feet from 220-230 kV lines; and 250 feet from 345 kV lines. No schools are proposed within approximately 500 feet of SCE transmission lines within the Specific Plan area, which is consistent with the aforementioned restrictions.

Because there is no established threshold of significance for exposure to EMFs, there would be no significant impact associated with placing development adjacent to SCE transmission easements. However, in light of public debate over EMFs and inconclusive findings of the research that has been conducted on this issue, as well as easement restrictions, the Specific Plan designates only Open Areas, recreation, utilities, drainage structures, parking and roadway uses within the SCE transmission line easements; no permanent habitable structures (i.e., residences, businesses, schools, etc.) would be located within these easements. The Newhall Ranch Specific Plan would not expose people, animal, or plant life populations to known health hazards from SCE transmission lines and would, therefore, not result in a significant impact.

(3) High Pressure Gas Line

According to SCGC staff, the high pressure gas lines on the Newhall Ranch site would not pose a significant environmental safety impact to future residents of the site. Similar high pressure gas lines located close to development commonly occur throughout California and the Santa Clarita Valley. SCGC lines are inspected regularly and must comply with California Public Utilities Commission mandated safety requirements. Such safety precautions are also taken on the high pressure gas lines within the site and no significant impacts associated with placing development in close proximity to these lines would occur. The Newhall Ranch Specific Plan would not expose people, animal, or plant life populations to potential health hazards from SCGC high pressure gas lines and would not result in a significant impact relative to placing development in proximity to these lines.

(4) Transport of Hazardous Wastes Along SR 126

Because hazardous materials can be transported on State Route 126, increased traffic on this highway could increase the potential for an accident involving a hauler of these substances. Because the hauler of these substances must be trained and licensed, and because their transport is highly regulated and

monitored, the potential for an accident involving explosive and inhalation materials is diminished to below the threshold of significance. The Newhall Ranch Specific Plan would not expose people, animal, or plant life populations along SR-126 to significant health hazards associated with hazardous material transport and no significant impacts would occur.

(5) Chiquita Canyon Landfill

As indicated above, landfills must, by law, be lined with clay, synthetic fabric, or other types of liners to not only prevent water from entering the refuse area of the landfill, but also to prevent water and other materials from entering ground or surface waters. In addition, all landfills must have collection systems, monitoring wells, and other surveillance programs established to collect and monitor possible occurrences of odors and methane gas, and to ensure the environmental safety of the facility both during its operation and upon its closure.

Los Angeles County Building Code, Section 308(c), states that all buildings and structures located within 1,000 feet of a landfill containing decomposable material (in this case the Chiquita Canyon Landfill) shall be provided with a landfill gas migration protection and/or control system. Land uses associated with the Specific Plan that are potentially within 1,000 feet of the active landfill area include the proposed Business Park to be located on the east side of Chiquito Canyon Road and possibly the proposed Commercial uses to be located along the south side of SR-126 near the entrance to the landfill. Any buildings or structures to be constructed in this area that are within 1,000 feet of the active landfill area would be required to meet all Federal, State and County Code requirements pertaining to methane gas. Due the Federal, State, and local government regulations and conditions placed on the design, construction, operation, and maintenance of the Chiquita Canyon Landfill, impacts associated with placing development in close proximity to the landfill fall below the threshold of significance. Therefore, development proposed by the Newhall Ranch Specific Plan in close proximity to the Chiquita Canyon Landfill would not expose people, animal, or plant life populations to potential health hazards and would not result in a significant impact.

(6) Dam Inundation Area

Dams are regularly inspected and maintained by the California Water Resources Division of Safety of Dams. Since 1928, there have only been two major failures and one near dam failure within the County. Nonetheless, dam failure is remotely possible and, under a worst case scenario, approximately 1,960 acres of the Newhall Ranch site and the development areas proposed within it could be inundated should the Castaic and Forebay Reservoir dams fail. Given the continuous efforts of the Division of

Safety of Dams of the Department of Water Resources to inspect and maintain the structural integrity of the State's dams, the Newhall Ranch Specific Plan would not expose people, animal, or plant life populations to potential health hazards associated with dam failure and would not result in a significant dam inundation impact.

(7) Agricultural Activities/Pesticide Use

If pesticides continue to be used on agricultural lands on and adjacent to the Newhall Ranch site, Specific Plan residents may be minimally and only incidentally exposed to them. It is expected that these pesticides would be applied according to State requirements and to manufacturer recommendations, and that the average resident would not be subject to acute overexposure or chronic exposure to any of these or other pesticides.

Within the site boundaries, pesticides (insecticides, herbicides, and fungicides) are being used, and they would continue to be used in the future in areas which would be farmed until developed. However, it is not expected that humans would be subject to either acute overexposure or chronic exposure to them if these substances are handled according to Federal, State, and local law. Therefore, on-site use of pesticides would not create a potential public health hazard or significant impact. The Newhall Ranch Specific Plan would not expose people, animal, or plant life populations to known significant health hazards, and would not result in a significant impact relative to continued use of pesticides on and adjacent to the Newhall Ranch site.

5. SPECIFIC PLAN MITIGATION MEASURES

a. Mitigation Measures Already Incorporated into the Specific Plan

4.5-1. All final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100-110 kV lines; 150 feet from 220-230 kV lines; and 250 feet from 345 kV lines.

4.5-2. Only non-habitable structures shall be located within SCE easements.

b. Mitigation Measures Recommended by the EIR

4.5-3. Prior to issuance of grading permits, all abandoned oil and natural gas-related sites must be remediated to the satisfaction of the California Department of Oil and Gas, the Los Angeles County Hazardous Materials Control Program, the South Coast Air Quality Management District, and/or the Regional Water Quality Control Board (Los Angeles region).

4.5-4. All on-going oil and natural gas operational sites adjacent to or in close proximity to residential, mixed-use, commercial, business park, schools, and local and Community Parks shall be secured by fencing and emergency access to these locations shall be provided.

4.5-5. The Specific Plan is to meet the requirements of SCGC in terms of pipeline relocation, grading in the vicinity of gas mains, and development within Southern California Gas Company easements. These requirements would be explicitly defined by SCGC at the future tentative map stage.

4.5-6. All potential buyers or tenants of property in the vicinity of Southern California Gas Company transmission lines are to be made aware of the line's presence in order to assure that no permanent construction or grading occurs over and within the vicinity of the high-pressure gas mains.

4.5-7 In accordance with the provisions of the Los Angeles County Building Code, Section 308(d), all buildings and enclosed structures that would be constructed within the Specific Plan located within 25 feet of oil or gas wells shall be provided with methane gas protection systems. Buildings located between 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current rules and regulations of the State of California Division of Oil and Gas.

4.5-8 In accordance with the provisions of the Los Angeles County Building Code, Section 308(c), all buildings and structures located within 1,000 feet of a landfill containing decomposable material (in this case the Chiquita Canyon Landfill) shall be provided with a landfill gas migration protection and/or control system.

4.5-9 In accordance with the provisions of the Los Angeles County Code, Title 11, Division 4, Underground Storage of Hazardous Materials regulations, the County of Los Angeles Department of Public Works shall review, prior to the issuance of building permits by the County of Los Angeles, any plans for underground hazardous materials storage facilities (e.g., gasoline) that may be constructed or installed within the Specific Plan.

6. CUMULATIVE IMPACTS

As Environmental Safety is a site-specific issue in this case, no impacts would occur related to cumulative development.

7. CUMULATIVE MITIGATION MEASURES

None identified.

8. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Specific Plan Impacts

As long as the sites of the oil production facilities are remediated to the satisfaction of the State and County and as long as the Newhall Ranch Specific Plan complies with Division of Oil and Gas development requirements for the capping of closed wells and the fencing of the remaining operating facilities, no unavoidable significant safety impacts associated with development on these sites are expected.

No development is proposed to occur within the SCE easements; therefore, no unavoidable significant impacts associated with EMFs would occur.

No unavoidably significant impacts associated with placing development close to natural gas lines would occur given the continuous efforts on the part of the Southern California Gas Company to inspect and maintain their pipelines, and to meet CPUC-mandated safety requirements.

Because the haulers of hazardous materials must be trained and licensed, and because the transport of hazardous materials is highly regulated and monitored, the transport of hazardous wastes along SR-126 would not result in unavoidable significant impacts.

Due to design, Federal, State and local government regulations, and conditions placed on the Chiquita Canyon Landfill relative to public health and safety requirements, Specific Plan development in proximity to this landfill would not result in unavoidable significant environmental safety impacts.

Given the continued efforts of the Division of Safety of Dams of the Department of Water Resources to maintain the structural integrity of the State's dams, there is no reason to believe that the Castaic and Forebay Reservoirs would be more subject to dam failure than other earthen dams in California. There would be no significant impact relative to placing development in the dam inundation area.

No pesticides listed under Proposition 65 are being used on the Newhall Ranch Specific Plan site or on land owned by The Newhall Land and Farming Company to the west of the site in Ventura County at the time of this writing. No unavoidable significant impacts associated with pesticides would occur.

b. Cumulative Impacts

None identified.

4.6 Biota

4.6 BIOLOGICAL RESOURCES

1. SUMMARY

A biological investigation was conducted on the Newhall Ranch Specific Plan area. The results indicated that the Newhall Ranch Specific Plan area has a high diversity of biological resources, including sensitive species and habitats. In addition, portions of the Specific Plan area are important wildlife corridors and habitat linkages between large contiguous blocks of open area. These include the Santa Clara River Corridor (referred to as the River Corridor Special Management Area) and the area located in the southern portion of the parcel in the Santa Susana Mountains (referred to as the High Country Special Management Area). Both of these areas have been identified and designated as Significant Ecological Areas by Los Angeles County and have been preserved as such by the Specific Plan, although modified as described herein.

Results of an evaluation of habitat quality indicated that the Newhall Ranch Specific Plan area contains habitat of varying 'conservation value' quality. These results were used to identify those areas with higher value in terms of conservation biology, and to develop a plan to manage habitats present to minimize impacts to the most sensitive biological resources.

The Specific Plan proposes to preserve as undeveloped land a total of approximately 6,831 acres (or 57 percent of the site); however, portions of development of the Newhall Ranch Specific Plan would occur in some sensitive upland and riparian habitats. Therefore, the Newhall Ranch Specific Plan will have significant impacts on the biological resources located on the site. However, mitigation is provided that is intended to reduce Newhall Ranch Specific Plan impacts to riparian, wetland, and aquatic resources (located along the Santa Clara River Corridor) to below CEQA thresholds of significance. While mitigation is also provided to reduce the level of impacts to upland resources, certain of these impacts are expected to remain at a significant level. Also, the Specific Plan would, despite the preservation of the major wildlife corridor, significantly impact the ability of animals to move across portions of the site.

2. INTRODUCTION

The biological resources present on the Newhall Ranch Specific Plan site are described in this section. This information has been derived from extensive biological investigations, the results of which are presented in the document entitled Biota Report, Newhall Ranch Specific Plan prepared for the Los Angeles County Department of Regional Planning by RECON and Impact Sciences dated September 7, 1995 and updated March 15, 1996. This Biota Report is provided in its entirety in **Appendix 4.6** of this EIR.

The Biota Report was prepared using the results of a review of literature and information sources concerning the occurrence of sensitive biological resources in the area, as well as seasonal biological field surveys of the Newhall Ranch Specific Plan area. A field reconnaissance of the site was conducted in 1988 by Dames & Moore. This included mapping of the site's vegetation and habitat types and surveys of plant and wildlife species. In 1995, RECON conducted a field investigation which confirmed the Dames & Moore vegetation mapping and included additional surveys of plants and wildlife, including butterfly surveys and small mammal live trapping. In addition, surveys of the unarmored threespine stickleback and least Bell's vireo have been regularly conducted by recognized experts since 1988 in portions of the Santa Clara River within the site, as well as upstream and downstream. The results of these surveys, as well as field methodologies, are described in detail in **Appendix 4.6** of this EIR. Finally, a count of oak trees within the development area and a survey of oak trees within the High Country Special Management Area (SMA) were conducted by James Henrickson Ph.D. in 1995. The complete oak tree survey is also included in **Appendix 4.6**.

3. EXISTING CONDITIONS

a. Description of Vegetation and Habitat Types

The majority of the Newhall Ranch property descends from high country chaparral and oak woodlands of the Santa Susana Mountains down the north-facing coastal sage scrub-covered slopes to the riparian scrub and woodlands of the Santa Clara River. Smaller portions of the Newhall Ranch area occur north of the Santa Clara River. A diverse assemblage of habitat types is found on the approximately 11,963 acre property that supports a variety of plant and animal species. The acreage and percent coverage of each natural and disturbed plant community that occurs on the Newhall Ranch property are presented in **Table 4.6-1 (Vegetation Types and Percent Coverage)**. The distribution of the existing

vegetation/habitat on the Newhall Ranch is shown on **Figure 4.6-1, Existing Vegetation/Habitat.** (**Appendix 4.6** of this EIR includes an oversized vegetation map within a map pocket). These vegetation types, and the wildlife that is expected to substantially utilize habitat on the site, are described below and in **Appendix 4.6.**

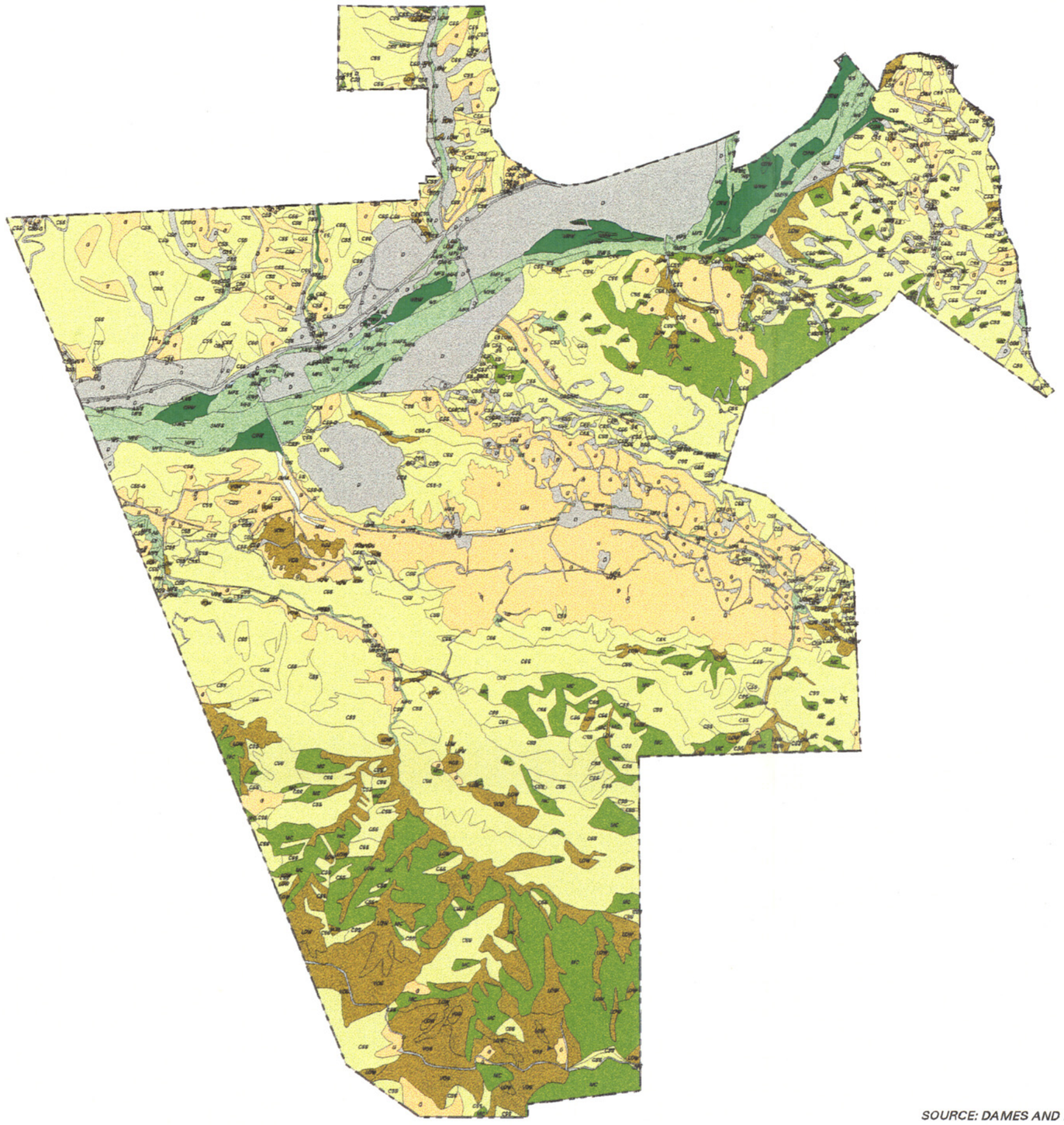
Table 4.6-1
Vegetation Types and Percent Coverage

Vegetation Community Type	Approximate Acres Present (Rounded)	Approximate Percent Coverage
Coastal Sage Scrub	5,183	43.3%
Chamise Chaparral	7	0.1%
Mixed Chaparral	1,206	10.1%
Great Basin Scrub	81	0.7%
Coast Live Oak Woodland	670	5.6%
Valley Oak Woodland	26	0.1%
Valley Oak Savanna	394	3.3%
Elderberry Scrub	24	0.2%
Non-Native Grassland	1,896	15.8%
Mainland Cherry Forest	18	0.2%
Disturbed Areas	1,523	12.7%
Mule Fat Scrub	222	1.9%
Successional Mule Fat Scrub	275	2.3%
Southern Willow Scrub	96	0.8%
Southern Willow Riparian Woodland	126	1.1%
Southern Cottonwood-Willow Riparian Forest	93	0.8%
Arrow Weed Scrub	16	0.1%
Valley Freshwater Marsh and Ponds	5	0.1%
Cottonwood/Oak Woodland	26	0.2%
Alluvial Scrub	39	0.3%
Scalebroom Scrub	20	0.2%
Mesic Meadow	14	0.1%
Total	**11,963**	**100.0%**

(1) Flora

A total of 336 plant species were identified on Newhall Ranch. Of this total, 247 species (73.5 percent) are considered native to California and 89 species (26.5 percent) are considered introduced to California. The range in topographical relief on the Ranch supports a wide variety of habitat types which, in turn, results in a high plant species diversity. A complete list of plant species observed on Newhall Ranch is provided in Appendix G of the Biota Report (**Appendix 4.6** of this EIR).

The Newhall Ranch property addressed in this document descends from high country chaparral and oak woodlands of the Santa Susana Mountains down the north-facing coastal sage scrub-covered slopes to the riparian scrubs and woodlands of the Santa Clara River. The northern one-quarter of the site encompasses the south-facing coastal sage scrub-covered slopes of lowland hills and canyons descending towards the Santa Clara River through agricultural areas at the base of the hills. A diverse



SOURCE: DAMES AND MOORE, RECON

NEWHALL RANCH
Newhall Ranch Company

L E G E N D

UPLAND HABITAT

- G — GRASSLAND
- CC — CHAMISE CHAPARRAL
- MC — MIXED CHAPARRAL
- GBS — GREAT BASIN SCRUB
- GBS-MC — GREAT BASIN SCRUB / MIXED CHAPARRAL
- CSS — COASTAL SAGE SCRUB
- CSS-G — COASTAL SAGE / GRASSLAND
- ES — ELDERBERRY SCRUB
- LOW — COAST LIVE OAK WOODLAND
- LOW-MC — COAST LIVE OAK WOODLAND / MAINLAND CHERRY
- VOW — VALLEY OAK WOODLAND
- VOS — VALLEY OAK SAVANNAH

RIPARIAN / WETLANDS HABITAT

- AS — ALLUVIAL SCRUB
- AS-MC — ALLUVIAL SCRUB / MIXED CHAPARRAL
- AWS — ARROW WEED SCRUB
- SS — SCALEBROOM SCRUB
- MFS — MULE FAT SCRUB
- SMFS — SUCCESSIONAL MULE FAT SCRUB
- WS — SOUTHERN WILLOW SCRUB
- COW — COTTONWOOD / OAK WOODLAND
- CRW — SOUTHERN COTTONWOOD WILLOW RIPARIAN FOREST
- WRW — SOUTHERN WILLOW RIPARIAN WOODLAND
- MM — MESIC MEADOWS
- P — POND
- FM — VALLEY FRESHWATER MARSH
- D — DEVELOPED / DISTURBED AREAS

English 0 1000' 2000'
Metric 0 450m 900m
NORTH

FIGURE 4.6-1
EXISTING VEGETATION/HABITAT

assemblage of habitat types is found on the approximately 11,963-acre property that supports a variety of plant and wildlife species. The biological and physical characters of the site have been affected by agriculture, oil/natural gas production operations, and by cattle grazing, especially at the lower elevations on the site.

The natural and disturbed plant communities that occur on the Ranch property are described below.

Coastal Sage Scrub (5,183 total acres on site, 43 percent of site coverage) -- Coastal sage scrub habitat is characterized by a dominance of drought-deciduous plant species of the coastal hills. On the Newhall Ranch property, the dominant species that occur in this plant community include California sagebrush (*Artemisia californica*), purple sage (*Salvia leucophylla*), common encelia (*Encelia californica*), California buckwheat (*Eriogonum fasciculatum*), and California broom (*Lotus scoparius*).

Coastal sage scrub habitat is distributed in Newhall Ranch on the drier south-facing slopes of the hilly lowlands and on north-facing slopes and canyons of the Santa Susana Mountains. Dames & Moore (1993) identified two subtypes: sparse and dense coastal sage scrub. Sparse coastal sage scrub occurs in areas where the dominant species account for less than 50 percent of the vegetation cover. Open areas between the sparse shrubs are either bare ground or vegetated with small grasses and herbs. Dense coastal sage scrub occurs in areas where the dominant species make up greater than 50 percent of the vegetation cover. Of the total acreage of coastal sage scrub habitat on the Newhall Ranch property, approximately 272 acres are a coastal sage scrub/grassland mix.

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6.**

Chamise Chaparral (7 total acres on site, less than one percent of site coverage) -- Chamise chaparral is characterized by relatively homogeneous stands of the shrub chamise (*Adenostoma fasciculatum*). It occurs in a few scattered patches in the hilly terrain located north of Potrero Canyon.

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6.**

Mixed Chaparral (1,206 total acres on site, 10 percent of site coverage) -- The dominant plant species of mixed chaparral communities are comprised of a variety of shrubs at more or less equal densities. Shrub species present in this habitat type on the Newhall Ranch property include hoaryleaf ceanothus

(*Ceanothus crassifolius*), coast blue lilac (*Ceanothus tomentosus*), lemonadeberry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), toyon (*Heteromeles arbutifolia*), black sage (*Salvia mellifera*), white sage (*Salvia apiana*), and chamise. Understory components are poorly developed due to the dense vegetation cover.

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6.**

Great Basin Scrub (81 total acres on site, nearly 1 percent of site coverage) -- Great basin scrub is characterized by an almost pure stand of big sagebrush (*Artemisia tridentata*). This habitat occurs on Newhall Ranch within the arroyos and on the upper flood plain terraces adjacent to the riparian areas along the Santa Clara River, Salt Creek, and in Long and Lion Canyons.

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6.**

Oak Woodlands -- Three subtypes of oak woodland occur on the Newhall Ranch property. In total, oak woodland communities occur on approximately 1,090 total acres on the site, about 9 percent of site coverage. Each subtype of oak woodland is described below. In addition, a large portion of the community described herein as mainland cherry forest supports oaks and has characteristics of an open oak woodland.

- **Coast Live Oak Woodland (670 total acres on site, 6 percent of site coverage):** Coast live oak woodlands are typically located in riparian areas on the drier margins of the flood plain where trees of coast live oak (*Quercus agrifolia*) dominate the community. Coast live oak woodlands in the study area occur on the outer, drier portions of the Santa Clara River flood plain, especially on the south side of the River near the foothills and slopes of the surrounding hills. Isolated individuals of coast live oak occur on the upper flood plain and terraces of drier sites. The habitat is also found in canyons of the Santa Susana Mountains and in hilly terrain surrounding Potrero Canyon.

- **Valley Oak Woodland (26 total acres on site, less than one percent of site coverage):** This habitat type is characterized by open and closed stands of valley oak (*Quercus lobata*). The valley oak woodland may have an understory of coastal sage scrub, chaparral, or riparian habitat, depending

on the topographical location of the stand of trees. Valley oak woodland occurs on the site in lower Rawhide Canyon and Via Canyon. The discussion provided above for fauna associated with coast live oak woodlands also pertains to valley oak woodlands, thus habitat values for wildlife and wildlife species diversity are similar for both oak woodland types.

- **Valley Oak Savanna (394 total acres on site, 3 percent of site coverage):** The valley oak savanna areas of the Ranch property are characterized by widely-spaced valley oak trees within grassland habitat. Savannas form in areas that are frequently disturbed by natural (e.g., fire) or human (e.g., grazing) causes that inhibit the formation of a shrub understory and favor grassland development. This plant community type occurs on extensive areas of Lower Potrero Canyon and along the ridgeline of the Santa Susana Mountains between Bear Flat and Via Pond.

Additional information regarding these vegetation types and vertebrate species associations is included in **Appendix 4.6.**

Elderberry Scrub (24 total acres on site, less than one percent of site coverage) -- Thickets of blue elderberry (*Sambucus mexicana*) characterize this community type. It generally occurs on the Newhall Ranch property in association with riparian and scrub communities north of Potrero Canyon, adjacent to the Santa Clara River

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6.**

Grassland (1,896 total acres on site, 16 percent of site coverage) -- The grassland areas of the Newhall Ranch property are dominated by non-native grasses, such as ripgut grass, smooth brome, foxtail chess, and downy brome (*Bromus diandrus, B. hordaceous, B. madritensis* ssp. *rubens,* and *B. tectorum,* respectively); wild oats and slender wild oats (*Avena fatua* and *A. barbata,* respectively); hare barley (*Hordeum leporinum*), and rattail fescue (*Vulpia myorus* var. *hirsuta*). Some native and non-native herbaceous species that occur among the grasses are dove weed (*Eremocarpus setigerus*), common cryptantha (*Cryptantha intermedia*), purple owl's clover (*Castilleja exserta*), white-stemmed filaree (*Erodium cicutarium*), short-pod mustard (*Hirschfeldia incana*), radish (*Rhaphanus sativa*), cheeseweed (*Malva parviflora*), and London rocket (*Sisymbrium irio*). Grasslands are distributed on Newhall Ranch in Potrero, Salt Creek, and Long Canyons, the crest of the Santa Susana Mountains, near Airport Mesa, on Grape Vine Mesa, and on the eastern portion of the Ranch south of the Magic Mountain Theme Park.

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6**.

Mainland Cherry Forest (18 total acres on site, less than one percent of site coverage) -- This community type is not well described, but typically is composed of tall stands of hollyleaf cherry (*Prunus ilicifolia* ssp. *ilicifolia*) or Lyon cherry (*Prunus ilicifolia* ssp. *lyonii*) that reach the size of trees (up to 15 meters in height). The plant community is found on rocky, steep, dry, north-facing slopes of coastal mainland in southern California and the California Channel Islands. Lyon cherry is more common on the Channel Islands, while hollyleaf cherry is generally found on the mainland.

Large shrub/small tree specimens of hollyleaf cherry occur along the banks of the drainage and on lower canyon slopes of Long Canyon on the Newhall Ranch. Another stand of hollyleaf cherry occurs in Lion Canyon, especially in the upper portion. Hollyleaf cherry specimens at both locations are intermixed with coast live oak trees present in the canyon. Since the canopy of the hollyleaf cherry plants is not continuous, the vegetation at this site is not a characteristic example of mainland cherry forest. Rather, it is more of an open oak woodland containing a few large specimens of hollyleaf cherry. In addition, mainland cherry forest is present in association with alluvial scrub and Great Basin scrub communities. However, the presence of these large specimens of hollyleaf cherry coupled with the rarity of the community type on the mainland add importance to this vegetation type.

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6**.

Disturbed Areas (1,523 total acres on site, 13 percent of site coverage) -- Areas of Newhall Ranch that have been cleared for roads, agricultural activities, fuel breaks, development (i.e., ranch houses, oil company facilities), or that have been extensively grazed are characterized as disturbed habitats. These disturbed areas either lack vegetation or are characterized by a dominance of primarily non-native weeds and grasses. Types of habitats categorized by Dames & Moore (1993) under this habitat type on the property include ruderal vegetation, agriculture fields, disturbed areas (lack vegetation), and areas of ornamental plantings. On the site, disturbed areas occur in and near the Newhall Potrero Oilfield, Castaic Junction Oilfield, other oilfields scattered in Potrero Canyon, Long Canyon, and near the Magic Mountain Theme Park, and active and fallow agricultural fields adjacent to the Santa Clara River, Potrero Mesa, and Grape Vine Mesa.

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6**.

Mule Fat Scrub (497 total acres on site, 4 percent of site coverage) -- Mule fat scrub is typically a mature riparian habitat dominated by mule fat shrubs (*Baccharis salicifolia*). Co-dominant plant species include narrow-leaved willow (*Salix exigua*), giant cane (*Arundo donax*), and some tamarisk (*Tamarix* sp.). This habitat type is found along the Santa Clara River on upper portions of the flood plain and on some levees on the Ranch property. Mule fat scrub also occurs in almost every major and minor drainage on the upland portions of the property.

A subclass of mule fat scrub was used to denote the development of this plant community along the active channel of the Santa Clara River. Successional mule fat scrub denotes a young, successional community dominated by young saplings of predominantly mule fat and narrow-leaved willow. This subclass is found within the low flow (active) channel of the Santa Clara River on sand bars where frequent scouring by floods prevents it from fully developing into mature mule fat scrub. Total acreage for the two subtypes of mule fat scrub on the Newhall Ranch property is approximately 497 acres, about 4 percent of the site. Acreage of mule fat scrub is estimated to be approximately 222 acres, and approximately 275 acres of successional mule fat scrub occur along the River Corridor.

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6.**

Southern Willow Scrub (96 total acres on site, approximately 1 percent of site coverage) -- This riparian habitat community type is dominated by willow shrubs and small trees, such as arroyo willow (*Salix lasiolepis*), red willow (*Salix laevigata*), and narrow-leaved willow. Mule fat shrubs are often co-dominant with the willows. These thickets often lack a well-developed understory. Southern willow scrub is found along the Santa Clara River in areas of the flood plain and along the banks of the low-flow channel where frequent flood disturbance prevents the community from developing into a riparian woodland. The habitat is also found in the drainages within Potrero Canyon and Salt Creek Canyon. Included in the acreage estimates provided above are areas where grazing, clearing, or other factors have opened the willow scrub habitat, allowing either giant cane to invade or a herbaceous layer to develop in the openings.

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6.**

Southern Willow Riparian Woodland (126 total acres on site, 1 percent of site coverage) -- This woodland community represents a mature riparian habitat where a tall tree layer has developed. The community is dominated by trees of red willow and arroyo willow with occasional individuals of

cottonwood (*Populus fremontii* and *P. balsamifera* ssp. *trichocarpa*). A shrub layer of mule fat, narrow-leaved willow, and shrubby arroyo willows occurs in the understory of the trees. Southern willow riparian woodland is found on the property along the upper banks, upper flood plain, and some terraces of the Santa Clara River.

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6**.

Southern Cottonwood-Willow Riparian Forest (93 total acres on site, nearly 1 percent of site coverage) -- This community type is also a mature riparian woodland habitat where a substantial tree layer has developed. Cottonwood trees dominate the forest with large red willow trees as co-dominants. Smaller shrub and tree forms of arroyo willow along with mule fat and arrow weed (*Pluchea sericea*) shrubs are common in the understory. An occasional western sycamore (*Platanus racemosa*) and California bay (*Umbellularia californica*) also occur in this habitat. It is found on the Newhall Ranch along the upper banks, upper flood plain, and some terraces of the Santa Clara River.

Included in the acreage total above is southern cottonwood-willow riparian forest areas where the understory has been opened up due to disturbance from grazing or brush clearing. Giant cane has invaded the understory in some areas.

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6**.

Arrow Weed Scrub (16 total acres on site, less than one percent of site coverage) -- This shrub-dominated plant community is characterized by a nearly pure stand of arrow weed shrubs. Big saltbush (*Atriplex lentiformis*) and mule fat shrubs are often co-dominants in more open stands, especially along road cuts. Wet areas where this habitat has developed may also have some freshwater marsh species occurring with the arrow weed. On the Ranch, this plant community is located on the upper Santa Clara River flood plain and terraces at the edges of woodlands, forests, and along the manufactured slopes near SR 126.

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6**.

Valley Freshwater Marsh and Ponds (5 total acres on site, less than one percent of site coverage) -- These two types of vegetation can be very similar, and as such they are considered together in this discussion. Freshwater marsh is a type of wetland habitat that occurs in areas which are inundated or

saturated for prolonged periods of time and support plant species adapted to tolerate these wet conditions. These wet areas are typically dominated by broad-leaved cattail (*Typha latifolia*), species of bulrush (*Scirpus* spp.), species of sedge (*Carex* spp.), and species of rush (*Juncus* spp.). Freshwater marsh (approximately 4 acres, or about 0.4 percent) is found on the Ranch in portions of the Santa Clara River channel where water ponds and along small tributary streams/drainages in the woodlands on the flood plain.

Constructed ponds on the Ranch can also be considered a type of freshwater marsh habitat when the banks of the pond are vegetated, for example, with cattails or bulrushes. The few ponds that occur on the Ranch appear to serve as flood control structures or water holes for cattle. The most prominent ponds on the Ranch are Via Pond in the high country of the Santa Susana Mountains and two large, seasonal ponds in Middle Potrero Canyon. Total acreage for pond habitat on the site is about 0.2 acres.

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6**.

Cottonwood/Oak Woodland (26 total acres on site, less than one percent of site coverage) -- This habitat type is characterized by a mixture of coast live oak and cottonwood trees. The plant community is typically found as an interface between riparian and upland areas and, as such, cottonwood/oak woodland is located on the Ranch property on the higher terraces along the Santa Clara River and at the mouth of a canyon south of Airport Mesa near Magic Mountain.

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6**.

Alluvial Scrub (39 total acres on site, less than one percent of site coverage) -- Alluvial scrub habitat is characterized as a mixture of shrubs that colonize alluvial materials within intermittent creeks, arroyos, and the drier terraces within large washes. Alluvial scrub typically occurs adjacent to and intergrades with sage scrub communities on higher ground and riparian communities in the flood plains. These sandy-gravelly flood-deposited soils have a deeper permanent water table and flood infrequently, thus, they support a primarily upland plant association. Plant species observed in this habitat type on the Ranch include big sagebrush, scalebroom (*Lepidospartum squamatum*), blue elderberry, big saltbush (*Atriplex lentiformis*) and squaw bush (*Rhus trilobata*), with some areas having high densities of big sagebrush. The alluvial scrub association on the Ranch is in general consistent with the description provided in Hanes, et al. (1989), differing slightly in species composition. In their 1989 publication, the authors describe three phases of alluvial scrub vegetation which are directly related to elapsed time since the last scouring flood event: pioneer, intermediate,

and mature. Floristically, California buckwheat and scalebroom were the most important components of the alluvial scrub communities examined during the 1989 work, followed by white sage, California broom, and California sagebrush. Big sagebrush was not described as an important component of this community in the 1989 publication. Alluvial scrub is situated within the drier portions of the arroyos and washes located north of Potrero Canyon (i.e., Long Canyon, Lion Canyon, and unnamed washes below Airport Mesa and south of the Magic Mountain Theme Park).

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6.**

Scalebroom Scrub (20 total acres on site, less than one percent of site coverage) -- Similar to alluvial scrub, scalebroom scrub (*Lepidospartum* scrub) is characterized by homogeneous stands of scalebroom that grow in arroyos and washes. Due to the sparse, nearly pure stands of scalebroom, wildlife use of this community type tends to be low, but similar to the other scrub habitat situated within drainages (i.e., alluvial scrub, Great Basin scrub).

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6.**

Mesic Meadow (14 total acres on site, less than one percent of site coverage) -- Mesic meadows form in grassland areas where seeps, springs, or groundwater surfaces. In these areas, soils remain saturated most of the year. Plant species found in mesic meadows can tolerate the moist conditions for prolonged periods. Herbaceous species present include yerba mansa (*Anemopsis californica*), curly dock (*Rumex crispus*), spike rush (*Eleocharis* sp.), annual beard grass (*Polypogon monspeliensis*), rush (*Juncus* sp.), and saltgrass (*Distichlis spicata*). Mesic meadows on the Ranch are located within Potrero Creek, on an unnamed drainage at the east end of Middle Potrero Canyon, and in Via Canyon.

This mesic meadow vegetation is similar to a cismontane form of the alkali seep vegetation type described in Holland (1986), with relatively minor differences in vegetation components.

Additional information regarding this vegetation type and vertebrate species associations is included in **Appendix 4.6.**

(2) Fauna

The results of wildlife surveys conducted by Dames & Moore, RECON and biologists conducting specific sensitive species investigations on the Newhall Ranch site indicate that a total of 146 vertebrate wildlife species were observed or detected on Newhall Ranch, including 5 fish, 5 amphibian, 12 reptile, 104 bird, and 20 mammal species. A review of the literature estimates that a total of 234 vertebrate wildlife species would be expected to significantly utilize habitat on the Newhall Ranch (inclusive of those already observed), including 5 fish, 8 amphibians, 21 reptiles, 153 birds and 47 mammals. A compilation of vertebrate wildlife species, including those species observed or detected and those not observed but expected to occur on the Ranch are provided in Appendix H of the Biota Report (**Appendix 4.6** of this EIR). In addition, a total of 33 species of butterfly was identified on the Ranch property. A list of all the butterfly species observed on Newhall Ranch is provided in Table BIO-8 (Butterfly Species Observed) of the Biota Report (**Appendix 4.6** of this EIR).

b. Sensitive Species and Habitats

Plant and wildlife species classified as rare, threatened, or endangered; proposed for listing as endangered or threatened; or candidate species for listing by Federal and/or State resource agencies are considered "sensitive." In addition, other plants identified as sensitive by the California Native Plant Society (CNPS), and wildlife considered species of special concern, special animals, or fully protected in the State of California are also considered "sensitive." Certain habitat types are also classified as "sensitive" by the California Department of Fish and Game (CDFG) in the California Natural Diversity Data Base (CNDDB). Sensitivity categories for species and habitat are explained in the Biota Report (**Appendix 4.6**).

In late February 1996, the U.S. Fish and Wildlife Service (USFWS) published an updated list of plant and animal taxa that it regards as candidates for possible addition to the List of Endangered and Threatened Wildlife and Plants under the Endangered Species Act of 1973, as amended (USFWS 1996). These candidate species are those for which USFWS has on file sufficient information on biological vulnerability and threats to support a proposed rule to list, but issuance of such a proposed rule is precluded. In general, the currently designated "candidate" species correspond with the 'Category 1' candidate species previously designated by USFWS. The USFWS no longer includes the former 'Category 2' species as candidates, but does acknowledge these previously designated species as "species of concern." In addition, it has been the policy of the CDFG to consider the previously designated Category 2 candidates as either California Species of Special Concern or as Special Animals.

(1) Plant Species

A total of 29 sensitive plant species have a potential for occurrence on the Newhall Ranch property. However, only one of the 29 species was observed on the site, the CNPS List 4 species (plants of limited distribution - a watch list) Peirson's morning-glory (*Calystegia peirsonii*). The remaining 28 species were considered to have varying probabilities of occurrence on the site based on their habitat requirements, their present and historic range, and the geographical location of the Ranch property. These sensitive plant species are included in **Table 4.6-2 (Sensitive Plant Species with the Potential for Occurrence on the Newhall Ranch)**. Maps illustrating the location of sensitive plants on the Newhall Ranch site are provided in Appendix N of the Biota Report (**Appendix 4.6**).

Table 4.6-2 presents a summary of sensitive plants that have the potential for occurrence on the Newhall Ranch, and ranks their likelihood of occurrence based on background information for the species (e.g., distribution, habitat, known occurrences, etc.), presence of appropriate habitat on the Newhall Ranch, and results of botanical field surveys. A high likelihood of occurrence indicates that conditions on the Newhall Ranch site are favorable for this species to occur, even though the plant was not observed. A moderate likelihood for occurrence indicates that, although the site is within the range of the species and appears to have proper habitat, local conditions of the habitats (i.e., disturbance level) or lack of proper substrate conditions on the site likely preclude the occurrence of this species. A low likelihood of occurrence indicates that the site is lacking with respect to appropriate habitats, proper substrates, the site is marginal in relation to the geographic range of the species, or the species is conspicuous and would have been observed if present (i.e., large perennials, shrubs, or a plant with showy flowers).

(2) Wildlife Species

Twenty-nine sensitive wildlife species occur on the Newhall Ranch property. These sensitive animals are included in **Table 4.6-3 (Sensitive Wildlife Species Observed or Detected on Newhall Ranch)**. Sensitive butterflies are included in **Table 4.6-4 (Sensitive Butterfly Species Observed or with the Potential for Occurrence on Newhall Ranch)**. In addition to those sensitive wildlife species that were observed on site, there are several animals that were not directly observed, but have the potential for occurrence, as shown in **Table 4.6-5 (Sensitive Wildlife Species with the Potential for Occurrence on Newhall Ranch)**.

Table 4.6-2
Sensitive Plant Species Observed or with the Potential for Occurrence on Newhall Ranch

Species	Status: Federal/State* CNPS List†	Habitat, Local Distribution, and Likelihood of Occurrence on the Ranch
Slender-horned spineflower *Dodecahema* (=*Centrostegia*) *leptoceras*	FE/CE 1B	Chaparral, coastal sage scrub of alluvial fans; Known occurrence in Santa Clara River drainage located approximately 10 miles east of site; Low potential.
California Orcutt grass *Orcuttia californica*	FE/CE 1B	Vernal pool habitat; Occurs both east and west of the site (within 8 miles); Low potential.
Lyon's pentachaeta *Pentachaeta lyonii*	FPE/CE 1B	Chaparral and valley foothill grassland; Highly restricted range; Low potential.
Nevin's barberry *Berberis (Mahonia) nevinii*	FPE/CE 1B	Chaparral, cismontane woodlands, coastal sage scrub, and riparian scrub, sandy or gravelly areas; Two populations in upper San Francisquito Canyon; Moderate potential.
Thread-leaved brodiaea *Brodiaea filifolia*	FPT/CE 1B	Coastal sage scrub, chaparral, grasslands, vernal pools, heavy clay soils; Low potential.
Santa Susana tarplant *Hemizonia minthornii*	FSC/CR 1B	Chaparral, coastal sage scrub, rocky areas; Santa Susana Mountains, Santa Monica Mountains, and Simi Hills; Low potential.
Braunton's milk vetch *Astragalus brauntonii*	FPE/- 1B	Chaparral, coastal sage scrub, grasslands, particularly after burns; Limestone soils; Current records from the vicinity of Thousand Oaks and Oak Park; Low potential.
Slender mariposa lily *Calochortus clavatus* var. *gracilis*	FSC 1B	Chaparral; Occurs in nearby San Gabriel Mountains; Low potential.
Plummer's mariposa lily *Calochortus plummerae*	FSC/- 1B	Chaparral, cismontane woodlands, coastal sage scrub, and valley foothill grassland; Granitic substrates; Low potential.
San Fernando Valley spineflower *Chorizanthe parryi* var. *fernandina*	FSC/- 1A	Coastal sage scrub, sandy places; Historic occurrence in the project area, but now presumed extinct; Low potential.
Dune larkspur *Delphinium parryi* ssp. *blochmaniae*	FSC/- 1B	Maritime chaparral and coastal dunes; Occurrence records from vicinity of Conejo Pass; Low potential.
Blochman's dudleya *Dudleya blochmaniae* ssp. *blochmaniae*	FSC/- 1B	Coastal bluff scrub, coastal sage scrub, clayey and serpentine substrates; Coastal mountains, San Luis Obispo County to San Diego County; Low potential.
Many-stemmed dudleya *Dudleya multicaulis*	FSC/- 1B	Chaparral, coastal sage scrub, grasslands, often on rocky outcrops and clay substrates; Known location east of Simi Valley; Low potential.
Palmer's grappling hook *Harpagonella palmeri*	FSC/- 2	Chaparral, coastal sage scrub, grassland, often clay substrate; Historic occurrences near Newhall, but believed extirpated at this location; Low potential.
Ocellated lily *Lilium humboldtii* ssp. *ocellatum*	FSC/- 4	Chaparral, cismontane woodlands, lower coniferous forest; Low potential.
Short-joint beavertail cactus *Opuntia basilaris* var. *brachyclada*	FSC/- 1B	Chaparral, pinyon-juniper woodland, desert communities; San Gabriel Mountains and San Bernardino Mountains; Low potential.
Heart-leaved thorn-mint *Acanthomintha obovata* ssp. *cordata*	-/- 4	Chaparral (openings), cismontane woodland; Low potential.
California androsace *Androsace elongata* ssp. *acuta*	-/- 4	Chaparral, cismontane woodland, coastal sage scrub; Low potential.
Plummer's baccharis *Baccharis plummerae* ssp. *plummerae*	-/- 4	Chaparral, cismontane woodland, coastal sage scrub, rocky; Low potential.

cont.

Table 4.6-2 (cont.)
Sensitive Plant Species with the Potential for Occurrence on Newhall Ranch

Species	Status: Federal/State* CNPS List†	Habitat, Local Distribution, and Likelihood of Occurrence on the Ranch
Round-leaved boykinia *Boykinia rotundifolia*	-/- 4	Chaparral (mesic), riparian woodland, moist situations near streams,<2000 meters; Low potential.
Brewer's calandrinia *Calandrinia breweri*	-/- 4	Chaparral, coastal sage scrub, disturbed sites, burns; Low potential.
Catalina mariposa lily *Calochortus catalinae*	-/- 4	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland; Moderate potential.
Peirson's morning-glory *Calystegia peirsonii*	-/- 4	Sparse coastal sage scrub, chaparral, chenopod scrub, cismontane woodland, lower montane conifer forest; Known occurrences in Santa Clara River drainage; Observed.
Prostrate spineflower *Chorizanthe procumbens*	-/- 4	Chaparral, coastal sage scrub, valley and foothill grassland, gabbroic clay, granitic; Low potential.
Small-flowered morning-glory *Convolvulus simulans*	-/- 4	Coastal sage scrub, valley and foothill grassland, clay, serpentine seeps; Low potential.
Santa Barbara bedstraw *Galium cliftonsmithii*	-/- 4	Cismontane woodland; Low potential.
Southwestern spiny rush *Juncus acutus* ssp. *leopoldii*	-/- 4	Coastal dunes (mesic),meadows (alkaline seeps), coastal salt marsh, moist saline places, generally <300 meters; Moderate potential.
Small-flowered microseris *Microseris douglasii* var. *platycarpha*	-/- 4	Cismontane woodland, coastal sage scrub, valley and foothill grassland, clay; Low potential.
California spineflower *Mucronea californica*	-/- 4	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland, sandy; Low potential.
Slender nemacladus *Nemacladus gracilis*	-/- 4	Cismontane woodland, valley and foothill grassland; Low potential.
Pringle's (adobe) yampah *Perideridia pringlei*	-/- 4	Chaparral, cismontane woodland, coastal sage scrub, grassy slopes, serpentine outcrops; Low potential.

*Status Codes:
FE = Listed as an endangered species by the U.S. Fish and Wildlife Service (USFWS).
FPE = Currently proposed for listing as an endangered species by USFWS; Review in process.
FPT = Currently proposed for listing as a threatened species by USFWS; Review in process.
FSC = Federal species of concern; These species represent the pool of species of concern from which future candidates may be chosen.
CE = A State of California endangered species as listed by the California Department of Fish and Game (CDFG); Data indicate the species is in serious danger of becoming extinct throughout all or a significant portion of its range.
CR = A State of California rare species as listed by CDFG; Data suggest that although not presently threatened with extinction, the species occurs in such small numbers throughout its range that it may become endangered if conditions worsen.
† California Native Plant Society (CNPS) List:
1A = CNPS designation for plant presumed extinct in California.
1B = CNPS designation for plants that are considered rare, threatened, or endangered in California and elsewhere.
2 = CNPS designation for plants that are considered rare, threatened, or endangered in California, but more common elsewhere.
4 = CNPS designation for plants that are of limited distribution and are being monitored for change in status (a watch list).

Table 4.6-3
Sensitive Wildlife Species Observed or Detected on Newhall Ranch

Species	Status	Habitat	Location Observed	Noted Abundance
Unarmored threespine stickleback[1] *Gasterosteus aculeatus williamsoni*	FE, CE	SCR	Observed in the Santa Clara River in 1993 at Castaic Junction, and in 1995.	Rare
Arroyo chub[5,6] *Gila orcutti*	FSC, CSC	SCR	Observed in 1992, 1993, and 1995 at several areas in the Santa Clara River.	Common
Santa Ana sucker[2] *Catostomus santaanae*	FSC, CSC	SCR	Observed in the Santa Clara River in 1992 at Alfalfa and Humble Crossings.	Uncommon
Western spadefoot toad *Scaphiopus (= Spea) hammondii*	FSC, CSC	P, GBS	Tadpoles in Potrero Canyon Pond and Via Pond (4); Single adult observed in Salt Creek Canyon.	Uncommon
Southwestern pond turtle *Clemmys marmorata pallida*	FSC, CSC	SCR	Observed in the Santa Clara River in 1992 and 1995.	Uncommon
California horned lizard*[2] *Phrynosoma coronatum frontale*	FSC, CSC	RS/AS	One individual noted (4) during 1992 surveys; Specific identification of these species on-site is debatable; Four horned lizards were observed or detected by scat in various areas of the Ranch in 1995.	Uncommon
San Diego horned lizard* *Phrynosoma coronatum blainvillii*	FSC, CSC	CH,DI,CSS		
Coastal western whiptail *Cnemidophorus tigris multiscutatus*	FSC	DI,CSS, CH, GBS	Observed in several widely scattered areas with coastal sage scrub and chaparral vegetation.	Few noted, believed to be relatively common
Two-striped garter snake[4] *Thamnophis hammondii*	FSC,*	P,CW	Three observed by Dames & Moore in 1992: two at Via Pond, one at Salt Creek.	Three recorded observations, believed to be relatively common
Great blue heron *Ardea herodias herodias*	* (rookery)	RC	Observed in the Santa Clara River corridor.	Few noted, believed to be relatively common
Great egret *Casmerodius albus*	* (rookery)	RC	Observed in the Santa Clara River corridor	Few noted, believed to be relatively common
Snowy egret *Egretta thula thula*	* (rookery)	RC	Observed in the Santa Clara River corridor	Few noted, believed to be relatively common
Black-crowned night heron *Nycticorax nycticorax hoactli*	* (rookery)	RC	Observed in the Santa Clara River corridor	Uncommon
White-tailed kite4 *Elanus leucurus*	CFP	CSS, OW/S,G, CW,RC	Individual observed (4) in grassland and riparian areas on-site; A nesting pair in woodland north of Santa Clara River near the confluence with Castaic Creek.	Uncommon
Northern harrier *Circus cyaneus*	CSC	G	Single northern harrier observed over grassland near Potrero Canyon Pond.	Uncommon

cont.

Table 4.6-3 (cont.)
Sensitive Wildlife Species Observed or Detected on Newhall Ranch

Species	Status	Habitat	Location Observed	Noted Abundance
Cooper's hawk *Accipiter cooperii*	CSC	CW,G,RC	Single observation near Dead End Canyon and San Jose Flat (4); Observed in 1995 at Long Canyon where it meets Santa Clara River and Potrero Canyon.	Uncommon
Southwestern willow flycatcher[3] *Empidonax traillii extimus*	FE, CE,	RC	One individual observed along the Santa Clara River in 1993 between Castaic Creek and Ventura County line (3).	Rare
Vermilion flycatcher *Pyrocephalus rubinus flammeus*	CSC	RC	Single individual observed in 1993 along Santa Clara River (3).	Rare
California horned lark *Eremophila alpestris actia*	CSC	G	Observed in grasslands near Salt Creek, and in grasslands located outside of project site boundary, due south of Magic Mountain Park	Few noted, believed to be relatively common
Loggerhead shrike *Lanius ludovicianus*	CSC	CSS,CH,G, R,OP,RC	Dames & Moore considered this species "relatively common" at edges of grassland and scrub (4); Observed in Santa Susana Mountains, and Potrero and Salt Creek canyons during 1995.	Few noted, believed to be relatively common
Least Bell's vireo[3] *Vireo bellii pusillus*	FE, CE	RC	One individual observed in 1993 on the Santa Clara River near the Ventura County line (3); Other vireos observed in 1994 and 1995 along Castaic Creek north of the Ranch.	Uncommon
Yellow warbler *Dendroica petechia*	CSC (nesting)	RC	As many as eight individuals observed in 1993 along the Santa Clara River between Castaic Creek and the Ventura County line (3); Also observed in similar numbers in 1994 and 1995.	Uncommon
Yellow-breasted chat *Icteria virens auricollis*	CSC (nesting)	RC	Two individuals observed along the Santa Clara River between Castaic Creek and the Ventura County line in 1993 (3); Also observed in 1994 and 1995.	Uncommon
Summer tanager *Piranga rubra rubra*	CSC	RC	Single individual observed along the Santa Clara River in 1993 (3).	Rare
Southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	FSC, CSC	CSS,CH	Observed in several widely scattered areas of coastal sage scrub and chaparral vegetation on the Ranch.	Few noted, believed to be relatively common
Tricolored blackbird[4] *Agelaius tricolor*	FSC, CSC	G	"Flocks" reported (4) within grassland near mouth of Potrero Canyon.	Locally common
Mountain lion *Felis concolor*	CFP	OW/S, CH,DI	A paw print was observed just offsite in Via Pond area of the High Country.	Uncommon
San Diego desert woodrat *Neotoma lepida intermedia*	FSC, CSC	CSS,CH	Two trapped in hills immediately west of Magic Mountain Park.	Few noted, believed to be relatively common
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	FSC, CSC	DI	Observed at mouth of Potrero Canyon.	Few noted, believed to be common

cont.

Table 4.6-3 (cont.)
Sensitive Wildlife Species Observed or Detected on Newhall Ranch

CH = Chaparral (includes chamise and mixed chaparral)
CW = Cottonwood-willow riparian forest
CSS = Coastal sage scrub
DI = Disturbed
G = Grassland
GBS = Great Basin scrub
OP = Ornamental planting
OW/S = Oak woodland/savanna (includes coast live oak woodland, valley oak woodland, valley oak savanna, and cottonwood/oak woodland)
P = Pond
R = Ruderal
RC = River corridor (includes woodland and scrubs of the Santa Clara River)
RS/AS = Riparian scrub/alluvial scrub
SCR = Santa Clara River, aquatic areas

FE = Listed as endangered by the federal government
CE = Listed as endangered by the state of California
FSC = Federal species of concern
CSC = California Department of Fish and Game species of special concern
CFP = California fully protected species

* Taxa listed with an asterisk fall into one or more of the following:
Taxa considered endangered or rare under Section 15380(d) of CEQA Guidelines
Taxa that are biologically rare, very restricted in distribution, or declining throughout their range
Population(s) in California that may be peripheral to the major portion of a taxon's range, but which are threatened with extirpation within California
Taxa closely associated with a habitat that is declining in California at an alarming rate

1 Baskin and Haglund 1993
2 Baskin and Haglund 1992
3 Guthrie 1993
4 Dames & Moore 1993
5 Haglund 1992
6 Haglund and Baskin 1993

Table 4.6-4
Sensitive Butterfly Species Observed (*) or with the Potential for Occurrence at Newhall Ranch

Scientific Name	Common Name	Food Plant / Habitat / Nectar Plant	Flight Period[1]	Probability of Occurrence
Papilio indra peragamus	Edward's swallowtail	*Tauschia, Lomatium* (over 2,000 feet)	S (March-June)	Low
Pieris chloridice beckeri	Becker's white*	Bladderpod	M (February-October)	Observed
Pieris sisymbrii sisybrii	California white*	Wild mustards	S (February-May)	Observed
Colias alexandra harfordii	Harford's sulfur*	*Astragalus*	D (March-September)	Observed
Argynnis callippe comstocki	Comstock's fritillary*	Native violets	S (May-June)	Observed
Melitaea gabbii gabbii	Gabb's checkerspot*	Perennial native asters	S (March-April)	Observed
Melitaea leanira wrightii	Wright's leanira checkerspot	Indian paintbrush	S (March-May)	Low
Liminitis lorquini lorquini	Lorquin's admiral*	Willows	D (April-September)	Observed
Satyrum sylvnum desertorum	Southern sylvan hairstreak	Willow/riparian	S (May-July)	Low
Lycaena arota nubila	Cloudy copper*	Wild gooseberry	S (May-July)	Observed
Lycaena gorgon	Gorgon copper*	*Eriogonum elongatum* (only found near)	S (May-July)	Observed
Lycaena helloides	Purplish copper	Docks, *Polygonum*	M (April- October)	Low
Glaucopsyche piasus sagittigera	Coastal arrowhead blue	*Lupinus excubitus*	S (March-May)	Low
Copaedes aurantica	Hewitson's skipper	Grasses	M (April-September)	Low
Hesperia comma leussleri	Leussler's skipper	Grasses	S (May-August)	Low
Hesperia colombia	Columbia skipper	Grasses	D (Mar-May, Aug-Oct)	Low
Pholisora catullus	Common Sootywing	Pigweeds, amaranths	D (April-September)	Very Low (believed extirpated)

[1]Number of broods per flight period:
S = single
D = double
M = multiple

Table 4.6-5
Sensitive Wildlife Species not Observed but with the Potential for Occurrence on Newhall Ranch

Species	Status	Location of Potential Occurrence
Arroyo toad *Bufo microscaphus californicus*	FE, CSC	Moderate potential for this species along Santa Clara River and Castaic Creek.
California red-legged frog *Rana aurora draytonii*	FT, CSC	Low potential for this species around ponds.
Silvery legless lizard *Anniella pulchra pulchra*	CSC, FSC	Probable in areas of loose soil within understory of coastal scrub, chaparral, and open riparian habitats on the Ranch.
Coastal rosy boa *Lichanura trivirgata rosafusca*	FSC	Possible in sandy and rocky areas of grasslands, coastal scrub, and chaparral habitats on the Ranch.
San Bernardino ringneck snake *Diadophis punctatus modestus*	FSC	Possible in sandy and rocky areas of grasslands, coastal scrub, and chaparral habitats on the Ranch.
Coast patch-nosed snake *Salvadora hexalepis virgultea*	CSC, FSC	Possible in sandy and rocky areas of grasslands, coastal scrub, and chaparral habitats on the Ranch.
Least bittern *Ixobrychus exilis*	CSC, FSC	Possible in riparian vegetation and aquatic habitat along the Santa Clara River.
Fulvous whistling-duck *Dendrocygna bicolor*	FSC	Possible in riparian vegetation and aquatic habitat along the Santa Clara River.
California condor *Gymnogyps californianus*	FE/CE	Possibly forages over the more open areas of the Ranch.
Sharp-shinned hawk *Accipiter striatus*	CSC	Possibly uses the riparian woodlands of the Santa Clara River.
Swainson's hawk *Buteo swainsoni*	CT	Possibly forages over the more open areas of the Ranch.
Ferruginous hawk *Buteo regalis*	CSC, FSC	Possibly forages over the more open areas of the Ranch.
Golden eagle *Aquila chrysaetos*	CSC, CFP	Possibly uses grasslands, open chaparral and scrubs, and the riparian areas of the Ranch.
Merlin *Falco columbarius*	CSC	Possibly forages over the more open areas of the Ranch.
Prairie falcon *Falco mexicanus*	CSC	Possibly uses grasslands and agricultural fields.
American peregrine falcon *Falco peregrinus anatum*	FE/CE	Possibly forages over the more open areas of the Ranch.
Mountain plover *Charadrius montanus*	FC, CSC	Possibly forages on the more open areas of the Ranch.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	CE	Possible in riparian woodlands of the Santa Clara River.
Western burrowing owl *Athene cunicularia hypugea*	CSC, FSC	Possible in grasslands and agricultural areas.
Long-eared owl *Asio otus*	CSC	Possibly forages over the more open areas of the Ranch.
Short-eared owl *Asio flammeus*	CSC	Possibly forages over the more open areas of the Ranch.
Coastal California gnatcatcher *Polioptila californica californica*	FT, CSC	Historically in coastal sage scrub habitat in Los Angeles County; two recent records from eastern portion of County (Cal Poly Pomona and Bonelli Regional Park) as well as from the Moorpark area of Ventura County. Low potential for occurrence in sage scrub habitat on the Ranch.

Table 4.6-5 (cont.)
Sensitive Wildlife Species with the Potential for Occurrence on Newhall Ranch

Species	Status	Location of Potential Occurrence
Bell's sage sparrow *Amphispiza belli belli*	CSC, FSC	Possible in coastal sage scrub and chaparral habitats on the Ranch.
Fringed myotis *Myotis thysanodes*	FSC	Possibly forages over River.
Yuma myotis *Myotis yumanensis*	FSC	Possibly forages over River.
Pale Townsend's big-eared bat *Plecotus townsendii pallescens*	CSC, FSC	Possible in abandoned buildings.
Greater western-mastiff bat *Eumops perotis californicus*	CSC, FSC	Possible in rocky areas with crevices on hills and in the Santa Susana Mountains.
Spotted bat *Euderma maculata*	CSC, FSC	Possible in rocky areas with crevices on hills and in the Santa Susana Mountains.
Pallid bat *Antrozous pallidus*	CSC	Possibly forages over River, possibly roosts in High Country.
Los Angeles little pocket mouse *Perognathus longimembris brevinasus*	CSC, FSC	Low potential for occurrence in coastal scrub on the Ranch.
Southern grasshopper mouse *Onychomys torridus ramona*	FSC	Possible in grassland areas.
American badger *Taxidea taxus*	CSC	Possible in grassland areas.

FE: Listed as an endangered species by the USFWS.
FT: Listed as a threatened species by the USFWS.
FC: Federal candidate species; information on biological vulnerability and threats is sufficient to support issuance of a proposed rule to list, but issuance of the proposed rule is precluded.
CE: A State of California endangered species as listed by the CDFG; data indicate the species is in serious danger of becoming extinct throughout all or a significant portion of its range.
CT: A State of California threatened species as listed by the CDFG; data indicate the species is likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts.
CFP: A wildlife species that is Fully Protected by law under the California Fish and Game Code.
CSC: A State of California Species of Special Concern; those species that may become listed as rare, threatened, endangered, or fully protected in the near future.
FSC: Federal Species of Concern; the pool of species of concern from which future candidate species may be selected.

Three State- and Federally-listed endangered wildlife species [unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), least Bell's vireo (*Vireo bellii pusillus*), and southwestern willow flycatcher (*Empidonax traillii extimus*)] have been observed along the reach of the Santa Clara River within the Newhall Ranch Specific Plan area. However, no State- or Federally-listed wildlife species were observed in upland portions of the Newhall Ranch. No Federal candidate wildlife species were recorded on the Ranch. Fourteen special status (i.e., California fully protected species, CDFG special animals, California species of special concern, and Federal species of concern) wildlife species have been recorded on the Newhall Ranch, as shown in **Table 4.6-3**. In addition, eight species of declining butterflies were observed on Newhall Ranch, as shown in **Table 4.6-4**. Details on the sensitive wildlife species which occur, or could potentially occur, are included in the Biota Report (**Appendix 4.6**). A map illustrating the location of sensitive wildlife species and occupied or occupiable habitat, including designated critical habitat on Newhall Ranch, is provided in Appendix N of the Biota Report (**Appendix 4.6** of this EIR).

(3) California Department of Fish and Game Designated Sensitive Habitats

Habitats have been designated as sensitive by the State of California as part of the CDFG's Natural Diversity Data Base. Many of the vegetation communities present on the site are formally identified as being sensitive in the California Natural Diversity Data Base. Venturan coastal sage scrub, valley oak woodland/savanna, elderberry scrub, mainland cherry forest, southern willow scrub, southern cottonwood-willow riparian forest and valley freshwater marsh and ponds have been specifically designated by the CDFG as being of threatened status and, together, these sensitive habitats account for over half of the vegetative cover on the Ranch. Details on the sensitive habitats which occur in the Newhall Ranch Specific Plan area are included in the Biota Report (**Appendix 4.6**), and summarized below.

Coastal Sage Scrub -- Coastal sage scrub vegetation is considered sensitive by the CDFG, and is the current focus of the State's Natural Community Conservation Planning (NCCP) process. The CDFG has assigned Venturan coastal sage scrub vegetation a status of S3.1 [i.e., very threatened status in habitats that are relatively common, twenty to 100 element occurrences (EOs)]. This vegetation type occurs on about 5,183 acres (about 43 percent) of the Ranch site.

Valley Oak Woodland/Savanna -- Valley oak woodland/savanna has been greatly reduced throughout its range and provides valuable habitat for many special wildlife species. In response to this condition, the CDFG has assigned this vegetation type a status of S2.1 (i.e., very threatened status in habitats that are not common, six to 20 EOs). Currently, 421 acres (3.5 percent of the total Newhall Ranch land area) of this habitat occurs on the Newhall Ranch site. The majority of this habitat type is located in the upland portions of the site.

Elderberry Scrub -- Elderberry scrub is not a common vegetation type and has been greatly reduced throughout its range, particularly in southern California. In response to this condition, the CDFG has assigned this vegetation type a status of S2.1. Currently, 24 acres (0.2 percent of the total area of the Newhall Ranch) of this habitat occur on the Ranch site.

Mainland Cherry Forest -- Similar to elderberry scrub, mainland cherry forest is a rare vegetation type and has been greatly reduced throughout its range, particularly in southern California. In response to this condition, the CDFG has assigned this vegetation type a status of S1.1 (i.e., a very threatened designation that is assigned to habitat types that are of very limited distribution). Currently, 18 acres (0.15 percent of the total area of the Newhall Ranch) of this habitat occur on the Ranch site.

Mainland cherry forest vegetation is generally located in the uplands in association with coast live oak woodlands.

Southern Willow Scrub -- Like many willow dominated riparian habitats in California, southern willow scrub has been greatly reduced throughout its range and provides valuable habitat for many special wildlife species, particularly songbirds. In response to this condition, the CDFG has assigned this vegetation type a status of S2.1. Currently, 96 acres (0.8 percent of the total area of the Newhall Ranch) of this habitat occur on the Ranch site. Southern willow scrub is generally located in the Santa Clara River drainage.

Southern Cottonwood-willow Riparian Forest/Southern Willow Riparian Woodland -- Like most riparian habitats in California, southern cottonwood-willow riparian forest/southern willow riparian woodland have been greatly reduced throughout their range and provide valuable habitat for many special wildlife species. In response to this condition, the CDFG has assigned these vegetation types a status of S3.2 (i.e., threatened status in habitats that are relatively common, 20 to 100 EOs). Currently, 219 acres (approximately 1.8 percent of the total area of the Newhall Ranch) of this habitat occur on the Ranch site. Southern cottonwood-willow riparian forest/southern willow riparian woodland are generally located in the Santa Clara River drainage.

Valley Freshwater Marsh and Ponds -- Like many wetland habitats in southern California, valley freshwater marsh and ponds habitat has been greatly reduced throughout its range. This habitat provides a water source in arid areas and, as such, is valuable habitat for many special wildlife species. In response to this condition, the CDFG has assigned this vegetation type a status of S2.1. Currently, 5 acres (less than 0.1 percent of the total area of the Newhall Ranch) of this habitat occur on the Ranch site.

(4) Riparian Vegetation, Waters of the United States, and Wetlands

As mentioned above, riparian habitats in California have been greatly reduced throughout their range. These vegetation types are considered sensitive. Currently, approximately 828 acres of riparian habitat occur on the Newhall Ranch, including those designated as sensitive by CDFG described above, as well as mule fat scrub, successional mule fat scrub, and arrow weed scrub.

Wetlands are a subset of special aquatic sites that support hydrophytic (water loving) vegetation, have hydric (wet) soils, and possess wetland hydrology (frequent flooding or prolonged ponding). Due to the sensitivity of this habitat type, land use changes involving wetlands are regulated by the

United States Army Corps of Engineers (ACOE) under the Clean Water Act and CDFG under the California Fish and Game Code. Examples of wetlands present on the Newhall Ranch property include valley freshwater marsh, ponds, mesic meadows, and portions of the riparian areas of the Santa Clara River and tributary drainages.

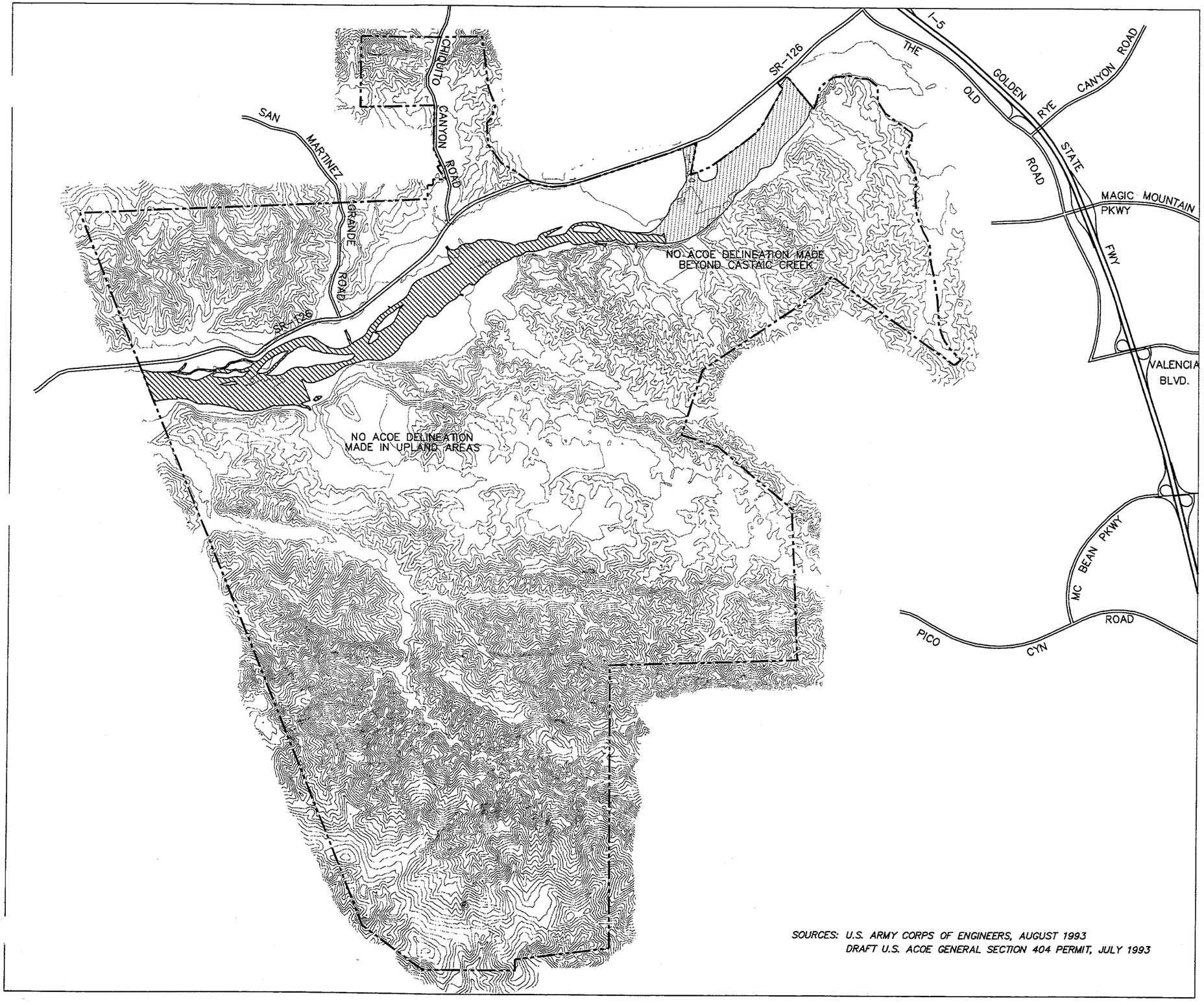
Jurisdictional wetlands and waters of the U.S. (including aquatic habitat) are subject to jurisdiction of the ACOE under Section 404 of the Federal Clean Water Act. By definition, all aquatic habitat present on the Ranch is contained within the waters of the U.S. or wetlands categories. In addition, streambeds and other drainages that occur on the Newhall Ranch are subject to regulation by the CDFG under Sections 1600-1603 of the California Fish and Game Code.

The ACOE and the U.S. Environmental Protection Agency (USEPA) jointly conducted a delineation of jurisdictional waters of the U.S. on a portion of the Santa Clara River within Newhall Ranch and downstream (from Castaic Creek to Las Brisas bridge in Ventura County) in August 1993. The total acreage of jurisdictional waters as delineated at that time by the ACOE and USEPA on Newhall Ranch is approximately 407 acres. Subsequent flooding events may have resulted in minor changes to this acreage, as wetlands boundaries may have been slightly altered.

The remaining portion of the Santa Clara River within the Newhall Ranch east of the confluence with Castaic Creek is the subject of an environmental impact statement currently under preparation by Woodward Clyde Consultants which will address the impacts associated with the application of a General or series of Section 404 Permits (draft) prepared by John M. Tettemer and Associates, Ltd. (some impacts within Newhall Ranch are included in this application). The total acreage of jurisdictional waters of the U.S. within the banks of this portion of the River within Newhall Ranch is approximately 210 acres. These jurisdictional areas are illustrated on **Figure 4.6-2, ACOE Delineation/General Permit Area.**

A preliminary assessment of jurisdictional waters was conducted on the upland portion of the Newhall Ranch property in 1994. However, a formal wetland delineation was not completed. The estimated acreage of jurisdictional waters from this preliminary assessment on Newhall Ranch is approximately 171 acres. An additional 8 acres of jurisdictional waters are present in the off-site land area that would be impacted by the proposed extensions of Valencia Boulevard and Magic Mountain Parkway.

Therefore, the total area of jurisdictional waters of the U.S. on Newhall Ranch that fall under the jurisdiction of the ACOE is approximately 788 acres. Details on the wetlands and aquatic habitats which occur on the Newhall Ranch Specific Plan area are included in the Biota Report (**Appendix 4.6**).



SOURCES: U.S. ARMY CORPS OF ENGINEERS, AUGUST 1993
DRAFT U.S. ACOE GENERAL SECTION 404 PERMIT, JULY 1993

NEWHALL RANCH™
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L E G E N D

- SANTA CLARA RIVER ACOE WETLAND DELINEATION
- GENERAL PERMIT AREA

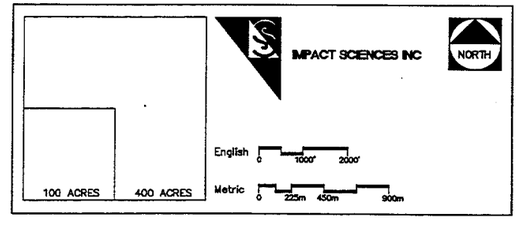


FIGURE 4.6-2
ACOE DELINEATION/ GENERAL PERMIT AREA

(5) Significant Ecological Areas

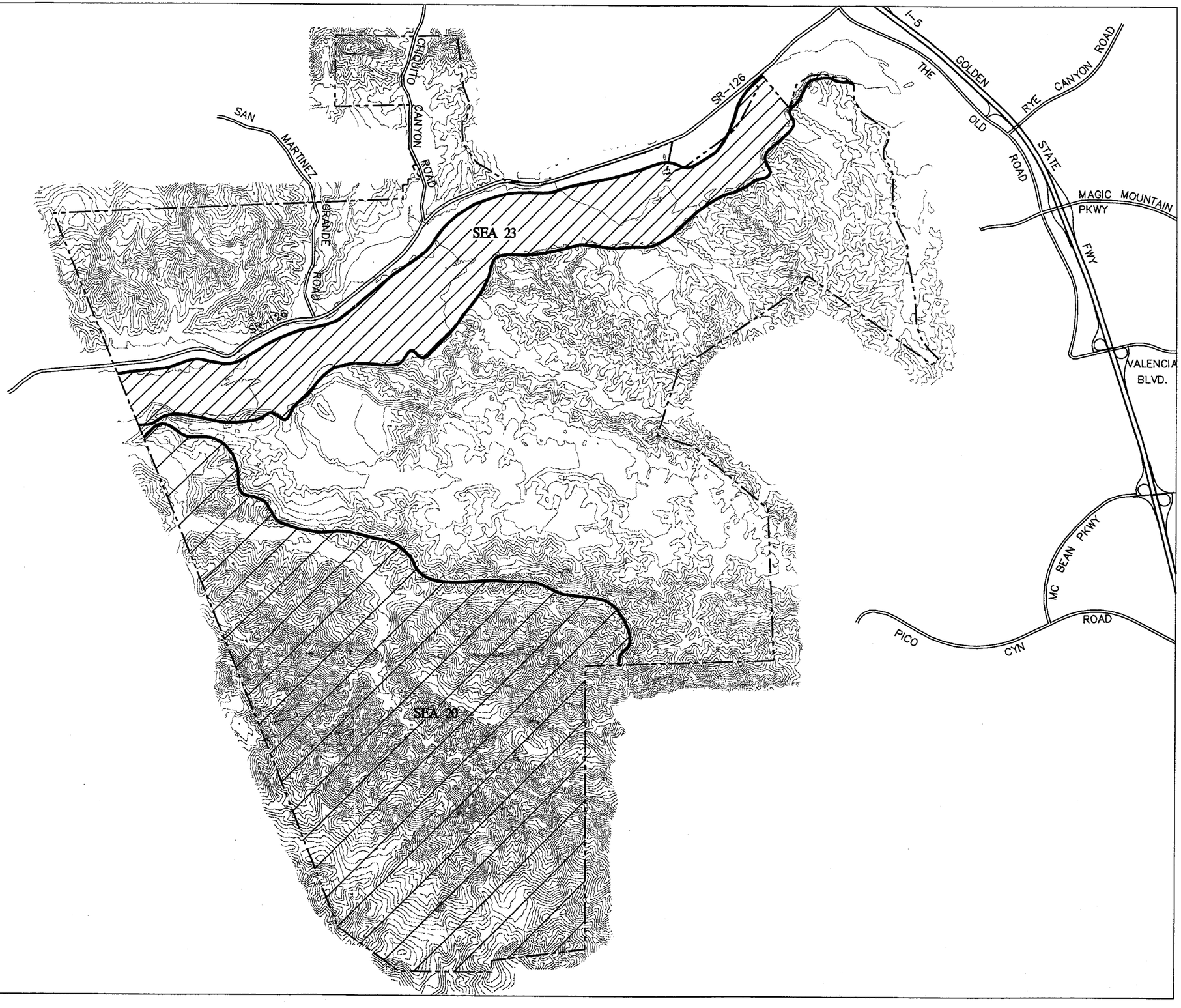
(a) SEA Boundaries

Significant Ecological Area (SEA) boundaries are policy lines, established by Los Angeles County, creating areas designated as having sensitive, unique or exemplary biological conditions. The County SEA boundaries are not necessarily a precise portrayal of the limits of the biological resources. SEAs contain land that may be characterized by lower quality habitat values, and may exclude adjacent lands that are of higher quality habitat value than that land contained within the SEA boundaries. The General Plan Amendment proposes modification of the boundaries of SEAs 20 and 23 to, in part, better reflect the sensitive biological resources present on the site. The County of Los Angeles General Plan permits development within SEAs as long as the development is "highly compatible" with the identified resources. Land uses permitted in an SEA, as defined by the County of Los Angeles, include residential uses at intensities compatible with the resource values, commercial uses of a minor nature, public and semi-public uses, and, where compatible with identified biotic resources, extractive uses, including oil and natural gas recovery and rock, sand and gravel quarrying.

Figure 4.6-3 (Significant Ecological Areas Map) shows the current delineation of SEA 20, which is primarily noted for its oak woodland conditions, wildlife corridors, and drainage areas. The current designation of the Santa Clara River Corridor SEA (SEA 23) is also shown on **Figure 4.6-3**. SEA 23 is noted for its wetlands and critical habitat for the unarmored threespine stickleback and least Bell's vireo. A total of approximately 5,237 acres of the 11,963-acre Newhall Ranch are within SEAs 20 and 23 (3,947 acres in SEA 20 and 1,290 acres in SEA 23). The remainder of the Ranch (approximately 6,726 acres) is wholly outside the SEA boundaries. The SEAs located in the Newhall Ranch Specific Plan area are discussed in detail in the Biota Report (**Appendix 4.6**) and are summarized below.

(b) Santa Clara River SEA (SEA 23)

The Santa Clara River is a regionally significant biological resource. Its value is derived from the inherent value of the riparian habitats and associated species, from its function as a regional wildlife corridor, and because it is a natural River for most of its course. Disturbed lands and non-riparian grasslands represent over one third of the acreage (466 of 1,290 acres) in the Newhall Ranch portion of SEA 23. Several types of riparian communities also occur in SEA 23, including extensive stands of southern cottonwood-willow riparian forest (86 acres), southern willow riparian woodland (124 acres), willow and mule fat dominated scrubs (81 acres and 428 acres, respectively), arrow weed scrub (6 acres), as well as freshwater marsh areas (3 acres) which form along the River in side channels and back



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L E G E N D

SIGNIFICANT ECOLOGICAL AREA #20
SANTA SUSANA MOUNTAINS

SIGNIFICANT ECOLOGICAL AREA #23
SANTA CLARA RIVER

100 ACRES 400 ACRES

IMPACT SCIENCES INC

NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

FIGURE 4.6-3
SIGNIFICANT ECOLOGICAL AREAS MAP

2/19/96

water areas where water either ponds or is slow moving. Habitat types and extent of coverage within SEA 23 are provided in Table BIO-14 (SEA 23 Habitats) in the Biota Report (**Appendix 4.6**). The oak tree survey prepared for the Newhall Ranch Specific Plan (provided in **Appendix 4.6**) estimates that approximately 156 oak trees exist in the portion of SEA 23 located on the Newhall Ranch.

(c) Santa Susana SEA (SEA 20)

The Santa Susana SEA or High Country currently includes 3,947 acres of habitat and forms a regionally significant core reserve for biological resources. The dominant habitat in SEA 20 is Venturan coastal sage scrub (1,966 acres), but SEA 20 also includes coast live oak woodland, valley oak savanna (520 and 357 acres, respectively), and mixed chaparral (815 acres) habitats. The oak tree survey prepared for the Newhall Ranch Specific Plan (provided in Appendix 4.6) estimates that approximately 13,211 oak trees exist in the portion of SEA 20 located on the Newhall Ranch. The value of the habitats found on the portion of the Ranch that is located within SEA 20 is enhanced substantially by its continuity and connectivity with the large areas of undeveloped land along the crest of the Santa Susana Mountains, the remainder of the SEA to the east providing opportunities for viable connections with a larger regional open area system. Habitat types and extent of coverage within SEA 20 are provided in Table BIO-15 (SEA 20 Habitats) in the Biota Report (**Appendix 4.6**).

(6) Oak Woodlands and Savannas

Los Angeles County and the CDFG recognize oak resources as a sensitive habitat type, and the California Native Plant Society considers oak woodlands a rare community type. Types of oak woodlands that occur on the Newhall Ranch property include coast live oak woodland, valley oak woodland, and valley oak savanna. In addition, oak trees are often the dominant plant type within cottonwood/oak woodland and mainland cherry forest communities.

An oak tree survey of the site was conducted by Henrickson in 1995 and is contained in Appendix 4.6. Henrickson estimated that a total of 16,314 oak trees (12,388 coast live oaks and 3,926 valley oaks) occur on Newhall Ranch, including 3,314 oak trees (2,888 coast live oaks and 426 valley oaks) within the proposed development area[1] and 13,000 trees (9,500 coast live oaks and 3,500 valley oaks) within the High Country Special Management Area (SMA). Approximately 156, 13,211, and 2,947 oak trees occur within existing SEA 23, existing SEA 20 and the non-SEA area, respectively, located on the Specific Plan site for a total of 16,314 oak trees. The 3,314 trees in the proposed development area were individually counted, mapped, and graded for health. A total of 232 heritage trees (178 coast live oaks

1 For the purposes of the oak tree survey, a generalized area was used to describe the development area which includes portions of the site designated as High Country, Open Area, and River Corridor.

and 54 valley oaks) were identified among the 3,314. Oak trees in the High Country SMA were counted based on aerial photography and field observation. In addition, 6 oak trees (including one heritage oak) were found within the proposed area of disturbance for the off-site extensions of Valencia Boulevard and Magic Mountain Parkway. Impacts to oak trees are discussed later in this section.

(7) Regional Conservation Context

Regional wildlife conservation is based in part on connectivity, or the ability of an area to provide for wildlife movement and connections to other large blocks of natural open area. From this perspective, portions of the Newhall Ranch occupy an important location (see **Figure 4.6-4, Regional Wildlife Movement).**

The primary connectivity of the Newhall Ranch is to large undeveloped areas of open area to the south and west in the Santa Susana Mountains, including the recently dedicated Santa Susana Woodlands Park. The eastern end of the Santa Susana Mountains is potentially connected to several other surrounding undeveloped areas, including the Simi Hills and the Santa Monica Mountains to the south. However, these connections are limited by intervening urban development in Simi Valley, the San Fernando Valley, other communities in Ventura and Los Angeles counties, and the existing State Route 118 (SR-118) and the U.S. 101 freeway. Connections between the Santa Susana Mountains and the Angeles National Forest to the north and east are also problematic because of the presence of Interstate 5 (I-5) and State Route 14 (SR-14) freeways, and because of urban development in the City of Santa Clarita, unincorporated portions of Los Angeles County and the San Fernando Valley. Such barriers act to limit connectivity and the potential movement of species between these large blocks of open area.

In addition, wildlife move between large blocks of open area that occur in a north/south orientation west of Interstate 5. Important wildlife movement corridors exist between the Newhall Ranch Specific Plan area and the Santa Clara River. The Santa Clara River is an important riparian corridor that connects the Specific Plan area with habitat to the east and west. The River and its tributaries serve as connections between the upland habitats to the north and south of the River, as well as upstream and downstream. Large expanses of undeveloped land in the Santa Susana Mountains to the south allow for the movement of wildlife down to the River and back primarily through a series of ridges and canyons (e.g., Salt Creek Canyon, Rawhide Canyon, and to a lesser extent Potrero Canyon). North of the River, wildlife movement from the surrounding hills to the River is somewhat facilitated by existing canyon connections (e.g., San Martinez Grande Canyon and to a lesser degree Chiquito Canyon), although SR-126 poses a barrier to wildlife movement. Proposed Caltrans improvements to SR-126 in Ventura County

Sulphur Mountain

Hutton Peak

Val Verde

Mint Canyon

Angeles National Forest

Santa Susana Mountains

Simi Hills

Santa Monica Mountains

Map Source: U.S.G.S. 1:250,000 scale map, Los Angeles quadrangle

8 4 MILES 0

NORTH

Santa Clara River drainage

Existing conservation areas

Potential movement corridor

Potential conservation areas

FIGURE 4.6-4

REGIONAL WILDLIFE MOVEMENT

include the provision of three agricultural undercrossings which may function as wildlife undercrossings. Connection to the west along the Santa Susana Mountains and rugged terrain of the lower foothills above the River is still good due to lack of development. Viable upland connections to the east are very restricted by the I-5 freeway, Stevenson Ranch, the Magic Mountain Theme Park, and the continued development of the Santa Clarita Valley.

In addition to the east/west corridor that occurs along the Santa Clara River, other large blocks of open area occur in a north/south orientation west of Interstate 5. These large open areas are also important from a regional conservation context. Few animals typically maintain a specific movement or migration corridor. Rather, most large mammals move in patterns throughout large territories in response to feeding and other life history requirements. Animals with large home range sizes require large contiguous open areas to facilitate their life history requirements and, as such, the large areas of open area that occur west of Interstate 5 are of substantial biological importance.

(8) Major Existing and Proposed Open area and Undeveloped Lands (within 10 miles of Newhall Ranch)

Figure 4.6-5 (Major Public and Private Open Space) illustrates the distribution of existing and proposed open area and undeveloped lands in the vicinity of Newhall Ranch. Provided below is a listing of these properties. Public (existing): 1) Los Padres National Forest, including the Sespe Condor Sanctuary; 2) Angeles National Forest; 3) Santa Susana Woodlands State Park; 4) Rim of the Valley Corridor Project of the Santa Monica Mountains Conservancy; 5) Porter Ranch Park; 6) Porter Ridge Park; 7) O'Melveny Park; 8) Placerita Canyon State Park; 9) Happy Camp Canyon Regional Park; 10) Sage Ranch; 11) Chatsworth Reservoir Park; 12) Challenger Park; 13) Tapo Canyon Regional Park.

Public (proposed): 14) Remainder of Santa Susana Woodlands State Park; 15) Rocky Peak Park (Runkle Ranch); 16) Ahmanson Open Space Area. In addition, the following private lands are currently undeveloped and represent open area in the region. It is possible that some or all of these parcels may eventually have development proposals submitted to allow eventual development on a currently unknown amount of this land.

Private Holdings: 17) The Newhall Land and Farming Company holdings -Ventura County; 18) Dale Poe Development - Stevenson Ranch; 19) Hathaway Ranch; 20) Temescal Ranch-Texaco; 21) Big Sky Ranch; 23) Strathearn Ranch; 24) Ahmanson Ranch; 25) UNOCAL-Big Mountain/Santa Susana Mountains.

Legend

1. Los Padres National Forest
2. Angeles National Forest
3. Santa Clarita Woodlands Park
4. Santa Susana Mountain Project
5. Porter Ranch Park
6. Porter Ridge Park
7. O'Melveny Park
8. Placerita Canyon State Park
9. Happy Camp Canyon Regional Park
10. Sage Ranch
11. Chatsworth Reservoir Park
12. Challenger Park
13. Tapo Canyon Regional Park
14. Remainder of Santa Clarita Woodlands Park
15. Rocky Peak Park (Runkle Ranch)
16. Ahmanson Open Space Area
17. Newhall Land and Farming Company holdings - Ventura County
18. Dale Poe Development - Stevenson Ranch
19. Hathaway Ranch
20. Temescal Ranch - Texaco
21. Big Sky Ranch
22. Strathearn Ranch
23. Ahmanson Ranch
24. UNOCAL - Big Mountain/Santa Susana Mtns.

FIGURE 4.6-5

MAJOR PUBLIC AND PRIVATE OPEN SPACE

NEWHALL RANCH™
Newhall Ranch Company

(9) Actual or Potential Wildlife Movement and Gene Flow Between Surrounding Open area and Reserves to the Newhall Ranch Specific Plan Area

Because of the large area encompassed by the Ranch and the large amount of relatively undisturbed habitat remaining around the site, it is not possible to precisely define actual wildlife movement patterns on, or surrounding the Newhall Ranch site. As stated, current wildlife use of the area is not restricted to corridors as such, but reflects species specific use of the landscape for life history (i.e., feeding, breeding, resting) requirements, as well as for local and larger scale movements. Current constraints on wildlife movement and use of the property and surrounding area are associated with existing land uses, particularly urbanization to the east and north of the site, agriculture along the River, and highways (SR-126 and I-5).

Generally, the pattern of wildlife movement and gene flow in the area, including Newhall Ranch, can be characterized as being within and between the three important local ecotypes or ecological units. These are: the uplands of the Santa Susana Mountains, the Santa Clara River riparian system, and the uplands to the north into the Angeles and Los Padres National Forests. **Figure 4.6-4** above illustrates the estimated corridor linkages between regionally important large ecological units.

From the conservation planning perspective, it is most important to anticipate land connections necessary to maintain the general pattern of connectivity that currently exists. This will require that the open area system within the site provide adequate connectivity between the uplands on the site and the Santa Susana Mountains; adequate connectivity upstream and downstream along the Santa Clara River; and that the project not preclude adequate connectivity between the Santa Susana Mountains and the Los Padres and Angeles National Forests. To provide adequate connectivity, landscape connections between each of the ecological units should be as broad as possible to allow for adequate connections.

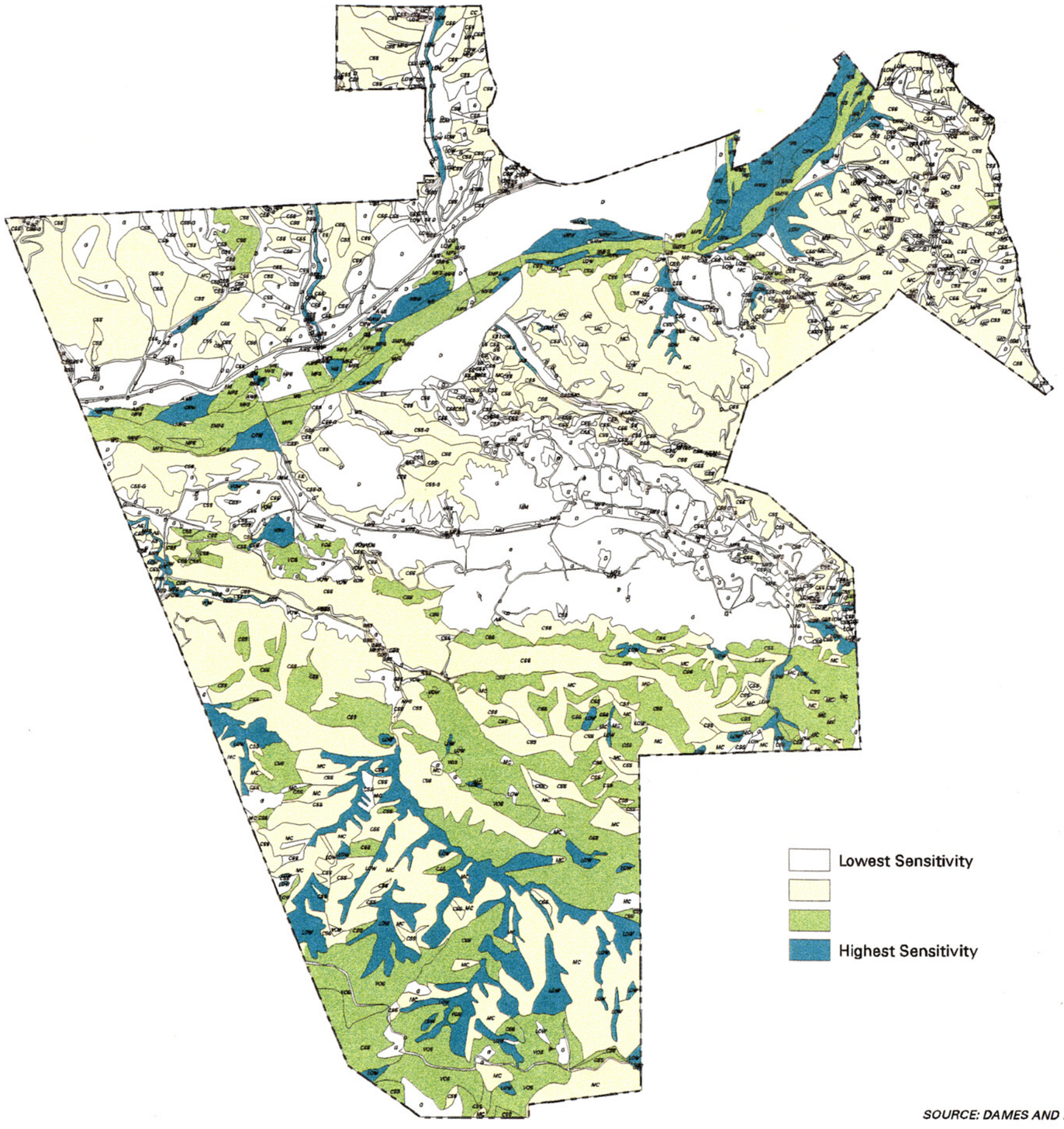
Connections between the River and upland areas and across the River (for example, Salt Creek) serve as more intermittent connections between ecotypes and are more easily characterized as corridors, and as such are not as necessarily broad as connections between ecological units (e.g., Los Padres National Forest, Santa Susana Mountains, etc.). To function adequately for animal movement, corridors must provide the necessary habitat characteristics, and be of adequate width so as to not inhibit movement.

(10) Specific Plan Approach to Resource Conservation

As a result of their diversity and overall quality, consideration of the biological resources on the Newhall Ranch property was incorporated into the early stages of the planning process for the Newhall Ranch Specific Plan to maximize the conservation of important biological features of the site. The habitat types and associated plant and animal species found on the property have become an integral part of the overall approach of the Specific Plan. A multidisciplinary approach was taken in the design of the open area system that included factors such as biological issues, land use, geology, hydrology, soils, and infrastructure. The result was the formulation of a conservation strategy that allows for the development of the site in a way that minimizes the Specific Plan's effects on important biological resources. That strategy is defined in the Biota Report **(Appendix 4.6).**

In addition, the conservation strategy defined in the Biota Report **(Appendix 4.6)** incorporates the design and management of important open areas in a way that conserves biological values. An important aspect of the approach was an analysis of the conservation value of habitats on the property. An additional component of the conservation strategy was the consideration of the larger regional context in the conservation design of biological resources on the site. The Ranch, which extends from the ridgeline of the Santa Susana Mountains across the Santa Clara River to the uplands on the north, offers the potential for significant habitat contributions to a potential Santa Susana Mountains open area and a key segment of the Santa Clara River system, as well as regionally important connections between these habitat areas and across the River (see **Figure 4.6-4**).

Based on the analysis (see **Figure 4.6-6, Habitat Value Study**), to minimize impacts to biological resources on the Ranch, potential development is proposed in more disturbed upland areas in the north-central portion of the property north and south of the Santa Clara River. Development generally avoids high value areas along the Santa Clara River and in the High Country SMA in the southern half of the Ranch. To maximize long term habitat values, these high value areas are connected by a natural landscape corridor. The most logical location for this corridor is at the west edge of the property away from the likely development areas and making use of existing topographic characteristics, as well as the undercrossings planned by Caltrans in association with improvements to SR-126 on the north side of the River. Salt Creek is the most appropriate topographic feature upon which to align this potential connection.



SOURCE: DAMES AND MOORE, RECON

NEWHALL RANCH.
Newhall Ranch Company

L E G E N D

UPLAND HABITAT

- G — GRASSLAND
- CC — CHAMISE CHAPARRAL
- MC — MIXED CHAPARRAL
- GBS — GREAT BASIN SCRUB
- GBS-MC — GREAT BASIN SCRUB / MIXED CHAPARRAL
- CSS — COASTAL SAGE SCRUB
- CSS-G — COASTAL SAGE / GRASSLAND
- ES — ELDERBERRY SCRUB
- LOW — COAST LIVE OAK WOODLAND
- LOW-MC — COAST LIVE OAK WOODLAND / MAINLAND CHERRY
- VOW — VALLEY OAK WOODLAND
- VOS — VALLEY OAK SAVANNAH

- AS — ALLUVIAL SCRUB
- AS-MC — ALLUVIAL SCRUB / MIXED CHAPARRAL
- AWS — ARROW WEED SCRUB
- SS — SCALEBROOM SCRUB
- MFS — MULE FAT SCRUB
- SMFS — SUCCESSIONAL MULE FAT SCRUB
- WS — SOUTHERN WILLOW SCRUB
- COW — COTTONWOOD / OAK WOODLAND
- CRW — SOUTHERN COTTONWOOD WILLOW RIPARIAN FOREST
- WRW — SOUTHERN WILLOW RIPARIAN WOODLAND
- MM — MESIC MEADOWS
- P — POND
- FM — VALLEY FRESHWATER MARSH

- D — DEVELOPED / DISTURBED AREAS

English 0 1000' 2000'
Metric 0 460m 900m
NORTH

FIGURE 4.6-6
HABITAT VALUE STUDY

The result of the design effort has produced a strategy that has focused conservation and mitigation efforts on the Newhall Ranch property into these three areas:

1. The Santa Clara River Corridor,
2. The large block of relatively undisturbed habitats on higher elevations of the Santa Susana Mountains (High Country), and
3. The connection between these two areas along the Salt Creek drainage corridor.

4. SPECIFIC PLAN IMPACTS

a. Significance Threshold Criteria

Appendix G of the California Environmental Quality Act (CEQA) Guidelines defines a significant effect on the biological environment as those changes that "substantially affect a rare or endangered species of animal or plant or the habitat of the species; . . . interfere substantially with the movement of any resident or migratory fish or wildlife species; . . . [or] substantially diminish habitat for fish, wildlife, or plants."

The direct impact of implementation of the Newhall Ranch Specific Plan would be to remove a portion of the natural biological resources that exist on the site and to convert them to an urban condition. To assess the significance of direct and indirect Specific Plan impacts, the following criteria were employed to define impact magnitude (includes the aforementioned significant effects as defined by CEQA).

- Will implementation of the Newhall Ranch Specific Plan substantially diminish habitat for fish, wildlife or plants?
- Will implementation of the Newhall Ranch Specific Plan substantially interfere with the movement of any resident migratory fish or wildlife species?
- Will implementation of the Newhall Ranch Specific Plan substantially affect endangered, rare or sensitive plant or animal species?
- Will implementation of the Newhall Ranch Specific Plan substantially affect sensitive habitat types?

b. Specific Plan Impacts

(1) Effects on the Diminishment of Habitat for Fish, Wildlife or Plants

The discussion of direct impacts that follows identifies the direct impact of implementation of the Newhall Ranch Specific Plan on vegetation and habitat types present on the Ranch, and the resource value assigned to the individual habitat types. Review of this evaluation indicates that the majority of the proposed development area is situated in areas with low to moderate habitat values. This is summarized by **Table 4.6-6 (Vegetation on Newhall Ranch Affected by Specific Plan Implementation),** which shows that many of the vegetative communities with the highest percentage of area impacted are of relatively low habitat value (e.g., non-native grassland and disturbed areas). Conversely, many of the areas of least percentage of area impacted are among the highest value habitats (e.g., southern willow riparian woodland, coast live oak and valley oak woodlands, and valley oak savanna).

Table 4.6-6
Vegetation on Newhall Ranch Affected by Specific Plan Implementation

Vegetation Community Type	Approximate Acres Present (Rounded)	Approximate Acres Disturbed (Rounded)	Approximate Percent Disturbed
Coastal Sage Scrub	5,183	1,820	35%
Chamise Chaparral	7	3	43%
Mixed Chaparral	1,206	199	16%
Great Basin Scrub	81	49	60%
Coast Live Oak Woodland	670	37	5%
Valley Oak Woodland	26	2	8%
Valley Oak Savanna	394	25	6%
Elderberry Scrub	24	14	58%
Non-Native Grassland	1,896	1,480	78%
Mainland Cherry Forest	18	11	61%
Disturbed Areas	1,523	1,317	87%
Mule Fat Scrub	222	63	28%
Successional Mule Fat Scrub	275	6	2%
Southern Willow Scrub	96	15	16%
Southern Willow Riparian Woodland	126	4	3%
Southern Cottonwood-Willow Riparian Forest	93	15	16%
Arrow Weed Scrub	16	11	69%
Valley Freshwater Marsh and Ponds	5	2	40%
Cottonwood/Oak Woodland	26	7	27%
Alluvial Scrub	39	21	54%
Scalebroom Scrub	20	17	85%
Mesic Meadow	14	14	100%
Total	**11,963**	**5,132**	**43%**

(a) Direct Impacts

Section 15358 of the CEQA Guidelines defines direct effects (effects being synonymous with impacts) as "Direct or primary effects which are caused by the project and occur at the same time and place." As used in this analysis, direct impacts are considered to be the changes that would occur to the site as a result of Specific Plan implementation. For this analysis, the outer limits of ultimate build-out as defined by the Conceptual Grading Plan for the Specific Plan (**Figure 1.0-14**) was used to evaluate the

magnitude of direct impacts to biological resources. As the Grading Plan is conceptual in nature, a precise determination of impacts cannot be made at this time. This analysis, based on the Conceptual Grading Plan, represents a reasonable worst case analysis of impacts for the proposed Specific Plan. In order for development to occur, the Specific Plan area will have to be subdivided. Subdivisions are governed by the State Subdivision Map Act and will require environmental review. Subdivisions will be evaluated for consistency with the Specific Plan and its related environmental documents. At subsequent levels of planning, there may be opportunities to reduce the level of impacts below those described in this subsection.

The following categories of direct impacts to biological resources are discussed below:

- the direct loss of natural vegetation,
- direct effects on wildlife, and
- the direct loss of jurisdictional wetlands and waters of the U.S.

1. Habitat and Vegetation Communities

The principal direct impact of implementation of the Specific Plan is to convert approximately 5,132 acres of the approximately 11,963-acre Newhall Ranch property (about 43 percent) from a natural to an urban condition. Direct impacts are based on a maximum build-out scenario as proposed in the Specific Plan (these impacts may be reduced as plans are developed at a tract map level of detail. In addition to disturbances within the proposed development area approximately 169 off-site acres would be subject to disturbance as a result of off-site roadway extension construction. The approximate acreage of each of the vegetation/habitat types present on the Newhall Ranch property, the approximate acreage of each type subject to disturbance as a result of maximum build-out, and the percentage of each type subject to disturbance are provided in **Table 4.6-6**.

The impact to each of the vegetation/habitat types identified on the Newhall Ranch is described below. The rationale associated with habitat values identified below was discussed and described earlier in this subsection in existing conditions.

Coastal Sage Scrub -- The loss of approximately 1,820 acres of coastal sage scrub vegetation on the Ranch would result from implementation of the Specific Plan. This total includes 1,709 acres of coastal sage scrub, as well as 111 acres of coastal sage scrub/grassland mix and represents approximately 35 percent of the total 5,183 acres of coastal sage scrub present on the site. About 56 acres of coastal sage scrub vegetation would also be impacted along the off-site roadway extension alignments.

On the Ranch, the various densities of coastal sage scrub vegetation provide habitat for a variety of plant and animal species, including California species of special concern, special animals, and Federal plant and wildlife species of concern. Potential impacts to these sensitive plant and animal species are discussed and described later in this subsection. A large majority of the coastal sage scrub vegetation that would be impacted by implementation of the Specific Plan has been subject to a variety of disturbances and was assigned the two lowest Habitat Value ranks (Rank 1 and 2) identified in the Habitat Value Analysis, with the rest assigned the second highest Habitat Value rank (Habitat Rank 3).

Mixed Chaparral -- Implementation of the Specific Plan would result in the direct loss of approximately 202 acres of the 1,213 acres of chaparral vegetation on the Ranch (including 3 acres of chamise chaparral and 199 acres of mixed chaparral). This loss represents about 43 percent of the total 7 acres of chamise chaparral present on site and approximately 16 percent of the total 1,206 acres of mixed chaparral present on the Newhall Ranch. In addition, construction of off-site roads associated with the Specific Plan will impact an additional 98 acres of chamise chaparral, as well as 8 acres of mixed chaparral.

As stated in the Biota Report **(Appendix 4.6)**, chaparral is a dominant vegetation type in the region, and it is not considered sensitive in southern California. The chamise chaparral and mixed chaparral vegetation on the Ranch are not known to support rare, threatened, endangered, candidate or proposed plant and wildlife species. However, this habitat type does provide habitat for California species of special concern, special animals, and Federal species of concern. Impacts to these sensitive species are discussed and described later in this subsection.

The chamise and mixed chaparral vegetation impacted by implementation of the Specific Plan was assigned entirely to the two lowest Habitat Value ranks, with the large majority of chamise chaparral being assigned to the lowest rank.

Great Basin Scrub -- The direct loss of approximately 49 of the total 81 acres of Great Basin scrub vegetation on the site would result from implementation of the Specific Plan. This loss represents approximately 60 percent of the Great Basin scrub vegetation on the Ranch. Construction of off-site roads would impact 2 additional acres of Great Basin scrub vegetation.

The Great Basin scrub vegetation on the Ranch is not known to support rare, threatened, endangered, proposed or candidate plant and wildlife species; however, it does provide habitat for one California species of special concern and one Federal species of concern, and five declining butterflies. Impacts to these sensitive species are discussed and described later in this subsection. The large majority of Great

Basin scrub directly impacted by implementation of the Specific Plan was assigned to the two lowest Habitat Value ranks, with a very small amount assigned to the highest Habitat Value rank (Habitat Value Rank 4). However, this vegetation is regionally important because it is at the extreme edge of its distribution.

Oak Communities -- The loss of about 64 acres of oak vegetation (consisting of up to 37 acres of the 670 acres of coast live oak woodland present on site, up to 2 acres of the 26 acres of valley oak woodland, and up to 25 acres of the 394 acres of valley oak savanna) could result from implementation of the Specific Plan. This represents a loss of about 5 percent of the total amount of the coast live oak woodland, 8 percent of the valley oak woodland, and 6 percent of the valley oak savanna areas on the Newhall Ranch. Coast live oak woodland, valley oak woodland, and valley oak savanna vegetation types are considered sensitive by the State of California and provide habitat for sensitive species. Impacts to these sensitive species are discussed and described later in this subsection.

According to the Habitat Value Analysis(see Appendix 4.6), approximately two-thirds of the coast live oak woodland to be disturbed were assigned to the highest Habitat Value rank, while about one-third was assigned to the lowest. About three-quarters of the valley oak woodland to be disturbed were assigned to the highest Habitat Value rank, with the remaining one-quarter divided evenly between the two lower ranks. The large majority of the valley oak savanna that would be subject to disturbance was assigned to the highest Habitat Value rank, while the small remainder was divided between the two lowest ranks. However, all oak woodland is considered sensitive.

Implementation of the Specific Plan would result in an impact on up to 648 oak trees or 4 percent of the estimated 16,314 trees which occur on site, consisting of up to 553 coast live oak and up to 95 valley oak on the Ranch. This includes 11 dead coast live oaks and 3 dead valley oaks assigned to Health Category 5 (dead standing). County Ordinance No. 88-0157 does not require an Oak Tree Permit for Category 5 trees. Included in these impacts are up to 109 heritage coastal oak trees (89 heritage live oak and 20 heritage valley oak) as a result of completion of the ultimate Specific Plan buildout. Along the off-site highway extensions, 6 coast live oak trees, including 1 heritage oak tree, would be impacted. Of the 648 oak trees impacted onsite, 54 occur within the existing bounds of SEA 23, 13 occur within the existing bounds of SEA 20, and 581 occur outside the bounds of the SEAs.

Oak trees are considered sensitive by the County of Los Angeles, and County Ordinance No. 88-0157 provides protection for oak trees with a trunk diameter of greater than 8 inches. This ordinance requires a permit for cutting, moving, removal, or encroachment into the 'protected zone' of oak trees, and further requires replacement of lost oak trees. The numbers of oak trees to be impacted as indicated above are based on the Conceptual Grading Plan for the Specific Plan. During the subdivision process,

individual grading plans will be prepared for each tract that will provide a more accurate assessment of graded area than the Conceptual Grading Plan. Therefore, the number of trees identified as being impacted represents the maximum amount of loss that is anticipated. It is possible that trees shown to be impacted may be preserved through adjustments to the grading and development plans, provisions for retaining walls and other such techniques.

Elderberry Scrub -- The direct loss of approximately 14 acres of the 24 acres of elderberry scrub vegetation present on site as a result of implementation of the Specific Plan is anticipated. This loss represents about 58 percent of all elderberry scrub vegetation present on the Newhall Ranch.

Elderberry scrub vegetation present on the Ranch is not known to support rare, threatened, endangered, proposed or candidate plant and wildlife species. It may provide habitat for several California species of special concern, special animals, and Federal wildlife species of concern, similar to those potentially occurring in mixed chaparral or coastal sage scrub. The large majority of the vegetation to be lost was assigned to the two lowest Habitat Value ranks, with a very small amount assigned to Habitat Value Rank 3. Elderberry scrub vegetation is considered sensitive.

Non-native Grassland Vegetation -- Implementation of the Specific Plan would result in the direct loss of approximately 1,480 acres of the 1,896 acres of non-native grassland vegetation present on the Newhall Ranch. This loss represents about 78 percent of the non-native grassland vegetation on the Ranch with an additional 9 acres being impacted along the off-site road alignments.

The non-native grassland vegetation on the Ranch is not known to support rare, threatened, endangered or proposed plant and wildlife species. It does provide habitat for Category 2 Federal candidate species, including the San Diego black-tailed jackrabbit; foraging habitat for raptors including the sensitive white-tailed kite and Cooper's hawk; and the declining butterflies Becker's white, Comstock's fritillary, and Gorgon copper. Impacts to these sensitive species are discussed and described later in this subsection. In addition, the edges of grasslands (where grassland interfaces with other, more densely structured vegetation communities) are used to a large degree by many wildlife species.

Nearly all grassland vegetation present within the proposed development area was assigned to the lowest Habitat Value rank with only a small amount of acreage included in the other three Habitat Value ranks.

Mainland Cherry Forest -- The direct loss of approximately 11 acres of the 18 acres of mainland cherry forest vegetation would occur with implementation of the Specific Plan. This loss represents about 61 percent of the mainland cherry forest on the Newhall Ranch.

On the Ranch, mainland cherry forest vegetation is intermixed with coast live oak vegetation. Mainland cherry forest vegetation on the Ranch is not known to support rare, threatened, endangered, proposed or candidate plant and wildlife species. However, it may provide habitat for several declining butterflies. Impacts to these sensitive species are discussed and described later in this subsection.

According to the Habitat Value Analysis (see Appendix 4.6), the large majority of the vegetation to be lost was assigned to the lowest Habitat Value rank, with small amounts being assigned to the second lowest rank and second highest rank. However, all mainland cherry forest vegetation is sensitive.

Disturbed Areas -- Approximately 1,317 acres of the 1,523 acres of area categorized as disturbed would be lost as a result of Specific Plan implementation. This loss represents about 87 percent of the disturbed area on the Ranch. Proposed off-site roadways would impact 1 additional acre of this vegetation type.

Disturbed areas on the Newhall Ranch are not known to support rare, threatened, endangered, proposed or candidate plant and wildlife species. Ruderal vegetation contained in the disturbed areas category does provide habitat for California species of special concern, special animals, and Federal species of concern, and it may also provide foraging habitat for raptors. Impacts to these sensitive species are discussed and described later in this subsection. In general, this non-native vegetation represents marginal quality habitat for wildlife.

The large majority of the disturbed vegetation was assigned to the lowest Habitat Value rank with only small amounts being included in the other three ranks.

Riparian Scrub – The direct loss of up to 95 acres (or about 16 percent) of the 609 acres of riparian scrub vegetation (consisting of about 69 of the 497 acres of mule fat scrub [in turn consisting of up to about 63 acres of mule fat scrub and up to about 6 acres of successional mule fat scrub], about 15 of the 96 acres of southern willow scrub, and about 11 of the 16 acres of arrow weed scrub present onsite) could occur with implementation of the Specific Plan. About 14 percent of the mule fat scrub vegetation present on the Ranch would be disturbed (about 28 percent of the mule fat scrub and about 2 percent of the successional mule fat scrub), about 16 percent of the sensitive southern willow scrub vegetation would be disturbed, while about 69 percent of the sensitive arrow weed scrub vegetation would be disturbed.

On the Ranch, mule fat scrub and southern willow scrub vegetation, and to a lesser degree arrow weed scrub vegetation, provide habitat for many wildlife species, and are an especially important component of the life history of riparian dependent birds (many of which are considered sensitive).

According to the Habitat Value Analysis, about 10 percent of the mule fat scrub to be disturbed was assigned to the highest Habitat Value rank, while approximately 40 percent was assigned to the lowest. The majority of the southern willow scrub vegetation to be disturbed was assigned to the highest Habitat Value rank, while the large majority of the arrow weed scrub vegetation to be disturbed was assigned to the lowest Habitat Value rank. However, all riparian vegetation is considered sensitive.

Riparian Woodland -- The direct loss of approximately 18 acres (or about 9 percent) of the 219 acres of riparian woodland vegetation (consisting of less than 4 of the 126 acres of southern willow riparian woodland and less than 15 of the 93 acres of southern cottonwood-willow riparian forest) would occur with implementation of the Specific Plan. About 3 percent of the southern willow riparian woodland vegetation present on the Ranch would be disturbed, while about 16 percent of the southern cottonwood-willow riparian forest vegetation present on the Ranch would be altered as a result of Specific Plan implementation.

Southern willow riparian woodland and southern cottonwood-willow riparian forest vegetation on the Ranch provide occupied or occupiable habitat for the endangered least Bell's vireo and southwestern willow flycatcher, the Federal candidate species tricolored blackbird, other sensitive birds including great blue heron, great egret, snowy egret, white-tailed kite, Cooper's hawk, vermilion flycatcher, loggerhead shrike, yellow warbler, yellow-breasted chat, and summer tanager, as well as several declining butterflies. Impacts to these sensitive species are discussed and described later in this subsection.

The majority of both the southern willow riparian woodland vegetation and the southern cottonwood-willow riparian forest vegetation to be disturbed was assigned to the highest Habitat Value rank.

Valley Freshwater Marsh -- The direct loss of about 2 of the 5 acres of valley freshwater marsh vegetation could occur with implementation of the Newhall Ranch Specific Plan. This loss represents about 40 percent of the freshwater marsh vegetation present on the Ranch.

The freshwater marsh vegetation on the Ranch provides occupied or occupiable habitat for the Federal candidate species western spadefoot toad, southwestern pond turtle, two-striped garter snake, and tricolored blackbird, as well as for common amphibians, migratory waterfowl, and aquatic insects. Impacts to these sensitive species are discussed and described later in this subsection.

While according to the Habitat Value Analysis (see Appendix 4.6), the large majority of the marsh areas to be lost were assigned to the lowest Habitat Value rank (with trace amounts being placed in the highest and second highest ranks), all marsh habitats are considered sensitive and the loss of them significant.

Cottonwood/Oak Woodland Vegetation -- The direct loss of approximately 7 of the 26 acres of cottonwood/oak woodland vegetation on the site would result from Specific Plan implementation. This loss represents about 27 percent of the cottonwood/oak woodland vegetation on the Ranch.

Cottonwood/oak woodland vegetation on the Ranch is not known to support rare, threatened, endangered, proposed or candidate plant and wildlife species. It may provide habitat for several declining butterflies.

According to the Habitat Value Analysis, the large majority of the vegetation to be lost was assigned to the highest Habitat Value rank, with a small amount being placed in the second lowest rank.

Alluvial Scrub Vegetation -- About 38 of the 59 acres (about 64 percent) of alluvial scrub vegetation (consisting of about 21 of the 39 acres of alluvial scrub on the Ranch and about 17 of the 20 acres of scalebroom scrub) would be impacted by implementation of the Specific Plan. This represents the loss of approximately 54 percent of the alluvial scrub vegetation on the Ranch and loss of 85 percent of the scalebroom scrub. About 3 acres would also be impacted by off-site roadway alignments.

Alluvial scrub vegetation and scalebroom scrub vegetation on the Ranch are not known to support rare, threatened, endangered, proposed or candidate plant and wildlife species. They may provide habitat for several California species of special concern, special animals, and Federal species of concern, and several declining butterflies. Impacts to these sensitive species are discussed and described later in this subsection.

According to the Habitat Value Analysis, the majority of the alluvial scrub vegetation to be lost on the site was assigned to the two lowest Habitat Value ranks, with about one tenth of the disturbance being assigned to the highest rank. Approximately two-thirds of the scalebroom scrub vegetation to be lost was also assigned to the highest Habitat Value rank, with the remaining one-third being assigned the lowest rank. However, alluvial scrub vegetation is regionally important.

Mesic Meadow Vegetation -- Implementation of the Specific Plan would result in the direct loss of all 14 acres of mesic meadow vegetation on the Newhall Ranch site.

Mesic meadow vegetation on the Newhall Ranch is not known to support rare, threatened, endangered proposed, or candidate plant and wildlife species. However, it does provide occupied or occupiable habitat for common amphibians, migratory waterfowl, and aquatic insects.

This habitat type would qualify as a wetland based on ACOE and CDFG guidelines. According to the Habitat Value Analysis, all of the mesic meadow vegetation to be lost was assigned to the lowest Habitat Value rank based on the ranking methodology described above. However, all wetlands are considered to be sensitive habitats. Therefore, the loss of 14 acres of this wetland vegetation type is considered significant.

(b) General Wildlife Impacts

Construction activity and operation of the Specific Plan would directly disturb wildlife on and near the Newhall Ranch site. Most species are expected to be displaced to adjacent areas of similar habitat, provided it is available at the onset of construction activity. However, wildlife that emigrate from the site are vulnerable to mortality by predation and unsuccessful competition for food and territory. Within the proposed development area, species of low mobility (particularly burrowing mammals and reptiles) could be lost during site preparation. The effects of the incremental nature of the construction are less severe than if the entire area within the ultimate build-out envelope were to be disturbed at once, because wildlife from smaller disturbance areas may have a greater chance of being absorbed into surrounding areas.

Replacement of existing vegetation with structures and ornamental landscaping would eliminate natural communities on developed portions of the site and result in a reduction in native wildlife species diversity. The replacement of existing habitat with non-native or ornamental landscaping would result in the elimination (through emigration) of the majority of animal species typical of a natural setting. These animals would be replaced with a fauna composed of species tolerant of, or dependent upon, a human presence.

Habitat for fish species on the property, primarily in the Santa Clara River, will not be directly affected by the proposed development (with the exception of temporary impacts from construction of three bridge crossings and bank stabilization). Existing habitat for wildlife and plants will be removed or modified on approximately 43 percent of the Specific Plan area as a result of grading; however, much of the development focuses on habitat disturbed by past or current land uses. For

example, over a quarter of the total area to be disturbed as a result of implementation of the Specific Plan has been classified as 'disturbed' during characterization and mapping of the vegetation types on the Ranch, and over another quarter has been classified as non-native grassland, much of which has been degraded by grazing. The remainder of the site would not be impacted (approximately 57 percent).

(c) Conclusion

Based on the amount of habitat lost (5,132 acres), the impact potential of implementation of the Newhall Ranch Specific Plan on the diminishment of habitat for wildlife or plants is considered significant, but is not considered significant for fish. The impact of the Specific Plan on sensitive plant or animal species and habitats is discussed later in this report subsection.

(2) Effects on the Movement of any Resident Fish or Wildlife Species

Fish species on the property primarily make use of the Santa Clara River. The aquatic portion of the River will be left relatively intact. Additionally, the removal of cattle from the River or the use of grazing as a long-term management activity as described in the Resource Management Plan is expected to be of some benefit to fish and other River dependent species through improvements of the water quality on site and downstream. Fish species on the Ranch will not be affected substantially by development within the proposed development area. In addition, because the Specific Plan would not have significant sedimentation or scouring impacts on the Santa Clara River, implementation of the Specific Plan is not expected to affect fish movement anywhere along the River.

Development, both on the site and upstream, will add water to the low flow condition of the Santa Clara River through the property from increased irrigation runoff and discharge from the proposed water reclamation plant. Under normal conditions, no discharges of treated wastewater are expected from the proposed water reclamation plant, and all water would be reclaimed and used to water landscape vegetation on site. However, it is possible that approximately 522 to 1,372 acre-feet of tertiary treated wastewater could be discharged into the River near the County line during wet winter months when demand for reclaimed water would be low. This amount of discharge translates to a flow rate of 3.5 to 6.3 cubic feet per second, which would be a 1.5 to 3.9 percent increase in the average annual flow volume in the River, or approximately 0.002 to 0.004 percent of the Capital Flood volume at the County line. These discharges would not affect water quality or significantly increase flows in the Santa Clara River, nor would they impact the distribution of fish and aquatic species on the site, or the movement of these species through the property.

Implementation of the Newhall Ranch Specific Plan would limit the local movement of wildlife species that currently make use of areas that are proposed for development. Specific effects will occur to those species which use future developed portions of the property as habitat or for dispersal or other longer distance movements, such as for access to the River. Most of the habitats proposed for development on the property are those which have been disturbed by current or past land use activities. The species whose movement will be affected most by the proposed development are those that make use of these habitats, such as: San Diego horned lizard and California horned lizard, coastal western whiptail, San Diego desert woodrat, San Diego black-tailed jackrabbit, and several raptors.

The general trend of wildlife movement currently follows the southeast to northwest trend of ridgelines in the area. On the landscape scale, the primary effect of the proposed development will be to narrow the access for wildlife species between the Santa Susana Mountains and the Santa Clara River. Wildlife movement through the property will be focused toward the west side down Salt Creek and away from Potrero and Long Canyons. Current and future development of the lands to the east and southeast of the Ranch in the City of Santa Clarita and unincorporated areas limit the amount of wildlife habitat available and, therefore, the wildlife that would be expected to continue to make use of the access through the eastern portion of the property. The majority of habitat available is south of the site, in the High Country SMA. Therefore, wildlife will continue to move in between the High Country SMA and the River in a generally north and south direction. Access for wildlife between the River and the High Country SMA would continue to be available along the proposed Salt Creek corridor. Salt Creek Canyon's value as open area or a movement corridor is high due to its relative remoteness, the quality of habitats present, the fact that it is an integral part of the High Country SMA's approximately 3,950 acres, and the fact that a vertical grade separation exists between it and the area proposed for development to the north and northeast.

Wildlife movement along the Santa Clara River through the Specific Plan area will also be affected by adjacent development and several bridges across the River. Current wildlife movement along the River is limited to some degree by development upstream to the east in Santa Clarita. The River is regularly used for movement by species, such as migratory birds, and for dispersal movements by a diversity of species. Riparian habitat in the River Corridor will likely be increased as a result of the proposed development, both in extent and connectivity. Portions of upland habitat adjacent to the River will be maintained along the corridor and periodic canyon connections between the River and the uplands will also be maintained to allow for connectivity. Crossings of the River will be bridge structures, allowing for wildlife movement.

(a) Conclusion

While the Specific Plan preserves the primary and highest quality movement corridor found on the site (the Salt Creek corridor), as well as other periodic canyon connections between the River and the uplands, the impact potential of implementation of the Newhall Ranch Specific Plan on the movement of resident wildlife species is considered significant due to the reduction in open land available for wildlife movement between the River and upland areas. The impact potential of implementation of the Newhall Ranch Specific Plan on the movement of resident fish species is not considered significant.

Note that a portion of the Salt Creek movement corridor occurs within the Specific Plan Area, with the remaining portion of the corridor occurring in Ventura County. Any future project proposed in Ventura County that would fragment this corridor would significantly impact the connection of the High Country SMA and Santa Susana Mountains with the Santa Clara River and the Los Padres and Angeles National Forests located to the north. Therefore, any future action taken in this portion of Ventura County should strongly consider this important ecological feature.

(3) Effects on Endangered, Rare or Sensitive Plant or Animal Species

Endangered, threatened, rare or otherwise sensitive plants and animals that were observed or those that have a reasonable potential for occurrence on the Newhall Ranch site are identified below. This discussion assesses the impact potential (inclusive of both construction and operation impacts) of the Newhall Ranch Specific Plan on these sensitive species, evaluates the magnitude of impact and references mitigation measures that are detailed later in this subsection (most are incorporated in detail in the Newhall Ranch Specific Plan Resource Management Plan [RMP]). The general locations of sensitive plant and wildlife species occurrence on the Ranch, as well as appropriate habitat, are presented in a series of labeled maps included in Appendix N of the Biota Report (**Appendix 4.6**).

(a) Plants

1. Observed Species

Species:	**Peirson's morning-glory**
Sensitivity Designation:	**CNPS List 4, Federal Species of Concern**
Impact:	**Loss of an unknown number of Peirson's morning-glory individuals and habitat**
Significance:	**Not Significant**

Peirson's morning-glory has been assigned to the CNPS List 4, which is a watch list, and is a Federal species of concern. Taxa on List 4 are not considered to be severely threatened by CNPS, but the CNPS feels the plant's occurrence should be considered during the decision making process. The local USFWS office has supporting information gathered during the past several years which indicate that this plant is more widespread and abundant than previously believed (Rutherford, USFWS, personal communication, 1995).

On the Newhall Ranch, the distribution and abundance of this plant is considered uncommon, occurring in small, scattered, localized areas. A preliminary estimate, based on field observations, places the acreage of sparse coastal sage scrub possibly occupied by this sensitive taxon at approximately 29 acres (see Biota Report, **Appendix 4.6**). Ultimate buildout through implementation of the Specific Plan would remove a portion of this plant's habitat and would result in the elimination of certain of the known individual plants where site development and plant occurrence are coincidental. However, there is no potential to eliminate all habitat for this species on site, nor is there the potential to reduce the population size below self sustaining levels either on site or regionally.

Based on the status of the sensitivity designation (i.e., CNPS List 4 {a watch list} and USFWS acknowledgment that this taxon will likely not warrant consideration for possible future listing), the preservation of plants and habitat on site, the relatively wide distribution of this species regionally, and a greater abundance of this plant than was previously believed on a regional basis, the Specific Plan's anticipated impact on Peirson's morning-glory is not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6-34, 4.6- 35 and 4.6-53. These mitigation measures are defined in detail later in this section.

2. **Expected Species**

Species:	**Slender- horned spineflower**
Sensitivity Designation:	**Federal Endangered, State Endangered, CNPS List 1B**
Impact:	**Potential loss of slender-horned spineflower (if present)**
Significance:	**Significant (if present)**

Slender-horned spine flower is listed by the Federal government and State of California as endangered and is designated as a List 1B species by the CNPS. Slender-horned spineflower was not recorded on the Newhall Ranch site during the biological field surveys (**Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the alluvial scrub vegetation, or in chaparral and the coastal sage scrub of alluvial fans.

It is acknowledged that any loss of plant species listed as rare, threatened or endangered is considered a significant impact. However, field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years this taxon has been assigned a low probability of occurrence at the Newhall Ranch.

Given the information provided above, it can be concluded that implementation of the Newhall Ranch Specific Plan would not substantially affect this plant as it was not observed on site and the probability of occurrence is low. Areas of habitat where this plant has the potential to occur that would be lost on the property include approximately 38 of the 59 acres of alluvial and scalebroom scrub, 1,820 of the 5,183 acres of coastal sage scrub on site, and approximately 202 of the 1,213 acres of chaparral habitat situated on the Newhall Ranch site. In the unlikely event that individuals of this species were lost as a result of site development, the impact would be considered significant, given its listing status and sensitivity designations.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6-34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**California Orcutt grass**
Sensitivity Designation:	**Federal Endangered, State Endangered, CNPS List 1B**
Impact:	**Potential loss of California Orcutt grass (if present)**
Significance:	**Significant (if present)**

California Orcutt grass is listed by the Federal government and State of California as endangered and designated as List 1B species by the CNPS. California Orcutt grass was not recorded on the Newhall Ranch site during the biological field surveys (**Appendix 4.6**).

It is acknowledged that any loss of plant species listed as rare, threatened or endangered is considered a significant impact. However, field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years, this taxon has been assigned a low probability of occurrence at the Newhall Ranch site for the following reasons: lack of direct observation and lack of suitable habitat (California Orcutt grass occurs in vernal pools that do not occur on the Newhall Ranch).

Given the information provided above, it can be concluded that implementation of the Newhall Ranch Specific Plan would not substantially affect this plant as it was not observed on site and the probability of occurrence is low (known occurrences of this plant are within 8 miles of the site to the west and east). In the unlikely event that individuals of this species were lost as a result of site development, the impact would be considered significant, given their listing status and sensitivity designations.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6-34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Lyon's pentachaeta**
Sensitivity Designation:	**Federal Proposed Endangered, State Endangered, CNPS List 1B**
Impact:	**Potential loss of individual Lyon's pentachaeta (if present)**
Significance:	**Significant (if present)**

Lyon's pentachaeta is proposed for Federal listing as an endangered species, is listed by the State of California as endangered and is designated as a List 1B species by the CNPS. Lyon's pentachaeta was not recorded on the Newhall Ranch site during the biological field surveys (**Appendix 4.6**). Should these plants occur on the site they would most likely occur in the margins between coastal sage scrub and non-native grasslands.

It is acknowledged that any loss of plant species listed as rare, threatened or endangered is considered a significant impact. However, field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years, this taxon has been assigned a low probability of occurrence at the Newhall Ranch site. In addition, recorded sitings of Lyon's pentachaeta generally occur in areas more proximal to the coast.

Given the information provided above, it can be concluded that implementation of the Newhall Ranch Specific Plan would not substantially affect this plant as it was not observed on site and the probability of occurrence is low. Areas of habitat where this plant has the potential to occur that would be lost on the property include approximately 1,820 of the 5,183 acres of coastal sage scrub on site and about 1,480 of the 1,896 acres of grassland habitat situated on the Newhall Ranch site. In the unlikely event that individuals of these species were lost as a result of site development, the impact would be considered significant, given their listing status and sensitivity designations.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6-34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Nevin's barberry**
Sensitivity Designation:	**Federal Proposed Endangered, State Endangered, CNPS List 1B**
Impact:	**Potential loss of individual Nevin's barberry (if present)**
Significance:	**Significant (if present)**

Nevin's barberry is an easily detected evergreen shrub that was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). However, this taxon was assigned a moderate potential for occurrence due to the presence of large areas of potentially occupiable habitat (i.e., riparian scrub, alluvial scrub, chaparral and coastal sage scrub).

Nevin's barberry is currently listed as endangered by the State of California, and has been proposed as a Federal endangered species by the USFWS. Nevin's barberry has been assigned to the CNPS List 1B, which is a list identifying plants that are considered by the CNPS to be rare, threatened or endangered in California and elsewhere in their range.

Nevin's barberry occurs in a variety of habitat types, including riparian scrub and alluvial scrub habitats, as well as chaparral and coastal sage scrub. Regionally, this species is known only from alluvial scrub. Biologists conducting the field investigations of the Newhall Ranch site were knowledgeable of this plant's potential for occurrence. However, no individuals of this plant were observed on the site during the field investigations. Based on the lack of observation of this species on the Newhall Ranch site, it can be concluded that, if this taxon occurs at all, it occurs in very low numbers. Potential for direct loss of this taxon is expected to be very low, and only portions of habitat in which this plant could occur would be lost (54 percent of the alluvial scrub, 16 percent of the mixed

chaparral, and 35 percent of the coastal sage scrub [68 percent of these vegetation types combined]). It is not expected that the Specific Plan would impact Nevin's barberry. In the unlikely event that individuals of this species were lost as a result of site development, the impact would be considered significant due to this species' listing as endangered and other sensitivity designations.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6-34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Thread-leaved brodiaea**
Sensitivity Designation:	**Federal Proposed Threatened, State Endangered, CNPS List 1B**
Impact:	**Potential loss of individual thread-leaved brodiaea (if present)**
Significance:	**Significant (if present)**

Thread-leaved brodiaea is listed as endangered by the State of California, is proposed for listing as a threatened species by the Federal government, and is included on CNPS List 1B. Thread-leaved brodiaea was not recorded on the Newhall Ranch site during the biological field surveys (**Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the chaparral, coastal sage scrub, or non-native grasslands.

It is acknowledged that any loss of plant species listed as rare, threatened or endangered is considered a significant impact. However, field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years, this taxon has been assigned a low probability of occurrence at the Newhall Ranch site.

Given the information provided above, it can be concluded that implementation of the Newhall Ranch Specific Plan would not substantially affect this plant as it was not observed on site and the probability of occurrence is low. Areas of habitat where this plant has the potential to occur that would be lost on the property include approximately 202 of the 1,213 acres of chaparral, about 1,820 of the 5,183 acres of coastal sage scrub on site, and about 1,480 of the 1,896 acres of grassland habitat situated on the Newhall Ranch site. No vernal pools occur on the Newhall Ranch. In the unlikely event that individuals of this species were lost as a result of site development, the impact would be considered significant, given its listing status and sensitivity designations.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6-34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Santa Susana tarplant**
Sensitivity Designation:	**State Rare, Federal Species of Concern, CNPS List 1B**
Impact:	**Potential loss of individual Santa Susana tarplant (if present)**
Significance:	**Significant (if present)**

Santa Susana tarplant is listed by the State of California as rare, is a Federal species of concern, and is designated as a List 1B species by the CNPS. Santa Susana tarplant was not recorded on the Newhall Ranch site during the biological field surveys (**Appendix 4.6**). Should this plant occur on the site, it would most likely occur in rocky chaparral or coastal sage scrub.

It is acknowledged that any loss of plant species listed as rare, threatened or endangered is considered a significant impact. However, field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years, this taxon has been assigned a low probability of occurrence at the Newhall Ranch site because Santa Susana tarplant is readily identifiable and would have been observed during the field investigations.

Given the information provided above, it can be concluded that implementation of the Newhall Ranch Specific Plan would not substantially affect this plant as it was not observed on site and the probability of occurrence is low. Areas of habitat where this plant has the potential to occur that would be lost on the property include approximately 202 of the 1,213 acres of chaparral and about 1,820 of the 5,183 acres of coastal sage scrub. In the unlikely event that individuals of these species were lost as a result of site development, the impact would be considered significant, given their listing status and sensitivity designations.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Braunton's milk vetch**
Sensitivity Designation:	**Federal Proposed Endangered, CNPS List 1B**
Impact:	**Potential loss of individual Braunton's milk vetch (if present)**
Significance:	**Significant (if present)**

Braunton's milk vetch has been proposed as an endangered species by the Federal government and is included on CNPS List 1B. Braunton's milk vetch primarily occurs in coastal sage scrub, chaparral, and grassland habitats, and requires limestone soils that are not common on the site. Field investigations

conducted on the site failed to record the presence of this species, and it can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. In addition to the results of the field investigations, this plant has been assigned a low probability of occurrence on the Newhall Ranch site because of rarity (according to Skinner and Pavlik 1994, known from fewer than ten occurrences), and lack of suitable substrate (generally associated with limestone soils that are not common on the site).

Should this plant occur on site, Specific Plan implementation would result in the loss of habitat in which this plant is most likely to occur, including about 202 of the 1,213 acres of chaparral on site, about 1,820 of the 5,183 acres of coastal sage scrub, and 1,480 of the 1,896 acres of non-native grassland. Should this plant be present, it does not likely occur in large numbers as no individuals of the plant species have been detected on the site. In the unlikely event that individuals of this species were lost as a result of site development, the impact would be considered significant, given this species proposed listing status and sensitivity designation.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Slender mariposa lily**
Sensitivity Designation:	**CNPS List 1B, Federal Species of Concern**
Impact:	**Potential loss of individual slender mariposa lily (if present)**
Significance:	**Not Significant (if present)**

Slender mariposa lily is included on CNPS List 1B (plants considered rare, threatened or endangered), and is a Federal species of concern. Slender mariposa lily was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in chaparral.

Field investigations conducted on the site failed to record the presence of this taxon, and it can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. In addition to the results of the field investigations, these plants have been assigned a low probability of occurrence on the Newhall Ranch site because they are readily identifiable and would have been observed during the field investigations if present.

Should these plants occur on site, implementation of the Specific Plan would result in the loss of habitat in which these plants are most likely to occur including about 202 of the 1,213 acres of chaparral. Should this taxon be present, it does not likely occur, in large numbers as no individuals of the species have been detected on the site.

Based on the information provided above, potential impacts to this plant are not considered likely and, due to the sensitivity designations and the amount of habitat preserved, impacts, should they occur at all, are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Plummer's mariposa lily**
Sensitivity Designation:	**CNPS List 1B, Federal Species of Concern**
Impact:	**Potential loss of individual Plummer's mariposa lily (if present)**
Significance:	**Not Significant (if present)**

Plummer's mariposa lily is included on CNPS List 1B (plants considered rare, threatened or endangered), and is a Federal species of concern. Plummer's mariposa lily was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the chaparral and coastal sage scrub habitat.

Field investigations conducted on the site failed to record the presence of this taxon, and it can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. In addition to the results of the field investigations, these plants have been assigned a low probability of occurrence on the Newhall Ranch site because this taxon is readily identifiable and would have been observed during the field investigations if present.

Should this plant occur on site, implementation of the Specific Plan would result in the loss of habitat in which these plants are most likely to occur, including about 202 of the 1,213 acres of chaparral on site, and about 1,820 of the 5,183 acres of coastal sage scrub. Should this taxon be present, it does not likely occur in large numbers as no individuals of the species have been detected on the site.

Based on the information provided above, potential impacts to this plant are not considered likely and, due to the sensitivity designations and the amount of habitat preserved, impacts, should they occur at all, are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**San Fernando Valley spineflower**
Sensitivity Designation:	**CNPS List 1A, Federal Species of Concern**
Impact:	**Potential loss of individual San Fernando Valley spineflower (if present)**
Significance:	**Not Significant (if present)**

San Fernando Valley spineflower is included on CNPS List 1A (a plant presumed to be extinct), and is a Federal species of concern. San Fernando Valley spineflower was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in sandy coastal sage scrub habitat.

Field investigations conducted on the site failed to record the presence of this taxon, and it can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. In addition to the results of the field investigations, these plants have been assigned a low probability of occurrence on the Newhall Ranch site because the plant is presumed to be extinct in the region.

Should this taxon occur on site, implementation of the Specific Plan would result in the loss of habitat in which this plant is most likely to occur, including about 1,820 of the 5,183 acres of coastal sage scrub on site. Should this taxon be present, it does not likely occur in large numbers as no individuals of the species have been detected on the site.

Based on the information provided above, potential impacts to this plant are not considered likely, and due to the sensitivity designations and the amount of habitat preserved, impacts, should they occur at all, are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Dune larkspur**
Sensitivity Designation:	**CNPS List 1B, Federal Species of Concern**
Impact:	**Potential loss of individual dune larkspur (if present)**
Significance:	**Not Significant (if present)**

Dune larkspur is included on CNPS List 1B (plants considered rare, threatened or endangered), and is a Federal species of concern. Dune larkspur was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this taxon occur on the site, it would most likely occur in the chaparral habitat.

Field investigations conducted on the site failed to record the presence of this taxon, and it can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. In addition to the results of the field investigations, these plants have been assigned a low probability of occurrence on the Newhall Ranch site because the taxon is generally associated with maritime chaparral and dune habitat that is not present on site.

Should this plant occur on site, implementation of the Specific Plan would result in the loss of habitat in which these plants are most likely to occur including about 202 of the 1,213 acres of chaparral. Should this taxon be present, it does not likely occur in large numbers as no individuals of the species have been detected on the site.

Based on the information provided above, potential impacts to this plant are not considered likely and, due to the sensitivity designations and the amount of habitat preserved, impacts, should they occur at all, are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Blochman's dudleya**
Sensitivity Designation:	**CNPS List 1B, Federal Species of Concern**
Impact:	**Potential loss of individual Blochman's dudleya (if present)**
Significance:	**Not Significant (if present)**

Blochman's dudleya is included on CNPS List 1B (plants considered rare, threatened or endangered), and is a Federal species of concern. Blochman's dudleya was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the coastal sage scrub habitat.

Field investigations conducted on the site failed to record the presence of this taxon, and it can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. In addition to the results of the field investigations, this plant has been assigned a low probability of occurrence on the Newhall Ranch site because it requires rock outcrops that are not common on the site, and because it is generally associated with coastal bluffs and coastal chaparral.

Should this plant occur on site, implementation of the Specific Plan would result in the loss of habitat in which this plant is most likely to occur, including about 1,820 of the 5,183 acres of coastal sage scrub habitat. Should this taxon be present, it does not likely occur in large numbers as no individuals of the species have been detected on the site.

Based on the information provided above, potential impacts to this plant are not considered likely and, due to the sensitivity designations and the amount of habitat preserved, impacts, should they occur at all, are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Many-stemmed dudleya**
Sensitivity Designation:	**CNPS List 1B, Federal Species of Concern**
Impact:	**Potential loss of individual many-stemmed dudleya (if present)**
Significance:	**Not Significant (if present)**

Many-stemmed dudleya is included on CNPS List 1B (plants considered rare, threatened or endangered) and is a Federal species of concern. Many-stemmed dudleya was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in rocky substrate in chaparral and coastal sage scrub habitats.

Field investigations conducted on the site failed to record the presence of this taxon, and it can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. In addition to the results of the field investigations, this plant has been assigned a low probability of occurrence on the Newhall Ranch site because it requires rock outcrops that are not common on the site.

Should this plant occur on site, implementation of the Specific Plan would result in the loss of habitat in which this plant is most likely to occur, including about 202 of the 1,213 acres of chaparral on site and 1,820 of the 5,183 acres of coastal sage scrub habitat. Should this taxon be present, it does not likely occur in large numbers as no individuals of the species have been detected on the site.

Based on the information provided above, potential impacts to this plant are not considered likely and, due to the sensitivity designations and the amount of habitat preserved, impacts, should they occur at all, are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Short-joint beavertail cactus**
Sensitivity Designation:	**CNPS List 1B, Federal Species of Concern**
Impact:	**Potential loss of individual short-joint beavertail cactus (if present)**
Significance:	**Not Significant (if present)**

Short-joint beavertail cactus is included on CNPS List 1B (plants considered rare, threatened or endangered) and is a Federal species of concern. Short-joint beavertail cactus was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the chaparral communities on site.

Field investigations conducted on the site failed to record the presence of this taxon, and it can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. In addition to the results of the field investigations, this plant has been assigned a low probability of occurrence on the Newhall Ranch site because of its rarity and/or the fact that this plant is readily identifiable and would have been observed during the field investigations if it was present on site.

Should this plant occur on site, implementation of the Specific Plan would result in the loss of habitat in which these plants are most likely to occur, including about 202 of the 1,213 acres of chaparral on site. Should this taxon be present, it does not likely occur in large numbers as no individuals of the species have been detected on the site.

Based on the information provided above, potential impacts to this plant are not considered likely and, due to the sensitivity designations and the amount of habitat preserved, impacts, should they occur at all, are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Palmer's grapplinghook**
Sensitivity Designation:	**CNPS List 2, Federal Species of Concern**
Impact:	**Potential loss of individual Palmer's grapplinghook (if present)**
Significance:	**Not Significant (if present)**

Palmer's grapplinghook is included on CNPS List 2 and is a Federal species of concern. Palmer's grapplinghook was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the chaparral, coastal sage scrub and grassland communities.

Field investigations conducted on the site failed to record the presence of this taxon, and it can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. In addition to the results of the field investigations, this plant has been assigned a low probability of occurrence on the Newhall Ranch site because of its rarity.

Should this plant occur on site, implementation of the Specific Plan would result in the loss of habitat in which this plant is most likely to occur, including about 202 of the 1,213 acres of chaparral on site, about 1,820 of the 5,183 acres of coastal sage scrub, and 1,480 of the 1,896 acres of non-native grassland habitat. Should this taxon be present, it does not likely occur in large numbers as no individuals of the species have been detected on the site.

Based on the information provided above, potential impacts to this plant are not considered likely and, due to the sensitivity designations and the amount of habitat preserved, impacts, should they occur at all, are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Ocellated Humboldt lily**
Sensitivity Designation:	**CNPS List 4, Federal Species of Concern**
Impact:	**Potential loss of individual ocellated Humboldt lily (if present)**
Significance:	**Not Significant (if present)**

Ocellated Humboldt lily is included on CNPS List 4 and is a Federal species of concern. Ocellated Humboldt lily was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the chaparral, oak woodlands or mainland cherry forest.

Ocellated Humboldt lily has been assigned to CNPS List 4, which is a watch list. Taxa on List 4 are not considered to be severely threatened by CNPS, but CNPS feels the plant's occurrence should be carefully considered during the decision making process. At this time, this plant maintains no Federal or State listing status.

Field investigations conducted on the site failed to record the presence of this taxon, and it can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. In addition to the results of the field investigations, this plant has been assigned a low probability of occurrence on the Newhall Ranch site because of lack of high quality habitat

(ocellated Humboldt lily is generally associated with openings in yellow pine forests or oak canyons). Based on: (1) the lack of occurrence of this plant on the Newhall Ranch site; (2) the sensitivity designation of the plant (i.e., a CNPS List 4 species versus a rare, threatened or endangered species); and, (3) the fact that relatively small areas in which this plant could potentially occur may be lost (i.e., 16 percent of the site's 1,206 acres of mixed chaparral and 6 percent of the site's oak communities may be lost), any impacts to this species (should they actually occur) are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6-34, 4.6- 35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Heart-leaved thorn-mint**
Sensitivity Designation:	**CNPS List 4**
Impact:	**Potential loss of individual heart-leaved thorn-mint (if present)**
Significance:	**Not Significant (if present)**

Heart-leaved thorn-mint has not been assigned any formal State or Federal rarity designation, but is included on CNPS List 4 (plant species of limited distribution, a watch list). This taxon was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the chaparral communities.

Field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years, this taxon has been assigned a low probability of occurrence at the Newhall Ranch site for the following reasons: lack of direct observation, and the main distribution of heart-leaved thorn-mint is situated north of the site.

Given the information provided above, it can be concluded that implementation of the Specific Plan would not substantially impact this plant as it was not observed on site, the probability of its occurrence is low, and relatively small areas of the habitat in which these plants are most likely to occur would be lost. This includes about 202 of the 1,213 acres of chaparral on site. Based on the sensitivity designation of this taxon (i.e., CNPS List 4 species versus rare, threatened or endangered species), and the information provided above, any impacts to this species (should they actually occur) are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**California androsace**
Sensitivity Designation:	**CNPS List 4**
Impact:	**Potential loss of individual California androsace (if present)**
Significance:	**Not Significant (if present)**

California androsace has not been assigned any formal State or Federal rarity designation, but is included on CNPS List 4 (plant species of limited distribution, a watch list). This taxon was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the chaparral and coastal sage scrub communities.

Field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years, this taxon has been assigned a low probability of occurrence at the Newhall Ranch site as this species is readily identifiable and would have been observed during field investigations.

Given the information provided above, it can be concluded that implementation of the Specific Plan would not substantially impact this plant as it was not observed on site, the probability of its occurrence is low, and relatively small areas of the habitat in which these plants are most likely to occur would be lost. This includes about 202 of the 1,213 acres of chaparral on site and about 1,820 of the 5,183 acres of coastal sage scrub. Based on the sensitivity designation of this taxon (i.e., CNPS List 4 species versus rare, threatened or endangered species), and the information provided above, any impacts to this species (should they actually occur) are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Plummer's baccharis**
Sensitivity Designation:	**CNPS List 4**
Impact:	**Potential loss of individual Plummer's baccharis (if present)**
Significance:	**Not Significant (if present)**

Plummer's baccharis has not been assigned any formal State or Federal rarity designation, but is included on CNPS List 4 (plant species of limited distribution, a watch list). This taxon was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the chaparral and coastal sage scrub communities.

Field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years, this taxon has been assigned a low probability of occurrence at the Newhall Ranch site because the species is readily identifiable and would have been observed during field investigations.

Given the information provided above, it can be concluded that implementation of the Specific Plan would not substantially impact this plant as it was not observed on site, the probability of its occurrence is low, and relatively small areas of the habitat in which these plants are most likely to occur would be lost. This includes about 202 of the 1,213 acres of chaparral on site and about 1,820 of the 5,183 acres of coastal sage scrub. Based on the sensitivity designation of this taxon (i.e., CNPS List 4 species versus rare, threatened or endangered species), and the information provided above, any impacts to this species (should they actually occur) are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6-34, 4.6- 35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Brewer's calandrinia**
Sensitivity Designation:	**CNPS List 4**
Impact:	**Potential loss of individual Brewer's calandrinia (if present)**
Significance:	**Not Significant (if present)**

Brewer's calandrinia has not been assigned any formal State or Federal rarity designation, but is included on CNPS List 4 (plant species of limited distribution, a watch list). This taxon was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the chaparral, coastal sage scrub, or non native grasslands.

Extensive field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years, this taxon has been assigned a low probability of occurrence at the Newhall Ranch site because this species is readily identifiable and would have been observed during field investigations.

Given the information provided above, it can be concluded that implementation of the Specific Plan would not substantially impact this plant as it was not observed on site, the probability of its occurrence is low, and relatively small areas of the habitat in which these plants are most likely to occur would be lost. This includes about 202 of the 1,213 acres of chaparral on site, about 1,820 of the 5,183 acres of

coastal sage scrubland, and 1,480 of the 1,896 acres of non-native grassland. Based on the sensitivity designation of this taxon (i.e., CNPS List 4 species versus rare, threatened or endangered species), and the information provided above, any impacts to this species (should they actually occur) are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Round-leaved boykinia**
Sensitivity Designation:	**CNPS List 4**
Impact:	**Potential loss of individual round-leaved boykinia (if present)**
Significance:	**Not Significant (if present)**

Round-leaved boykinia is a perennial herb that was not recorded from the Newhall Ranch site during the biological surveys (**Appendix 4.6**). However, this taxon was assigned a moderate potential for occurrence due to the presence of areas of potentially occupiable habitat (i.e., riparian woodlands and mesic chaparral).

Round-leaved boykinia has been assigned to CNPS List 4, which is a watch list. Taxa on List 4 are not considered by CNPS to be severely threatened, but the CNPS feels the plant's occurrence should be carefully considered during the decision making process.

Should round-leaved boykinia occur on the Newhall Ranch site, it would most likely occur in two habitat types, including riparian woodlands and moist canyon bottoms (mesic chaparral). However, the lack of observations of this species on the Newhall Ranch site indicates that, if this taxon occurs at all, it does so in very low numbers. Based on: (1) the lack of occurrence of this plant on the Newhall Ranch site; (2) the sensitivity designation of the plant (i.e., a CNPS List 4 species versus a rare, threatened or endangered species); and (3) the fact that only small areas (17 percent of riparian and mixed chaparral vegetation combined) in which this plant may occur may be lost (i.e., 19 percent of the site's 932 acres of potential riparian habitats [inclusive of all wetland or Riverine habitats] would be lost and 16 percent of the site's 1,206 acres of mixed chaparral would be lost), it is not expected that the Specific Plan would substantially impact round-leaved boykinia. Any impacts to this species (should they actually occur) are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6-34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Catalina mariposa lily**
Sensitivity Designation:	**CNPS List 4**
Impact:	**Potential loss of individual Catalina mariposa lily (if present)**
Significance:	**Not Significant (if present)**

Catalina mariposa lily has not been assigned any formal State or Federal rarity designation, but is included on CNPS List 4 (plant species of limited distribution, a watch list). This taxon was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). However, it may occur. Should this plant occur on the site, it would most likely occur in the chaparral, coastal sage scrub, oak woodlands or non-native grasslands.

Field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years, this taxon has been assigned a moderate probability of occurrence at the Newhall Ranch because this species is readily identifiable and would have been observed during field investigations.

Given the information provided above, it can be concluded that implementation of the Specific Plan would not substantially impact this plant as it was not observed on site, and relatively small areas of the habitat in which this plant is most likely to occur would be lost. This includes about 202 of the 1,213 acres of chaparral on site, about 1,820 of the 5,183 acres of coastal sage scrub and 1,480 of the 1,896 acres of non-native grassland. Based on the sensitivity designation of this taxon (i.e., CNPS List 4 species versus rare, threatened or endangered species), and the information provided above, any impacts to this species (should they actually occur) are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6-34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Prostrate spineflower**
Sensitivity Designation:	**CNPS List 4**
Impact:	**Potential loss of individual prostrate spineflower (if present)**
Significance:	**Not Significant (if present)**

Prostrate spineflower has not been assigned any formal State or Federal rarity designation, but is included on CNPS List 4 (plant species of limited distribution, a watch list). This taxon was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the chaparral, coastal sage scrub and non-native grasslands.

Field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years, this taxon has been assigned a low probability of occurrence due to the lack of appropriate substrate or habitat (prostrate spineflower occurs in gabbroic clay or granitic soils that are not common on site).

Given the information provided above, it can be concluded that implementation of the Specific Plan would not substantially impact this plant as it was not observed on site, the probability of its occurrence is low and relatively small areas of the habitat in which this plant is most likely to occur would be lost. This includes about 202 of the 1,213 acres of chaparral on site, about 1,820 of the 5,183 acres of coastal sage scrub and 1,480 of the 1,896 acres of non-native grassland. Based on the sensitivity designation of this taxon (i.e., CNPS List 4 species versus rare, threatened or endangered species), and the information provided above, any impacts to this species (should they actually occur) are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Small-flowered morning-glory**
Sensitivity Designation:	**CNPS List 4**
Impact:	**Potential loss of individual small-flowered morning-glory (if present)**
Significance:	**Not Significant (if present)**

Small-flowered morning-glory has not been assigned any formal State or Federal rarity designation, but is included on CNPS List 4 (plant species of limited distribution, a watch list). This taxon was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the coastal sage scrub or non-native grasslands.

Field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years, this taxon has been assigned a low probability of occurrence at the Newhall Ranch site as small-flowered morning-glory typically occurs in clay or serpentine soils that are not common on site.

Given the information provided above, it can be concluded that implementation of the Specific Plan would not substantially impact this plant as it was not observed on site, the probability of its occurrence is low, and relatively small areas of the habitat in which this plant is most likely to occur would be lost. This includes about 1,820 of the 5,183 acres of coastal sage scrub and 1,480 of the 1,896 acres of non-native grasslands. Based on the sensitivity designation of this taxon (i.e., CNPS List 4 species versus rare, threatened or endangered species), and the information provided above, any impacts to this species (should they actually occur) are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6-34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Santa Barbara bedstraw**
Sensitivity Designation:	**CNPS List 4**
Impact:	**Potential loss of individual Santa Barbara bedstraw (if present)**
Significance:	**Not Significant (if present)**

Santa Barbara bedstraw has not been assigned any formal State or Federal rarity designation, but is included on CNPS List 4 (plant species of limited distribution, a watch list). This taxon was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the oak woodlands.

Field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years, this taxon has been assigned a low probability of occurrence at the Newhall Ranch site because this species is readily identifiable and would have been observed during field investigations.

Given the information provided above, it can be concluded that implementation of the Specific Plan would not substantially impact this plant as it was not observed on site, the probability of its occurrence is low, and relatively small areas of the habitat in which this plant is most likely to occur

would be lost. This includes about 64 of the 1,090 acres of oak woodlands. Based on the sensitivity designation of this taxon (i.e., CNPS List 4 species versus rare, threatened or endangered species), and the information provided above, any impacts to this species (should they actually occur) are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Southwestern spiny rush**
Sensitivity Designation:	**CNPS List 4**
Impact:	**Potential loss of individual southwestern spiny rush (if present)**
Significance:	**Not Significant (if present)**

Southwestern spiny rush has not been assigned any formal State or Federal rarity designation, but is included on CNPS List 4 (plant species of limited distribution, a watch list). This taxon was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the mesic meadow.

Field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years, this taxon has been assigned a low probability of occurrence at the Newhall Ranch site because this species is readily identifiable and would have been observed during field investigations.

Given the information provided above, it can be concluded that implementation of the Specific Plan would not substantially impact this plant as it was not observed on site and the probability of its occurrence is low. Based on the sensitivity designation of this taxon (i.e., CNPS List 4 species versus rare, threatened or endangered species), and the information provided above, any impacts to this species (should they actually occur) are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Small flowered microseris**
Sensitivity Designation:	**CNPS List 4**
Impact:	**Potential loss of individual small flowered microseris (if present)**
Significance:	**Not Significant (if present)**

Small-flowered microseris has not been assigned any formal State or Federal rarity designation, but is included on CNPS List 4 (plant species of limited distribution, a watch list). This taxon was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**).

Field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years, this taxon has been assigned a low probability of occurrence at the Newhall Ranch site because small-flowered microseris occurs in vernal pool habitat that does not occur on site.

Given the information provided above, it can be concluded that implementation of the Specific Plan would not substantially impact this plant as it was not observed on site and the probability of its occurrence is low. Based on the sensitivity designation of this taxon (i.e., CNPS List 4 species versus rare, threatened or endangered species), and the information provided above, any impacts to this species (should they actually occur) are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6-34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**California spineflower**
Sensitivity Designation:	**CNPS List 4**
Impact:	**Potential loss of individual California spineflower (if present)**
Significance:	**Not Significant (if present)**

California spineflower has not been assigned any formal State or Federal rarity designation, but is included on CNPS List 4 (plant species of limited distribution, a watch list). This taxon was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the chaparral, coastal sage scrub, and non-native grasslands.

Field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years, this taxon has been assigned a low probability of occurrence at the Newhall Ranch site because California spineflower is most commonly found closer to the coast.

Given the information provided above, it can be concluded that implementation of the Specific Plan would not substantially impact this plant as it was not observed on site, the probability of its occurrence is low, and relatively small areas of the habitat in which this plant is most likely to occur would be lost. This includes about 202 of the 1,213 acres of chaparral on site, about 1,820 of the 5,183 acres of coastal sage scrub, and 1,480 of the 1,896 acres of non-native grassland on site. Based on the sensitivity designation of this taxon (i.e., CNPS List 4 species versus rare, threatened or endangered species), and the information provided above, any impacts to this species (should they actually occur) are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Slender nemacladus**
Sensitivity Designation:	**CNPS List 4**
Impact:	**Potential loss of individual slender nemacladus - (if present)**
Significance:	**Not Significant (if present)**

Slender nemacladus has not been assigned any formal State or Federal rarity designation, but is included on CNPS List 4 (plant species of limited distribution, a watch list). This taxon was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the oak woodland or non-native grasslands.

Field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years, this taxon has been assigned a low probability of occurrence at the Newhall Ranch.

Given the information provided above, it can be concluded that implementation of the Specific Plan would not substantially impact this plant as it was not observed on site and the probability of its occurrence is low. Based on the sensitivity designation of this taxon (i.e., CNPS List 4 species versus rare, threatened or endangered species), and the information provided above, any impacts to this species (should they actually occur) are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6- 35 and 4.6-53. These mitigation measures are defined in detail later in this section.

Species:	**Pringle's yampah**
Sensitivity Designation:	**CNPS List 4**
Impact:	**Potential loss of individual Pringle's yampah - (if present)**
Significance:	**Not Significant (if present)**

Pringle's yampah has not been assigned any formal State or Federal rarity designation, but is included on CNPS List 4 (plant species of limited distribution, a watch list). This taxon was not recorded on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). Should this plant occur on the site, it would most likely occur in the chaparral, coastal sage scrub, oak woodlands or non-native grasslands.

Field investigations conducted on the site have failed to record the presence of this taxon. It can be concluded that, if this plant occurs on the site at all, it does so in limited areas and the frequency of occurrence is small. Given the results of the field investigations conducted on site over the past years, this taxon has been assigned a low probability of occurrence at the site because Pringle's yampah typically occurs in serpentine soils that are not common on the Newhall Ranch site.

Given the information provided above, it can be concluded that implementation of the Specific Plan would not substantially impact this plant as it was not observed on site and the probability of its occurrence is low. Based on the sensitivity designation of this taxon (i.e., CNPS List 4 species versus rare, threatened or endangered species), and the information provided above, any impacts to this species (should they actually occur) are not considered significant.

This conclusion assumes implementation of Mitigation Measure numbers 4.6-27, 4.6- 34, 4.6-35 and 4.6-53. These mitigation measures are defined in detail later in this section.

(b) Wildlife

Impacts to wildlife species that may occur as a result of implementation of the Newhall Ranch Specific Plan are described in this section. As shown in the Biota Report (**Appendix 4.6**), twenty-nine sensitive wildlife species and eight declining butterfly species were observed on Newhall Ranch and may be impacted by Specific Plan implementation. The impact of the Specific Plan on sensitive species observed on the Specific Plan site, as well as sensitive species that are known to occur on the Newhall Ranch are described individually below.

1. Sensitive Wildlife Species; Observed

Species:	**Unarmored threespine stickleback**
Sensitivity Designation:	**Federal Endangered, State Endangered**
Impact:	**Potential loss of individual unarmored threespine stickleback (if present)**
Significance:	**Not Significant (if present)**

The unarmored threespine stickleback has been designated as endangered by the USFWS and the CDFG. This endangered species has been recorded in the region and various locations on the Santa Clara River on the Newhall Ranch property. The portion of the Santa Clara River on the Newhall Ranch is included in the proposed critical habitat and designated essential habitat for this species. Although the fish is not abundant, it may occur in areas that are proposed for short-term disturbances that would occur during construction activities.

The Newhall Ranch Specific Plan proposes no substantial physical alteration to the River bottom. Bank stabilization would occur on approximately 30 percent of the southern side and 80 percent of the northern side of the River. In general, bank stabilization is proposed to be ungrouted rock (see **Section 4.2, Flood**). It is expected that direct impacts to the unarmored threespine stickleback would be limited to those impacts associated with short-term construction related activities (principally for bridge crossings and bank protection) that are proposed in the River Corridor. There is the potential for these fish to be directly impacted by bridge or bank construction for a short time period, unless mitigated.

A potential indirect impact of implementation of the Newhall Ranch Specific Plan is the reduction in water quality in the Santa Clara River. This reduction in water quality could occur as a result of site runoff and potential contamination of the River through oils and grease, pesticides, herbicides, fertilizers and other contaminants characteristic of urban areas. However, the property is currently used for cattle grazing, farming, and oil and natural gas operations which may already be adding pollutants to the River at this time. It is not possible to quantify the magnitude of this impact potential. However, without mitigation, impacts to River water quality have the potential to reduce habitat quality for the unarmored threespine stickleback. Based upon mitigation measures for maintenance of water quality included in the Section 4.2 of this EIR, these impacts are not considered significant (see **Section 4.2, Flood)**

Development, both on the site and upstream, will add water to the low flow condition of the Santa Clara River through the property from increased irrigation runoff and discharges from the proposed water reclamation plant. Under normal conditions, no discharges of treated wastewater are expected from the proposed water reclamation plant, and all water would be reclaimed and used to water landscape vegetation on site. However, it is possible that approximately 522 to 1,372 acre-feet of

tertiary treated wastewater could be discharged into the River near the County line during wet winter months when demand for reclaimed water would be low. This amount of discharge translates to a flow rate of 3.5 to 6.3 cubic feet per second, which would be a 1.5 to 3.9 percent increase in the average annual flow volume in the River, or approximately 0.002 percent of the Capital Flood volume at the County line. These discharges would not significantly impact water quality or increase flows in the Santa Clara River, nor would they impact the distribution of fish and aquatic species on the site, or the movement of these species through the property. For additional information regarding this topic refer to Section 4.2 (Flood).

The Resource Management Plan (RMP) of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, Mitigation Measures 4.6-53, 4.6-54, 4.6-55, 4.6-57, 4.6-58 and 4.6-59 would be implemented and impacts to the unarmored threespine stickleback would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and EIR, impacts to this taxon are not considered significant.

Species:	**least Bell's vireo**
Sensitivity Designation:	**Federal Endangered, State Endangered**
Impact:	**Potential loss of individual least Bell's vireo (if present)**
Significance:	**Not Significant**

This taxon is designated as an endangered species by the USFWS and the CDFG. This endangered species has been recorded in the region and a few locations on the Newhall Ranch property. Although populations of this bird are not abundant, they may occur in areas impacted by implementation of the Specific Plan.

Portions of riparian habitat that occur on the Newhall Ranch are designated as critical habitat for the least Bell's vireo. Recorded occurrences of the least Bell's vireo are uncommon on the Newhall Ranch. One least Bell's vireo has been recorded.

Specific Plan implementation would result in the loss of riparian vegetation (inclusive of mule fat scrub, southern willow scrub, southern willow riparian woodland, southern cottonwood willow riparian forest, arrow weed scrub, valley freshwater marsh and ponds, cottonwood/oak woodland and alluvial scrub), and may result in direct or indirect impacts to the least Bell's vireo in areas where disturbances occur. Although direct impacts to these birds cannot be quantified, impacts to habitat are defined as follows: 63 of the 222 acres of mule fat scrub vegetation, 15 of the 96 acres of southern willow scrub, 4 of

the 126 acres of southern willow riparian woodland, 15 of the 93 acres of southern cottonwood-willow riparian forest, 2 of the 5 acres of valley freshwater marsh and ponds, 7 of the 26 acres of cottonwood/oak woodland, 11 of the 16 acres of arrow weed scrub, and 21 of the 39 acres of alluvial scrub (when combined, 22 percent of these vegetation types would be severely disturbed or eliminated).

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-56, and 4.6-59 would be implemented and impacts to individual least Bell's vireo would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and EIR, impacts to this taxon are not considered significant.

Species:	**Southwestern willow flycatcher**
Sensitivity Designation:	**Federal Endangered; State Endangered**
Impact:	**Potential loss of individual southwestern willow flycatcher (if present)**
Significance:	**Not Significant**

This taxon is designated as an endangered species by the USFWS and the CDFG. This endangered species has been recorded in the region and a few locations on the Newhall Ranch property. Although populations of this bird are not abundant, they may occur in areas impacted by implementation of the Specific Plan.

No critical habitat has been designated at this time for the willow flycatcher on the Newhall Ranch, and occurrences of this species are uncommon. No breeding willow flycatchers have been observed on the Newhall Ranch.

Specific Plan implementation would result in the loss of riparian vegetation (inclusive of mule fat scrub, southern willow scrub, southern willow riparian woodland, southern cottonwood willow riparian forest, arrow weed scrub, valley freshwater marsh and ponds, cottonwood/oak woodland and alluvial scrub), and may result in direct or indirect impacts to willow flycatcher in areas where disturbances occur. Although direct impacts to these birds cannot be quantified, impacts to habitat are defined as follows: 63 of the 222 acres of mule fat scrub vegetation, 15 of the 96 acres of southern willow scrub, 4 of the 126 acres of southern willow riparian woodland, 15 of the 93 acres of southern cottonwood-willow riparian forest, 2 of the 5 acres of valley freshwater marsh and ponds, 7 of the 26 acres of cottonwood/oak woodland, 11 of the 16 acres of arrow weed scrub, and 21 of the 39 acres of alluvial scrub (when combined, 22 percent of these vegetation types would be severely disturbed or eliminated).

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-56, and 4.6-59 would be implemented and impacts to individual willow flycatchers would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and EIR, impacts to this taxon are not considered significant.

Species:	**Arroyo chub**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of individual arroyo chub (if present)**
Significance:	**Not Significant**

This fish species maintains no Federal sensitivity designation, but is identified by the State of California as a Species of Special Concern, and is a Federal species of concern. It resides in stream course habitat and has been observed in the Santa Clara River on Newhall Ranch during biological field investigations (see **Appendix 4.6**).

As stated for the unarmored threespine stickleback, a principal goal of the Specific Plan has been to retain the continuity and ecological integrity of the Santa Clara River. As such, the Newhall Ranch Specific Plan proposes no substantial physical alteration to the River. It is expected that direct impacts to the arroyo chub can be limited to those impacts associated with short-term construction related activities (principally for bridge crossings and bank protection) that are proposed in the River Corridor. This fish has been recorded in the Santa Clara River on the Ranch. Therefore, there is the potential for this fish to be directly impacted by bridge construction or bank protection construction for a short time period without mitigation.

A potential indirect impact of the implementation of the Newhall Ranch Specific Plan is the reduction in water quality in the Santa Clara River. This reduction in water quality may occur as a result of site runoff and potential contamination of the River through oils and grease, pesticides, herbicides, fertilizers and other contaminants characteristic of urban areas. However, the property is currently used for cattle grazing, farming, and oil and natural gas operations that may already be adding pollutants to the River at this time. It is not possible to quantify the magnitude of this impact potential. However, impacts to River water quality have the potential to reduce habitat quality for this fish taxon, unless mitigated.

Development, both on the site and upstream, will add water to the low flow condition of the Santa Clara River through the property from increased irrigation runoff and discharges from the proposed water reclamation plant. Under normal conditions, no discharges of treated wastewater are expected from the proposed water reclamation plant, and all water would be reclaimed and used to water landscape vegetation on site. However, it is possible that approximately 522 to 1,372 acre-feet of tertiary treated wastewater could be discharged into the River near the County line during wet winter months when demand for reclaimed water would be low. This amount of discharge translates to a flow rate of 3.5 to 6.3 cubic feet per second, which would be a 1.5 to 3.9 percent increase in the average annual flow volume in the River, or approximately 0.002 percent of the Capital Flood volume at the County line. These discharges would not significantly increase flows in the Santa Clara River, nor would they impact the distribution of fish and aquatic species on the site, or the movement of these species through the property. These discharges would not result in the extension of the current range through the Santa Clara River system of several introduced, aggressive non-native predatory fish and amphibian species.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measure 4.6-44, as well as EIR Mitigation Measures 4.6-53, 4.6-55 4.6-57, and 4.6-58 would be implemented and impacts to individual arroyo chubs would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and EIR, impacts to this taxon are not considered significant.

Species:	**Santa Ana sucker**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of individual Santa Ana sucker (if present)**
Significance:	**Not Significant**

This fish species maintains no Federal sensitivity designation, but is identified by the State of California as a Species of Special Concern, and is a Federal species of concern. It resides in stream course habitat and has been observed in the Santa Clara River on Newhall Ranch during biological field investigations (see **Appendix 4.6**).

As previously stated, a principal goal of the Specific Plan has been to retain the continuity and ecological integrity of the Santa Clara River. As such, the Newhall Ranch Specific Plan proposes no substantial physical alteration to the River. It is expected that direct impacts to the Santa Ana sucker would be limited to those impacts associated with short-term construction related activities

(principally for bridge crossings and bank protection) that are proposed in the River Corridor. This fish has been recorded in the Santa Clara River on the Ranch. Therefore, there is the potential for this fish to be directly impacted by bridge construction or bank protection construction for a short time period without mitigation.

A potential indirect impact of the implementation of the Newhall Ranch Specific Plan is the reduction in water quality in the Santa Clara River. This reduction in water quality may occur as a result of site runoff and potential contamination of the River through oils and grease, pesticides, herbicides, fertilizers and other contaminants characteristic of urban areas. However, the property is currently used for cattle grazing, farming, and oil and natural gas operations that may already be adding pollutants to the River at this time. It is not possible to quantify the magnitude of this impact potential. However, impacts to River water quality have the potential to reduce habitat quality for this fish unless mitigated.

Development, both on the site and upstream, will add water to the low flow condition of the Santa Clara River through the property from increased irrigation runoff and discharges from the proposed water reclamation plant. Under normal conditions, no discharges of treated wastewater are expected from the proposed water reclamation plant, and all water would be reclaimed and used to water landscape vegetation on site. However, it is possible that approximately 522 to 1,327 acre-feet of tertiary treated wastewater could be discharged into the River near the County line during wet winter months when demand for reclaimed water would be low. This amount of discharge translates to a flow rate of 3.5 to 6.3 cubic feet per second, which would be a 1.5 to 3.9 percent increase in the average annual flow volume in the River, or approximately 0.002 percent of the Capital Flood volume at the County line. These discharges would not significantly increase flows in the Santa Clara River, nor would they impact the distribution of fish and aquatic species on the site, or the movement of these species through the property. These discharges would not result in the extension of the current range through the Santa Clara River system of several introduced, aggressive non-native predatory fish and amphibian species.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measure 4.6-44, as well as EIR Mitigation Measures 4.6-53, 4.6-55 4.6-57, and 4.6-58 would be implemented and impacts to individual Santa Ana suckers would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and EIR, impacts to this taxon are not considered significant.

Species:	**Southwestern pond turtle**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of individual southwestern pond turtle (if present)**
Significance:	**Not Significant**

This species maintains no Federal sensitivity designation, but is identified by the State of California as a Species of Special Concern, and is a Federal species of concern. It generally resides in aquatic/riparian habitats and has been observed on the site during biological field investigations (see **Appendix 4.6**).

As stated, this taxon has been observed on the Newhall Ranch site and is primarily associated with riparian and freshwater marsh vegetation. During sensitive aquatic reptile trapping efforts along the Santa Clara River, 25 southwestern pond turtles were captured between the Castaic Creek confluence and the Old Road bridge just west of I-5. About half of this stretch of the River is located within the Newhall Ranch Specific Plan area.

Specific Plan implementation would result in the loss of 63 of the 222 acres of mule fat scrub vegetation, 15 of the 96 acres of southern willow scrub, 4 of the 126 acres of southern willow riparian woodland, 15 of the 93 acres of southern cottonwood-willow riparian forest, 2 of the 5 acres of valley freshwater marsh and ponds, 7 of the 26 acres of cottonwood/oak woodland, 11 of the 16 acres of arrow weed scrub, and 21 of the 39 acres of alluvial scrub (when combined, 22 percent of these vegetation types would be lost). Loss of habitat in which this species is known to occur could result in the direct loss of individual southwestern pond turtles.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-56, and 4.6-55 would be implemented and impacts to individual southwestern pond turtles would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and EIR, impacts to this taxon are not considered significant.

Species:	**Western spadefoot toad**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of individual western spadefoot toad (if present)**
Significance:	**Not Significant**

This species maintains no Federal sensitivity designation, but is identified by the State of California as a Species of Special Concern, and is a Federal species of concern. It resides in aquatic/riparian habitats and has been observed on the site during biological field investigations (see **Appendix 4.6**).

As stated, this taxon has been observed on the Newhall Ranch site and is primarily associated with riparian and freshwater marsh vegetation. No surveys have been conducted on the site that provided quantifiable data regarding the number of western spadefoot toads that are present.

Specific Plan implementation would result in the loss of 63 of the 222 acres of mule fat scrub vegetation, 15 of the 96 acres of southern willow scrub, 4 of the 126 acres of southern willow riparian woodland, 15 of the 93 acres of southern cottonwood-willow riparian forest, 2 of the 5 acres of valley freshwater marsh and ponds, 7 of the 26 acres of cottonwood/oak woodland, 11 of the 16 acres of arrow weed scrub, and 21 of the 39 acres of alluvial scrub (when combined, 22 percent of these vegetation types would be lost). Loss of habitat in which this species is known to occur could result in the direct loss of individual western spadefoot toads.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-56, and 4.6-55 would be implemented and impacts to individual western spadefoot toads would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and EIR, impacts to this taxon are not considered significant

Species:	**California horned lizard**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of individual California horned lizard (if present)**
Significance:	**Significant**

This species maintains no Federal sensitivity designation, but is identified by the State of California as a Species of Special Concern, and is a Federal species of concern.

This taxon has been observed on the Ranch during the biological field investigations (see **Appendix 4.6**). As stated, this taxon is primarily associated with upland habitats, including coastal sage scrub, chaparral and grassland habitat. Given that a substantial acreage of these habitat types occurs on the site and in the region, the abundance and distribution of this species are generally not limited.

The loss of habitat on the site is substantial. As proposed, implementation of the Specific Plan would result in the loss of 1,820 of the 5,183 acres of coastal sage scrub, 202 of the 1,213 acres of chaparral, and 1,480 of the 1,896 acres of non-native grassland habitat present on the site (when combined, 42 percent of these vegetation types would be lost). Given the concern for this species in the region, the substantial loss of habitat, and potentially the direct loss of individuals of this species, this impact would be considered significant without mitigation.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measures 4.6-53, 4.6-56, and 4.6-55 would be implemented and impacts to individual California horned lizards would be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**San Diego horned lizard**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of individual San Diego horned lizard (if present)**
Significance:	**Significant**

This species maintains no Federal sensitivity designation, but is identified by the State of California as a Species of Special Concern, and is a Federal species of concern.

This taxon has been observed on the Ranch during the biological field investigations (see **Appendix 4.6**). As stated, this taxon is also primarily associated with upland habitats, including coastal sage scrub, chaparral and grassland habitat. Given that a substantial acreage of these habitat types occurs on the site and in the region, the abundance and distribution of this species are generally not limited.

The loss of habitat on the site is substantial. As proposed, implementation of the Specific Plan would result in the loss of 1,820 of the 5,183 acres of coastal sage scrub, 202 of the 1,213 acres of chaparral, and 1,480 of the 1,896 acres of non-native grassland habitat present on the site (when combined, 42 percent of these vegetation types would be lost). Given the concern for this species in the region, the substantial loss of habitat, and potentially the direct loss of individuals of this species, this impact would be considered significant without mitigation.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measures 4.6-53, 4.6-56, and 4.6-55 would be implemented and impacts to individual San Diego horned lizards would be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**Northern harrier**
Sensitivity Designation:	**California Species of Special Concern**
Impact:	**Potential loss of northern harrier foraging habitat**
Significance:	**Significant**

The CDFG considers this taxon as a California species of special concern. This species has been observed foraging on the Newhall Ranch, and occur or may occur in areas proposed for disturbance. This taxon primarily forages over open upland vegetation, including non-native grassland, coastal sage scrub, and the more open areas of chaparral and oak vegetation, which together represent the dominant habitat type in the region. Therefore, this species is relatively widely distributed throughout the region. However, large blocks of contiguous open foraging habitats used by this raptor are becoming increasingly scarce in the region.

The loss of individual northern harriers, particularly nesting individuals (if present) as a result of Specific Plan implementation would be considered a potential adverse impact. However, loss of nesting individuals will be avoided by conducting preconstruction breeding harrier surveys prior to disturbance of potential breeding habitat during the breeding season (approximately mid-March through August). Impacts to certain types of occupied or occupiable foraging and nesting habitat for this species would

occur as a result of implementation of the Specific Plan. The loss of habitat on the site is substantial. As proposed, implementation of the Specific Plan would result in the loss of 1,480 of the 1,896 acres of non-native grassland, 1,820 of the 5,183 acres of coastal sage scrub, 202 of the 1,213 acres of chaparral, and about 64 of the 1,090 acres of oak vegetation present on the site (when combined, 38 percent of these vegetation types would be lost). This bird is known to occur over a relatively broad geographic range. However, the loss of these large amounts of foraging habitat is considered a significant impact.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to northern harrier foraging habitat would be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**Cooper's hawk**
Sensitivity Designation:	**California Species of Special Concern**
Impact:	**Potential loss of individual Cooper's hawk**
Significance:	**Not Significant**

This taxon is considered sensitive in the region and is designated as a California species of special concern. This animal has been observed on the Newhall Ranch during the biological field investigations (see **Appendix 4.6**). This taxon is primarily associated with riparian vegetation and aquatic habitat, including riparian scrub, riparian woodland, and freshwater marsh vegetation. Due to the scarcity of such habitats, the distribution of these species is relatively limited throughout the region. However, these species can be relatively common where appropriate habitat is present, although population levels do fluctuate year to year. The Cooper's hawk is most likely to nest in riparian scrub and woodlands in the area. Observations indicate that these species may be common on the Newhall Ranch site, and they may use the site for nesting or roosting.

Specific Plan implementation would result in the loss of 63 of the 222 acres of mule fat scrub vegetation, 15 of the 96 acres of southern willow scrub, 4 of the 126 acres of southern willow riparian woodland, 15 of the 93 acres of southern cottonwood-willow riparian forest, 2 of the 5 acres of valley freshwater marsh and ponds, 7 of the 26 acres of cottonwood/oak woodland, 11 of the 16 acres of arrow weed scrub, and 21 of the 39 acres of alluvial scrub (when combined, 22 percent of these vegetation types would be lost). Loss of habitat in which this species is known to occur is expected to result in the direct loss of habitat utilized by Cooper's hawk.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-55, and 4.6-56 would be implemented and impacts to individual Cooper's hawks would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and EIR, impacts to this taxon are not considered significant.

Species:	**Vermilion flycatcher**
Sensitivity Designation:	**California Species of Special Concern**
Impact:	**Potential loss of individual vermilion flycatcher**
Significance:	**Not Significant**

This taxon is considered sensitive in the region and is a California species of special concern. This species has been observed on the Newhall Ranch during the biological field investigations (see **Appendix 4.6**) and is primarily associated with riparian vegetation and aquatic habitat, including riparian scrub, riparian woodland, and freshwater marsh vegetation. Due to the scarcity of such habitats, the distribution of this species is relatively limited throughout the region. However, this species can be relatively common where appropriate habitat is present, although population levels do fluctuate year to year. The vermilion flycatcher is most likely to nest in riparian scrub and woodlands in the area. Observations indicate that this species may be common on the Newhall Ranch site, and it may use the site for nesting or roosting.

Specific Plan implementation would result in the loss of 63 of the 222 acres of mule fat scrub vegetation, 15 of the 96 acres of southern willow scrub, 4 of the 126 acres of southern willow riparian woodland, 15 of the 93 acres of southern cottonwood-willow riparian forest, 2 of the 5 acres of valley freshwater marsh and ponds, 7 of the 26 acres of cottonwood/oak woodland, 11 of the 16 acres of arrow weed scrub, and 21 of the 39 acres of alluvial scrub (when combined, 22 percent of these vegetation types would be lost). Loss of habitat in which this species is known to occur is expected to result in the direct loss of habitat utilized by vermilion flycatcher.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would

assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-55, and 4.6-56 would be implemented and impacts to individual vermilion flycatchers would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and EIR, impacts to this taxon are not considered significant.

Species:	**California horned lark**
Sensitivity Designation:	**California Species of Special Concern**
Impact:	**Potential loss of individual California horned lark**
Significance:	**Not Significant**

This taxon is considered sensitive in the region and has been designated by the CDFG as California species of special concern. This species has been observed on Newhall Ranch during the extensive biological field investigations (see **Appendix 4.6**). This taxon is primarily associated with open upland vegetation, including non-native grassland, coastal sage scrub, and the more open areas of chaparral, which together represent the dominant habitat type present in the region. As such, this taxon can occur with relatively high frequency and abundance, and members of this species are relatively widely distributed throughout southern and central California.

Impacts to certain types of occupied or occupiable habitat for this species would occur as a result of implementation of the Specific Plan. As proposed, implementation of the Specific Plan would result in the loss of 1,480 of the 1,896 acres of non-native grassland, 1,820 of the 5,183 acres of coastal sage scrub, 202 of the 1,213 acres of chaparral, and about 64 of the 1,090 acres of oak vegetation present on the site (when combined, 38 percent of these vegetation types would be lost). Because this taxon can occur with relatively high frequency and abundance, and this bird is widely distributed throughout southern and central California, the loss of a number of individuals of this taxon or their habitat would represent an adverse, but not a significant impact.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to individual California horned lark would be reduced further.

Species:	**Loggerhead shrike**
Sensitivity Designation:	**California Species of Special Concern**
Impact:	**Potential loss of individual loggerhead shrike**
Significance:	**Not Significant**

This taxon is considered sensitive in the region and, as such, has been designated by the CDFG as California species of special concern. Loggerhead shrikes were observed on Newhall Ranch during the biological field investigations (see **Appendix 4.6**). This taxon is also primarily associated with open upland vegetation, including non-native grassland, coastal sage scrub, and the more open areas of chaparral, which together represent the dominant habitat type present in the region. As such, this taxon can occur with relatively high frequency and abundance, and is relatively widely distributed throughout southern and central California.

Impacts to certain types of occupied or occupiable habitat for these species would occur as a result of implementation of the Specific Plan. As proposed, implementation of the Specific Plan would result in the loss of 1,480 of the 1,896 acres of non-native grassland, 1,820 of the 5,183 acres of coastal sage scrub, 202 of the 1,213 acres of chaparral, and about 64 of the 1,090 acres of oak vegetation present on the site (when combined, 38 percent of these vegetation types would be lost). Because this taxon can occur with relatively high frequency and abundance, and the species is widely distributed throughout southern and central California, the loss of a number of individuals of this taxon or their habitat would represent an adverse, but not significant impact.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to individual loggerhead shrike would be reduced further.

Species:	**Yellow warbler**
Sensitivity Designation:	**California Species of Special Concern**
Impact:	**Potential loss of individual yellow warbler**
Significance:	**Not Significant**

This taxon is considered sensitive in the region and a California species of special concern. Yellow warblers have been observed on the Newhall Ranch during the biological field investigations (see **Appendix 4.6**). This taxon is primarily associated with riparian vegetation and aquatic habitat, including riparian scrub, riparian woodland, and freshwater marsh vegetation. Due to the scarcity of such habitats, the distribution of this species is relatively limited throughout the region. However,

this species can be relatively common where appropriate habitat is present, although population levels do fluctuate year to year. Yellow warblers are most likely to nest in riparian scrub and woodlands in the area and may breed communally in these habitat types. Observations indicate that this species may be common on the Newhall Ranch site, and it may use the site for nesting or roosting.

Specific Plan implementation would result in the loss of 63 of the 222 acres of mule fat scrub vegetation, 15 of the 96 acres of southern willow scrub, 4 of the 126 acres of southern willow riparian woodland, 15 of the 93 acres of southern cottonwood-willow riparian forest, 2 of the 5 acres of valley freshwater marsh and ponds, 7 of the 26 acres of cottonwood/oak woodland, 11 of the 16 acres of arrow weed scrub, and 21 of the 39 acres of alluvial scrub (when combined, 22 percent of these vegetation types would be lost). Loss of habitat in which this species is known to occur is expected to result in the direct loss of habitat utilized by yellow warbler.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-55, and 4.6-56 would be implemented and impacts to individual yellow warblers would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and this EIR, impacts to this taxon are not considered significant.

Species:	**Summer tanager**
Sensitivity Designation:	**California Species of Special Concern**
Impact:	**Potential loss of individual summer tanager**
Significance:	**Not Significant**

This taxon is considered sensitive in the region and a California species of special concern. Summer tanager has been observed on the Newhall Ranch during the biological field investigations (see **Appendix 4.6**). This taxon is also associated with riparian vegetation and aquatic habitat, including riparian scrub, riparian woodland, and freshwater marsh vegetation. Due to the scarcity of such habitats, the distribution of this species is relatively limited throughout the region. However, this species can be relatively common where appropriate habitat is present, although population levels do fluctuate year to year. Summer tanagers are most likely to nest in riparian scrub and woodlands in the area and may breed in these habitat types. Observations indicate that this species may be common on the Newhall Ranch site, and members of this species may use the site for nesting, foraging or roosting.

Specific Plan implementation would result in the loss of 63 of the 222 acres of mule fat scrub vegetation, 15 of the 96 acres of southern willow scrub, 4 of the 126 acres of southern willow riparian woodland, 15 of the 93 acres of southern cottonwood-willow riparian forest, 2 of the 5 acres of valley freshwater marsh and ponds, 7 of the 26 acres of cottonwood/oak woodland, 11 of the 16 acres of arrow weed scrub, and 21 of the 39 acres of alluvial scrub (when combined, 22 percent of these vegetation types would be lost). Loss of habitat in which this species is known to occur is expected to result in the direct loss of habitat utilized by summer tanager.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-55, and 4.6-56 would be implemented and impacts to individual summer tanagers would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and EIR, impacts to this taxon are not considered significant.

Species:	**Southern California rufous-crowned sparrow**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of individual southern California rufous-crowned sparrow**
Significance:	**Significant**

This species maintains no Federal sensitivity designation but is identified by the State of California as a Species of Special Concern, and is a Federal species of concern.

This taxon has been observed on the Ranch during the biological field investigations (see **Appendix 4.6**). Southern California rufous-crowned sparrow are primarily associated with upland habitats, including coastal sage scrub, chaparral and grassland habitat. Given that a substantial acreage of these habitat types occur on the site and in the region, the abundance and distribution of these species are generally not limited.

Loss of habitat on the site is substantial. As proposed, implementation of the Specific Plan would result in the loss of 1,820 of the 5,183 acres of coastal sage scrub, 202 of the 1,213 acres of chaparral, and 1,480 of the 1,896 acres of non-native grassland habitat present on the site (when combined, 42 percent of these vegetation types would be lost). Given the rarity of this species in the region, the substantial loss of habitat, and potentially the direct loss of individuals of this species, impacts would be considered significant without mitigation.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measures 4.6-53, 4.6-56, and 4.6-55 would be implemented and impacts to southern California rufous-crowned sparrow would be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**Tricolored blackbird**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of tricolored blackbird breeding locations**
Significance:	**Significant**

The tricolored blackbird is a California species of special concern and Federal species of concern that generally resides in aquatic or riparian habitats. A flock of about 20 tricolored blackbirds was observed in Middle Potrero Canyon and a flock of 50 birds was seen on the Newhall Ranch property north of Mayo Crossing during earlier biological field surveys, although none was recorded during the recent surveys conducted in 1995 (see **Appendix 4.6**). Tricolored blackbirds generally breed in colonies in freshwater marsh vegetation and aquatic habitat. As such, their abundance and distribution are relatively limited throughout the region.

Specific Plan implementation would result in the loss of 175 of the 932 acres of the appropriate types of riparian habitat (19 percent of these vegetation types would be lost) present within the proposed development area and the loss of tricolored blackbird breeding colonies may occur, if this species uses the areas to be impacted as a breeding colony site. Given the direct loss of habitat, the breeding behavior of this bird may be directly impacted by Specific Plan implementation, if there is a breeding colony established at the time of construction.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-56, and 4.6-55 would be implemented and impacts to breeding colonies (if present) may be reduced. However, the potential to re-locate breeding colonies at new locations is relatively low; therefore, impacts to breeding colonies (if present) are considered significant.

Species:	**San Diego desert woodrat**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of San Diego desert woodrat**
Significance:	**Significant**

This species maintains no Federal sensitivity designation, but is identified by the State of California as a Species of Special Concern, and is a Federal species of concern.

This taxon has been observed on the Ranch during the biological field investigations (see **Appendix 4.6**). The San Diego desert woodrat is primarily associated with upland habitats, including coastal sage scrub and chaparral habitats. Given that a substantial acreage of these habitat types occurs on the site and in the region, the abundance and distribution of this species is generally not limited throughout the region.

Loss of habitat on the site for this species is substantial. As proposed, implementation of the Specific Plan would result in the loss of 1,820 of the 5,183 acres of coastal sage scrub, and 202 of the 1,213 acres of chaparral habitat present on the site. Given the concern of this species in the region, the substantial loss of habitat, and potentially the direct loss of individuals of this species, impacts would be considered significant without mitigation.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measures 4.6-53, 4.6-56, and 4.6-55 would be implemented and impacts to individual San Diego desert woodrats would be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**San Diego black-tailed jackrabbit**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of San Diego black-tailed jackrabbit**
Significance:	**Significant**

This species maintains no Federal sensitivity designation, but is identified by the State of California as a Species of Special Concern, and is a Federal species of concern.

This taxon has been observed on the Ranch during the biological field investigations (see **Appendix 4.6**). San Diego black-tailed jackrabbit are primarily associated with upland habitat, including coastal sage scrub, chaparral and grassland habitat.

The loss of habitat for this species on the site is substantial. As proposed, implementation of the Specific Plan would result in the loss of 1,820 of the 5,183 acres of coastal sage scrub, 202 of the 1,213 acres of chaparral, and 1,480 of the 1,896 acres of non-native grassland habitat present on the site (when combined, 42 percent of these vegetation types would be lost). Given the rarity of these species in the region, the substantial loss of habitat, and potentially the direct loss of individuals of this species, impacts to this species would be considered significant without mitigation.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measures 4.6-53, 4.6-56, and 4.6-55 would be implemented and impacts to individual San Diego black-tailed jackrabbits would be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**Two-striped garter snake**
Sensitivity Designation:	**California Special Animal, Federal Species of Concern**
Impact:	**Potential loss of two-striped garter snake**
Significance:	**Not Significant**

This species has no Federal sensitivity designation, but has been listed as a California special animal, and is a Federal species of concern. It generally resides in aquatic/riparian habitats and has been observed on the site during biological field investigations (see **Appendix 4.6**).

As stated, this taxon has been observed on the Newhall Ranch site and is primarily associated with riparian and/or freshwater marsh vegetation. During the aquatic reptile trapping efforts conducted along the Santa Clara River, no two-striped garter snakes were captured between the Castaic Creek confluence and the Old Road bridge just west of I-5. About half of this stretch of the River is located within the Newhall Ranch Specific Plan area.

Specific Plan implementation would result in the loss of 63 of the 222 acres of mule fat scrub vegetation, 15 of the 96 acres of southern willow scrub, 4 of the 126 acres of southern willow riparian woodland, 15 of the 93 acres of southern cottonwood-willow riparian forest, 2 of the 5 acres of valley freshwater

marsh and ponds, 7 of the 26 acres of cottonwood/oak woodland, 11 of the 16 acres of arrow weed scrub, and 21 of the 39 acres of alluvial scrub (when combined, 22 percent of these vegetation types would be lost). Loss of habitat in which this species is known to occur could result in the direct loss of individual two-striped garter snakes.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-56, and 4.6-55 would be implemented and impacts to individual two-striped garter snakes would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and this EIR, impacts to this taxon are not considered significant.

Species:	**Great blue heron**
Sensitivity Designation:	**California Special Animal**
Impact:	**Potential loss of great blue heron habitat**
Significance:	**Not Significant**

Great blue heron has been defined as a California special animal and been observed on the Newhall Ranch during the biological field investigations (see **Appendix 4.6**). Great blue heron are primarily associated with riparian vegetation and aquatic habitat, including riparian scrub, riparian woodland, and freshwater marsh vegetation. Due to the scarcity of such habitats, the distribution of this species is limited throughout the region. However, this species can be common where appropriate habitat is present, although population levels do fluctuate year to year. Great blue heron feed, roost and breed communally in these habitat types and observations indicate that this species may be common on the Newhall Ranch site.

Specific Plan implementation would result in the loss of 63 of the 222 acres of mule fat scrub vegetation, 15 of the 96 acres of southern willow scrub, 4 of the 126 acres of southern willow riparian woodland, 15 of the 93 acres of southern cottonwood-willow riparian forest, 2 of the 5 acres of valley freshwater marsh and ponds, 7 of the 26 acres of cottonwood/oak woodland, 11 of the 16 acres of arrow weed scrub, and 21 of the 39 acres of alluvial scrub (when combined, 22 percent of these vegetation types would be lost). Loss of habitat in which this species is known to occur is expected to result in the direct loss of habitat utilized by great blue heron.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would

assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-55, and 4.6-56 would be implemented and impacts to individual great blue herons would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and this EIR, impacts to this taxon are not considered significant.

Species:	**Great egret**
Sensitivity Designation:	**California Special Animal**
Impact:	**Potential loss of great egret habitat**
Significance:	**Not Significant**

Great egrets have been defined as a California special animal and have been observed on the Newhall Ranch during the biological field investigations (see **Appendix 4.6**). Great egrets are primarily associated with riparian vegetation and aquatic habitat, including riparian scrub, riparian woodland, and freshwater marsh vegetation. Due to the scarcity of such habitats, the distribution of this species is limited throughout the region. However, this species can be common where appropriate habitat is present, although population levels do fluctuate year to year. Great egrets feed, roost and breed communally in these habitat types and observations indicate that this species may be common on the Newhall Ranch site.

Specific Plan implementation would result in the loss of 63 of the 222 acres of mule fat scrub vegetation, 15 of the 96 acres of southern willow scrub, 4 of the 126 acres of southern willow riparian woodland, 15 of the 93 acres of southern cottonwood-willow riparian forest, 2 of the 5 acres of valley freshwater marsh and ponds, 7 of the 26 acres of cottonwood/oak woodland, 11 of the 16 acres of arrow weed scrub, and 21 of the 39 acres of alluvial scrub (when combined, 22 percent of these vegetation types would be lost). Loss of habitat in which this species is known to occur is expected to result in the direct loss of habitat utilized by great egrets.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-55, and 4.6-56 would be implemented and impacts to individual great egrets would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and this EIR, impacts to this taxon are not considered significant.

Species:	**Snowy egret**
Sensitivity Designation:	**California Special Animal**
Impact:	**Potential loss of snowy egret habitat**
Significance:	**Not Significant**

Snowy egrets have also been defined as a California special animal and have been observed on the Newhall Ranch during the biological field investigations (see **Appendix 4.6**). Snowy egrets are primarily associated with riparian vegetation and aquatic habitat, including riparian scrub, riparian woodland, and freshwater marsh vegetation. Due to the scarcity of such habitats, the distribution of this species is limited throughout the region. However, this species can be common where appropriate habitat is present, although population levels do fluctuate year to year. Snowy egrets feed, roost and breed communally in these habitat types, and observations indicate that this species may be common on the Newhall Ranch site.

Specific Plan implementation would result in the loss of 63 of the 222 acres of mule fat scrub vegetation, 15 of the 96 acres of southern willow scrub, 4 of the 126 acres of southern willow riparian woodland, 15 of the 93 acres of southern cottonwood-willow riparian forest, 2 of the 5 acres of valley freshwater marsh and ponds, 7 of the 26 acres of cottonwood/oak woodland, 11 of the 16 acres of arrow weed scrub, and 21 of the 39 acres of alluvial scrub (when combined, 22 percent of these vegetation types would be lost). Loss of habitat in which this species is known to occur is expected to result in the direct loss of habitat utilized by snowy egrets.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-55, and 4.6-56 would be implemented and impacts to individual snowy egrets would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and this EIR, impacts to this taxon are not considered significant.

Species:	**Black-crowned night heron**
Sensitivity Designation:	**California Special Animal**
Impact:	**Potential loss of black crowned night heron habitat**
Significance:	**Not Significant**

Black-crowned night herons have been defined as a California special animal and have been observed on the Newhall Ranch during the biological field investigations (see **Appendix 4.6**). Black-crowned night herons are primarily associated with riparian vegetation and aquatic habitat, including

riparian scrub, riparian woodland, and freshwater marsh vegetation. Due to the scarcity of such habitats, the distribution of this species is limited throughout the region. However, this species can be common where appropriate habitat is present, although population levels do fluctuate year to year. Black-crowned night herons feed, roost and breed communally in these habitat types and observations indicate that this species may be common on the Newhall Ranch site.

Specific Plan implementation would result in the loss of 63 of the 222 acres of mule fat scrub vegetation, 15 of the 96 acres of southern willow scrub, 4 of the 126 acres of southern willow riparian woodland, 15 of the 93 acres of southern cottonwood-willow riparian forest, 2 of the 5 acres of valley freshwater marsh and ponds, 7 of the 26 acres of cottonwood/oak woodland, 11 of the 16 acres of arrow weed scrub, and 21 of the 39 acres of alluvial scrub (when combined, 22 percent of these vegetation types would be lost). Loss of habitat in which this species is known to occur is expected to result in the direct loss of habitat utilized by black-crowned night herons.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-55, and 4.6-56 would be implemented and impacts to individual black-crowned night herons would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and this EIR, impacts to this taxon are not considered significant.

Species:	**White-tailed kite**
Sensitivity Designation:	**California Fully Protected**
Impact:	**Potential loss of white-tailed kite habitat**
Significance:	**Significant**

The CDFG considers the white-tailed kite a California fully protected species. This species has been observed foraging on the Newhall Ranch, and may occur in areas proposed for disturbance. This taxon forages over open upland vegetation, including non-native grassland, coastal sage scrub, and the more open areas of chaparral and oak vegetation, which together represent the dominant habitat type in the region. Therefore, this species is relatively widely distributed throughout the region. However, large blocks of contiguous open foraging habitats used by this raptor are becoming increasingly scarce in the region.

The loss of individual white-tailed kite, particularly nesting individuals (if present) as a result of Specific Plan implementation would be considered a potential adverse impact. However, loss of nesting individuals can be avoided by conducting preconstruction breeding kite surveys prior to disturbance of

potential breeding habitat during the breeding season (approximately mid-March through August). Impacts to certain types of occupied or occupiable foraging and nesting habitat for this species would occur as a result of implementation of the Specific Plan and the loss of habitat for this species on the site is substantial. As proposed, implementation of the Specific Plan would result in the loss of 1,480 of the 1,896 acres of non-native grassland, 1,820 of the 5,183 acres of coastal sage scrub, 202 of the 1,213 acres of chaparral, and about 64 of the 1,090 acres of oak vegetation present on the site (when combined, 38 percent of these vegetation types would be lost). This bird is known to occur over a relatively broad geographic range. However, the loss of these large amounts of foraging habitat is considered a significant impact.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to individual white-tailed kites and their foraging habitat may be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**Mountain lion**
Sensitivity Designation:	**California Fully Protected**
Impact:	**Potential loss of mountain lion habitat**
Significance:	**Significant**

The CDFG considers the mountain lion a fully protected species. Sign of this species has been observed on the Newhall Ranch, and it may occur in areas proposed for disturbance. Mountain lions forage over open upland vegetation, including non-native grassland, coastal sage scrub, and the more open areas of chaparral and oak vegetation, which together represent the dominant habitat type in the region. Therefore, this species is uncommon, but widely distributed throughout the region. However, the large blocks of contiguous open foraging habitats used by this mammal are becoming increasingly scarce in the region.

The loss of mountain lion habitat as a result of Specific Plan implementation would be considered a significant adverse impact. As proposed, implementation of the Specific Plan would result in the loss of 1,480 of the 1,896 acres of non-native grassland, 1,820 of the 5,183 acres of coastal sage scrub, 202 of the 1,213 acres of chaparral, and about 64 of the 1,090 acres of oak vegetation present on the site (when combined, 38 percent of these vegetation types would be lost). This mammal is known to occur over a relatively broad geographic range. However, the loss of these large amounts of foraging habitat is considered a significant impact.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to mountain lion foraging habitat may be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**Becker's white, California white, Harford's sulfur, Comstock's fritillary, Gabb's checkerspot, Lorquin's admiral, cloudy copper, Gorgon copper**
Sensitivity Designation:	**Locally Sensitive**
Impact:	**Potential loss Becker's white, California white, Harford's sulfur, Comstock's fritillary, Gabb's checkerspot, Lorquin's admiral, cloudy copper, Gorgon copper butterfly individuals and habitat**
Significance:	**Not significant**

These eight butterfly taxa are considered to be locally sensitive in the region. All have been observed on the Ranch and occur or may occur in the future in areas subject to disturbance. These taxa primarily are dependent upon a relatively narrow range of larval food plants and/or adult nectar sources associated with plants that occur in natural areas of the site. Therefore, their distribution may be relatively limited throughout the region. However, these species can be relatively common where appropriate food plants and other habitat features are present. Food plants for these butterflies typically include species which are typically well represented in undisturbed areas in the region and, in some cases, can include surrogate food sources, such as introduced mustards. As such, the loss of even a substantial number of these taxa would represent an adverse, but not significant impact. Impacts to certain occupied or occupiable habitat for these species include about 1,820 of the 5,183 acres of coastal sage scrub, about 64 of the 1,090 acres of oak vegetation, 15 of the 93 acres southern willow scrub vegetation and about 19 of the 219 acres of riparian woodland vegetation that occurs on site (when combined, about 29 percent of these vegetation types would be lost).

Given the amount of habitat preserved on the site and habitat present in the region, the loss of individual Becker's white, California white, Harford's sulfur, Comstock's fritillary, Gabb's checkerspot, Lorquin's admiral, cloudy copper, and Gorgon copper butterflies as a result of Specific Plan implementation would be considered an adverse impact that is not significant.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to these butterflies would be further reduced.

2. Sensitive Wildlife Species; Not Observed but Expected to Occur On site

Species:	**Arroyo southwestern toad**
Sensitivity Designation:	**Federal Endangered, California Species of Special Concern**
Impact:	**Potential loss of individual arroyo southwestern toad (if present)**
Significance:	**Not Significant**

The arroyo southwestern toad has not been observed on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). However, it has been assigned a moderate potential for occurrence on the site due to the presence of substantial areas of preferred habitat. If present, this Federally listed endangered species likely occurs in riparian scrub, riparian woodland, alluvial scrub, and freshwater marsh vegetation and aquatic habitat.

Specific Plan implementation would result in the loss of 63 of the 222 acres of mule fat scrub vegetation, 15 of the 96 acres of southern willow scrub, 4 of the 126 acres of southern willow riparian woodland, 15 of the 93 acres of southern cottonwood-willow riparian forest, 2 of the 5 acres of valley freshwater marsh and ponds, 7 of the 26 acres of cottonwood/oak woodland, 11 of the 16 acres of arrow weed scrub, and 21 of the 39 acres of alluvial scrub (when combined, 22 percent of these vegetation types would be lost). Loss of habitat in which this species is known to occur could result in the direct loss of individual arroyo toads (if present).

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-55, and 4.6-56 would be implemented and impacts to individual arroyo southwestern toads would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and this EIR, impacts to this taxon are not considered significant.

Species:	**Swainson's hawk**
Sensitivity Designation:	**State Threatened**
Impact:	**Potential loss of individual Swainson's hawk (if present)**
Significance:	**Significant (if present)**

Swainson's hawk was not observed on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). However, Swainson's hawk has been assigned a moderate potential for occurrence due to the presence of suitable habitat and the geographic range of this bird. If this taxon is present, it would most likely occur in, fly over, and forage in the riparian woodland, coastal sage scrub and chaparral vegetation.

The loss of habitat on the site is substantial. Acreage subject to disturbance in vegetation communities which may represent the greatest potential habitat for these species includes 19 of the 219 acres of riparian woodland, 1,820 acres of the 5,183 acres of coastal sage scrub, and 202 acres of the 1,213 chaparral vegetation that occurs on site (when combined, 31 percent of these vegetation types would be lost). The loss of individual Swainson's hawk as a result of Specific Plan implementation would be an adverse impact that is considered significant, given the listing status of Swainson's hawk. Also, given this substantial loss of habitat, this impact would be considered significant without mitigation.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to individual Swainson's hawks would be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**Mountain plover**
Sensitivity Designation:	**Federal Candidate, California Species of Special Concern**
Impact:	**Potential loss of individual mountain plover (if present)**
Significance:	**Significant (if present)**

The mountain plover has not been observed on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). However, this species has been assigned a moderate to high potential for occurrence given their habitat preference and known geographic range. If present, this Federal candidate and California species of special concern likely occurs in coastal sage scrub, chaparral, and open riparian scrub vegetation.

The loss of habitat on the site for this sensitive species is substantial. As proposed, implementation of the Specific Plan would result in the loss of 1,820 of the 5,183 acres of coastal sage scrub, 202 of the 1,213 acres of chaparral, and about 64 of the 171 acres of the more open riparian scrub vegetation (when combined, 32 percent of these vegetation types would be lost). Given this substantial loss of habitat and potentially the direct loss of individuals of this species, this impact would be considered significant without mitigation.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to individual mountain plovers would be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**Western least bittern**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of individual western least bittern (if present)**
Significance:	**Not Significant**

The western least bittern has not been observed on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). However, it has been assigned a moderate potential for occurrence on the site due to the presence of substantial areas of preferred habitat. If the western least bittern occurs on the Ranch, it would most likely be associated with freshwater marsh vegetation and aquatic habitat along the Santa Clara River. This species is not expected to nest on the Ranch.

Specific Plan implementation would result in the loss of 63 of the 222 acres of mule fat scrub vegetation, 15 of the 96 acres of southern willow scrub, 4 of the 126 acres of southern willow riparian woodland, 15 of the 93 acres of southern cottonwood-willow riparian forest, 2 of the 5 acres of valley freshwater marsh and ponds, 7 of the 26 acres of cottonwood/oak woodland, 11 of the 16 acres of arrow weed scrub, and 21 of the 39 acres of alluvial scrub (when combined, 22 percent of these vegetation types would be lost). Loss of habitat in which this species is known to occur could result in the displacement of western least bittern (if present).

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would

assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-55, and 4.6-56 would be implemented and impacts to individual western least bitterns would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and this EIR, impacts to this taxon are not considered significant.

Species:	**Fulvous whistling duck**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of individual fulvous whistling duck (if present)**
Significance:	**Not Significant**

The fulvous whistling duck has not been observed on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). However, it has been assigned a moderate potential for occurrence on the site due to the presence of substantial areas of preferred habitat. If the fulvous whistling duck occurs on the Ranch, it would most likely be associated with freshwater marsh vegetation and aquatic habitat along the Santa Clara River. This species in not expected to nest on the Ranch.

Specific Plan implementation would result in the loss of 63 of the 222 acres of mule fat scrub vegetation, 15 of the 96 acres of southern willow scrub, 4 of the 126 acres of southern willow riparian woodland, 15 of the 93 acres of southern cottonwood-willow riparian forest, 2 of the 5 acres of valley freshwater marsh and ponds, 7 of the 26 acres of cottonwood/oak woodland, 11 of the 16 acres of arrow weed scrub, and 21 of the 39 acres of alluvial scrub (when combined, 22 percent of these vegetation types would be lost). Loss of habitat in which this species is known to occur could result in the displacement of fulvous whistling-duck.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-55, and 4.6-56 would be implemented and impacts to fulvous whistling-ducks would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and this EIR, impacts to this taxon are not considered significant.

Species:	**Bell's sage sparrow**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of individual Bell's sage sparrow (if present)**
Significance:	**Significant (if present)**

The Bell's sage sparrow has not been observed on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). However, this species has been assigned a moderate to high potential for occurrence given its habitat preference and known geographic range. If present, this California species of special concern and Federal species of concern likely occurs in coastal sage scrub, chaparral, and open riparian scrub vegetation.

The loss of habitat on the site for this sensitive species is substantial. As proposed, implementation of the Specific Plan would result in the loss of 1,820 of the 5,183 acres of coastal sage scrub, 202 of the 1,213 acres of chaparral, and about 64 of the 171 acres of the more open riparian scrub vegetation (when combined, 32 percent of these vegetation types would be lost). Given this substantial loss of habitat and potentially the direct loss of individuals of this species, this impact would be considered significant without mitigation.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to individual Bell's sage sparrows would be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**Ferruginous hawk**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of individual ferruginous hawk (if present)**
Significance:	**Significant (if present)**

The ferruginous hawk has not been observed on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). However, this species has been assigned a moderate to high potential for occurrence given it's habitat preference and known geographic range. If present, this California species of special concern and Federal species of concern likely occurs in coastal sage scrub, chaparral, and open riparian scrub vegetation.

The loss of habitat on the site for this sensitive species is substantial. As proposed, implementation of the Specific Plan would result in the loss of 1,820 of the 5,183 acres of coastal sage scrub, 202 of the 1,213 acres of chaparral, and about 64 of the 171 acres of the more open riparian scrub vegetation (when combined, 32 percent of these vegetation types would be lost). Given this substantial loss of habitat and potentially the direct loss of individuals of this species, this impact would be considered significant without mitigation.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to individual ferruginous hawks would be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**Silvery legless lizard**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of individual silvery legless lizard (if present)**
Significance:	**Significant (if present)**

The silvery legless lizard has not been observed on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). However, this species has been assigned a moderate to high potential for occurrence given its habitat preference and known geographic range. If present, this California species of special concern and Federal species of concern likely occurs in coastal sage scrub, chaparral, and open riparian scrub vegetation.

The loss of habitat on the site for this sensitive species is substantial. As proposed, implementation of the Specific Plan would result in the loss of 1,820 of the 5,183 acres of coastal sage scrub, 202 of the 1,213 acres of chaparral, and about 64 of the 171 acres of the more open riparian scrub vegetation (when combined, 32 percent of these vegetation types would be lost). Given this substantial loss of habitat and potentially the direct loss of individuals of this species, this impact would be considered significant without mitigation.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would

assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to individual silvery legless lizards would be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**Pale Townsend's big-eared bat**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of individual pale Townsend's big-eared bat (if present)**
Significance:	**Not Significant**

Pale Townsend's big-eared bat has not been recorded from the Newhall Ranch. However, due to the presence of suitable habitat, this bat has been assigned a moderate potential for occurrence. The pale Townsend's big-eared bat tends to roost in steep rocky cliff faces. No loss of bat roosts (if present) as a result of Specific Plan implementation would be expected, as little if any direct disturbance would occur in the High Country portions of the Newhall Ranch where roosts would most likely be located. However, this species likely occurs in and forages over the riparian scrub and riparian woodland vegetation.

Acreage subject to disturbance in vegetation communities which may represent potential foraging habitat for these species includes about 175 of the 932 acres of the appropriate types of riparian and wetland vegetation (inclusive of riparian woodlands) that occur on site (19 percent of this vegetation types would be lost).

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-55, and 4.6-56 would be implemented and impacts to individual pale Townsend's big-eared bats would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and this EIR, impacts to this taxon are not considered significant.

Species:	**Greater western mastiff bat**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of individual greater western mastiff bat (if present)**
Significance:	**Not Significant**

Greater western mastiff bat has not been recorded from the Newhall Ranch. However, due to the presence of suitable habitat, this bat has been assigned a moderate potential for occurrence. The greater western mastiff bat tends to roost in steep rocky cliff faces. No loss of bat roosts (if present) as a result of Specific Plan implementation would be expected, as little if any direct disturbance would occur in the High Country portions of the Newhall Ranch where roosts would most likely be located. However, this species likely occurs in and forages over the riparian scrub and riparian woodland vegetation.

Acreage subject to disturbance in vegetation communities which may represent potential foraging habitat for these species includes about 175 of the 932 acres of the appropriate types of riparian and wetland vegetation (inclusive of riparian woodlands) that occur on site (19 percent of this vegetation types would be lost).

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-55, and 4.6-56 would be implemented and impacts to individual greater western mastiff-bats would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and EIR, impacts to this taxon are not considered significant.

Species:	**Coast patch-nosed snake**
Sensitivity Designation:	**California Species of Special Concern, Federal Species of Concern**
Impact:	**Potential loss of individual coast patch-nosed snake (if present)**
Significance:	**Significant (if present)**

The coast patch-nosed snake has not been observed on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). However, this species has been assigned a moderate to high potential for occurrence given its habitat preference and known geographic range. If present, this California species of special concern and Federal species of concern likely occurs in coastal sage scrub, chaparral, and open riparian scrub vegetation.

The loss of habitat on the site for this sensitive species is substantial. As proposed, implementation of the Specific Plan would result in the loss of 1,820 of the 5,183 acres of coastal sage scrub, 202 of the 1,213 acres of chaparral, and about 64 of the 171 acres of the more open riparian scrub vegetation (when combined, 32 percent of these vegetation types would be lost). Given this substantial loss of habitat and potentially the direct loss of individuals of this species, this impact would be considered significant without mitigation.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to individual coast patch-nosed snakes would be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**Western burrowing owl**
Sensitivity Designation:	**California Species of Special Concern**
Impact:	**Potential loss of individual western burrowing owls (if present)**
Significance:	**Significant (if present)**

Western burrowing owls were not observed on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). However, this California species of special concern has been assigned a moderate potential for occurrence due to the presence of suitable habitat and the geographic range of these birds. If this taxon is present, it would most likely occur in non-native grassland, valley oak savanna, coastal sage scrub and disturbed areas (those areas where ground squirrels are prevalent).

The loss of habitat on the site is substantial. Acreage subject to disturbance in vegetation communities which may represent the greatest potential habitat for this species includes 1,820 of the site's 5,183 acres of coastal sage scrub, 1,480 acres of the 1,896 acres of non-native grassland, 25 acres of the 394 acres of valley oak savanna, and 1,317 acres of the 1,523 acres of disturbed habitat (when combined, about 42 percent of these vegetation types would be lost). Given this substantial loss of habitat and potentially the direct loss of individuals of this species, this impact would be considered significant without mitigation.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to individual western burrowing owls would be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**Sharp-shinned hawk**
Sensitivity Designation:	**California Species of Special Concern**
Impact:	**Potential loss of individual sharp-shinned hawk (if present)**
Significance:	**Significant (if present)**

Sharp-shinned hawk was not observed on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). However, sharp-shinned hawk has been assigned a moderate potential for occurrence due to the presence of suitable habitat on the site and the geographic range of this bird. If this taxon is present on Newhall Ranch, it would most likely occur in, fly over, and forage in the riparian woodland, coastal sage scrub and chaparral vegetation.

The loss of habitat on the site is substantial. Acreage subject to disturbance in vegetation communities which may represent the greatest potential habitat for these species includes 19 of the 219 acres of riparian woodland, 1,820 acres of the 5,183 acres of coastal sage scrub, and 202 acres of the 1,213 chaparral vegetation that occurs on site (when combined, 31 percent of these vegetation types would be lost). The loss of a large number of individual sharp-shinned hawk, particularly nesting sharp-shinned hawk individuals (if present), would also be an adverse impact that is considered significant. Also, given this substantial loss of habitat, this impact would be considered significant without mitigation.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to individual sharp-shinned hawks would be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**Golden eagle**
Sensitivity Designation:	**California Fully Protected Species**
Impact:	**Potential loss of individual golden eagle (if present)**
Significance:	**Significant (if present)**

Golden eagle was not observed on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). However, golden eagle has been assigned a moderate potential for occurrence due to the presence of suitable habitat and the geographic range of this bird. If this taxon is present, it would most likely occur in, fly over, and forage in the riparian woodland, coastal sage scrub and chaparral vegetation.

The loss of habitat on the site is substantial. Acreage subject to disturbance in vegetation communities which may represent the greatest potential habitat for these species includes 19 of the 219 acres of riparian woodland, 1,820 acres of the 5,183 acres of coastal sage scrub, and 202 acres of the 1,213 chaparral vegetation that occurs on site (when combined, 31 percent of these vegetation types would be lost). The loss of a large number of individual golden eagle would be an adverse impact that is considered significant. Also, given this substantial loss of habitat, this impact would be considered significant without mitigation.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to individual golden eagles would be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**Pallid bat**
Sensitivity Designation:	**California Species of Special Concern**
Impact:	**Potential loss of individual pallid bat (if present)**
Significance:	**Not Significant**

The pallid bat has not been recorded from the Newhall Ranch. However, due to the presence of suitable habitat, this bat has been assigned a moderate potential for occurrence. The pallid bat tends to roost in steep rocky cliff faces. No loss of bat roosts (if present) as a result of Specific Plan implementation would be expected, as little if any direct disturbance would occur in the High Country portions of the Newhall Ranch where roosts would most likely be located. However, this species likely occurs in and forages over the riparian scrub and riparian woodland vegetation.

Acreage subject to disturbance in vegetation communities which may represent potential foraging habitat for these species includes about 175 of the 932 acres of the appropriate types of riparian and wetland vegetation (inclusive of riparian woodlands) that occur on site (19 percent of this vegetation types would be lost).

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-55, and 4.6-56 would be implemented and impacts to individual pallid bats would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and this EIR, impacts to this taxon are not considered significant.

Species:	**Coastal rosy boa**
Sensitivity Designation:	**Federal Species of Concern**
Impact:	**Potential loss of individual coastal rosy boa (if present)**
Significance:	**Significant (if present)**

The coastal rosy boa has not been observed on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). However, this species has been assigned a moderate to high potential for occurrence given its habitat preference and known geographic range. If present, this Federal species of concern likely occurs in coastal sage scrub, chaparral, and open riparian scrub vegetation.

The loss of habitat on the site for this sensitive species is substantial. As proposed, implementation of the Specific Plan would result in the loss of 1,820 of the 5,183 acres of coastal sage scrub, 202 of the 1,213 acres of chaparral, and about 64 of the 171 acres of the more open riparian scrub vegetation (when combined, 32 percent of these vegetation types would be lost). Given this substantial loss of habitat and potentially the direct loss of individuals of this species, this impact would be considered significant without mitigation.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to individual coastal rosy boa's would be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**San Bernardino ringneck snake**
Sensitivity Designation:	**Federal Species of Concern**
Impact:	**Potential loss of individual San Bernardino ringneck snake (if present)**
Significance:	**Significant (if present)**

The San Bernardino ringneck snake has not been observed on the Newhall Ranch site during the biological field surveys (see **Appendix 4.6**). However, this species has been assigned a moderate to high potential for occurrence given its habitat preference and known geographic range. If present, this Federal species of concern likely occurs in coastal sage scrub, chaparral, and open riparian scrub vegetation.

The loss of habitat on the site for this sensitive species is substantial. As proposed, implementation of the Specific Plan would result in the loss of 1,820 of the 5,183 acres of coastal sage scrub, 202 of the 1,213 acres of chaparral, and about 64 of the 171 acres of the more open riparian scrub vegetation (when combined, 32 percent of these vegetation types would be lost). Given this substantial loss of habitat and potentially the direct loss of individuals of this species, this impact would be considered significant without mitigation.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would

assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to individual San Bernardino ringneck snakes would be reduced. However, in spite of these measures, impacts to this taxon are still considered significant.

Species:	**Yuma myotis**
Sensitivity Designation:	**Federal Species of Concern**
Impact:	**Potential loss of individual Yuma myotis (if present)**
Significance:	**Not Significant**

Yuma myotis has not been recorded from the Newhall Ranch. However, due to the presence of suitable habitat, this bat has been assigned a moderate potential for occurrence. The Yuma myotis tends to roost under bridges. No loss of bat roosts (if present) as a result of Specific Plan implementation would be expected, as little if any direct disturbance would occur in the High Country portions of the Newhall Ranch where roosts would most likely be located. However, this species likely occurs in and forages over the riparian scrub and riparian woodland vegetation.

Acreage subject to disturbance in vegetation communities which may represent potential foraging habitat for these species includes about 175 of the 932 acres of the appropriate types of riparian and wetland vegetation (inclusive of riparian woodlands) that occur on site (19 percent of this vegetation types would be lost).

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-1 through 4.6-26, as well as EIR Mitigation Measures 4.6-53, 4.6-55, and 4.6-56 would be implemented and impacts to individual Yuma myotis would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and this EIR, impacts to this taxon are not considered significant.

Species:	**Leussler's skipper**
Sensitivity Designation:	**Locally Sensitive**
Impact:	**Potential loss of individual Leussler's skipper butterfly (if present)**
Significance:	**Not Significant**

The Leussler's skipper butterfly has not been observed on the Newhall Ranch site during the biological surveys. However, it has been assigned a moderate to high potential for occurrence. If this taxon is present, it likely occurs in the oak woodland and oak savanna, coastal sage scrub and chaparral

vegetation. It is believed that this species of butterfly is declining in numbers. However, this species can be relatively common where appropriate food plants and other habitat features are present. Due to its substantial geographic range, the loss of even a substantial number of this taxon would represent an adverse, but not significant impact. Acreage subject to disturbance in vegetation communities which may represent potential habitat for these species includes 1,820 acres of the 5,183 acres of coastal sage scrub, 202 acres of the 1,213 acres of chaparral, and 64 of the 1,090 acres of various oak habitats that occur on the Specific Plan site (when combined, 28 percent of these vegetation types would be lost).

Given the amount of habitat preserved on the site and habitat present in the region, the loss of individual Leussler's skipper butterflies as a result of Specific Plan implementation would be considered an adverse impact that is not significant.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to this butterfly would be further reduced.

Species:	**Columbia skipper**
Sensitivity Designation:	**Locally Sensitive**
Impact:	**Potential loss of individual Columbia skipper butterfly (if present)**
Significance:	**Not Significant**

The Columbia skipper butterfly has not been observed on the Newhall Ranch site during the biological surveys. However, it has been assigned a moderate to high potential for occurrence. If this taxon is present, it likely occurs in the oak woodland and oak savanna, coastal sage scrub and chaparral vegetation. It is believed that this species of butterfly is declining in number. However, this species can be relatively common where appropriate food plants and other habitat features are present. Due to its substantial geographic range, the loss of even a substantial number of this taxon would represent an adverse, but not significant impact. Acreage subject to disturbance in vegetation communities which may represent potential habitat for these species includes 1,820 acres of the 5,183 acres of coastal sage scrub, 202 acres of the 1,213 acres of chaparral, and 64 of the 1,090 acres of various oak habitats that occur on the Specific Plan site (when combined, 28 percent of these vegetation types would be lost).

Given the amount of habitat preserved on the site and habitat present in the region, the loss of individual Columbia skipper butterflies as a result of Specific Plan implementation would be considered an adverse impact that is not significant.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, RMP Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-53 would be implemented and impacts to this butterfly would be further reduced.

(c) Conclusion

Based on the information provided above the proposed Specific Plan has the potential to significantly impact (post mitigation) several sensitive wildlife species that generally occur in upland habitats. Given the criteria set forth in Subsection 4.a., Significance Threshold Criteria, the Specific Plan would significantly affect endangered, rare or sensitive plants or animals (in this case sensistive species). Therefore, the impact potential of the Specific Plan is considered significant with respect to this impact criterion.

c. Effects on Sensitive Habitats

Habitats designated as sensitive by the State of California are present on the proposed Newhall Ranch site. This discussion is intended to define and describe the impact potential of the Specific Plan on these sensitive habitat types.

(1) California Department of Fish and Game CNNDB Designated Sensitive Habitats

Most of the vegetation communities present on the site are not identified as being sensitive by the California Natural Diversity Database. However, Venturan coastal sage scrub, valley oak woodland/savanna, elderberry scrub, mainland cherry forest, southern willow scrub, southern cottonwood-willow riparian forest and valley freshwater marsh and ponds have been designated by the CDFG as threatened. A discussion of these sensitive habitat types is provided below.

(a) Coastal Sage Scrub

Coastal sage scrub vegetation is considered sensitive by the CDFG, and is the current focus of the State's Natural Community Conservation Planning (NCCP) process. The CDFG has assigned this vegetation type a status S3.1 (i.e., threatened status in habitats that are not common [as defined by the California

Department of Fish and Game Natural Diversity Data Base]). As proposed, implementation of the Newhall Ranch Specific Plan would result in the removal of 1,820 of the 5,183 acres of this habitat on the Specific Plan site, or 35 percent of this total. This impact of such a large amount of this sensitive habitat is considered significant.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, Mitigation Measures 4.6-27 through 4.6-43 would be implemented and impacts to coastal sage scrub would be reduced. However, in spite of these measures, impacts to this sensitive habitat type are still considered significant.

(b) Valley Oak Woodland/Savanna

Valley oak woodland/savanna has been greatly reduced throughout its range. It provides valuable habitat for many special wildlife species. In response to this condition, the CDFG has assigned this vegetation type a status of S2.1 (i.e., very threatened status in habitats that are not common, [as defined by the California Department of Fish and Game Natural Diversity Data Base]). As proposed, implementation of the Newhall Ranch Specific Plan would result in the removal of 27 of the 420 acres of this habitat on the Specific Plan site, or 6 percent of this total. The majority of this habitat type is located in the uplands that would not be directly or indirectly impacted by the Specific Plan. Oak trees removed will be replanted as required by the Los Angeles County ordinance. However, given the sensitivity designation of this habitat type, these impacts are considered significant.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, Mitigation Measures 4.6-27 through 4.6-43 would be implemented and impacts to valley oak woodland/savanna would be reduced. However, in spite of these measures, impacts to this sensitive habitat type are still considered significant.

(c) Elderberry Scrub

Elderberry scrub is not a common vegetation type and has been greatly reduced throughout its range, particularly in southern California. In response to this condition, the CDFG has assigned this vegetation type a status of S2.1 (i.e., very threatened status in habitats that are not common). As

proposed, implementation of the Newhall Ranch Specific Plan would result in the removal of 14 of the 24 acres (58 percent of the total) of this habitat on the Specific Plan site. Portions of elderberry scrub that would be removed on the site have been classified as having low biological value based on the Habitat Value Study (**Figure 4.6-6**). Cattle grazing has reduced the biological integrity of this habitat type where disturbances are proposed. The remaining portions of elderberry scrub are located in the uplands that would not be directly or indirectly impacted by the Specific Plan and have been assigned a higher biological value on **Figure 4.6-6, Habitat Value Study**.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-60 would be implemented and impacts to elderberry scrub would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and EIR, impacts to this sensitive habitat type are not considered significant.

(d) Mainland Cherry Forest

Similar to elderberry scrub, mainland cherry forest is a rare vegetation type which has been greatly reduced throughout its range, particularly in southern California. In response to this condition, the CDFG has assigned this vegetation type a status of S1.1 (i.e., a very threatened designation assigned to habitat types that are of very limited distribution). As proposed, implementation of the Newhall Ranch Specific Plan would result in the removal of 11 of the 18 acres (61 percent of the total) of this habitat on the site. On **Figure 4.6-6**, the 11 acres of mainland cherry forest being impacted were assigned the two lowest Habitat Value ranks through application of the Habitat Value Analysis (see Appendix 4.6). Portions of mainland cherry forest preserved as part of the Specific Plan are located in the uplands (generally in association with coast live oak woodlands) and were assigned higher value ranks on **Figure 4.6-6.**

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would

assure the implementation of the provisions therein. As a result, Mitigation Measures 4.6-27 through 4.6-43, as well as EIR Mitigation Measure 4.6-61 would be implemented and impacts to mainland cherry forest would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and this EIR, impacts to this sensitive habitat type are not considered significant.

(e) Southern Willow Scrub

Like many willow dominated riparian habitats in California, southern willow scrub has been greatly reduced throughout its range and provides valuable habitat for many special wildlife species, particularly songbirds. In response to this condition, the CDFG has assigned this vegetation type a status of S2.1 (i.e., very threatened status in habitats that are not common). As proposed, implementation of the Newhall Ranch Specific Plan would result in the removal of 15 of the 96 acres (16 percent of the total acres) of this habitat on the Specific Plan site.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, Mitigation Measures 4.6-1 through 4.6-26 would be implemented and impacts to southern willow scrub would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and this EIR, impacts to this sensitive habitat type are not considered significant.

(f) Southern Cottonwood-Willow Riparian Forest and Southern Willow Riparian Woodland

Like most riparian habitats in California, southern cottonwood-willow riparian forest and southern willow riparian woodland have been greatly reduced throughout their range and provide valuable habitat for many special wildlife species. In response to this condition, the CDFG has assigned these vegetation types a status of S3.2 (i.e., threatened status in habitats that are relatively common). As proposed, implementation of the Newhall Ranch Specific Plan would result in the removal of 15 of the 93 acres (16 percent of the total) of the cottonwood-willow riparian forest and 4 of the 126 acres (3 percent of the total) of southern willow riparian forest on the Specific Plan site.

The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, Mitigation Measures 4.6-1 through

4.6-26 would be implemented and impacts to southern cottonwood-willow riparian forest and southern willow riparian woodland would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and this EIR, impacts to these sensitive habitat types are not considered significant.

(g) Valley Freshwater Marsh and Ponds

Like many wetland habitats in southern California, freshwater marshes and ponds have been greatly reduced throughout their range. This habitat type provides a water source in arid areas and, as such, is valuable habitat for many special wildlife species. In response to this condition, the CDFG has assigned this vegetation/habitat type a status of S2.1 (i.e., very threatened status in habitat that are not common). As proposed, implementation of the Newhall Ranch Specific Plan would result in the removal of 2 of the 5 acres of this habitat on the Specific Plan site. Given the assumption that these features are wetlands and would require replacement as part of the ACOE and CDFG permitting processes, and the relatively small acreage affected, impacts to this habitat type are not considered significant.

(2) Wetlands

Wetland habitats are considered to be sensitive based upon the high value of wetlands and aquatic habitats to wildlife, as well as the relative rarity of these resources throughout the region and the State. The Santa Clara River Corridor supports the endangered fish species unarmored threespine stickleback, as well as the endangered least Bell's vireo and southwestern willow flycatcher. It also provides occupied or occupiable habitat for Federal candidate species, including western spadefoot toad, southwestern pond turtle, two-striped garter snake, and tricolored blackbird, as well as more common amphibians, migratory waterfowl, and aquatic insects. Those jurisdictional wetlands located along or near the Santa Clara River are typically higher quality wetlands, and usually have an aquatic component or are located relatively close to an aquatic area. The jurisdictional wetlands that may be subject to disturbance in the upland portions of the Ranch are typically ephemeral, and are generally considered less sensitive than those associated with permanent or semi-permanent water. About 8 percent of the jurisdictional wetlands present along the Santa Clara River would be disturbed.

Jurisdictional wetlands and waters of the U.S. include those wetlands features subject to jurisdiction of the U.S. Army Corps of Engineers under Section 404 of the Federal Clean Water Act. "Waters of the U.S." are broadly defined in 33 CFR 328.3(a) to include navigable Rivers and intermittent streams which are tributary to these watercourses, as well as wetlands, either associated with watercourses or isolated. By definition, all aquatic habitat present on the Newhall Ranch is contained within the waters of the U.S. or wetlands categories.

As proposed, implementation of the Newhall Ranch Specific Plan would result in the loss of approximately 53 acres of jurisdictional wetlands, waters of the U.S., and their associated aquatic habitat along the Santa Clara River. In addition, jurisdictional 'waters' may be subject to disturbance along the drainage features and intermittent streams in the upland portion of the Newhall Ranch. The severity of this impact will be offset via the replacement of wetland vegetation in association with the ACOE and/or CDFG permit process. Further, the Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, Mitigation Measures 4.6-1 through 4.6-26 would be implemented and impacts to wetlands would be reduced. Given the avoidance of impacts associated with construction and operation and mitigation within the RMP and this EIR, impacts to this sensitive habitat type are not considered significant.

(3) Significant Ecological Areas

The Significant Ecological Area (SEA) boundaries are policy lines, established by Los Angeles County, creating areas designated as having sensitive, unique or exemplary biological conditions. The mapped boundaries are not necessarily a precise portrayal of the limits of the biological resource defined in the SEA description. SEAs contain land that may be characterized by lower quality habitat values, and may exclude adjacent lands that are of higher quality. As part of the General Plan Amendment process, modification of the boundaries of SEAs 20 and 23 to, in part, better reflect the biological resources present on the site is proposed. In general, it is the intent of the Specific Plan to develop those portions of the existing SEAs which maintain lower quality habitat values (thereby removing these areas from the SEAs), and to add land to the SEA which maintains a higher quality habitat value. An assessment of the Specific Plan's impact on SEAs 20 and 23 is provided below.

(a) Potential Impact on SEA 20

Presently, approximately 3,947 acres are located within the portion of SEA 20 which is located on the Newhall Ranch. The Specific Plan proposes a total of 3,949.9 acres within this portion of SEA 20, resulting in an increase of approximately 3 acres of SEA land area. In addition, as discussed below, the modification of the SEA boundary and the consequent inclusion of other acreage results in an increase in the amount of land characterized by higher value habitats.

Impacts to SEA 20 occur in two forms. First is the impact of the construction of 15 Estate lots, access roads and recreational trails within the SEA; and second is the adjustment proposed in the boundary of SEA 20. As stated, 15 Estate lots, access roads and recreational trails are proposed within SEA 20. Plans indicate that construction of the Estate lots and roads would disturb approximately 45 acres of natural habitat within the SEA. Additional impacts would occur as a result of the indirect impacts of human use that are discussed later in this report section.

Table 4.6-7, SEA 20 Habitats Existing and Proposed, indicates the amount of each type of habitat and total amount of land currently within SEA 20, and the habitat and total within the proposed adjusted SEA boundaries. It also shows the incremental acreage of sensitive habitats that will be removed and added to the SEA. As shown, a total increase in SEA size of 2.86 acres would occur. Not all habitat types represented in the SEA would increase in total acreage. As shown in **Table 4.6-7**, habitats that would decrease in acreage include alluvial scrub, coastal sage scrub-grassland, non-native annual grassland, great basin scrub, and mule fat scrub. In all, these habitats would be reduced in acreage by approximately 94 acres. Habitats that would be represented by a greater amount of land would include coastal sage scrub, live oak woodland, and mixed chaparral. Their acreages would be increased by a total of approximately 60 acres. The amount of land represented by pond, valley oak savanna, valley oak woodland, and southern willow scrub would remain essentially unchanged by development. SEA 20 is primarily noted for its oak related conditions (e.g., coast live oak and valley oak woodland, and valley oak savanna). As noted in **Table 4.6-7**, the total amount of land represented by oak woodland and savanna habitats in the SEA would increase by about 28 acres as a result of the proposed SEA boundary adjustment. Regarding sensitive habitats present, a total of 59.61 acres of such habitats will be added to the SEA with the boundary adjustment.

Table 4.6-7
SEA 20 Habitats
Existing and Proposed

Habitat Types	Existing Acres	Proposed Acres	Total Added (Removed)	Sensitive Hab. Added (Removed)
Disturbed/Road	**36.45**	**25.04**	**(11.41)**	
Alluvial Scrub	9.34	1.29	(8.05)	
Coastal Sage Scrub	1,965.96	1,997.67	31.71	31.71
Coastal Sage Scrub - Grassland	28.17	0.00	(28.17)	
Non-Native Annual Grassland	160.20	116.74	(43.46)	
Great Basin Scrub	26.22	18.38	(7.84)	
Live Oak Woodland	519.54	547.42	27.88	27.88
Mixed Chaparral	814.57	863.38	48.81	
Mule Fat Scrub	21.25	14.68	(6.57)	
Pond	0.20	0.20	0	0
Valley Oak Savanna	356.91	356.90	(0.01)	(0.01)
Valley Oak Woodland	4.81	4.81	0	0
Southern Willow Scrub	3.06	3.09	0.03	0.03
Subtotal	**3,910.23**	**3,924.56**	**(14.27)**	**59.61**
Total	**3,946.68**	**3,949.60**	**2.86**	**59.61**

Another way to analyze the impact of the proposed Specific Plan is to compare pre- and post-project SEA habitat values. As indicated in the Biota Report (**Appendix 4.6**), four categories of habitat values have been identified, with value 1 being lowest and value 4 being highest. As shown on **Table 4.6-8, SEA 20 Habitats-Existing and Proposed by Habitat Value,** the amount of land represented by the lower value habitats (1 and 2) would decrease from 2,133 to 1,958 acres. However, the amount of land represented by the higher value habitats (3 and 4) would increase from 1,814 to 1,992 acres. In the end, a total of 175 acres of lower value habitat would be removed from the SEA, while a total of 178 acres of higher quality habitat would be added to the SEA.

Table 4.6-8
SEA 20 Habitats-
Existing and Proposed by Habitat Value

Habitat Value	Existing Acres	Proposed Acres	Added (Removed)
1 (lowest)	262	220	(42)
2	1,871	1,738	(133)
3	1,291	1,451	160
4 (highest)	523	541	18
Subtotal	**3,947**	**3,950**	**3**

A further method of impact analysis of the Specific Plan on the SEA is the extent of edge effects measured in linear feet of land fronting on the SEA. This provides a rough measure of potential impacts of urban uses on the edge of the SEA. A total of 24,724 linear feet (LF) of land fronts on SEA 20. Of that total length, nearly half (11,722 LF or 47 percent) fronts on the proposed Estate Residential uses, 18 percent (4,446 LF) fronts on proposed roadways (with Low Residential uses above), 14 percent (3,566 LF) fronts directly onto Low-Medium Residential uses, 12 percent (2,983 LF) fronts onto Visitor-Serving uses,

and 8 percent (2,007 LF) fronts onto proposed Open Area. Of the edge that fronts onto the Estate Residential, the effects of this development are minimized due to the fact that this area is separated by a fairly severe vertical grade. The roadways that make up 18 percent of the edge are at grade with the SEA, but the Low Residential uses adjacent to the roadways are also separated vertically. The 14 percent of the edge made up by Low-Medium Residential uses is adjacent to a portion of the SEA that is elevated steeply above the proposed uses. Lastly, the 12 percent Visitor-Serving edge is the portion of the Specific Plan that would control access to the SEA and proposed High Country Special Management Area (SMA). In all, approximately 69 percent of the SEA edge is either adjacent to proposed open area or is separated topographically from proposed development.

In conclusion, the total SEA 20 area would be increased by approximately 3 acres, and the relocation of SEA 20's northern boundary line and the resultant impact of the proposed Specific Plan is not considered to be significant for the following reasons:

1) the Specific Plan would increase the amount of land area in SEA 20 by approximately 3 acres;
2) the Specific Plan would increase the amount of higher value habitat in the SEA by 178 acres;
3) the amount of land devoted to the habitat types SEA 20 is known for (oak woodland type habitats) would increase by approximately 28 acres;
4) the Specific Plan provides for a major interconnection (Salt Creek Canyon) between SEA 20 and the Santa Clara River which will allow for the continued movement of species between SEA 20 and major undeveloped lands to the north and south; and
5) the Specific Plan provides for the actual permanent dedication of land located within the SEA and removal of cattle grazing, except for grazing for resource management purposes, as development occurs.

(b) Potential Impact on SEA 23

Presently, approximately 1,290 acres are located within the portion of SEA 23 which is located on the Newhall Ranch. The Specific Plan proposes a total of approximately 813 acres within this portion of SEA 23, resulting in a reduction of 477 acres of SEA land area. As discussed below, the modification of the SEA boundary and the consequent reduction in SEA acreage will reduce the amount of sensitive habitats within SEA 23 by 103.62 acres prior to mitigation. In addition, buffer areas along the River will be modified.

As shown in **Table 4.6-9, SEA 23 Existing and Proposed,** of the 1,290 acres located within SEA 23 on the Specific Plan site, approximately 466 acres (36 percent) are non-riparian in character, and presently in either a disturbed condition (defined as areas already impacted under agricultural production, generally disturbed or ruderal areas, and roadways) or in non-native grassland (a non-riparian habitat type).

Table 4.6-9
SEA 23
Existing and Proposed

Habitat Types	Existing Acres	Proposed Acres	Total Added (Removed)	Sensitive Hab. Added (Removed)
Agricultural/Disturbed/Road	458.52	125.71	(332.81)	
Non-Native Annual Grassland	7.79	0.21	(7.77)	
Subtotal	**466.31**	**125.92**	**(340.58)**	
Alluvial Scrub	0.12	0.00	(0.12)	
Arrow Weed Scrub	6.18	8.44	2.26	
Cottonwood/Oak Woodland	10.06	3.22	(6.84)	(6.84)
So. Cottonwood-Willow Riparian Forest	85.98	74.90	(11.08)	(11.08)
Elderberry Scrub	3.84	0.12	(3.72)	(3.72)
Freshwater Marsh	3.27	2.94	(0.33)	(0.33)
Live Oak Woodland	7.18	0.04	(7.14)	(7.14)
Mixed Chaparral	3.75	0.06	(3.69)	
Mule Fat Scrub	156.61	134.78	(21.83)	
Successional Mule Fat Scrub	271.08	267.09	(3.99)	
Mesic Meadow	1.05	0.00	(1.05)	(1.05)
Coastal Sage Scrub*	64.02	1.73	(62.29)	(62.29)*
Coastal Sage Scrub-Grassland	5.38	0.01	(5.37)	
Southern Willow Riparian Woodland	123.73	124.38	0.65	0.65
Southern Willow Scrub	81.23	69.41	(11.82)	(11.82)
Subtotal	**823.48**	**687.16**	**(136.36)**	
Total	**1,289.79**	**813.08**	**(476.94)**	**(103.62)**

**** Coastal Sage Scrub is not included in the County's description of SEA 23 as being an important biological component of the biological resources of that SEA. SEA is known for its riparian habitats (which coastal sage scrub is not). The portion of SEA 23 on the Specific Plan site has 41.33 acres of sensitive riparian habitats.***

Table 4.6-9 indicates that 340.58 acres of disturbed and non-riparian (non-native grassland) habitat will be removed from the SEA. Of the undisturbed habitats, their land area would be reduced from 823 acres to 687.16 acres. As shown in **Table 4.6-9**, habitats that would decrease in acreage include alluvial scrub, cottonwood/oak woodland, southern cottonwood-willow riparian forest, elderberry scrub, freshwater marsh, coast live oak woodland, mixed chaparral, mesic meadows, and coastal sage scrub-grassland, mule fat scrub, successional mule fat scrub, coastal sage scrub, coastal sage scrub-grassland, and southern willow scrub. Willow riparian woodland habitat would increase in acreage by 0.65 acre, and arrow weed scrub would increase by 2.26 acres.

The Newhall Ranch Specific Plan proposes no substantial physical alteration to the River bottom. However, bank stabilization would occur on approximately 30 percent of the southern side and 80 percent of the northern side of the River. In general, bank stabilization is proposed to be ungrouted rock (see **Section 4.2, Flood**). Bank stabilization construction could disturb wildlife species associated with the adjacent riparian vegetation and open channels.

SEA 23 is primarily noted for its wetlands and critical habitat for the unarmored threespine stickleback and the least Bell's vireo. The vireo is known to commonly utilize the following habitat types found in this portion of SEA 23: arrow weed scrub (increased by 2.26 acres), southern cottonwood-willow riparian forest (reduced by 11.08 acres), mule fat scrub (reduced by 21.83 acres), southern willow riparian woodland (increased by 0.65 acres), and southern willow scrub (reduced by 11.82 acres). This portion of SEA 23 also contains a total of 62.29 acres of coast sage scrub which is considered a sensitive upland habitat. Based on the above discussion and the information presented in **Table 4.6-9**, the total amount of land represented by habitats in the SEA used by the vireo or otherwise considered sensitive, without mitigation, would decrease by approximately 103.62 acres.

As was presented with the SEA 20 analysis above, a further method of impact analysis of the Specific Plan on SEA 23 (including Travel Village which is not a part of the Specific Plan), is the extent of edge effects measured in linear feet of land fronting on the SEA. A total of 59,545 LF of land fronts on SEA 23. Excluding Travel Village, nearly half (48 percent or 28,242 LF) would front on uses that do not support human populations and associated lighting and domestic animals (i.e., proposed open area and roadways).

The impact of the proposed Specific Plan on SEA 23 is not considered to be significant as provisions of the RMP state that restoration would occur which would offset potential impacts associated with the loss of sensitive River resources. The Resource Management Plan of the Newhall Ranch Specific Plan provides numerous mitigation measures to reduce the potential impacts identified in this section of the EIR. With the approval of the Specific Plan by the County Board of Supervisors, those measures would be adopted and would assure the implementation of the provisions therein. As a result, Mitigation Measures 4.6-1 through 4.6-26 would be implemented and impacts to SEA 23 would be reduced.

Furthermore, the Specific Plan proposes to offer for permanent dedication approximately 451 acres of land designated by the Specific Plan as Open Area as part of the Specific Plan's buildout. This Open Area is located adjacent to the south side of the River Corridor SMA and includes the steep oak-filled canyons, blueline streams (drainages) tributary to the River, the River bluffs, and ridges contiguous with the River Corridor. **Table 4.6-10, Comparison Between Sensitive Habitats Removed from SEA 23 and Added to Open Area Adjacent to Proposed River Corridor SMA,** shows this Open Area to be offered

Table 4.6-10
Comparison Between Sensitive Habitats Removed from SEA 23 and Added to Open Area Adjacent to Proposed River Corridor SMA
(all in acres)

Habitat Types	Total Habitats Added (Removed) From SEA 23	Sensitive Habitats Added (Removed) From SEA 23	Proposed Open Area Habitats Added Adjacent to River Corridor SMA	Proposed Sensitive Open Area Habitats Added Adjacent to River Corridor SMA	Net Proposed Sensitive Habitats, Adjacent Open Area + River Corridor SMA (SEA)
Agricultural/Disturbed/Road	(332.81)		19.1		
Non-Native Annual Grassland	(7.77)		18.2		
Alluvial Scrub	(0.12)		3.4		
Arrow Weed Scrub	2.26				
Chamise Chaparral			0.6		
Cottonwood/Oak Woodland	(6.84)	(6.84)	13.2	13.2	6.36
So. Cottonwood-Willow Riparian Forest	(11.08)	(11.08)	4.9	4.9	(6.18)
Elderberry Scrub	(3.72)	(3.72)	4.8	4.8	1.08
Great Basin Scrub			2.9		
Freshwater Marsh	(0.33)	(0.33)			(0.33)
Live Oak Woodland	(7.14)	(7.14)	46.3	46.3	39.16
Live Oak Woodland/Mixed Chaparral			4.9		
Mixed Chaparral	(3.69)		65.6		
Mule Fat Scrub	(21.83)		9.0		
Successional Mule Fat Scrub	(3.99)		6.2		
Mesic Meadow	(1.05)	(1.05)	0.01	0.01	(1.04)
Coastal Sage Scrub	(62.29)	(62.29)	181.3	181.3	119.01
Coastal Sage Scrub-Grassland	(5.37)		62.2		
Southern Willow Riparian Woodland	0.65	0.65			0.65
Southern Willow Scrub	(11.82)	(11.82)	8.3	8.3	(3.52)
Totals	**(476.94)**	**(103.62)**	**450.91**	**259.14**	**155.19**

for dedication by habitat type. Table 4.6-10 also compares the amount of habitats classified as sensitive which are proposed to be removed from SEA 23 with the proposed amount of sensitive habitats to be dedicated adjacent to the River Corridor SMA. As shown, 103.62 acres of sensitive habitats are proposed to be removed from the existing bounds of SEA 23, while 259.14 acres of sensitive habitats would be offered for dedication to the public as Open Area adjacent to the River Corridor SMA. As a result of Specific Plan buildout, the amount of sensitive habitat acreage within or adjacent to the River Corridor and protected under the restrictions provided by the Specific Plan would increase by approximately 155 acres. The total acreage of the designated Open Area and River Corridor SMA would be comparable to the acreage in the current designated SEA 23 (1264 versus 1290 acres).

Given the avoidance of impacts associated with construction and operation, mitigation proposed within the RMP and this EIR, and the dedication of Open Area adjacent to the River Corridor SMA, impacts to this sensitive habitat type (SEA) are not considered significant.

(4) Conclusion of Impact on Sensitive Habitats

Based on the information provided above, the proposed Specific Plan has the potential to significantly impact several sensitive habitat types that include Venturan coastal sage scrub, valley oak woodland/savanna, southern willow scrub, southern cottonwood-willow riparian forest and valley freshwater marsh and ponds. Through Specific Plan design and mitigation efforts, the magnitude of impacts to sensitive habitats would be reduced. However, these impacts would remain significant.

d. Indirect Impacts

Indirect impacts would occur in areas surrounding the proposed development area subsequent to Specific Plan operation. Section 15358 of the CEQA Guidelines defines these indirect impacts as "Indirect or secondary effects which are caused by the Specific Plan and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect or secondary effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems." In simple terms, indirect impacts are generally those impacts that would occur outside the proposed development area subsequent to Specific Plan operation.

It is expected that implementation of the Newhall Ranch Specific Plan would result in indirect impacts to biological resources in the following ways:

- an increased human and domestic animal presence in the Santa Clara River and High Country SMAs;
- increased use of on- and off-site areas by wildlife associated with an urban environment (e.g., ravens, crows, ground squirrels, etc.); and
- increased noise, light, glare, and low flow runoff in the Santa Clara River area.

Indirect impacts associated with implementation of the Newhall Ranch Specific Plan would adversely impact wildlife that currently utilize the Santa Clara River and upland areas, in particular the sensitive species that occur proximal to development areas in the riparian and other wetland plant communities. However, it must be acknowledged that most of these indirect impacts are not unique to this area. Many animals that utilize this area have adjusted to a constant human presence. Therefore, implementation of the Newhall Ranch Specific Plan as proposed would incrementally contribute to increased use of the Santa Clara River area by people and pets and would serve to exacerbate this existing problem, particularly as to sensitive species that occur in the Santa Clara River area. It is anticipated that indirect impacts in the High Country SMA would be less than for the River area due to both the distance of the upland areas from areas proposed for urban development and the presence of a smaller number of sensitive species in the High Country SMA compared to the River area.

Indirect impacts have the potential to degrade the quality of the wildlife corridor potential within and adjacent to the Santa Clara River drainage. The indirect impacts associated with development of the Specific Plan will compound the direct impact of the physical loss of undeveloped land and could further constrict habitat linkages.

Indirect impacts associated with the proposed Specific Plan are not quantifiable, but are reasonably foreseeable. As such, the discussion that follows provides a common sense identification of the types of secondary impacts and their relative magnitude such that decision makers and the general public are aware of the indirect impact potential associated with implementation of the Newhall Ranch Specific Plan.

(1) Increased Human and Domestic Animal Presence in the River and High Country Areas

Implementation of the Newhall Ranch Specific Plan would place a substantial human population adjacent to the Santa Clara River and High Country SMAs. Common sense dictates that some people who reside on the Specific Plan site will also use the Santa Clara River Corridor (River) and upland High Country area for recreational purposes. The most substantial effect would be the disturbance to and potential loss of habitat for the variety of sensitive animal species that occur in the River Corridor, as well as potential impacts to the sensitive vegetation.

It is anticipated that increased human use in the adjacent River areas would not affect all taxa equally. It is likely that human use would occur most frequently on the ground and, consequently, would have the greatest impact on ground dwelling animals versus those animals that primarily utilize the tree canopy. In addition, aquatic species would likely be subject to disturbance with an increased human presence.

It is expected that increased use of the site by residents of Newhall Ranch would also result in a corresponding increase in use of the site by domestic animals. Dogs are known to disturb nesting or resting areas, and disrupt the normal foraging activities associated with wildlife in adjacent River and upland areas. Should this activity occur frequently, and over a long time period, these disturbances may have a long-term effect on the behavior of sensitive animals and can result in their evacuation from the area.

Disturbances associated with feral cats on natural wildlife is well documented and can result in major alterations to the species composition of natural areas. In addition, house cats living adjacent to wildland areas can be considered to be "subsidized predators" who may spend an inordinate amount of time hunting native wildlife species (including some sensitive species) when the resultant food value of the prey item is low. It is also true that cats, and to a lesser extent dogs, are sources of food for some wild animal species (e.g., coyotes, bobcats, mountain lions, etc.).

A method of analysis available for use in estimating the Specific Plan's indirect impact on the River and High Country habitats is to estimate the amount of edges (measured in linear feet) that would occur between proposed urban uses and open areas, as was previously discussed in this section.

As is shown by this analysis, 48 percent of urban edges (37,678 of 78,255 LF) of SEA 20 and SEA 23 created by implementation of the Newhall Ranch Specific Plan would consist of uses that do not support human and domestic animal populations, and the types of disturbance potentially associated with them.

(2) Increased Use of the On- and Off-Site Areas by Wildlife Associated With an Urban Environment

A concern of agencies is the potential that a project would introduce exotic wildlife to River and upland areas that are typical of an urban setting, and that these animals could adversely impact natural wildlife populations through habitat displacement or predation. It is understood that wildlife animals typical of an urban environment (e.g., ravens, crows, ground squirrels, etc.) do occur in the region (and in the Specific Plan area) at this time based upon on site field investigations. Development of the Newhall Ranch site would introduce similar urban uses proximal to River and upland areas. Therefore, this indirect impact would not be considered new, but would further an already observed and adverse condition.

(3) Increased Noise, Light, Glare and Water Quality Impacts in the Santa Clara River

Nighttime illumination is known to adversely impact animals in natural areas. Nighttime light can disturb resting behavior and can potentially alter breeding cycles and nesting behavior. Land uses or facilities presently located on the Specific Plan site require constant monitoring and available light is critical to their safe operation. Other light sources present in the area include vehicular traffic that occurs on roadways. The Specific Plan site, however, is void of any measurable sources of light and glare. While the sources of light and glare located east of the site are somewhat visible in the distance, the site is relatively dark.

Specific Plan operation would increase the number of nighttime light sources on the Specific Plan site. If uncontrolled, such light, where proximal to sensitive natural areas, could adversely impact the animal species composition that occurs in these areas. However, just over 50 percent of the edges created by implementation of the Newhall Ranch Specific Plan adjacent to the River Corridor and the High Country areas would front on either open areas or land uses that produce limited light and/or are separated vertically from these areas (e.g., Estate and Low Residential uses). Based on this information, the Specific Plan would increase the amount of light and glare sources on the Specific Plan site; however, mitigation measures incorporated as part of Specific Plan design specifies that all lighting along the perimeter of natural areas will be downcast luminaries with light patterns directed away from natural areas. This measure would further reduce lighting impacts. However, impacts as a result of edge lighting would be considered significant.

It is also possible that the River Corridor could be impacted by the discharge of sediments and urban pollutants, such as oils, fertilizers, pesticides, etc. Construction (particularly site clearing and grading operations) would have the potential for discharging sediment downstream during storm events. Therefore, per County of Los Angeles Department of Public Works standards temporary erosion control measures would be required in disturbed areas of the site during construction. A complete discussion of the impacts and mitigation measures related to the impact of sediments and urban pollutants on the Santa Clara River are discussed and defined in Section 4.2 (Flood) of this EIR.

(4) Indirect Impact Conclusion

Based on the information provided above, it can be concluded that implementation of the Newhall Ranch Specific Plan has the potential to indirectly impact adjacent natural areas and sensitive biological resources that occur proximal to the site. This would occur as a result of increased use of the Santa Clara River and upland areas by humans and domestic animals, increased use of adjacent natural areas by animals typical of an urban environment, and the potential effects of light, glare, and sediment and urban pollutant-laden runoff, unless mitigated.

Further, many of the potential indirect impacts described above are now occurring in some cases on the Specific Plan site and in the region. The adjacent drainage areas are used indiscriminately by humans and domestic animals and this use is having a substantial impact on sensitive biological resources that occur adjacent to and proximal to the site. However, of important note is the fact that the Specific Plan proposes to transition the intensity of land uses away from the River, with low intensity uses proposed along the outer edges of the River and higher intensity land uses proposed away from the edges of the River. Also, in areas proposed for development next to the High Country and Salt Creek Canyon, most uses would be separated vertically from open areas and their habitats, thereby lessening potential indirect impacts. Along the River Corridor, the Plan proposes many areas next to the River that are either to be left open, or developed only with land uses with limited human populations, and, where development would occur adjacent to the River Corridor, a trail has been proposed to transition between development areas and the River Corridor. While such design features cannot eliminate indirect impact potential altogether, they would act to reduce these impacts.

Approval of the Specific Plan and its associated RMP would involve an amendment to the Los Angeles County zoning ordinance such that the provisions of the Specific Plan and RMP are binding. Given this fact, it can be assumed that Mitigation Measures 4.6-18 and 4.6-19, as well as EIR Mitigation Measure 4.6-56 would be incorporated. Given implementation of the mitigation measures identified above, many indirect impacts would be reduced or eliminated. However, others would remain significant.

5. SPECIFIC PLAN MITIGATION MEASURES

Development of the Newhall Ranch Specific Plan will result in impacts to biological resources, some of which are considered to be significant. However, the Specific Plan generally avoids areas of highest biological value, and concentrates development in lower quality areas. The mitigation measures presented below, if successfully implemented, would reduce the degree of many of these impacts to a level that is considered not significant.

Mitigation measures are separated into three categories. The first includes an overview of those design features that are incorporated as part of the Specific Plan to reduce the biological impact potential. The second category includes specific mitigation measures incorporated as part of the Resource Management Plan). The last category includes additional mitigation measures recommended as part of this Draft EIR. The specific mitigation measures in each of these categories are defined below.

a. Specific Plan Design Measures

The Specific Plan was designed to partially mitigate potential impacts to sensitive biological resources through avoidance in order to maximize the conservation of important biological features of the site. Specific elements of Specific Plan design that are intended to reduce impacts to plants, animals and habitat would be implemented through adoption and approval of the Specific Plan.

The habitat types and associated plant and wildlife species which occur on the property have become an integral part of the overall Specific Plan design, through the formulation of a conservation strategy that allows for the development of the site in a way that minimizes the effects to sensitive biological resources. In addition, this conservation strategy incorporates the design and management of important open areas in a way that conserves biological values. An important aspect of this approach was an analysis of the conservation value of habitats on the property, which used conservation principles and a GIS mapping methodology. An additional component of the conservation strategy was the consideration of the larger regional context in the conservation design of biological resources on the site. The Ranch, which extends from the ridgeline of the Santa Susana Mountains across the Santa Clara River to the uplands on the north, offers the potential for significant habitat contributions to a Santa Susana Mountains open area and a key segment of the Santa Clara River system, as well as regionally important connections between these habitat areas and across the River.

The biological resource conservation strategy developed for the Newhall Ranch property addresses the sequencing recommended by the resource agencies: avoidance, minimization, and mitigation for unavoidable impacts to key sensitive resources. The proposed large, open areas on the Newhall Ranch

property avoid impacts to many of the highly sensitive species present or potentially occurring on the site, and their habitats. Further design with respect to potential unavoidable impacts to biological resources has minimized encroachments into key areas of the property, decreasing the overall impacts. Indirect impacts to biological resources are minimized through the dedication of large blocks of habitat that decreases the edge-area ratio, and thus, buffers the habitat from noise, lighting, and encroachment by domestic pets, non-native plants, and humans. The result of these design efforts has produced a biological resource conservation strategy that has focused conservation and mitigation efforts on the Newhall Ranch property into three Special Management Areas:

- the Santa Clara River Corridor (River Corridor SMA);
- the large block of relatively undisturbed habitats on higher elevations into the Santa Susana Mountains (High Country SMA); and
- the connection between these two areas along the Salt Creek drainage.

In this design, the Conceptual Grading Plan (**Figure 1.0-14**) has been developed to allow for preservation of significantly large areas of sensitive native habitats associated with the natural drainage areas of the site, and major landforms have been maintained. Large contiguous blocks of valuable habitat have been avoided and provided with direct linkage. The Specific Plan has focused on putting the two key habitat resource areas into consolidated blocks (connected by the Salt Creek drainage), resulting in minimal boundaries with developed areas. The assembly of these three elements will facilitate their management as a single special management area system within the Specific Plan area, as well as allowing coordination and interface with other programs outside the boundary of Newhall Ranch. The transitions between development and the special management areas will be the focus of special design treatments to protect the integrity of the conserved areas. As indicated above, the "edges" of urban development areas have been minimized to reduce the indirect impact potential of the Specific Plan, and native and compatible species will be used for landscaping in these areas.

The open area system for Newhall Ranch includes the most important habitat areas of the Santa Clara River (River Corridor SMA) and the areas which have been least impacted by agricultural, and oil and natural gas production activities (High Country SMA). It also includes the largest, least fragmented patches of each habitat type that remain on Newhall Ranch. In addition to consolidating the habitat on the Ranch into two major interconnected blocks, the open areas include the largest remaining individual blocks of each of the important habitat types. Substantial proportions of each of the habitat types and vegetation associations that occur on the Ranch will be conserved within the open area system. The incorporation of the River, the mountains, and connection provides for conservation of substantially the entire range of terrain and vegetation types on Newhall Ranch.

By connecting the open areas into two major blocks with a major linkage, the land use plan for the Ranch provides for a minimum edge-to-area ratio within the Specific Plan area. The least accessible portion of the property, in terms of topography and presence of roads, is the High Country SMA. In addition, there is limited existing access to the River and to the Salt Creek corridor area. The topography along the High Country and River provide the opportunity to focus management activities to effectively limit access to the habitat in these key resource areas. Additional management practices are intended to restrict future access as the Specific Plan is implemented.

A critical component of the open area system within the Newhall Ranch property and in the region is the connection between the High Country and the River Corridor along Salt Creek. The corridor will provide continuity between the habitats and the wildlife populations within the property, as well as forming a permanent regional linkage between the Santa Clara River and the Santa Susana Mountains. Salt Creek is the most appropriate location for such a wildlife corridor connection because of several distinguishing characteristics. These include provision of a direct link between the two major open areas; less disturbance than any of the other potential connections; it is bound through most of its length by open area on the north side and, therefore, will not be surrounded by development in the future; it is the only drainage that would provide more than a discontinuous, narrow connection; it includes both upland and riparian vegetation through most of the corridor; and it is topographically isolated from areas of development on Newhall Ranch. Currently, a portion of the wildlife corridor is situated in Ventura County. Future land use decisions will be required to define the corridor's final configuration in areas that occur outside the County of Los Angeles.

b. Resource Management Plan Mitigation

Approval of the Specific Plan and its associated RMP would involve an amendment to the Los Angeles County zoning ordinance such that the provisions of the Specific Plan and RMP are binding. Specific measures to mitigate impacts to biological resources are incorporated as part of the Resource Management Plan (RMP) that is part of the Newhall Ranch Specific Plan. These measures are identified below:

(1) Santa Clara River (River Corridor) SMA

(a) Mitigation Requirements

Mitigation for impacts for the Specific Plan on riparian resources will include restoration of riparian habitat and may include enhancement activities as well. In addition, a mitigation bank may be established as discussed in this section. The general areas in which riparian mitigation activities may take place are shown on Exhibit 2.6-3, Candidate Riparian Restoration/Enhancement Areas, of the Specific Plan.

The mitigation of Specific Plan impacts through restoration of habitat and enhancement of existing habitat quality shall conform to the requirements set forth below:

1. Mitigation Through Restoration

Habitat restoration as referred to in the Specific Plan means the revegetation of native plant communities on sites that have had the habitat removed due to past activities, such as agricultural or oil and natural gas operations.

Riparian resources along the Santa Clara River that are impacted by the Newhall Ranch Specific Plan will require restoration of similar habitat and values. Avoidance of impacts to riparian resources shall be the primary goal during the design of the individual stages of the Specific Plan. Unavoidable impacts to riparian resources shall be minimized through Specific Plan design, and then mitigated by the implementation of a revegetation plan. The revegetation plan may be prepared as part of a California Department of Fish and Game 1603 Streambed Alteration Agreement or U.S. Army Corps of Engineers Section 404 Permit and shall include the following:

4.6-1. The restoration mitigation areas located within the River Corridor SMA shall be in areas that have been disturbed by previous uses or activities. Mitigation shall be conducted only on sites where soils, hydrology, and microclimate conditions are suitable for riparian habitat. First priority will be given to those restorable areas that occur adjacent to existing patches (areas) of native habitat that support sensitive species, particularly endangered or threatened species. The goal is to increase habitat patch size and connectivity with other existing habitat patches while restoring habitat values that will benefit sensitive species.

4.6-2. A qualified biologist shall prepare or review revegetation plans. The biologist shall also monitor the restoration effort from its inception through the establishment phase.

4.6-3. Revegetation Plans may be prepared as part of a California Department of Fish and Game 1603 Streambed Alteration Agreement and/or an U.S. Army Corps of Engineers Section 404 Permit, and shall include:

- Input from both the Project ~~Specific Plan~~ proponent and resource agencies to assure that the Project ~~Specific Plan~~ objectives applicable to the River Corridor SMA and the criteria of this RMP are met.

- The identification of restoration/mitigation sites to be used. This effort shall involve an analysis of the suitability of potential sites to support the desired habitat, including a description of the existing conditions at the site(s) and such baseline data information deemed necessary by the permitting agency.

4.6-4. The revegetation effort shall involve an analysis of the site conditions such as soils and hydrology so that site preparation needs can be evaluated. The revegetation plan shall include the details and procedures required to prepare the restoration site for planting (i.e. grading, soil preparation, soil stockpiling, soil amendments, etc.), including the need for a supplemental irrigation system, if any.

4.6-5. Restoration of riparian habitats within the River Corridor SMA shall use plant species native to the Santa Clara River ~~whenever and to the extent possible~~. ~~When possible, c~~Cuttings or seeds of native plants shall be gathered within the River Corridor SMA or purchased from nurseries with local supplies to provide good genetic stock for the replacement habitats. Plant species used in the restoration of riparian habitat shall be listed on the approved project plant palette (Specific Plan Table 2.6-1, Recommended Plant Species for Habitat Restoration in the River Corridor SMA) or as approved by the permitting State and Federal agencies.

4.6-6. The final revegetation plans shall include notes that outline the methods and procedures for the installation of the plant materials. Plant protection measures identified by the project biologist shall be incorporated into the planting design/layout.

4.6-7. The revegetation plan shall include guidelines for the maintenance of the mitigation site during the establishment phase of the plantings. The maintenance program shall contain guidelines for the control of non-native plant species, the maintenance of the irrigation system, and the replacement of plant species.

4.6-8. The revegetation plan shall provide for monitoring to evaluate the growth of the developing habitat. Specific performance goals for the restored habitat shall be defined by qualitative and quantitative characteristics of similar habitats on the River (e.g., density, cover, species composition, structural development). The monitoring effort shall include an evaluation of not only the plant material installed, but the use of the site by wildlife. The length of the monitoring period shall be determined by the permitting state and/or federal agency. ~~The revegetation plan shall provide for monitoring to evaluate the growth of the developing habitat. Specific goals for the restored habitat shall be defined by qualitative and quantitative characteristics of similar habitats on the River (e.g., density, cover, species composition, structural development). The monitoring effort shall include an evaluation of not only the plant material installed, but the use of the site by wildlife.~~

4.6-9. Monitoring reports for the mitigation site shall be reviewed by the permitting State and/or Federal agency.

4.6-10. Contingency plans and appropriate remedial measures shall also be outlined in the revegetation plan.

2. Mitigation Through Enhancement

4.6-11. Habitat enhancement as referred to in this document means the rehabilitation of areas of native habitat that have been moderately disturbed by past activities (e.g., ~~cattle~~ grazing, roads, oil and natural gas operations, etc.) or have been invaded by non-native plant species such as giant cane (*Arundo donax*) and tamarisk (*Tamarix* sp.).

4.6-12. Removal of ~~cattle~~ grazing is an important means of enhancement of habitat values. Without ongoing disturbance from cattle, many riparian areas will recover naturally. Grazing except as permitted as a long-term resource management activity will be removed from the River Corridor SMA pursuant to the Long-Term Management Plan set forth in (b) 4. below.

4.6-13. To provide guidelines for the installation of supplemental plantings of native species within enhancement areas, a revegetation plan shall be prepared prior to implementation of mitigation (see guidelines for revegetation plans above). These supplemental plantings will be composed of plant species similar to those growing in the existing habitat patch (see Specific Plan Table 2.6-1).

4.6-14. Not all enhancement areas will necessarily require supplemental plantings of native species. Some areas may support conditions conducive for rapid "natural" re-establishment of native species. The revegetation plan may incorporate means of enhancement to areas of compacted soils, poor soil fertility, trash or flood debris, and roads as a way of enhancing riparian habitat values.

4.6-15. Removal of non-native species such as giant cane (*Arundo donax*), salt cedar or tamarisk (*Tamarix* sp.), tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), if included in a revegetation plan to mitigate impacts, shall be subject to the following standards:

- First priority shall be given to those habitat patches that support or have a high potential for supporting sensitive species, particularly endangered or threatened species.
- All non-native species removals shall be conducted according to a resource agency approved exotics removal program.
- Removal of non-native species in patches of native habitat shall be conducted in such a way as to minimize impacts to the existing native riparian plant species.

3. Mitigation Banking

4.6-16. Mitigation banking activities for riparian habitats will be subject to State and Federal regulations and permits. Mitigation banking for oak resources shall be conducted pursuant to the Oak Resources Replacement Program. Mitigation banking for elderberry scrub shall be subject to approval of plans by the County Forester.

(b) Management Requirements

1. Recreation and Access

The quality of the habitat values that are conserved in the River Corridor SMA will benefit from the control of access to riparian areas. Guidelines for the control of access to the River Corridor SMA include the following:

4.6-17. Access to the River Corridor SMA for hiking and biking shall be limited to the River trail system (including the Regional River Trail and various Local Trails) as set forth in the Specific Plan.

- The River trail system shall be designed to avoid impacts to existing native riparian habitat, especially habitat areas known to support sensitive species. Where impacts to riparian habitat are unavoidable, disturbance shall be minimized and mitigated as outlined above under Mitigation Measures 4.6-1 through 4.6-8. ~~habitat restoration.~~
- Access to the River Corridor SMA will be limited to day time use of the designated trail system.

- Signs indicating that no pets of any kind will be allowed within the River Corridor SMA, with the exception that equestrian use is permitted on established trails, shall be posted along the River Corridor SMA.

- No hunting, fishing, or motor or off-trail bike riding shall be permitted.

- The trail system shall be designed and constructed to minimize impacts on native habitats.

2. Transition Areas

4.6-18. Where development lies adjacent to the boundary of the River Corridor SMA a transition area shall be designed to lessen the impact of the development on the conserved area. Transition areas may be comprised of Open Area, natural or revegetated manufactured slopes, other planted areas, bank areas, and trails. Exhibits 2.6-4, 2.6-5, and 2.6-6 indicate the relationship between the River Corridor SMA and the development (disturbed) areas of the Specific Plan. The SMAs and the Open Area as well as the undisturbed portions of the development areas are shown in green. As indicated on the exhibits, on the south side of the River the River Corridor SMA is separated from development by the River bluffs, except in one location. The Regional River Trail will serve as transition area on the north side of the River where development areas adjoin the River Corridor SMA (excluding Travel Village).

4.6-19. The following are the standards for design of transition areas:

- In all locations where there is no steep grade separation between the River Corridor and development, a trail shall be provided along this edge.

- Native riparian plants shall be incorporated into the landscaping of the transition areas between the River Corridor SMA and adjacent development areas where feasible for their long-term survival. Plants used in these areas shall be those listed on the approved plant palette (Specific Plan Table 2.6-2 of the Resource Management Plan [Recommended Plants for Transition Areas Adjacent to the River Corridor SMA]).

- Roads and bridges that cross the River Corridor SMA shall have adequate barriers at their perimeters to discourage access to the River Corridor SMA adjacent to the structures.

- Where bank stabilization is required to protect development areas, it shall be composed of ungrouted rock, or buried bank stabilization as described in Section 2.5.2a, except at bridge

crossings and other locations where public health and safety requirements necessitate concrete or other bank protection. ~~Where bank stabilization is required to protect development areas, it shall be composed of ungrouted rock except at bridge crossings and other locations where public health and safety requirements necessitate concrete or other bank protection.~~

- A minimum 100 foot wide buffer adjacent to the Santa Clara River should be required between the top river-side of bank stabilization and development within the Land Use Designations Residential Low Medium, Residential Medium, Mixed-Use and Business Park unless, through Planning Director review in consultation with the staff biologist, it is determined that a lesser buffer would adequately protect the riparian resources within the River Corridor or that a 100 foot wide buffer is infeasible for physical infrastructure planning. The buffer area may be used for public infrastructure, such as: flood control access; sewer, water and utility easements; abutments; trails and parks, subject to findings of consistency with the Specific Plan and applicable County policies.

3. Grading Activities

4.6-20. The following guidelines shall be followed during any grading activities that take place within the River Corridor SMA:

- Grading perimeters shall be clearly marked and inspected by the project biologist prior to grading occurring within or immediately adjacent to the River Corridor SMA.

- The project biologist shall work with the grading contractor to avoid inadvertent impacts to riparian resources.

4. Long-Term Management Plan

4.6-21. Upon final approval of the Newhall Ranch Specific Plan, the Special Management Area designation for the River Corridor SMA shall become effective. The permitted uses and development standards for the SMA are governed by the Development Regulations, Chapter 3 of the Specific Plan.

4.6-22. Upon completion of development of all land uses, utilities, roads, flood control improvements, bridges, trails, and other improvements necessary for implementation of the *Specific Plan* within the River Corridor in each subdivision allowing construction within or adjacent to the River Corridor, a permanent, non-revocable *conservation and public access easement* shall be offered to the County of Los Angeles pursuant to Mitigation Measure 4.6-23 below over the portion of the *River Corridor SMA* within that subdivision. ~~Upon completion of development of all land uses, utilities, roads, flood control improvements, bridges, trails, and other improvements necessary for the implementation of the Specific Plan within the River Corridor in each subdivision allowing construction within or adjacent to the River Corridor, a permanent, non-revocable conservation and public access easement shall be recorded over the portion of the River Corridor SMA immediately adjacent to or within that subdivision.~~

4.6-23. The *River Corridor SMA conservation and public access easement* shall be offered to the County of Los Angeles prior to the transfer of the *River Corridor SMA* ownership, or portion thereof to the management entity described in Mitigation Measure 4.6-26 below. ~~The River Corridor SMA conservation and public access easement shall be granted to the County of Los Angeles or to such other public or private entity, with the expertise to perform long-term conservation management, on which the County and the land owner agree.~~

4.6-24. The *River Corridor SMA conservation and public access easement* shall prohibit grazing, except as a long-term resource management activity, and agriculture within the River Corridor and shall restrict recreation use to the established trail system.

Agricultural land uses and grazing for purposes other than long-term resource management activities within the River Corridor shall be extended in the event of the filing of any legal action against Los Angeles County challenging final approval of the Newhall Ranch Specific Plan and any related project approvals or certification of the Final EIR for Newhall Ranch. Agricultural land uses and grazing for purposes other than long-term resource management activities within the River Corridor shall be extended by the time period between the filing of any such legal action and the entry of a final judgment by a court with appropriate jurisdiction, after exhausting all rights of appeal, or execution of a final settlement agreement between all parties to the legal action, whichever occurs first. ~~The River Corridor SMA conservation and~~

~~public access easement shall prohibit grazing except as a long-term resource management activity, and agriculture within the River Corridor, and shall restrict recreation use to the established trail system. Grazing for purposes other than long-term resource management activities within the River Corridor shall be removed upon final approval of the Specific Plan.~~

4.6-25. The River Corridor SMA conservation and public access easement shall be consistent in its provisions with any other conservation easements to State or Federal resource agencies which may have been granted as part of mitigation or mitigation banking activities.

4.6-26. Prior to the recordation of the *River Corridor SMA conservation and public access easement* as specified in Mitigation Measure 4.6-23 above, the land owner shall provide a plan to the County for the permanent ownership and management of the *River Corridor SMA*, including any necessary financing. This plan shall include the transfer of ownership of the *River Corridor SMA* to the Center for Natural Lands Management, or if the Center for Natural Lands Management is declared bankrupt or dissolved, ownership will transfer or revert to a *joint powers authority* consisting of Los Angeles County (4 members), the City of Santa Clarita (2 members), and the Santa Monica Mountains Conservancy (2 members). ~~Prior to the recordation of the River Corridor SMA conservation and public access easement as specified in the measures defined above, the land owner shall provide a plan to the County for the permanent ownership and management of the River Corridor SMA, including any necessary financing. This plan may include the transfer of ownership of the River Corridor SMA to an entity agreeable to the County and the land owner. This entity may include the County, a public or private organization or agency, or a Newhall Ranch owner's association.~~

(2) High Country Special Management Area (SMA)

4.6-26a Two types of habitat restoration may occur in the *High Country SMA*: 1) riparian revegetation activities principally in Salt Creek Canyon; and 2) oak tree replacement in, or adjacent to, existing oak woodlands and savannahs.

- Mitigation requirements for riparian revegetation activities within the *High Country SMA* are the same as those for the *River Corridor SMA* and are set forth in Mitigation Measures 4.6-1 through 4.6-11 and 4.6-13 through 4.6-16 above.

- Mitigation requirements for oak tree replacement are set forth in Mitigation Measure 4.6-48 below.

(a) Mitigation Requirements

Mitigation activities which may occur in the High Country SMA, either for impacts associated with the construction of Estate lots, trails or access roads, or for impacts identified during the subdivision process in other portions of the Specific Plan Area, include restoration of habitat and enhancement to existing habitat (see discussion below). Mitigation banking may be established as provided below. In addition, Salt Creek Canyon is a high priority area for riparian mitigation.

1. Mitigation Through Restoration

Two types of habitat restoration may occur in the High Country SMA: 1) riparian revegetation activities principally in Salt Creek Canyon; and 2) oak resource replacement in, or adjacent to, existing oak woodlands and savannas.

Mitigation requirements for riparian revegetation activities within the High Country SMA are the same as those for the River Corridor SMA and are set forth above.

Mitigation requirements for oak resource replacement are set forth in Specific Plan Section 2.6, paragraph 3b of the Oak Tree Replacement Program of the Resource Management Program.

2. Enhancement of Habitat

4.6-27. Removal of grazing from the High Country SMA except for those grazing activities associated with long-term resource management programs, is a principal means of enhancing habitat values in the creeks, brushland and woodland areas of the SMA. The removal of grazing in the High Country SMA is discussed below under (b) 4. Long Term Management. All enhancement activities for riparian habitat within the High Country SMA shall be governed by the same provisions as set forth for enhancement in the River Corridor SMA. Specific Plan Table 2.6-3 of

the Resource Management Plan provides a list of appropriate plant species for use in enhancement areas in the High Country SMA.

3. Mitigation Banking

4.6-28. Mitigation banking activities for riparian habitats will be subject to State and Federal regulations and permits. Mitigation banking for oak resources, shall be conducted pursuant to the Oak Resource Replacement Program. Mitigation banking for elderberry scrub shall be subject to approval of plans by the County Forester.

(b) Management Requirements

1. Recreation and Access

The recreation opportunities presented by the High Country SMA are a major benefit of the SMA. However, recreational needs must be balanced with the preservation of the habitat values which are conserved in the SMA. Recreation and access will be governed by the following standards:

4.6-29. Access to the High Country SMA will be limited to day time use of the designated trail system.

4.6-30. No pets of any kind will be allowed within the High Country SMA, with the exception that equestrian use is permitted on established trails.

4.6-31. No hunting, fishing, or motor or trail bike riding shall be permitted.

4.6-32. The trail system shall be designed and constructed to minimize impacts on native habitats.

2. Transition/Fuel Modification Areas

Development areas are generally separated from the High Country SMA by steep slopes. Specific Plan Exhibit 2.6-7 of the Resource Management Program, Salt Creek Wildlife Corridor Land Use Perspective, illustrates that development adjacent to the Salt Creek Wildlife Corridor is significantly separated vertically from the corridor.

4.6-33. Construction of buildings and other structures (such as patios, decks, etc.) shall only be permitted upon developed pads within Planning Areas OV-04, OV-10, PV-02, and PV-28 and

shall not be permitted on southerly slopes facing the High Country SMA (Planning Area HC-01) or in the area between the original SEA 20 boundary and the High Country boundary. If disturbed by grading, all southerly facing slopes which adjoin the High Country SMA within those Planning Areas shall have the disturbed areas revegetated with compatible trees, shrubs and herbs from the list of plant species for south and west facing slopes as shown in Table 2.6-3, Recommended Plant Species For Use In Enhancement Areas In The High Country.

Transition from the development edge to the natural area shall also be controlled by the standards of wildfire fuel modification zones as set forth in Mitigation Measure 4.6-49. Within fuel modification areas, trees and herbs from Table 2.6-3 of the Resource Management Plan should be planted toward the top of slopes; and trees at lesser densities and shrubs planted on lower slopes. ~~Transition from the development edge to the natural area shall be controlled by the standards of wildfire fuel modification zones as set forth in Specific Plan Section 2.6, paragraph 4 of the Resource Management Plan.~~

3. Grading Activities

4.6-34. Grading perimeters shall be clearly marked and inspected by the project biologist prior to impacts occurring within or adjacent to the High Country SMA.

4.6-35. The project biologist shall work with the grading contractor to avoid inadvertent impacts to biological resources outside of the grading area.

4. Long-Term Management

4.6-36. Upon final approval of the Newhall Ranch Specific Plan, the Special Management Area designation for the High Country SMA shall become effective. The permitted uses and development standards for the SMA are governed by the Development Regulations, Chapter 3.

4.6-37. The *High Country SMA* shall be offered for dedication in three approximately equal phases of approximately 1,400 acres each proceeding from north to south, as follows:

1) The first offer of dedication will take place with the issuance of the 2,000th residential building permit of Newhall Ranch;

2) The second offer of dedication will take place with the issuance of the 6,000th residential building permit of Newhall Ranch; and

3) The remaining offer of dedication will be completed by the 11,000th residential building permit of Newhall Ranch.

4) The Specific Plan applicant shall provide a quarterly report to the Departments of Public Works and Regional Planning which indicates the number of residential building permits issued in the Specific Plan area by subdivision map number. ~~Prior to the issuance of the 15,000th residential building permit within the Specific Plan area, or the 4,000th residential building permit within the Potrero Valley Village, which ever occurs earlier~~Upon ~~completion of development of all land uses, utilities, roads, flood control improvements, trails, and other improvements necessary for Planning Area PV-01 (the Visitor Center area), a permanent, non-revocable conservation~~ and public access ~~easement shall be recorded over the High Country SMA. The conservation~~ and public access ~~easement shall allow the permitted uses pursuant to Chapter 3, Development Regulations~~ of the ~~Specific Plan.~~

4.6-38. Prior to dedication of the *High Country SMA* a *conservation and public access easement* shall be offered to the County of Los Angeles and a conservation and management easement offered to the Center for Natural Lands Management. The *High Country SMA conservation and public access easement* shall be consistent in its provisions with any other *conservation easements* to State or federal resource agencies which may have been granted as part of mitigation or mitigation banking activities. ~~The High Country SMA conservation~~ and public access ~~easement shall be granted to the County of Los Angeles, or to such other public or private entity with the expertise to perform long-term conservation management, on which the County and the land owner agree.~~

4.6-39. The High Country SMA conservation and public access easement shall prohibit grazing within the High Country, except for those grazing activities associated with the long-term resource management programs, and shall restrict recreation to the established trail system.

4.6-40. The High Country SMA conservation and public access easement shall be consistent in its provisions with any other conservation easements to State or Federal resource agencies which may have been granted as part of mitigation or mitigation banking activities.

4.6-41. The *High Country SMA* shall be offered for dedication in fee to a *joint powers authority* consisting of Los Angeles County (4 members), the City of Santa Clarita (2 members), and the Santa Monica Mountains Conservancy (2 members). The *joint powers authority* will have overall responsibility for recreation within and conservation of the High Country. ~~Prior to the recordation of the High Country SMA conservation and public access easement as specified in the measures identified above, the land owner shall provide a plan to the County for the permanent ownership and management of the High Country SMA. This plan may include the transfer of ownership of the High Country SMA to an entity agreeable to the County and the land owner. This entity may be the County, a public or private organization, or a Newhall Ranch owner's association.~~

4.6-42 An appropriate type of service or assessment district shall be formed under the authority of the Los Angeles County Board of Supervisors for the collection of up to $24 per single family detached dwelling unit per year and $15 per single family attached dwelling unit per year, excluding any units designated as Low and Very Low affordable housing units pursuant to Section 3.10, Affordable Housing Program of the *Specific Plan*. This revenue would be assessed to the homeowner beginning with the occupancy of each dwelling unit and distributed to the *joint powers authority* for the purposes of recreation, maintenance, construction, conservation and related activities within the *High Country Special Management Area.*

(3) Open Area

(a) Mitigation Requirements

4.6-4~~3~~2. Suitable portions of *Open Area* may be used for mitigation of riparian, *oak resources,* or elderberry scrub. Mitigation activities within *Open Area* shall be subject to the following requirements, as applicable.

- *River Corridor SMA* Mitigation Requirements, including: Mitigation Measures 4.6-1 through 4.6-11 and 4.6-13 through 4.6-16; and

- *High Country SMA* Mitigation Requirements, including: and Mitigation Measures 4.6-27, 4.6-29 through 4.6-42, and

- *Mitigation Banking* — Mitigation Measure 4.6-16. ~~Suitable portions of Open Area may be used for mitigation of riparian, oak resources or elderberry scrub. Mitigation Requirements applicable to Open Area include:~~

~~• River Corridor SMA Mitigation Requirement [paragraph 2a (2)(a) of the Resource Management Plan]~~
~~- Mitigation Through Restoration [2a (2)(a) of the Resource Management Plan]~~
~~- Mitigation Banking [2a (2)(c) of the Resource Management Plan]~~
~~• High Country SMA Mitigation Requirement [2b (2) of the Resource Management Plan]~~
~~- Mitigation Requirements [2b (2)(a) of the Resource Management Plan]~~
~~- Enhancement of Habitat [2b (2)(b) of the Resource Management Plan]~~
~~- Mitigation Banking [2b (2)(c) of the Resource Management Plan]~~

~~4.6-43. Mitigation Banking activities are permitted within Open Area. Mitigation banking activities for riparian habitats will be subject to State and Federal regulations. Mitigation banking for oak resources shall be conducted pursuant to the Oak Resources Replacement Program. Plans for elderberry scrub mitigation banking shall be subject to approval by the County Forester.~~

(b) Management Requirements

4.6-44. Drainages with flows greater than 2,000 cfs will have soft bottoms. Bank protection will be of ungrouted rock, or buried bank stabilization as described in Section 2.5.2.a, except at bridge crossings and other areas where public health and safety considerations require concrete or other stabilization. ~~Drainages with flows greater than 2,000 cfs will have soft bottoms. Bank protection will be of ungrouted rock except at bridge crossings and other areas where public health and safety considerations require concrete or other stabilization.~~

4.6-45. The precise alignments and widths of major drainages will be established through the preparation of drainage studies to be approved by the County at the time of subdivision maps which permit construction.

4.6-46. While Open Area is generally intended to remain in a natural state, some grading may take place, especially for parks, major drainages, trails, and roadways. Trails are also planned to be within Open Area.

4.6-47. At the time that final subdivision maps permitting construction are recorded, the *Open Area* within the map will be offered for dedication to the Center for Natural Lands Management. Community Parks within *Open Area* are intended to be public parks. Prior to the offer of dedication of *Open Area* to the Center for Natural Lands Management, all necessary *conservation and public access easements*, as well as easements for infrastructure shall be offered to the County. ~~At the time that final subdivision maps permitting construction are recorded, Open Area within that subdivision being recorded will be offered for dedication to the County. (Community Parks are intended to be public parks.)~~

(c) Mitigation Banking

4.6-47a Mitigation Banking will be permitted within the *River Corridor SMA*, the *High Country SMA*, and the *Open Area land use designations*, subject to the following requirements:

- Mitigation banking activities for riparian habitats will be subject to State and federal regulations, and shall be conducted pursuant to the mitigation requirements set forth in Mitigation Measure 4.6-1 through 4.6-15 above.

- Mitigation banking for *oak resources* shall be conducted pursuant to 4.6-48 below.

- Mitigation banking for elderberry scrub shall be subject to approval of plans by the County Forester.

(4) Oak Resources Replacement Program

4.6-48. Standards for the restoration and enhancement of oak resources within the High Country SMA and the Open Area include the following (oak resources include oak trees of the sizes regulated under the County Oak Tree Ordinance, southern California black walnut trees, Mainland cherry trees, and Mainland cherry shrubs):

- To mitigate the impacts to oak resources which may be removed as development occurs in the Specific Plan Area, replacement trees shall be planted in conformance with the oak tree ordinance in effect at that time.

- Oak resource species obtained from the local gene pool~~, if economically feasible,~~ shall be used in restoration or enhancement.

- Prior to recordation of construction-level final subdivision maps, an oak resource replacement plan shall be prepared that provides the guidelines for the oak tree planting and/or replanting. The Plan shall be reviewed by the Los Angeles Department of Regional Planning and the County Forester and shall include the following: site selection and preparation, selection of proper species including sizes and planting densities, protection from herbivores, site maintenance, performance standards, remedial actions, and a monitoring program.

- All plans and specifications shall follow County oak tree guidelines, as specified in the County Oak Tree Ordinance.

(5) Wildfire Fuel Modification

The Specific Plan Area is within the extreme and moderate fire hazard zones as identified in the County of Los Angeles General Plan. The moderate fire hazard zone extends to those areas of Newhall Ranch where native brush can be found growing in its natural state. This is most common in the hillside areas. The extreme fire hazard zone includes high brush and woodlands, and all steep slopes regardless of vegetation (refer to **Section 4.18, Fire Services and Hazards**, for a detailed description of on-site fire zones).

Development of Newhall Ranch will reduce the amount of native flammable vegetation present within the Specific Plan Area. Fire fighting capabilities will be provided by two fire stations on the Specific Plan site (see **Figure 1.0-3, Land Use Plan**), other nearby stations, and a system of improved roads and an urban water system with fire flows as required by the County Fire Department. Existing and proposed off-site fire facilities will also serve the Specific Plan Area.

Property damage and public safety risks associated with wildfire are greatest where homes and other structures will be located adjacent to large open areas dominated by native vegetation. This condition will occur primarily in the southern portion of the Specific Plan site and where portions of the development area in the northwest section of Riverwood Village abut large natural open areas.

Access is currently provided to the Los Angeles County Fire Department for fire prevention control of the Specific Plan Area. Access will continue to be provided as the Specific Plan is implemented.

Fuel modification mitigation includes:

4.6-49. To minimize the potential exposure of the development areas, Open Area, and the SMAs to fire hazards, the Specific Plan is subject to the requirements of the Los Angeles County Fire Protection District (LACFPD), which provides fire protection for the area. At the time of final subdivision maps permitting construction in development areas that are adjacent to Open Area and the High Country SMAs, a wildfire fuel modification plan shall be prepared in accordance with the fuel modification ordinance standards in effect at that time and shall be submitted for approval to the County Fire Department.

4.6-50. The wildfire fuel modification plan shall depict a fuel modification zone the size of which shall be consistent with the County fuel modification ordinance requirements. Within the zone, tree pruning, removal of dead plant material and weed and grass cutting shall take place as required by the fuel modification ordinance.

4.6-51. In order to enhance the habitat value of plant communities which require fuel modification, fire retardant plant species containing habitat value may be planted within the fuel modification zone. Typical plant species suitable for Fuel Modification Zones are indicated in Specific Plan Table 2. 6-5 of the Resource Management Plan. Fuel modification zones adjacent to SMA's and Open Areas containing habitat of high value such as oak woodland and savannas shall utilize a more restrictive plant list which shall be reviewed by the County Forester.

4.6-52. The wildfire fuel modification plan shall include the following construction period requirements: (a) a fire watch during welding operations; (b) spark arresters on all equipment or vehicles operating in a high fire hazard area; (c) designated smoking and non-smoking areas; and (d) water availability pursuant to the County Fire Department requirements.

c. EIR Mitigation Measures

To further reduce impacts to biological resources that would result from Specific Plan implementation the following mitigation measures are proposed.

4.6-53. If at the time subdivisions permitting construction are processed, the County determines through an Initial Study that there may be rare threatened or endangered species on the property being subdivided, then a site specific survey shall be conducted to define the presence or absence of such species and any necessary mitigation measures shall be determined and applied.

4.6-54. Prior to development within or disturbance to occupied unarmored threespine stickleback habitat, a formal consultation with the USFWS ~~and a Section 2081 Agreement with the CDFG~~ shall occur.

4.6-55. Prior to development or disturbance within wetlands or other sensitive habitats, permits shall be obtained from pertinent Federal and State agencies and the Specific Plan shall conform with the specific provisions of said permits. Performance criteria shall include that described in M~~m~~itigation M~~m~~easures 4.6-1 through 4.6-16 and 4.6-42 through 4.6-47 for wetlands, and M~~m~~itigation M~~m~~easures 4.6-27, 4.6-28, and 4.6-42 through 4.6-48 for other sensitive habitats.

4.6-56. All lighting along the perimeter of natural areas shall be downcast luminaries with light patterns directed away from natural areas.

4.6-57. Where bridge construction is proposed and water flow would be diverted, blocking nets and seines shall be used to control and remove fish from the area of activity. All fish captured during this operation would be stored in tubs and returned unharmed back to the River after construction activities were complete.

4.6-58. To limit impacts to water quality the Specific Plan shall conform with all provisions of required NPDES permits and water quality permits that would be required by the State of California Regional Water Quality Control Board.

4.6-59. Prior to development within or disturbance to habitat occupied by species listed as endangered, a formal consultation with the USFWS and a Section 2081 Permit ~~Agreement~~ with the CDFG shall occur.

4.6-60. If at the time subdivisions permitting construction are process, the County determines through and Initial Study that there may be elderberry scrub vegetation on the property being subdivided, then a site specific survey shall be conducted to define the presence or absence of such habitat and any necessary mitigation measures shall be determined and applied.

4.6-61. If at the time subdivisions permitting construction are processed, the County determines through and Initial Study that there may be mainland cherry trees and/or mainland cherry shrubs on the property being subdivided, then a site specific survey shall be conducted to define the presence or absence of such habitat and any necessary mitigation measures shall be determined and applied.

4.6-62. When a map revision or Substantial Conformance determination on any subdivision map or Conditional Use Permit would result in changes to an approved oak tree permit, then the oak

tree report for that oak tree permit must be amended for the area of change, and the addendum must be approved by the County Forester prior to issuance of grading permits for the area of the map or CUP being changed.

4.6-63. Riparian resources that are impacted by buildout of the Newhall Ranch Specific Plan shall be restored with similar habitat at the rate of one acre replaced for each acre lost.

4.6-64. The operator of the golf course shall prepare a Golf Course Maintenance Plan which shall include procedures to control storm water quality and ground water quality as a result of golf course maintenance practices, including irrigation, fertilizer, pesticide and herbicide use. This Plan shall be prepared in coordination with the County biologist and approved by the County Planning Director prior to the issuance of a Certificate of Occupancy. ~~completion of golf course construction.~~

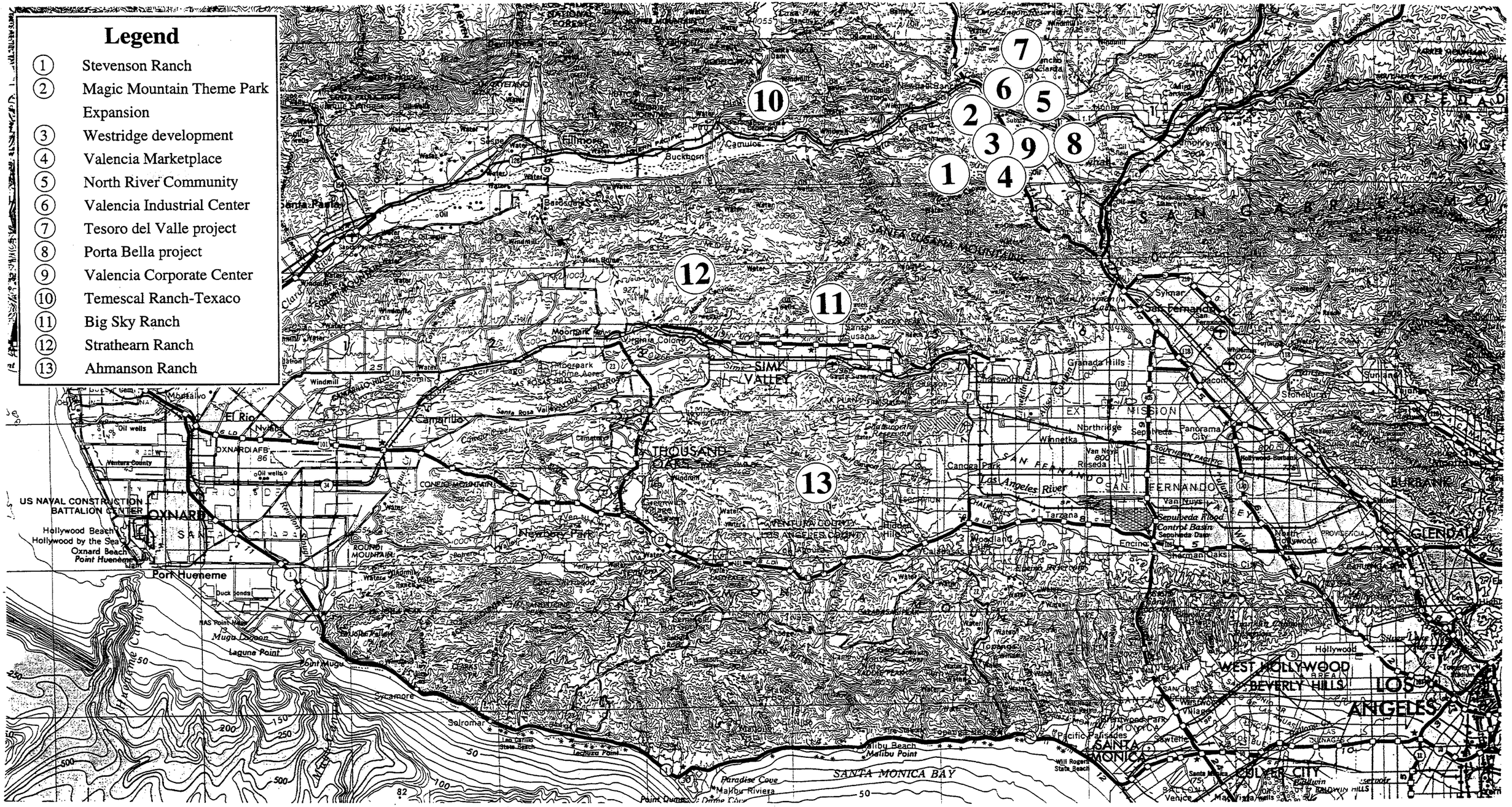
6. CUMULATIVE IMPACTS

The locations of major related projects around Newhall Ranch are illustrated on **Figure 4.6-7, Major Cumulative Projects**. Each of these projects is identified below.

a. Los Angeles County Projects

Implementation of the Newhall Ranch Specific Plan is part of a continuing trend toward urbanization that is occurring along the eastern-most section of SR-126 near I-5 and along I-5 through the Santa Clarita Valley, north to Castaic. Along SR-126, large-scale development projects are planned and/or underway on land near the Specific Plan site that will marginally influence the biotic character of this area. These include the Valencia Commerce Center, a planned industrial development underway at the northwestern side of the Castaic Junction, and the I-5/SR-126 interchange. The Specific Plan includes an interchange at Commerce Center Drive's intersection with SR-126.

Along the west side of I-5, between the eastern boundary of the Specific Plan site and the freeway, several development projects are underway or proposed. These include: 1) Stevenson Ranch, a medium-density, single family residential community set in the hills south of McBean Parkway and north of Pico Canyon Road; 2) Magic Mountain Theme Park expansion; 3) Westridge development, a residential and golf course project to be located generally half a mile north of Valencia Boulevard on the north to McBean Parkway on the south; and, 4) Valencia Marketplace, a regional shopping center to be located along the freeway, between McBean Parkway on the north and Pico Canyon Road on the south.


Legend
1 Stevenson Ranch
2 Magic Mountain Theme Park Expansion
3 Westridge development
4 Valencia Marketplace
5 North River Community
6 Valencia Industrial Center
7 Tesoro del Valle project
8 Porta Bella project
9 Valencia Corporate Center
10 Temescal Ranch-Texaco
11 Big Sky Ranch
12 Strathearn Ranch
13 Ahmanson Ranch
SIMI VALLEY
THOUSAND OAKS
OXNARD
Port Hueneme
US NAVAL CONSTRUCTION BATTALION CENTER
OXNARD AFB
Camarillo
Moorpark
Fillmore
Santa Paula
Piru
Newbury Park
Malibu Beach
Malibu Point
Point Dume
Paradise Cove
Malibu Riviera
SANTA MONICA BAY
Point Mugu
Laguna Point
Mugu Lagoon
Sycamore
Solromar
Leo Carrillo State Beach
Lechuza Point
Hollywood Beach
Hollywood by the Sea
Oxnard Beach
Point Hueneme Light
Duck ponds
NAS Point Mugu
Ventura County
Los Angeles County
SAN FERNANDO
Sylmar
San Fernando
Granada Hills
Pacoima
Sunland
Stonehurst
Northridge
Winnetka
Panorama City
Canoga Park
Reseda
Van Nuys
Tarzana
Woodland Hills
Encino
Sherman Oaks
Studio City
North Hollywood
BURBANK
GLENDALE
Hollywood
WEST HOLLYWOOD
BEVERLY HILLS
LOS ANGELES
SANTA MONICA
CULVER CITY
Pacific Palisades
Will Rogers State Beach
Topanga
Las Angeles River
Senpueda Flood Control Basin
Senpueda Dam
Chatsworth Reservoir
Lake Sherwood
Hidden Valley
Lake Eleanor
Lake Bard
Lake Piru
Lake Casitas
Lake Piru Recreation Area
Los Padres National Forest
Santa Monica Mountains
Simi Hills
Conejo Mountain
Round Mountain
Oil wells
Windmill
Water
Cemetery
Golf Course
Freeway
Railroad
Southern Pacific
Pacific Coast Highway
Ventura Freeway
Simi Valley Freeway
Santa Susana Pass
Santa Rosa Valley
Las Posas Hills
Moorpark Home Acres
Somis
Virginia Colony
Camarillo Hills
Conejo Creek
Arroyo Santa Rosa
Arroyo Simi
Arroyo Las Posas
Arroyo Calleguas
Arroyo Conejo
Arroyo Santa Susana
Arroyo Las Virgenes
Arroyo Las Llajas
Arroyo Las Flores
Arroyo Las Encinas
Arroyo Las Pilas
Arroyo Las Pulgas
Arroyo Las Palmas
Arroyo Las Palmas
Arroyo Las Palm

The City of Santa Clarita and the community of Valencia are located on the immediate east side of I-5. Additional projects existing, proposed or under construction along the east side of I-5 include: 5) The North River community, a residential area that will be similar to already existing parts of Valencia is being developed on the east and west sides of San Francisquito Creek, north of the Santa Clara River; 6) The Valencia Industrial Center, an industrial park generally south of Newhall Ranch Road and west of San Francisquito Creek; 7) Tesoro del Valle project, a residential development proposed north of the North River community and adjacent to and including portions of San Francisquito Creek; 8) The Porta Bella project, a mixed-use project proposed in the City of Santa Clarita at the southeast corner of the intersection of Soledad Canyon and San Fernando Roads; and, 9) The Valencia Corporate Center, a business park located between Magic Mountain Parkway on the north and Valencia Boulevard on the south. In association with on-going development in the North River community, The Newhall Land and Farming Company is proposing a series of improvements along the Santa Clara River and San Francisquito Creek in order to protect lands from flooding. The ACOE is presently processing a General Permit application made by The Newhall Land and Farming Company for these improvements that are part of the specific development proposals, and is independently analyzing the environmental impacts of the improvements.

b. Ventura County Projects

In Ventura County, development occurs along the Santa Clara River, downstream of the Newhall Ranch Specific Plan site in the community of Piru, and the City of Fillmore, and further west in the Cities of Santa Paula, Oxnard and Ventura. Southwest of the Specific Plan site are the Cities of Simi Valley and Moorpark. Various scattered development also occurs in unincorporated portions of the County. Several large proposed development projects are in various states of the entitlement process. They include: 10) Temescal Ranch-Texaco, a mixed-use development proposed near Piru; 11) Big Sky Ranch, a residential development proposed north of Simi Valley on the south-facing side of the Santa Susana Mountains; 12) Strathearn Ranch, a mixed-use development proposed north of Moorpark on the south-facing side of the Santa Susana Mountains; and, 13) Ahmanson Ranch, a mixed-use development approved at the southeast corner of Ventura County.

c. Cumulative Projects

The following discussion addresses cumulative impacts from the perspective of the potential cumulative impact of the conversion of a natural habitat condition to that of a suburban/urban condition.

Development in the region (Ventura County, as well as the San Fernando, Simi, and Santa Clara River Valleys) has been cumulatively reducing the amount of open area and extent of sensitive habitats, and has been constricting wildlife movement. This trend is not new. Rather this trend has been occurring since the early 1950s. Major open areas that remain undeveloped include the Angeles National Forest and Los Padres National Forest. As indicated above, several large development projects are proposed for the Los Angeles/Ventura County region, including the Newhall Ranch Specific Plan.

The Newhall Ranch Specific Plan is proposing to permanently dedicate major amounts of land in the Santa Clara River Corridor and the Santa Susana Mountains, while at the same time converting approximately 5,132 acres of land from a largely natural, albeit partially disturbed, habitat condition, to that of a suburban/urban environment. That conversion, when added to all the other such conversions of open area that are proposed, will permanently decrease the amount of land available for natural habitats and the flora and fauna that inhabit them. In some cases specific natural habitats and plant and animal species occur in relative abundance despite the amount of development that is on the horizon; however, others do not. In these latter cases, incremental development has been contributing tohabitat loss. When viewed individually, it may be possible for each of the projects to mitigate potential project-specific significant impacts through the implementation of habitat replacement programs and the requirements of the regulatory processes to which each of the projects may be subject (e.g., ACOE Section 404 permit process, California Fish and Game Code 1603 permit process, etc.). However, neither implementation of the Newhall Ranch Specific Plan nor any other similar large scale project proposed on the edge of the existing urban environment can mitigate from a biological perspective the permanent conversion of large blocks of open area. It is for this reason that the cumulative impact is considered unavoidably significant.

7. CUMULATIVE MITIGATION MEASURES

When viewed individually, it may be possible for each of the proposed projects which contribute to the cumulative loss of habitat and other impacts described above to mitigate potential project-specific significant impacts through the implementation of appropriate mitigation. However, neither implementation of the Newhall Ranch Specific Plan nor any other similar large scale project proposed on the edge of the existing urban environment can mitigate from a biological perspective the permanent conversion of large blocks of open area. As such, there are no known mitigation measures available to reduce the level of the identified cumulative impacts.

8. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Specific Plan Impacts

Due to the conversion of approximately 5,132 acres of habitat that are in a largely natural condition to a suburban and urban condition, implementation of the Newhall Ranch Specific Plan would substantially diminish habitat for wildlife and plants. Implementation of the Specific Plan would also significantly impact sensitive wildlife species, significantly impact the ability of animals to move across portions of the site, and significantly impact several sensitive upland habitat types. All of these are considered unavoidable significant impacts that cannot be fully mitigated.

b. Cumulative Impacts

As indicated above, several large development projects are proposed for the Los Angeles/Ventura County region, including the Newhall Ranch Specific Plan. All of these proposed developments would remove natural habitat. The Newhall Ranch Specific Plan will convert approximately 5,132 acres of land from a largely natural, albeit partially disturbed, habitat condition, to that of a suburban/urban environment. That conversion, when added to all the other such conversions of open area that are proposed, will permanently decrease the amount of land available for natural habitats and the flora and fauna that inhabit them. Neither implementation of the Newhall Ranch Specific Plan nor any other similar large scale project proposed on the edge of the existing urban environment can mitigate from a biological perspective the permanent conversion of large blocks of open area. It is for this reason that the cumulative impact is considered unavoidably significant.

4.7 Visual Qualities

1. SUMMARY

There are three view corridors from which the Specific Plan is visible: the Santa Clara River/SR-126 Corridor; the Chiquito Canyon Road Corridor; and the Interstate 5 (I-5) Corridor. Eight viewsheds were identified within the three view corridors where large or permanent viewing audiences have prominent views of a portion of the development area. Two additional viewsheds were identified from locations outside of the view corridors. The first is from a Valencia residential neighborhood with views of the development area, and the second is from the Rim of the Valley Trail. A view analysis was conducted for each of these viewsheds to determine the significance of the Specific Plan's effects on the visual qualities of these views. This was accomplished through computer modeling techniques which provided three-dimensional perspectives to illustrate the view of the developed Specific Plan site within each of the viewsheds. Due to the view-blocking effects of intervening topography, much of the area proposed for development is not visible at all from areas off the Specific Plan site. Specific examples of this are development areas proposed for middle and upper Potrero Canyon, and the upland portions of Airport Mesa not directly near the bluff edge. It should be noted, that, at this time, the development proposed is conceptual in nature as is appropriate at the Specific Plan level of review; the Specific Plan does not include building elevations, plotting and/or arrangements of buildings, colors, etc.

As proposed, approximately 5,852 acres (or 49 percent) of the total Specific Plan area would remain in Open Area and Special Management Areas, including: the High Country Special Management Area; the vegetated River Corridor Special Management Area and adjoining bluffs and steep canyons covered with oak trees; significant topographic features, such as Sawtooth Ridge and Ayres Rock; and other Open Areas. Despite the amount of open land that would be provided, development proposed adjacent to the Santa Clara River Corridor that parallels SR-126 would significantly alter the visual characteristics of the River Corridor. Views in Chiquito Canyon would also be significantly altered as a result of Specific Plan implementation. While development that is proposed near the River Corridor is, for the most part, not replacing prominent visual features, such as River vegetation or River bluffs, the images of residential development, roadways, bridges and other human activity would be a significant change from the existing characteristics of the site. Such development would also introduce sources of outdoor illumination which do not presently exist. Outdoor lighting, such as street lights and traffic signals, are essential safety features in development projects that involve new streets and intersections, and cannot be eliminated if the proposed Specific Plan is implemented as planned. The Specific Plan contains many features which are geared toward creating an attractive urban community in the Village centers and an attractive suburban community surrounding the Village centers. Chapters

3 and 4 of the Specific Plan contain Development Regulations and Design Guidelines, respectively. These Regulations and Guidelines address grading, lighting, fencing, landscaping, signage, architecture and site planning. However, despite such features, the significant visual impacts would still result from the change in the visual character of the site from rural to urban. Consequently, such significant visual impacts would be unavoidable.

2. METHODOLOGY

This section of the EIR evaluates the potential Specific Plan-related changes in the visual character of the Specific Plan site and surroundings through a combination of methods that: (1) identify corridors in which the Specific Plan can be viewed; (2) identify "viewsheds" within the view corridors where the development area is visible; (3) identify, within those viewsheds, "prominent visual features"; and (4) simulate post-development changes in the viewsheds through computer modeling techniques in order to illustrate and describe how viewsheds would look from surrounding areas. For the purposes of this analysis, "viewsheds" are defined as the most visible portions of the development area that can be seen by:

- a relatively large mobile viewing audience (primarily in automobiles).
- a permanent-resident population (from existing homes), and/or
- a recreational viewing population (from trail alignments).

"Prominent visual features" are defined as features that are unique to the Planning Area or Los Angeles County and/or those that stand out in relation to their surroundings. "Development area" is defined as the portion of the Specific Plan site that will be subject to grading and construction activity due to Specific Plan implementation and buildout.

A determination was made as to the areas from which the Specific Plan would be seen most frequently by the existing public. These areas include three visual corridors: (1) the Santa Clara River/SR-126 corridor; (2) the I-5 corridor; and (3) the Chiquito Canyon Road corridor. In addition, outside of these three view corridors, two viewing perspectives representing elevated residential areas and trail alignments with more distant views of the Specific Plan site were identified. The residential viewing perspective location was chosen in the northern end of the Santa Clarita Valley where elevated residential areas have distant views of the Specific Plan site. The trail viewing perspective location was chosen from the alignment of the Rim of the Valley Trail Corridor on the ridge of the Santa Susana Mountains near the Oat Mountain lookout. Within these three view corridors and two viewing perspectives, ten viewing locations, or viewsheds, were selected as fair representations of views available of the Specific Plan site's development area. If portions of the Specific Plan site which are

proposed for development cannot be seen by any type of viewer (i.e., a large mobile viewing audience, permanent-resident population, and/or recreational population) or if their views of the development area are from so far away as to make their views obscure, those views are not considered visually prominent and are not assessed as part of this analysis.

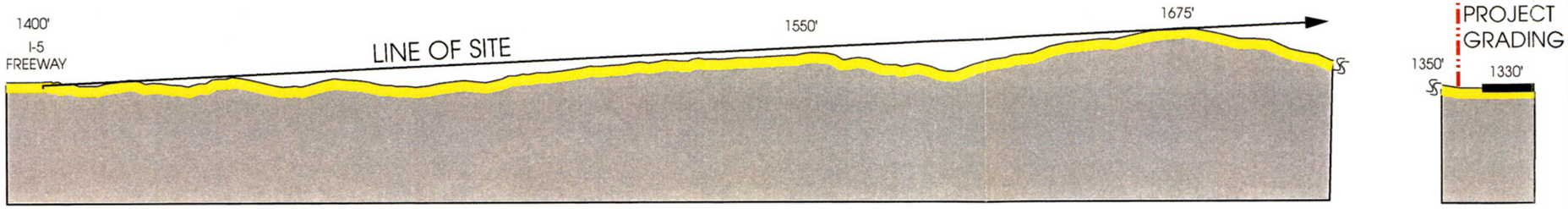
It is not the intent of this analysis to suggest that the Specific Plan site is visible from only ten viewing locations. Rather, an attempt was made to identify a range of viewsheds which are a representative sample of the most prominent views available in the Specific Plan area (it is not within the scope of this EIR to study every possible viewing location). In this analysis, emphasis has been placed on the mobile viewing population which has an opportunity to view the site while traveling on the three visual corridors identified.

Within each of the ten viewsheds, view orientations were selected which would display the maximum amount of development visible within that range of view. Photographs of these viewsheds were taken and are presented in this section of the EIR to document, first, the existing visual characteristics. These viewsheds are reproduced again in the impact analysis section and overlaid with future developed conditions. Field surveys determined that the development area cannot be seen by motorists traveling northbound and southbound on I-5 south of Magic Mountain Parkway due to obstruction by intervening landforms and vegetation. A cross section analysis confirms that lines-of-sight from I-5 terminate well before the Specific Plan's east boundary (**see Figure 4.7-1**). Consequently, views from this area are not addressed further.

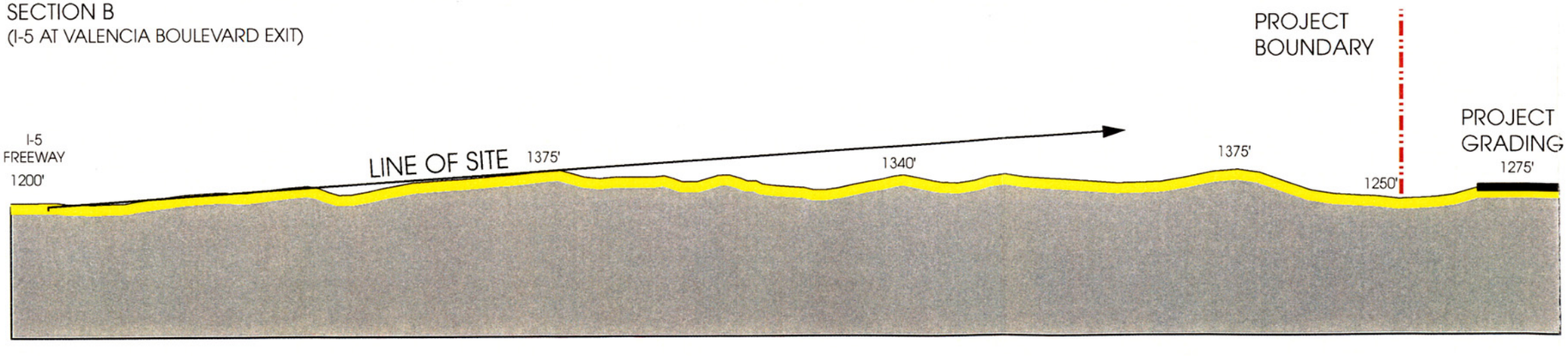
To provide a standard frame of reference for the reader, the visual character within each of the viewsheds is described in terms of foreground, middle-ground, and background elements. Each represents a portion of the total view, based on distance from the viewing location. Foreground scenes represent the closest views available, middle-ground scenes represent the next distinguishable range of view, and the background scenes represent the most distant visible landscape elements that typically form backdrops for the middle and foreground scenes. The delineation between one viewing range and the next is largely based on prominent transitions in landscape character and the reduction in visibility of the landscape features as distance increases; however, the judgments of such transitions are admittedly subjective.

To aid in understanding the perspective from which each of the viewsheds are described, **Figure 4.7-2** illustrates topography and common place names which occur on the Specific Plan site. The place names are used throughout this analysis in order to orient the reader. Also, in order to characterize the context in which views of the site are available, for each of the ten viewsheds both the type of viewing audience and the length of time a particular view is available is described.

SECTION A
(I-5 AT MCBEAN PARKWAY EXIT)

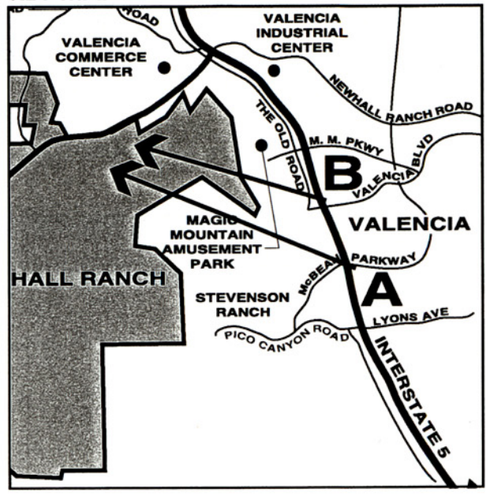


SECTION B
(I-5 AT VALENCIA BOULEVARD EXIT)



NEWHALL RANCH™
Newhall Ranch Company

KEY MAP

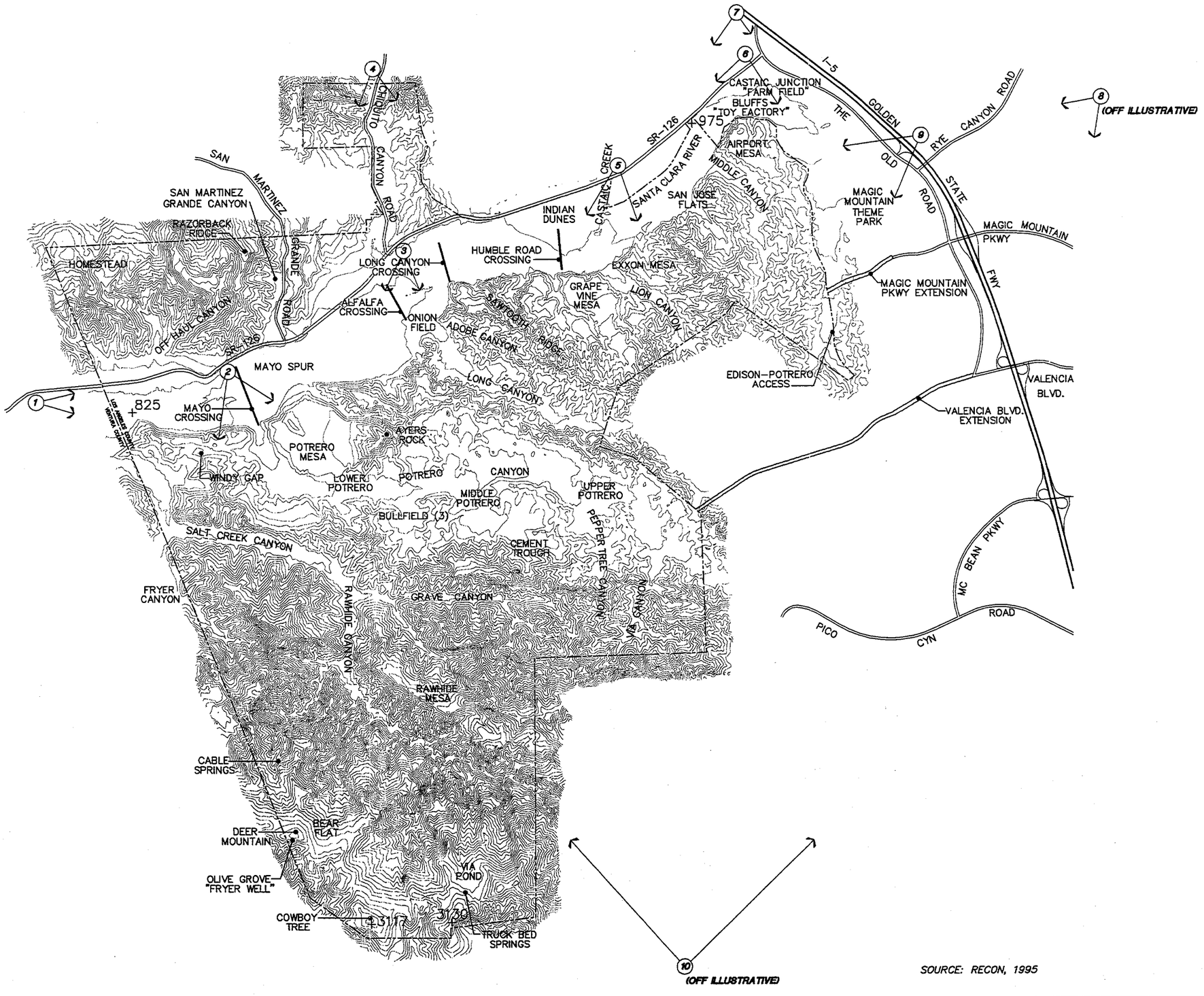


VIEWING CROSS SECTIONS

LOOKING NORTHWEST IN DIRECTION OF THE PROJECT FROM TWO MAJOR INTERSECTIONS ON I-5 -- SECTIONS DEMONSTRATING NO VIEW OF THE PROJECT SOUTH OF VALENCIA

NOTE: Computer Modeling based on Land Use Plan and Preliminary Grading Studies.

FIGURE 4.7-1
VIEWING CROSS SECTIONS



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L E G E N D

(1) *VIEW ANALYSIS VIEW POINT*

IMPACT SCIENCES INC

NORTH

100 ACRES 400 ACRES

English 0 1000' 2000'

Metric 0 225m 450m 900m

FIGURE 4.7-2
TOPOGRAPHY AND PLACE NAMES

2/19/96

Computer-modeling techniques were employed to simulate post-development site topography, in a three-dimensional context, to illustrate the possible landform modifications and possible placements of development within nine of the ten viewsheds (the one viewshed excluded from computer modeling analysis is the viewshed available from the Rim of the Valley Trail; this was due to its distance from the site and the small amount of development area visible). To simulate the post development scenario of the site, a four step-process was involved: (1) viewsheds were chosen on the basis of field surveys; (2) photographs were then taken of the chosen viewsheds; (3) wire-frame models were prepared from a computerized conceptual grading plan representing the topography that would occur subsequent to development in each viewshed, and (4) using the computer, an artist then rendered an illustration of the land uses that could occur which would be visible to drivers or residents within that viewshed. These illustrations are presented below. The colors of structures shown in the photographs were selected in order to provide the reader with a contrast that may be more visible than would exist when the Specific Plan is built out. Upon buildout of the Specific Plan, it is possible that the full range of building colors and roofing materials would be represented on the Specific Plan site. The ultimate types of building materials and colors would be determined at the time individual tract maps are processed. Buildings are shown on these illustrations in true proportion and scale, based on the maximum height of structures that would be allowed under the Specific Plan development standards. The result is a modified photograph of the chosen viewsheds showing the visual effect of the proposed development within the context of existing environmental conditions. In some instances, buildings that would occur in the foreground were not shown, as they would block views of more distant areas and, therefore, make it impossible for the viewer to understand how the Specific Plan might look in the middle and background views. Instead, a series of yellow parallel lines were placed on the illustrations to simulate a worst case representation of the degree to which structures in the foreground could block more distant views of the site.

Since the analysis is at the Specific Plan (or program) level, there are two major limitations to the techniques described above. First, the grading plan is conceptual, thereby representing only major, or gross, alterations to the land (i.e., 50 foot contours) and does not reflect the refined grading that will be done as part of future subdivisions. As such, the grading is a "worst case" scenario in that it only shows large flat pads, whereas, subdivision grading plans would illustrate more differentiation. The second limitation is that the Specific Plan only shows areas of land use, but does not plot buildings. In completing the visual analysis, the artist can portray building height and approximate sizes for most land uses (from Specific Plan regulations), but can only guess at how the buildings would be arranged on the site and which colors and which roofing materials would be employed on buildings, all of which are unknown at this time.

No portion of the Specific Plan area or roadway in the Specific Plan area is designated as an adopted "Scenic Highway" by either the State of California, the Counties of Los Angeles or Ventura, or the City of Santa Clarita. Therefore, no adverse impacts to designated "Scenic Highways" could result from this Specific Plan. SR-126 is, however, designated in the County of Los Angeles General Plan as a "First Priority Scenic Route" which is proposed for further study, but has no regulatory restrictions placed on it.

For each viewshed, analysis was conducted to determine whether the Specific Plan would be in conflict with the criteria provided in the Los Angeles County Environmental Document Reporting Procedures and Guidelines, as discussed in the Significance Threshold Criteria subsection on **page 4.7- 30.**

3. EXISTING CONDITIONS

a. View Corridors and Prominent or Unique Visual Features

It has been concluded that three visual corridors exist on or near the Specific Plan site: the Santa Clara River/SR-126 corridor, the I-5 corridor, and the Chiquito Canyon Road corridor.

By far the most visually attractive of the three is the Santa Clara River/SR-126 corridor. This corridor is highly visible from SR-126, supports a large mobile viewing audience and is approximately 6.5 miles in length. It is also in a largely undeveloped, rural condition, and much of the more level land in the vicinity of the River is cultivated for farm crops. This roadway is not an adopted scenic highway, but is designated by the County as a "First Priority Scenic Route," which is proposed for further study. The criteria[1] used for establishing first priority status for routes shown on the Scenic Highway System Map are:

a. Highways shown on the State Master Plan of Scenic Highways.

b. Routes with scenic resources threatened by future incompatible development.

c. Perceived need as demonstrated by public support.

d. Routes which represent an opportunity to preserve scenic resources before they are lost.

Routes which satisfy at least two of the above criteria are classified as first priority. All other routes are classified as second priority. The County's General Plan Conservation and Open Space Element contains a policy directed at the protection of scenic resources found along officially designated and first priority proposed scenic highways. The policy is as follows: "Protect the visual quality of scenic

1 Los Angeles County Department of Regional Planning, "Scenic Highway Element" in County of Los Angeles General Plan (Los Angeles, California: 11 October 1974).

views from public roads, trails and vantage points." There are no active plans within the County to designate SR-126 as a County Scenic Highway and "First Priority Scenic Routes" carry no regulatory significance. Further, the County General Plan allows urban development to occur along Scenic Highways and First Priority Scenic Routes. Potential impacts to Priority Routes identified in the Scenic Highway Element are, however, carefully considered by the County in the environmental review process.

The SR-126 corridor contains visual features which are considered unique within the Planning Area and Los Angeles County. Such features include:

- the Santa Clara River and its associated riparian vegetation,
- the River bluffs and steep canyons which rise up from the River on its southern bank,
- the various stands of oak trees,
- the mesas, which are elevated above the River Corridor and are partially visible,
- Sawtooth Ridge, which stands out in sharp contrast due to its exposed rock faces, and
- the higher elevations of the Santa Susana Mountains, which include the Specific Plan-proposed High Country Special Management Area (SMA).

The second visual corridor occurs along Chiquito Canyon Road, extending through a portion of the Specific Plan site from the community of Val Verde south to SR-126. This visual corridor is approximately 1.75 miles in length and is viewed by a relatively small mobile and permanent resident population, and provides a limited view of the Specific Plan site; however, it does contain visual features which are unique to the Planning Area and Los Angeles County. This view corridor is characteristically non-urban with natural features such as: Chiquito Canyon Creek; oak trees in the flatter grassland area; and views of the higher elevations of the Santa Susana Mountains in the distance.

The third visual corridor is the I-5 corridor, between approximately Magic Mountain Parkway on the south and Backer Road on the north. This corridor supports the largest mobile viewing audience, is approximately 0.5 miles removed from the Specific Plan site at its nearest point, and is approximately 3 miles in length. Despite the relatively small amount of farmland that is occasionally visible along I-5, this corridor is visually inferior to the Santa Clara River/SR-126 and Chiquito Canyon Road corridors due mainly to the relatively large amount of urban development which is found along it. In addition, from the parts of I-5 south of Magic Mountain Parkway and north of Backer Road, either none of the development area associated with the Specific Plan is visible due to the existing topography, or if visible, views are only available from a considerable distance (i.e., over 8 miles). Visual features

considered unique to the Planning Area or Los Angeles County found within this corridor include limited views of the Santa Clara River and its associated riparian vegetation and River bluffs, limited views of the hills that form the bases of the mesas which are elevated above the River, and limited views of the Santa Susana Mountains High Country SMA.

The area also supports an existing development area east of the site in the Santa Clarita Valley, including both unincorporated County land and the City of Santa Clarita, which has vantage points of portions of the development area. Included in these vantage points are only those portions of the Valley which are elevated enough to see the Specific Plan site. Views of the Specific Plan site from these areas are limited to the eastern edge of the site adjacent to the Magic Mountain Theme Park, the High Country SMA (on site) and the higher elevations of the Santa Susana Mountains (off site). Also of visual importance are the potential views available of the development area from existing recreational areas. Field surveys indicated that the worst-case view of the development area from a recreational area would be a view from a location elevated above the Specific Plan site. The recreational area which most fits this description is the Rim of the Valley Trail, located southeast of the site. Due to the view-blocking effects of intervening topography, views of the Specific Plan site from this Trail are limited to the eastern edge of the site adjacent to the Magic Mountain Theme Park.

Provided below is a description of the visual characteristics of the ten viewsheds located within the three view corridors and the more distant viewing perspectives from the Santa Clarita Valley and the Rim of the Valley Trail. Emphasis has been placed on the mobile viewing population, which has an opportunity to view the site while traveling on the three visual corridors identified.

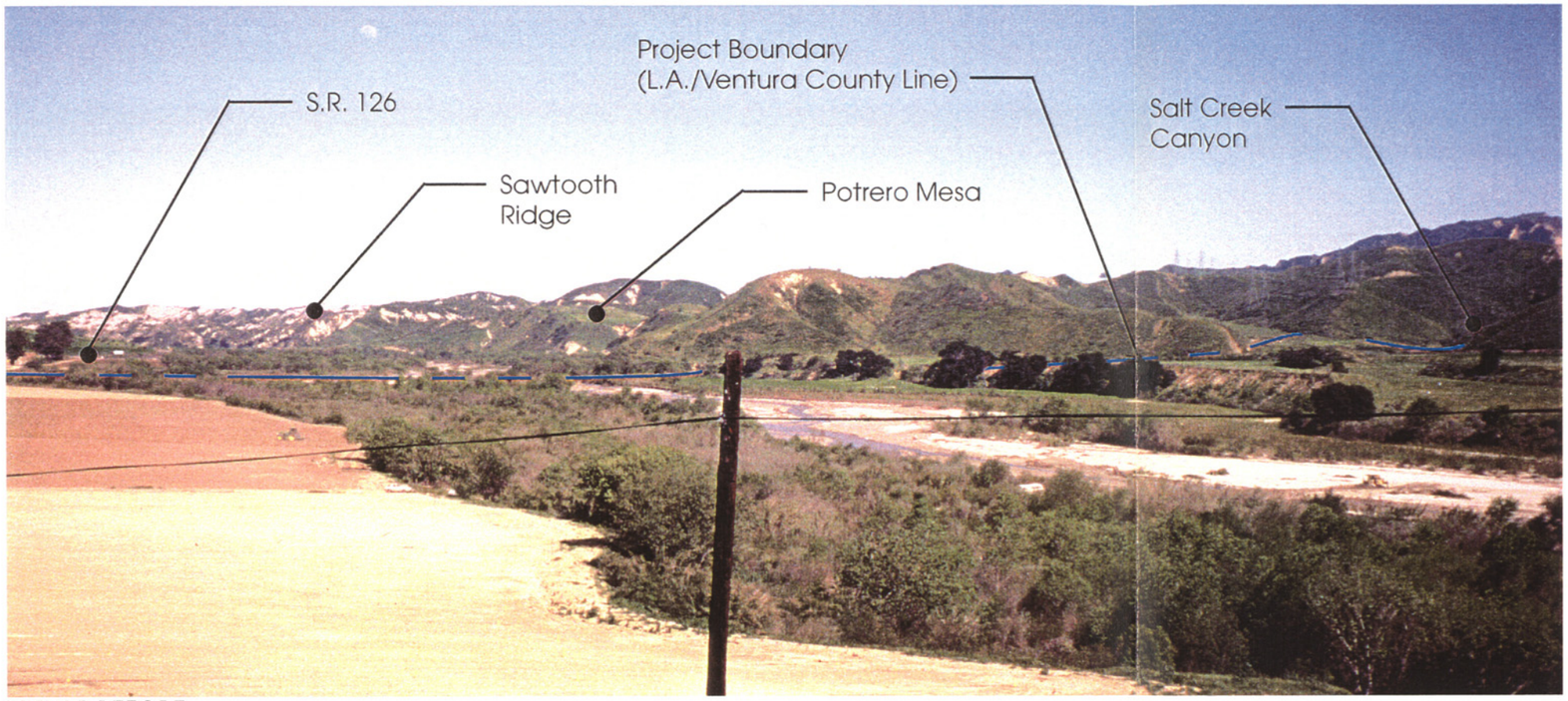
b. Existing Conditions of the Viewsheds Identified within the Three Corridors

(1) Viewshed 1

Type of Viewing Audience: Mobile, driving eastbound on SR-126
Length of Time Visible: Approximately 30 seconds to one minute

As illustrated on **Figure 4.7-3**, this is the view that greets motorists traveling eastbound along SR-126 in Ventura County as they approach the Los Angeles County line and the western edge of the Specific Plan site. Views available from this location represent the clearest and most direct views available from the Ventura County viewing perspective. While views of the Specific Plan site are available from further west in Ventura County, such views are either intermittent due to the view-blocking effects of intervening topography and vegetation, or are completely precluded by such features.

East



West

VIEW 1 BEFORE

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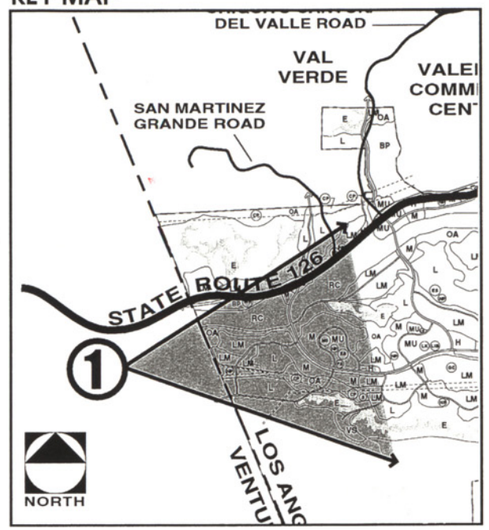
KEY MAP



VIEW "1"

LOOKING SOUTHEAST TO THE PROJECT FROM VENTURA COUNTY AT STATE ROUTE 126 AND THE SANTA CLARA RIVER CORRIDOR

FIGURE 4.7-3

EXISTING VIEW 1

Foreground views, which are not within the Specific Plan site boundary, are predominantly of a low, open area, comprised of the Santa Clara River Corridor and adjacent farmland. The hilly landform of a portion of the Specific Plan site forms a distinctive backdrop to the River Corridor. In this view, the hillsides adjacent to the lower River plain are considered prominent visual features because they form a sharp transition from the low-lying River plain to the ridgelines visible in the background. The River Corridor is considered a prominent visual feature because of its natural character and vegetation cover. These characteristics distinguish this portion of the River Corridor from other disturbed and less vegetated River segments in more urbanized areas far to the east of the Specific Plan area. The lowest area, adjacent to the River Corridor, contains oak trees and appears as a visual extension of the River Corridor. This area, combined with the opening to Salt Creek Canyon in the middle-ground is visually prominent, as it is a uniquely level area in an otherwise hilly setting. However, most of the area in the foreground is off site in Ventura County.

In the middle-ground view, visible in the left middle of the photo, hillsides frame a view of lower, fairly level open area comprised of the River Corridor on the right side of the highway and gently sloping land on the left side of the highway. A portion of the relatively flat Potrero Mesa is visible above the River Corridor. In this view, the hillsides are more visually prominent than the River Corridor because they form a distinctive visual transition from the lowlands to the ridgelines and other hilly terrain. Sawtooth Ridge, visible at the left edge of the middle-ground view, is considered a prominent visual feature, because it forms a single, continuous horizon line against the sky, without interruption by other ridgelines or landforms.

In the background view, hillsides and ridgeline features within the Specific Plan site are dominant visually; exposed rock faces and the main ridgelines are distinctive elements and are considered prominent visual features in this view.

Prominent Visual Features: the River Corridor, River bluffs, hilltops adjacent to the River plain, the opening to Salt Creek Canyon, Sawtooth Ridge (all on site), and exposed rock faces and the main ridgelines in the background (mostly on site).

(2) Viewshed 2

Type of Viewing Audience: Mobile, driving east and westbound on SR-126
Length of Time Visible: Approximately 30 seconds

As illustrated on **Figure 4.7-4**, this view is from the south side of SR-126, looking southeasterly across the River Corridor toward Lower Potrero Canyon, Potrero Mesa and the High Country portions of the site. The foreground view consists of the heavily vegetated River Corridor, framed on the right and left by low hills and by the more distant view of a small portion of Lower Potrero Canyon in the center. The River Corridor is considered a prominent visual feature, as described above, because of its natural and heavily vegetated character. The River bluffs and hills above them rising immediately behind the River Corridor are also considered prominent visual features in this view because they form a sharp visual transition that frames the view of the River Corridor.

In the middle-ground view (center of photograph), Lower Potrero Canyon is visually prominent as a gently sloping open area. Scattered stands of oak trees and electrical transmission lines are also visible within this open area; the oak trees are found at a lower position than the electrical transmission lines in this view. Oak trees are considered prominent visual features throughout southern California because of their distinctive canopies and the fact that they are natives to this region. Hilly terrain extends behind and to both sides of this canyon.

The upper elevations of the Santa Susana Mountain High Country Special Management Area (SMA) comprise the visible landscape within the background of this view. These high, undulating landforms are considered prominent visual features, as they form a visually dominant backdrop for this entire scene.

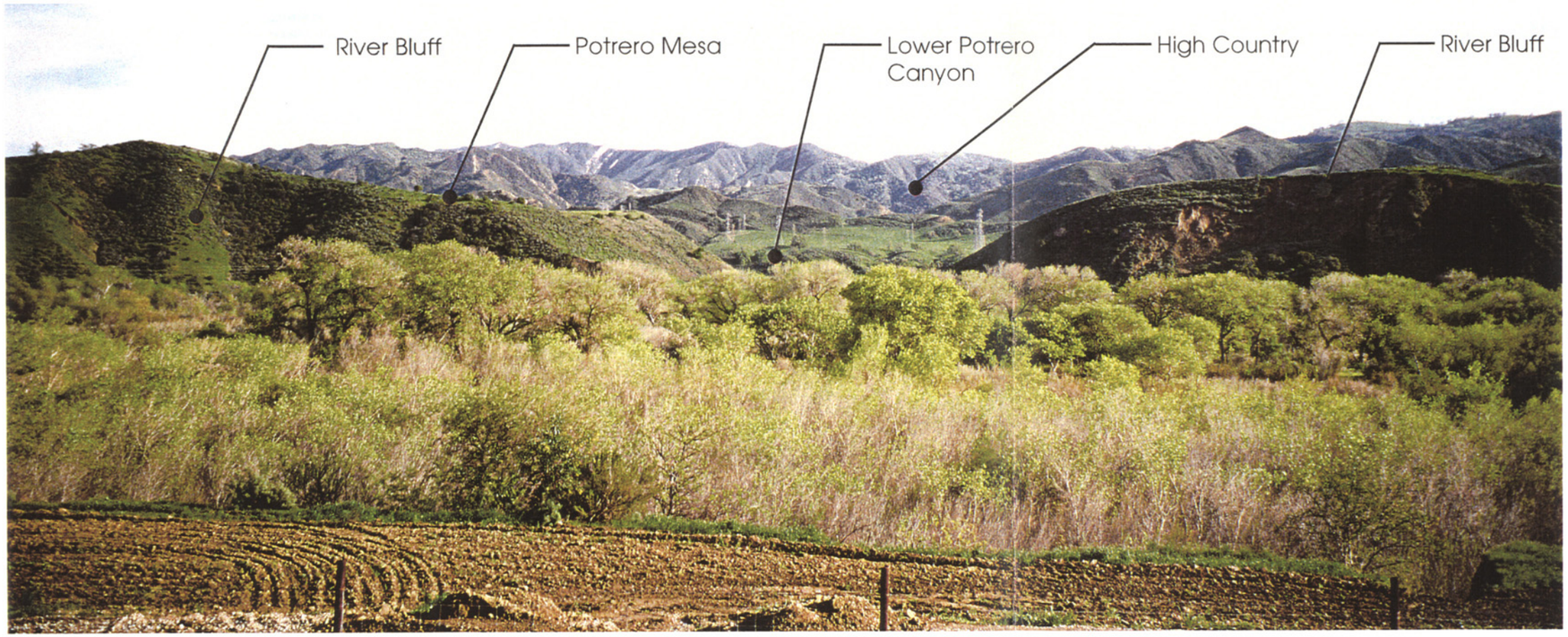
Prominent Visual Features: River Corridor, River bluffs and the hills above them, oak trees in Lower Potrero Canyon and the Canyon itself, and ridgeline of the Santa Susana Mountain High Country SMA (all on site).

(3) Viewshed 3

Type of Viewing Audience: Mobile, Driving east and westbound on SR-126, and southbound on Chiquito Canyon Road
Length of Time Visible: Approximately 30 seconds to one minute

This view is from SR-126, opposite Chiquito Canyon Road, looking south across the River Corridor toward Long Canyon. As illustrated on **Figure 4.7-5**, in the foreground, cultivated farmland and the River Corridor are features that are visible beyond a wire fence and disturbed weedy open area along the side of the road. Natural hillsides behind the farmland frame the view of the River Corridor and provide a window of view just beyond into Long Canyon. A stand of oak trees is prominent on the west

South



East

West

North

VIEW 2 BEFORE

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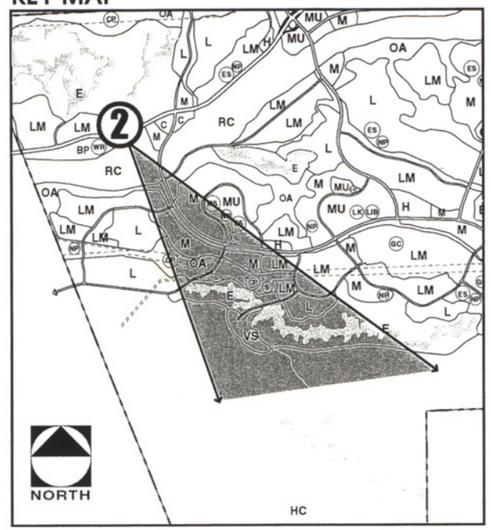
KEY MAP



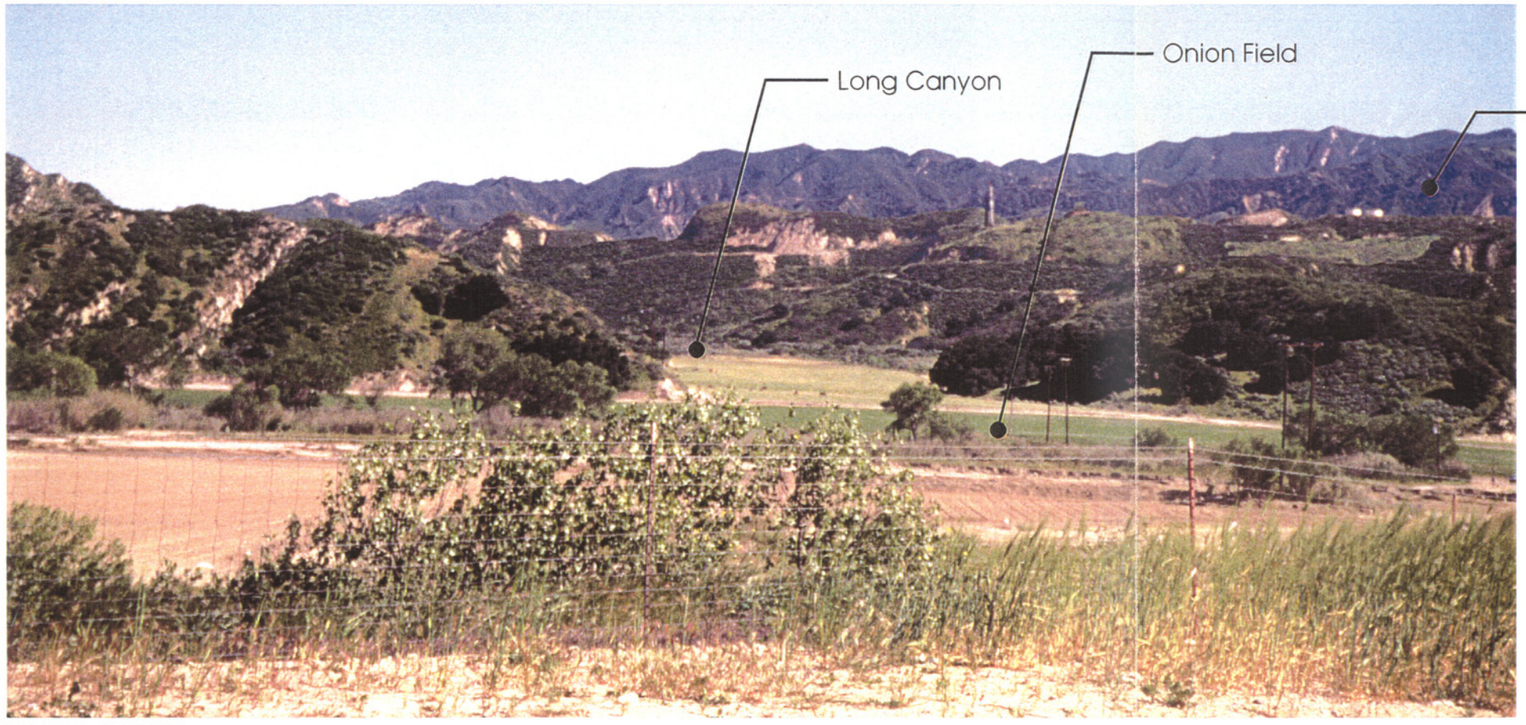
VIEW "2"

LOOKING SOUTH FROM S.R. 126 ACROSS RIVER CORRIDOR TO OAK VALLEY, POTRERO VALLEY AND HIGH COUNTRY

FIGURE 4.7-4

EXISTING VIEW 2

South



East

West

VIEW 3 BEFORE

North

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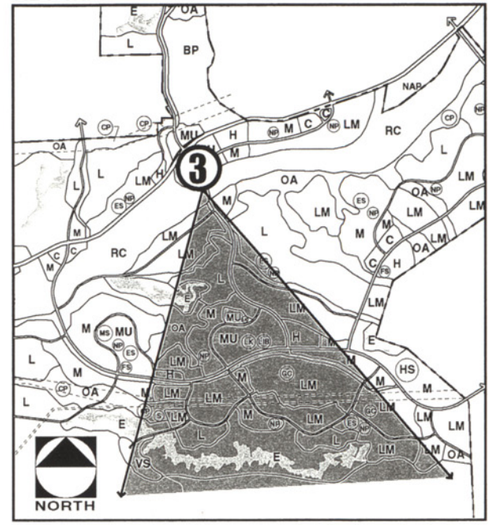
Newhall Ranch Company

KEY MAP



VIEW "3"

LOOKING SOUTH FROM RIVERWOOD ALONG LONG CANYON ROAD

FIGURE 4.7-5

EXISTING VIEW 3

slope facing the River Corridor, in the right middle of this scene. To the left middle of this scene on the east slope is a smaller group of oak trees. Prominent visual features in the foreground view include the steep hillsides that border the southern edge of the River Corridor and the stand of oak trees at the base of the west slope on the right of the photograph.

The middle-ground view is of hilly terrain, rising behind the lower hills adjacent to the River Corridor, and framing a prominent view of the western side of Long Canyon in the center. In this view, the western slopes of Long Canyon contain graded oil pads and access roads.

In the background, hillsides and ridgelines within the Specific Plan site's Santa Susana Mountain High Country SMA are prominently visible. As the highest landscape feature in this view, with a distinctive ridgeline that forms a horizon line against the sky, these landforms are considered prominent visual features.

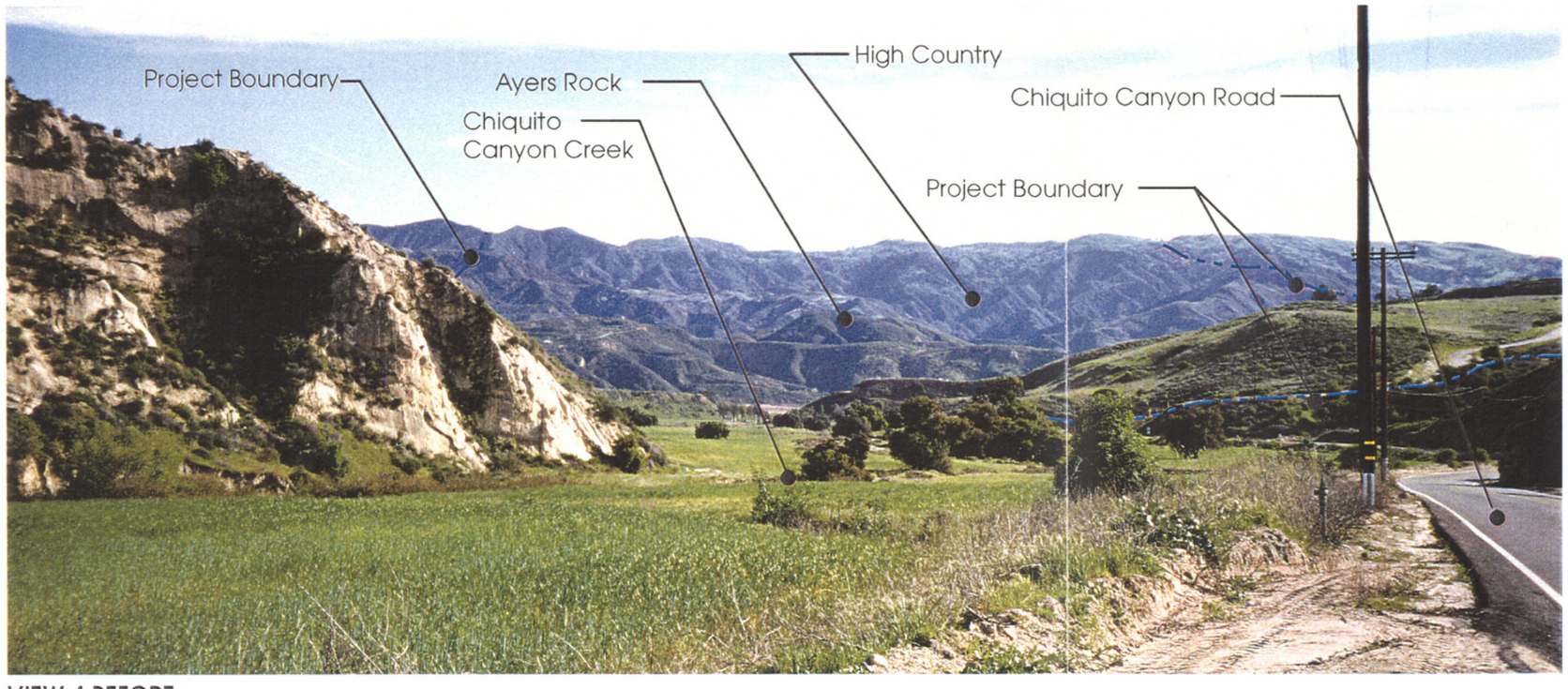
Prominent Visual Features: steep hillsides bordering the southern edge of the River Corridor, portions of the River Corridor itself, the stand of oak trees at the base of the west slope on the right side of the photograph, the stand of oak trees on the flat area in the middle-ground on the left side of the photograph, and the Santa Susana Mountain High Country SMA (all on site).

(4) Viewshed 4

Type of Viewing Audience: Mobile, driving southbound on Chiquito Canyon Road, and a small permanent resident population residing at the southern edge of the community of Val Verde
Length of Time Visible: Approximately 30 seconds to one minute for mobile audience, and 24 hours per day for resident viewing audience

As shown in **Figure 4.7-6,** this view is from the northern edge of the development area, along Chiquito Canyon Road, looking south toward SR-126 and the High Country SMA beyond. In the foreground, a paved roadway (Chiquito Canyon Road) and overhead utility poles form the right edge of the scene, while nearly vertical rock slopes form the left edge east of Chiquito Canyon Creek. Relatively level grassland (former agricultural fields) with scattered oak trees and Chiquito Canyon Creek occupy the center and left foreground views of this scene. Because of their vertical orientation and exposed rock faces, the hillsides on the left edge are considered prominent visual features.

South



East

West

North

VIEW 4 BEFORE

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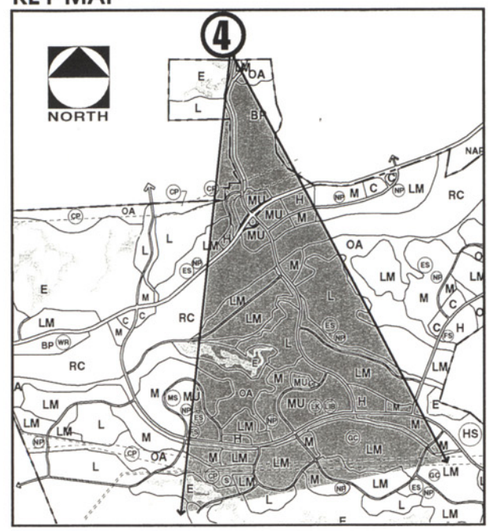
KEY MAP



VIEW "4"

CHIQUITO CANYON LOOKING SOUTH THROUGH RIVERWOOD RESIDENTIAL AND BUSINESS PARK PLANNING AREAS

FIGURE 4.7-6

EXISTING VIEW 4

In the middle-ground view, a continuation of the flat grassland is visible, with several clusters of oak trees in front of a gradually sloping hillside that rises above Chiquito Canyon Road on the right. The oak trees are considered prominent visual features. Along the side of the softly sloping hill on the right is the paved road leading to the County's Del Valle Fire Training Center. This hill is visually subordinate to the much higher mountains found in the High Country SMA beyond.

A series of increasingly higher hills, with numerous slope faces and ridgelines, including Ayers Rock and the primary ridgeline of the High Country SMA that forms the skyline in this view, provide the background for this entire view. The highest mountains in the extreme background are considered prominent visual features because of their visual dominance that frames the middle and foreground views.

Prominent Visual Features: The entire Chiquito Canyon Road Corridor has some visual prominence in that it is natural and undeveloped with such features as the rock face on the hillside on the left edge of the photograph, oak trees, and flatter grassland area. Other prominent features in the photograph include Ayers Rock and the skyline ridgelines of the Santa Susana Mountains both off site and on site in the High Country SMA.

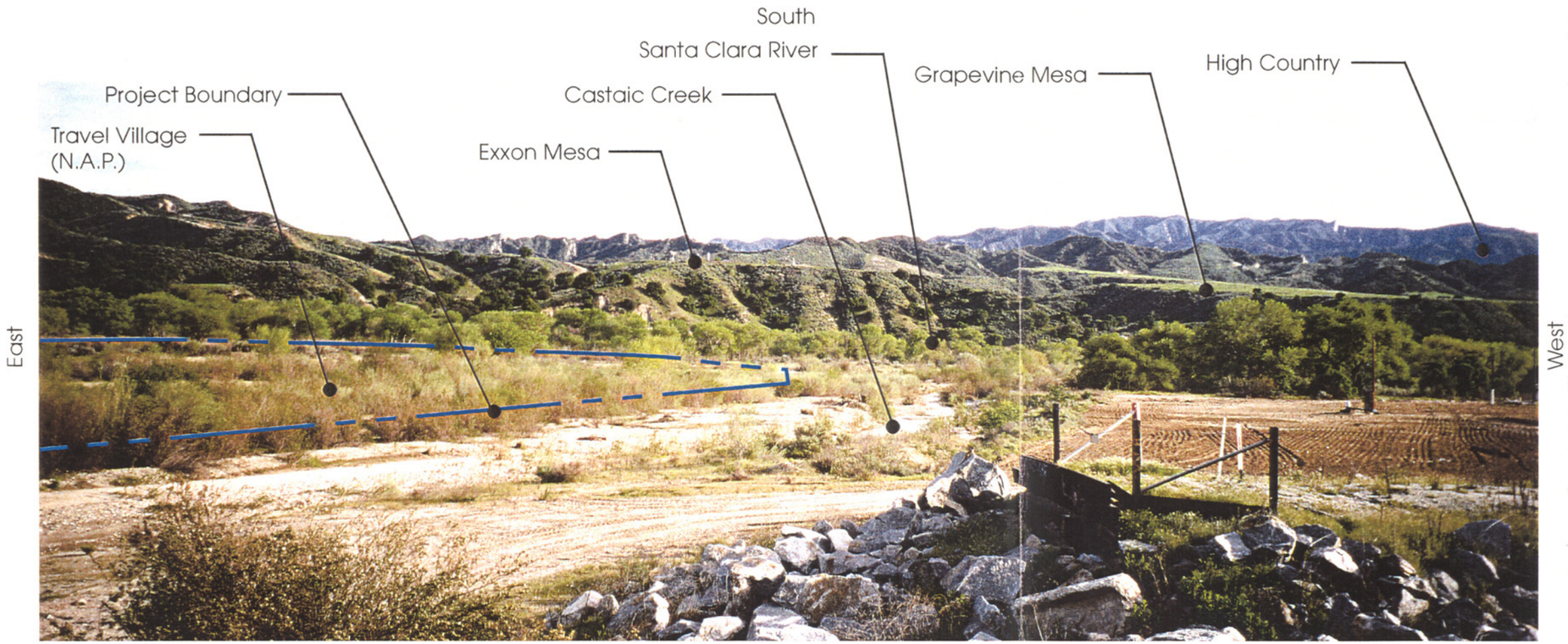
(5) Viewshed 5

Type of Viewing Audience: Mobile, driving east and westbound on SR-126
Length of Time Visible: Approximately 30 seconds to one minute and 30 seconds

Figure 4.7-7 illustrates the view from SR-126, just north of the confluence of Castaic Creek and the Santa Clara River, looking south across the River Corridor toward the Grapevine and Exxon Mesas and the High Country SMA beyond on the right edge of this scene.

The foreground view is of the sparsely vegetated Castaic Creek bottom on the left, open, cultivated land on the right, and the more heavily vegetated Santa Clara River Corridor framing the back. The River Corridor, due to its thicker River vegetation, is considered a prominent visual feature.

The relatively flat, open mesas and adjoining River bluffs are visible within the middle-ground scene. From this view, Grapevine Mesa is visually prominent, as it provides a horizontal/linear element that visually separates the River bluffs below from the High Country SMA above. The River bluffs and the oak trees which exist on them are also considered visually prominent as they form the backdrop for the River Corridor.



VIEW 5 BEFORE

North

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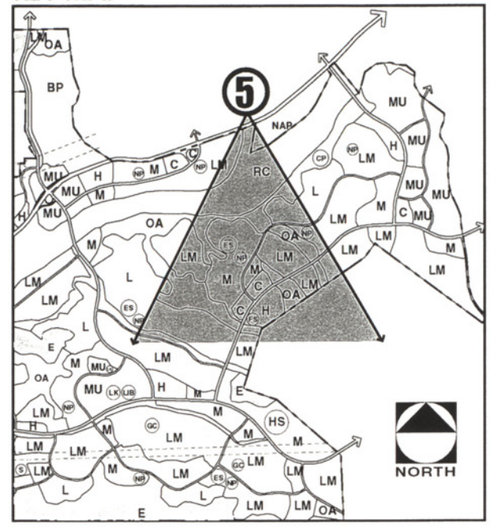
KEY MAP



VIEW "5"

LOOKING SOUTH FROM S.R. 126 AT CASTAIC CREEK ACROSS THE SANTA CLARA RIVER CORRIDOR TO THE MESAS

FIGURE 4.7-7

EXISTING VIEW 5

The upper slopes and skyline ridgelines of the Santa Susana Mountains, both off site (on the left of the photograph) and on site in the High Country SMA (on the right) form a dominant background landscape in a portion of this view. These mountains are considered prominent visual features in this view.

Prominent Visual Features: the River Corridor, Exxon and Grapevine Mesas, the River bluffs, the oak trees which exist on them (all on site) and the upper slopes and skyline ridgelines of the Santa Susana Mountains both off site and on site in the High Country SMA.

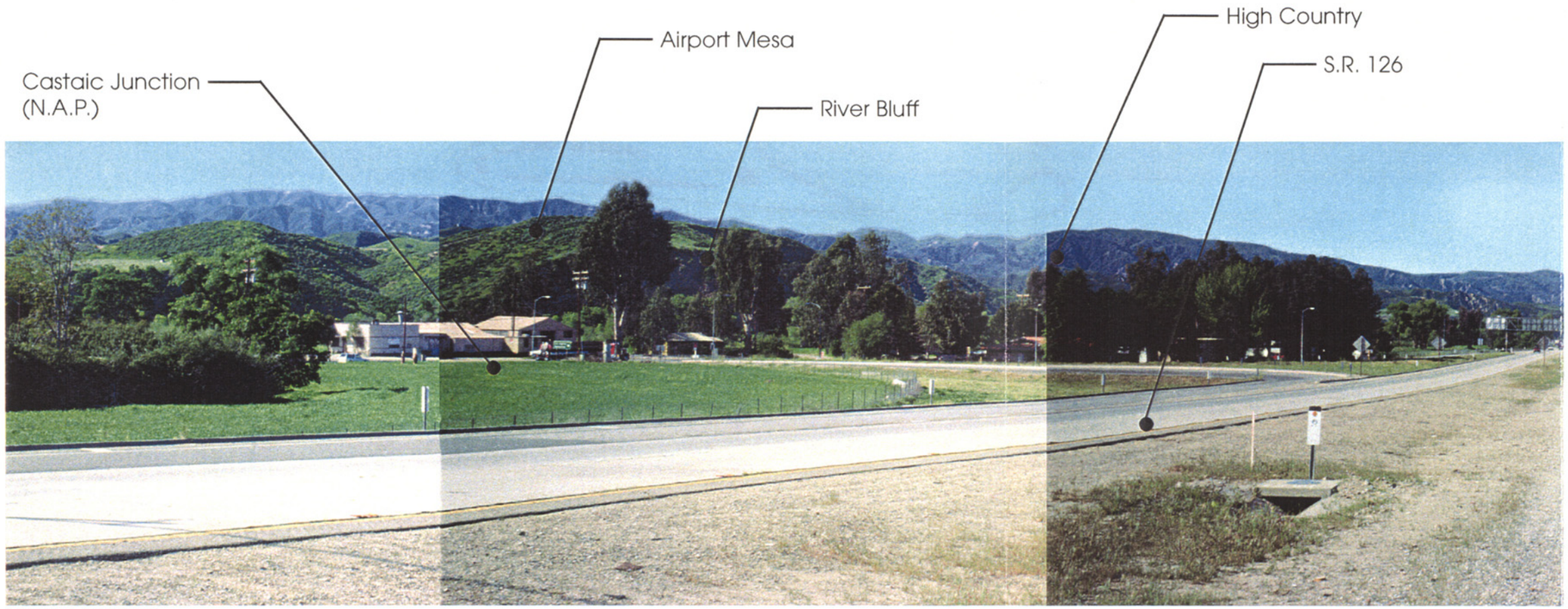
(6) Viewshed 6

Type of Viewing Audience: Mobile, driving westbound on SR-126
Length of Time Visible: Approximately 30 seconds

The view shown on **Figure 4.7-8** is what greets motorists traveling westbound along SR-126, just west of I-5. A person traveling at this location would be looking southwest along SR-126 toward Airport Mesa, which is located at the northeastern portion of the development area.

Foreground views are dominated by a variety of man-made features that are off the Specific Plan site. When viewing from right to left on **Figure 4.7-8**, features include the paved highway lanes and bare ground center median of SR-126, and low-intensity industrial uses, a variety of traffic controls, lighting facilities and ornamental landscaping all within the area known as Castaic Junction. Mature trees of various ornamental species are prominently visible on the left (south) side of SR-126, and act to partially screen a group of buildings located amongst the trees. Both the trees and buildings act to fully block views of the Santa Clara River which is located just behind Castaic Junction in this photo, and partially obscure views of the River vegetation and bluffs which are part of the middle-ground view. None of the man-made or natural elements in the foreground view are considered prominent visual features.

On the left side of SR-126, glimpses of the hills that form the base of Airport Mesa, which is on the Specific Plan site on top of the River bluffs, are available through the mature trees in the foreground. A continuation of the mature trees on developed properties along the left (south) side of SR-126 obscures views of the River Corridor and River bluffs beyond. The only prominent visual feature which occurs within the middle-ground view are the hills that form the base of Airport Mesa.



VIEW 6 BEFORE

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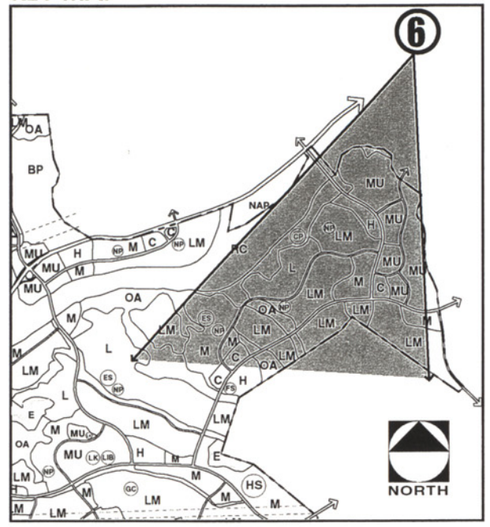
KEY MAP



VIEW "6"

LOOKING SOUTHWEST FROM CASTAIC JUNCTION (I-5/S.R. 126 INTERSECTION) ALONG RIVER CORRIDOR AND THE MESAS

FIGURE 4.7-8

EXISTING VIEW 6

The visually dominant ridgeline and uppermost slopes of the Santa Susana Mountains (including the High Country SMA) are the prominent visual features in the background view. However, only a small portion of the distant mountains are visible from this location on the Specific Plan site. This landform creates a prominent backdrop for the closer landscape elements.

Prominent Visual Features: The hills that form the base of Airport Mesa (on site) and the higher elevations of the Santa Susana Mountains including High Country SMA (off and on site)

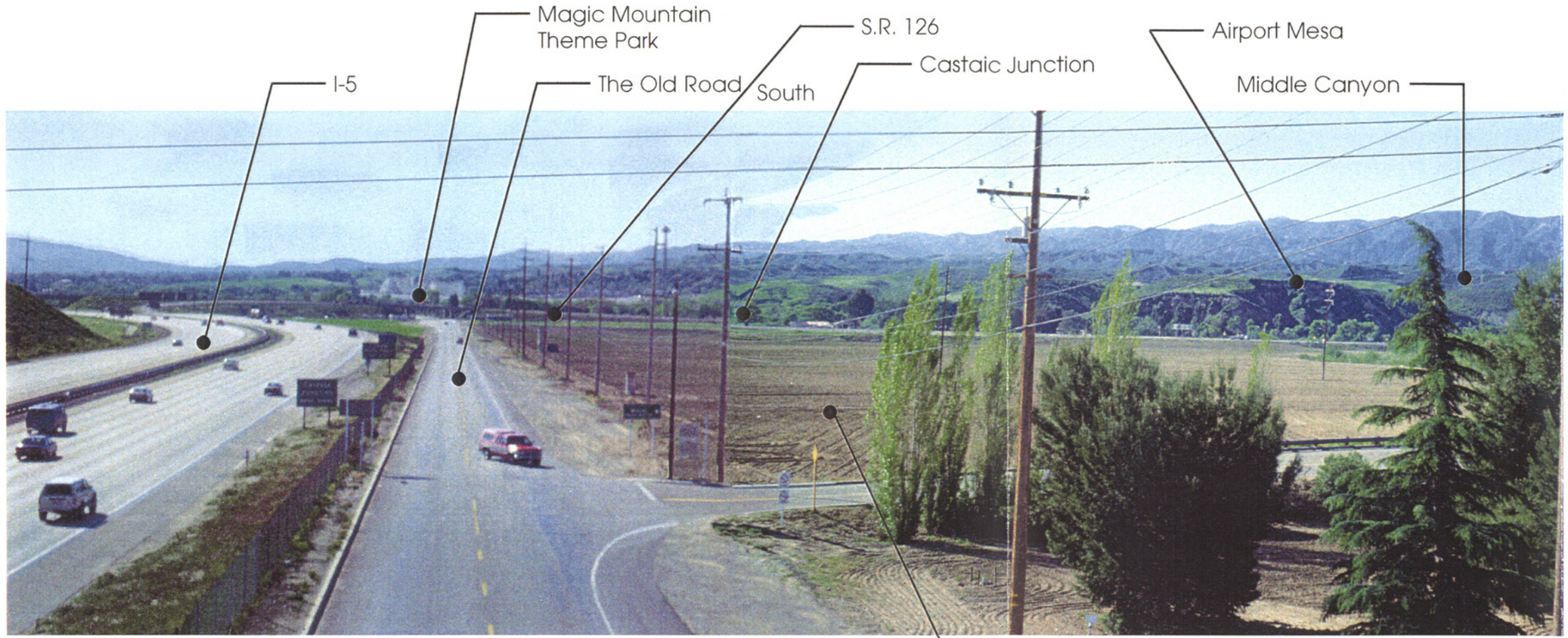
(7) Viewshed 7

Type of Viewing Audience: Mobile, driving southbound on I-5 and elevated nearby residential areas
Length of Time Visible: Approximately 30 seconds to one minute for motorists and 24-hours for nearby elevated residential neighborhoods

As shown on **Figure 4.7-9**, this viewing location is at an elevated freeway overpass (Biscailuz Drive) which crosses I-5 approximately one half mile north of the I-5/SR-126 interchange. The view is looking south toward Castaic Junction, as well as Airport Mesa and Middle Canyon, which are on the Specific Plan site. This view was selected as a worst case representation of typical impacts on views of motorists traveling southbound on I-5 and from nearby elevated residential areas.

Man-made features dominate the foreground view. From left to right, such features include views of the I-5 freeway, The Old Road, overhead utility poles and lines, cultivated land, and a cluster of various ornamental trees. None of these features are visually prominent. The land that is cultivated is the site of the Valencia Commerce Center. The Commerce Center is an approved Los Angeles County project in the process of development. When completed, structures would be placed in this view which would range in height between 20 and 25 feet. These future structures will block views to the west from I-5, which is at a lower elevation than the view in **Figure 4.7-9**. The completion of the Commerce Center will render this view nearly totally urban in character.

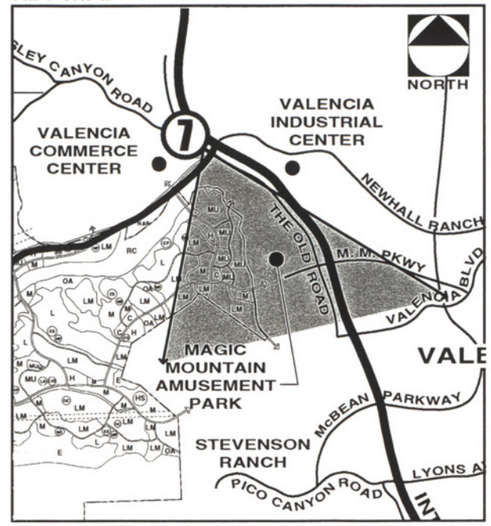
In the middle-ground view, SR-126 is intermittently visible, between utility lines and tree tops, as a horizontal line feature that visually and physically separates the cultivated land from Castaic Junction. On the left side of this scene, the continuation of the I-5 freeway, The Old Road and overhead utility line features first seen in the foreground are visible. In the middle of this photo, River vegetation and adjoining River bluff faces are visible behind SR-126 and Castaic Junction. However, at this distance, only the River bluffs are considered a prominent visual feature because of their dramatically darker appearance.



VIEW 7 BEFORE

NEWHALL RANCH™
Newhall Ranch Company

KEY MAP



VIEW "7"

LOOKING SOUTH FROM I-5 APPROACHING THE PROJECT TO THE MESAS

FIGURE 4.7-9

EXISTING VIEW 7

The background in this view is formed by the Santa Susana Mountains (including the High Country SMA) which extend across the entire scene with a continuous ridgeline which defines the skyline in this area. Only a very small portion of the High Country SMA is visible in the right side of this view. On the left side of this scene, a white roller coaster structure and a tall observation tower within the Magic Mountain Theme Park are visible. Given their height in relation to foreground and middle-ground features, the mountains are a prominent visual feature.

Prominent Visual Features: River bluffs (on site) and the higher elevations of the Santa Susana Mountains (off site) and High Country SMA (on site).

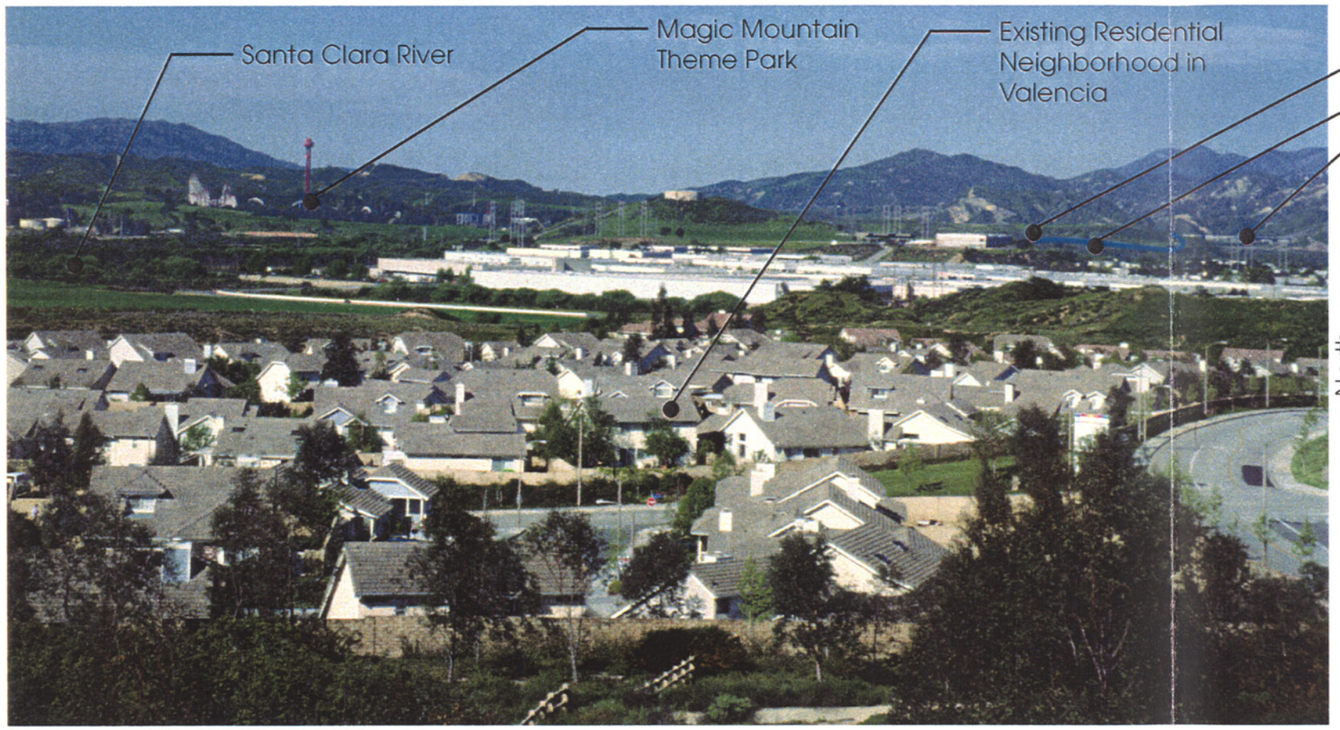
(8) Viewshed 8

Type of Viewing Audience: Permanent Resident Population
Length of Time Visible: 24 hours per day

As shown on **Figure 4.7-10**, this view is from an elevated residential neighborhood located north of Newhall Ranch Road, in Valencia, looking west beyond I-5, toward the Magic Mountain Theme Park and the eastern side of the Specific Plan site. This viewing location was selected to represent the typical view available from certain hillside residential neighborhoods found in Valencia and the City of Santa Clarita. An elevated site was selected because views of the site from non-elevated neighborhoods on the Valley floor are generally not available due to the view-blocking effects of intervening topography, vegetation, and structures.

The foreground and middle-ground views are dominated by man-made features, which are located completely off the Specific Plan site, on the east side of I-5. Visible features include numerous rooftops in a residential neighborhood, an adjacent collector street, intermittent ornamental landscape features, white industrial buildings in the Valencia Industrial Park, and cultivated farmland. River vegetation, part of the Santa Clara River, is also visible in this view. Other noticeable man-made features include a water tank on a hill behind the industrial park, the observation tower and roller coaster structures within the Magic Mountain Theme Park, and overhead power line towers that are intermittently visible throughout the scene. The rolling hills that comprise the eastern edge of the Specific Plan site are intermittently visible behind and to the right of the Magic Mountain Theme Park. The only visually dominant features present in the foreground and middle-ground views are off the Specific Plan site.

West



South

North

East

VIEW 8 BEFORE (ZOOM VIEW)

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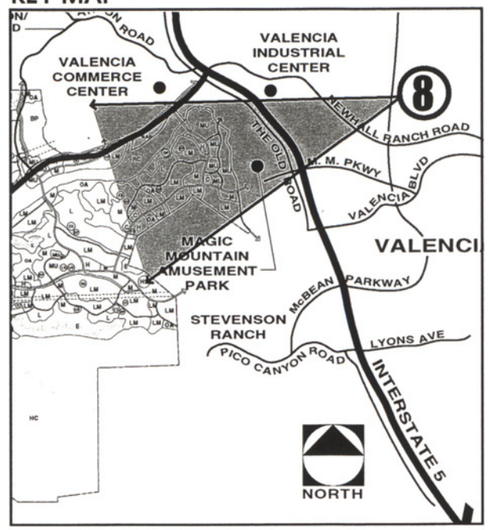
Newhall Ranch Company

KEY MAP



VIEW "8"

LOOKING WEST FROM HIGHER ELEVATION RESIDENTIAL NEIGHBORHOODS OF VALENCIA AT THE MESAS MIXED USE PLANNING AREAS

FIGURE 4.7-10

EXISTING VIEW 8

As with each of the previous viewsheds, the relatively high Santa Susana Mountains (including the High Country SMA) form a conspicuous visual backdrop, and are therefore considered a prominent feature.

Prominent visual features: Man-made features (Magic Mountain Theme Park off site), and the Santa Susana Mountains (off site) and the High Country SMA (on site).

(9) Viewshed 9

Type of Viewing Audience: Mobile, driving north and southbound on Interstate 5
Length of Time Visible: Approximately 30 seconds to one minute

As shown on **Figure 4.7-11**, this view is from a location just east of I-5, between Magic Mountain Parkway and SR-126, looking southwesterly across the freeway toward the River Corridor and the eastern side of the Specific Plan site. This view is available for a few seconds to motorists traveling along the northbound or southbound side of I-5, but would require drivers and passengers to turn their heads away from the road to experience the full view.

The foreground view is predominately of a flat cultivated field (off site) bordered by the Santa Clara River (also off site) and a band of hills, Airport Mesa primarily, rising behind the Santa Clara River Corridor (on site). While presently vacant, the agricultural field visible here is zoned for industrial and commercial uses, which is a continuation of urbanization that is already planned for the I-5 corridor.

The hillsides are the only visible portion of the development area in this view and comprise the entire middle-distance landscape feature. A very limited view of existing development is visible at the base of the hills at the right and left edges of view (the U.S. Postal Facility in the Valencia Commerce Center, and the Magic Mountain Theme Park, respectively). River vegetation along the base of the low hills and the hills themselves are considered prominent visual features.

Beyond these lower hills, the higher mountains are only partially visible, and are therefore not considered a prominent visual feature.

Prominent Visual Features: River vegetation (off site) and the hills that form the Mesas (on site).

Magic Mountain Theme Park

Project Boundary

Airport Mesa West

River Bluff

U.S. Postal Facility

South



North

VIEW 9 BEFORE

East

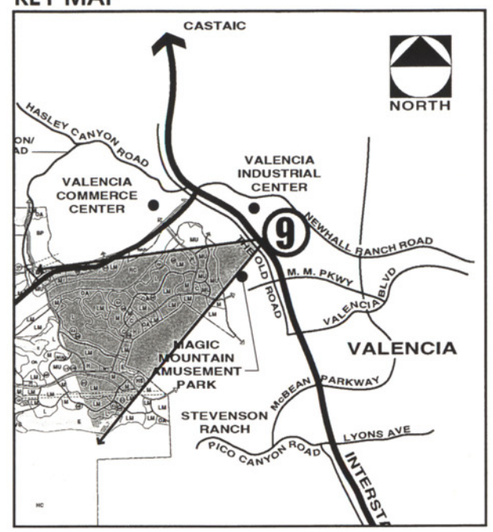
Existing Commercial Land Use & Zoning

Existing Industrial Land Use & Zoning

NEWHALL RANCH™

Newhall Ranch Company

KEY MAP



VIEW "9"

LOOKING WEST FROM I-5 TO THE MESAS MIXED USE PLANNING AREAS

FIGURE 4.7-11

EXISTING VIEW 9

(10) Viewshed 10

Type of Viewing Audience: Transitory Recreational Population
Length of Time Visible: 24 hours per day

As shown on **Figure 4.7-12**, this view is from an elevated trail located southeast of the site in the Santa Susana Mountains, looking north toward the eastern side of the Specific Plan site, the Magic Mountain Theme Park and the Castaic Dam. This viewing location was selected to represent the typical view available from an elevated trail system. An elevated site was selected because views of the site from non-elevated recreational areas are generally not available or are partially blocked due to the view-blocking effects of intervening topography, vegetation, and structures.

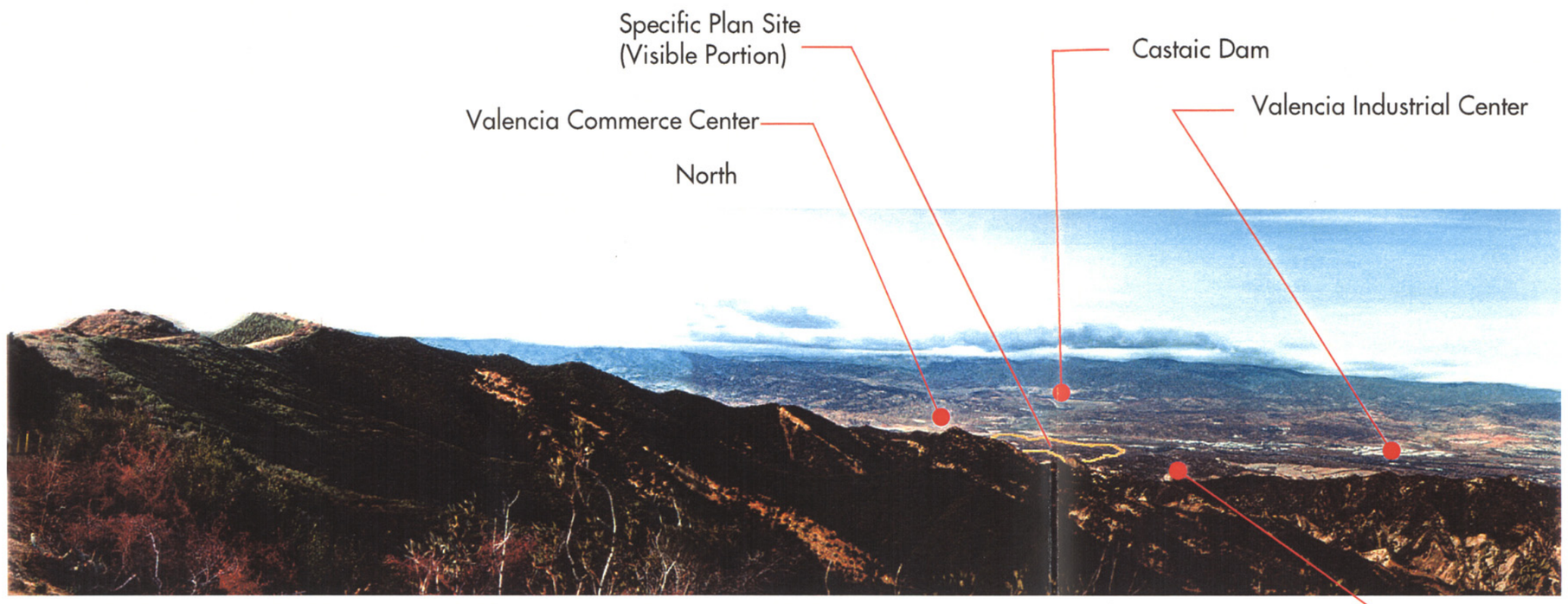
The foreground and middle-ground views are dominated by natural landforms, which are located completely off the Specific Plan site. Visible features include the relatively steep terrain of the Santa Susana Mountains. Distant views include man-made and natural features. Distant man-made features include lighter colored buildings associated with the Valencia Industrial Park, Castaic Dam, and the I-5 freeway corridor. Natural features include the relatively high mountains associated with the Angeles National Forest. The rolling hills that comprise the eastern edge of the Specific Plan site (primarily Airport Mesa) are also distantly visible from this location. All visually dominant features present are off the Specific Plan site.

The mountains of the Angeles National Forest form a conspicuous visual backdrop, while the mountains visible in the foreground dominate the available view. They are, therefore, considered prominent features.

Prominent Visual Features: The Angeles National Forest and the Santa Susana Mountains (both off site).

4. PROPOSED IMPROVEMENTS

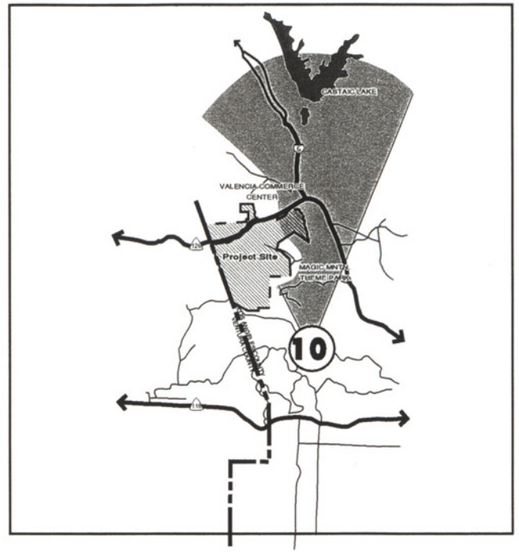
Due to the view-blocking effects of intervening topography, much of the area proposed for development is not visible at all from locations off the Specific Plan site. Specific examples of this are development areas proposed for middle and upper Potrero Canyon, and the upland portions of Airport Mesa not directly on the bluff edge. As proposed, approximately 5,852 acres (or 49 percent) of the total Specific Plan area would remain in Open Area and Special Management Areas (SMAs), including: the High Country SMA; the vegetated River Corridor SMA and adjoining bluffs; most of the steep canyons covered with oak trees on the south side of the River; significant topographic features, such as



VIEW "10"

NEWHALL RANCH™
Newhall Ranch Company

KEY MAP



VIEW "10"

LOOKING NORTH FROM
RIM OF THE VALLEY TRAIL

FIGURE 4.7-12
EXISTING VIEW "10"

Sawtooth Ridge and Ayres Rock; and other Open Area. A localized feature of the Specific Plan is the Low-Medium Residential uses proposed for the small northern area near the Specific Plan boundary adjacent to the community of Val Verde. In order to achieve compatibility with existing residential uses in Val Verde, the type of development proposed by the Specific Plan at this location is the same as that found in the southern portion of Val Verde (in terms of type of structure and intensity).

Key design features incorporated into the Specific Plan include, but are not limited to:

- the preservation of natural Santa Clara River vegetation and River bluffs,
- the preservation of canyons tributary to the Santa Clara River and other Open Area,
- the placement of the regional River Trail in between SR-126 and the River,
- the regulation and limitation of urban uses between SR-126 and the River which create large windows for viewing the River Corridor, the River bluffs and Santa Susana Mountains from SR-126,
- the preservation of the High Country SMA,
- the preservation of significant topographic features, such as Sawtooth Ridge and Ayers Rock,
- the installation of landscaping, and
- the preservation of significant oak tree stands (less than 4 percent of the estimated 16,000+ oak trees would be impacted).

Chapters 3 and 4 of the Specific Plan contain proposed Development Regulations and Design Guidelines, respectively. The reader is referred to those chapters of the Specific Plan for the complete list. The Development Regulations and Design Guidelines are intended to provide a comprehensive set of regulations governing the use and development of land which achieve a developed image that blends pleasantly into adjoining natural landscapes and reduces the amount of alteration of natural landforms and scenic natural features found on the Specific Plan site. The Specific Plan also includes landscape standards directing the use of drought-tolerant and native plants (including the replacement of removed oak trees) that would further highlight the natural surrounding environment. As a result, the built environment's dominance within the natural terrain will be reduced. Development Regulations and Design Guidelines are proposed that address:

- setbacks (Development Regulations, Specific Plan Chapter 3.4, Table 3.4-1),
- building heights (Development Regulations, Specific Plan Chapter 3.4, Table 3.4-1),
- signage (Development Regulations, Specific Plan Chapter 3.6),
- parking (Development Regulations, Specific Plan Chapter 3.7),
- site planning (Design Guidelines, Specific Plan Chapter 4.3),
- architecture (Design Guidelines, Specific Plan Chapter 4.4),
- fencing (Design Guidelines, Specific Plan Chapter 4.5),

- landscape design (Design Guidelines, Specific Plan Chapter 4.6),
- lighting (Design Guidelines, Specific Plan Chapter 4.7), and
- grading (Design Guidelines, Specific Plan Chapter 4.8).

In conjunction with the development review process set forth in Chapter 5 of the Specific Plan, all future subdivision maps and other discretionary permits which allow construction shall incorporate the Development Guidelines (Specific Plan Chapter 3) and Design Guidelines (Specific Plan Chapter 4), and the design themes and view considerations listed in the Specific Plan.

In addition to the Residential, Commercial and Business Park uses proposed, a water reclamation plant is included in the Specific Plan that will be located on the south side of SR-126 near the Ventura County line. Given that the County General Plan allows urban development to occur along First Priority Scenic Routes, the Specific Plan also would delete, from the County's Scenic Highways Element, SR-126's status as a "First Priority Scenic Route." In its place would be the provisions of the Specific Plan.

5. SIGNIFICANCE THRESHOLD CRITERIA

Significant visual impacts are generally defined, in Appendix G of the CEQA Guidelines, as effects which "[h]ave a substantial, demonstrable negative aesthetic effect."[2] This definition is open to interpretation and is difficult to apply in the absence of more specific and local criteria which define the types of changes that are considered to be "substantially, demonstrably negative." The County of Los Angeles Environmental Document Reporting and Procedures Guidelines provide the following, more detailed, criteria for determining whether a project's changes in the existing landscape could be considered adverse or significant. If a project meets one or more of the listed criteria to a substantial degree, it can be concluded that the project could result in a significant visual impact. The County criteria include consideration of the following:

1) Is the project adjacent to a visual corridor? [And would the project substantially affect a visual corridor?]

Three corridors from which the Specific Plan site can be viewed include the Santa Clara River/SR-126 Corridor; the Interstate 5 Corridor; and the Chiquito Canyon Road Corridor. SR-126, while not an adopted County "Scenic Highway," is identified in the County Scenic Highway Element of the County General Plan as a "First Priority Scenic Route," which is proposed for further study, but carries no regulatory restrictions or significance. The County's General Plan Conservation and Open

2 California Environmental Quality Act, CEQA Guidelines, as amended January 1, 1995.

Space Element contains a policy directed at the protection of scenic resources found along officially designated and first priority proposed scenic highways. The policy is as follows: "Protect the visual quality of scenic views from public roads, trails and key vantage points." However, the County General Plan allows urban development to occur along Scenic Highways and First Priority Scenic Routes.

2) Does the project obstruct unique views from other development or vantage points?

Ten viewsheds were analyzed to determine whether the Specific Plan would result in partial or complete blockage of prominent features which contribute to the quality of the view.

3) Is the project out of character in an area with unique aesthetic features?

Under this criteria, a determination was made as to whether the Specific Plan would result in a substantial change in the existing view, particularly a change within a view corridor from non-urban to urban.

4) Does the scale (height, bulk) of the project exceed that existing in the surrounding area. (Usually applies within already urbanized areas)?

This criteria was applied to the few locations where the Specific Plan land uses would be adjacent to existing development.

5) Does the project result in sun/shadow effects on adjacent land uses?

This criteria was applied by examining the two locations at which the Specific Plan would be immediately next to existing development (on the south side of the community of Val Verde and on the west side of the Magic Mountain Theme Park), and by analyzing the potential daytime and nighttime light and glare (light reflection) impacts of the Specific Plan.

Each of these five criteria are discussed below in relation to the proposed Specific Plan.

6. SPECIFIC PLAN IMPACTS

a. Impacts on Visual Corridors and Unique Aesthetic Features (Threshold Criteria 1, 2, and 3)

As described above, three visual corridors exist from which the Specific Plan site can be viewed: the Santa Clara River/SR-126 corridor, the Chiquito Canyon Road corridor and the Interstate 5 corridor. Of the ten viewsheds assessed under existing conditions, viewshed numbers 1, 2, 3, and 5 are within the Santa Clara River/SR-126 corridor, viewshed number 4 is within the Chiquito Canyon Road corridor, and viewshed numbers 6, 7, and 9 are within the Interstate 5 corridor.

A visual corridor would be one that contains individual natural features which are uncommon or unique in the County. The following discusses the potential impacts of the Specific Plan on each visual corridor and the viewsheds located within them.

(1) Santa Clara River/SR-126 Corridor

This corridor contains the following features which would be seen as scenic:

- the Santa Clara River and its associated riparian vegetation,
- intermittent farmland primarily in the form of row crops,
- the River bluffs and steep canyons which rise up from the River on its southern bank,
- the various stands of oak trees,
- the mesas, which are elevated above the River Corridor and are partially visible,
- Sawtooth Ridge and Ayres Rock, which stand out in sharp contrast due to their exposed rock faces, and
- the higher elevations of the Santa Susana Mountains (off site), which include the Specific Plan-proposed High Country Special Management Area (on site).

The following viewsheds within the Santa Clara River/SR-126 Corridor were analyzed to determine the impact of the Specific Plan on the above aesthetic features.

(a) Viewshed 1 - Santa Clara River/SR-126 Corridor

Type of Viewing Audience: Mobile, driving eastbound on SR-126
Length of Time Visible: Approximately 30 seconds to one minute

Figures 4.7-13 A and **B** simulate the post-development view from viewshed 1. As shown, the foreground area of this view is primarily within Ventura County where no development is proposed. Viewing from left to right on the figures, the Business Park and water reclamation plant (WRP) are visible in the middle-ground, on the north (left) side of the Santa Clara River. Crossing the River to the south (right) is the proposed Potrero Valley Road bridge which leads to the Oak Valley Village. Behind the bridge and above the River, Low and Medium Residential development would be visible within the Village of Long Canyon. Barely visible in this area of the viewshed is the Village of The Mesas in the distant background. The most visible development, in the Village of Oak Valley, is located in the middle-ground on Potrero Mesa. Viewing further to the right of the bridge, more Low and Medium Residential development would be visible on the hilltops in the Village of Oak Valley which overlook the River Corridor. Due to its height and the fact that it would intersect with the skyline, this portion of the development area would be the most prominent in this viewshed.

Prominent visual features identified in this viewshed include the River Corridor, River bluffs, hilltops, the opening to Salt Creek Canyon, Sawtooth Ridge, (all on site) and exposed rock faces and the main ridgelines in the background (mostly on site). Views of these prominent visual features which will be partially or fully obstructed by proposed development are indicated below.

Prominent Visual Features Partially Obstructed: River Corridor and the hilltops adjacent to the River, the High Country SMA, Santa Susana Mountain ridgelines and The Mesas.
Prominent Visual Features Fully Obstructed: None.

Level of Impact: The view-blocking impacts of the proposed development would not be considered significant in this viewshed given the distance at which development would occur, the fact that only a small amount of view-blocking would occur, and length of time these views are available (approximately 30 seconds to one minute). The visual impact, both in terms of character and scale, would be significant. That is, the visual character of this viewshed would be significantly changed as urban development would be placed in an otherwise rural, open area that lacks development of any scale. This change in visual character and scale would be considered a significant impact to motorists traveling eastbound on SR-126.

East

PROJECT BOUNDARY

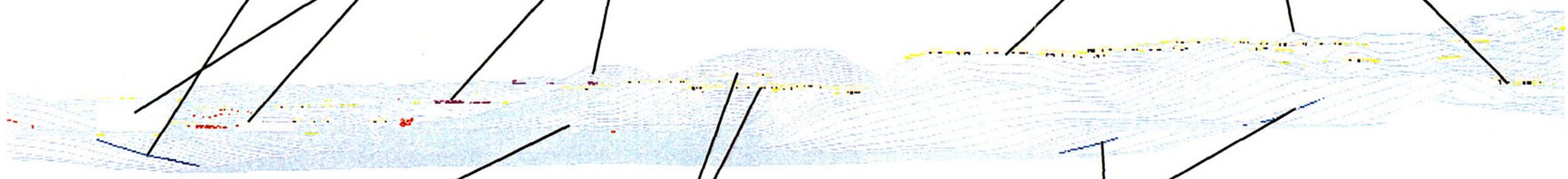
WATER RECLAMATION PLANT

BUSINESS PARK

ESTATES, LOW AND LOW MEDIUM RESIDENTIAL NEIGHBORHOODS

OAK VALLEY LOW AND LOW MEDIUM RESIDENTIAL NEIGHBOR HOODS

North



South

POTRERO VALLEY RD. BRIDGE/RIVER CORRIDOR CROSSING

OAK VALLEY RESIDENTIAL NEIGHBORHOODS ON POTRERO MESA

PROJECT BOUNDARY (L.A./VENTURA COUNTY LINE)

West

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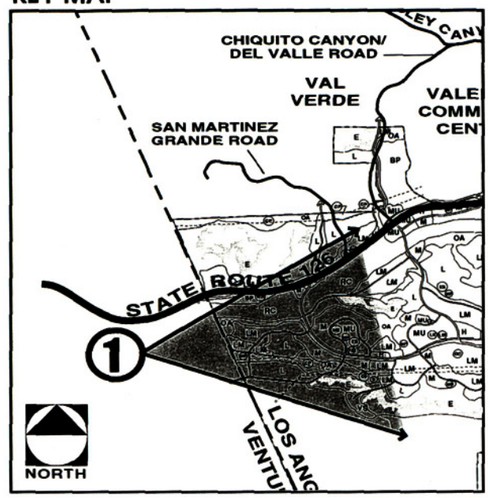
KEY MAP



VIEW "1"

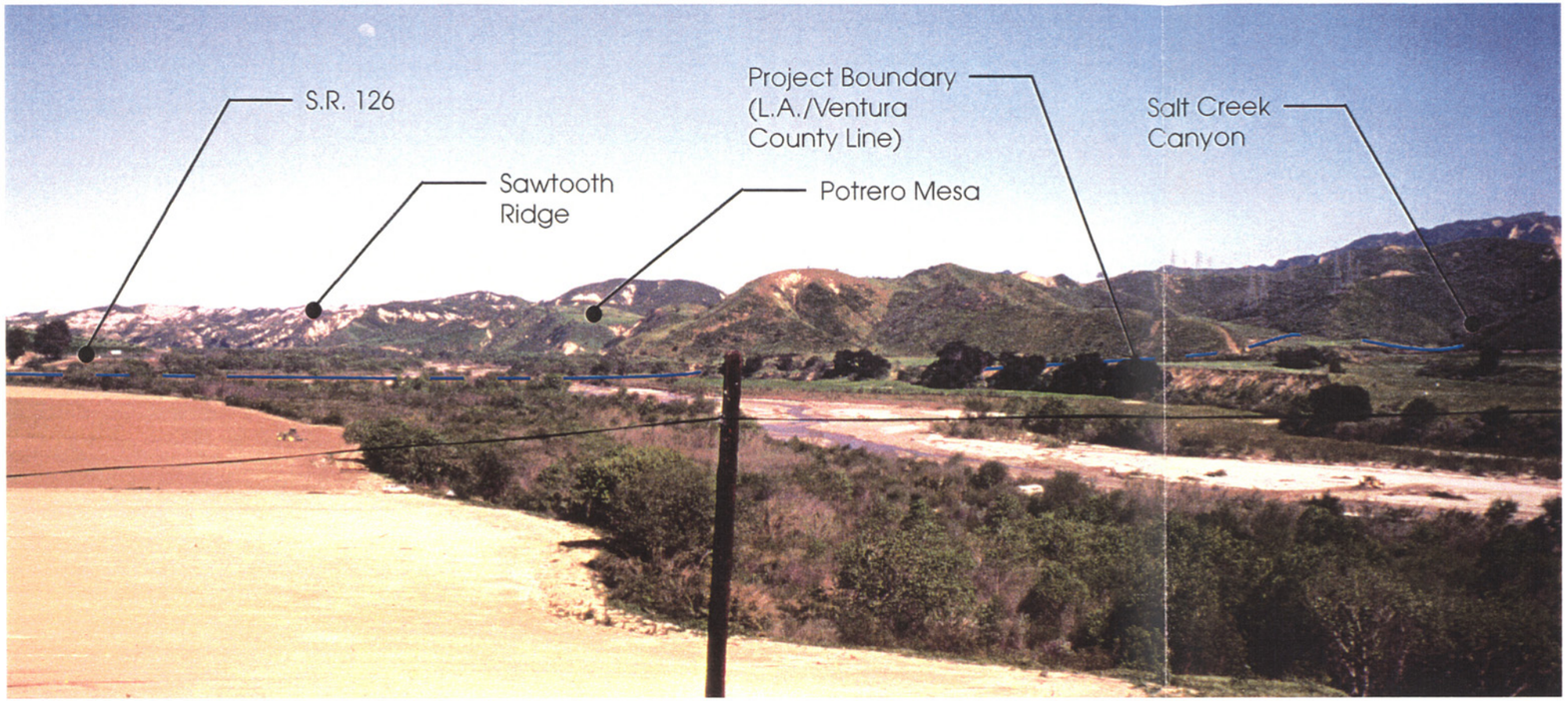
LOOKING SOUTHEAST TO THE PROJECT FROM VENTURA COUNTY AT STATE ROUTE 126 AND THE SANTA CLARA RIVER CORRIDOR

NOTE: Computer Modeling based on Land Use Plan and Preliminary Grading Studies. Building structures represent maximum height per Development Regulations.

FIGURE 4.7-13A

POST-DEVELOPMENT VIEW 1

East



North

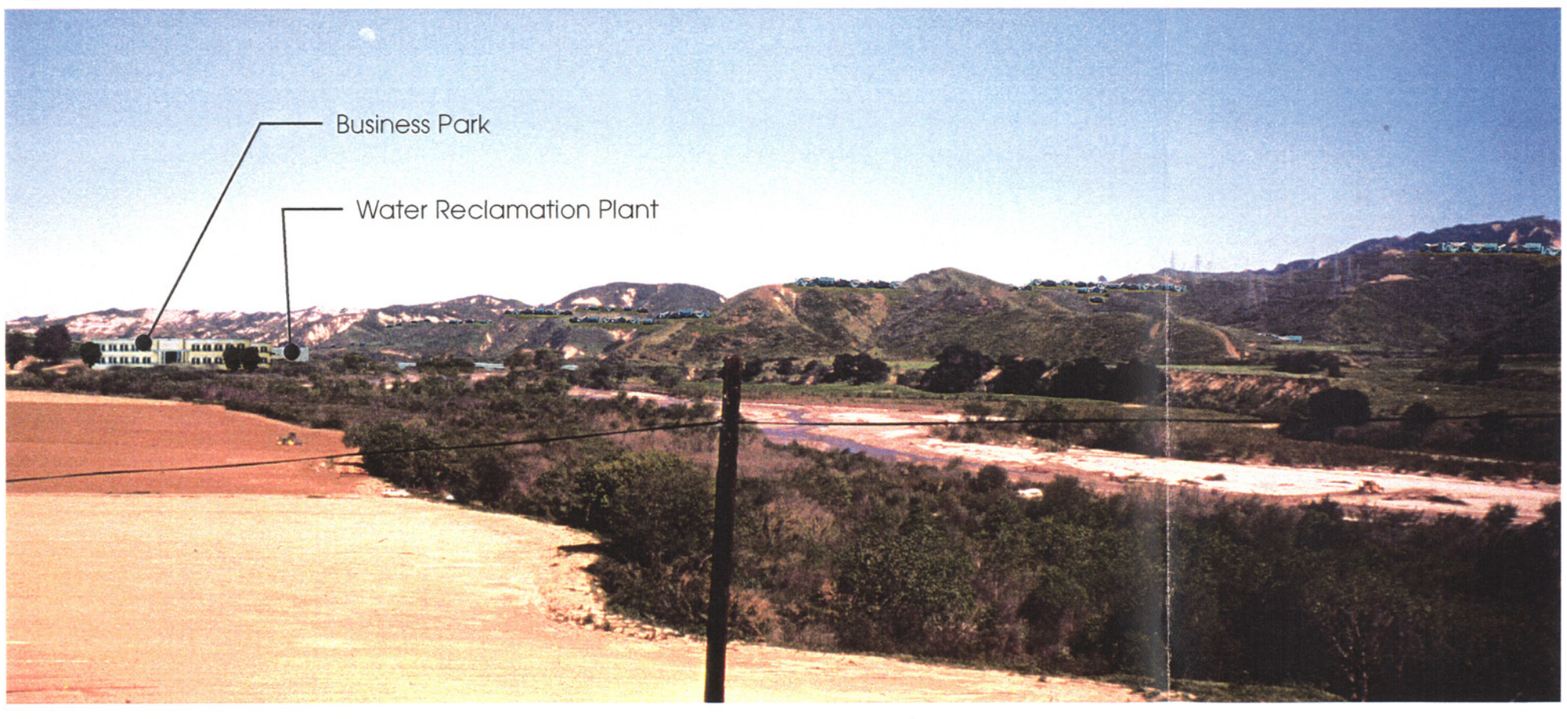
South

West

VIEW 1 BEFORE

East

VIEW 1 AFTER



North

South

West

NEWHALL RANCH™
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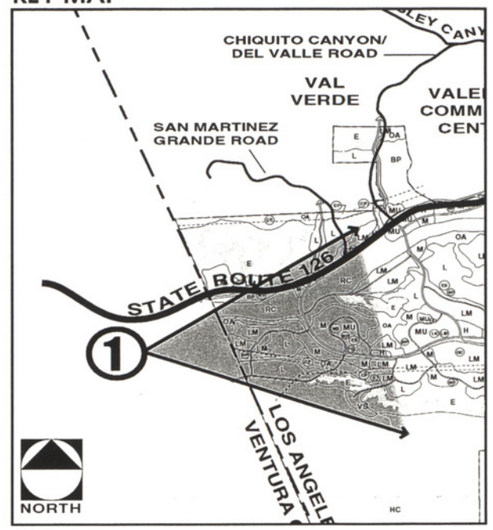
KEY MAP



VIEW "1"

LOOKING SOUTHEAST TO THE PROJECT FROM VENTURA COUNTY AT STATE ROUTE 126 AND THE SANTA CLARA RIVER CORRIDOR

NOTE: Artist's interpretation based on computer generated model on preceding page.

FIGURE 4.7-13B

POST-DEVELOPMENT VIEW 1

(b) Viewshed 2 - Santa Clara River/SR-126 Corridor

Type of Viewing Audience: Mobile, driving east and westbound on SR-126
Length of Time Visible: Approximately 30 seconds

Figures 4.7-14 A and B simulates post-development views from viewshed 2. As shown from left to right, the foreground view would be altered by the proposed Potrero Valley Road bridge and by Low and Medium Residential development on top of the River bluffs immediately behind the River Corridor in the Village of Oak Valley. The bridge structure would be partially shielded from view by riparian vegetation along the River, but the Residential development above would be visible.

The center of the figure provides a view up lower Potrero Canyon. The bottom, or front, of lower Potrero Canyon is in the Village of Oak Valley, and the top, or back, of lower Potrero Canyon is in the Village of Potrero Valley. Middle-ground views would be altered by Medium Residential development below in Oak Valley behind which is a visually prominent stand of oak trees on a rolling hillside. This hillside is proposed to be the Oak Valley Community Park, so it would not be visually altered except that park-related development planned for portions of the park may be apparent in the future.

The right side of the viewshed would be altered by Low-Medium Residential development. To accommodate this development, the top of the visually prominent hill above the River bluff top would be lowered by grading; however, the bluff will remain. The background view would be altered by Estate Residential development above in the Village of Potrero Valley. The background view of the Santa Susana Mountains and the High Country SMA would not be altered by development.

While not shown on **Figure 14B**, north of SR-126, views would be available of Estate, Low, and Low-Medium Residential uses. Also visible would be the Mixed-Use area at the intersection of SR-126 and Chiquito Canyon Road.

Prominent visual features in this viewshed include the River Corridor, River bluffs and the hills above them, oak trees in Lower Potrero Canyon, and ridgeline of the Santa Susana Mountain High Country SMA (all on site).

Prominent Visual Features Partially Obstructed: River Corridor, River bluffs and Mesas.
Prominent Visual Features Fully Obstructed: Hills above River bluffs.

South

OAK VALLEY LOW AND MEDIUM RESIDENTIAL NEIGHBORHOOD

OFF SITE RIDGE LINE

OAK VALLEY COMMUNITY PARK

POTRERO & OAK VALLEY ESTATES

VILLAGE ROAD RIGHT OF WAYS

OAK VALLEY RESIDENTIAL NEIGHBORHOODS

East

West

POTRERO VALLEY ROAD BRIDGE AND RIGHT OF WAY

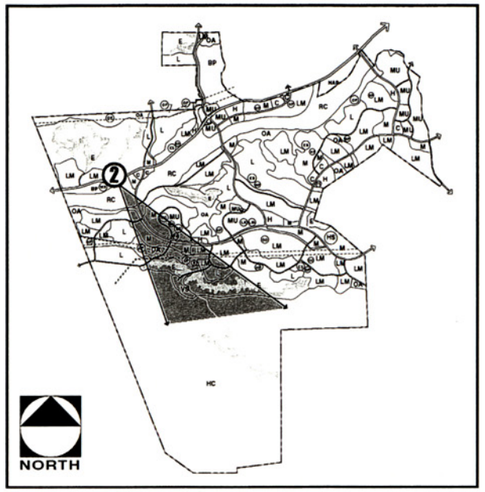
SANTA CLARA RIVER CORRIDOR

STATE ROUTE 126 RIGHT OF WAY

North

NEWHALL RANCH™
Newhall Ranch Company

KEY MAP



VIEW "2"

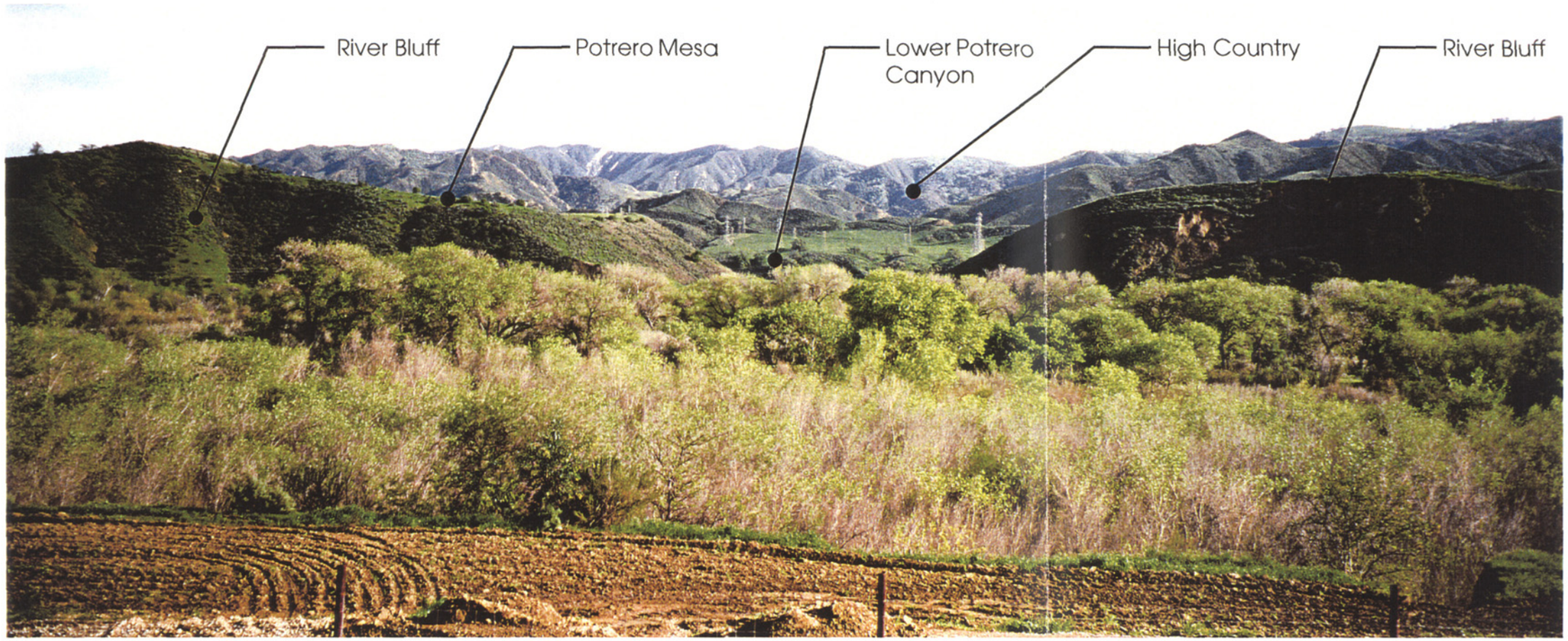
LOOKING SOUTH FROM S.R. 126 ACROSS RIVER CORRIDOR TO OAK VALLEY, POTRERO VALLEY AND HIGH COUNTRY

NOTE: Computer Modeling based on Land Use Plan and Preliminary Grading Studies. Building structures represent maximum height per Development Regulations.

FIGURE 4.7-14A

POST-DEVELOPMENT VIEW 2

South



North

VIEW 2 BEFORE

South

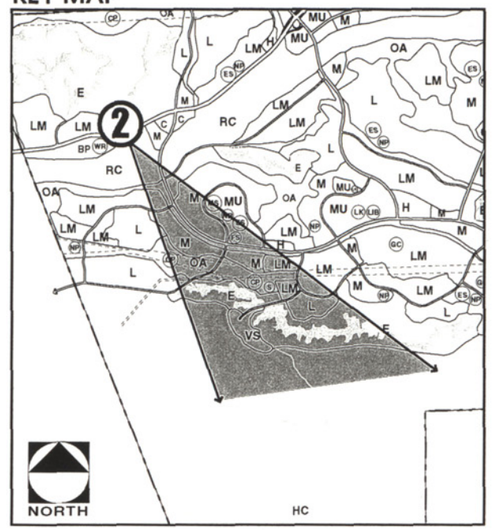


North

VIEW 2 AFTER

NEWHALL RANCH™
Newhall Ranch Company

KEY MAP



VIEW "2"

LOOKING SOUTH FROM S.R. 126 ACROSS RIVER CORRIDOR TO OAK VALLEY, POTRERO VALLEY AND HIGH COUNTRY

NOTE: Artist's interpretation based on computer generated model on preceding page.

FIGURE 4.7-14B

POST-DEVELOPMENT VIEW 2

Level of Impact: Impacts (in terms of view-blocking and scale) to views of the River Corridor would not be considered significant given that the vegetation in this area would largely be left in its present condition and would partially block views of proposed development components (i.e., the Potrero Valley Road bridge). Impacts to views of the hills above the River bluffs would, however, be considered significant due mainly to the amount of landform alteration that would occur to accommodate development and the fact that they would now contain single-family homes. The proposed development would also permanently change the visually rural character of this view of the Santa Clara River Corridor available to motorists on SR-126, which is also considered a significant impact.

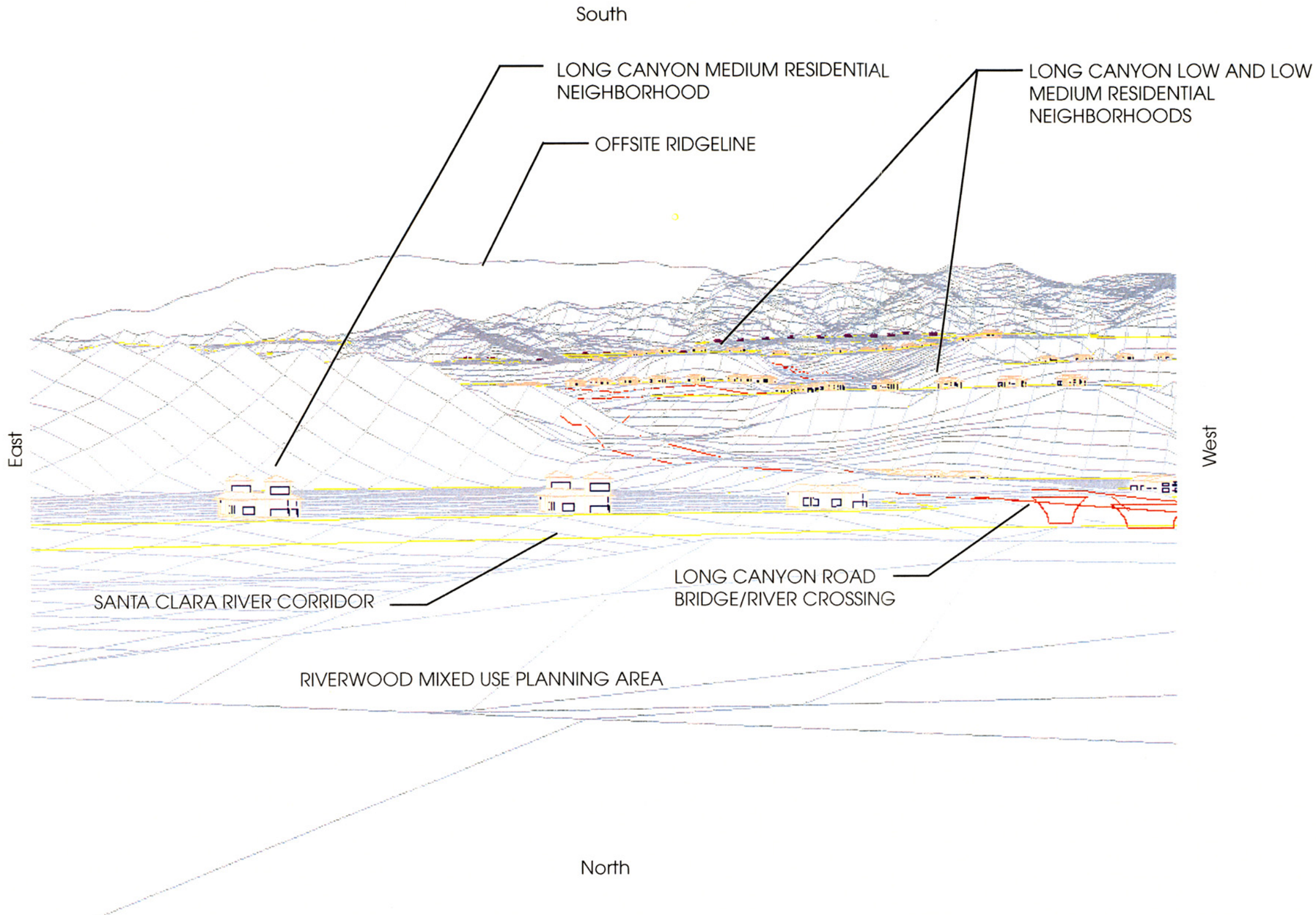
(c) Viewshed 3 - Santa Clara River/SR-126 Corridor

Type of Viewing Audience: Mobile, driving east and westbound on SR-126, and southbound on Chiquito Canyon Road
Length of Time Visible: Approximately 30 seconds to one minute

Figures 4.7-15 A and B simulate post-development views available of the Village of Long Canyon from viewshed 3. The yellow parallel lines shown in **Figure 4.7-15B** simulate the view blocking which could occur due to the placement of Mixed-Use structures in the immediate foreground. These buildings could be Commercial and Medium Residential buildings. Shown beyond the immediate foreground structures, Low to Medium Residential development would be very visible in the foreground view, as would direct views of the proposed Long Canyon Road bridge. In the middle-ground view on the hilltops above and behind Long Canyon, more Low to Medium Residential development would be visible. The middle-ground view also contains the proposed Long Canyon Road that began in the foreground view and continues over the hill through a Low and a Low-Medium Residential area into the Village of Potrero Valley. The background view of the Santa Susana Mountains and the High Country SMA would not be altered by development.

Prominent visual features found in this viewshed include the steep hillsides bordering the southern edge of the River Corridor, portions of the River Corridor itself, the stands of oak trees at the base of the west and east slopes on the right and left sides of the photograph, respectively, and the Santa Susana Mountain High Country SMA (all on site).

Prominent Visual Features Partially Obstructed: Steep hillsides bordering the southern edge of the River Corridor, portions of the River Corridor itself, and the High Country SMA.
Prominent Visual Features Fully Obstructed: Steep hillsides bordering the southern edge of the River Corridor.



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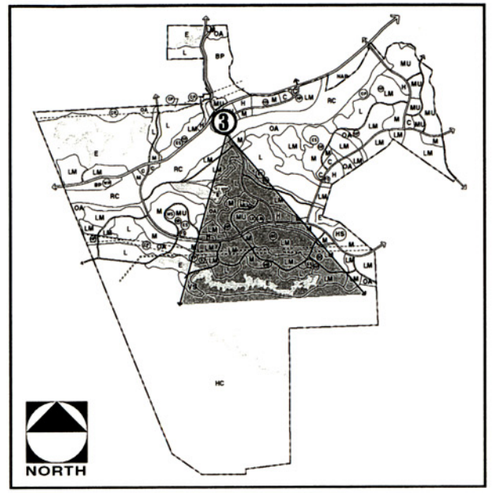
KEY MAP



VIEW "3"

LOOKING SOUTH FROM RIVERWOOD ALONG LONG CANYON ROAD

NOTE: Computer Modeling based on Land Use Plan and Preliminary Grading Studies. Building structures represent maximum height per Development Regulations.

FIGURE 4.7-15A

POST-DEVELOPMENT VIEW 3

South

Long Canyon

Onion Field

High Country

East

West

North

VIEW 3 BEFORE

South

VIEW 3 AFTER

Low Medium Residential

East

West

Mixed Use Planning Area

North

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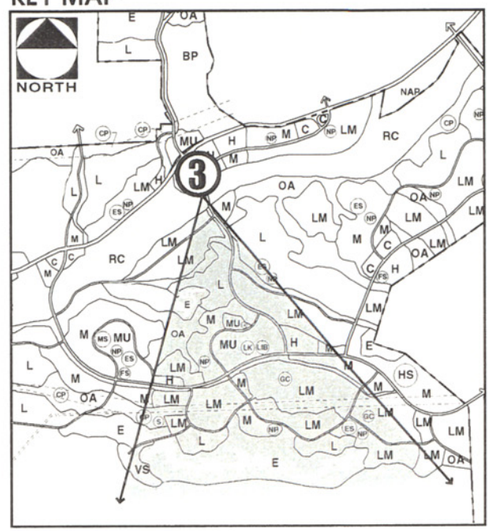
KEY MAP



VIEW "3"

LOOKING SOUTH FROM RIVERWOOD ALONG LONG CANYON ROAD

NOTE: Artist's interpretation based on computer generated model on preceding page.



Denotes 55' high building envelope, per Development Regulations, within which buildings may obstruct view.

FIGURE 4.7-15B

POST-DEVELOPMENT VIEW 3

Level of Impact: All prominent visual features would be partially or fully obstructed by development, depending upon the placement of Mixed-Use structures in the immediate foreground. This viewshed is very visible to motorists. The open areas and agricultural fields (which completely lack development of any scale) as seen in existing conditions will give way to development of buildings, roads, and other infrastructure elements of the new community. To accommodate this development (buildings, roads, etc.), existing landforms will need to be altered and farmland will be eliminated. The impact from a view blocking and visual character and scale perspective of altering existing landforms in this viewshed is considered significant.

(d) Viewshed 5 - Santa Clara River/SR-126 Corridor

Type of Viewing Audience: Mobile, driving east and westbound on SR-126
Length of Time Visible: Approximately 30 seconds to one minute and 30 seconds

Figures 4.7-16 A and B provide simulated views of post-development conditions from viewshed 5. As shown on the west (right) side of this view, foreground views would be dominated by Low-Medium Residential development proposed in the Village of Riverwood. Such development would completely block views of the visually prominent River Corridor. However, the River Corridor would be visible where the confluence of Castaic Creek provides an opening from SR-126 for approximately 300 to 400 feet. Low-Medium development proposed in the foreground to the right of the confluence of Castaic Creek and Santa Clara River could partially block views of the River bluffs below Grapevine Mesa. Across Castaic Creek and the Santa Clara River in the proposed Village of The Mesas, Low to Medium Residential development would also be visible in the middle-ground view below and on top of the bluffs and mesas which occur above the River. Depending on one's location, development proposed in the foreground and middle-ground views could obstruct views of the visually prominent High Country SMA in the background.

Prominent visual features which occur in this view include the River Corridor, Exxon and Grapevine Mesas, the River bluffs, the oak trees which exist on them (all on site) and the upper slopes and skyline ridgelines of the Santa Susana Mountains both off site and on site in the High Country SMA.

Prominent Visual Features Partially Obstructed: River Corridor, Exxon Mesa, the River bluffs, oak trees, and the High Country SMA.
Prominent Visual Features Fully Obstructed: Grapevine Mesa

South

LOW AND LOW MEDIUM
RESIDENTIAL NEIGHBORHOODS
OF THE MESAS

OFF SITE
RIDGE LINES

HIGH COUNTRY

TRAVEL VILLAGE
(N.A.P.)

East

West

PROJECT BOUNDARY

ENTRANCE OF CASTAIC
CREEK INTO SANTA
CLARA RIVER CORRIDOR

REGIONAL RIVER
TRAIL LOCATION

RIVERWOOD LOW MEDIUM
RESIDENTIAL NEIGHBORHOOD

North

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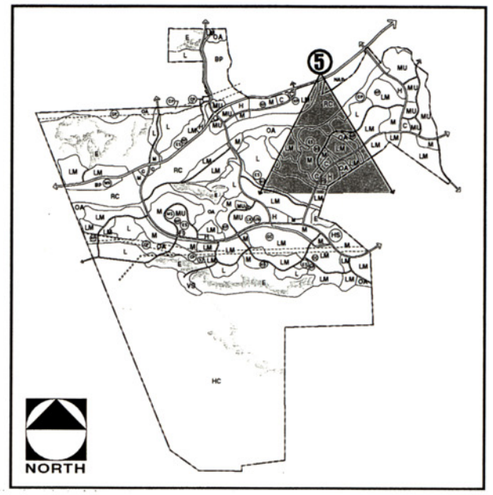
KEY MAP



VIEW "5"

LOOKING SOUTH FROM S.R. 126 AT CASTAIC CREEK ACROSS THE SANTA CLARA RIVER CORRIDOR TO THE MESAS

NOTE: Computer Modeling based on Land Use Plan and Preliminary Grading Studies. Building structures represent maximum height per Development Regulations.

FIGURE 4.7-16A

POST-DEVELOPMENT VIEW 5

South

Santa Clara River

Grapevine Mesa

High Country

Project Boundary

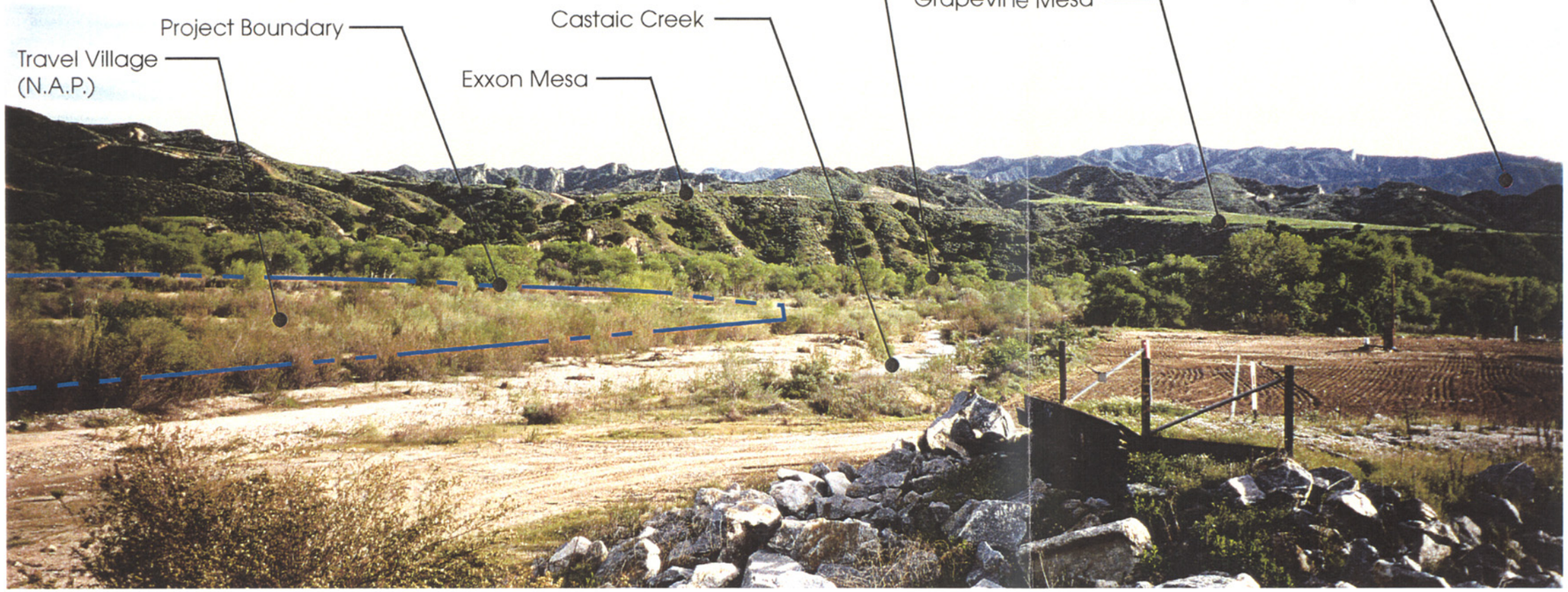
Castaic Creek

Travel Village
(N.A.P.)

Exxon Mesa

East

West



North

VIEW 5 BEFORE

South

VIEW 5 AFTER

Regional River Trail

East

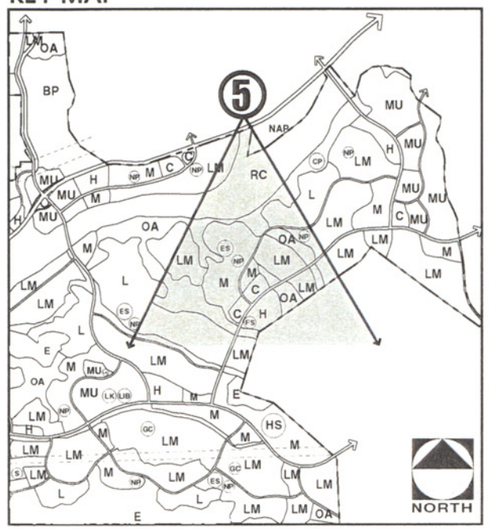
West



North

NEWHALL RANCH™
Newhall Ranch Company

KEY MAP



VIEW "5"

LOOKING SOUTH FROM S.R. 126 AT CASTAIC CREEK ACROSS THE SANTA CLARA RIVER CORRIDOR TO THE MESAS

NOTE: Artist's interpretation based on computer generated model on preceding page.



Denotes 35' high building envelope, per development regulations, within which buildings may obstruct view.

FIGURE 4.7-16B
POST-DEVELOPMENT VIEW 5

Level of Impact: The visual impact resulting from development as proposed would be significant in terms of the Specific Plan's view-blocking impacts and the change in the visual character of the viewshed from rural, open land which lacks development of any scale to an urbanized condition.

(e) General Plan Policy - Santa Clara River/SR-126 Corridor

Los Angeles County has designated SR-126 a "first priority" proposed scenic highway. While the County does not regulate such routes, scenic impacts are, nevertheless, carefully considered in the environmental evaluation of proposed project impacts. The County's General Plan Conservation and Open Space Element contains a policy directed at the protection of scenic resources found along officially designated and first priority proposed scenic highways. The policy is as follows: "Protect the visual quality of scenic views from public roads, trails and key vantage points." The County of Los Angeles General Plan allows urban development along scenic highways and first priority scenic routes.

The Newhall Ranch Specific Plan incorporates many regulations and guidelines which would result in the protection of the visual quality of scenic views from public roads, particularly SR-126, as discussed more fully in the "Proposed Improvements" part of this EIR section. See also Chapters 3 and 4 of the Specific Plan for a complete list.

Key design features incorporated into the Specific Plan include, but are not limited to, the preservation of natural River vegetation and River bluffs, the placement of the regional River Trail in between SR-126 and the River, the regulation of urban uses between SR-126 and the River, the installation of native landscaping, and the preservation of significant oak tree stands (less than 4 percent of the estimated 16,000+ oak trees would be impacted). When employed in total, the Newhall Ranch Specific Plan is consistent with the intent of the County General Plan with respect to visual considerations in that it incorporates many measures which would result in the protection of the visual quality of scenic views from public roads, trails and key vantage points. However, despite such measures, the character of this more rural visual corridor would change to that of an urban-type appearance.

(2) Viewshed 4 - Chiquito Canyon Road Corridor

Type of Viewing Audience: Mobile, driving southbound on Chiquito Canyon Road, and a small permanent resident population residing at the southern edge of the community of Val Verde. The residential view within this viewshed is primarily from one home adjacent to the Specific Plan boundary. There are two other homes that potentially have this viewshed from some portion of their property.

Length of Time Visible: Approximately 30 seconds to one minute for mobile audience, and 24 hours per day for resident viewing audience

Figures 4.7-17 A and B illustrate simulated post-development views from viewshed 4. As shown, Low-Medium Residential development proposed in the Village of Riverwood would dominate the foreground view. It is expected that this development would partially, and in some cases completely (as shown by yellow parallel lines), obstruct middle and background views of the lower hills and mountains. Chiquito Canyon Road is proposed to be realigned to the east at SR-126, which may involve removal of several of the oak trees that are visible in the middle-ground view. However, Chiquito Canyon Creek would be adjacent to this roadway and would be natural in its appearance. Also in the middle-ground view, just beyond the Low-Medium Residential development in the foreground, a Business Park is proposed on the east side of Chiquito Canyon Road. At this viewing location, the Business Park would be completely obstructed from view by the proposed Low-Medium Residential development in the foreground. Low-Medium Residential uses would obstruct views of the rock face on the hillside on the left edge of the photograph (the rock face would be left undeveloped as Open Area), the distant lower hills which are visible in the center of the view across the Santa Clara River Corridor, the oak trees, the flatter grassland area, Ayers Rock and ridges and mountains in the High Country SMA (all on site). Only a small amount of the development proposed south of the Santa Clara River in the Village of Long Canyon would be visible in this view because views are blocked by foreground structures.

Specific prominent visual features that exist in this view include the rock face on the hillside on the left edge of the photograph, oak trees, flatter non-native grassland area, Ayers Rock and ridges and mountains in the High Country SMA (all on site).

South

LOW-MEDIUM RESIDENTIAL HOUSING WILL OBSTRUCT VIEW DEPENDENT ON SITE PLAN

OPEN AREA

OFF SITE RIDGE LINE

BUSINESS PARK STRUCTURES WILL OBSTRUCT VIEW DEPENDENT ON SITE PLAN

OFF SITE RIDGE LINE

East

West

PROJECT BOUNDARY

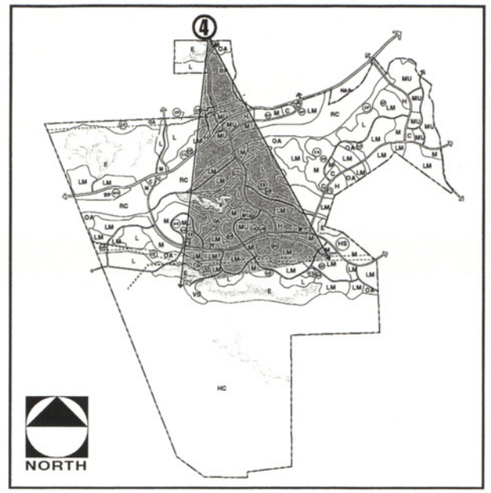
LOW-MEDIUM RESIDENTIAL PLANNING AREA BOUNDARY

CHIQUITO CANYON ROAD RIGHT OF WAY

North

NEWHALL RANCH™
Newhall Ranch Company

KEY MAP



VIEW "4"

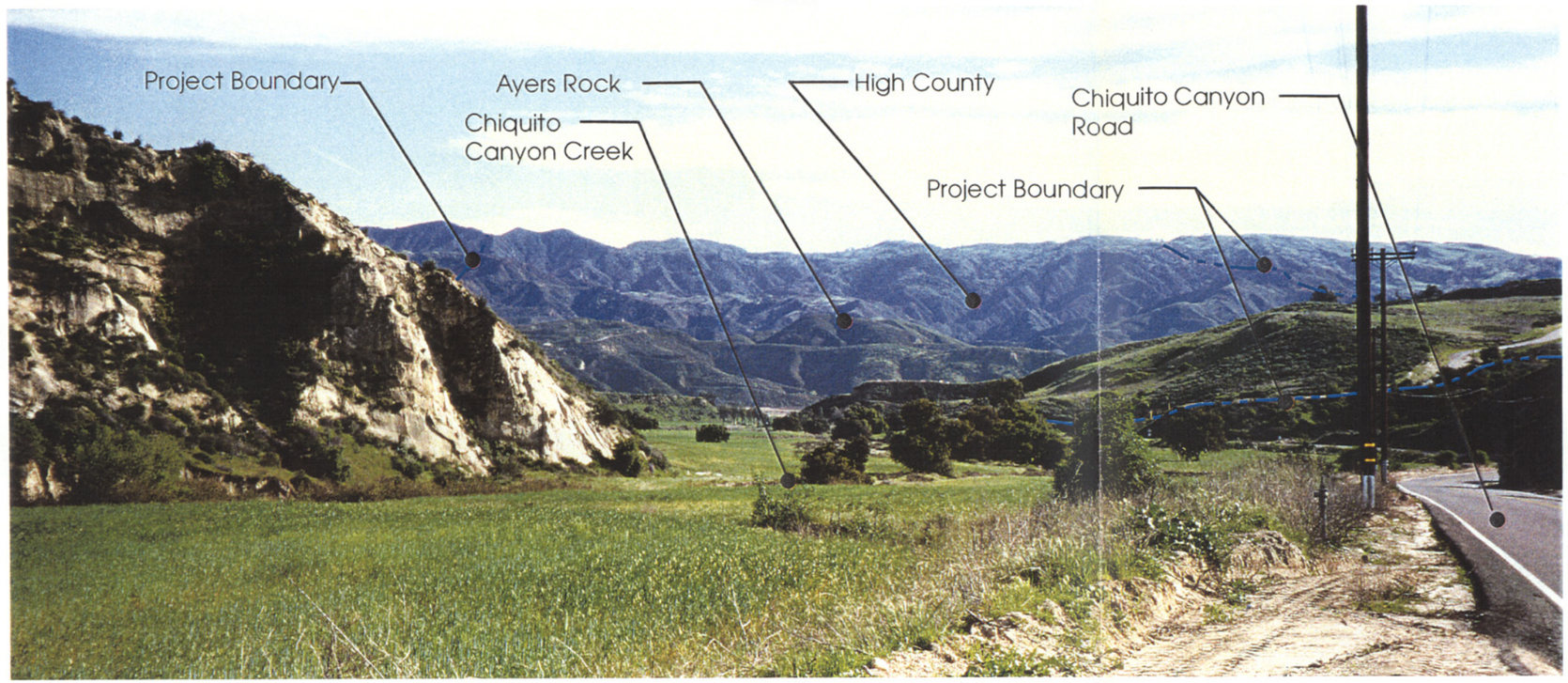
CHIQUITO CANYON LOOKING SOUTH THROUGH RIVERWOOD RESIDENTIAL AND BUSINESS PARK PLANNING AREAS

NOTE: Computer Modeling based on Land Use Plan and Preliminary Grading Studies. Building structures represent maximum height per Development Regulations.

FIGURE 4.7-17A

POST-DEVELOPMENT VIEW 4

South



East

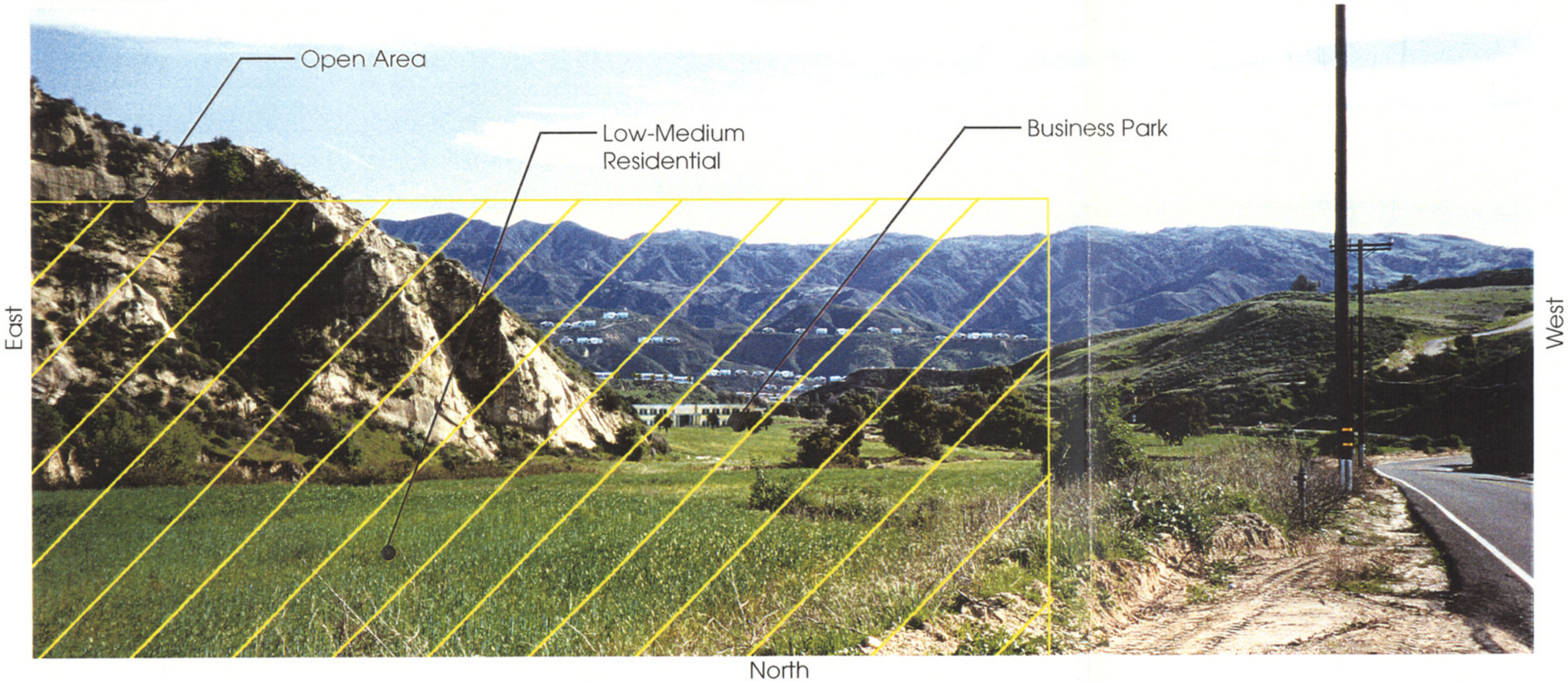
West

North

VIEW 4 BEFORE

South

VIEW 4 AFTER



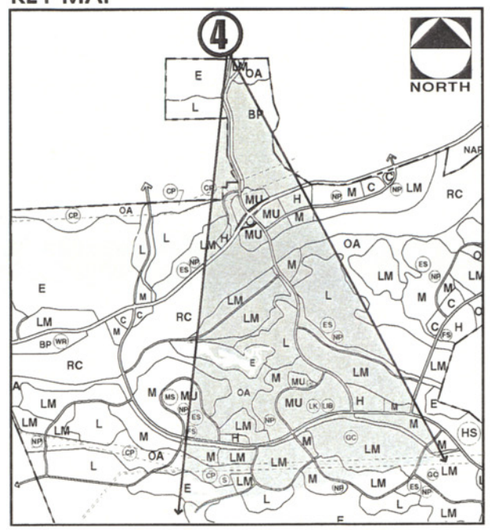
East

West

North

NEWHALL RANCH™
Newhall Ranch Company

KEY MAP



VIEW "4"

CHIQUITO CANYON LOOKING SOUTH THROUGH RIVERWOOD RESIDENTIAL AND BUSINESS PARK PLANNING AREAS

NOTE: Artist's interpretation based on computer generated model on preceding page.



Denotes 35' high building envelope, per Development Regulations, within which buildings may obstruct view.

FIGURE 4.7-17B
POST-DEVELOPMENT VIEW 4

Prominent Visual Features Partially Obstructed: Ridges and mountains in the High Country SMA (all on site).
Prominent Visual Features Fully Obstructed: The rock face on the hillside above Chiquito Canyon Creek, oak trees, the flatter grassland area, Ayers Rock, skyline ridges of the Santa Susana Mountains and the High Country SMA.

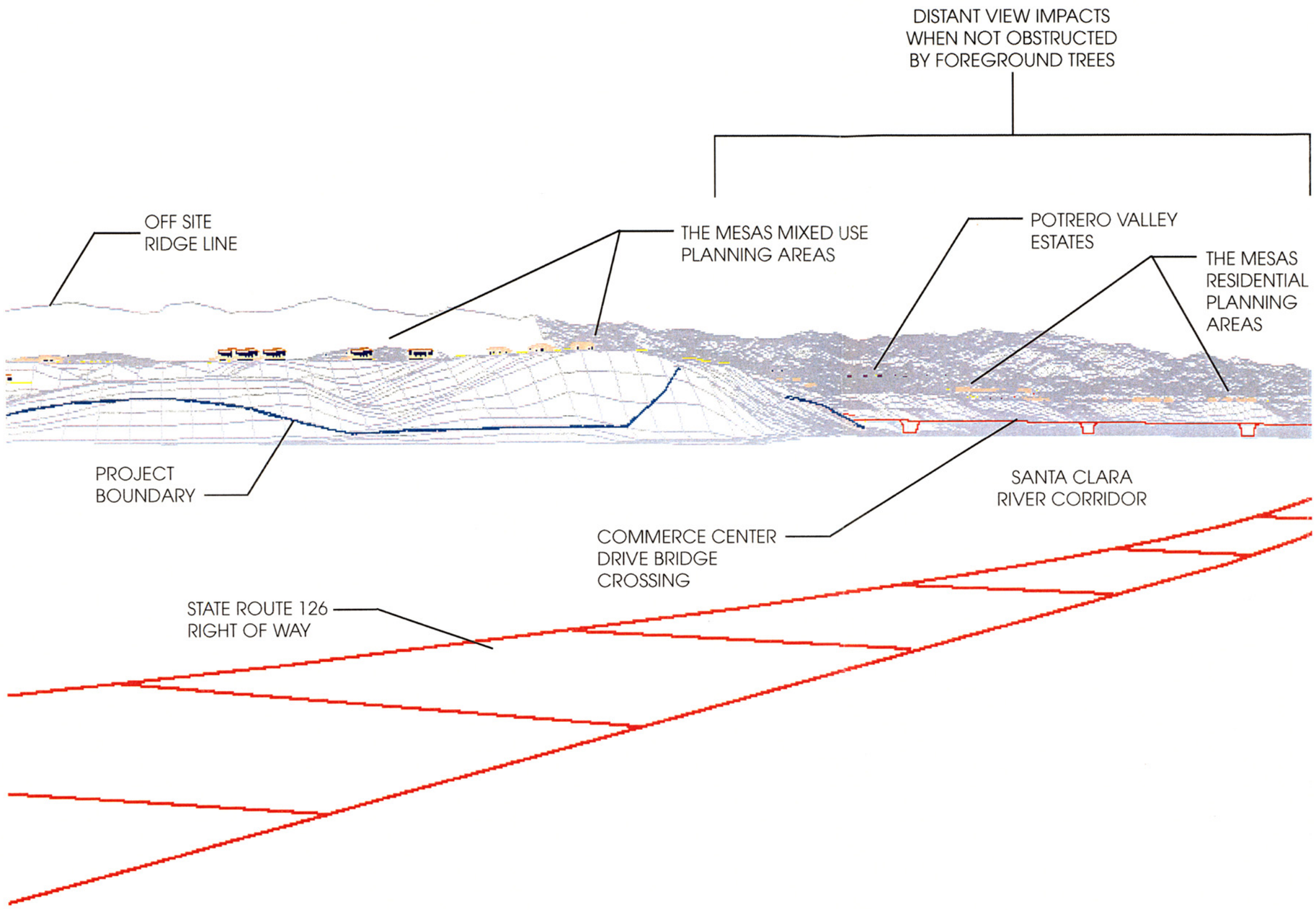
Level of Impact: The conversion of the existing rural land which lacks development of any scale to urban use by the Specific Plan in this viewshed would have a significant visual impact. Despite the fact that the proposed Low-Medium Residential uses planned for the northern Specific Plan boundary adjacent to the community of Val Verde would be of similar structure type and intensity as the homes in southern Val Verde, for residents in existing single family homes north of the proposed development, Low-Medium Residential development would either partially or completely block existing views of prominent visual features which would also be significant. Also the proposed uses are significantly out of character and scale with the existing environment as viewed from this location.

(3) Interstate 5 Corridor

(a) Viewshed 6 - I-5 Corridor

Type of Viewing Audience: Mobile, driving westbound on SR-126
Length of Time Visible: Approximately 30 seconds

Simulated post-development views from viewshed 6 are illustrated in **Figures 4.7-18 A and B.** As shown, foreground views would not be altered by the proposed Specific Plan as that view is completely off the Specific Plan site. The entire flat area in the foreground view on both sides of SR-126 is designated for commercial and industrial development in the County General Plan and when developed with such uses, the view would completely change to urban. As is evidenced by existing structures, and even if the planned off-site commercial and industrial land uses develop no further, this area is still in transition to an urban appearance. In the middle-ground view, Mixed-Use development and Low to High Residential development would be placed on the tops of The Mesas, which would only partially be blocked by the vegetation that occurs in the River Corridor. The proposed Commerce Center Drive/SR-126 overcrossing would be visible on the north (right) side of this view. As this roadway crosses the Santa Clara River toward the Village of The Mesas, it would be partially obstructed from view by existing vegetation which is not on the Specific Plan site. The background view of the visually prominent higher elevations of the Santa Susana Mountains and High Country SMA would be partially blocked from view by the structures that would be placed on The Mesas.



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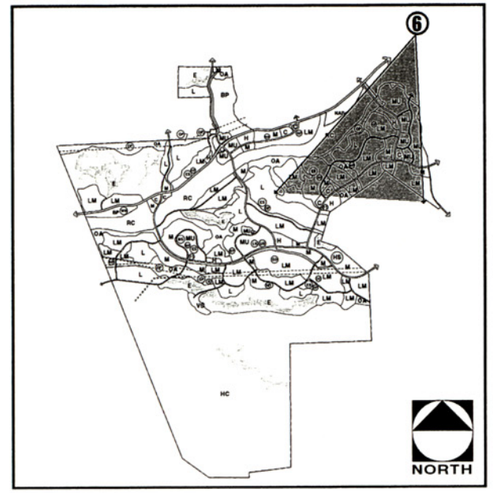
KEY MAP



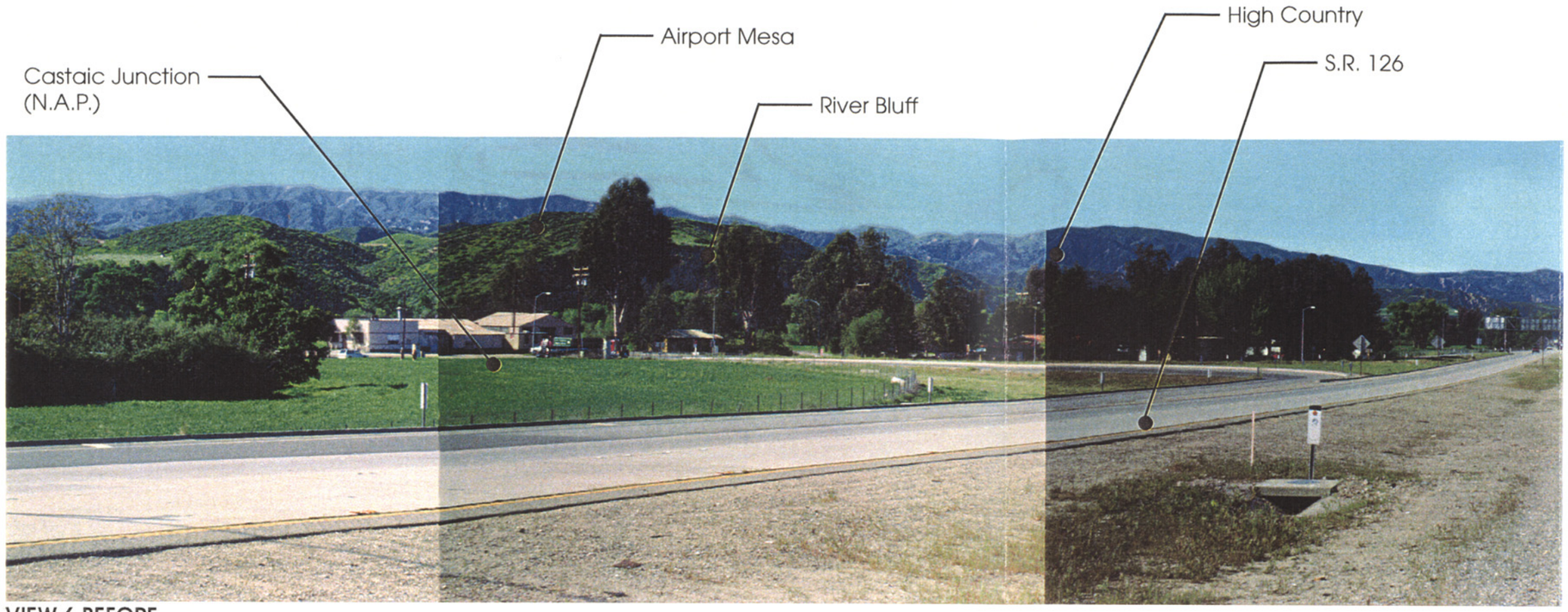
VIEW "6"

LOOKING SOUTHWEST FROM CASTAIC JUNCTION (I-5/S.R. 126 INTERSECTION) ALONG RIVER CORRIDOR AND THE MESAS

NOTE: Computer Modeling based on Land Use Plan and Preliminary Grading Studies. Building structures represent maximum height per Development Regulations.

FIGURE 4.7-18A

POST-DEVELOPMENT VIEW 6



VIEW 6 BEFORE

VIEW 6 AFTER



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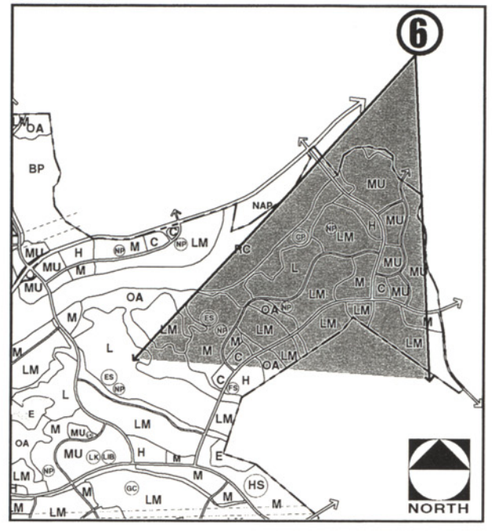
KEY MAP



VIEW "6"

LOOKING SOUTHWEST FROM CASTAIC JUNCTION (I-5/S.R. 126 INTERSECTION) ALONG RIVER CORRIDOR AND THE MESAS

NOTE: Artist's interpretation based on computer generated model on preceding page.

FIGURE 4.7-18B

POST-DEVELOPMENT VIEW 6

Prominent visual features in this view include the hills that form the base of Airport Mesa (on site) and the higher elevations of the Santa Susana Mountains including High Country SMA (off and on site).

Prominent Visual Features Partially Obstructed: The Santa Susana Mountains High Country SMA.
Prominent Visual Features Fully Obstructed: None.

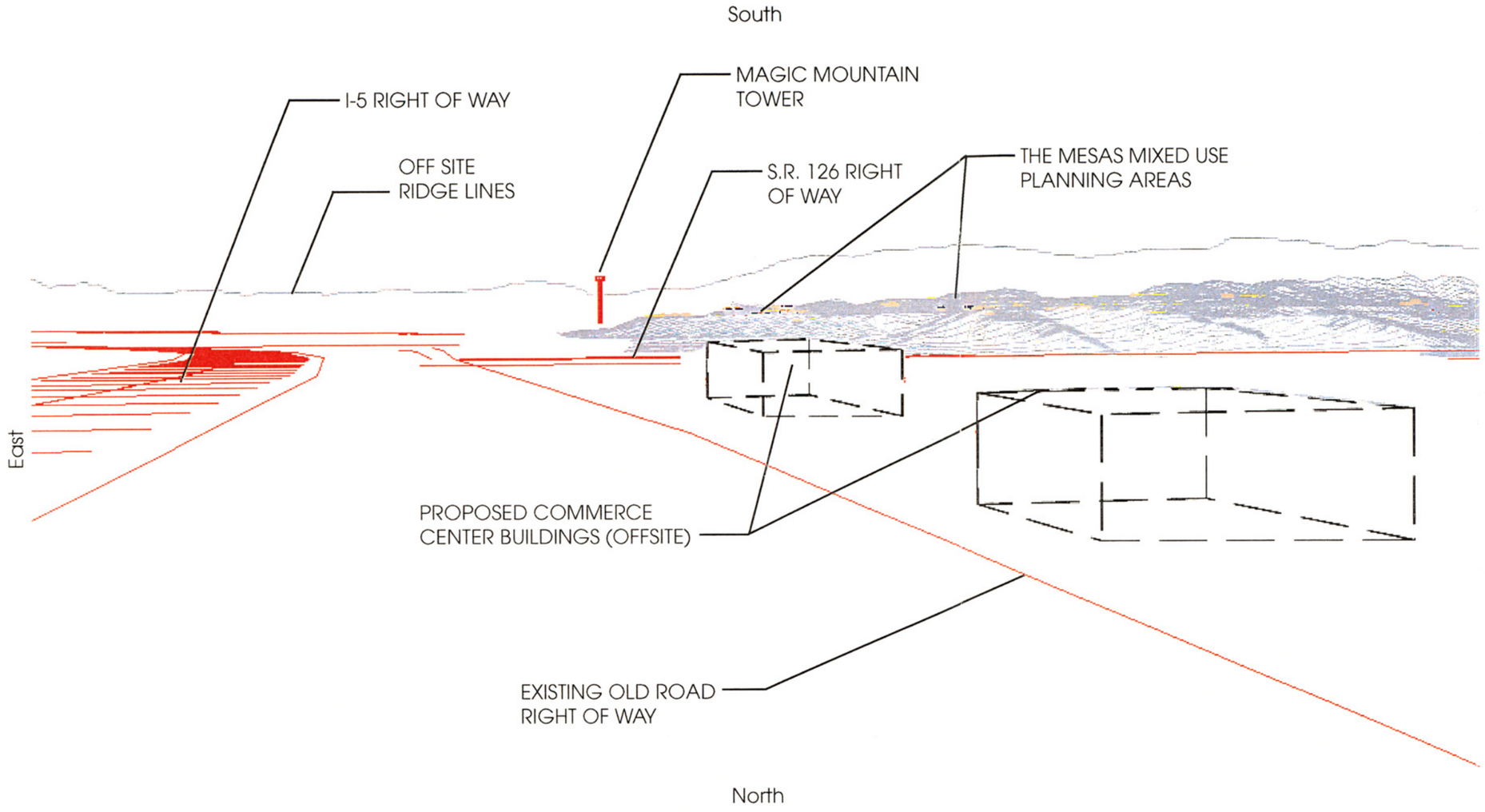
Level of Impact: Given the existing development that is visible in this viewshed and fact that the foreground area is designated for commercial and industrial uses in the General Plan, the character of this viewshed is considered to be in transition to urban. Consequently, the proposed Specific Plan is not considered to be significantly out of character with its surroundings. Because the Specific Plan proposes land uses that are of a similar scale with existing uses and would only partially obstruct views of prominent visual features, the impact of the Specific Plan is not considered significant from this viewing location.

(b) Viewshed 7 - I-5 Corridor

Type of Viewing Audience: Mobile, driving southbound on Interstate 5
Length of Time Visible: Approximately 30 seconds to one minute

As shown in **Figure 4.7-19 A,** approved and under construction industrial development in the Valencia Commerce Center will be located on the cultivated land in the right foreground and will result in the construction of large buildings that would at least partially obscure views of the River Corridor, and River bluffs and lower hills on the Specific Plan site. Furthermore, **Figure 4.7-19 B** shows that the east (left) side of this view has high intensity commercial recreational development (the Magic Mountain Theme Park), which adds to the urban character of this viewshed.

Mixed-Use development proposed for the Village of The Mesas would be partially visible in the middle-ground view. At this distance, the development would not visually stand out in sharp contrast to its urbanizing surroundings, nor would it interfere with views of the ridgelines of the Santa Susana Mountains in the distant background. Also, the view as seen in **Figure 4.7-19 B** is from a freeway overpass, not the freeway, and thus the site would not be as visually prominent from the freeway due to the lower viewing perspective. The future Commerce Center buildings in the foreground would block views of the Specific Plan site to a greater degree than illustrated. As is evidenced by existing structures (e.g., Magic Mountain Theme Park, Castaic Junction), even if the planned off-site Commerce Center land uses develop no further, this area is still in transition to an urban appearance.



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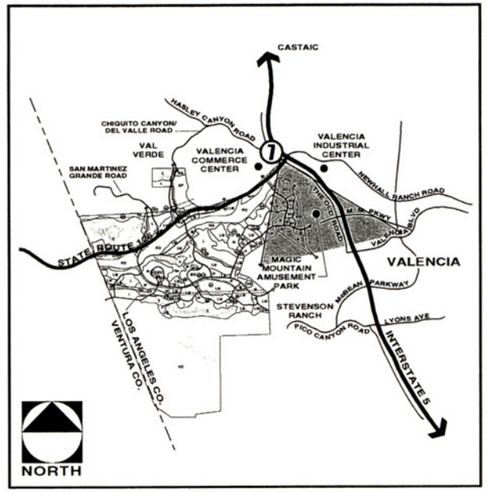
KEY MAP



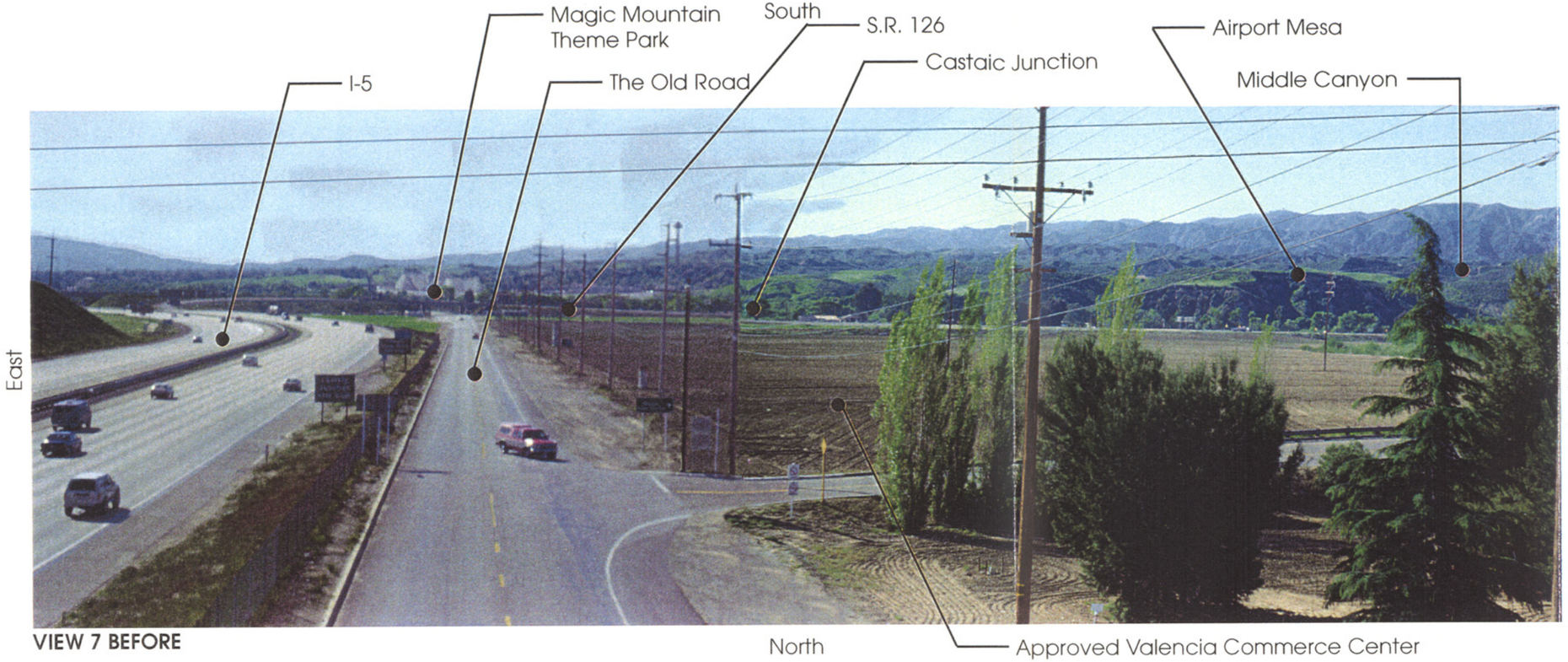
VIEW "7"

LOOKING SOUTH FROM I-5/OLD ROAD OVERPASS TO THE MESAS PLANNING AREAS.

NOTE: Computer Modeling based on Land Use Plan and Preliminary Grading Studies. Building structures represent maximum height per Development Regulations.

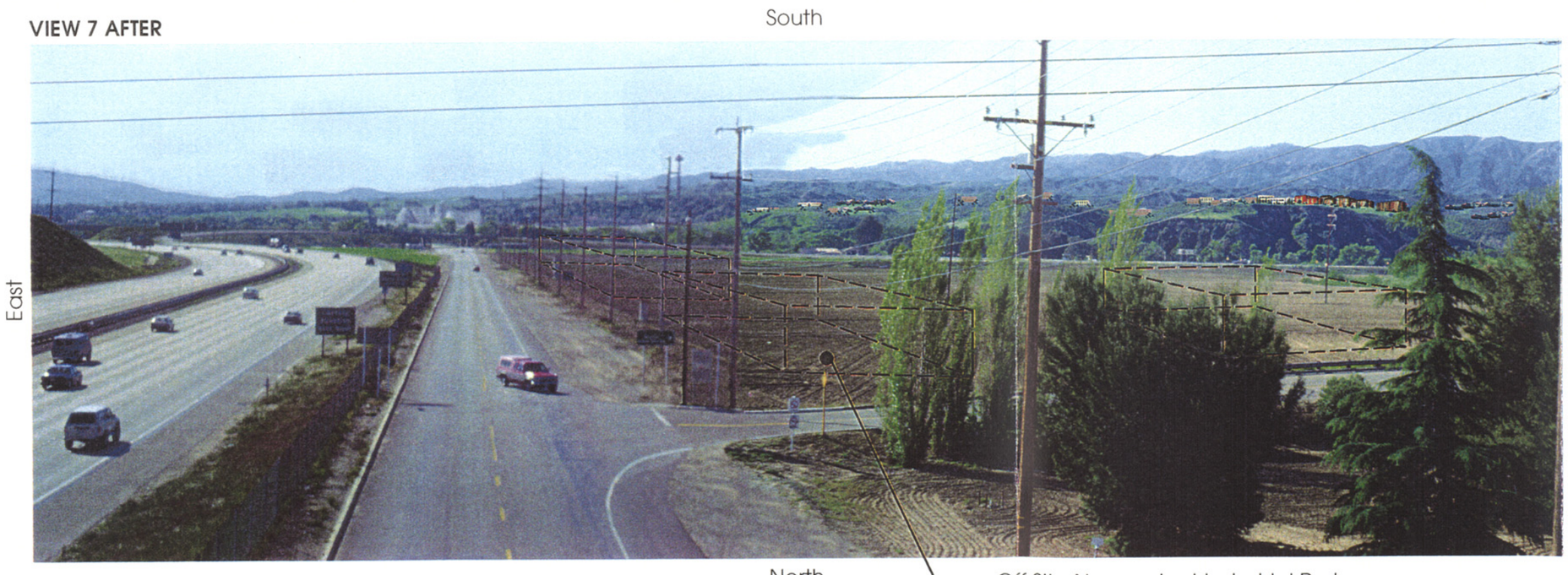
FIGURE 4.7-19A

POST-DEVELOPMENT VIEW 7



VIEW 7 BEFORE

VIEW 7 AFTER



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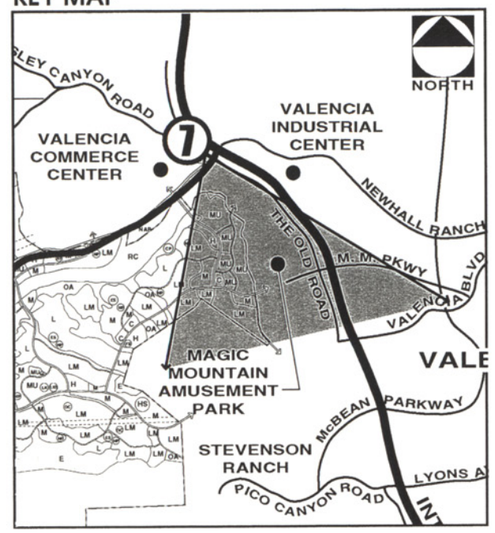
KEY MAP



VIEW "7"

LOOKING SOUTH FROM I-5 APPROACHING THE PROJECT TO THE MESAS

NOTE: Artist's interpretation based on computer generated model on preceding page.

FIGURE 4.7-19B

POST-DEVELOPMENT VIEW 7

Prominent visual features include River bluffs (on site) and higher elevations of the Santa Susana Mountains (off site) and High Country SMA (on site).

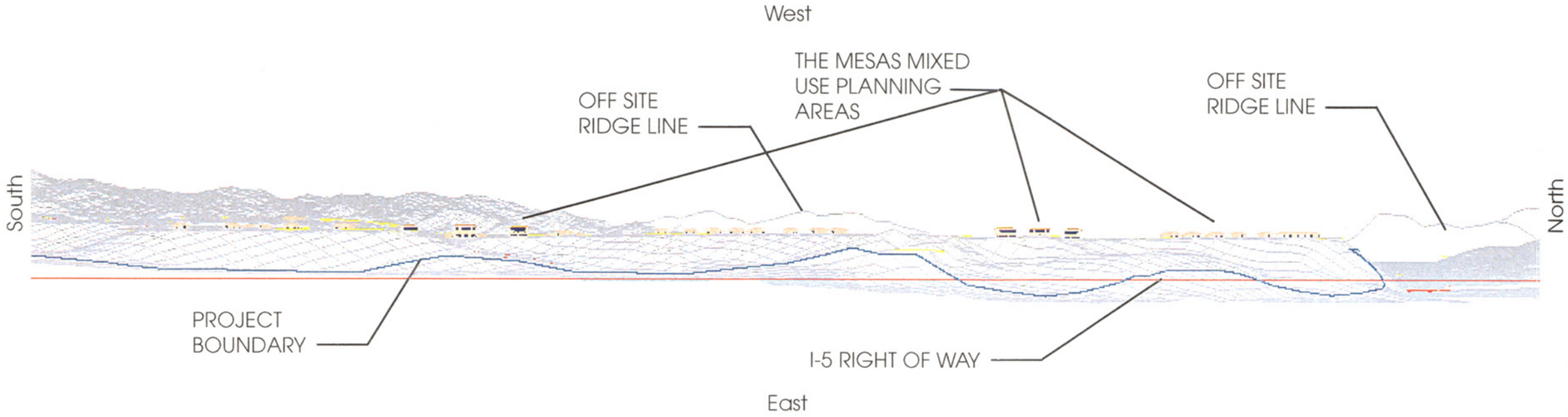
Prominent Visual Features Partially Obstructed: None.
Prominent Visual Features Fully Obstructed: None.

Level of Impact: Minor ridges that form the backdrop in the middle-ground view will be partially obstructed with Specific Plan development in the Village of The Mesas. However, ridgelines of the Santa Susana Mountains that form the backdrop in the background view will not be obstructed by Specific Plan development. Given that no visually prominent features would be obstructed from view, no significant visual impacts would occur due to view blocking. Furthermore, because the area shown in this view is already urban or urbanizing due to approved and under construction development, the proposed Specific Plan would be visually compatible with the character and scale of its surroundings.

(c) Viewshed 9 - I-5 Corridor

Type of Viewing Audience: Mobile, driving north and southbound on Interstate 5
Length of Time Visible: Approximately 30 seconds to one minute

Figure 4.7-20A and B provide the simulated post-development view from viewshed 9. The flat areas shown in the foreground on the west side of I-5 (currently partially characterized by farmland) are designated as industrial land use in the County General Plan and would be developed independently of this Specific Plan. When buildings are constructed in these off site areas, they will at least partially block views of the River Corridor and the hills in the middle-ground view. As is evidenced by existing structures (e.g., Magic Mountain Theme Park, U.S. Postal Facility), and even if the planned off-site industrial land uses develop no further, this area is still in transition to an urban appearance. As shown, proposed high intensity Mixed-Use development would occur in the Village of The Mesas along the hilltops and mesas in the middle-ground view, above the River Corridor and flat open area that occurs in the foreground off the Specific Plan site. Preliminary grading concepts for this area indicate that portions of the hilltops in the middle-ground view would be graded and lowered to create building pads. The Specific Plan would add to the urban character of the area that is exemplified by the existing Magic Mountain Theme Park and the U.S. Postal Facility, both of which can be seen in this viewshed. Views of the distant Santa Susana Mountains seen in the background are already partially blocked by intervening topography. For this reason, the Specific Plan would not dramatically alter or obstruct views of this area.



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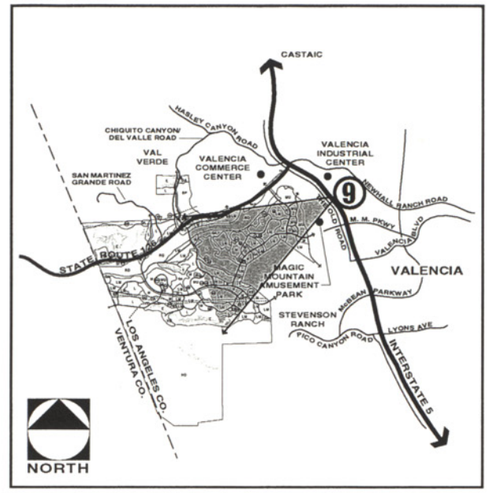
KEY MAP



VIEW "9"

LOOKING WEST FROM I-5 AT VALENCIA INDUSTRIAL CENTER TO THE MESAS MIXED USE PLANNING AREAS

NOTE: Computer Modeling based on Land Use Plan and Preliminary Grading Studies. Building structures represent maximum height per Development Regulations.

FIGURE 4.7-20A

POST-DEVELOPMENT VIEW 9

Magic Mountain Theme Park

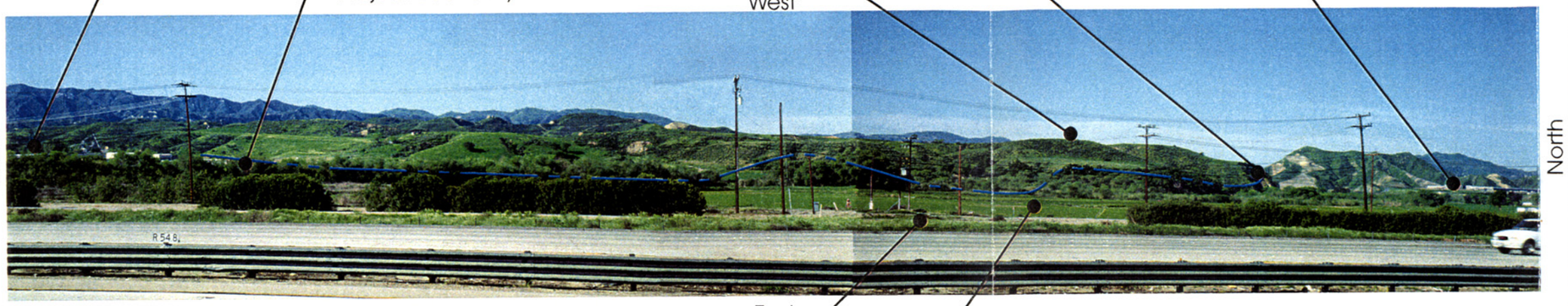
Project Boundary

Airport Mesa

River Bluff

U.S. Postal Facility

South



North

West

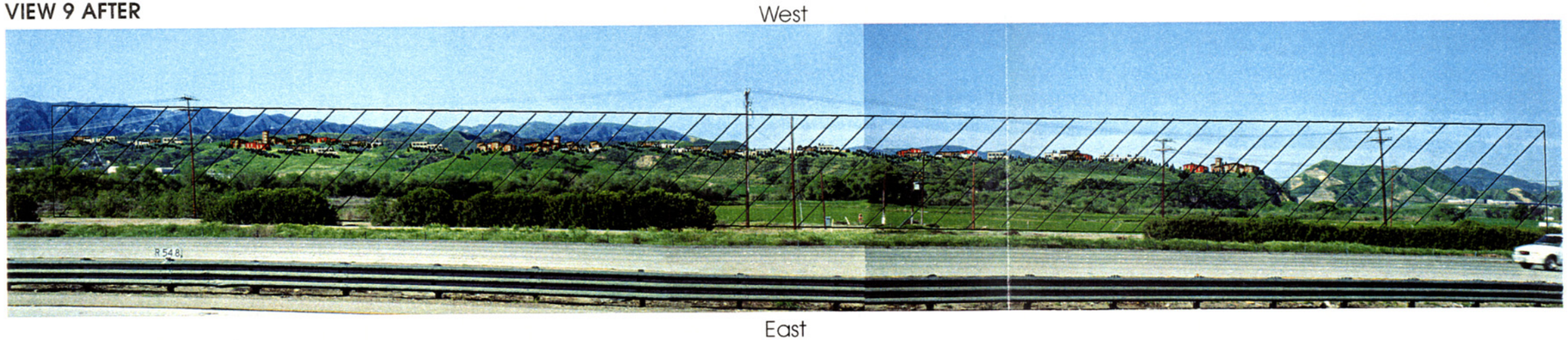
East

Existing Commercial Land Use & Zoning

Existing Industrial Land Use & Zoning

VIEW 9 BEFORE

VIEW 9 AFTER



West

East

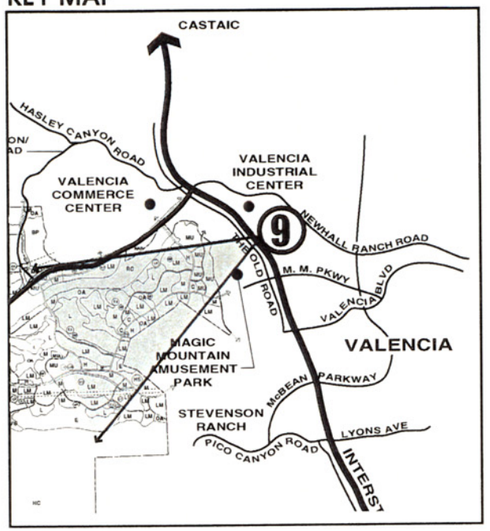
South

North

NEWHALL RANCH™

Newhall Ranch Company

KEY MAP



VIEW "9"

LOOKING WEST FROM I-5 TO THE MESAS MIXED USE PLANNING AREAS

NOTE: Artist's interpretation based on computer generated model on preceding page.



Denotes typical 30' high building envelope within which buildings may obstruct view.

FIGURE 4.7-20B

POST-DEVELOPMENT VIEW 9

Prominent visual features found in this viewshed include River vegetation and flat farmland (both off site) and the hills that form The Mesas (on site).

Prominent Visual Features Partially Obstructed: The hills that form The Mesas.
Prominent Visual Features Fully Obstructed: None.

Level of Impact: The Specific Plan impact due to view-blocking effects would not be significant as no prominent features are fully obstructed and only one feature is partially obstructed. Also, the Specific Plan would not be out of character nor scale with this freeway corridor and would visually co-exist with the higher intensity recreational, commercial, and industrial uses which either already occur or are called for in the General Plan along the freeway.

In summary, the I-5 corridor is either urban now or is in the process of becoming urban independently of the proposed Specific Plan. Based on the existing developed appearance of this portion of the I-5 corridor and the on-going conversion, the proposed Specific Plan would be compatible with the visual character and scale of the corridor and would not significantly impact the visual resources present within, or visible from, the corridor.

b. Impacts on Views from Other Development or Vantage Points (Threshold Criteria 1, 2, and 3)

Other than the views available from the community of Val Verde (discussed above in viewshed 4), other existing visually sensitive developed areas occur east of the Specific Plan site, in the Santa Clarita Valley. Viewshed 8 is presented as a representative sample of views available from the Santa Clarita Valley. Also included in this discussion is the visual impact the Specific Plan might have on surrounding recreational areas. Only the elevated portions of the area have views of the Specific Plan site; the flatter portions of the area have their views obstructed by topography or by existing development.

(1) Viewshed 8

Type of Viewing Audience: Permanent Resident Population
Length of Time Visible: 24 hours per day

Figure 4.7-21 A and B simulate the post-development views from viewshed 8. As shown, the Specific Plan site is located outside both the foreground and middle-ground views. Consequently, only the background view is affected by the Specific Plan.

West

ZOOM VIEW AREA BELOW

South

North



East

REGULAR VIEW OF PROJECT AREA

West

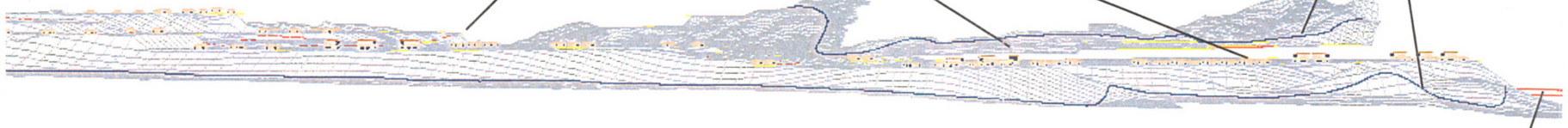
OFF SITE RIDGE LINE

THE MESAS MIXED USE PLANNING AREAS

PROJECT BOUNDARY

South

North



I-5 RIGHT OF WAY

STATE ROUTE 126 RIGHT OF WAY

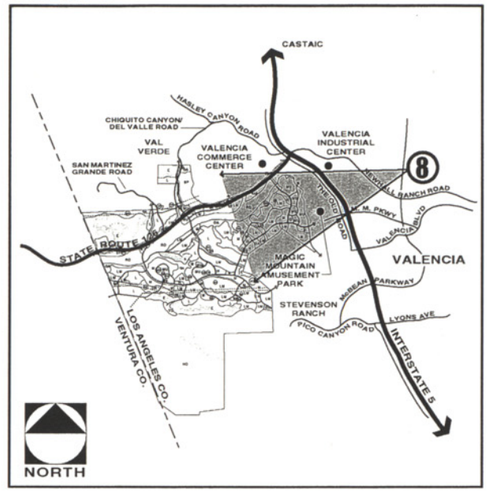
East

ZOOM VIEW OF PROJECT AREA

NEWHALL RANCH™

Newhall Ranch Company

KEY MAP



VIEW "8"

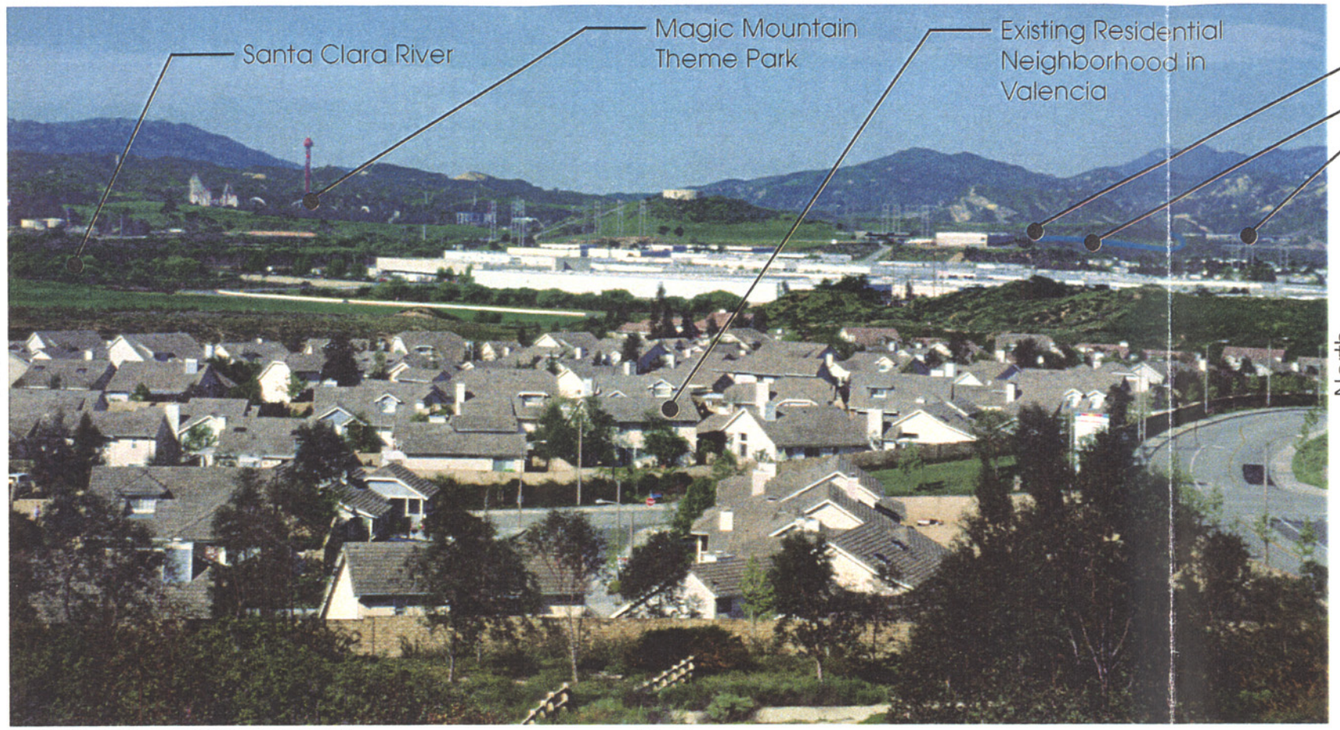
LOOKING WEST FROM HIGHER ELEVATION RESIDENTIAL NEIGHBORHOODS OF VALENCIA AT THE MESAS MIXED USE PLANNING AREAS

NOTE: Computer Modeling based on Land Use Plan and Preliminary Grading Studies. Building structures represent maximum height per Development Regulations.

FIGURE 4.7-21A

POST-DEVELOPMENT VIEW 8

West



South

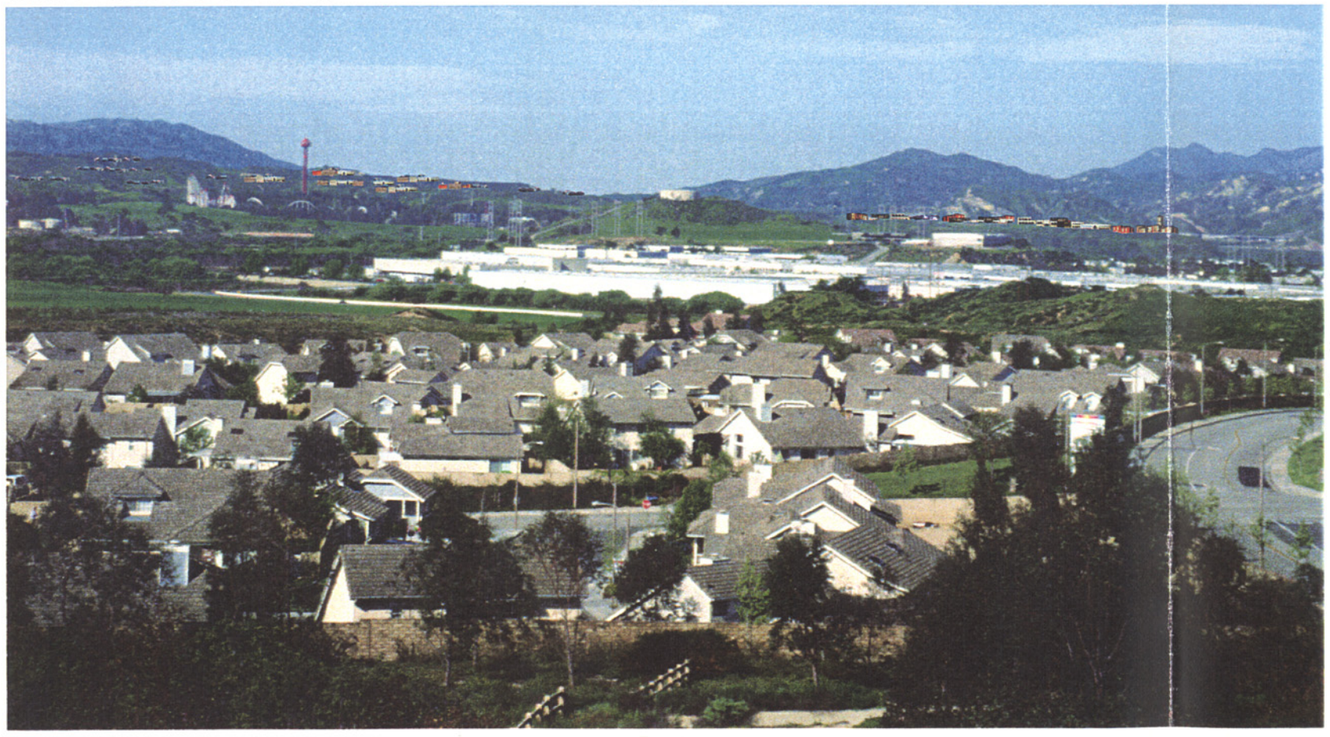
North

East

VIEW 8 BEFORE (ZOOM VIEW)

VIEW 8 AFTER (ZOOM VIEW)

West



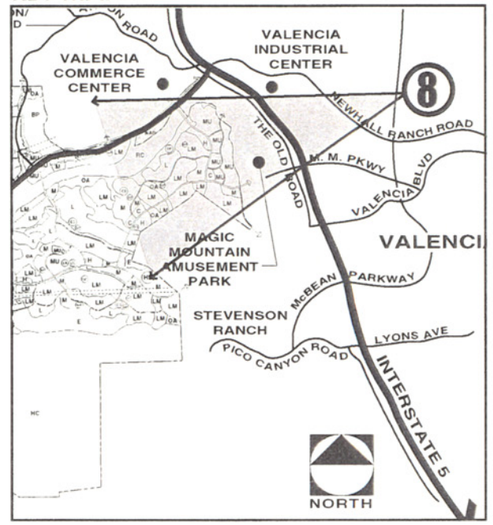
South

North

East

NEWHALL RANCH™
Newhall Ranch Company

KEY MAP



VIEW "8"

LOOKING WEST FROM HIGHER ELEVATION RESIDENTIAL NEIGHBORHOODS OF VALENCIA AT THE MESAS MIXED USE PLANNING AREAS

NOTE: Artist's interpretation based on computer generated model on preceding page.

FIGURE 4.7-21B

POST-DEVELOPMENT VIEW 8

Mixed-Use development proposed within The Mesas Village would be partially visible as several clusters of buildings, in a setting of man-made development features built on graded hillsides. Further in the background, development would be visible within the hills.

Prominent visual features include man-made features (Magic Mountain Theme Park, off site), and the Santa Susana Mountains (off site) and the High Country SMA (on site).

Prominent Visual Features Partially Obstructed: None.
Prominent Visual Features Fully Obstructed: None.

Level of Impact: Proposed development would be visible only from great distances. Much urban development is already visible from this location, and the portions of the proposed Specific Plan that would be visible would be visually compatible with its surroundings. Therefore, no significant visual impacts would occur in this viewshed from a view blocking, or a visual character and scale perspective.

(2) Viewshed 10

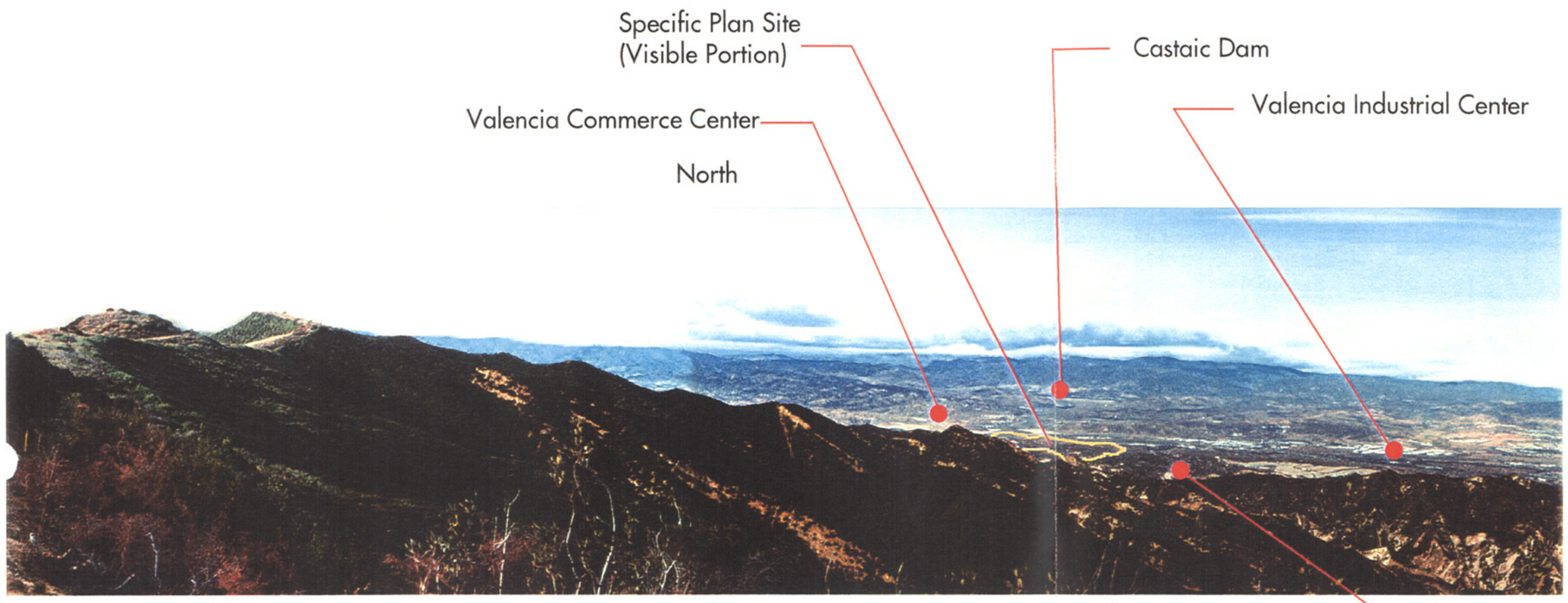
Type of Viewing Audience: Transitory Recreational Population
Length of Time Visible: 24 hours per day

Figure 4.7-22 shows the proposed development area visible from viewshed 10. As shown, the Specific Plan site is located outside both the foreground and middle-ground views. Consequently, only the background view is affected by the Specific Plan.

Mixed-Use development proposed within The Mesas Village would be partially, distantly visible as several clusters of buildings, in a setting of man-made development features built on graded hillsides. In this view, the proposed Specific Plan would be no more visible than other existing urban development.

Prominent visual features include the Angeles National Forest and the Santa Susana Mountains (both off site).

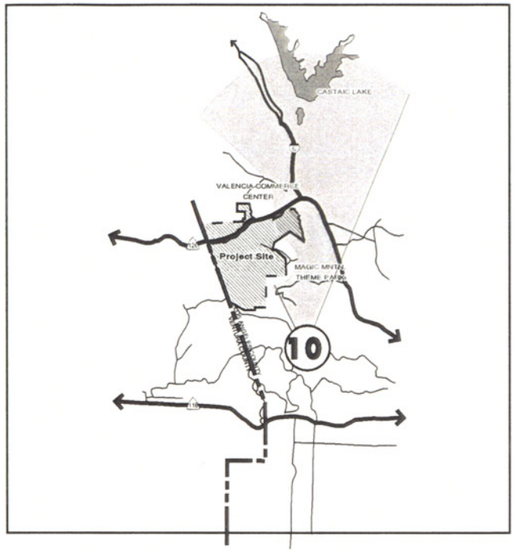
Prominent Visual Features Partially Obstructed: None.
Prominent Visual Features Fully Obstructed: None.



VIEW "10"

NEWHALL RANCH™
Newhall Ranch Company

KEY MAP



VIEW "10"

LOOKING NORTH FROM
RIM OF THE VALLEY TRAIL

FIGURE 4.7-22

POST DEVELOPMENT
VIEW "10"

Level of Impact: Views of only a small portion of the proposed development would be visible from great distances. Urban development is already visible from this location, and the portions of the proposed Specific Plan that would be visible would be visually compatible with its surroundings. Therefore, no significant visual impacts would occur in this viewshed from a view blocking, or a visual character and scale perspective.

c. Impacts Due to Scale (height, bulk) of Project and Sun/Shadow Effects (Threshold Criteria 4 and 5)

(1) Height and Bulk of Project

Existing off-site development adjacent to development areas proposed as part of the Specific Plan include the southern edge of the community of Val Verde along and near Chiquito Canyon Road, and the Magic Mountain Theme Park located along the eastern edge of the Specific Plan site. The remainder of the Specific Plan site boundary near the I-5 corridor and eastern-most portion of SR-126 is designated for urban development in the County General Plan and is in the process of converting to such uses independently of the proposed Specific Plan.

The southern portion of Val Verde is characterized by lower intensity residential development (approximately six dwelling units per acre), with homes one and two stories in height. Development proposed along the northern edge of the Specific Plan site adjacent to this portion of Val Verde would be Low-Medium Residential on the east side of Chiquito Canyon Road and Estate Residential on the west, with structures up to two stories in height. The Low-Medium Residential uses proposed by the Specific Plan along the northern Specific Plan boundary would be at a similar intensity to those existing residential uses found in southern Val Verde (approximately six units per acre). Based on the fact that existing residential structures in Val Verde are up to two stories in height, the height and number of both the Estate and Low-Medium Residential proposed on the west and east side of Chiquito Canyon Road would be similar to the nearby existing residential structures. Therefore, no significant height and bulk impacts would occur at this location.

The Magic Mountain Theme Park is characterized by several very tall recreational structures including a very prominent red tower and several prominent roller coaster structures. The theme park itself is heavily landscaped and is visually very intensive in its appearance. The Specific Plan proposes Mixed-Uses along the Specific Plan site's eastern edge, adjacent to the theme park. The structures proposed in the Mixed-Use area could be as high as 55 feet, and the appearance of those types of structures would be compatible with that of the theme park. Consequently, no significant height and bulk impacts would be created at this location.

(2) Sun/Shadow Effects

Given that one of the County's significance criteria addresses this topic, a shade/shadow analysis was conducted for A.M., Noon and P.M. winter solstice to determine if the Specific Plan would cast new shadows affecting existing land uses adjacent to the Specific Plan site. Two locations were chosen based on the Specific Plan's proximity to other existing land uses that could be affected by Specific Plan shadows. These two locations are: (1) the northern Specific Plan boundary in Chiquito Canyon adjacent to existing single family structures in Val Verde; and (2) along the eastern Specific Plan boundary, directly adjacent to Magic Mountain Theme Park. The shade/shadow analysis was conducted using the solar access methodology provided by the California Energy Commission. The shade/shadow analysis creates a composite of the entire area covered by shadows as they move with the sun between the hours of 9:00 A.M. and 3:00 P.M. Much smaller areas are actually shaded at any one time. The December 22 (winter solstice) condition reflects the "worst case" condition because all other days have progressively smaller shadow patterns.

At the first location, Low-Medium Residential uses are proposed east of Chiquito Canyon Road at the northern Specific Plan boundary adjacent to a small number of single family residential structures in the southern limits of Val Verde. These houses have setbacks that vary from approximately 10 to 20 feet from the Newhall Ranch Specific Plan boundary. As proposed by the Specific Plan, Low-Medium Residential structures (specifically, single-family residential structures) could face Chiquito Canyon Road, with a sideyard setback requirement of 10 feet and a maximum structure height of 35 feet. Therefore, in a worst case scenario, the Specific Plan could result in the construction of two story single family homes (a maximum of 35 feet tall) along the northern Specific Plan boundary adjacent to the existing single family lots.

An existing hill located on the east side of Chiquito Canyon, and east of the Low-Medium Residential designation along the northern Specific Plan boundary, currently casts A.M. shadows that extend approximately 1,250 feet to the northwest. The hill does not cast shadows at noon or in the P.M. that affect the existing single family structures. At noon, the Specific Plan could result in new shadows extending 46 feet to the north and onto the existing single family structures in Val Verde. In the P.M., the Specific Plan could result in shadows extending northeast for approximately 112.5 feet, intermittently shading the existing single family structures in Val Verde. However, the number and product type of proposed structures would be the same as that found in southern Val Verde.

Consequently, the shadows created by the new development would be no different than the shadows created by the existing development in Val Verde. As a result, shadows created by the proposed Specific Plan at this location would be compatible with the adjacent uses. For these reasons, no significant shadow impacts would be created by the Specific Plan at this location.

At the second location, along the Specific Plan's eastern boundary adjacent to the Magic Mountain Theme Park, a Mixed-Use land use designation is proposed. Under a worst-case condition, the Specific Plan could allow a maximum building height of 55 feet with a 20-foot minimum required setback. At this particular location, there is an existing approximately 100 foot high slope located near the Specific Plan boundary overlooking the theme park. It is assumed that structures built under the Mixed-Use designation would be built on top of the slope. In the P.M., buildings at this location could cast new shadows extending approximately 542 feet to the northeast, shading only the western edge of the Magic Mountain Theme Park. Because recreational theme parks are not considered to be particularly shadow sensitive, no significant shadow impacts would be created by the Specific Plan at the theme park.

d. Light and Glare Impacts

The proposed Specific Plan would increase the amount of glare (including reflected light) generated on the Specific Plan site during the day, and would increase the amount of light generated during the night. Daytime sources of glare would primarily include the activities of people, and the sun reflecting off glass windows of structures, automobiles and trucks. Nighttime sources of light would include lights fixed to poles in Commercial, Business Park and Residential areas, lighted signs mounted to Commercial and Business Park buildings, the headlights of automobiles and trucks, and parking lot lighting. Given that the Specific Plan site presently produces little or no light or glare, the light and glare impact on the surrounding area would be a substantial change over the present condition. The combined effect of all the light and glare generated on the Specific Plan site would transform this undeveloped area into that of a developed community similar to the neighboring community of Valencia. This change would be most noticeable to residents within the southern portion of Val Verde, as new sources of light and glare are introduced adjacent to a residential area that presently does not have street lights. As such, the introduction of additional automobile and truck lights, street lights and parking lot lighting would be the most adverse during the nighttime. However, to ensure that such impacts are minimized, Section 4.7 of the Specific Plan contains standards to control the placement and orientation of lighting fixtures to prevent glare or light intrusion into adjacent areas. While such measures would minimize the outward and upward migration of nighttime light, it would not completely mask the change in the night sky that would occur as a result of the Specific Plan and such

impacts would be consider significant. Despite measures proposed in the Specific Plan and the fact that the Residential land uses proposed to occur adjacent to Val Verde would be similar in character and light generating potential, impacts would be considered significant for motorists traveling on local roadways and for residents who reside adjacent to the site.

7. SPECIFIC PLAN MITIGATION MEASURES

a. Mitigation Measures Already Incorporated into Specific Plan

Key mitigation measures incorporated into the Specific Plan include, but are not limited to:

- the preservation of natural Santa Clara River vegetation and River bluffs,
- the preservation of canyons tributary to the Santa Clara River and other Open Area,
- the placement of the regional River Trail in between SR-126 and the River,
- the regulation and limitation of urban uses between SR-126 and the River which create large windows for viewing the River Corridor, the River bluffs and Santa Susana Mountains from SR-126,
- the preservation of the High Country SMA,
- the preservation of significant topographic features, such as Sawtooth Ridge and Ayers Rock,
- the installation of landscaping, and
- the preservation of significant oak tree stands (less than 4 percent of the estimated 16,000+ oak trees would be impacted).

Chapters 3 and 4 of the Specific Plan contain proposed Development Regulations and Design Guidelines, respectively. The reader is referred to those Chapters of the Specific Plan for the complete list. The Development Regulations and Design Guidelines are intended to provide a comprehensive set of regulations governing the use and development of land which is intended to achieve a development image that blends into adjoining natural landscapes and reduces the alteration of natural landforms and scenic natural features found on the Specific Plan site. The Specific Plan also includes landscape standards directing the use of drought-tolerant and native plants (including the replacement of removed oak trees) that would further highlight the surrounding natural environment. Development Regulations and Design Guidelines are proposed that address:

- setbacks (Development Regulations, Specific Plan Chapter 3.4, Table 3.4-1),
- building heights (Development Regulations, Specific Plan Chapter 3.4, Table 3.4-1),
- signage (Development Regulations, Specific Plan Chapter 3.6),
- parking (Development Regulations, Specific Plan Chapter 3.7),
- site planning (Design Guidelines, Specific Plan Chapter 4.3),

- architecture (Design Guidelines, Specific Plan Chapter 4.4),
- fencing (Design Guidelines, Specific Plan Chapter 4.5),
- landscape design (Design Guidelines, Specific Plan Chapter 4.6),
- lighting (Design Guidelines, Specific Plan Chapter 4.7), and
- grading (Design Guidelines, Specific Plan Chapter 4.8).

4.7-1. In conjunction with the development review process set forth in Chapter 5 of the Specific Plan, all future subdivision maps and other discretionary permits which allow construction shall incorporate the Development Guidelines (Specific Plan Chapter 3) and Design Guidelines (Specific Plan Chapter 4), and the design themes and view considerations listed in the Specific Plan.

4.7-2 In design of residential tentative tract maps and site planning of multifamily areas and Commercial and Mixed -Use *land use designations* along SR-126, the following Design Guidelines shall be utilized.

- Where the elevations of buildings will obstruct the views from SR-126 to the south, the location and configuration of individual buildings, driveways, parking, streets, signs and pathways shall be designed to provide view corridors of the River, bluffs and the ridge lines south of the River. Those view corridors may be perpendicular to SR-126 or oblique to it in order to provide for views of passengers within moving vehicles on SR-126.

- The Community Park between SR 126 and the Santa Clara River shall be designed to promote views from SR-126 of the River, bluffs and ridge lines to the south of the River.

- Residential site planning guidelines set forth in Section 4.3.1 Residential and Architectural Guidelines set forth Section 4.4.1 Residential shall be employed to ensure that the views from SR-126 are aesthetically pleasing and that views of the River, bluffs and ridge lines south of the River are preserved to the extent practicable.

- Mixed-Use and the Commercial site planning guidelines set forth in Section 4.3.2 and Architectural Guidelines set forth Section 4.4.2 shall be incorporated to the extent practicable in the design of the Riverwood Village Mixed-Use and Commercial land use

designations to ensure that the views from SR-126 are aesthetically pleasing and to preserve views of the River, bluffs and ridge lines south of the River.

- Landscape improvements along SR 126 shall incorporate the Landscape Design guidelines, set forth in Section 4.6 in order to ensure that the views from SR-126 are aesthetically pleasing and to preserve views of the River, bluffs and ridge lines south of the River.

b. Mitigation Measures Recommended by the EIR

No further mitigation is recommended beyond that already incorporated into the Specific Plan. While the measures contained in the Specific Plan minimize the Specific Plan's visual impact, they cannot reduce the magnitude of the impact to less than significant levels.

8. CUMULATIVE IMPACTS

The development of the Specific Plan would not occur in a static, non-changing environment, but would be a part of a general trend toward urbanization that is occurring along the eastern-most portion of SR-126 and I-5. Along SR-126, large-scale development projects are planned and/or underway on land near the Specific Plan site that will influence the general visual character of this area. Examples include the Valencia Commerce Center, a planned industrial development already underway at the northwestern side of the Castaic Junction and the I-5/SR-126 interchange. This development includes an interchange at Commerce Center Drive's intersection with SR-126. This development is highly visible from both SR-126 and I-5. An expansion of the existing Chiquito Canyon Landfill is also proposed just west of the Valencia Commerce Center, part of which would be visible from SR-126. From I-5, a sizable amount of completed or nearly completed development projects occur on both its east and west sides. East of I-5 lie the City of Santa Clarita and the community of Valencia. Specific completed major projects which are visible from the freeway include: the Valencia Industrial Center, generally south of Newhall Ranch Road and north of Rye Canyon Road; the Valencia Corporate Center, located between Magic Mountain Parkway on the north and Valencia Boulevard on the south; and the Valencia Golf Course. In all, approximately 11,000 homes, commercial shopping centers, a regional mall, office retail uses, schools, a major theme park (Magic Mountain), and approximately 8.8 million square feet of industrial uses occur in the area.

Along the west side of I-5, between the eastern boundary of the Specific Plan site and the freeway, several development projects are underway or planned that would be directly visible to freeway motorists and from elevated vantage points to the east of the freeway. These include:

- the Stevenson Ranch project, a medium-intensity, single family residential community set in the hills south of McBean Parkway and north of Pico Canyon Road (under construction);
- the Westridge development, a residential and golf course project to be located generally half a mile north of Valencia Boulevard on the north to McBean Parkway on the south (planned); and
- the Valencia Marketplace, a regional shopping center to be located along the freeway, between McBean Parkway on the north and Pico Canyon Road on the south (under construction).

Along the east side of I-5, the visible area of development activity is the North River portion of the Valencia community, a primarily medium-intensity single family residential development located on the east and west sides of San Francisquito Creek, north of the Santa Clara River (planned and partially under construction).

Cumulative impacts include significant landform alteration and the conversion of vacant land to urban or suburban uses. The hillside areas viewed from I-5 and SR-126 will be altered to accommodate some of these development projects. Further, as part of this conversion, the amount of landscape vegetation visible in the Valley would increase and the amount of natural vegetation visible would decrease. Additionally, there will be a cumulative visual impact relative to the loss of vacant, undeveloped land as viewed from these public roadways. Nighttime illumination and daytime glare would also be increased in the Newhall Ranch area as a result of cumulative project development.

Development of the proposed Newhall Ranch Specific Plan is currently planned to commence around 1998, with a buildout period of twenty-five years. As noted above, this development would occur within a generally urban and urbanizing context along the I-5 corridor and eastern-most portion of the SR-126 corridor, and within a rural context along the remainder of SR-126 west to the County line. The Specific Plan's visible development areas along I-5 and the eastern-most portion of SR-126, in combination with other development expected to occur within a similar time frame, would be compatible with the aesthetic character that currently exists, a visual character that is becoming more urbanized over time. However, the portion of the visible development area along SR-126 moving toward the Los Angeles/Ventura County line would, in combination with other development expected to occur within a similar time from, not be consistent with the existing generally rural or agricultural character of this area, and significant cumulative impacts would occur.

In summary, the Newhall Ranch Specific Plan and other proposed or on-going projects are in an area that is in the process of changing from rural or urban fringe to an urbanized area. Proposed projects are contributing to a loss of open land and a change in the visual appearance of the area. Grading and development will result in significant changes to the natural landform, including encroachment on hillside areas, and will change the appearance of the landscape as viewed from public roads.

Proposed cumulative development will also contribute to cumulative night lighting and daytime glare and reflective impacts. These cumulative impacts are considered significant. However, the Southern California Association of Governments (SCAG) and Los Angeles County project that growth will occur on the Specific Plan site and in the Santa Clarita Valley in the years ahead. Consequently, a large part of the cumulative development described above is already reflected in SCAG's Regional Comprehensive Plan and Guide and the County's General Plan.

9. CUMULATIVE MITIGATION MEASURES

Impacts to visual qualities are largely created on the sites of the individual cumulative projects. As such, the developers of the Newhall Ranch Specific Plan cannot mitigate the impacts created on the other properties. The developers of those cumulative projects would be required to mitigate their cumulative impacts. Therefore, no measures for cumulative impacts are identified in this EIR.

10. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Specific Plan

As proposed, approximately 5,852 acres (or 49 percent) of the total Specific Plan area would remain in Open Area and Special Management Areas, including: the High Country Special Management Area; the vegetated River Corridor Special Management Area and adjoining bluffs and steep canyons covered with oak trees; significant topographic features, such as Sawtooth Ridge and Ayres Rock; and other Open Area. The Newhall Ranch Specific Plan incorporates many regulations and guidelines which would minimize or avoid visual impacts. For a complete listing, see Chapters 3 and 4 of the Newhall Ranch Specific Plan. Key measures incorporated into the Specific Plan include, but are not limited to, the preservation of natural River vegetation and River bluffs, the placement of the regional River Trail in between SR-126 and the River, the limitation of urban uses between SR-126 and the River, the installation of landscaping, and the lessening of oak tree impacts (less than 4 percent of the estimated 16,000+ oak trees would be impacted).

Despite the amount of open land that would be provided and the measures proposed in the Specific Plan, development proposed along the Santa Clara River Corridor that parallels SR-126 would significantly alter the visual characteristics of the River Corridor. Views in Chiquito Canyon would also be significantly altered as a result of Specific Plan implementation. While development that is proposed near the River Corridor is, for the most part, not replacing prominent visual features, such as River vegetation or River bluffs, the images of residential development, roadways, bridges and other human activity areas would be a significant change from the existing characteristics of the site. Such

development would also introduce sources of outdoor illumination which do not presently exist. Outdoor lighting, such as street lights and traffic signals, are essential safety features in development projects that involve new streets and intersections. The significant impacts of such lighting cannot be eliminated if the proposed Specific Plan is implemented as planned.

b. Cumulative Development

Each of the above impacts would combine with the impacts of other on-going development activities to result in significantly unavoidable cumulative visual impacts to the area.

4.8 TRAFFIC/ACCESS

1. SUMMARY

The Newhall Ranch Specific Plan would generate 387,000 average daily trips (ADT), of which 211,300 (55 percent) are accounted for by residential land use and the remainder by non-residential land uses. ***Table 4.8-1, Specific Plan Significant Impact Summary (Alternative Highway Plan)*** *summarizes the significant impacts of the Specific Plan on the surrounding circulation system. This table also lists where off-site mitigation is required.*

a. On-Site Impacts

The Specific Plan will be required to construct the transportation network (including roadways and traffic signals) indicated in the Backbone Circulation Plan (Figure 1.0-5), with the exception of SR-126, which is discussed separately below. After implementation, no significant on-site traffic impacts would occur.

b. Impacts to Off-Site Arterials

As shown in Table 4.8-1, the Specific Plan would have significant impacts on a total of 19 off-site arterial roadways. Mitigation has been proposed which ensures that the Specific Plan will fully mitigate its impacts on a fair-share basis.

c. Impacts to Freeways and State Highways

The Specific Plan impacts two State Highways: SR-126 and I-5, as well as the I-5/SR-126 interchange. Funding and construction of main-line freeway capacity (i.e., I-5 and SR-14) and interchanges with other regional highways (i.e., I-5 at SR-126) are provided by existing sources of tax revenue and by Caltrans through allocations made by the Metropolitan Transportation Authority (MTA). Existing funding sources include State and Federal Gas Taxes, and Los Angeles County Proposition A and C Sales Taxes. As indicated in the Newhall Ranch Fiscal Impact Study (see EIR ***Appendix 6.0****), the Newhall Ranch Specific Plan is estimated to generate over $140 million over the twenty-five year buildout period of the Specific Plan, and nearly $11 million per year at Specific Plan buildout and annually*

thereafter from these existing sources. In addition, the Specific Plan exceeds its mitigation goal as required by the Congestion Management Program (CMP) which offsets any Specific Plan impacts to the regional transportation system (i.e., CMP governed facilities) (see Subsection 5.d. Congestion Management Program).

Table 4.8-1
Specific Plan Impact Summary
(Alternative Highway Plan)

LOCATION OF IMPACT	IMPROVEMENT(S)	SPECIFIC PLAN SHARE (%)
I. ON-SITE HIGHWAY SYSTEM		
On-site roadways	Construction of complete on-site roadway system including signalization where warranted	100
II. OFF-SITE ARTERIALS		
COUNTY ARTERIALS		
Magic Mtn w/o The Old Rd	Augmented capacity	100
Newhall Ranch e/o McBean	Augmented capacity	12
Newhall Ranch w/o Bouquet	Augmented capacity	6
COUNTY/CITY ARTERIALS		
McBean n/o Magic Mtn	Augmented capacity	10
Newhall Ranch e/o Dickason	Augmented capacity	20
Bouquet n/o Newhall Ranch	Augmented capacity	7
Bouquet s/o Newhall Ranch	Augmented capacity	4
CITY ARTERIALS		
Newhall Ranch e/o I-5	Augmented capacity	100
Newhall Ranch w/o Rye	Augmented capacity	94
Magic Mtn e/o I-5	Augmented capacity	39
Magic Mtn e/o Tourney	Augmented capacity	44
Magic Mtn e/o McBean	Augmented capacity	57
Magic Mtn e/o Valencia	Augmented capacity	60
Valencia e/o I-5	Augmented capacity	100
Valencia e/o Rockwell	Augmented capacity	14
Valencia e/o McBean	Augmented capacity	38
Valencia n/o Magic Mtn	Augmented capacity	6
Lyons e/o I-5	Augmented capacity	100
Newhall Ranch e/o Santa Clarita Pkwy	Augmented capacity	100
III. FREEWAYS & STATE HIGHWAYS [1]		
SR-126 from San Martinez Grande to I-5	Two additional highway lanes	100
IV. SR-126 IN VENTURA COUNTY		
City of Fillmore	Augmented Capacity at intersections with SR-126 at Central Ave., A Street & C Street, El Dorado Mobile Home Park, Mountain View, D Street and E Street	100% of Project Increment
Near Community of Piru	Augmented Capacity at intersections with SR-126 at Main Street & Center Street	100% of Project Increment
V. FREEWAY/HIGHWAY INTERCHANGES AND INTERSECTIONS		
SR-126/Chiquito Cyn and Franklin/Wolcott	Grade separated interchanges	100
I-5/Magic Mtn Parkway Stage II	Construct parallel crossing of I-5; Construct additional ramps to/from the south Construct additional northbound off-ramp	70
I-5/Valencia Blvd.	Additional NB off ramp at Magic Mtn Parkway/I-5 (See Magic Mtn above)	70
SR-126/Commerce Ctr. Dr.	Construct add'l eastbound on-ramp	100
SR-126/Chiquita Cyn Landfill access	Augmentation of Intersection	100
SR-126/Travel Village access	Augmentation of Intersection or relocation of access	100

[1] Shall not preclude use of State, Federal or local transportation funds.

d. Impacts to SR-126 in Ventura County

The capacity analysis described previously shows SR-126 in Ventura County to have adequate capacity with and without the Specific Plan based on the capacity assumptions given in the Caltrans SR-126 Route Concept Report. However, as the rural highway transitions to an urban arterial with signalized intersections in the City of Fillmore, it is likely that improvements beyond the basic four lanes will be required at those intersections as a result of Specific Plan peak-hour traffic. Similarly, access for the community of Piru may require some intersection improvements beyond the basic four lanes currently being constructed by Caltrans. At both locations, Specific Plan impacts are considered significant; however, mitigation has been proposed which commits the Specific Plan to mitigating traffic generated by the Specific Plan. This mitigation reduces the impact to below a level of significance.

e. Impacts to Freeway/Highway Interchanges and Intersections

Before mitigation, the Specific Plan causes significant impacts at the following locations:

I-5/Valencia *- The northbound off-ramp at this location was shown to be over capacity in the A.M. peak hour.*

Magic Mountain Parkway at I-5 *- Future traffic forecasts show significant increases in traffic on Magic Mountain Parkway west of I-5. The result is that future traffic demands even without the Newhall Ranch Specific Plan on sections of Magic Mountain Parkway just west of The Old Road are estimated to be over the capacity of a six-lane roadway and will require additional capacity over the freeway and additional capacity on the ramps.*

Chiquito Canyon Intersection *- An analysis of peak hour volumes shows that an at-grade intersection will not have adequate capacity and that a grade-separated interchange will be necessary.*

Wolcott/Franklin Avenue *- There is currently a signalized intersection at Wolcott Avenue and SR-126. Eventually, a grade separation will need to be constructed at this location due to the Specific Plan.*

Commerce Center Drive *- The Commerce Center traffic analysis and EIR identified the need for a future grade separation at this location. While no formal design studies have been carried out by or for Caltrans, preliminary work has suggested that a diamond configuration would provide adequate capacity within the space limitation of this location. This configuration was assumed in the impact analysis, and a Specific Plan impact was identified at the eastbound on-ramp where the addition of Specific Plan traffic would cause the capacity of a single lane to be exceeded. The obligation of the Newhall Ranch Specific Plan will be to provide whatever additional capacity is required over and above that needed to serve no-project volumes.*

f. Mitigation Measures

Proposed mitigation measures are listed in ***Table 4.8-1.*** *When implemented, all significant impacts created by the Specific Plan would be mitigated to less than significant levels.*

2. INTRODUCTION

This section of the EIR describes the results of a traffic analysis carried out for the proposed Newhall Ranch Specific Plan. Austin-Foust Associates, Inc., the Specific Plan traffic engineer, prepared a detailed traffic impact study for the Specific Plan. A complete copy of the traffic report is presented in **Appendix 4.8** of this EIR.

a. Study Scope

The Newhall Ranch Specific Plan is located west of the Interstate 5 (I-5) Freeway and generally south of State Route 126 (SR-126) in unincorporated Los Angeles County. The Specific Plan area extends west to the Ventura County line and the south boundary extends to the ridge of the Santa Susana Mountains. Comprising approximately 11,963 acres, it is planned to have 24,680 dwelling units (plus a maximum of 538 Second Units in the Estate Residential land use designation) and associated Business Park and Commercial uses when fully built out. A large portion of the area will remain in permanent Open Area. For a complete description of the Specific Plan, please refer to EIR Section 1.0, Project Description.

Consistent with analyses carried out for general plan amendments and specific plans, the traffic forecasts used in the analysis are for a long-range time frame. The Specific Plan analysis assumes buildout of the City of Santa Clarita General Plan and the County of Los Angeles Santa Clarita Valley

Area Plan and completion of the associated County Master Plan of Highways. The cumulative impact analysis assumes buildout of the City General Plan and County Area Plan plus active pending general plan amendments which add urban land. The traffic analysis compares long-range buildout conditions without the proposed Specific Plan to future traffic conditions with the Specific Plan.

The study area used for the analysis is illustrated in **Figure 4.8-1, Study Area Definition**. Shown here is the Specific Plan site and the impact analysis study area. The study area is where impacts of the Specific Plan on individual roadway links are identified, and includes the portion of the adjoining circulation system which is measurably impacted by the Specific Plan. As can be seen here, it extends from just west of the Ventura County line to east of San Fernando Road. The north and south boundaries encompass the existing and future urbanized areas of Valencia and Santa Clarita. A portion of the study area is in the City of Santa Clarita and the remainder is in unincorporated Los Angeles County.

Subjects covered in the analysis include impacts to the surrounding arterial and freeway system and the proposed on-site circulation. A comprehensive transportation improvement program is proposed as mitigation for the Specific Plan. Issues, such as Congestion Management Program (CMP) requirements, and changes to the current Master Plan of Highways for the Santa Clarita Valley are also discussed.

b. Methodology

The traffic analysis is based on a set of long-range traffic forecasts for the study area roadway system. These long-range traffic forecasts were produced using the Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (SCVCTM). For the detailed on-site traffic data, the Newhall Ranch subarea model was used. Brief descriptions of each of these follow.

(1) SCVCTM Traffic Forecasts

The SCVCTM was developed jointly by the City of Santa Clarita and the County of Los Angeles Public Works Department. It is based on standardized modeling techniques in which future land uses in an area are quantified and the corresponding traffic volumes are estimated. Hence, for any given future land use scenario for the Santa Clarita Valley area, the model will produce future traffic volumes on the future roadways in this area.

FIGURE 4.8-1

STUDY AREA DEFINITION

The modeled area extends from the Ventura County line east to where the Antelope Freeway (SR-14) passes out of the Santa Clarita Valley near Vasquez Rocks Park. The northern boundary is the Grapevine area north of Castaic and to the south the model area extends to the confluence of the I-5 and SR-14 freeways south of Newhall Pass. In this EIR section, the SCVCTM area is often referred to as the "Valley" and is used to summarize a variety of data from the traffic model.

Since the SCVCTM is developed from regional models prepared by the Southern California Association of Governments (SCAG), it forecasts traffic in a regional context. This means that trips to and from the Santa Clarita Valley, as well as thru-trips are included in the forecasts. The SCVCTM has 1994, interim year, and buildout versions. The latter contains all the land uses in the City General Plan and County Area Plan (including existing, approved, recorded, and pending subdivisions, as well as vacant land built out under existing General Plan and Area Plan land use designations), and was used for preparing the data presented here. For the cumulative analysis, active pending general plan amendment requests were added to the with-project buildout version of the SCVCTM.

(2) Newhall Ranch Traffic Model

For detailed on-site analysis, a special sub-area model was prepared by Austin-Foust Associates, Inc. This is referred to as the Newhall Ranch Traffic Model (NRTM), and it provides a detailed traffic forecasting capability for the Specific Plan circulation system. The external travel pattern relationships are derived from the SCVCTM and, hence, they are directly compatible with the areawide modeling procedures.

The primary purpose of the NRTM is to give a more focused modeling capability for the Specific Plan area. Detailed intersection evaluation is possible, providing information for signal warrant analyses and peak hour intersection capacity evaluation. A detailed discussion of the NRTM is contained in **Appendix 4.8.**

(3) Long-Range Setting

Buildout of the Newhall Ranch Specific Plan will occur over an extended period of time, and will essentially accompany the long term development of the Santa Clarita Valley. Hence, the analysis is carried out for a long-range time frame in which the Specific Plan and the accompanying Valley-wide development are all built out. The long-range version of the SCVCTM is, therefore, used as the appropriate mechanism for preparing future traffic volume forecasts.

The land use database in the long-range version of the model has been compiled from the City's General Plan and the County's Area Plan to represent future growth as depicted by these plans. Hence, this land use database provides a comprehensive and realistic long-range setting for the impact analysis. Newhall Ranch Specific Plan land uses were then added to City General Plan and County Area Plan buildout. In addition, a special "cumulative" analysis was made which added general plan amendments that are currently being processed by the City and the County (if any) to the General Plan and Area Plan buildout plus the Newhall Ranch database.

(4) Impact Analysis

To identify Specific Plan impacts, a comparison is made between future traffic volumes in the study area with and without the Specific Plan. The current Master Plan of Highways version of the SCVCTM is run, and then a second run is carried out in which the Specific Plan and its circulation system are included in the model. The forecast data is in the form of average daily traffic (ADT) volumes on the highway system and the impact analysis is carried out using corresponding volume/capacity (V/C) ratios for each segment of roadway in the study area. Based on the V/C ratios, Specific Plan impacts are identified and a mitigation program is proposed accordingly. In addition, a special analysis was carried out at key freeway interchanges serving the Specific Plan site, with V/C ratios calculated for each on- and off-ramp at these interchanges. The peak hour modeling capability of the SCVCTM was used for this part of the analysis, so that the ability of each ramp to carry future peak hour traffic could be assessed.

Identification of Specific Plan impacts involves the application of specific significance threshold criteria. These specify the V/C level and the amount of Specific Plan traffic that, together, constitute a Specific Plan impact. These criteria are discussed in the off-site impact analysis section of Subsection 5. The proposed mitigation program addresses all locations that are identified as being significantly impacted.

For the long-range setting used in the traffic analysis, specific assumptions were made with respect to the future transportation system in the Santa Clarita Valley. Two networks were used in this regard, one being the current Master Plan of Highways, referred to in this text as the County Base Network, and the other being an Alternative Highway Plan which is intended to address potential changes to the Master Plan currently being evaluated by the County and by the City of Santa Clarita. Descriptions of these two long-range highway networks can be found in the next subsection.

c. Structure of this EIR Section

This section of the EIR is structured in a manner which describes the setting of the Planning Area, the Specific Plan, and its impacts on a step-by-step basis. An outline of the topics covered is as follows:

Subsection 3 - Transportation Setting - This establishes the "setting" in which the Specific Plan is analyzed. Existing traffic conditions on the study area roadway system are described and then long-range land use and the accompanying transportation system are discussed.

Subsection 4 - Proposed Specific Plan - This subsection contains a description of the proposed Specific Plan in traffic terms, including estimates of the Specific Plan trip generation, the geographic pattern of the Specific Plan trips, and the on-site circulation system designed to serve the Specific Plan land uses.

Subsection 5 - Specific Plan Impact - On-site, off-site, as well as freeway and State highway impacts are assessed in this subsection. The forecasting methodology, as described earlier in this subsection, provides the traffic data, and specific significance threshold criteria are used to identify Specific Plan impacts. This subsection also addresses special issues which are related to future traffic conditions in the study area, and are, therefore, addressed in an informational context.

Subsection 6 - Specific Plan Mitigation Measures - To address the impacts identified in Subsection 5., a list of mitigation measures are proposed.

Subsection 7 - Cumulative Impact Analysis - This subsection discusses general plan amendment applications which add new land uses to the general plans of the County and City and analyzes the impact of General Plan and Area Plan buildout under the SCVCTM plus the Specific Plan plus the general plan amendments.

Subsection 8 - Cumulative Mitigation Measures - This subsection discusses the measures that are required to mitigate the impact of the cumulative development.

Subsection 9 - Unavoidable Significant Impacts - This subsection discusses the significant impacts that would remain after implementation of all mitigation measures.

Detailed information on various technical aspects of the report are contained in **Appendix 4.8**. Resource documents, such as descriptions of the SCVCTM and its database, are referenced in Subsection 2.e., and noted wherever the data sources are used in the analysis.

d. Definitions

Certain terms used throughout this EIR section are defined below to clarify their intended meaning:

ADT — Average Daily Traffic. Generally used to measure the total two-directional traffic volumes passing a given point on a roadway.

DU	Dwelling Unit. Used in quantifying residential land use.
ICU	Intersection Capacity Utilization. A measure of the volume to capacity ratio for an intersection. Typically used to determine the peak hour level of service for a given set of intersection volumes.
LOS	Level of Service. A scale used to evaluate circulation system performance based on intersection ICU values or volume/capacity ratios of arterial segments.
Peak Hour	This refers to the hour during the A.M. peak period (typically 7 A.M. - 9 A.M.) or the P.M. peak period (typically 3 P.M. - 6 P.M.) in which the greatest number of vehicle trips are generated by a given land use or are traveling on a given roadway.
Trip-end	A trip generation measure which represents the total trips entering and leaving a location.
TSF	Thousand Square Feet. Used in quantifying non-residential land uses, and refers to building floor area.
V/C	Volume to Capacity Ratio. This is typically used to describe the percentage of capacity utilized by existing or projected traffic on a segment of an arterial or intersection.
VPD	Vehicles Per Day. Similar to ADT, but more typically applied to trip generation (i.e., the amount of traffic generated by a given amount of land use).
VPH	Vehicles Per Hour. Used for roadway volumes (counts or forecasts) and trip generation estimates. Measures the number of vehicles in a one hour period, typically the A.M. or P.M. peak hour.

e. References

1. Santa Clarita Valley Consolidated Traffic Model Report, County of Los Angeles Department of Public Works, January 1994.

2. Santa Clarita Valley Consolidated Traffic Model 1995 Update and Validation, City of Santa Clarita and County of Los Angeles Department of Public Works, June 1995.

3. Newhall Ranch Subarea Traffic Model, Austin-Foust Associates, Inc., April 1995.

4. Route Concept Report, Route 5, Caltrans District 7, Transportation Planning, June 20, 1991.

5. Route Concept Report, Route 14, Caltrans District 7, Transportation Planning, January 1991.

6. Route Concept Report, Route 126, Caltrans District 7, Transportation Planning, January 1991.

7. Center City Circulation System Study, Meyer, Mohaddes Associates, July 1995.

8. Hasley Area Traffic Analysis, Austin-Foust Associates, Inc., August 1987.

9. 1995 Final Draft Congestion Management Program for Los Angeles County, Los Angeles County Metropolitan Transportation Authority, October 1995.

10. A Plan for Los Angeles County, Transportation for the 21st Century, Los Angeles County Metropolitan Transportation Authority, March 1995.

11. Draft Newhall Ranch Specific Plan, FORMA, July 1996.

3. TRANSPORTATION SETTING

This subsection describes the transportation setting for the proposed Specific Plan. Existing conditions are first summarized, followed by the future background setting against which Specific Plan impacts are evaluated. This subsection also discusses long-range travel patterns in the study area.

a. Existing Conditions

This discussion of the existing transportation setting for the study area describes the transportation system serving the area (highway and transit) and the current traffic volumes and operating conditions on the highway system. The information, thereby, provides a point of reference for describing anticipated future conditions in this area.

(1) Existing Highway System

The existing highway system in the study area is illustrated in **Figure 4.8-2, Existing Highway System**. The numbers on each highway segment represent the number of two-way travel lanes, referred to in this study as midblock lanes. The midblock lanes depict the freeway and arterial system as of January 1995. As can be seen here, the primary regional access is via the Golden State Freeway (I-5). The Antelope Valley Freeway (SR-14) serves the eastern edge of the study area, and the two freeways join at a confluence on the south end of the study area. The I-5 freeway in the study area is currently four lanes in each direction.

The study area has a well defined set of arterials which have been evolving in accordance with the County Master Plan of Highways. From east to west along the northern part of Newhall Ranch is SR-126. It is currently a two-lane rural highway with one signalized intersection at Wolcott Avenue. East of the I-5 freeway, Magic Mountain Parkway and Valencia Boulevard connect to the Town Center area and the City of Santa Clarita Civic Center located around and adjacent to the triangle formed by Magic Mountain Parkway, Valencia Boulevard, and McBean Parkway. Continuations of the east-west roadways then serve residential areas to the east, such as Bouquet Canyon, Saugus, and Canyon Country.

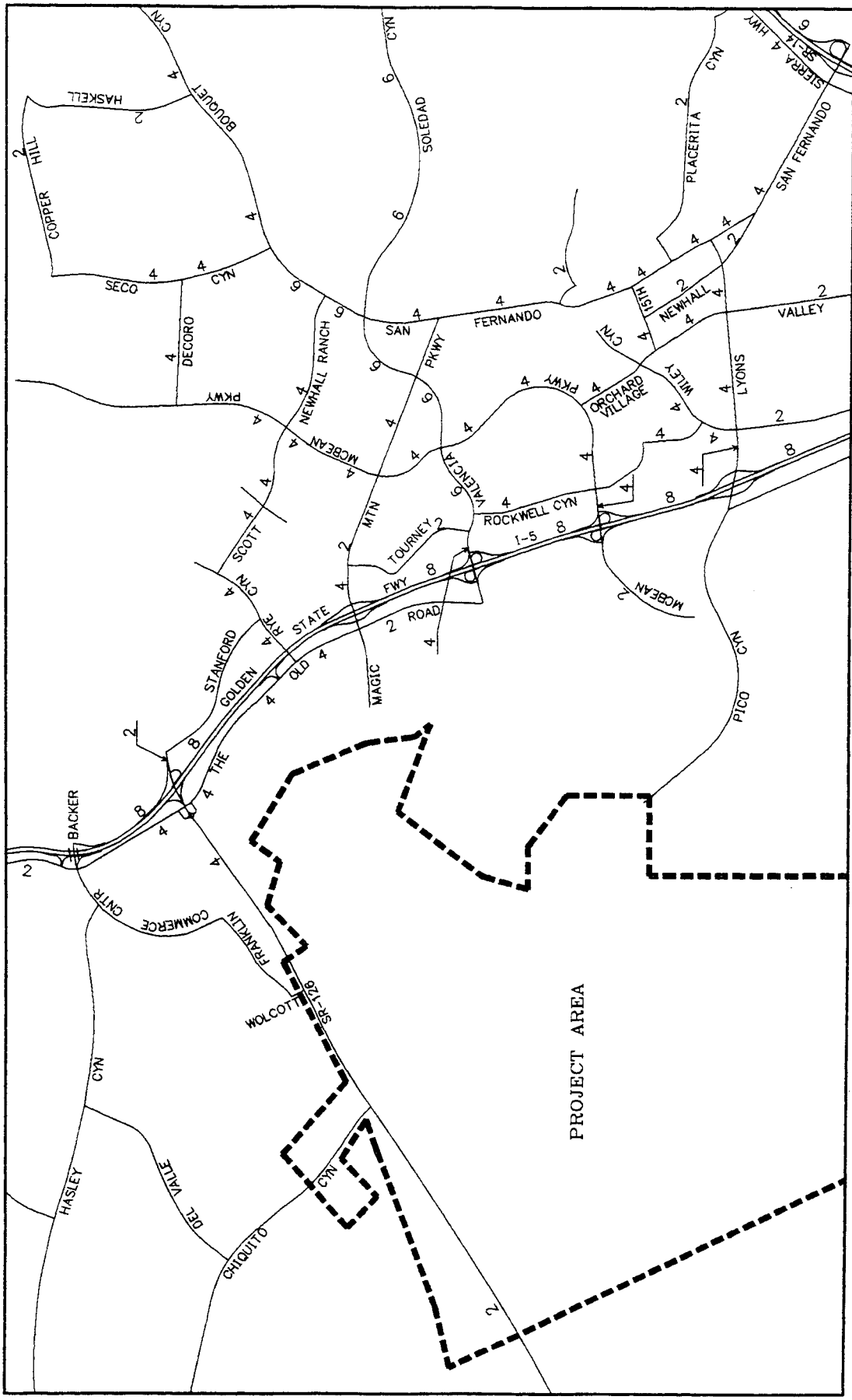


FIGURE 4.8-2
EXISTING HIGHWAY SYSTEM

Altogether, five freeway interchanges along I-5 are within the study area and will serve Specific Plan traffic. These include:

- SR-126,
- Magic Mountain Parkway,
- Valencia Boulevard,
- McBean Parkway, and
- Pico Canyon Road/Lyons Avenue.

In addition, there are freeway ramps (to and from the south only) intersecting with The Old Road just north of Rye Canyon Road between the SR-126 and Magic Mountain Parkway interchanges. The Backer Road/I-5 interchange is in the northern part of the study area, but does not serve any measurable Specific Plan traffic.

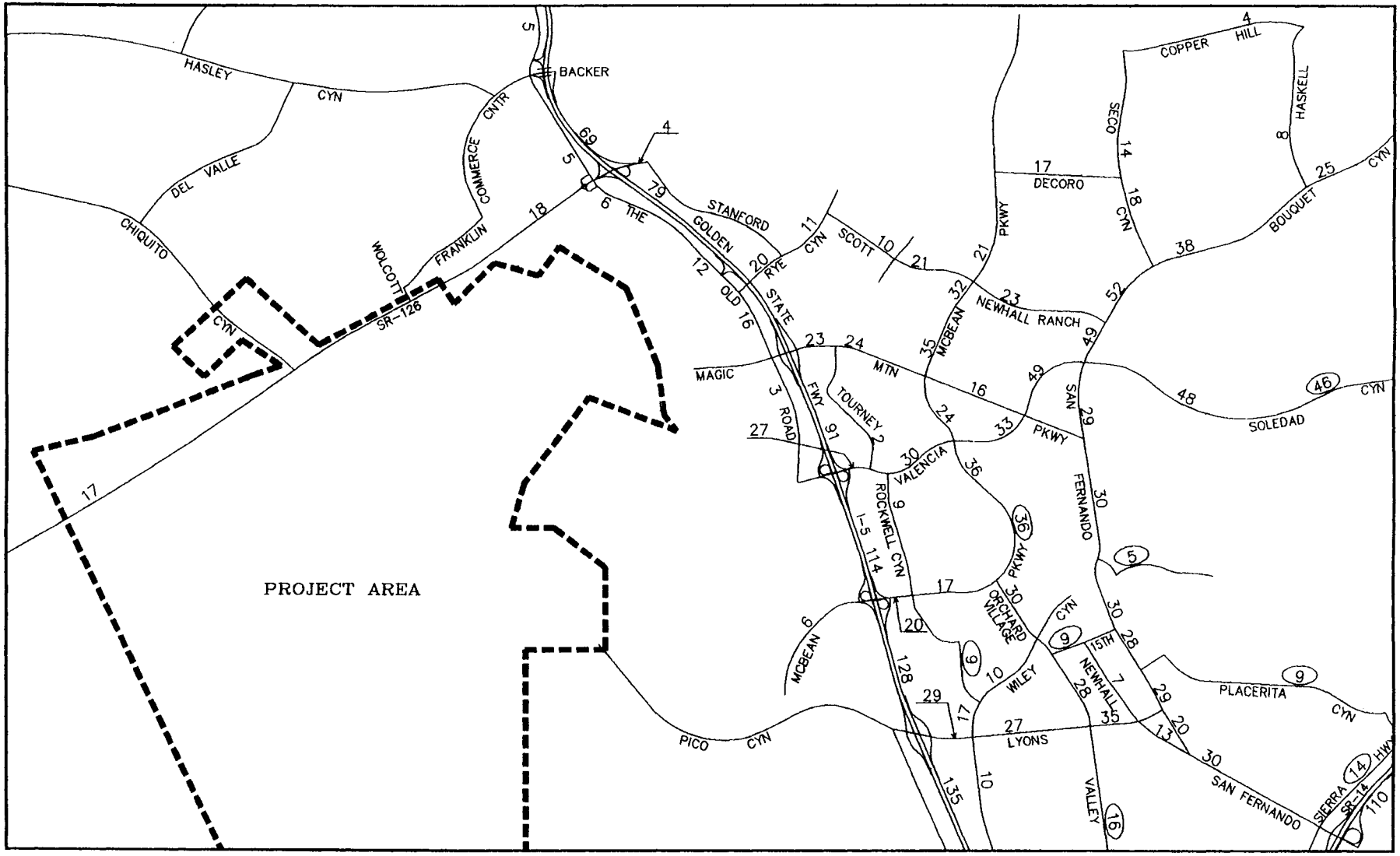
(2) Existing Traffic Volumes

The existing highway system, together with the average daily traffic (ADT) volumes, is shown on **Figure 4.8-3, Existing ADT Volumes**. As indicated on the figure, the 24-hour ADT counts are primarily from the January/February 1995 count program carried out for this traffic study. For certain minor locations at some distance from the Specific Plan site, City of Santa Clarita traffic data were used.

Along the northern edge of the Specific Plan area, volumes on SR-126 are currently 17,000 ADT at the County line, increasing to 18,000 ADT near I-5. East of the freeway, Magic Mountain Parkway and Valencia Boulevard carry 23,000 ADT and 27,000 ADT, respectively, with volumes increasing slightly in proximity to the Town Center area. Bouquet Canyon Road shows the highest volumes, with 52,000 ADT north of Newhall Ranch Road and 49,000 ADT south of Newhall Ranch Road.

(3) Existing Operating Conditions

Within the study area, existing operating conditions on each highway link were evaluated based on ADT volume to capacity (V/C) ratios. The V/C ratios were determined using the following ADT capacity values:



LEGEND

XX January/February 1995 Traffic Counts

(XX) November 1994 Traffic Counts from the City of Santa Clarita Traffic Flow Map

FIGURE 4.8-3

EXISTING ADT VOLUMES (000's)

ADT Capacity Values

FACILITY TYPE	ADT CAPACITY
Eight-lane Freeway (1-5)	180,000
Eight-lane Expressway	112,000
Six-lane Expressway	84,000
Major Highway (6-lanes)	54,000
Major Highway (4-lanes)	36,000
Major Highway (2-lanes)	18,000
Secondary Highway (4-lanes)	32,000
Secondary Highway (2-lanes)	16,000

These are the representative ADT capacities used by the County of Los Angeles for assessing operating conditions on arterial highway links. The Expressway designation is discussed in detail in Subsection 5. for the buildout time frame. With the exception of freeways, the threshold for acceptable levels of service used in this study is a V/C value of 1.00. Any link where the V/C exceeds 1.00 is considered to be deficient.

The existing ADT volumes and V/C ratios are listed in **Table 4.8-2, Existing ADT Volume Summary**. As indicated by an asterisk, there are currently four locations where the V/C exceeds 1.00. These are as follows:

- McBean south of Valencia (V/C = 1.01),
- Magic Mountain east of Tourney (V/C = 1.31),
- Lyons east of Orchard Village (V/C = 1.10), and
- Bouquet Canyon east of Seco Canyon (V/C = 1.05).

b. Existing Transit Service

The study area is served by two major transit carriers, the Santa Clarita Valley Transit System operated by the City of Santa Clarita, and Metrolink operated by the Metropolitan Transportation Authority (MTA). The first provides the bus system within the Valley and to some external destinations, and the latter provides commuter rail service to areas within and Valley and to other areas which are served by the regional Metrolink system.

Table 4.8-2
Existing ADT Volume Summary

LINK #/LOCATION	VOLUME	CAPACITY	V/C		COUNT DATE
23. The Old Rd n/o Hasley Cyn	5156	16000	.32		2/9/95
25. The Old Rd n/o SR-126	5429	36000	.15		2/9/95
26. The Old Rd s/o SR-126	5619	36000	.16		2/2/95
27. The Old Rd n/o Rye Cyn	11615	36000	.32		1/18/95
28. The Old Rd n/o Magic Mtn	15989	36000	.44		3/2/95
29. The Old Rd s/o Magic Mtn	2943	18000	.16		1/18/95
30. Tournament s/o McBean	8348	28000	.30		1/19/95
35. McBean w/o I-5	5763	18000	.32		1/18/95
36. McBean w/o Rockwell	19964	36000	.55		1/18/95
37. McBean e/o Rockwell	17356	36000	.48		1/18/95
38. McBean s/o Valencia	36308	36000	1.01	*	2/16/95
39. McBean s/o Magic Mtn	24093	54000	.45		2/9/95
40. McBean n/o Magic Mtn	35253	36000	.98		1/18/95
41. McBean s/o Newhall Ranch	31973	36000	.89		1/18/95
42. McBean n/o Newhall Ranch	21495	32000	.67		1/19/95
49. SR-126 w/o The Old Rd	17747	36000	.49		2/1/95
50. Newhall Ranch Rd e/o I-5	3859	18000	.21		2/22/95
54. Newhall Ranch e/o McBean	23357	36000	.65		1/19/95
63. Rye e/o I-5	20417	32000	.64		2/22/95
64. Rye Cyn e/o Scott	10586	32000	.33		1/17/95
68. Copperhill e/o Seco Hill	4280	16000	.27		1/30/95
72. Decoro e/o McBean	17125	32000	.54		1/30/95
73. Haskell Cyn n/o Bouquet	8435	16000	.53		1/30/95
74. Seco s/o Copperhill	13779	32000	.43		1/30/95
75. Seco n/o Bouquet	18261	32000	.57		1/30/95
76. Bouquet Cyn e/o Haskell	25040	36000	.70		1/31/95
78. Bouquet Cyn w/o Seco	51542	54000	.95		1/30/95
79. Bouquet Cyn s/o Newhall Rch	48569	54000	.90		1/30/95
80. Bouquet n/o Magic Mtn	28948	36000	.80		2/1/95
81. Bouquet s/o Magic Mtn	30017	36000	.83		2/1/95
82. San Fernando s/o Wiley	30175	36000	.84		1/30/95
83. San Fernando n/o Placerita	27765	36000	.77		1/30/95
84. San Fernando s/o Placerita	28872	36000	.80		1/30/95
85. San Fernando s/o Lyons	19794	36000	.55		1/30/95
86. Scott s/o Rye Cyn	10380	32000	.32		1/17/95
87. Ave Scott e/o Dickason	21478	32000	.67		2/22/95
88. Magic Mtn e/o I-5	22516	36000	.63		1/17/95
89. Magic Mtn e/o Tourney	23519	18000	1.31	*	3/1/95
90. Magic Mtn e/o McBean	15505	36000	.43		2/1/95
93. Tourney n/o Valencia	2461	16000	.15		1/18/95
94. Rockwell n/o McBean	8572	28000	.31		1/18/95
95. Rockwell s/o McBean	9104	28000	.33		11/94[A]
96. Valencia btwn Tourney/I-5	27188	36000	.76		2/15/95
98. Valencia w/o McBean	29652	54000	.55		1/17/95
99. Valencia w/o Magic Mtn	33391	54000	.62		1/17/95
100. Valencia w/o San Fernando	49417	54000	.92		2/1/95
101. Soledad e/o Bouquet Cyn	47939	54000	.89		1/17/95
102. Wiley s/o Lyons	9618	16000	.60		2/15/95

(Continued)

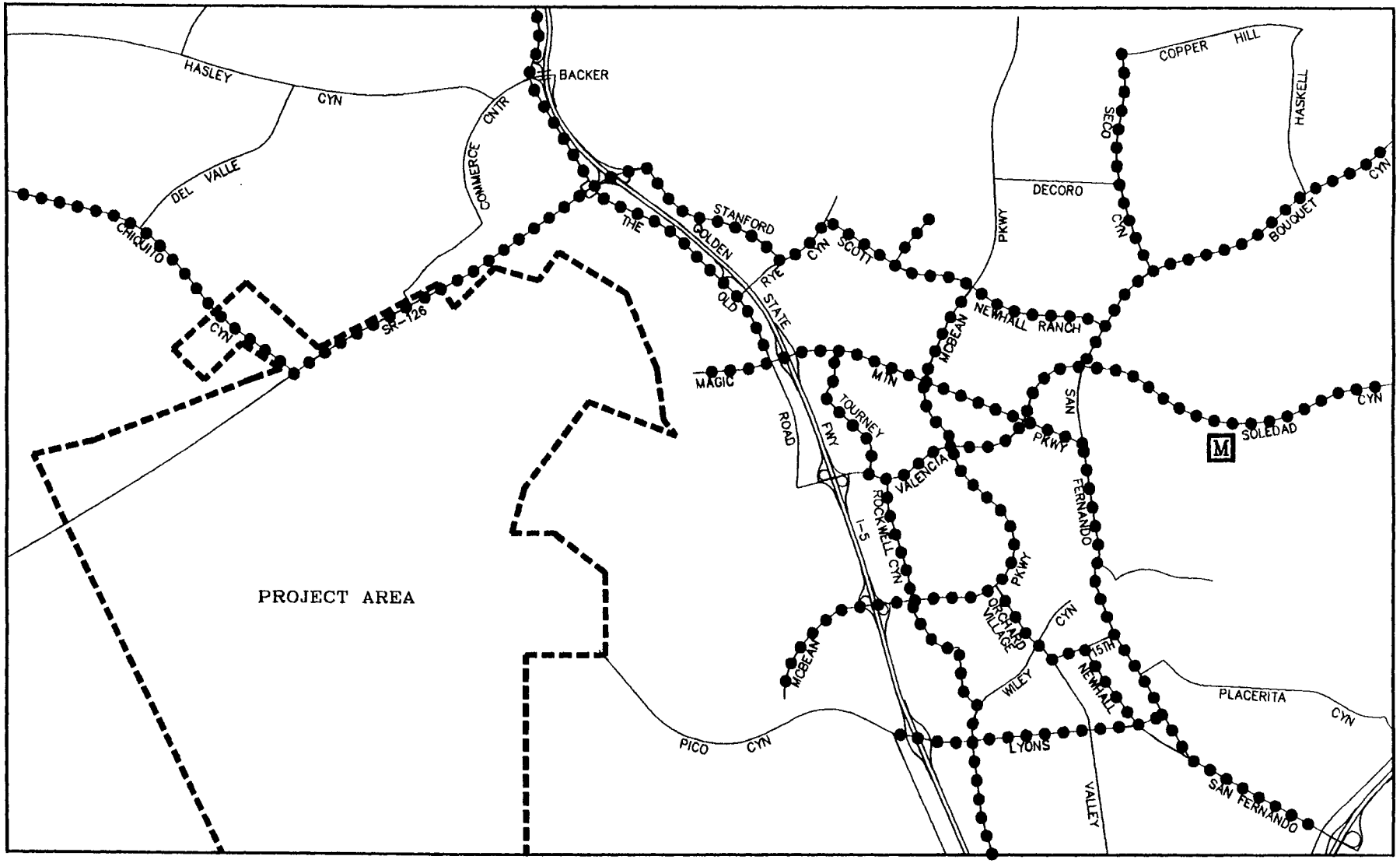
Table 4.8-2 (cont.)
Existing ADT Volume Summary

LINK #/LOCATION	VOLUME	CAPACITY	V/C		COUNT DATE
103. Wiley n/o Lyons	17066	32000	.53		2/1/95
104. Wiley e/o Tournament	10436	32000	.33		1/18/95
106. Via Princessa e/o San Fernando	4988	36000	.14		11/94[A]
108. 15th St e/o Orchard Village	9290	32000	.29		11/94[A]
109. Newhall n/o Lyons	6994	16000	.44		1/30/95
110. Newhall s/o Lyons	12893	16000	.81		1/18/95
111. San Fernando s/o Newhall	30346	32000	.95		1/30/95
112. Orchard Village s/o McBean	29855	36000	.83		1/18/95
113. Orchard Village s/o Wiley	27741	36000	.77		1/18/95
114. Valley s/o Lyons	15804	16000	.99		11/94[A]
115. Lyons e/o I-5	28818	32000	.90		1/17/95
116. Lyons e/o Wiley	26617	32000	.83		1/17/95
117. Lyons e/o Orchard Village	35055	32000	1.10	*	1/30/95
119. McBean e/o Orchard Village	35526	36000	.99		11/94[A]
121. Placerita e/o San Fernando	8595	16000	.66		11/94[A]
126. Bouquet Cyn e/o Seco	37788	36000	1.05	*	1/30/95
143. Soledad w/o Golden Valley	46373	54000	.86		11/94[A]
159. Sierra Hwy e/o San Fernando	14088	36000	.39		11/94[A]
200. I-5 n/o SR-126	69000	180000	.38		1993 Caltrans
201. I-5 s/o Newhall Ranch	79000	180000	.44		1993 Caltrans
202. I-5 n/o Valencia	91000	180000	.51		1993 Caltrans
203. I-5 n/o McBean	114000	180000	.63		1993 Caltrans
204. I-5 s/o McBean	128000	180000	.71		1993 Caltrans
205. I-5 s/o Lyons	135000	180000	.75		1993 Caltrans
206. SR-14 s/o Placerita	110000	135000	.81		1993 Caltrans

Notes: *
Currently exceeds V/C of 1.00
Source of Data: Traffic counts were conducted in January/February 1995 except where indicated by a footnote or Caltrans designation.
[A] November 1994 City of Santa Clarita Traffic Flow Map
A reference map for the link numbering system can be found in **Appendix 4.8**

Level of service ranges: .00 - .60 A
.61 - .70 B
.71 - .80 C
.81 - .90 D
.91 - 1.00 E
Above 1.00 F

As can be seen in **Figure 4.8-4, Existing Transit Services**, the fixed route bus system provides service throughout most of the study area. The Metrolink station is located on Soledad Canyon Road east of San Fernando Road, and convenient transfer service is offered between the bus and rail systems.



LEGEND

FIXED ROUTE BUS SERVICE

M METROLINK TRANSIT CENTER

FIGURE 4.8-4

EXISTING TRANSIT SERVICES

c. Future Setting

The Santa Clarita Valley area is projected to have substantial growth over the next twenty years or more, and this anticipated growth is reflected in the City's General Plan and County's Area Plan for the area. Accompanying that growth will be additions to the existing circulation system in the form of new roads and widening of existing facilities. The following subsections describe these changes.

(1) Land Use

As noted in Subsection 2., the long-range setting for the analysis assumes buildout of the City and County general plans in the Santa Clarita Valley. This includes all existing, recorded, approved, and pending, subdivisions, as well as vacant land built out under existing general plan land use designations in the Valley. To show what this means in quantitative terms, **Table 4.8-3, Land Use and Trip Generation Summary (SCVCTM Area)**, gives a summary of existing and future land uses in the traffic model area (see traffic model area description in Subsection 2.). To assist in the comparison, the projections listed in **Table 4.8-3** are separated into City and unincorporated County portions of the area.

Table 4.8-3
Land Use and Trip Generation Summary
(SCVCTM Area)

LAND USE CATEGORY	UNITS	– 1994 COUNTY – AMOUNT	ADT	– 1994 CITY – AMOUNT	ADT	— TOTAL — AMOUNT	ADT
TOTAL							
1. Single Family Res	DUs	9,699	97,878	18,269	184,362	27,968	282,240
2. Multi-Family Res	DUs	2,457	17,288	16,466	117,711	18,923	134,999
3. Commercial	TSF	536	36,551	5,239	257,461	5,775	294,011
4. Ind/Manufacturing	TSF	432	2,902	12,264	88,041	12,696	90,943
5. Office	TSF	119	1,404	952	15,326	1,071	16,731
6. Schools	EMP	336	4,590	1,625	27,238	1,961	31,828
7. Other	-	-	31,568	-	28,390	-	59,958
TOTAL			192,181		718,529		910,710

LAND USE CATEGORY	UNITS	BUILDOUT GP COUNTY AMOUNT	ADT	BUILDOUT GP CITY AMOUNT	ADT	— TOTAL — AMOUNT	ADT
TOTAL							
1. Single Family Res	DUs	54,442	551,345	32,057	324,647	86,499	875,992
2. Multi-Family Res	DUs	10,750	75,886	26,628	189,579	37,378	265,465
3. Commercial	TSF	6,868	334,964	12,394	623,107	19,262	958,071
4. Ind/Manufacturing	TSF	20,378	141,657	20,732	162,972	41,110	304,629
5. Office	TSF	3,599	42,558	4,858	61,553	8,457	104,111
6. Schools	EMP	1,677	25,739	2,074	33,837	3,751	59,577
7. Other	-	-	66,347	-	29,327	-	95,673
TOTAL			1,238,496		1,425,022		2,663,518

DUs - Dwelling units
TSF - Thousand square feet of floor area
EMP - Employees
ADT - Average daily trip-ends

The land use summary indicates that, in 1994, there were 46,891 dwelling units in the Valley, with 123,877 dwelling units projected for Santa Clarita Valley Area Plan buildout. Non-residential land uses (commercial, industrial, and office) are projected to increase from around 19.5 million square feet of floor area in 1994 to 68.8 million square feet in the future. The corresponding increase in traffic generation is from 910,710 average daily trip-ends in 1994 to 2,663,518 at buildout. Detailed land use and trip generation data for the SCVCTM area are tabulated in the traffic model description report (Reference 2 in Subsection 2.e.).

(2) Highway System

The County Master Plan of Highways is the planned roadway system expected to be in place by buildout of the land uses in the County's Area Plan and the City's General Plan. The current long-range Master Plan of Highways for the study area is illustrated in **Figure 4.8-5, Master Plan of Highways**. It has two basic roadway classifications: major highway (four to six lanes), and secondary highway (four lanes, and with less right-of-way than a major). The Master Plan also includes SR-126 extending eastward between I-5 and SR-14 as an expressway facility (labeled in the diagram as Newhall Ranch Road). According to the Los Angeles County Planning and Zoning Code, an expressway is defined as follows:

> Expressway means a highway or road designated on the highway plan, which is designed primarily for thru-traffic with full or partial control of access. Expressways are divided highways between 120 and 190 feet in width which can accommodate six to ten traffic lanes (LRD.89-0061, SEC. for 1989.)

At the present time, the City of Santa Clarita and the County of Los Angeles are examining potential modifications to the Master Plan of Highways. The SR-126 expressway is being reconsidered, and an alternative alignment for a cross-Valley highway in the eastern part of the Valley is being sought. Other roadways are also being considered for potential addition to, or deletion from, the current Master Plan.

For the purpose of this analysis, both the current Master Plan of Highways (referred to as the "County Base") and an Alternative Highway Plan (also referred to herein as the Alternative Highway Network) have been used to examine impacts of Newhall Ranch. **Figure 4.8-6, Alternative Highway Plan** identifies roadways that have been identified by the City of Santa Clarita as potential candidates for inclusion in the revised plan, including a cross-Valley highway replacement for the original SR-126 Expressway. While an Alternative Highway Plan has not yet been finalized, the

FIGURE 4.8-5
MASTER PLAN OF HIGHWAYS



LEGEND

- EXPRESSWAY (6-8 LANES)
- AUGMENTED HIGHWAY (6-8 LANES)
- MAJOR HIGHWAY (4-6 LANES)
- SECONDARY HIGHWAY (2-4 LANES)

FIGURE 4.8-6

ALTERNATIVE HIGHWAY PLAN

system shown here is representative of the general direction being taken by the City in its efforts to update the Master Plan of Highways. It can be considered a reasonable alternative for EIR purposes, since it eliminates the SR-126 expressway in accordance with City objectives and contains new roadway links to serve future traffic. It is expected that the type of refinements that are likely to occur to this plan before it is adopted will largely be in the eastern part of the Valley and not in the Newhall Ranch study area.

The Alternative Highway Plan includes a number of "augmented" roadways. This augmented roadway classification depicts capacity enhancement of an arterial roadway by a variety of discretionary improvements. Typical examples include additional midblock lanes which do not necessarily extend through the intersection, added turn lanes at intersections, and combinations of the above (a description of typical augmented capacity actions can be found in Subsection 5.). The purpose of providing extra capacity in this manner is to target the improvements to an actual location and its specific characteristics rather than merely widening the roadway (e.g., from six to eight lanes).

The no-project scenarios (with both the County Base and the Alternative Highway Plan) are based on the current Master Plan roadways in the Specific Plan area, and the proposed Specific Plan traffic forecasts (with both the County Base and the Alternative Highway Plan) are based on the proposed revisions to the Master Plan in the Specific Plan area. Under the current Master Plan, Pico Canyon Road passes through the Specific Plan area from SR-126 and meets the existing connection at I-5. Commerce Center Drive would extend southward from SR-126, becoming the westward extension of Magic Mountain Parkway. Both Valencia Boulevard and McBean Parkway are shown as extending westward to Pico Canyon Road, although both extensions are outside the actual Specific Plan area. As will be seen later in this EIR section, the Newhall Ranch Specific Plan proposes to change some of these planned roadways.

(3) Transit

It can be anticipated that, over time, the local bus system will expand as additional development occurs. Some unincorporated areas of the Valley are currently served by the Santa Clarita Valley Transit System through a contract with Los Angeles County. This arrangement is anticipated to continue to serve local residents of the area, connecting residential areas with employment and commercial centers. Typically, bus route plans are evaluated on a regular basis, and routes are added and/or modified as appropriate. As Newhall Ranch develops, service to that community will be added accordingly at the discretion of Los Angeles County.

The Metropolitan Transportation Authority (MTA) oversees transit planning in the Los Angeles County area, and has a long-range plan for future rail transit, including additional service to this area. An eventual Metrolink extension along the SR-126 corridor to Ventura County is part of long-range transit plans prepared by Ventura County.

d. Traffic Patterns

The patterns of travel in Santa Clarita Valley will change over time as population increases and as more employment opportunities develop within the Valley. This changing relationship can be seen from the following summary table derived from the SCVCTM showing the internal/external travel patterns today and as projected by buildout. The relationship is shown in the form of trip-ends, which are the total trips entering and leaving a given location:

Average Daily Internal/External Trips for SCVCTM Area

	EXISTING		FUTURE	
Internal Trip-ends	661,410	(73%)	2,289,118	(86%)
External Trip-ends	249,300	(27%)	374,400	(14%)
TOTAL TRIP-ENDS	910,710	(100%)	2,663,518	(100%)

As can be seen from these data, the number of external trip ends are projected to increase over time (from 249,300 to 374,400), but the proportion of external trip-ends will decrease significantly (from 27 percent to 14 percent). This reflects the growing size and increasing employment and commercial base in the Valley, which decreases the dependence on out-commuting for work and other activities. These travel pattern figures do not include Newhall Ranch, and comparison data with the proposed Specific Plan are given in the next subsection.

The changing travel patterns in the Valley are important in the context of regional transportation facilities, such as the freeways and freeway interchanges in the Valley. In Subsection 5., traffic data are presented for the freeways and freeway interchanges, and the changing external travel patterns shown above are reflected in those forecasts. Increase in demand on those facilities reflects the growth in external trips, which, as shown here, is less than the growth projections for internal trips.

4. PROPOSED SPECIFIC PLAN

This subsection describes the proposed Specific Plan in terms of its traffic-related characteristics. This includes Specific Plan area trip generation and distribution, and the proposed on-site roadway system designed to serve Specific Plan traffic. Specific Plan travel patterns in relation to the overall travel patterns in the Santa Clarita Valley are also discussed.

a. Land Use and Trip Generation

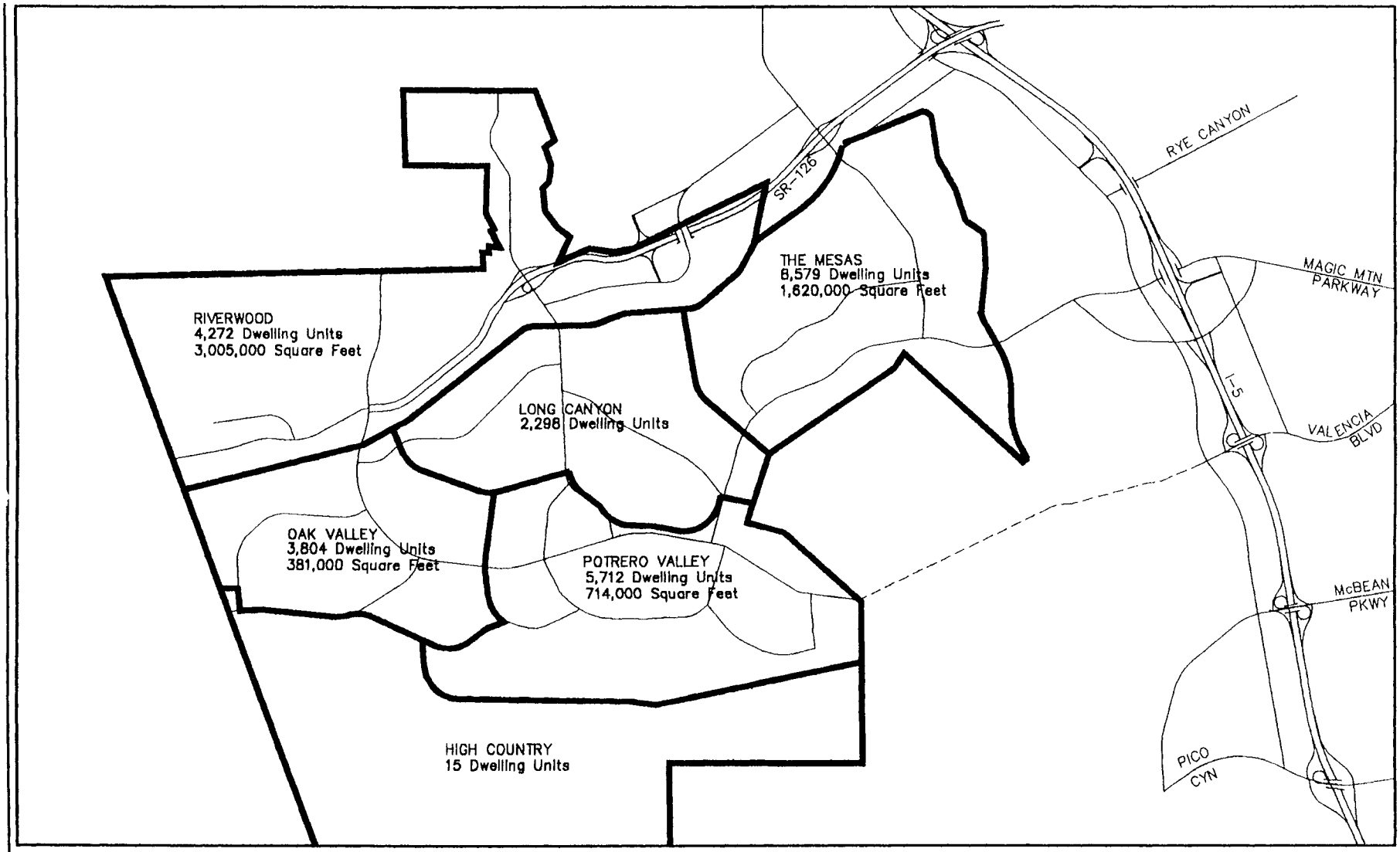
The proposed Specific Plan includes 24,680 dwelling units (DU) (plus a maximum of 538 Second Units in the Estate Residential land use designation) and 5,720,000 square feet of retail, office and industrial development. The land use plan also includes schools, parks, a library, two fire stations, a water reclamation plant, and a golf course. Much of the Specific Plan area located on the south end of the site (the High Country Special Management Area) will remain as permanent Open Area.

The community is organized into five Villages, as illustrated in **Figure 4.8-7, Newhall Ranch Villages**. These Villages are an integral part of the land use concepts embodied in the Newhall Ranch Specific Plan, providing a basis for the land use distribution and on-site amenities. Land uses in each Village create the travel patterns which the circulation system must serve, and hence the allocation shown here was used to establish roadway sizing and access needs for the Specific Plan. Some features of the land use plan are briefly noted below.

Mixed-Use - Four Villages include Mixed-Use centers which will permit a combination of commercial, office, residential, and public service and recreational uses. Depending on their location, the Mixed-Use Village centers are intended to serve a larger area than the immediate Village in which they would be located. Access to the Mixed-Use centers will be facilitated by major highways, and by pedestrian trails and bikeways. The locations of these centers were selected to reduce the amount and trip length of automobile trips and maximize use of pedestrian and bicycle trails.

Commercial (Retail/Office) - Commercial centers covering 90.7 gross acres would permit uses such as retail, food service, banking, entertainment, and automobile-related uses. The centers would be located near major highways.

Business Park - Business Park uses are proposed on 256.3 gross acres in the Riverwood Village. One Business Park location is proposed north of the intersection of Chiquito Canyon Road and SR-126 and the other Business Park other location is proposed on the south side of SR-126 west of San Martinez



LEGEND

Square Feet refers to the Non-Residential land uses of Retail, Office, and Industrial Development

FIGURE 4.8-7

NEWHALL RANCH VILLAGES

Grande/Potrero Valley Road near the Los Angeles/Ventura County line. The Business Parks would accommodate local and regional employment needs, and would enhance the housing/employment balance in the Santa Clarita Valley. This land use would provide for a full range of businesses, including research and development, light manufacturing, warehouse and distribution facilities, and other supporting uses.

Visitor-Serving Uses - A 36.7 gross acre Visitor-Serving center is proposed to provide a regional cultural, recreational, and commercial amenity, as well as to serve the Newhall Ranch community. The center is proposed to serve the High Country Special Management Area and is intended to be a low impact lodge-type use which provides controlled access to the High Country Special Management Area.

Trip generation is determined by applying suitable trip generation rates to the amount of land use in each land use designation. The results are calculated as "trip-ends," which are the total trips entering and leaving a given location. **Table 4.8-4 , Newhall Ranch Specific Plan Land Use and Trip Generation Summary**, lists the estimated number of average daily trip-ends generated by the different land use designations in the Newhall Ranch Specific Plan. As shown, the overall Specific Plan generates 387,000 ADT, of which 211,300 (55 percent) are accounted for by residential land use and the remainder by non-residential land uses. Trip generation rates used here are from the SCVCTM, and are described in the SCVCTM model validation report (see Reference 2 in Subsection 2.e.).

b. Trip Distribution

Future travel patterns in relation to the Specific Plan are a function of the Specific Plan land uses described above and the land uses surrounding the Specific Plan site, particularly centers of employment or commercial activity. This geographic context can be seen from **Figure 4.8-8, Activity Centers Surrounding the Project Site,** which shows the major activity centers surrounding the Specific Plan site. Directly to the northeast and across SR-126 is the Valencia Commerce Center, which is estimated to provide 30,500 jobs upon buildout, making the center a major source of employment for Newhall Ranch and other area residents. Also nearby and just east of I-5, is the Valencia Industrial Center and the Valencia Corporate Center which, together, are expected to provide 27,500 jobs. The Magic Mountain Theme Park will provide around 3,360 full-time and part-time jobs. Other centers in the vicinity of the Specific Plan include California Institute of the Arts and the Valencia Town Center, the latter providing a major regional shopping center for the Valley.

FIGURE 4.8-8
ACTIVITY CENTERS SURROUNDING THE PROJECT SITE

Table 4.8-4
Newhall Ranch Specific Plan
Land Use and Trip Generation Summary

	LAND USE TYPE	UNITS		ADT
1.	Single Family (1-5du/ac)	2440.00	DU	27,400
2.	Single Family (6-10 du/ac)	8570.00	DU	87,100
3.	Multi-Family	13655.00	DU	96,600
5.	Single Family (<1 du/ac)	15.00	DU	200
11.	Commercial Center (10-30a)	1078.00	TSF	62,000
12.	Commercial Center (<10 ac)	640.00	TSF	57,400
20.	Elementary/Jr. High School	300.00	STA	4,000
21.	High School	100.00	STA	1,700
24.	Library	25.00	TSF	2,100
31.	Business Park	1513.00	TSF	16,800
34.	Waste Water Reclamation Plant	35.00	TSF	100
40.	Commercial Office	2489.00	TSF	29,500
50.	Golf Course	180.00	AC	1,500
51.	Developed Park	133.00	AC	400
53.	Special Generator (Fire Stations)	200.00	SG	200
TOTAL				387,000

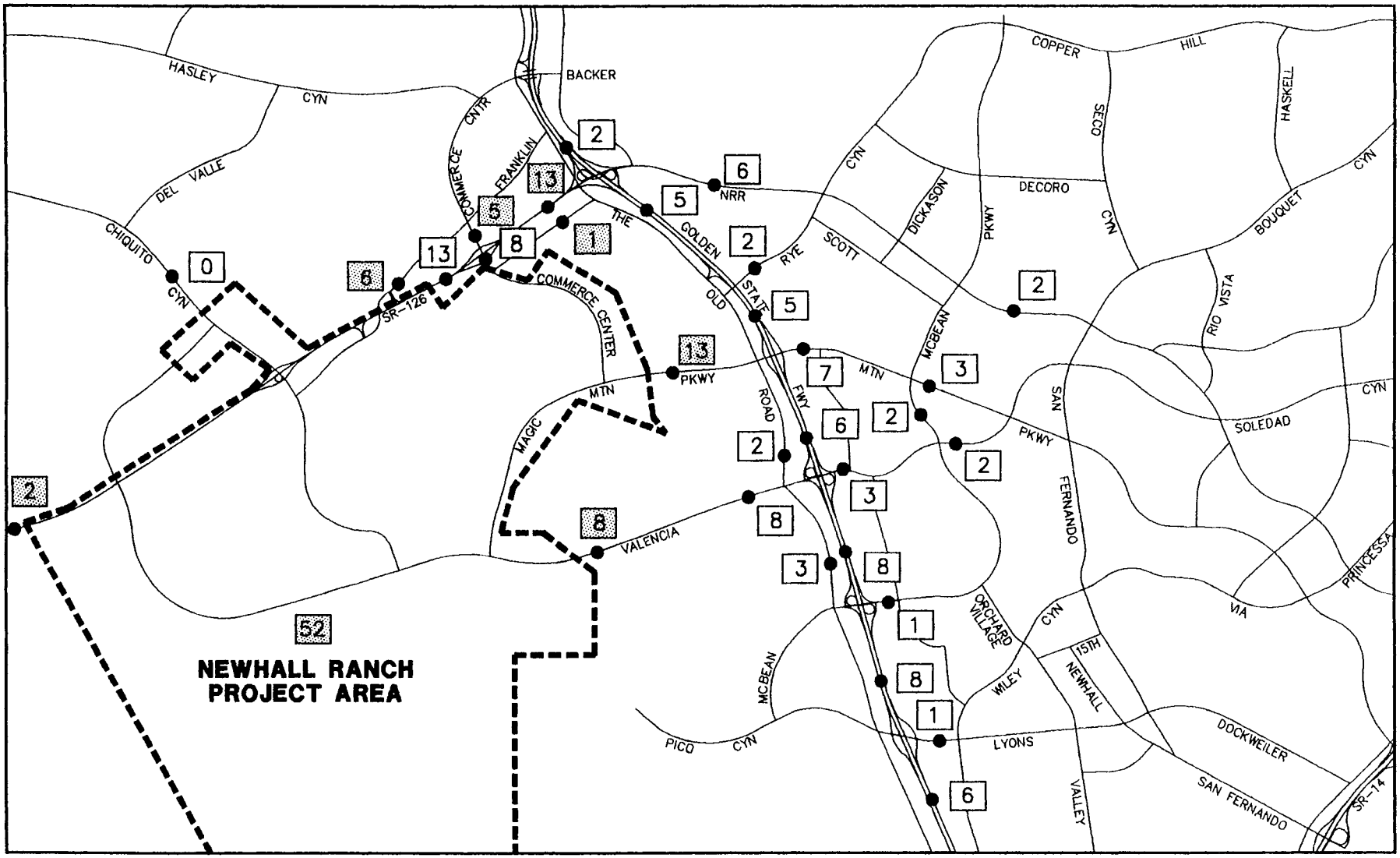
DU - dwelling unit
TSF - thousand square feet
STA - staff
AC - acre

The geographic distribution of trips to and from the Specific Plan site can be seen in **Figure 4.8-9, Project Distribution Patterns,** which shows the percent of Specific Plan trips on each major roadway serving the Specific Plan site. As would be expected, there is a high orientation to the Commerce Center area adjacent to the Specific Plan with 11 percent of the trips attracted here (6 percent using Franklin Avenue and 5 percent using Commerce Center Drive). East of the freeway, trips disperse into areas, such as Valencia Industrial Center and the Town Center area.

An internal/external summary of average daily trip-ends for the Specific Plan is as follows:

Specific Plan Trip Components

COMPONENT	SPECIFIC PLAN TRIP-ENDS	
Internal to Specific Plan	201,240	(52%)
Within Santa Clarita Valley	147,060	(38%)
Outside Santa Clarita Valley	38,700	(10%)
TOTAL	387,000	(100%)



LEGEND

- Project Distribution – Adds to 100 percent
- Percentage of Project Traffic at this location

FIGURE 4.8-9

PROJECT DISTRIBUTION PATTERNS

As can be seen here, 52 percent of the trip-ends (which represents 35 percent of the Specific Plan trips) remain on site. The remainder interacts with land uses in the Valley (38 percent), and outside the Valley (10 percent). Trips outside the Valley are accounted for by three major portals: I-5 south (6 percent), I-5 north (2 percent) and SR-126 (2 percent). As noted in Subsection 2., the Valley refers to the SCVCTM area. A comparison of the external trip proportion for the Newhall Ranch Specific Plan with the corresponding Valley-wide proportion can be seen by comparing total ADT trip-ends as follows:

External Trip Comparison

	TOTAL TRIP-ENDS	EXTERNAL TRIPS	EXTERNAL PERCENT
Valleywide (no-project)	2,663,518	374,400	14%
Newhall Ranch Project	387,000	38,700	10%

The lower external percentage for the Specific Plan compared to the Valley-wide external percentage reflects two major factors: the location of the Specific Plan further from the Los Angeles/San Fernando Valley employment centers than many of the residential areas in Santa Clarita Valley, and the close proximity of the Specific Plan to two large future employment centers: the Valencia Commerce Center and the Valencia Industrial Center.

The effect of this proximity of the Specific Plan to major employment centers can be seen from the average trip distances derived by the SCVCTM for Specific Plan trips compared to the Southern California Association of Governments (SCAG) regional averages in the Valley:

Average Trip Distances

	WORK	NON-WORK	ALL TRIPS
Newhall Ranch	10.2 (17.0 km)	6.4 (10.7 km)	7.4 (12.3 km)
Regional Average	11.7 (19.5 km)	6.9 (11.5 km)	8.2 (13.7 km)

Hence, the average trip distances of Newhall Ranch are expected to be around 10 percent shorter than future averages for the remainder of the Valley.

As Newhall Ranch develops over time, travel patterns in the Santa Clarita Valley will evolve in relation to development in Newhall Ranch and in other parts of the Valley. Residents of Newhall Ranch will make daily trips within their own community (for school, convenience shopping, etc.) and to

destinations outside their community. Activity centers, such as the Valencia Industrial Center, the Commerce Center, and the Town Center, will attract work trips and major shopping trips from Newhall Ranch. Additionally, some Newhall Ranch trips will be made to areas outside the Santa Clarita Valley.

Because of this interaction between Newhall Ranch and the Valley, future travel patterns will be different than under a no-project scenario. Such differences in travel patterns are reflected in the comparative traffic volume data presented later in this EIR section. Specific Plan trips are not merely "overlaid" onto the transportation system, but are modeled by the SCVCTM in a manner which depicts the future interaction between the Specific Plan and the surrounding area.

c. On-Site Circulation System

There are currently no public roadways on the Newhall Ranch site, apart from SR-126 which passes through the northern portion of Newhall Ranch, Chiquito Canyon Road which extends north from SR-126 into the community of Val Verde, and San Martinez Grande Road which also extends north of SR-126. As the Specific Plan develops, a complete circulation system will be constructed to serve the proposed on-site land uses and to provide ingress to and egress from Newhall Ranch.

This on-site circulation system is illustrated in **Figure 4.8-10, Newhall Ranch On-Site Circulation**. It features three crossings of the Santa Clara River: one at Potrero Canyon, one at Long Canyon, and one at Commerce Center Drive. The combination of Potrero Valley Road and Magic Mountain Parkway serve as a backbone roadway through the Specific Plan site, allowing for east-west on-site circulation. Long Canyon Road provides a direct connection to SR-126 from the central part of the site.

To serve future traffic demand, the roadway system has various roadway types throughout the Specific Plan area. These are shown in **Figure 4.8-11, Project Roadway System**. Roadway cross-sections for each roadway type can be found in the Newhall Ranch Specific Plan (see Reference 11 in Subsection 2.).

As part of the Specific Plan, several changes are proposed to the planned highway system in the Specific Plan area (see description of current Master Plan of Highways in Subsection 3.). These are illustrated in **Figure 4.8-12, Proposed Arterial Highway System Changes,** and can be summarized as follows:

1. Deletion of Pico Canyon Road south of the Specific Plan (i.e., Pico Canyon would not extend south from the Specific Plan to connect with McBean Parkway)

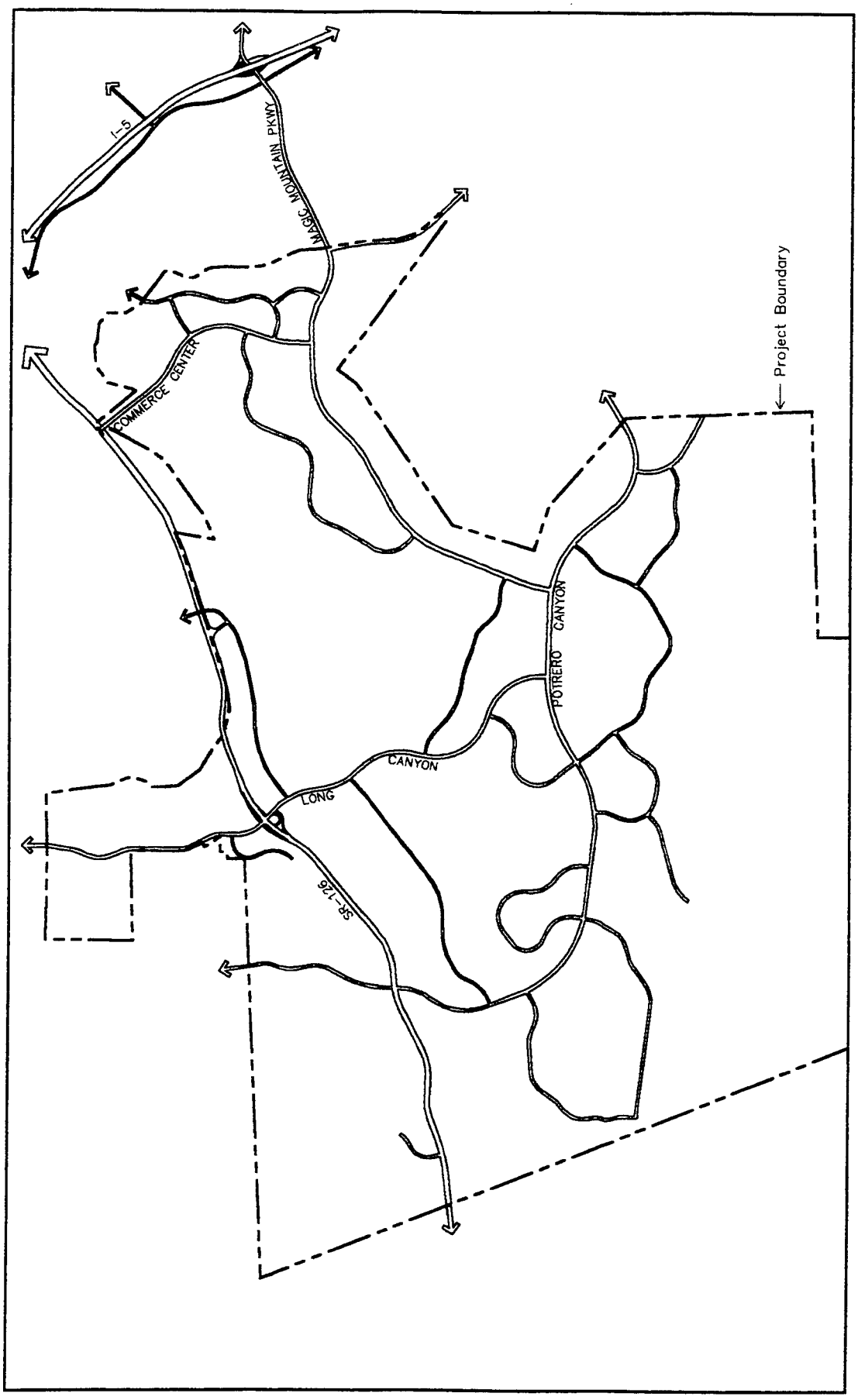
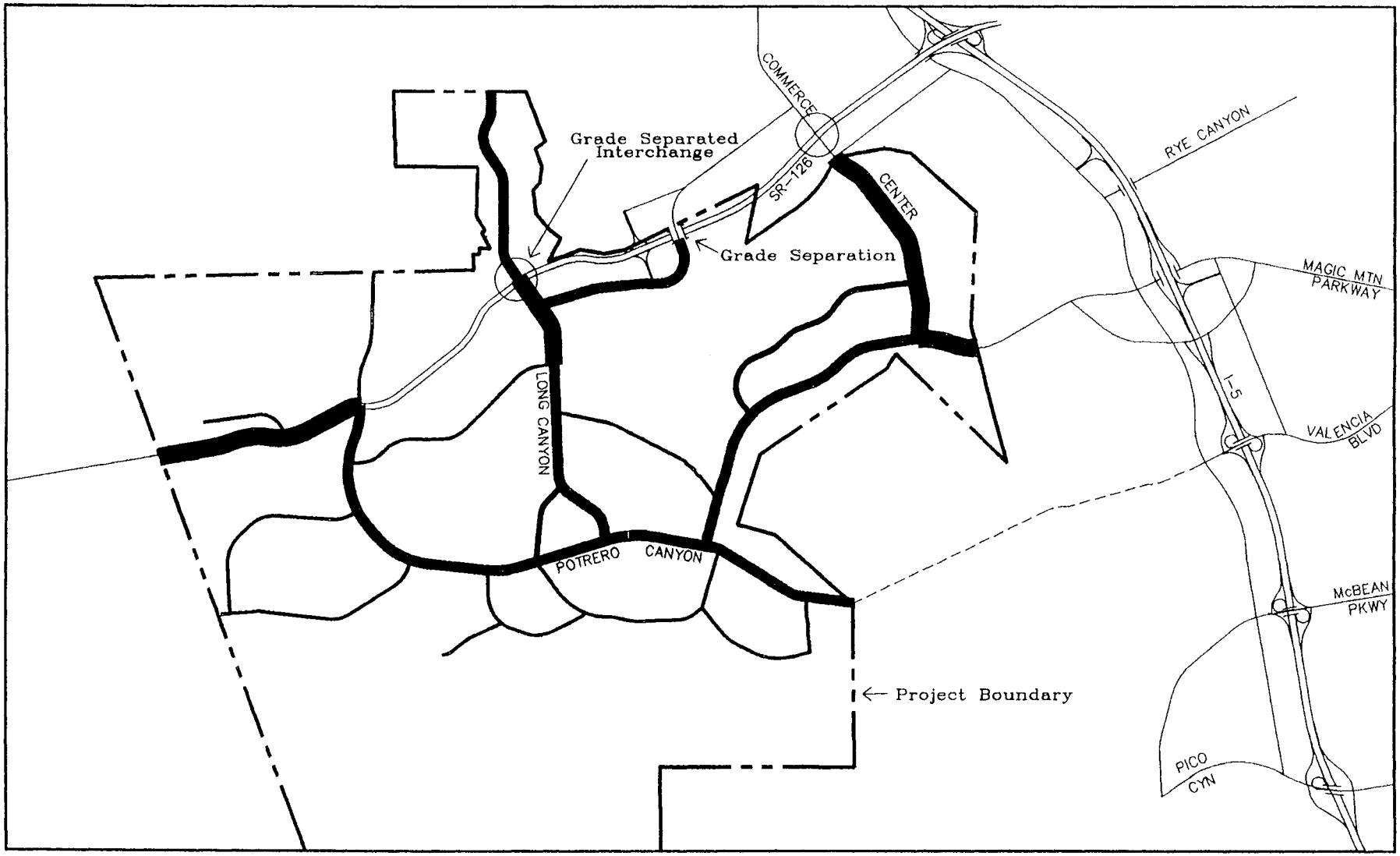


FIGURE 4.8-10
NEWHALL RANCH ON-SITE CIRCULATION



LEGEND
- Expressway
- Major Highway (6 Lanes)
- Secondary Highway (4 Lanes)
- Local Collector (2–4 Lanes)
- Future Interchange

FIGURE 4.8-11

PROJECT ROADWAY SYSTEM

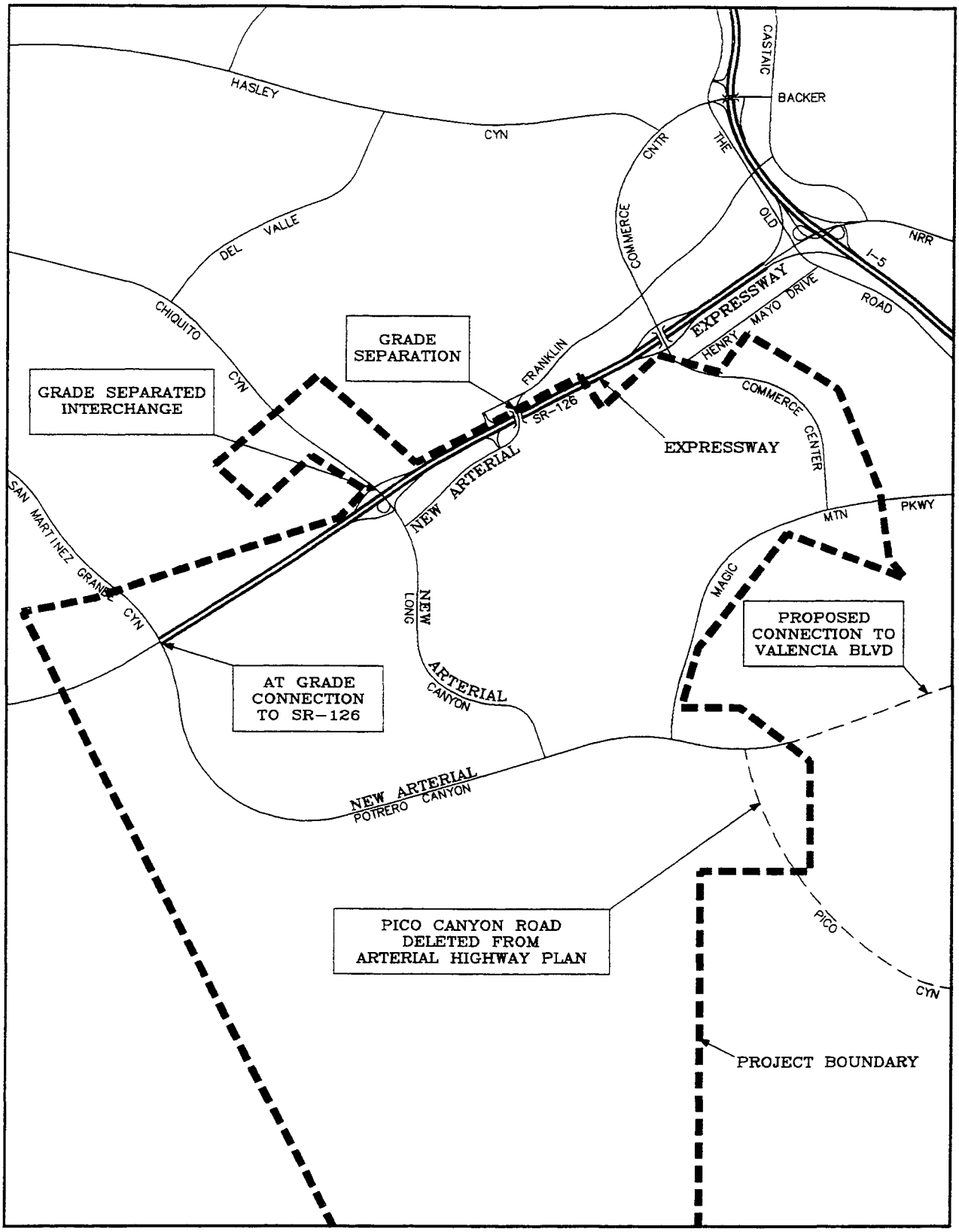


FIGURE 4.8-12

PROPOSED ARTERIAL HIGHWAY SYSTEM CHANGES

2. Potrero Valley Road - This would extend through the Potrero Canyon area of the Specific Plan, providing a connection between SR-126 at the San Martinez Grande Road intersection to the eastern boundary of the Specific Plan where it becomes Valencia Boulevard. It would essentially substitute for the northern section of Pico Canyon Road on the current Master Plan of Highways.

3. Long Canyon Road - This new arterial would extend from SR-126 at Chiquito Canyon Road and terminate at Potrero Valley Road.

4. Franklin Avenue Extension - The existing Franklin Avenue in the Commerce Center changes to Wolcott Way and would extend over SR-126 to connect with Long Canyon Road.

5. Magic Mountain Parkway - This roadway is proposed to extend westward into the Specific Plan site, terminating at Potrero Valley Road.

6. Commerce Center Drive - Extending southward from the existing roadway north of SR-126, this roadway would terminate as a T-intersection at Magic Mountain Parkway. This connection represents a change from the current Master Plan of Highways in which Commerce Center Drive south of SR-126 and Magic Mountain Parkway west of I-5 are a single continuous roadway.

7. Chiquito Canyon Road - The designation of this roadway would change from a two-lane limited secondary to a four-lane secondary highway from the Specific Plan boundary to SR-126.

8. SR-126 - would be upgraded to an expressway from Commerce Center Drive to San Martinez Grande Road.

As in the County Master Plan of Highways, it is assumed that SR-126 will be upgraded to an expressway through part of the Specific Plan area. The suggested upgrading for SR-126 is for it to be improved to eight-lane State Highway standards from I-5 west to Commerce Center Drive, then as a six-lane State Highway through Newhall Ranch to a point west of Potrero Valley Road where it would transition back to a four-lane Rural Highway. Grade separated intersections are planned for Commerce Center Drive, Franklin Avenue/Wolcott, and Chiquito Canyon Road/Long Canyon Road. An at-grade, signalized intersection is planned at San Martinez Grande/Potrero Valley Roads.

5. SPECIFIC PLAN IMPACT

This subsection describes the impact of the proposed Specific Plan to the on-site and surrounding circulation system for a buildout time frame. Long-range traffic volumes and resulting level of services are compared for no-project versus with-project conditions, and Specific Plan impacts are identified accordingly. Specific Plan impact evaluation, as required by the Congestion Management Program (CMP), is also addressed. Information from this analysis is then used to formulate the mitigation measures set forth in Subsection 6.

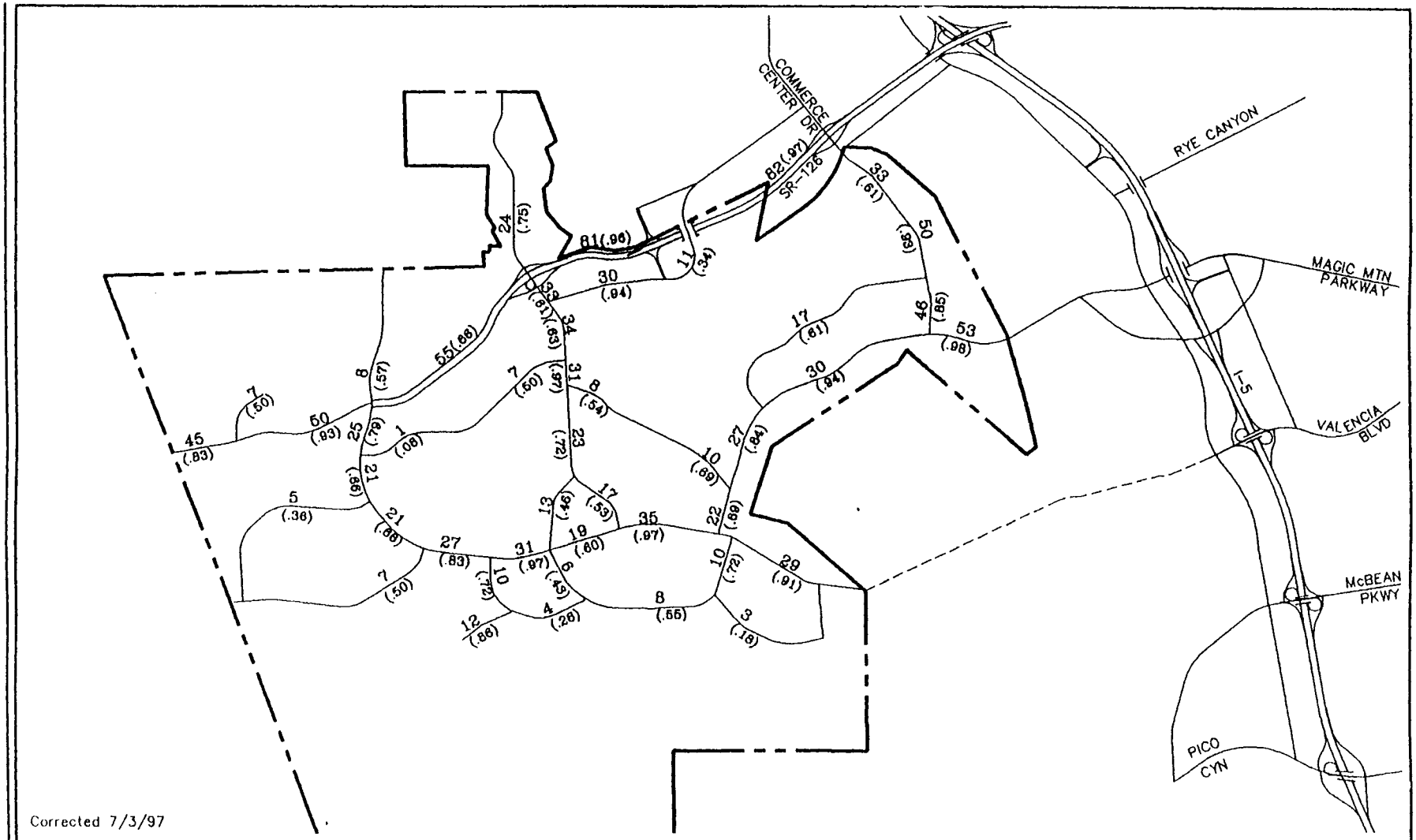
a. On-Site Impacts

A capacity verification of the on-site circulation system was made using long-range traffic forecast data from the Newhall Ranch sub-area traffic model (see discussion in Subsection 2. and detailed description in **Appendix 4.8**). The long-range volumes and volume/capacity (V/C) ratios for the Specific Plan circulation system are illustrated in **Figure 4.8-13, Long-Range ADT Volumes - Project Area**. The on-site SR-126 volumes were evaluated using the Alternative Highway Plan. Capacities used to derive the V/C ratios are based on the proposed roadway system for the Specific Plan. As shown, none of the on-site locations exceeds the ADT V/C of 1.00 (the threshold for determining a deficient location). All roadways have sufficient capacity for the estimated traffic demand.

Figure 4.8-14, Midblock Lanes - Project Area, shows the midblock lanes for the on-site circulation system. Certain local collector roadways have been shown in this figure as potentially requiring four-lanes rather than the two lanes more typically provided for a collector. These capacity needs are based on the distribution of land uses in the Specific Plan, and will undergo further verification when individual subdivision maps are prepared.

Special design considerations are proposed for the intersection of Commerce Center Drive and Magic Mountain Parkway to accommodate the Specific Plan traffic volumes. **Figure 4.8-15, Magic Mountain Parkway/Commerce Center Drive Conceptual Design,** shows a design concept for this location. For the southbound left turn, Commerce Center Drive and the east leg of Magic Mountain Parkway would act as a continuous roadway, rather than be configured as a triple left turn. This "turning roadway" concept maximizes the capacity for this high volume turn movement.

Potrero Valley Road between Long Canyon and Magic Mountain Parkway also has unique lane configurations that are necessary to accommodate Specific Plan volumes. As shown in **Figure 4.8-16, Volumes and Lane Configurations for Potrero Valley Road at Magic Mountain Parkway and Long Canyon Road,** a third, westbound thru-lane is necessary for the intersection of Magic Mountain Parkway/Potrero Canyon. This lane could either merge into the two adjacent northbound lanes, or be a continuous auxiliary lane, ending as a free right-turn at Long Canyon Road. Deployment of a westbound auxiliary lane would be an augmentation of the secondary roadway section described earlier.

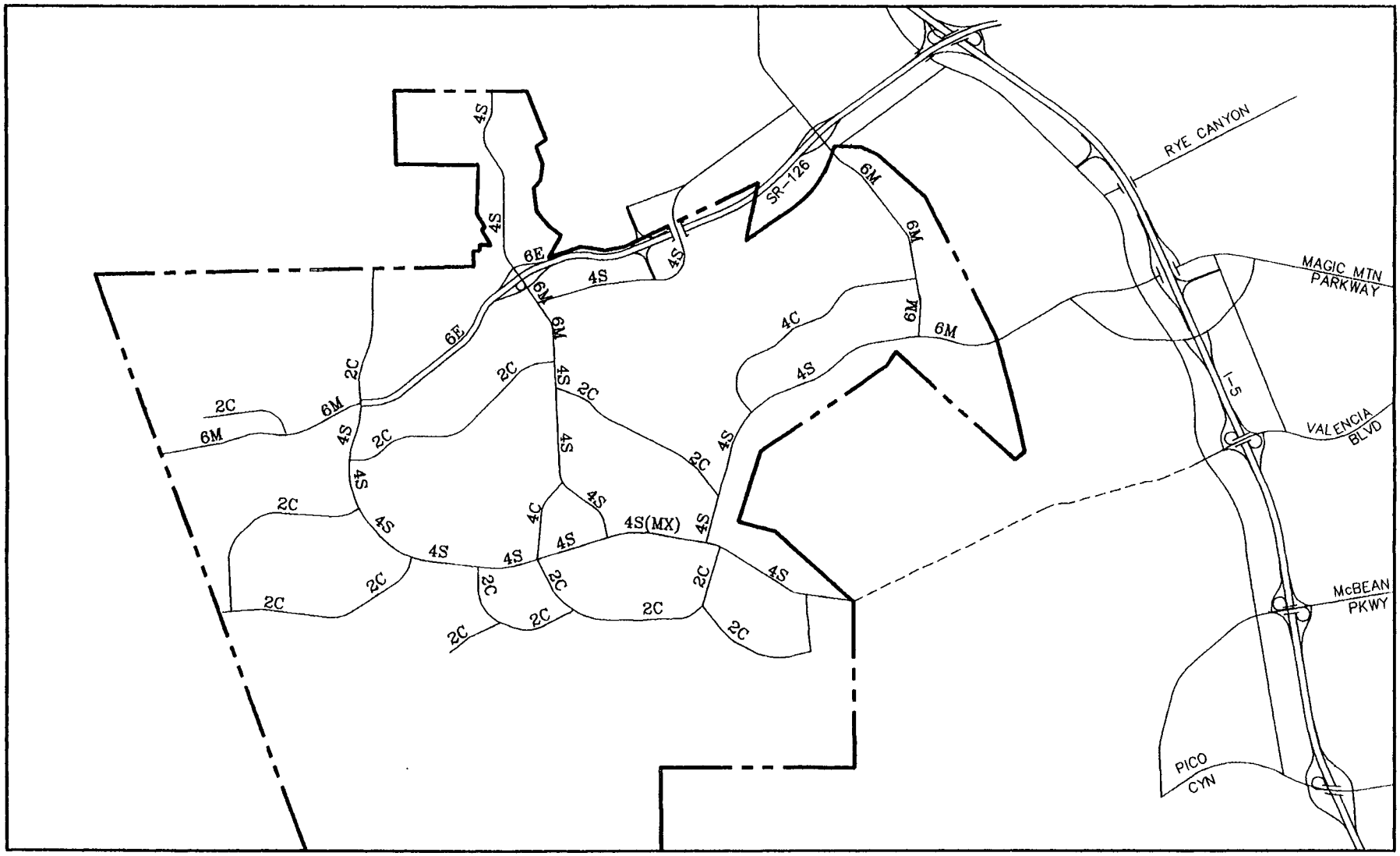


LEGEND

XX ADT Volume (000's)
(.YY) Volume/Capacity Ratio (V/C)

FIGURE 4.8-13

LONG-RANGE ADT VOLUMES (000's)
– PROJECT AREA



LEGEND	
6E	6 Lane Expressway
6M	6 Lane Major
4S(MX)	4 Lane Secondary (Max)
4S	4 Lane Secondary
2-4C	2 or 4 Lane Collector

FIGURE 4.8-14

MIDBLOCK LANES
– PROJECT AREA

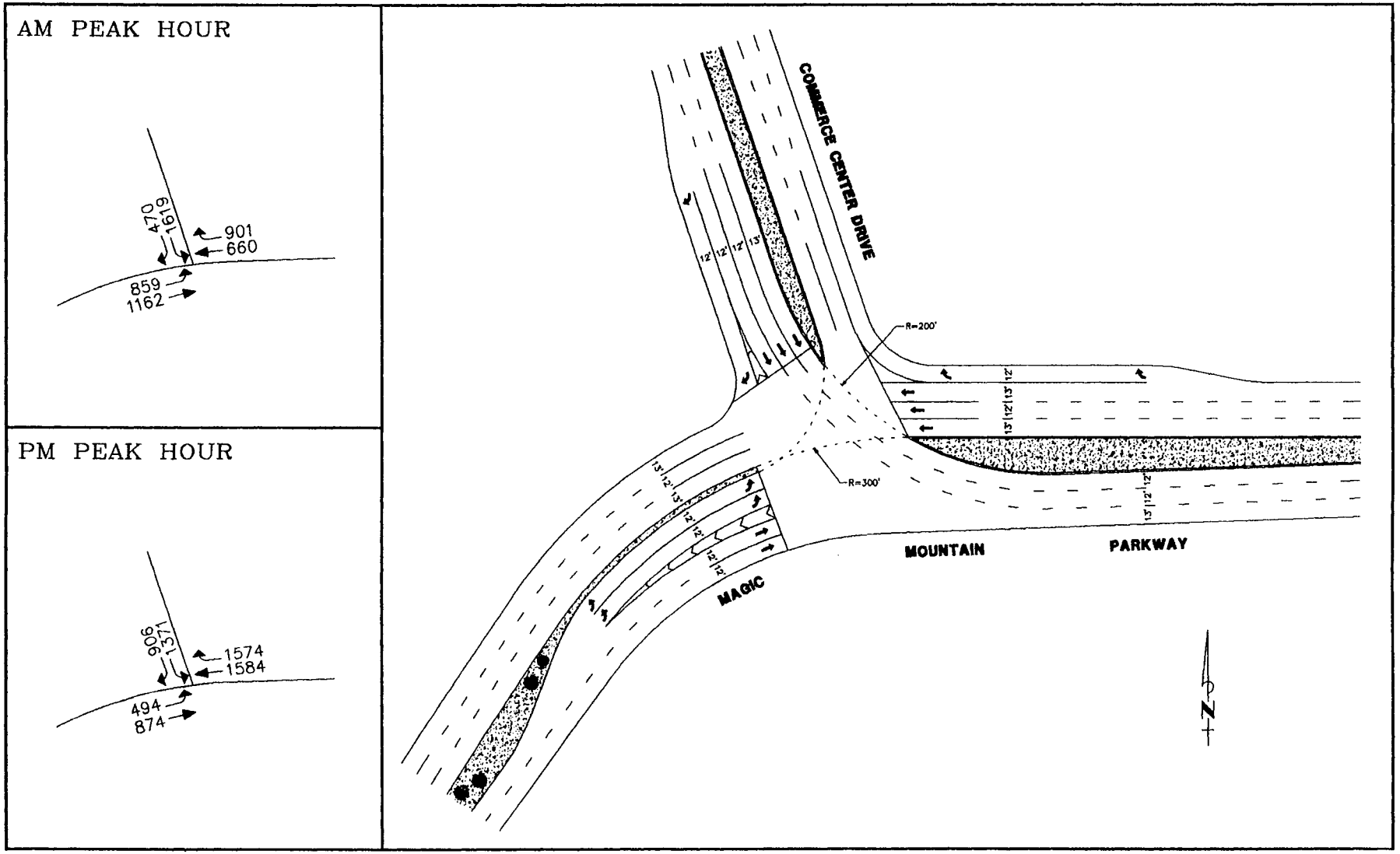


FIGURE 4.8-15

MAGIC MTN PKWY/COMMERCE CTR DR
CONCEPTUAL DESIGN

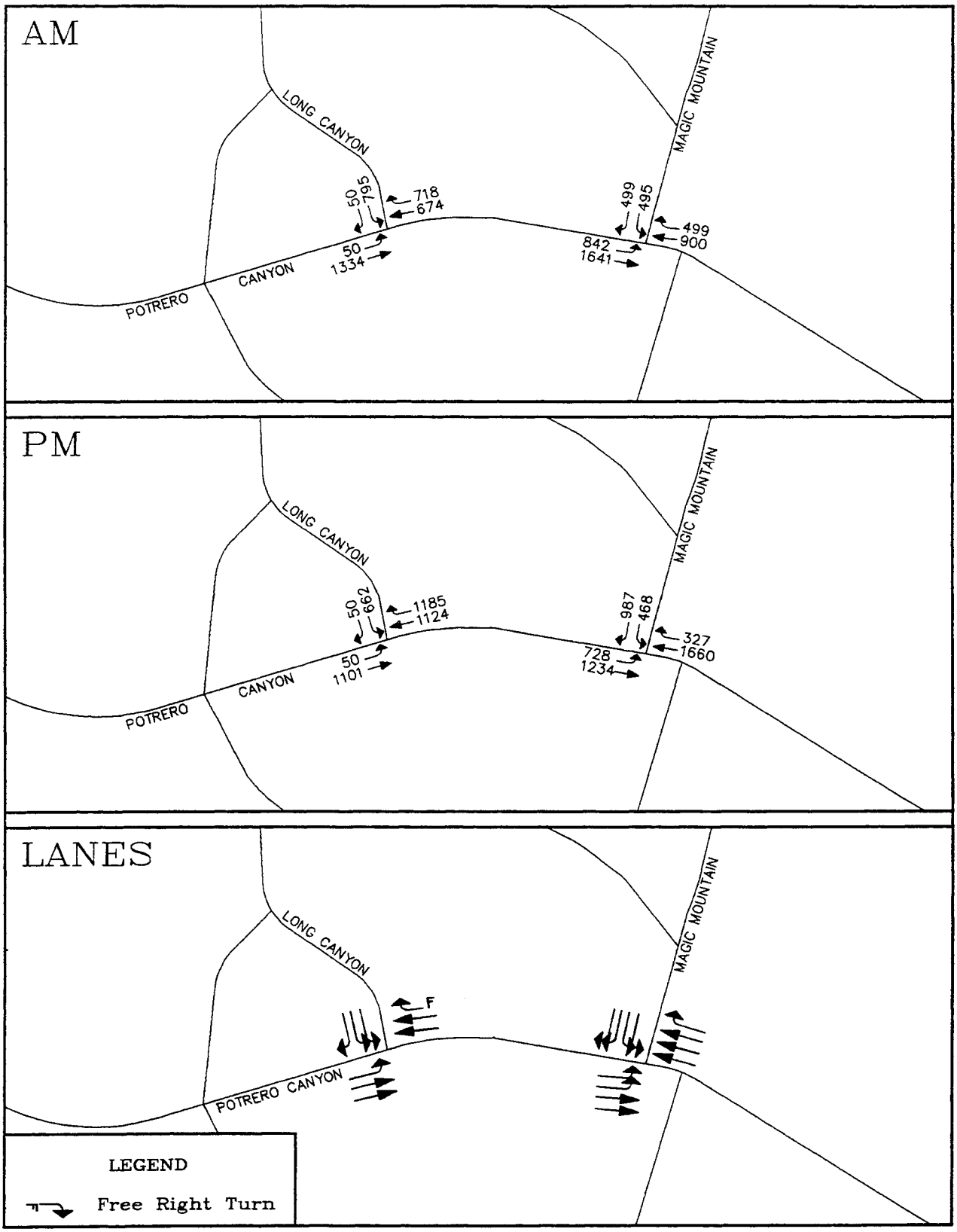


FIGURE 4.8-16

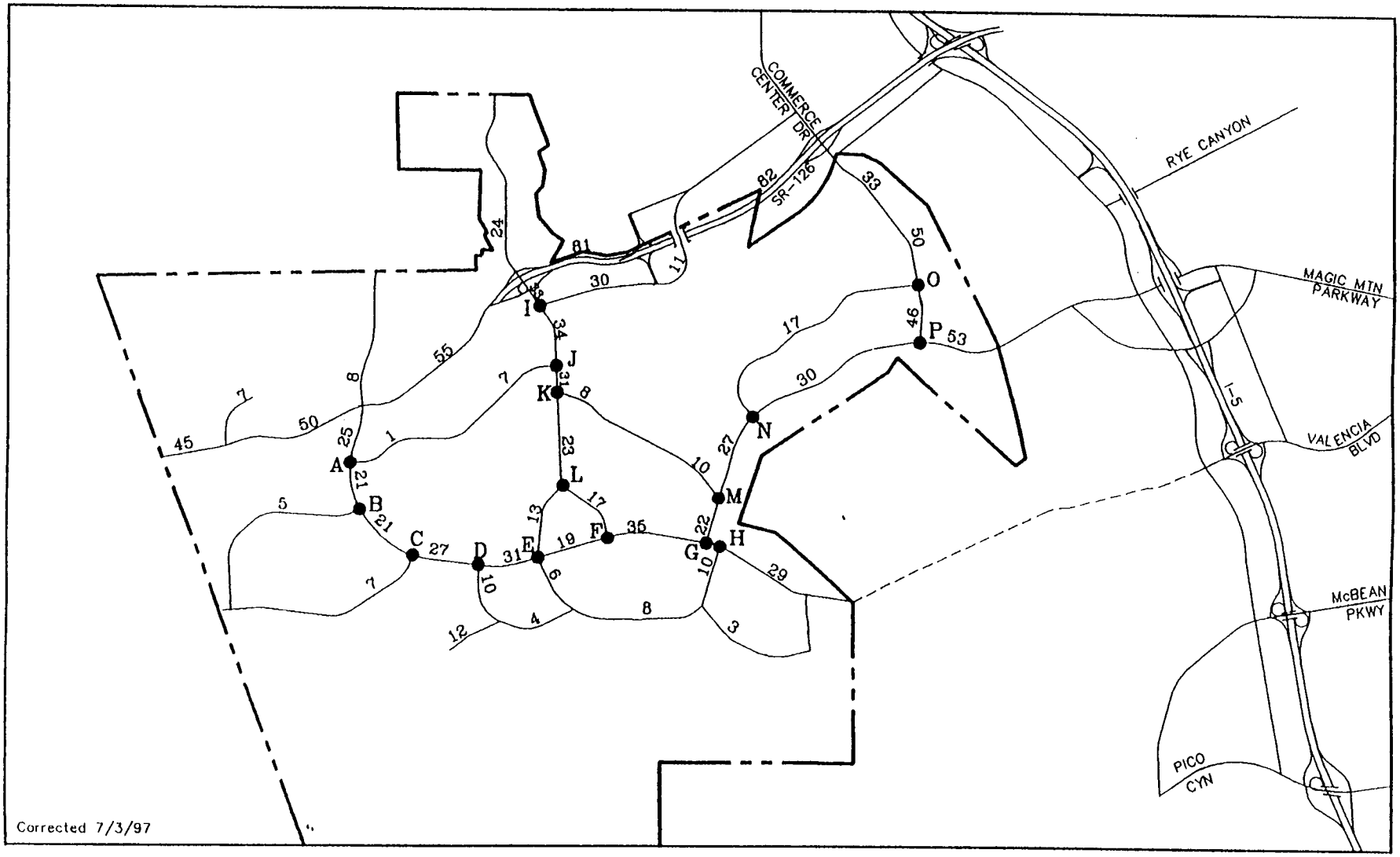
VOLUMES AND LANE CONFIGURATIONS FOR POTRERO CANYON ROAD AT MAGIC MOUNTAIN PKWY AND LONG CANYON ROAD

The need for signalization was evaluated for each significant on-site intersection within the Specific Plan. **Figure 4.8-17, Signal Warrant Locations** shows the locations where signal warrants were analyzed, together with the long-range ADT volumes that were presented earlier in this subsection.

A further verification of the adequacy of the on-site circulation system was made using peak hour intersection capacity utilization (ICU) values. Peak hour turn movement volumes were calculated for the set of intersections shown in **Figure 4.8-18, Major Intersection Locations**. These represent the major on-site intersections of the backbone roadway system within the Specific Plan site. The results are listed in **Table 4.8-5, Long-Range ICU Summary - On-Site Intersections,** and actual ICU calculations can be found in **Appendix 4.8.** It should be noted that the first seven intersections in this table were modeled using the SCVCTM, since the intersections carry non-Specific Plan traffic in addition to Specific Plan traffic. The remaining three are modeled using the Newhall Ranch Traffic Model. As can be seen, most intersections are forecast to have acceptable ICU values which operate at level of service "D" or better.

Traffic signal warrants, as adopted by the Federal Highway Administration and Caltrans, are used to determine the need for signalization. **Figure 4.8-19, Signal Warrant Criteria,** shows the ADT signal warrant methodology. In applying this warrant, the volumes of both the major and minor street must exceed those shown in the Caltrans Manual. Determining the major street signal warrant volume involves calculating the number of vehicles approaching the intersection on both major street legs. The minor street signal warrant volume is the number of daily vehicles approaching the intersection on only the highest volume leg. Consistent with the Caltrans Manual, two tests are conducted to determine the need for signalization. The first is for minimum total vehicular traffic, and the second for interruption of a continuous traffic stream. Typically, a signal is installed if either warrant is satisfied or if 80 percent of both warrants are satisfied. **Table 4.8-6, Newhall Ranch On-Site ADT Signal Warrant Summary,** shows the results of the signal warrant analysis.

Based on the forecast volumes, fifteen out of the sixteen locations meet the warrant for signalization. These results are given here for long-range planning purposes. The actual need and precise timing for signalization would be reassessed at the time that actual subdivision maps which allow construction are prepared.



LEGEND

● Intersection Location

XX ADT Volume (000's)

FIGURE 4.8-17

SIGNAL WARRANT LOCATIONS

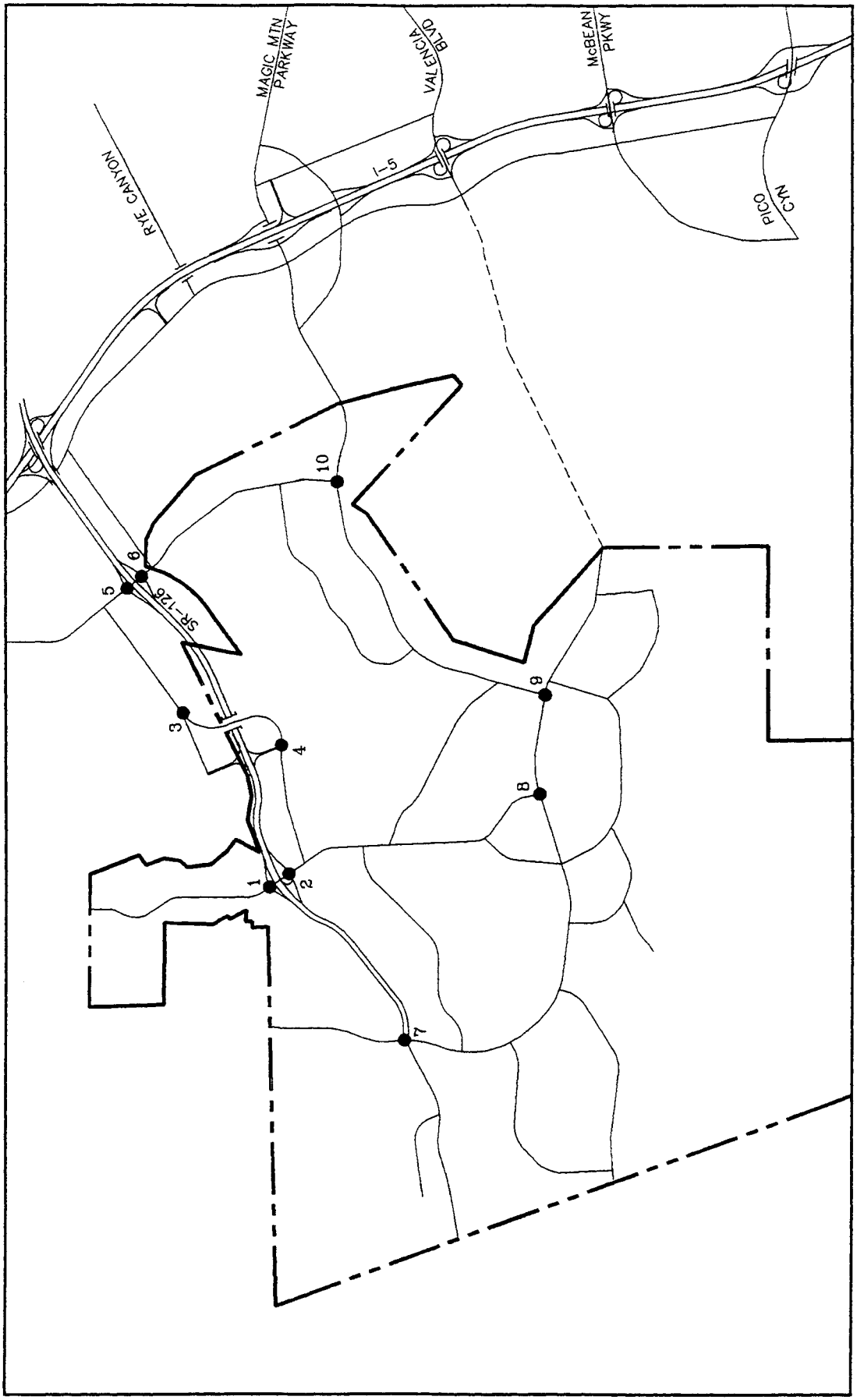


FIGURE 4.8-18

MAJOR INTERSECTION LOCATIONS

Figure 9-4
TRAFFIC SIGNAL WARRANTS

(Based on Estimated Average Daily Traffic - See Note 2)

URBAN ..... RURAL	Minimum Requirements EADT	
1. Minimum Vehicular		
Satisfied _____ Not Satisfied _____	Vehicles per day on major street (total of both approaches)	Vehicles per day on higher-volume minor-street approach (one direction only)
Number of lanes for moving traffic on each approach		
Major Street / Minor Street	Urban / Rural	Urban / Rural
1 ..... 1	8,000 / 5,600	2,400 / 1,680
2 or more 1	9,600 / 6,720	2,400 / 1,680
2 or more ..... 2 or more	9,600 / 6,720	3,200 / 2,240
1 ..... 2 or more	8,000 / 5,600	3,200 / 2,240
2. Interruption of Continuous Traffic		
Satisfied _____ Not Satisfied _____	Vehicles per day on major Street (total of both approaches)	Vehicles per day on higher-volume minor-street approach (one direction only)
Numbers of lanes for moving traffic on each approach		
Major Street / Minor Street	Urban / Rural	Urban / Rural
1 ..... 1	12,000 / 8,400	1,200 / 850
2 or more 1	14,400 / 10,080	1,200 / 850
2 or more ..... 2 or more	14,400 / 10,080	1,600 / 1,120
1 ..... 2 or more	12,000 / 8,400	1,600 / 1,120
3. Combination		
Satisfied _____ Not Satisfied _____	2 Warrants	2 Warrants
No one warrant satisfied, but following warrants fulfilled		
80% or more ..... _____ (1) _____ (2)		

NOTE:

1. **Heavier left turn movement from the major street may be included with minor street volume if a separate signal phase is to be provided for the left-turn movement.**
2. **To be used only for NEW INTERSECTIONS or other locations where actual traffic volumes cannot be counted.**

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FIGURE 4.8-19

SIGNAL WARRANT CRITERIA

Table 4.8-5
Long-Range ICU Summary - On-Site Intersections

INTERSECTION	COUNTY BASE NO PROJ A.M.	COUNTY BASE NO PROJ P.M.	COUNTY BASE WITH PROJ A.M.	COUNTY BASE WITH PROJ P.M.	ALTERNATIVE HIGHWAY PLAN NO PROJ A.M.	ALTERNATIVE HIGHWAY PLAN NO PROJ P.M.	ALTERNATIVE HIGHWAY PLAN WITH PROJ A.M.	ALTERNATIVE HIGHWAY PLAN WITH PROJ P.M.
1. Chiquito Cyn & SR-126 WB Ramp	--	--	.64	.81	--	--	.62	.80
2. Chiquito Cyn & SR-126 EB Ramp	--	--	~~.21~~.61	.64	--	--	~~.22~~.80	.63
3. Franklin & SR-126 WB Ramp	--	--	.69	.53	--	--	.61	.50
4. Franklin & SR-126 EB Ramp	--	--	.93	.88	--	--	.80	.79
5. Commerce Ctr & SR-126 WB Ramp	.36	.68	.38	.73	.36	.73	.44	.75
6. Commerce Ctr & SR-126 EB Ramp	.48	.70	.66	.79	.54	.71	.69	.72
7. San Martinez Grande & SR-126	.50	.43	.73	.77	.50	.47	.74	.77

INTERNAL TO SPECIFIC PLAN	WITH SPECIFIC PLAN A.M.	WITH SPECIFIC PLAN P.M.
8. Long Canyon & Potrero Cyn	.70	.61
9. Magic Mountain & Potrero	.68	.76
10. Commerce Center & Magic Mtn	.78	.90

Level of service ranges: .00 - .60 A
.61 - .70 B
.71 - .80 C
.81 - .90 D
.91 - 1.00 E
Above 1.00 F

* See intersection locations in **Figure** 4.8-13

Table 4.8-6
Newhall Ranch On-Site ADT Signal Warrant Summary

INTERSECTION		ESTIMATED ADT
1. Location A		
Major Approach	NB	10,500
	SB	12,500
	Total	23,000
Minor Approach	WB	500
Warrant 1 Satisfied?	9,600/2,400	No
Warrant 2 Satisfied?	14,400/1,200	No
2. Location B		
Major Approach	NB	10,500
	SB	10,500
	Total	21,000
Minor Approach	EB	2,500
Warrant 1 Satisfied?	9,600/2,400	Yes
Warrant 2 Satisfied?	14,400/1,200	Yes
3. Location C		
Major Approach	EB	10,500
	WB	13,500
	Total	24,000
Minor Approach	NB	3,500
Warrant 1 Satisfied?	9,600/2,400	Yes
Warrant 2 Satisfied?	14,400/1,200	Yes

(Continued)

Table 4.8-6 (cont.)
Newhall Ranch On-Site ADT Signal Warrant Summary

INTERSECTION		ESTIMATED ADT
4. Location D		
Major Approach	EB	13,500
	WB	15,500
	Total	29,000
Minor Approach	NB	5,000
Warrant 1 Satisfied?	9,600/2,400	Yes
Warrant 2 Satisfied?	14,400/1,200	Yes
5. Location E		
Major Approach	EB	15,500
	WB	9,500
	Total	25,000
Minor Approach	SB	6,500
Warrant 1 Satisfied?	9,600/3,200	Yes
Warrant 2 Satisfied?	14,400/1,600	Yes
6. Location F		
Major Approach	EB	9,500
	WB	17,500
	Total	27,000
Minor Approach	SB	8,500
Warrant 1 Satisfied?	9,600/3,200	Yes
Warrant 2 Satisfied?	14,400/1,600	Yes
7. Location G		
Major Approach	EB	17,500
	WB	13,500
	Total	31,000
Minor Approach	SB	11,000
Warrant 1 Satisfied?	9,600/3,200	Yes
Warrant 2 Satisfied?	14,400/1,600	Yes
8. Location H		
Major Approach	EB	13,500
	WB	14,500
	Total	28,000
Minor Approach	NB	5,000
Warrant 1 Satisfied?	9,600/2,400	Yes
Warrant 2 Satisfied?	14,400/1,200	Yes
9. Location I		
Major Approach	NB	17,000
	SB	16,500
	Total	33,500
Minor Approach	WB	15,000
Warrant 1 Satisfied?	9,600/3,200	Yes
Warrant 2 Satisfied?	14,400/1,600	Yes
10. Location J		
Major Approach	NB	15,500
	SB	17,000
	Total	32,500
Minor Approach	EB	3,500
Warrant 1 Satisfied?	9,600/2,400	Yes
Warrant 2 Satisfied?	14,400/1,200	Yes

(Continued)

Table 4.8-6 (cont.)
Newhall Ranch On-Site ADT Signal Warrant Summary

INTERSECTION		ESTIMATED ADT
11. Location K		
Major Approach	NB	11,500
	SB	15,500
	Total	27,000
Minor Approach	WB	4,000
Warrant 1 Satisfied?	9,600/2,400	Yes
Warrant 2 Satisfied?	14,400/1,200	Yes
12. Location L		
Major Approach	NB	8,500
	SB	11,500
	Total	20,000
Minor Approach	EB	6,500
Warrant 1 Satisfied?	9,600/3,200	Yes
Warrant 2 Satisfied?	14,400/1,600	Yes
13. Location M		
Major Approach	NB	11,000
	SB	13,500
	Total	24,500
Minor Approach	EB	5,000
Warrant 1 Satisfied?	9,600/2,400	Yes
Warrant 2 Satisfied?	14,400/1,200	Yes
14. Location N		
Major Approach	NB	13,500
	SB	15,000
	Total	28,500
Minor Approach	EB	8,500
Warrant 1 Satisfied?	9,600/3,200	Yes
Warrant 2 Satisfied?	14,400/1,600	Yes
15. Location O		
Major Approach	NB	23,000
	SB	25,000
	Total	48,000
Minor Approach	EB	8,500
Warrant 1 Satisfied?	9,600/3,200	Yes
Warrant 2 Satisfied?	14,400/1,600	Yes
16. Location P		
Major Approach	EB	15,000
	WB	26,500
	Total	41,500
Minor Approach	SB	23,000
Warrant 1 Satisfied?	9,600/3,200	Yes
Warrant 2 Satisfied?	14,400/1,600	Yes

b. Impacts on Off-Site Arterials

This section discusses Specific Plan impacts to the surrounding arterial highway system. Capacity values are discussed first, followed by significance threshold criteria for impact identification. Results from a detailed arterial link analysis are then presented.

(1) Significance Threshold Criteria

Arterial highway impacts were identified by forecasting long-range average daily traffic (ADT) volumes and calculating the corresponding volume/capacity (V/C) ratios. The ADT capacity values used for this analysis are as follows:

ADT Capacity Values

FACILITY TYPE	ADT CAPACITY
Eight-lane Freeway (1-5)	180,000
Eight-lane Expressway	112,000
Six-lane Expressway	84,000
Augmented Major Highway	76,000
Major Highway (6-lanes)	54,000
Major Highway (4-lanes)	36,000
Major Highway (2-lanes)	18,000
Secondary Highway (4-lanes)	32,000
Secondary Highway (2-lanes)	16,000

These capacities, with the exception of the Augmented Major Highway classification, are used by the County of Los Angeles for ADT capacity evaluation, and indicate the maximum volume to be carried by each roadway type. The Augmented Major Highway classification is a special capacity designation developed by the City of Santa Clarita and is primarily applied to sections of roadway which are in the City or adjacent to the City. The Augmented Major classification applies to certain highways on the Alternative Highway Plan (it is not used for the County Base) and a detailed discussion on augmented capacity is given later in this subsection. As described there, augmented capacity involves a variety of capacity enhancement strategies which increase the amount of traffic that can be carried by a standard Major Highway.

In transportation planning work, it is common to translate V/C ratios into level of service (LOS) designations. These are labeled "A" through "F," with "A" indicating free flow conditions (i.e., minimal traffic) and "F" indicating congested conditions. LOS "D" changes to LOS "E" when the V/C increases beyond .90, and LOS "F" occurs when the V/C exceeds 1.0.

Various operating LOS policy standards have been established which serve as guidelines for evaluating observed traffic conditions and as targets when evaluating future traffic conditions. At the regional planning level, the State-wide Congestion Management Program (CMP) specifies LOS "E" (V/C less than or equal to 1.00) as the operating standard for roadways on the CMP highway system. Although the CMP is typically applied to determine short-range Specific Plan impacts, the LOS methodology is also appropriate to apply to long-range analyses.

For the purpose of this ADT arterial link analysis, a V/C of 1.0 is the maximum acceptable value. In long-range planning, a V/C of 1.0 is generally considered to be applicable as a threshold value when using ADT volumes. The lead agency, in this case the County of Los Angeles, has determined that this criterion is appropriate for a study of this type and scope, and uses this threshold for long-range planning studies within the County's jurisdiction. The 1.0 for ADT link analyses recognizes the more generalized nature of ADT link volumes (compared to intersection volumes, for example). Also, the ADT V/C values will typically translate to something less when discounts are made for future changes in travel behavior, particularly during peak hours. Various regulatory actions and other influences are expected to change travel behavior over time and increase the efficiency with which the transportation system is utilized.

To evaluate Specific Plan impacts on the arterial highway system, three types of impacts are identified. They are given the following designations in the tabular data presented in this subsection:

P Specific Plan Impact - This refers to a location which has a V/C of less than or equal to 1.00 without the Specific Plan and greater than 1.00 with the Specific Plan. Hence, it can be considered a significant adverse impact of the Specific Plan.

C Contribution - This is where the no-project V/C is greater than 1.00 and the Specific Plan has a contribution of more than one percent. The Specific Plan, hence, contributes to a future deficiency, but does not cause that deficiency.

A Augmented Capacity Contribution - In the alternative highway network, several arterials have special capacity augmentation, this capacity augmentation being needed for no-project volumes. Where the Specific Plan contributes traffic to such a location, then the amount of capacity augmentation that will be needed is increased. The Specific Plan, hence, causes a potential impact at such locations, and is, therefore, identified here as a Specific Plan impact.

In all cases, a Specific Plan contribution of more than one percent is considered to be a measurable impact and is used as the impact criterion. Hence, V/Cs for those locations where the Specific Plan contributes more that one percent to the total volume are examined and, if any of the above impact types are found, then the location is identified as being significantly impacted by the Specific Plan.

In Subsection 3., the two long-range highway plans used for this analysis were described. The following summarizes the with and without-project volumes and the corresponding Specific Plan impacts for each roadway network alternative.

(2) County Base (Current Master Plan of Highways) Network Impacts

As described previously, the current County Master Plan of Highways has, until recently, served as the long-range highway plan for the Santa Clarita Valley. One of its key features is the eastward extension of SR-126 as an expressway connecting with SR-14. Since there has not yet been any official action to change this plan, it has been used as one of the network alternatives in this impact analysis.

The no-project ADT volumes for the current Master Plan of Highways arterial system are shown in **Figure 4.8-20, Long-Range ADT Volumes - County Base Network (No Project)**, and the corresponding with-project volumes are illustrated in **Figure 4.8-21, Long-Range ADT Volumes - County Base Network (With Project)**. The SR-126 expressway (Newhall Ranch Road east of I-5) is prominent in both sets of forecasts, with volumes in excess of 100,000 along the central portion of this facility.

Comparison between the two sets of forecasts shows that the greatest volume differences occur on the east-west arterials directly serving the Specific Plan site. Valencia Boulevard just west of I-5 is forecast to carry 54,000 ADT with the Specific Plan compared to 40,000 without the Specific Plan, and Magic Mountain Parkway just west of The Old Road has a forecast volume of 71,000 ADT with the Specific Plan compared to 40,000 without the Specific Plan. On SR-126 west of I-5, the with-project volume is 102,000 compared to 58,000 without the Specific Plan.

East of I-5, the Specific Plan results in higher volumes on major arterials, such as Newhall Ranch Road, Magic Mountain Parkway, and Valencia Boulevard. The difference between with and without project becomes generally insignificant east of Rio Vista. Land uses in that area to the east are assumed to be the same with or without the Specific Plan and, hence, the total trips generated by that area are unchanged. Trips generated in that area are on the roadway system regardless of the Specific Plan, resulting in minimal differences between with and without project volumes.

A listing of the volumes and V/C ratios for the study area circulation system can be found in **Table 4.8-7, Long-Range ADT Volumes Summary - County Base Network.** (The link numbering system used in this table corresponds to an overall link numbering system for the SCVCTM, and a reference figure can be found in **Appendix 4.8.**) Summarized here are the volumes and capacities and the resulting V/C ratios for the study area arterial highway system. The Specific Plan contribution to the V/C is listed, and the "P," "C," and "A" notations are used to indicate where a significant Specific Plan impact occurs. As noted earlier, a "P" notation is where the Specific Plan causes a roadway with V/C below 1.00 under no-project conditions to have a V/C higher than 1.00. A "C" notation is where the V/C is greater than 1.00 for both no-project and with-project conditions, and where the Specific Plan impact is more than one percent.

Table 4.8-7
Long-Range ADT Volume Summary - County Base Network

LINK #/LOCATION*	LANES	CAPACITY	NO-PROJECT VOL	NO-PROJECT V/C	WITH-PROJECT VOL	WITH-PROJECT V/C	PROJ. CONTR.**	
1. Hasley Cyn w/o Del Valle	2	14000	3000	.09	3000	.09	.00	
2. Hasley Cyn e/o Del Valle	4	32000	6000	.19	6000	.19	.00	
3. Del Valle n/o Chiquito Cyn	2	14000	4000	.13	4000	.13	.00	
4. Chiquito Cyn w/o Del Valle	2	14000	2000	.14	2000	.14	.00	
5. Chiquito Cyn e/o Del Valle	2	14000	3000	.09	3000	.09	.00	
9. Commerce Cnt Dr e/o I-5	6	54000	10000	.19	9000	.17	-.02	
10. Commerce Cnt Dr w/o I-5	6	54000	47000	.87	52000	.96	.09	
11. Commerce Cnt Dr s/o Hasley	6	54000	43000	.80	46000	.85	.06	
12. Commerce Cnt Dr n/o SR-126	6	54000	31000	.57	34000	.63	.06	
14. Valencia e/o MMP	6	54000	5000	.09	36000	.67	.58	
18. Valencia w/o The Old Rd	6	54000	23000	.43	40000	.74	.31	
19. Valencia e/o The Old Rd	6	54000	40000	.74	54000	1.00	.26	
22. Magic Mtn w/o The Old Rd	6	54000	40000	.74	71000	1.31	.57	P
23. The Old Rd n/o Commerce Cnt	4	32000	18000	.56	20000	.63	.06	
24. The Old Rd n/o Franklin	6	54000	7000	.13	7000	.13	.00	
25. The Old Rd n/o SR-126	6	54000	6000	.11	6000	.11	.00	
26. The Old Rd s/o SR-126	6	54000	10000	.19	15000	.28	.09	
27. The Old Rd s/o Henry Mayo	6	54000	21000	.39	24000	.44	.06	
28. The Old Rd n/o Magic Mtn	6	54000	31000	.57	39000	.72	.15	
29. The Old Rd s/o Magic Mtn	6	54000	47000	.87	51000	.94	.07	
30. The Old Rd s/o Valencia	6	54000	26000	.48	43000	.80	.31	
31. The Old Rd s/o McBean	6	54000	30000	.56	35000	.65	.09	
32. The Old Rd s/o Lyons	4	32000	10000	.31	10000	.31	.00	
33. Pico w/o McBean	4	32000	23000	.72	17000	.53	-.19	
34. Pico e/o McBean	4	32000	19000	.59	15000	.47	-.13	
35. McBean w/o The Old Rd	6	54000	27000	.50	33000	.61	.11	
36. McBean e/o I-5	6	54000	53000	.98	54000	1.00	.02	
37. McBean e/o Tournament	6	54000	29000	.54	28000	.52	-.02	
38. McBean s/o Valencia	6	54000	41000	.76	42000	.78	.02	
39. McBean n/o Valencia	6	54000	32000	.59	33000	.61	.02	
40. McBean n/o Magic Mtn	6	54000	57000	1.06	60000	1.11	.06	C
41. McBean s/o Newhall Ranch Rd	6	54000	48000	.89	46000	.85	-.04	
42. McBean n/o Newhall Ranch Rd	6	54000	51000	.94	50000	.93	-.02	
43. McBean n/o Decoro	6	54000	41000	.76	41000	.76	.00	
50. Newhall Ranch Rd e/o I-5	8	112000	65000	.58	91000	.81	.23	
51. Newhall Ranch Rd w/o Rye	8	112000	72000	.64	94000	.84	.20	
52. Newhall Ranch Rd e/o Rye	8	112000	78000	.70	85000	.76	.06	
53. Newhall Ranch e/o Dickason	8	112000	111000	.99	119000	1.06	.07	P
54. Newhall Ranch Rd e/o McBean	8	112000	112000	1.00	117000	1.04	.04	P
56. Castaic n/o Newhall Ranch Rd	4	32000	12000	.38	10000	.31	-.06	
57. Castaic s/o Commerce Cnt Dr	4	32000	11000	.34	10000	.31	-.03	
58. Castaic n/o Commerce Cnt Dr	4	32000	5000	.16	6000	.19	.03	
60. Franklin w/o Commerce Cnt Dr	4	32000	0	.00	30000	.94	.94	
61. Franklin e/o Commerce Cnt Dr	4	32000	2000	.06	3000	.09	.03	
63. Rye e/o I-5	6	54000	24000	.44	29000	.54	.09	
64. Rye e/o Scott	6	54000	44000	.81	51000	.94	.13	
65. Copperhill e/o Newhall Ranch	6	54000	61000	1.13	64000	1.19	.06	C
66. Copperhill n/o Decoro	6	54000	26000	.48	27000	.50	.02	
67. Copperhill e/o McBean	6	54000	41000	.76	41000	.76	.00	
68. Copperhill e/o Seco	4	32000	13000	.41	14000	.44	.03	
69. Copperhill e/o Haskell	6	54000	10000	.19	11000	.20	.02	

** Rounded to nearest one thousandth.

(Continued)

Table 4.8-7 (cont.)
Long-Range ADT Volume Summary - County Base Network

LINK #/LOCATION*	LANES	CAPACITY	NO-PROJECT VOL	NO-PROJECT V/C	WITH-PROJECT VOL	WITH-PROJECT V/C	PROJ. CONTR.	
70. Decoro e/o Copperhill	4	32000	15000	.47	17000	.53	.06	
71. Decoro e/o Dickason	4	32000	26000	.81	26000	.81	.00	
72. Decoro e/o McBean	4	32000	19000	.59	19000	.59	.00	
73. Haskell n/o Bouquet	4	32000	14000	.44	15000	.47	.03	
74. Seco n/o Decoro	4	32000	17000	.53	18000	.56	.03	
75. Seco s/o Decoro	4	32000	23000	.72	23000	.72	.00	
76. Bouquet e/o Haskell	6	54000	37000	.69	37000	.69	.00	
77. Bouquet e/o Rio Vista	6	54000	49000	.91	50000	.93	.02	
78. Bouquet n/o Newhall Ranch	8	72000	65000	.90	67000	.93	.03	
79. Bouquet s/o Newhall Ranch	6	54000	71000	1.31	74000	1.37	.06	C
80. Bouquet n/o Magic Mtn	6	54000	30000	.56	32000	.59	.04	
81. San Fernando s/o Magic Mtn	6	54000	39000	.72	40000	.74	.02	
82. San Fernando s/o Wiley	6	54000	21000	.39	21000	.39	.00	
83. San Fernando n/o Placerita	6	54000	23000	.43	24000	.44	.02	
84. San Fernando s/o Placerita	6	54000	33000	.61	34000	.63	.02	
85. San Fernando s/o Lyons	6	54000	38000	.70	39000	.72	.02	
86. Ave Scott e/o Rye	6	54000	18000	.33	24000	.44	.11	
87. Ave Scott e/o Dickason	6	54000	17000	.31	23000	.43	.11	
88. Magic Mtn e/o I-5	6	54000	65000	1.20	71000	1.31	.11	C
89. Magic Mtn e/o Tourney	6	54000	38000	.70	40000	.74	.04	
90. Mtn e/o McBean	6	54000	38000	.70	41000	.76	.06	
91. Magic Mtn e/o Valencia	6	54000	37000	.69	42000	.78	.09	
93. Tourney n/o Valencia	4	32000	18000	.56	18000	.56	.00	
94. Rockwell s/o Valencia	4	32000	25000	.78	28000	.88	.09	
95. Tournament s/o McBean	4	32000	12000	.38	12000	.38	.00	
96. Valencia e/o I-5	6	54000	46000	.85	52000	.96	.11	
98. Valencia e/o Rockwell	6	54000	43000	.80	45000	.83	.04	
99. Valencia e/o McBean	6	54000	46000	.85	48000	.89	.04	
100. Valencia n/o Magic Mtn	6	54000	57000	1.06	57000	1.06	.00	
101. Soledad e/o Bouquet	6	54000	31000	.57	31000	.57	.00	
102. Wiley s/o Lyons	4	32000	22000	.69	24000	.75	.06	
103. Wiley n/o Lyons	6	54000	35000	.65	38000	.70	.06	
104. Wiley e/o Tournament	6	54000	28000	.52	30000	.56	.04	
105. Wiley e/o Orchard Village	6	54000	45000	.83	45000	.83	.00	
106. Via Princessa e/o San Fern	6	54000	43000	.80	42000	.78	-.02	
107. Via Princessa e/o Magic Mtn	6	54000	28000	.52	26000	.48	-.04	
108. 15th St e/o Orchard Village	4	32000	7000	.22	8000	.25	.03	
109. Newhall n/o Lyons	4	32000	5000	.16	4000	.13	-.03	
110. Newhall s/o Lyons	4	32000	22000	.69	23000	.72	.03	
111. San Fernando e/o Newhall	6	54000	51000	.94	52000	.96	.02	
112. Orchard Village s/o McBean	6	54000	42000	.78	42000	.78	.00	
113. Orchard Village s/o Wiley	6	54000	27000	.50	27000	.50	.00	
114. Orchard Village s/o Lyons	4	32000	8000	.25	8000	.25	.00	
115. Lyons e/o I-5	6	54000	44000	.81	49000	.91	.09	
116. Lyons e/o Wiley	6	54000	39000	.72	41000	.76	.04	
117. Lyons e/o Orchard Village	6	54000	42000	.78	44000	.81	.04	
118. Lyons w/o San Fernando	6	54000	20000	.37	21000	.39	.02	
119. McBean e/o Orchard Village	6	54000	27000	.50	29000	.54	.04	
123. Dickason s/o Ave Scott	6	54000	51000	.94	52000	.96	.02	
124. Dickason s/o Decoro	4	32000	12000	.38	12000	.38	.00	

(Continued)

Table 4.8-7 (cont.)
Long-Range ADT Volume Summary - County Base Network

LINK #/LOCATION*	LANES	CAPACITY	NO-PROJECT VOL	NO-PROJECT V/C	WITH-PROJECT VOL	WITH-PROJECT V/C	PROJ. CONTR.	
126. Bouquet e/o Seco	6	54000	42000	.78	41000	.76	-.02	
128. Newhall Ranch w/o Bouquet	8	112000	111000	.99	115000	1.03	.04	P
138. Golden Valley s/o Plum	4	32000	16000	.50	16000	.50	.00	
143. Soledad w/o Golden Valley	6	54000	40000	.74	45000	.83	.09	
151. Via Princessa w/o MMP	6	54000	31000	.57	31000	.57	.00	
159. Sierra Hwy e/o San Fern	6	54000	16000	.30	16000	.30	.00	
164. Rio Vista n/o NRR	6	54000	32000	.59	32000	.59	.00	
165. NRR e/o San Fernando	8	112000	85000	.76	86000	.77	.01	
166. NRR e/o Rio Vista	8	112000	97000	.87	98000	.88	.01	
171. Rio Vista n/o Soledad	6	54000	43000	.80	44000	.81	.02	
172. Rio Vista s/o Soledad	6	54000	35000	.65	35000	.65	.00	
173. Golden Valley s/o NRR	6	54000	24000	.44	27000	.50	.06	
174. Golden Valley s/o Soledad	6	54000	29000	.54	31000	.57	.04	
176. Rio Vista s/o Via Princessa	6	54000	26000	.48	27000	.50	.02	
177. Rio Vista n/o Lyons	6	54000	7000	.13	7000	.13	.00	
178. Rio Vista n/o Sierra Hwy	6	54000	21000	.39	22000	.41	.02	
186. Soledad e/o San Fernando	6	54000	36000	.67	38000	.70	.04	
187. Soledad e/o MMP	6	54000	45000	.83	47000	.87	.04	
188. MMP e/o San Fernando	4	32000	20000	.63	26000	.81	.19	
189. MMP e/o Rio Vista	4	32000	23000	.72	26000	.81	.09	
190. C Street s/o Soledad	4	32000	3000	.09	4000	.13	.03	
191. North of Hasley	4	32000	1000	.03	1000	.03	.00	
192. Henry Mayo w/o The Old Rd	2	14000	1000	.07	6000	.43	.36	
193. Rio Vista s/o Soledad	6	54000	25000	.46	28000	.52	.06	
194. Copperhill w/o McBean	6	54000	32000	.59	32000	.59	.00	
198. "E" Street e/o Valley	2	16000	4000	.25	4000	.25	.00	

[P] Specific Plan Impact - Specific Plan causes V/C to exceed 1.00
[C] Contribution - No-project and with-project V/C exceeds 1.00
* A reference map for the link numbering system can be found in **Appendix 4.8**

Level of service ranges: .00 - .60 A
.61 - .70 B
.71 - .80 C
.81 - .90 D
.91 - 1.00 E
Above 1.00 F

As can be seen from these results, several link locations are significantly impacted by the Specific Plan.

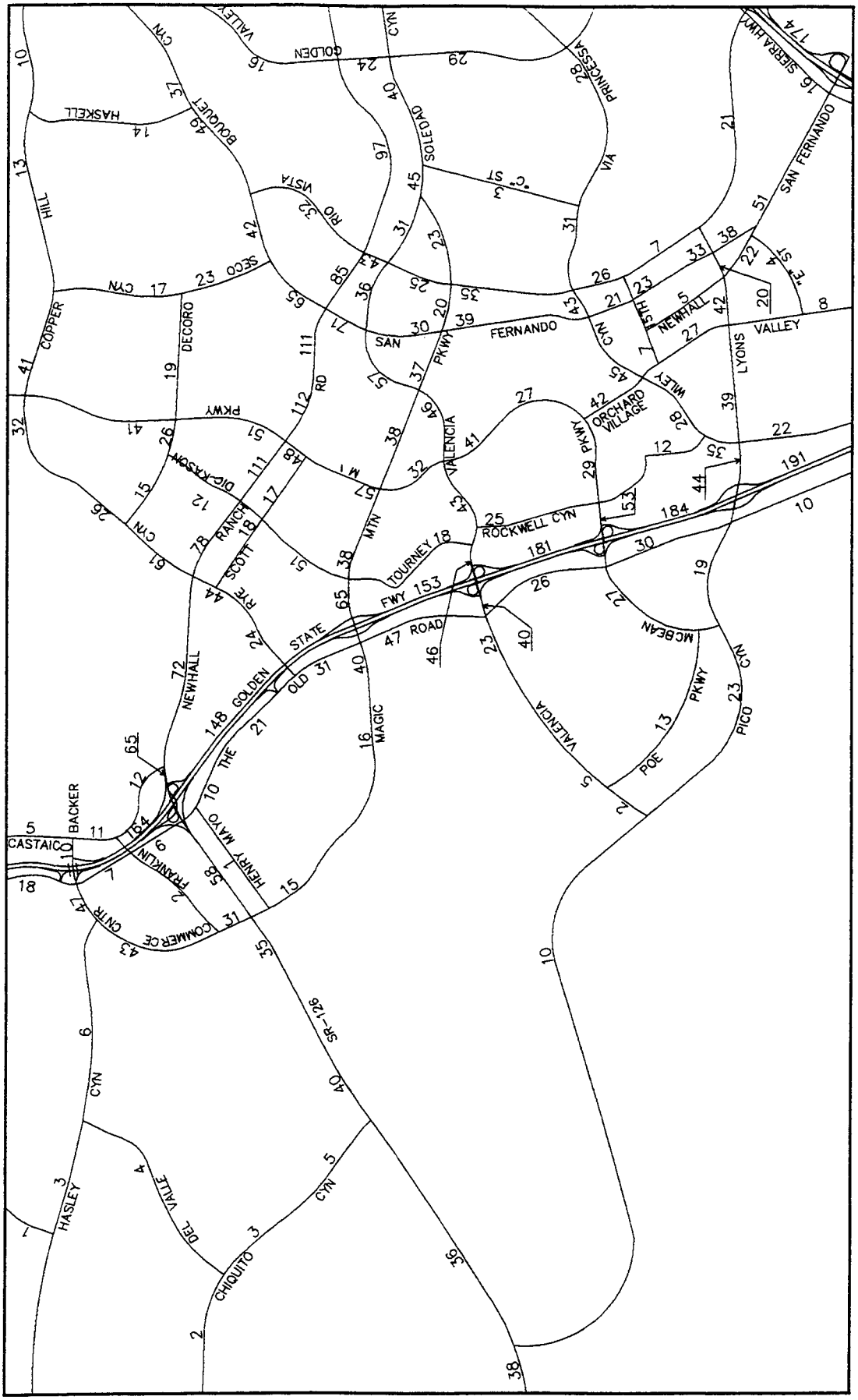


FIGURE 4.8-20
LONG RANGE ADT VOLUMES (000's)
COUNTY BASE NETWORK
(NO-PROJECT)

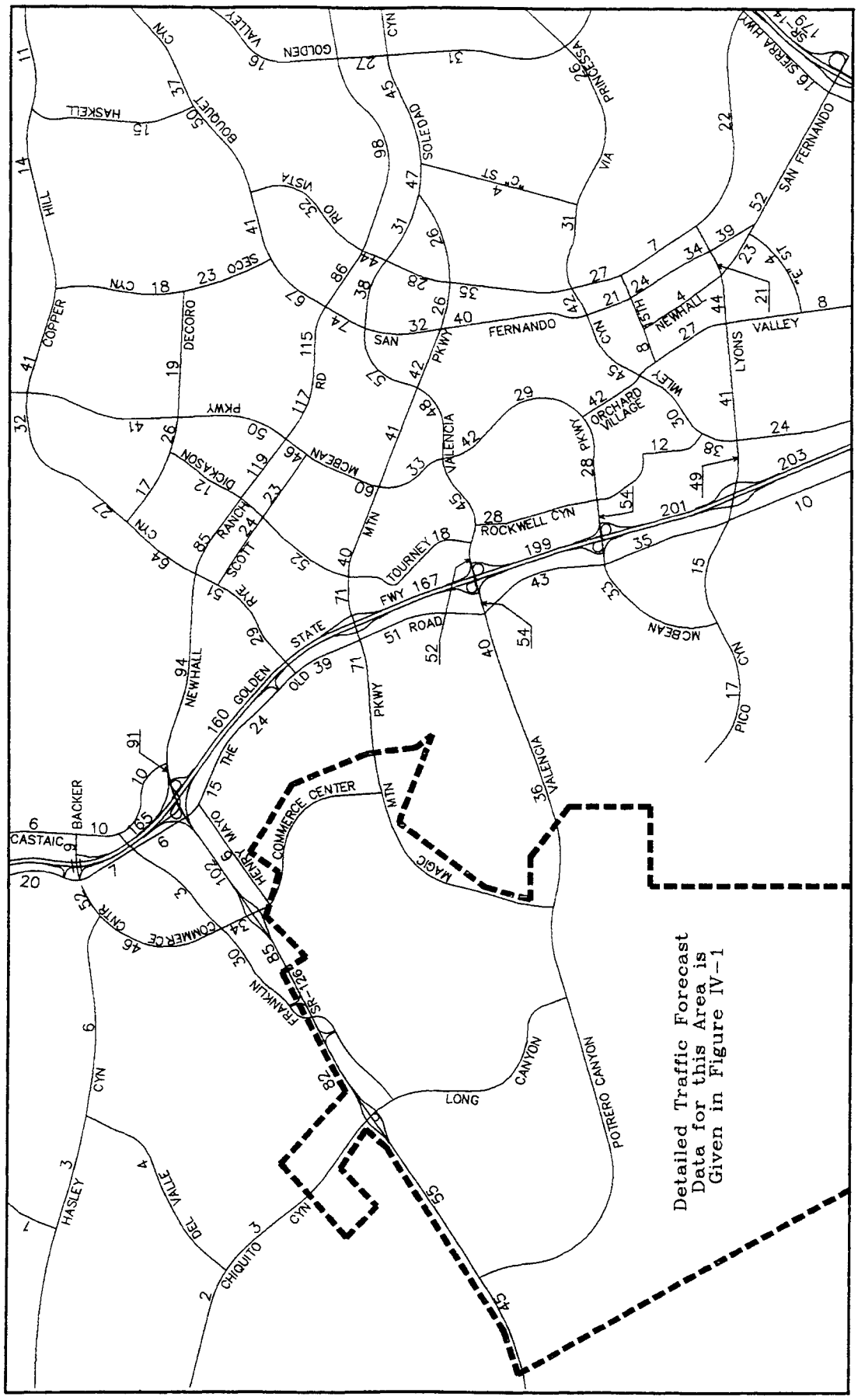


FIGURE 4.8-21

LONG RANGE ADT VOLUMES (000's)
COUNTY BASE NETWORK
(WITH PROJECT)

(3) Alternative Highway Plan Impacts

As discussed previously, the Alternative Highway Plan was formulated specifically for this analysis, and represents a potential alternative to the County Base. Technical reports prepared by the City of Santa Clarita (e.g., Reference 7 in Subsection 2.e.) show an alternative similar to this, although as noted in the discussion, there is not an adopted plan at this time. The primary purpose of this alternative is to show how the Specific Plan would impact the arterial highway system without the SR-126 expressway across the Valley as depicted in the County Base network. The elimination of the expressway across the Valley leads to a reduction in future roadway capacity and necessitates other improvements in response, and results in a greater level of Specific Plan impact. Hence, it represents a worst-case scenario as far as Specific Plan impacts and mitigation requirements are concerned.

The no-project and with-project ADT volumes for the Alternative Highway Plan are illustrated in **Figures 4.8-22, (Long-Range ADT Volumes - Alternative Highway Plan [No Project])** and **4.8-23, (Long-Range ADT Volumes - Alternative Highway Plan [With Project])** respectively. As with the County Base network, the east-west roadways directly serving the Specific Plan site show the greatest differences. Valencia Boulevard west of I-5 has a forecast volume of 54,000 compared to 39,000 for the no-project scenario, Magic Mountain Parkway has 73,000 compared to 45,000, and on SR-126 west of I-5, the with-project volume is 97,000 compared to 53,000. Again, the east-west roadways east of the I-5 Freeway show increases near the freeway, diminishing to relatively low differences east of San Fernando Road.

Table 4.8-8, Long-Range ADT Volume Summary - Alternative Highway Plan, lists the ADT link volumes and V/C ratios for this scenario. The same "P" and "C" notations are used here to denote where the Specific Plan contributes to a deficiency or causes a deficiency, respectively. In addition, the "A" notation for contributing to an augmented capacity need can be found in this table. As can be seen from these results, the addition of the Specific Plan causes a number of significant impacts. The extent to which the increase in traffic can be considered a Specific Plan impact depends on the future capacities that will be provided on these arterials and the impact of the Specific Plan as discussed in this section.

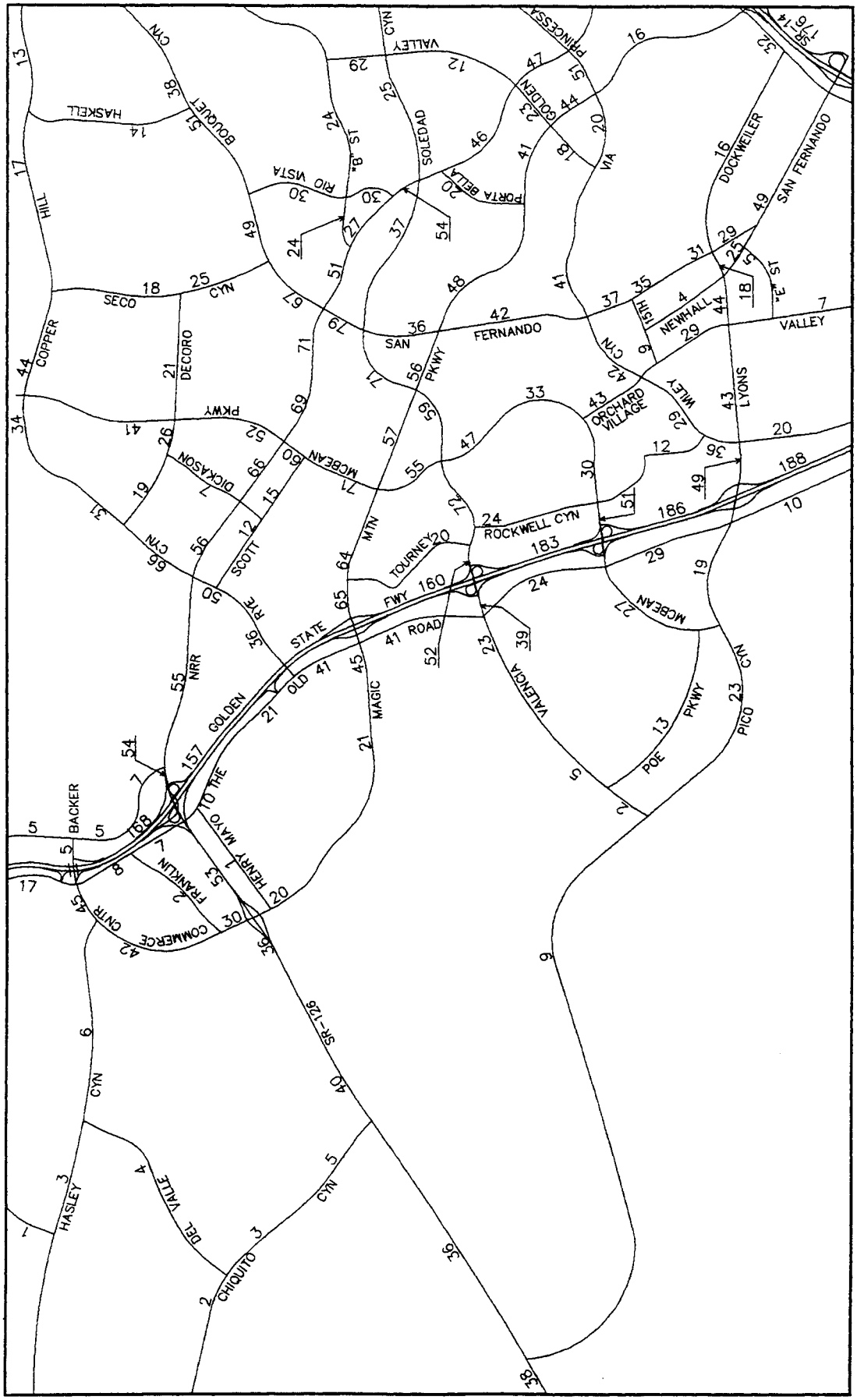


FIGURE 4.8-22

LONG RANGE ADT VOLUMES (000's)
ALTERNATIVE HIGHWAY PLAN
(NO–PROJECT)

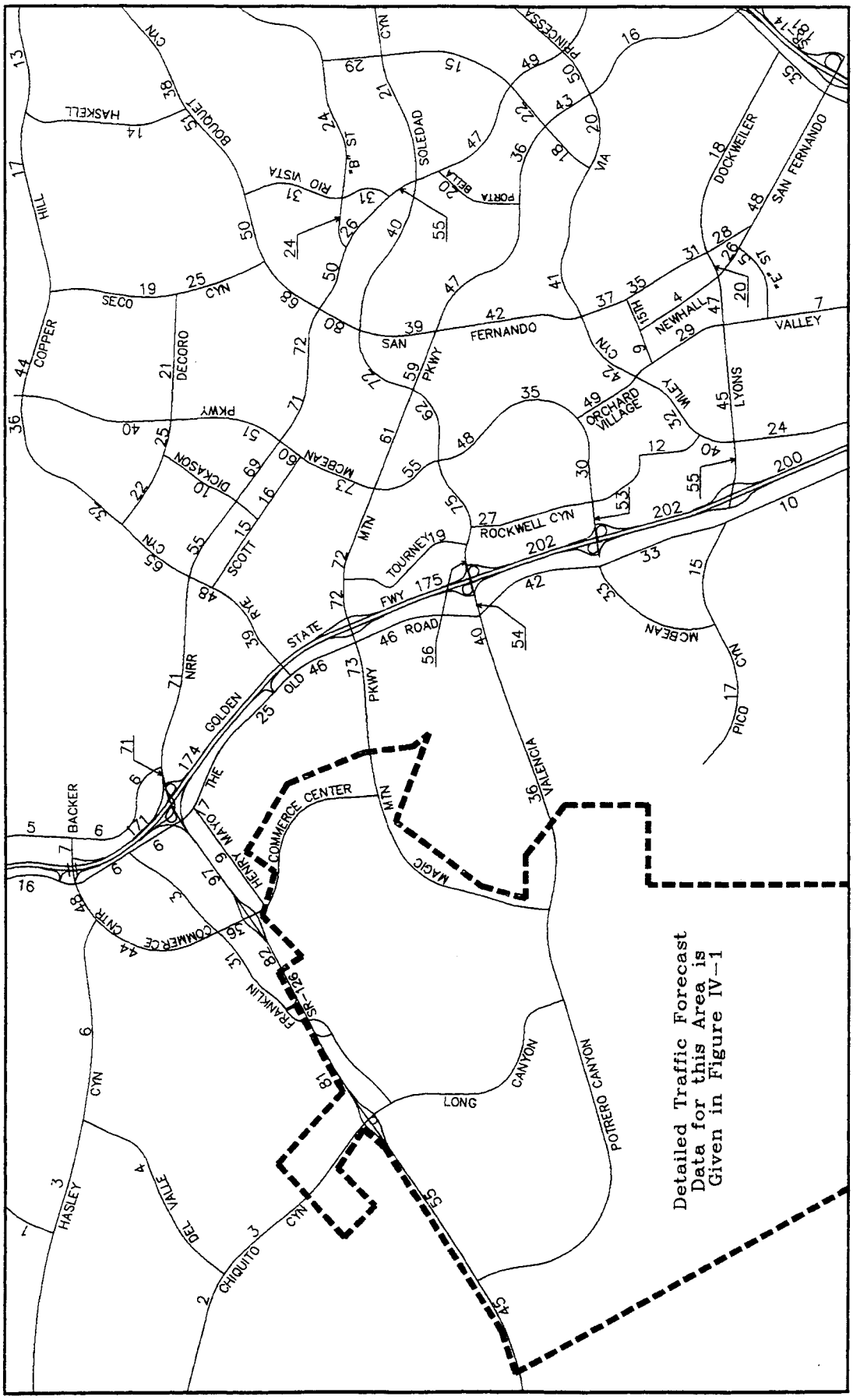


FIGURE 4.8-23
LONG RANGE ADT VOLUMES (000's)
ALTERNATIVE HIGHWAY PLAN
(WITH PROJECT)

Table 4.8-8
Long-Range ADT Volume Summary - Alternative Highway Plan

LOCATION*	LANES	CAPACITY	NO-PROJECT VOL	NO-PROJECT V/C	WITH-PROJECT VOL	WITH-PROJECT V/C	PROJ. CONTR.**	
1. Hasley Cyn w/o Del Valle	2	14000	3000	.09	3000	.09	.00	
2. Hasley Cyn e/o Del Valle	4	32000	6000	.19	6000	.19	.00	
3. Del Valle n/o Chiquito Cyn	2	14000	4000	.13	4000	.13	.00	
4. Chiquito Cyn w/o Del Valle	2	14000	2000	.14	2000	.14	.00	
5. Chiquito Cyn e/o Del Valle	2	14000	3000	.09	3000	.09	.00	
9. Commerce Cnt Dr e/o I-5	6	54000	5000	.09	7000	.13	.04	
10. Commerce Cnt Dr w/o I-5	6	54000	45000	.83	48000	.89	.06	
11. Commerce Cnt Dr s/o Hasley	6	54000	42000	.78	44000	.81	.04	
12. Commerce Cnt Dr n/o SR-126	6	54000	30000	.55	36000	.67	.12	
14. Valencia e/o MMP	6	54000	5000	.09	36000	.67	.56	
18. Valencia w/o The Old Rd	6	54000	23000	.43	40000	.74	.31	
19. Valencia e/o The Old Rd	6	54000	39000	.72	54000	1.00	.28	
22. Magic Mtn w/o The Old Rd	6	54000	45000	.83	73000	1.35	.52	P
23. The Old Rd n/o Commerce Cnt	4	32000	17000	.53	16000	.50	-.03	
24. The Old Rd n/o Franklin	6	54000	8000	.15	6000	.11	-.04	
25. The Old Rd n/o SR-126	6	54000	7000	.13	6000	.11	-.02	
26. The Old Rd s/o SR-126	6	54000	10000	.19	17000	.32	.13	
27. The Old Rd s/o Henry Mayo	6	54000	21000	.39	25000	.46	.07	
28. The Old Rd n/o Magic Mtn	6	54000	41000	.76	46000	.85	.09	
29. The Old Rd s/o Magic Mtn	6	54000	41000	.76	46000	.85	.09	
30. The Old Rd s/o Valencia	6	54000	24000	.44	42000	.78	.33	
31. The Old Rd s/o McBean	6	54000	29000	.54	33000	.61	.07	
32. The Old Rd s/o Lyons	4	32000	10000	.31	10000	.31	.00	
33. Pico w/o McBean	4	32000	23000	.72	17000	.53	-.19	
34. Pico e/o McBean	4	32000	19000	.59	15000	.47	-.13	
35. McBean w/o The Old Rd	6	54000	27000	.50	33000	.61	.11	
36. McBean e/o I-5	6	54000	51000	.94	53000	.98	.04	
37. McBean e/o Tournament	6	54000	30000	.56	30000	.56	.00	
38. McBean s/o Valencia	6	54000	47000	.87	48000	.89	.02	
39. McBean n/o Valencia	6A	76000	55000	.72	55000	.72	.00	
40. McBean n/o Magic Mtn	6A	76000	71000	.93	73000	.96	.03	A
41. McBean s/o Newhall Ranch Rd	6A	76000	60000	.79	60000	.79	.00	
42. McBean n/o Newhall Ranch Rd	6	54000	52000	.96	51000	.94	-.02	
43. McBean n/o Decoro	6	54000	41000	.76	40000	.74	-.02	
50. Newhall Ranch Rd e/o I-5	6A	76000	54000	.71	71000	.93	.22	A
51. Newhall Ranch Rd w/o Rye	6A	76000	55000	.72	71000	.93	.21	A
52. Newhall Ranch Rd e/o Rye	6A	76000	56000	.74	55000	.72	-.01	
53. Newhall Ranch e/o Dickason	6A	76000	66000	.87	69000	.91	.04	A
54. Newhall Ranch Rd e/o McBean	6A	76000	69000	.91	71000	.93	.03	A
55. Newhall Ranch e/o Bouquet	6A	76000	51000	.67	50000	.66	-.01	
56. Castaic n/o Newhall Ranch Rd	4	32000	7000	.22	6000	.19	-.03	
57. Castaic s/o Commerce Cnt Dr	4	32000	5000	.16	6000	.19	.03	
58. Castaic n/o Commerce Cnt Dr	4	32000	5000	.16	5000	.16	.00	
60. Franklin w/o Commerce Cnt Dr	4	32000	0	.00	31000	.97	.97	
61. Franklin e/o Commerce Cnt Dr	4	32000	2000	.06	3000	.09	.03	
63. Rye e/o I-5	6	54000	36000	.67	39000	.72	.06	

(Continued)

Table 4.8-8 (cont.)
Long-Range ADT Volume Summary - Alternative Highway Plan

LOCATION*	LANES	CAPACITY	NO-PROJECT VOL	NO-PROJECT V/C	WITH-PROJECT VOL	WITH-PROJECT V/C	PROJ. CONTR.
64. Rye e/o Scott	6	54000	50000	.93	48000	.89	-.04
65. Copperhill e/o Newhall Ranch	6A	76000	66000	.87	65000	.86	-.01
66. Copperhill n/o Decoro	6	54000	31000	.57	32000	.59	.02
67. Copperhill e/o McBean	6	54000	44000	.81	44000	.81	.00
68. Copperhill e/o Seco	4	32000	17000	.53	17000	.53	.00
69. Copperhill e/o Haskell	4	32000	13000	.41	13000	.41	.00
70. Decoro e/o Copperhill	4	32000	19000	.59	22000	.69	.09
71. Decoro e/o Dickason	4	32000	26000	.81	25000	.78	-.03
72. Decoro e/o McBean	4	32000	21000	.66	21000	.66	.00
73. Haskell n/o Bouquet	4	32000	14000	.44	14000	.44	.00
74. Seco n/o Decoro	4	32000	18000	.56	19000	.59	.03
75. Seco s/o Decoro	4	32000	25000	.78	25000	.78	.00
76. Bouquet e/o Haskell	6	54000	38000	.70	38000	.70	.00
77. Bouquet e/o Rio Vista	6	54000	51000	.94	51000	.94	.00
78. Bouquet n/o Newhall Ranch	6A	76000	67000	.88	68000	.89	.01 [A]
79. Bouquet s/o Newhall Ranch	8A	80000	79000	.99	80000	1.00	.01 [A]
80. Bouquet n/o Magic Mtn	6	54000	36000	.67	39000	.72	.06
81. San Fernando s/o Magic Mtn	6	54000	42000	.78	42000	.78	.00
82. San Fernando s/o Wiley	6	54000	37000	.69	37000	.69	.00
83. San Fernando n/o Placerita	6	54000	35000	.65	35000	.65	.00
84. San Fernando s/o Placerita	6	54000	31000	.57	31000	.57	.00
85. San Fernando s/o Lyons	6	54000	29000	.54	28000	.52	-.02
86. Ave Scott e/o Rye	4	32000	12000	.38	15000	.47	.09
87. Ave Scott e/o Dickason	4	32000	15000	.47	16000	.50	.03
88. Magic Mtn e/o I-5	6A	76000	65000	.86	72000	.95	.09 [A]
89. Magic Mtn e/o Tourney	6A	76000	64000	.84	72000	.95	.11 [A]
90. Magic Mtn e/o McBean	6A	76000	57000	.75	61000	.80	.05 [A]
91. Magic Mtn e/o Valencia	6A	76000	56000	.74	59000	.78	.04 [A]
92. Magic Mtn e/o San Fern	6	54000	48000	.63	47000	.87	.24
93. Tourney n/o Valencia	4	32000	20000	.63	19000	.59	-.03
94. Rockwell s/o Valencia	4	32000	24000	.75	27000	.84	.09
95. Tournament s/o McBean	4	32000	12000	.38	12000	.38	.00
96. Valencia e/o I-5	6A	76000	52000	.68	56000	.74	.05 [A]
98. Valencia e/o Rockwell	6A	76000	72000	.95	75000	.99	.04 [A]
99. Valencia e/o McBean	6A	76000	59000	.78	62000	.82	.04 [A]
100. Valencia n/o Magic Mtn	6A	76000	71000	.93	72000	.95	.01 [A]
101. Soledad e/o Bouquet	6	54000	37000	.69	40000	.74	.06
102. Wiley s/o Lyons	4	32000	20000	.63	24000	.75	.13
103. Wiley n/o Lyons	6	54000	36000	.67	40000	.74	.07
104. Wiley e/o Tournament	6	54000	29000	.54	32000	.59	.06
105. Wiley e/o Orchard Village	6	54000	42000	.78	42000	.78	.00
106. Via Princessa e/o San Fern	6	54000	41000	.76	41000	.76	.00
107. Via Princessa e/o Magic Mtn	6	54000	51000	.94	50000	.93	-.02
108. 15th St e/o Orchard Village	4	32000	9000	.28	9000	.28	.00
109. Newhall n/o Lyons	4	32000	4000	.13	4000	.13	.00
110. Newhall s/o Lyons	4	32000	25000	.78	26000	.81	.03
111. San Fernando e/o Newhall	6	54000	49000	.91	48000	.89	-.02
112. Orchard Village s/o McBean	6	54000	43000	.80	49000	.91	.11
113. Orchard Village s/o Wiley	6	54000	29000	.54	29000	.54	.00
114. Orchard Village s/o Lyons	4	32000	7000	.22	7000	.22	.00
115. Lyons e/o I-5	6	54000	49000	.91	55000	1.02	.11 [P]
116. Lyons e/o Wiley	6	54000	43000	.80	45000	.83	.04
117. Lyons e/o Orchard Village	6	54000	44000	.81	47000	.87	.06
118. Lyons w/o San Fernando	6	54000	18000	.33	20000	.37	.04
119. McBean e/o Orchard Village	6	54000	33000	.61	35000	.65	.04

(Continued)

Table 4.8-8 (cont.)
Long-Range ADT Volume Summary - Alternative Highway Plan

LOCATION*	LANES	CAPACITY	NO-PROJECT VOL	NO-PROJECT V/C	WITH-PROJECT VOL	WITH-PROJECT V/C	PROJ. CONTR.	
122. Dockweiler e/o San Fernando	4	32000	16000	.50	18000	.56	.06	
124. Dickason s/o Decoro	4	32000	7000	.22	10000	.31	.09	
126. Bouquet e/o Seco	6A	76000	49000	.64	50000	.66	.01	
128. Newhall Ranch w/o Bouquet	6A	76000	71000	.93	72000	.95	.01	A
129. Newhall Ranch e/o B St	6	54000	27000	.50	26000	.49	-.01	
130. NRR e/o Santa Clarita Pkwy	6A	76000	54000	.71	55000	.72	.01	A
131. NRR e/o Porta Bella	6A	76000	46000	.60	47000	.61	.01	
132. NRR e/o Golden Valley	6A	76000	47000	.62	49000	.65	.03	
135. Golden Valley e/o MMP	4	32000	23000	.72	22000	.69	-.03	
136. Golden Valley e/o NRR	4	32000	12000	.38	15000	.47	.09	
137. Golden Valley n/o Soledad	6	54000	29000	.54	29000	.54	.00	
139. B St w/o Rio Vista	4	32000	24000	.75	24000	.75	.00	
140. B St e/o Rio Vista	4	32000	24000	.75	24000	.75	.00	
141. Rio Vista s/o B St	6	54000	30000	.56	31000	.57	.02	
142. Santa Clarita n/o B St	6	54000	30000	.56	31000	.57	.02	
143. Soledad w/o Golden Valley	6	54000	25000	.46	21000	.39	-.07	
151. Via Princessa w/o MMP	6	54000	20000	.37	20000	.37	.00	
155. MMP e/o Golden Valley	6	54000	44000	.81	43000	.80	-.02	
156. MMP s/o Via Princessa	4	32000	16000	.50	16000	.50	.00	
159. Sierra Hwy e/o San Fern	6	54000	32000	.59	35000	.65	.06	
191. North of Hasley	4	32000	1000	.03	1000	.03	.00	
192. Henry Mayo w/o The Old Rd	2	14000	1000	.07	9000	.64	.57	
194. Copperhill w/o McBean	6	54000	34000	.63	36000	.67	.04	
196. Porta Bella s/o NRR	4	32000	20000	.63	20000	.63	.00	
197. MMP e/o Porta Bella	6	54000	41000	.54	36000	.67	.13	
198. "E" St e/o Valley	2	16000	5000	.31	5000	.31	.00	
199. Golden Valley n/o Via Princessa	4	32000	18000	.56	18000	.56	.00	

[P] Specific Plan Impact - Specific Plan causes V/C to exceed 1.00
[C] Contribution - No-project and with-project V/C exceeds 1.00
[A] Augmented Capacity Impact - Adds to the need for capacity augmentation
6A - Augmented capacity
* A reference map for the link numbering system can be found in **Appendix 4.8**
** Rounded to nearest one thousandth.
Level of service ranges: .00 - .60 A
.61 - .70 B
.71 - .80 C
.81 - .90 D
.91 - 1.00 E
Above 1.00 F

As has been discussed throughout this EIR section, the City of Santa Clarita is evaluating its long-range circulation needs, with the objective of adopting a new General Plan Circulation Element. This work is being carried out in cooperation with the County of Los Angeles, and the goal is to concurrently amend each jurisdiction's Master Plan of Highways for the Santa Clarita Valley. Revisions to the Master Plan of Highways will almost certainly include deleting the SR-126 expressway between I-5 and SR-126, and replacing it with at-grade arterial facilities. The Alternative Highway Plan used in this analysis addressed the potential Master Plan of Highways revisions that could arise from this process.

Initial traffic analysis work by the City (e.g., Reference 7 in Subsection 2) has indicated that providing replacement capacity for the SR-126 expressway will require augmenting several major arterial highways to a capacity beyond that of a standard six-lane highway in order to serve land uses in the City's General Plan and County's Area Plan. The Newhall Ranch Specific Plan impact analysis results are, therefore, based on the assumption that certain arterials in the Alternative Highway Plan would have some form of augmented capacity. The traffic data presented in this EIR section support the need for arterial augmentation, and have used the maximum capacity that can be achieved by augmentation as the basis for identifying future V/C ratios. **Table 4.8-8, Long Range ADT Volume Summary - Alternative Highway Plan** shows the capacity of each highway segment, including those assumed to be augmented, along with the No-Project traffic volumes and V/C ratios for each segment. Arterial capacity augmentation involves a variety of strategies ranging from simple intersection enhancement to full roadway widening. A typical menu of augmentation actions includes but is not limited to the following:

- Intersection Improvements
  Added left-turn lane
  Separate right-turn lane
  Free right-turn lane
  Additional thru-lane
- Roadway Improvements
  Deceleration lanes at driveways
  Acceleration lanes at driveways
  Auxiliary lanes for all or part of a roadway section
  Additional lanes (e.g., eight lanes versus six lanes)
- Efficiency Improvements
  Traffic signal optimization
  Signal progression
  Areawide signal control
  Advanced areawide traffic management

Intersection improvements involve adding lanes, as necessary, to serve high demand movements through the intersection. Roadway improvements typically involve auxiliary lanes between intersections. Carrying additional lanes through an intersection would provide substantial capacity enhancement, and represents a maximum treatment for arterial augmentation. Efficiency improvements maximize the use of the physical roadway system.

The actual capacity enhancements to be deployed at any location will be based on future traffic demand. The maximum capacity assumption used in the impact analysis is a worst-case analysis and may overstate the degree to which the Specific Plan adds to the requirement for future improvements.

Additional traffic due to the Specific Plan will typically create the need for capacity augmentation beyond that which might be implemented without the Specific Plan. For this reason, where the Specific Plan adds traffic to locations that are candidates for augmentation, that additional traffic is considered a Specific Plan impact. The proposed Specific Plan mitigation is to participate in capacity augmentation on a fair share basis.

Examples of how a fair share formula could be derived for individual sections of augmented roadways can be seen in **Table 4.8-9, Specific Plan Participation in Augmented Arterial Roadway Improvements (Alternative Highway Plan)**. This shows the roadways in the City and County that need augmentation beyond a standard Master Plan of Highways roadway capacity, the additional capacity needed, and the Specific Plan share of that additional capacity. It is intended that this share percentage defines the Specific Plan obligation for participating in the implementation of appropriate augmented capacity in each case.

Table 4.8-9
Specific Plan Participation in Augmented Arterial Roadway Improvements
(Alternative Highway Plan)

LOCATION*	NON-AUG CAPACITY	ADT WITHOUT PROJECT	ADT WITH PROJECT	PROJECT DIFF.[1]	AUG CAPACITY NEEDED[2]	PROJECT SHARE (%)[3]
I. COUNTY						
22. Magic Mtn w/o The Old Rd	54,000	45,000	73,000	28,000	19,000	100
54. Newhall Ranch e/o McBean	54,000	69,000	71,000	2,000	17,000	12
128. Newhall Ranch w/o Bouquet	54,000	71,000	72,000	1,000	18,000	6
II. COUNTY/CITY						
40. McBean n/o Magic Mtn	54,000	71,000	73,000	2,000	19,000	10
53. Newhall Ranch e/o Dickason	54,000	66,000	69,000	3,000	15,000	20
78. Bouquet n/o Newhall Ranch	54,000	67,000	68,000	1,000	14,000	7
79. Bouquet s/o Newhall Ranch	54,000	79,000	80,000	1,000	26,000	4
100. Valencia n/o Magic Mtn	54,000	71,000	72,000	1,000	18,000	6
III. CITY						
50. Newhall Ranch e/o I-5	54,000	54,000	71,000	17,000	17,000	100
51. Newhall Ranch w/o Rye	54,000	55,000	71,000	16,000	17,000	94
88. Magic Mtn e/o I-5	54,000	65,000	72,000	7,000	18,000	39
89. Magic Mtn e/o Tourney	54,000	64,000	72,000	8,000	18,000	44
90. Magic Mtn e/o McBean	54,000	57,000	61,000	4,000	7,000	57
91. Magic Mtn e/o Valencia	54,000	56,000	59,000	3,000	5,000	60
96. Valencia e/o I-5	54,000	52,000	56,000	4,000	2,000	100
98. Valencia e/o Rockwell	54,000	72,000	75,000	3,000	21,000	14
99. Valencia e/o McBean	54,000	59,000	62,000	3,000	8,000	38
~~100. Valencia n/o Magic Mtn~~	~~54,000~~	~~71,000~~	~~72,000~~	~~1,000~~	~~18,000~~	~~6~~
115. Lyons e/o I-5	54,000	49,000	55,000	6,000	1,000	100
130. Newhall Ranch e/o Santa Clarita Pkwy	54,000	54,000	55,000	1,000	1,000	100

AUG - augmented
Note: The ADT volumes used here were taken from the Alternative Highway Plan.
* A link location map can be found in **Appendix 4.8**
[1] ADT with project minus ADT without project
[2] ADT with project minus non-augmented capacity
[3] Project difference divided by augmented capacity needed

Certain locations are shown as having full (100 percent) Specific Plan responsibility for augmentation beyond the standard Master Plan of Highways capacity, and comments on these follow.

Location 22. Magic Mountain west of The Old Road - This section of Magic Mountain Parkway between the theme park entrance and The Old Road is significantly impacted by the Specific Plan and has forecast volumes which exceed its six-lane capacity. Mitigation measures proposed for this location involve a set of improvements as described later in the section on Magic Mountain Parkway.

Locations 50 and 130. Newhall Ranch Road - Newhall Ranch Road east of I-5 has different capacity assumptions in the County Base network compared to the Alternative Highway Network. In the former, it is an expressway with limited access and grade separations at major intersections. In the latter, it is an at-grade arterial with augmented capacity. The most likely scenario is that this will be an at-grade arterial, in which case it is proposed that the Specific Plan participate in the capacity augmentation on a fair share basis.

Location 96. Valencia east of I-5 - The Specific Plan creates the need for augmentation of this section of roadway and, hence, would be responsible for enhancements to serve the additional 2000 ADT volumes that would cause the need for additional augmented capacity.

Location 115. Lyons east of I-5 - Upon buildout of the Specific Plan, this location is slightly over capacity (V/C = 1.02) due largely to indirect Specific Plan impacts. Only one percent of Specific Plan traffic actually uses this link, but non-Specific Plan trips are diverted from other roadways, such as McBean Parkway and Valencia Boulevard. Because of the minor nature of the deficiency, no major improvements, such as roadway widening, are needed here. If capacity enhancements are actually found to be needed in the future, operational improvements in the augmented capacity menu, such as signal system enhancements, should be the preferred means of providing the necessary increase in capacity.

c. Freeways and State Highways (I-5, SR-14 and SR-126)

The Specific Plan impacts two State Highways: SR-126 and I-5. Some minor differences in volumes also occur on SR-14, but only on the section just north of the I-5 confluence does the Specific Plan increase volumes by more than one percent. Impacts to the State Highway system were evaluated using a similar ADT V/C calculation to that used for the arterial system. All freeway locations within the study area were evaluated. Special discussions on the Congestion Management Program and on SR-126 in Ventura County are given later in this subsection.

(1) Significance Threshold Criteria

The freeway capacities used in the freeway capacity evaluation results were taken from the following sources:

- ADT Capacities - Santa Clarita Valley Consolidated Traffic Model (SCVCTM),
- I-5 Peak Hour Capacities - Caltrans Route Concept Report, Route 5, February 1991,
- SR-14 Peak Hour Capacities - Caltrans Route Concept Report, Route 14, June 1991, and
- SR-126 Peak Hour Capacities - Caltrans Route Concept Report, Route 126, January 1991.

The Caltrans Route Concept Reports (see References 4, 5 and 6 in Subsection 2.e.), represent the applicable long-range planning documents for the State Highway system. The Route Concept Reports are long-range planning documents that evaluate projected travel demand over a twenty-year period to determine the appropriate type of facility and level of service for each route. These reports provide a basis for the development of the State Transportation Improvement Program (STIP) and provide a reference for highway improvement planning. The Route Concept Reports describe the long-range plans for each facility, and provide applicable capacities for evaluating traffic volumes.

The freeway capacities from the applicable sources can be summarized as follows:

Freeway Capacity Assumptions

	LANES (One Direction)	PEAK HOUR (One Direction)	ADT (Both Directions)
I-5 north of SR-14			
Existing	4G	8,000	180,000
Planned	4G + T + HOV	12,500	225,000
SR-14 north of I-5			
Existing	4G	9,000	180,000
Planned	4G + HOV	12,000	225,000

G - General purpose lane T - Truck lane HOV - High occupancy vehicle lane

The capacity values listed in the above chart for the planned lanes have been used in the V/C calculations presented in this subsection.

The Caltrans Route Concept Reports define an operating deficiency as when the projected LOS falls below the concept LOS. The concept LOS for freeway facilities is LOS F0 (V/C between 1.01 - 1.25). Because SR-126 is to be constructed as an expressway to State highway standards, this concept LOS is also applied. For the purposes of this analysis, a significant impact would occur if the Specific Plan caused the LOS to exceed the concept LOS.

(2) Freeway/Highway Impacts

The future ADT volumes and volume/capacity ratios for locations along the two freeways (I-5 and SR-14) in the study area are summarized in **Table 4.8-10, Freeway and Expressway Long-Range Volume Summary**, for both the County Base Network and the Alternative Highway Network.

Table 4.8-10
Freeway and Expressway Long-Range Volume Summary

LINK #/LOCATION*	LANES	CAPACITY	NO-PROJECT VOL	NO-PROJECT V/C	WITH-PROJECT VOL	WITH-PROJECT V/C	PROJ. CONTR.
I. COUNTY BASE NETWORK							
45. SR-126 w/o Potrero Cyn**	6	54000	38000	.70	45000	.83	.13
46. SR-126 w/o Chiquito Cyn	6	84000	36000	.43	55000	.65	.22
47. SR-126 e/o Chiquito Cyn	6	84000	40000	.48	82000	.98	.50
48. SR-126 w/o Commerce Cnt Dr	6	84000	35000	.42	85000	1.01	.60
49. SR-126 w/o I-5	8	112000	58000	.52	102000	.91	.39
200. I-5 n/o SR-126	10	225000	164000	.73	165000	.73	.00
201. I-5 s/o Newhall Ranch Rd	10	225000	148000	.66	160000	.71	.05
202. I-5 s/o Magic Mountain Pkwy	10	225000	153000	.68	167000	.74	.06
203. I-5 s/o Valencia	10	225000	181000	.80	199000	.88	.08
204. I-5 s/o McBean	10	225000	184000	.82	201000	.89	.08
205. I-5 s/o Lyons	10	225000	191000	.85	203000	.90	.05
206. SR-14 e/o San Fernando	10	225000	174000	.77	179000	.80	.02
210. SR-14 e/o I-5	10	225000	200000	.89	206000	.92	.03
211. I-5 n/o SR-14	10	225000	203000	.90	216000	.96	.06
212. I-5 s/o SR-14	14	315000	393000	1.25	412000	1.31	.06

LOCATION*	LANES	CAPACITY	NO-PROJECT VOL	NO-PROJECT V/C	WITH-PROJECT VOL	WITH-PROJECT V/C	PROJ. CONTR.
II. ALTERNATIVE HIGHWAY NETWORK							
45. SR-126 w/o Potrero Cyn**	6	54000	38000	.70	45000	.83	.13
46. SR-126 w/o Chiquito Cyn	6	84000	36000	.43	55000	.65	.22
47. SR-126 e/o Chiquito Cyn	6	84000	40000	.48	81000	.96	.49
48. SR-126 w/o Commerce Cnt Dr	6	84000	36000	.43	82000	.98	.55
49. SR-126 w/o I-5	8	112000	53000	.47	97000	.87	.39
200. I-5 n/o SR-126	10	225000	168000	.75	171000	.76	.01
201. I-5 s/o Newhall Ranch Rd	10	225000	157000	.70	174000	.77	.08
202. I-5 s/o Magic Mountain Pkwy	10	225000	160000	.71	175000	.78	.07
203. I-5 s/o Valencia	10	225000	183000	.81	202000	.90	.08
204. I-5 s/o McBean	10	225000	186000	.83	202000	.90	.07
205. I-5 s/o Lyons	10	225000	188000	.84	200000	.89	.05
206. SR-14 e/o San Fernando	10	225000	176000	.78	181000	.80	.02
210. SR-14 e/o I-5	10	225000	202000	.90	208000	.92	.03
211. I-5 n/o SR-14	10	225000	200000	.89	212000	.94	.05
212. I-5 s/o SR-14	14	315000	393000	1.25	412000	1.31	.06

Note: The ten lanes shown of I-5 north of SR-14 include eight general purpose lanes and two HOV lanes. The 14 lanes shown for I-5 south of SR-14 include 12 general purpose lanes and two HOV lanes. The Caltrans Route Concept Report also includes truck lanes, and those are included in the capacities listed above.

* A link location map can be found in **Appendix 4.**
** Transitions to 4-lanes prior to County line.

The link numbers correspond to the SCVCTM link numbering system referred to earlier, and the complete numbering system can be seen in **Appendix 4.8**.

The largest Specific Plan-related traffic increase on the freeway system is along I-5 south of SR-126. The Specific Plan increases future traffic volumes by approximately 11 percent under the Alternative Highway Network. The results of this analysis show that future State freeway and highway volumes, both with and without the Specific Plan, can be carried by the planned freeway system in this area within the LOS concept criterion (V/C < 1.25), except for I-5 south of SR-14. For a further discussion of impacts to State highways, refer to the Congestion Management Program discussion in Subsection 5.d and the Special Issues discussion of HOV lanes and I-5 in Subsection 5.g.

(3) Interstate 5 Widening Status

Interstate 5 is currently eight lanes from SR-126 to SR-14. ~~This study~~The Route Concept Report assumes I-5 will be constructed to eight general purpose lanes plus two HOV lanes and two truck lanes for the buildout time frame (see Reference 4 in Subsection 2.e.). The Route Concept Report for I-5 (see Reference 4 in Subsection 2.e.) indicates that the HOV lanes are needed to meet future traffic volumes and should be incorporated into the long-range planning efforts for this facility.

The Los Angeles County Metropolitan Transportation Authority (MTA) recently adopted a twenty-year long-range transportation plan (see Reference 10 in Subsection 2.e.). The goal of the long-range plan is to design, construct, operate, and maintain a safe, reliable, affordable and efficient transportation system that increases mobility, relieves congestion, and improves air quality to meet the needs of all Los Angeles County residents. One component of the long-range plan is HOV facilities. The plan shows that funding has been allocated to the I-5 HOV project south of SR-14, but not for the HOV project north of SR-14. The long-range plan will be reviewed and readopted every two years and it is probable that, because of its demonstrated necessity in the I-5 Route Concept Report, the I-5 HOV project north of SR-14 will be added to the list of projects as soon as funding becomes available and as the need approaches. A special capacity analysis was conducted for the I-5 showing the differences in V/C calculations using an eight lane facility and is presented later in Subsection 5.g., Special Issues.

Funding and construction of main-line freeway capacity (i.e., I-5 and SR-14) and interchanges with other regional highways (i.e., I-5 at SR-126) are provided by existing sources of tax revenue and by Caltrans through allocations made by the Metropolitan Transportation Authority (MTA). Existing funding sources include State and Federal Gas Taxes, and Los Angeles County Proposition A and C Sales Taxes. As indicated in the Newhall Ranch Fiscal Impact Study (see EIR **Appendix 6.0**), the Newhall Ranch Specific Plan is estimated to generate over $140 million over the twenty-five year buildout

period of the Specific Plan, and nearly $11 million per year at Specific Plan buildout and annually thereafter from these existing sources. In addition, the Specific Plan exceeds its mitigation goal as required by the CMP which offsets any Specific Plan impacts to the regional transportation system (i.e., CMP governed facilities) (See Subsection 5.d., Congestion Management Program below).

(4) SR-126 Widening Status/Improvements

The section of SR-126 between the Ventura County line and its connection with I-5 just east of the Specific Plan site is currently two-lanes, and is programmed to be upgraded to four-lanes by Caltrans. This upgrade is expected to be constructed by 1999, before Newhall Ranch is expected to begin developing. To serve the additional traffic on this facility due to the Specific Plan, further upgrading of the section of SR-126 between San Martinez Grande Road and I-5 is needed.

Key features of these improvements are as follows:

1. Upgrading to a six-lane State Highway from San Martinez Grande Road to Commerce Center Drive and to an eight-lane State Highway from Commerce Center Drive to I-5,
2. Grade separated interchanges at Chiquito Canyon and Franklin Avenue/Wolcott (a grade separated interchange is already planned for Commerce Center Drive), and
3. At grade intersection at San Martinez Grande Road.

West of San Martinez Grande Road, SR-126 would transition to a four-lane State highway.

While SR-126 is a State facility and eligible for State funding, if adequate capacity is not present when needed to serve Specific Plan-generated traffic, the Specific Plan would construct the needed improvements. Any required improvements would ultimately be funded by the State through its collection of State and Federal Gas Taxes, and Los Angeles County Proposition A and C Sales Taxes. The Newhall Ranch Specific Plan is estimated to generate over $140 million in applicable revenue over the twenty-five year buildout period of the Specific Plan, and nearly $11 million per year at Specific Plan buildout and annually thereafter (see EIR **Appendix 6.0**). In addition, the Specific Plan exceeds its mitigation goal as required by the CMP which offsets any Specific Plan impacts to the regional transportation system (i.e., CMP governed facilities) (See Subsection 5.d., Congestion Management Program below).

(5) SR-126/I-5 Interchange

This interchange was assumed to be a partial cloverleaf for the purpose of this analysis (i.e., upgraded from the existing configuration). Lane configurations and peak hour ICUs for the two off-ramp intersections are shown in **Figure 4.8-24, SR-126/I-5 Interchange**. As can be seen here, while the partial cloverleaf configuration would be inadequate for the County Base network, it would be adequate for the Alternative Highway Network. Since this interchange serves as a connection between two State highways, it would be the subject of a future design study on the part of Caltrans to evaluate various options. The purpose of the information provided here is to show a future design that could serve future traffic volumes, including traffic from the Newhall Ranch Specific Plan. Any required improvements would be funded by the State through its collection of State and Federal Gas Taxes, and Los Angeles County Proposition A and C Sales Taxes. The Newhall Ranch Specific Plan is estimated to generate over $140 million in applicable revenue over the twenty-five year buildout period of the Specific Plan, and nearly $11 million per year at Specific Plan buildout and annually thereafter (see EIR **Appendix 6.0**). In addition, the Specific Plan exceeds its mitigation goal as required by the CMP which offsets any Specific Plan impacts to the regional transportation system (i.e., CMP governed facilities) (See Subsection 5.d., Congestion Management Program below).

d. Congestion Management Program (CMP)

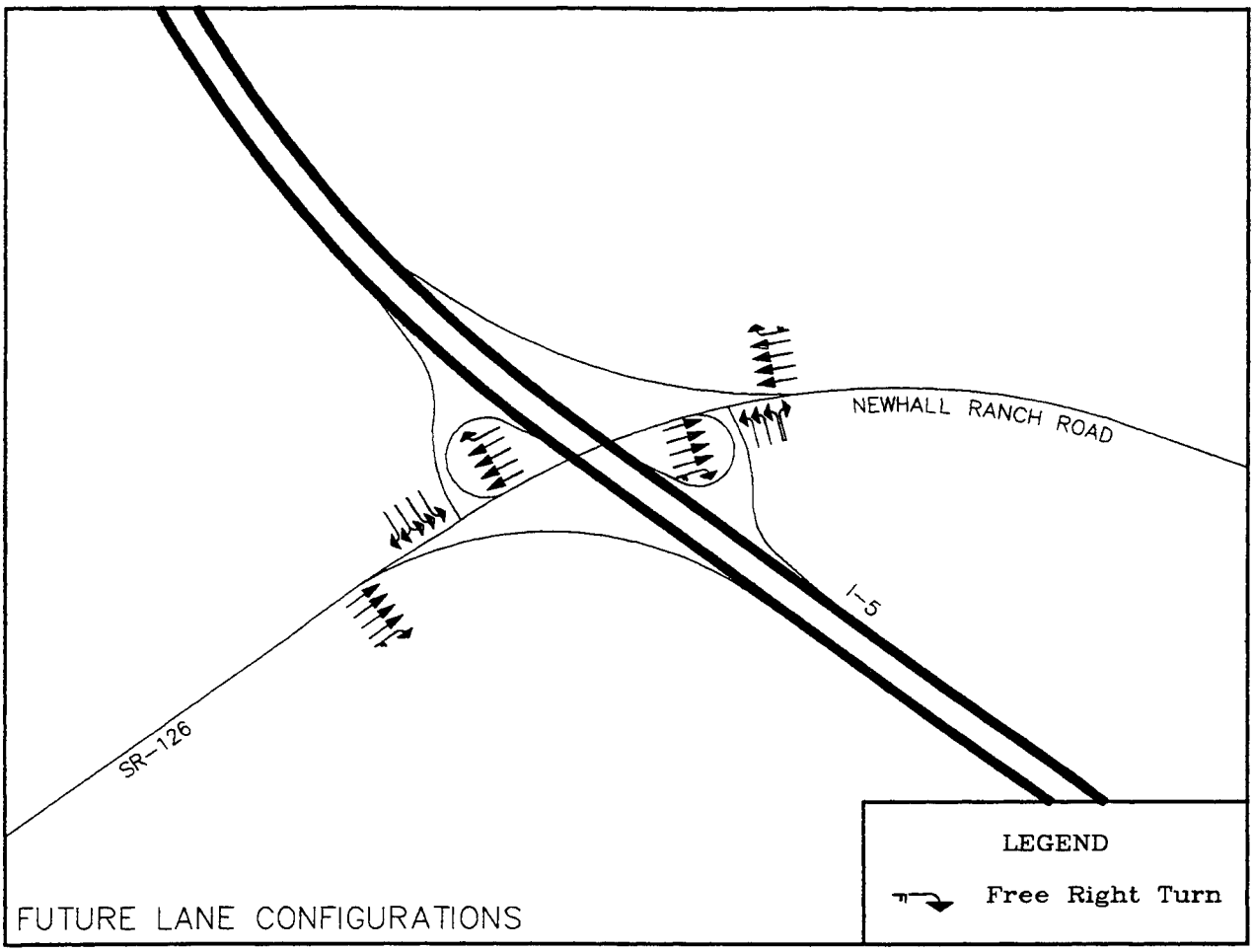
(1) Background

The CMP is a State-mandated program enacted by the State legislature with the passage of various Assembly Bills. The requirements for the program became effective with the voter approval of Proposition 111 in June of 1990. Proposition 111 provided a nine cent increase in the State gas tax over a five year period.

The 1995 Congestion Management Program document states that:

> . . . the CMP was created to link land use, transportation, and air quality decisions; to develop a partnership among transportation decision makers on devising appropriate transportation solutions that includes all modes of travel; and to propose transportation projects which are eligible to compete for state gas tax funds.

This traffic analysis addresses the Land Use Analysis Program of the CMP, which requires that the impacts of land use decisions on the regional transportation system be evaluated for projects preparing an EIR.



LONG-RANGE PEAK HOUR ICU's WITH NEWHALL RANCH

LOCATION	COUNTY BASE AM	COUNTY BASE PM	ALTERNATIVE HIGHWAY PLAN AM	ALTERNATIVE HIGHWAY PLAN PM
I-5/SR-126 SB RAMPS	.93	.90	.78	.81
I-5/SR-126 NB RAMPS	.86	.95	.81	.84

FIGURE 4.8-24

SR-126/I-5 INTERCHANGE

The CMP highway network, which is evaluated in the impact analysis, consists of all State highways (both freeways and arterials) and principal arterials that meet the criteria established by the Metropolitan Transportation Authority (MTA). Impacts are evaluated by monitoring level of service performance standards for highway segments and key roadway intersections on the CMP highway network, as designated by MTA. The CMP guidelines indicate that, for planning framework documents such as general plan amendments and specific plans, the arterial segment analysis (which monitors at least one segment between CMP intersections) may be substituted for the intersection analysis.

Another component of the CMP program is the Transit Analysis Program, which monitors project impacts on the regional transit system and provides the planning framework to make the most effective use of transit services.

(2) Land Use Analysis Program

The purpose of the Land Use Analysis Program is to ensure that local jurisdictions consider the regional impact of new development through the land use approval process. The program is designed to build on the California Environmental Quality Act (CEQA) process in identifying the impact of development on the CMP system. The program assists in inter-jurisdictional review of regional impacts in an EIR by providing a consistent methodology.

A Transportation Impact Analysis (TIA) is required in the EIR as part of the program. It should be noted that development projects requiring subsequent approvals do not need to repeat this process as long as no significant changes are made to the project.

The study area of the TIA is defined by a focused set of criteria used only to satisfy CMP requirements. In many cases, the study area used in the traffic analysis may differ from the study area used for the TIA. The study area for the TIA is defined by the following criteria:

- Arterial segments - 50 or more peak hour trips (total of both directions), and
- Freeway segments - 150 or more peak hour trips (in either direction).

The CMP study area for the Newhall Ranch Specific Plan was expanded from the study area used in the rest of the traffic study to include four freeway monitoring stations located south of the I-5/SR-14 confluence. Because these four freeway monitoring stations are located outside of the SCVCTM model area, regional growth forecasts approved by MTA were used to determine regional impacts at these locations. Although the segment of I-5 south of SR-14 is not a freeway monitoring station, it is shown here for informational purposes.

As specified in the CMP guidelines (Reference 9 in Subsection 2.e.), the criteria for determining significant impacts for arterial segments and freeway monitoring stations is defined by a V/C increase of 2 percent or more (V/C ≥ .02), which causes or worsens LOS "F" (V/C > 1.00).

Evaluation of Specific Plan impacts for CMP locations is based on peak hour volumes. The peak hour capacities for the freeway system were taken from the appropriate Route Concept Report and the peak hour capacities for arterials were taken from the SCVCTM. These are presented below:

Peak Hour Capacities

	CAPACITY PER LANE
FREEWAYS	
I-5, I-405, SR-126	
General Purpose Lane (G)	2,000
Truck Lane (T)	1,500
High Occupancy Vehicle Lane (HOV)	3,000
SR-14	
General Purpose Lane (G)	2,250
ARTERIALS	
Major Highway (6 lane)	1,000
Secondary Highway (4 lane)	850

The long-range with and without project volume/capacity ratios for CMP locations are summarized in **Table 4.8-11, CMP Location Analysis**. The table is in two parts, the first part is for the County Base Network and the second part is for the Alternative Highway Network.

The CMP freeway monitoring station located on I-5 south of Osborne Street shows a significant Specific Plan impact in the A.M. peak hour for the southbound direction and in the P.M. peak hour for the northbound direction. Although a Specific Plan impact of 2 percent is also shown for the I-405 south of Mulholland Drive during the P.M. peak hour for the northbound direction, the actual Specific Plan contribution is just over one percent (1.4 percent) when the volume to capacity ratios are calculated without rounding the ratios to two decimal places. Hence this location is not impacted according to CMP guidelines. Additionally, I-5 south of SR-14 is shown to be significantly impacted in the A.M. peak hour for the southbound direction and in the P.M. peak hour for the northbound direction.

The impacts shown on the I-5 Freeway for the monitoring station located at I-5\Osborne Street and I-5 south of SR-14 are regional in nature and are under the jurisdiction of Caltrans. The I-5 Route Concept Report published by Caltrans indicates that HOV travel lanes are recommended by the year 2010. The HOV lanes were included in the capacity analysis, but it appears that additional capacity may be necessary to accommodate future growth in the region based on CMP guidelines.

Table 4.8-11
CMP Location Analysis

LOCATION	LANES	CAPACITY	AM PEAK HOUR NO-PROJECT VOL	AM PEAK HOUR NO-PROJECT V/C	AM PEAK HOUR WITH-PROJECT VOL	AM PEAK HOUR WITH-PROJECT V/C	AM PEAK HOUR PROJECT CONTR	PM PEAK HOUR NO-PROJECT VOL	PM PEAK HOUR NO-PROJECT V/C	PM PEAK HOUR WITH-PROJECT VOL	PM PEAK HOUR WITH-PROJECT V/C	PM PEAK HOUR PROJECT CONTR
I. COUNTY BASE NETWORK												
101. SR-14 NB e/o I-5	4G + HOV	12000	4616	.38	4387	.37	-.01	10111	.84	10904	.91	.07
102. SR-14 SB e/o I-5	4G + HOV	12000	10405	.87	11433	.95	.08	6562	.55	6601	.55	.00
103. I-5 NB n/o SR-14	4G + T + HOV	12500	7456	.60	7021	.56	-.04	9500	.76	10398	.83	.07
104. I-5 SB n/o SR-14	4G + T + HOV	12500	9268	.74	10468	.84	.10	8200	.66	8118	.65	-.01
148A. MMP e/o Valencia (EB)	3	3000	695	.23	863	.29	.06	1784	.59	2001	.67	.07
148B. MMP e/o Valencia (WB)	3	3000	2108	.70	1789	.60	-.11	984	.33	1082	.36	.03
153A. Lyons e/o San Fern (EB)	2	1700	536	.32	717	.42	.10	981	.58	966	.57	-.01
153B. Lyons e/o San Fern (WB)	2	1700	959	.56	854	.50	-.06	887	.52	1063	.62	.10
158A. SR-126 e/o Chiquito (EB)	3	6000	1900	.32	2419	.40	.08	1353	.23	4308	.72	.49
158B. SR-126 e/o Chiquito (WB)	3	6000	1131	.19	4185	.70	.51	2022	.34	2764	.46	.12
165. I-5 NB n/o SR-126	5	10000	5087	.51	5341	.53	.03	7177	.72	7160	.72	-.00
166. I-5 SB n/o SR-126	5	10000	6664	.67	6670	.67	.00	6685	.67	6363	.64	-.03
167A. Sierra Hwy n/o I-5 (EB)	3	3000	298	.10	245	.08	-.02	1410	.47	1416	.47	.00
167B. Sierra Hwy n/o I-5 (WB)	3	3000	1414	.47	1480	.49	.02	677	.23	663	.22	-.00
200A. I-5 NB s/o Osborne	6G + HOV	15000	6980	.46	7470	.50	.04	18048	1.20	19308	1.29	.09
200B. I-5 SB s/o Osborne	6G + HOV	15000	14382	.96	15642	1.04	.08	7393	.49	7883	.53	.04
201A. I-5 NB n/o Burbank	4G + HOV	11000	6012	.55	6217	.57	.02	7880	.72	8405	.75	.04
201B. I-5 SB n/o Burbank	4G + HOV	11000	8913	.81	9438	.86	.05	6348	.58	6553	.60	.02
202A. I-405 NB n/o Roscoe	5G + HOV	13000	5408	.41	5743	.44	.03	8012	.62	8873	.68	.06
202B. I-405 SB n/o Roscoe	5G + HOV	13000	8040	.62	8901	.69	.07	5377	.41	5712	.44	.03
203A. I-405 NB s/o Mulholland	5G + HOV	13000	9880	.76	9953	.77	.01	14600	1.12	14787	1.14	.02
203B. I-405 SB s/o Mulholland	5G + HOV	13000	11680	.90	11867	.91	.01	7880	.61	7953	.61	.00
204A.I-5 NB s/o SR-14	6G+2t+HOV	18000	11817	.66	11161	.62	-.04	19560	1.09	21244	1.18	.09
204B.I-5 SB s/o SR-14	6G+2t+HOV	18000	19637	1.09	21858	1.21	.12	14520	.81	14484	.80	-.01
II. ALTERNATIVE HIGHWAY NETWORK												
101. SR-14 NB e/o I-5	4G + HOV	12000	4572	.38	4362	.36	-.02	10240	.85	11070	.92	.07
102. SR-14 SB e/o I-5	4G + HOV	12000	10521	1.88	11554	.96	.08	6600	.55	6625	.55	.00
103. I-5 NB n/o SR-14	4G + T + HOV	12500	7546	.60	7086	.57	-.03	9383	.75	10237	.82	.07
104. I-5 SB n/o SR-14	4G + T + HOV	12500	9141	.73	10334	.83	.10	8150	.65	8083	.64	-.01
148A. MMP e/o Valencia (EB)	3A	3200	1470	.46	1681	.53	.07	2862	.89	3074	.96	.07
148B. MMP e/o Valencia (WB)	3A	3200	2721	.85	2944	.92	.07	1985	.62	2163	.68	.06
153A. Lyons e/o San Fern (EB)	2	1700	367	.22	550	.32	.11	570	.34	674	.40	.06
153B. Lyons e/o San Fern (WB)	2	1700	683	.40	762	.45	.05	653	.38	894	.53	.14
158A. SR-126 e/o Chiquito (EB)	3	6000	1841	.31	2370	.40	.09	1273	.21	4245	.71	.50
158B. SR-126 e/o Chiquito (WB)	3	6000	1037	.17	4779	.80	.63	2011	.34	2886	.48	.14
165. I-5 NB n/o SR-126	5	10000	5195	.52	5503	.55	.03	7174	.72	7233	.72	.01
166. I-5 SB n/o SR-126	5	10000	6756	.68	6814	.68	.01	6710	.67	6862	.69	.02
167A. Sierra Hwy n/o I-5 (EB)	3	3000	258	.09	230	.08	-.01	1407	.47	1438	.48	.01
167B. Sierra Hwy n/o I-5 (WB)	3	3000	1426	.48	1479	.49	.02	691	.23	680	.23	-.00
200A. I-5 NB s/o Osborne	6G + HOV	15000	6980	.46	7470	.50	.04	18048	1.20	19308	1.29	.09
200B. I-5 SB s/o Osborne	6G + HOV	15000	14382	.96	15642	1.04	.08	7393	.49	7883	.53	.04
201A. I-5 NB n/o Burbank	4G + HOV	11000	6012	.55	6217	.57	.02	7880	.72	8405	.75	.04
201B. I-5 SB n/o Burbank	4G + HOV	11000	8913	.81	9438	.86	.05	6348	.58	6553	.60	.02
202A. I-405 NB n/o Roscoe	5G + HOV	13000	5408	.41	5743	.44	.03	8012	.62	8873	.68	.06
202B. I-405 SB n/o Roscoe	5G + HOV	13000	8040	.62	8901	.69	.07	5377	.41	5712	.44	.03
203A. I-405 NB s/o Mulholland	5G + HOV	13000	9880	.76	9953	.77	.01	14600	1.12	14787	1.14	.02
203B. I-405 SB s/o Mulholland	5G + HOV	13000	11680	.90	11867	.91	.01	7880	.61	7953	.61	.00
204A.I-5 NB s/o SR-14	6G+2t+HOV	18000	11817	.66	11161	.62	-.04	19559	1.09	21243	1.18	.09
204B.I-5 SB s/o SR-14	6G+2t+HOV	18000	19623	1.09	21840	1.21	.12	14511	.81	14465	.80	-.01

Notes: G = General Purpose Freeway Lane
T = Truck Freeway Lane
HOV = High Occupancy Vehicle Freeway Lane
A = Augmented Arterial

The MTA long-range plan identifies the need for capacity enhancement projects and allocates future revenues through the year 2015, accordingly. The I-5 HOV project is listed as an additional project that would enhance the baseline transportation system. Funding for HOV projects consists of monies from Proposition C (the County-wide one-half cent sales tax increase to be used for public transit purposes), State and Local partnerships, State TDM funds, Intermodal Surface Transportation Efficiency Act (ISTEA), and Flexible Congestion Relief funds (State and Federal gas tax revenues). As previously noted, the MTA long range plan is updated every two years and will regularly re-evaluate the need for additional capacity.

The Newhall Ranch Specific Plan identifies transit-friendly design standards to promote alternative transportation methods in response to the congestion and air quality goals for Los Angeles County. These alternative commuting methods are promoted in the Specific Plan through Specific Plan design components, such as the extensive walking and bicycle trail system that links the various development areas to the Village centers where access to non-residential uses such as schools, offices, and retail shopping, can occur. Provisions for bus turnouts and the reservation of right-of-way for a future Metrolink line are being reserved for the anticipated future transit demand of the region and Specific Plan. The Specific Plan is also subject to the Los Angeles County's Transportation Demand Management Ordinance, as well as on-going CMP review at the subdivision map level. Examples of future TDM strategies could include childcare facilities integrated with development, employer based ridesharing operations and incentives or park-and-ride lots. All of these elements encourage the use of travel modes other than driving alone and help to reduce the amount of vehicle trips on the roadway system during peak hours and reduce the impact of Specific Plan-generated traffic on the regional highway system.

(3) Countywide Deficiency Plan

The CMP statute requires the preparation of deficiency plans when portions of the CMP highway system do not meet the established level of service standard, such as impacts identified above at the Osborne Street/I-5 Freeway monitoring station and the I-5 south of SR-14. The deficiency plan is linked to the Land Use Analysis Program because it provides jurisdictions the opportunity to plan for mitigation before impacts occur due to new development.

The CMP allows each jurisdiction to mitigate impacts created by new development with an appropriate amount of improvements and/or land use strategies based on a point system. Under this point system, new development generates debit points, which represent the jurisdiction's mitigation goal. Credit points are awarded based on the construction of improvements and/or a number of land use

strategies. These credits serve as the basis by which the jurisdictions meet mitigation goals and projects mitigate their impacts to the regional transportation systems. The CMP allows mitigation in the form of credits to not be directly associated with a specific deficiency, thereby giving local jurisdictions the flexibility to prioritize improvements based on local needs and also to partner with other jurisdictions to resolve regional issues.

While the CMP requires an assessment of Specific Plan impacts through the TIA and the estimation of debit and credit points through the Countywide Deficiency Plan, impacts will be assessed with each subdivision map, and the deficiency plan debits and credits will be assigned when building permits are issued, or when land use strategies are implemented and/or transportation improvements are made. Therefore, this analysis shows the gross impact on the CMP system and provides an estimate of the relative balance of mitigation contained in the Specific Plan. Actual debits and credits will be determined in the future and documented through an Annual Monitoring Activity Report based on the CMP guidelines and prepared in consultation with MTA. The specific value of individual development and improvement projects within the Newhall Ranch Specific Plan area will be determined at that time.

The Countywide Deficiency Plan and Annual Monitoring Activity Report also serve as a basis for the allocation of State Gas Tax funds to the County. For instance, Gas Taxes could be withheld from the County if the County's overall mitigation goal is not met. These Gas Taxes are used for various regional improvements, such as freeway widening, HOV lanes, and mass transit. Specific facilities are identified in MTA's Long Range Plan, which dedicates Gas Tax dollars, as well as other funding sources to construct needed freeway and other transit improvements in the future.

Table 4.8-12, CMP Specific Plan Debits, shows the debit points accrued by the Newhall Ranch Specific Plan for each type of residential and non-residential land use. The total debit points for the Specific Plan are projected to be 225,277~~209,826~~. As defined in the CMP, these debit points represent the "mitigation goal" associated with the Specific Plan.

Table 4.8-12
CMP Specific Plan Debits

SECTION I - NEW DEVELOPMENT ACTIVITY REPORT
PART 1: NEW DEVELOPMENT ACTIVITY

Category	Dwelling Units		Debit Value		Subtotal
RESIDENTIAL DEVELOPMENT ACTIVITY					
Single Family Residential	11,025	x	6.80	=	(74,970)
Multi-Family Residential	13,655	x	4.76	=	(64,997)

Category	1000 Gross Square Feet		Debit Value		Subtotal
COMMERCIAL DEVELOPMENT ACTIVITY					
Commercial (<= 300,000 sq.ft.)	1,718	x	22.23~~17.80~~	=	(38,191~~30,580~~)

Category	1000 Gross Square Feet		Debit Value		Subtotal
NON-RETAIL DEVELOPMENT ACTIVITY					
Industrial	1,513	x	6.08	=	(9,199)
Office (<= 300,000 sq.ft.)	2,489	x	10.5~~7.35~~	=	(26,134~~18,294~~)

Category	Trips		Value		Subtotal
OTHER DEVELOPMENT ACTIVITY					
Schools	7,900	x	0.71	=	(5,609)
Other	8,700	x	0.71	=	(6,177)
~~Subtotal New Development Activity~~				=	~~(209,829)~~
Total Current Congestion Mitigation Goal (Debit Points)				=	(225,277~~209,826~~)

Credit points to offset debit points are earned by a variety of means. Land use strategies, such as development near transit centers, mixed-use development, and integrated child care facilities, are examples of how to earn credit points. Many of these concepts have been incorporated into the Newhall Ranch Specific Plan, and will be implemented as development occurs. Capital improvements, such as highway lanes, freeway grade separation, freeway ramp additions or modifications, and rail stations, can also be used to earn credit points.

The CMP document states that:

> . . . each local jurisdiction may select the actions it deems most appropriate for its community. Mitigation measures can be applied throughout the jurisdiction, within a subarea, at a specific project, or in partnership with other jurisdictions. Once the jurisdiction chooses its mitigation strategies, the basic requirement is that the overall value of the mitigation program must achieve the jurisdiction's mitigation goal as determined by new development activity.

Table 4.8-13, CMP Specific Plan Credits, summarizes the credit points from the Specific Plan's residential Mixed-Use development and the capital improvements being planned for construction by the Specific Plan. While credits are preliminary at this point, and will be evaluated in the future at the subdivision map level, even in this preliminary form, the 225,277~~209,826~~ debit points of the Specific Plan are more than offset by the 337,731~~332,770~~ credit points. Of these credit points, 110,400 points were awarded for the SR-126 improvements between the County line and Commerce Center Drive. If Caltrans funded these improvements, the total Specific Plan credit points would be reduced to 227,331~~222,370~~, still providing a surplus of credit points and fully mitigating the Specific Plan's impacts to the regional transportation system.

The preliminary surplus credit points provide the County with added flexibility in the future because the surplus credit points can be transferred to other jurisdictions or can be pooled through subregional forums to offset impacts to the freeway monitoring station at I-5/Osborne Street, I-5 south of SR-14 and/or other locations, as determined by Los Angeles County in cooperation with other local jurisdictions.

The Specific Plan's buildout land uses were shown with the ultimate preliminary capital improvement program for the Specific Plan to emphasize that the Specific Plan is providing a direct benefit as well as providing a surplus of credits, thereby fully mitigating its impacts to the regional transportation system. This debit/credit calculation was provided for informational purposes, since jurisdictions actually track new development through building permit activity that occurs at the subdivision map level, just as the Specific Plan will be built in increments and the roadway improvements will be evaluated according to the amount of development proposed.

It can be anticipated that the land use strategies detailed in the Specific Plan will be implemented at the subdivision map level and will have the potential to provide additional credit points. Likewise, the Specific Plan promotes the use of alternative transportation modes and transit opportunities, and is subject to the County's Transportation Demand Management Ordinance.

Table 4.8-13
CMP Specific Plan Credits

PROJECT	LANE MILES		CREDIT VALUE		SUBTOTAL
RESIDENTIAL MIXED USE DEVELOPMENT					
Dwelling Units	6,718~~4,493~~		x 1.5 (per du)	=	10,077~~6,740~~
Retail Uses	829		x 7.3 (per GSF)	=	6,050
Non-Retail Uses	2,707		x 3.2 (per GSF)	=	8,660
BICYCLE PATH OR LANE					
Miles	14.2		x 700 (per mile)	=	9,940
MEDIAN					
Miles	11.2		x 145 (per mile)	=	1,624
GENERAL USE HIGHWAY LANE ON CMP ARTERIAL					
SR-126 (Widen to 6-lane) 2 new lanes - County line to Commerce Center Drive*	4.8(2)	x	11,500	=	110,400*
GENERAL USE HIGHWAY LANE (NON-CMP ARTERIAL)					
Magic Mountain Parkway New 4-lane arterial - Project Boundary to Potrero Canyon	2.5(4)	x	2,900	=	29,000
Long Canyon Road New 4-lane arterial - SR-126 to Potrero Canyon	1.8(4)	x	2,900	=	20,880
Potrero Valley Road New 4-lane arterial - Project Boundary to SR-126	4.3(4)	x	2,900	=	49,880
Commerce Center Drive New 6-lane arterial - SR-126 to Magic Mountain Parkway	1.4(6)	x	2,900	=	24,360
Franklin Avenue New 4-lane arterial - SR-126 to Long Canyon	1.2(4)	x	2,900	=	13,920
GRADE SEPARATION ON CMP NETWORK					
SR-126 at Long Canyon			5,750	=	5,750
SR-126 at Franklin			5,750	=	5,750
FREEWAY ON/OFF RAMP ADDITION OR MODIFICATION					
SR-126 WB Off at Franklin			1,150	=	1,150
SR-126 WB On at Franklin			1,150	=	1,150
SR-126 EB Off at Franklin			1,150	=	1,150
SR-126 EB On at Franklin			1,150	=	1,150
SR-126 WB Off at Long Canyon			1,150	=	1,150
SR-126 WB On at Long Canyon			1,150	=	1,150
SR-126 EB Off at Long Canyon			1,150	=	1,150
SR-126 EB On at Long Canyon			1,150	=	1,150

* SR-126 will transition back to 4-lanes prior to County line.

(Continued)

Table 4.8-13 - (cont.)
CMP Specific Plan Credits

PROJECT	LANE MILES		CREDIT VALUE (PROJECT SHARE %)		SUBTOTAL
OFF-SITE IMPROVEMENTS GENERAL USE HIGHWAY LANE (NON-CMP ARTERIAL)					
Magic Mtn w/o The Old Rd	1.00 (2)	x	2,900 (100)	=	5,800
Newhall Ranch e/o McBean	.66 (2)	x	2,900 (12)	=	460
Newhall Ranch w/o Bouquet	.67 (2)	x	2,900 (6)	=	230
McBean n/o Magic Mtn	.35 (2)	x	2,900 (10)	=	200
Newhall Ranch e/o Dickason	.32 (2)	x	2,900 (20)	=	370
Bouquet n/o Newhall Ranch	.81 (2)	x	2,900 (7)	=	330
Bouquet s/o Newhall Ranch	.16 (2)	x	2,900 (4)	=	40
Newhall Ranch e/o I-5	.41 (2)	x	2,900 (100)	=	2,380
Newhall Ranch w/o Rye	1.23 (2)	x	2,900 (94)	=	6,710
Magic Mtn e/o I-5	.20 (2)	x	2,900 (39)	=	450
Magic Mtn e/o Tourney	.90 (2)	x	2,900 (44)	=	2,300
Magic Mtn e/o McBean	.97 (2)	x	2,900 (57)	=	3,210
Magic Mtn e/o Valencia	.53 (2)	x	2,900 (60)	=	1,840
Valencia e/o I-5	.15 (2)	x	2,900 (100)	=	870
Valencia e/o Rockwell	.59 (2)	x	2,900 (14)	=	480
Valencia e/o McBean	.77 (2)	x	2,900 (38)	=	1,700
Valencia n/o Magic Mtn	.66 (2)	x	2,900 (6)	=	230
Lyons e/o I-5	.34 (2)	x	2,900 (100)	=	1,970
Newhall Ranch e/o Santa Clarita Pkwy	.46 (2)	x	2,900 (100)	=	2,670
Subtotal Deficiency Plan Credit Points				=337,731~~332,770~~	
Total Current Congestion Mitigation Goal (Debit Points)				=(225,277~~209,826~~)	
Surplus Credit Points				+112,454~~122,944~~	

* If the applicant does not construct/fund SR-126 improvements, then 110,400 credits would not accrue as a result. In that case, 227,331~~222,370~~ credits would accrue which still more than meets the Specific Plan's mitigation goal.

(4) Transit Impact Analysis

The purpose of the CMP transit analysis is "to make the most effective use of transit services as an alternative to the automobile, thereby alleviating congestion on the CMP highway system and improving countywide mobility."

The CMP has a transit monitoring network which consists of bus and rail routes that are within the corridors of the Congested Corridor Progress Report and provide service parallel to the CMP highway system for 5 miles or greater.

The required components of the Transit Impact review process include evidence that transit operators received the Notice of Preparation, identification of existing transit services near the Specific Plan site, estimation of the number of Specific Plan trips assigned to transit, development of programs that will encourage public transit use, and an analysis of Specific Plan impacts on transit service. **Appendix 4.8** contains evidence that affected transit operators received the Notice of Preparation for this EIR.

The CMP requires that existing transit service in the Specific Plan area be summarized according to a quarter-mile radius for fixed-route bus service and a 2 mile radius for express bus and rail service. Existing fixed-route bus service within a quarter-mile of the Specific Plan site includes Route 20 of Santa Clarita Transit. Route 20 currently is within the quarter-mile radius of the Specific Plan site along SR-126 (west of Commerce Center Drive to Chiquito Canyon Road) and along Chiquito Canyon Road (north of SR-126 and south of Del Valle Road). There is no express bus service or rail service located within the 2-mile radius of the Specific Plan. Route 20 is not listed on the CMP transit network, but will still be impacted by the Specific Plan. The Metrolink rail station located on Soledad Canyon Road is approximately 3.5 miles away from the closest Specific Plan boundary. Express bus service that runs from Santa Clarita to Los Angeles via McBean Parkway and Orchard Village Road/Valley Street is also located approximately 3 miles from the closest Specific Plan boundary. Although these services are not located within the radius specified by MTA, it is probable that the residents and the employee population of the Specific Plan would still use these services to some degree and would have an impact on them.

Specific Plan impacts on the transit system are analyzed here using daily trips, consistent with the long-range impact analysis methodology used throughout this EIR section. The Newhall Ranch Specific Plan generates 387,000 Average Daily Traffic (ADT) vehicle trips. The conversion to person trips is accomplished by using the MTA guidelines (multiplying the ADT by an occupancy factor of 1.4) which results in 541,800 ADT person trips. The MTA guidelines specify that approximately 3.5 percent of person trips will become trips assigned to transit, which gives 18,963 ADT transit trips. Using a representative peak hour factor of 10 percent, this would give around 1900 peak hour transit trips for each peak hour to be potentially generated by the Newhall Ranch Specific Plan.

The transit demand created by the Newhall Ranch Specific Plan will occur in increments as the Newhall Ranch develops. Actual transit impacts to transit services will be evaluated at the subdivision map level as development occurs within the Specific Plan site. At this detailed level, the transit friendly design standards contained in the Specific Plan can be implemented and transit

operators can assess the capacity and demand of transit services. The ultimate transit service network can be implemented through the MTA twenty-year plan as transit demand is demonstrated and funding opportunities exist. As outlined in the MTA twenty-year plan, funding sources for transit projects are available at the local, State and Federal levels.

Funding for transit-related activities is provided by existing sources of tax revenue and supplemented by farebox revenues. As indicated in the Specific Plan's Fiscal Impact Study (EIR **Appendix 6.0**), funding sources that would occur on the Specific Plan site would generate a total of $56 million in applicable revenue over the twenty-five year buildout period of the Specific Plan and a total of approximately $4.2 million per year by year twenty-five and annually thereafter. Based on this funding and the fact that the Specific Plan provides bus pull-ins on the site and is reserving land needed for an easement for a future Metrolink rail line and park-and-ride lot/Metrolink rail station, no significant impacts to transit service would occur as a result of Specific Plan implementation.

e. SR-126 in Ventura County

A special analysis was made for SR-126 west of the Specific Plan. The methodology that follows was used by Caltrans in the Route 126 Concept Report (Reference 7 in Subsection 2.e.). Route Segment 4 in that analysis is from the City of Fillmore to the County line, and the capacity evaluation is based on the four-lane rural highway planned for this section of roadway. A four-lane rural highway designation assumes minimal side street access, and no signalized intersections.

(1) Significance Threshold Criteria

The Caltrans capacity evaluation procedure uses peak hour directional volumes and is based on the 1985 Highway Capacity Manual (HCM), the applicable capacity reference manual at the time it was prepared. The HCM has since been updated, and the section for rural highways in the most recent HCM gives a set of peak hour lane capacities to be used for planning purposes (see Table 7-11 in the May 1992 revision to the 1985 HCM). Applicable values from that table together with the relevant assumptions from the HCM, are as follows:

SR-126 Rural Highway Capacity

Assumptions:	Free Flow Speed:	55 mph
	Type of Terrain:	Level
	Percent Trucks:	5 percent
Capacity (Maximum Peak Hour Vehicles Per Lane):		880 (LOS B)
		1220 (LOS C)
		1450 (LOS D)

For a four-lane divided roadway, the capacity for each direction is double these values, giving a maximum one-way peak hour volume of 2,440 for LOS "C" and 2,900 for LOS "D." The LOS criterion described in the Route Concept Report for SR-126 from the City of Fillmore to the County line is LOS "D" (V/C < .90). For the purposes of this analysis, a significant impact would occur if the Specific Plan caused SR-126 to fall below LOS "D."

(2) Impacts to SR-126 in Ventura County

In order to analyze impacts to SR-126 in Ventura County, the following comparison was made between the highway capacity values listed as the significance criteria above, and the long-range peak hour volumes on SR-126 at the County line.

Hence, the forecast peak hour volumes represent LOS "C" operations or better on the planned four-lane roadway, indicating no deficiencies.

State Route 126 west of the Los Angeles County line is shown in the Ventura County General Plan as a four-lane Arterial Highway and, as noted above, is programmed in the State Transportation Improvement Plan (STIP) for widening to four-lanes. The widening project for this roadway is currently listed in the Ventura County Congestion Management Program, seven-year Capital Improvement Program. The widening project has received funding and is currently under construction. As mentioned previously, this widening project is expected to be completed before development occurs on the Newhall Ranch Specific Plan site.

Peak Hour Volumes - SR-126 at Ventura County Line

		---- COUNTY BASE NETWORK ----				---- ALTERNATIVE NETWORK ----			
		NO-PROJECT		W/PROJECT		NO-PROJECT		W/PROJECT	
		VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS
A.M.	eastbound	1,765	(C)	1,892	(C)	1,766	(C)	1,891	(C)
	westbound	1,568	(B)	1,953	(C)	1,572	(B)	1,958	(C)
P.M.	eastbound	1,711	(B)	2,090	(C)	1,711	(B)	2,089	(C)
	westbound	1,824	(C)	2,046	(C)	1,820	(C)	2,037	(C)

As shown above, this section of highway will have adequate capacity with and without the Specific Plan based on the capacity assumptions given in the Caltrans SR-126 Route Concept Report. Not addressed there is the transition from a rural highway to an urban arterial in the City of Fillmore at the intersections of SR-126 at Central Avenue, A Street, and C Street. In addition, intersections with SR-126 at El Dorado Mobile Home Park, Mountain View, D Street and E Street may require improvements as well.

~~It is likely that improvements~~

It is likely that improvements beyond the basic four lanes will be required at those intersections as a result of Specific Plan peak-hour traffic at buildout. Similarly, access for the community of Piru at the intersections of SR-126 at Main Street and Center Street may require some intersection improvements beyond the four lanes provided by Caltrans.

Since the Newhall Ranch Specific Plan will add to these intersection capacity needs, participation in the SR-126 intersection improvements in the City of Fillmore and near the community of Piru on a incremental fair share peak-hour basis would be an appropriate Specific Plan mitigation. The improvements would include pavement modification and striping, but would not involve additional right-of-way.

f. Freeway/Highway Interchanges and Intersections

(1) Significance Threshold Criteria

A detailed analysis was made of the impacts of the Specific Plan on the freeway interchanges which will serve Specific Plan traffic. In this case, peak hour volumes were used to evaluate capacity impacts, since ramp capacity is defined according to its ability to carry peak hour traffic. Peak hour ramp capacity is 1,600 vehicles per hour, which is consistent with capacity assumptions used in freeway interchange studies. The "P" and "C" notation is, again, used here to indicate locations that are impacted by the Specific Plan.

(2) Impacts

Long-range peak hour volumes for all freeway ramps were forecast using the SCVCTM, and with and without project V/C ratios were compared. The results are summarized in **Table 4.8-14, Long-Range Peak Hour Freeway Ramp Volumes - County Base Network**, and **Table 4.8-15, Long-Range Peak Hour Freeway Ramp Volumes - Alternative Highway Network**, for the County Base and Alternative Highway Networks, respectively. For the County Base Network, significant Specific Plan impacts occur at five ramp locations, and evaluation of the Alternative Network shows that the Specific Plan causes significant impacts at the following locations:

Table 4.8-14
Long-Range Peak Hour Freeway Ramp Volumes - County Base Network

LOCATION	LANES	CAPACITY	AM PEAK HOUR NO-PROJECT VOL	AM PEAK HOUR NO-PROJECT V/C	AM PEAK HOUR WITH-PROJECT VOL	AM PEAK HOUR WITH-PROJECT V/C	AM PEAK HOUR PROJ. CONTR.	PM PEAK HOUR NO-PROJECT VOL	PM PEAK HOUR NO-PROJECT V/C	PM PEAK HOUR WITH-PROJECT VOL	PM PEAK HOUR WITH-PROJECT V/C	PM PEAK HOUR PROJ. CONTR.
105. I-5 NB Off At Lyons	1	1600	810	.51	367	.23	-.28	1564	.98	1484	.93	-.05
106. I-5 NB On At Lyons	1	1600	390	.24	438	.27	.03	627	.39	731	.46	.06
107. I-5 SB Off At Lyons	1	1600	577	.36	685	.43	.07	502	.31	684	.43	.11
108. I-5 SB On At Lyons	1	1600	1073	.67	839	.52	-.15	907	.57	425	.27	-.30
109. I-5 NB Off At McBean	1	1600	1157	.72	1033	.65	-.08	975	.61	1233	.77	.16
110. I-5 NB On At McBean	1	1600	229	.14	270	.17	.03	151	.09	183	.11	.02
111. I-5 NB On Loop At McBean	1	1600	371	.23	567	.35	.12	276	.17	418	.26	.09
112. I-5 SB Off At McBean	1	1600	311	.19	517	.32	.13	565	.35	852	.53	.18
113. I-5 SB On At McBean	1	1600	119	.07	237	.15	.07	68	.04	198	.12	.08
114. I-5 SB On Loop At McBean	1	1600	714	.45	826	.52	.07	499	.31	373	.23	-.08
115. I-5 NB Off At Valencia	1	1600	1416	.88	1594	1.00	.11	1259	.79	1511	.94	.16
116. I-5 NB On At Valencia	1	1600	86	.05	116	.07	.02	57	.04	77	.05	.01
117. I-5 NB On Loop At Valencia	1	1600	337	.21	43	.03	-.18	106	.07	113	.07	.00
118. I-5 SB Off At Valencia	1	1600	103	.06	137	.09	.02	305	.19	339	.21	.02
119. I-5 SB On At Valencia	1	1600	87	.05	615	.38	.33	627	.39	905	.57	.17
120. I-5 SB On Loop At Valencia	1	1600	946	.59	811	.51	-.08	821	.51	773	.48	-.03
121. I-5 NB Off At MMP	1	1600	1613	1.01	1478	.92	-.08	1300	.81	1289	.81	-.01
122. I-5 NB On At MMP	1	1600	35	.02	88	.06	.03	178	.11	172	.11	-.00
123. I-5 SB Off At MMP	1	1600	859	.54	1198	.75	.21	1111	.69	1270	.79	.10
124. I-5 SB On At MMP	1	1600	1010	.63	1269	.79	.16	1451	.91	1419	.89	-.02
125. I-5 SB Off At Rye	1	1600	481	.30	563	.35	.05	167	.10	223	.14	.04
126. I-5 SB On At Rye	1	1600	103	.06	99	.06	-.00	950	.59	645	.40	-.19
127. I-5 NB Off At NRR/SR-126	1	1600	1507	.94	1599	1.00	.06	550	.34	1637	1.02	.68 [P]
128. I-5 NB On At NRR/SR-126	1	1600	1615	1.01	1451	.91	-.10	1947	1.22	1844	1.15	-.06
129. I-5 NB On Loop At NRR/SR-126	1	1600	397	.25	544	.34	.09	408	.26	453	.28	.03
130. I-5 NB Off-West At NRR/SR-126	1	1600	1723	1.08	1674	1.05	-.03	2065	1.29	1611	1.01	-.28
131. I-5 SB On At NRR/SR-126	1	1600	7	.00	1640	1.02	1.02 [P]	407	.25	1560	.98	.72
132. I-5 SB On Loop At NRR/SR-126	1	1600	16	.01	5	.00	-.01	2	.00	2	.00	.00
133. I-5 NB On Loop At MMP	1	1600	821	.51	958	.60	.09	789	.49	1070	.67	.18
134. SR-126 WB Off At Comm Ctr	1	1600	1524	.95	1859	1.16	.21 [P]	569	.36	754	.47	.12
135. SR-126 WB On At Comm Ctr	1	1600	40	.03	190	.12	.09	618	.39	974	.61	.22
136. SR-126 EB Off At Comm Cent	1	1600	605	.38	726	.45	.08	201	.13	273	.17	.05
137. SR-126 EB On At Comm Cent	1	1600	178	.11	531	.33	.22	1597	1.00	1721	1.08	.08 [P]
138. SR-126 WB Off At Franklin	1	1600	0	.00	657	.41	.41	0	.00	762	.48	.48
139. SR-126 WB On At Franklin	1	1600	0	.00	359	.22	.22	0	.00	848	.53	.53
140. SR-126 EB Off At Franklin	1	1600	0	.00	893	.56	.56	0	.00	368	.23	.23
141. SR-126 EB On At Franklin	1	1600	0	.00	1132	.71	.71	0	.00	567	.35	.35
142. SR-126 WB Off At Chiquito	1	1600	0	.00	755	.47	.47	0	.00	1657	1.04	1.04 [P]
143. SR-126 WB On At Chiquito	1	1600	0	.00	202	.13	.13	0	.00	177	.11	.11
144. SR-126 EB Off At Chiquito	1	1600	0	.00	105	.07	.07	0	.00	275	.17	.17
145. SR-126 EB On At Chiquito	1	1600	0	.00	1258	.79	.79	0	.00	30	.02	.02
146. SR-126 EB On Loop Chiquito	1	1600	0	.00	266	.17	.17	0	.00	699	.44	.44

[P] Project Impact - Specific Plan causes V/C to exceed 1.00
[C] Contribution - No-project and with-project V/C exceeds 1.00

Table 4.8-15
Long-Range Peak Hour Freeway Ramp Volumes - Alternative Highway Network

LOCATION	LANES	CAPACITY	AM PEAK HOUR NO-PROJECT VOL	AM PEAK HOUR NO-PROJECT V/C	AM PEAK HOUR WITH-PROJECT VOL	AM PEAK HOUR WITH-PROJECT V/C	AM PEAK HOUR PROJ. CONTR.	PM PEAK HOUR NO-PROJECT VOL	PM PEAK HOUR NO-PROJECT V/C	PM PEAK HOUR WITH-PROJECT VOL	PM PEAK HOUR WITH-PROJECT V/C	PM PEAK HOUR PROJ. CONTR.
105. I-5 NB Off At	1	1600	860	.54	397	.25	-.29	1582	.99	1543	.96	-.02
106. I-5 NB On At Lyons	1	1600	415	.26	566	.35	.09	597	.37	720	.45	.08
107. I-5 SB Off At Lyons	1	1600	636	.40	674	.42	.02	645	.40	714	.45	.04
108. I-5 SB On At Lyons	1	1600	1124	.70	863	.54	-.16	964	.60	426	.27	-.34
109. I-5 NB Off At McBean	1	1600	884	.55	924	.58	.02	1121	.70	1104	.69	-.01
110. I-5 NB On At McBean	1	1600	272	.17	346	.22	.05	160	.10	231	.14	.04
111. I-5 NB On Loop At McBean	1	1600	290	.18	429	.27	.09	218	.14	335	.21	.07
112. I-5 SB Off At McBean	1	1600	325	.20	641	.40	.20	658	.41	1013	.63	.22
113. I-5 SB On At McBean	1	1600	115	.07	130	.08	.01	67	.04	127	.08	.04
114. I-5 SB On Loop At McBean	1	1600	854	.53	1005	.63	.09	468	.29	417	.26	-.03
115. I-5 NB Off At Valencia	1	1600	1447	.90	1726	1.08	.17 [P]	1192	.75	1580	.99	.24
116. I-5 NB On At Valencia	1	1600	273	.17	187	.12	-.05	55	.03	158	.10	.06
117. I-5 NB On Loop At Valencia	1	1600	179	.11	54	.03	-.08	88	.06	78	.05	-.01
118. I-5 SB Off At Valencia	1	1600	131	.08	257	.16	.08	346	.22	365	.23	.01
119. I-5 SB On At Valencia	1	1600	87	.05	645	.40	.35	560	.35	862	.54	.19
120. I-5 SB On Loop At Valencia	1	1600	831	.52	648	.41	-.11	673	.42	591	.37	-.05
121. I-5 NB Off At MMP	1	1600	1370	.86	1408	.88	.02	956	.60	1034	.65	.05
122. I-5 NB On At MMP	1	1600	43	.03	76	.05	.02	192	.12	178	.11	-.01
123. I-5 SB Off At MMP	1	1600	1224	.76	1549	.97	.20	1461	.91	1869	1.17	.26 [P]
124. I-5 SB On At MMP	1	1600	950	.59	1279	.80	.21	1447	.90	1519	.95	.04
125. I-5 SB Off At Rye	1	1600	496	.31	648	.41	.09	211	.13	274	.17	.04
126. I-5 SB On At Rye	1	1600	114	.07	108	.07	-.00	1166	.73	1005	.63	-.10
127. I-5 NB Off At NRR/SR-126	1	1600	1555	.97	1824	1.14	.17 [P]	574	.36	1632	1.02	.66 [P]
128. I-5 NB On At NRR/SR-126	1	1600	1346	.84	976	.61	-.23	1610	1.01	1419	.89	-.12
129. I-5 NB On Loop At NRR/SR-126	1	1600	396	.25	660	.41	.16	411	.26	536	.34	.08
130. I-5 NB Off-West At NRR/SR-126	1	1600	1481	.93	1422	.89	-.04	1648	1.03	1529	.96	-.07
131. I-5 SB On At NRR/SR-126	1	1600	33	.02	1872	1.17	1.15 [P]	622	.39	1674	1.05	.66 [P]
132. I-5 SB On Loop At NRR/SR-126	1	1600	36	.02	8	.00	-.02	4	.00	3	.00	-.00
133. I-5 NB On Loop At MMP	1	1600	794	.50	1546	.97	.47	1077	.67	1348	.84	.17
134. SR-126 WB Off At Comm Ctr	1	1600	1545	.97	1744	1.09	.12 [P]	421	.26	905	.57	.30
135. SR-126 WB On At Comm Ctr	1	1600	67	.04	209	.13	.09	526	.33	969	.61	.28
135. SR-126 WB On At Comm Ctr	1	1600	67	.04	209	.13	.09	526	.33	969	.61	.28
136. SR-126 EB Off At Comm Ctr	1	1600	690	.43	718	.45	.02	236	.15	341	.21	.07
137. SR-126 EB On At Comm Ctr	1	1600	94	.06	553	.35	.29	1515	.95	1620	1.01	.07 [P]
138. SR-126 WB Off At Franklin	1	1600	0	.00	390	.24	.24	0	.00	526	.33	.33
139. SR-126 WB On At Franklin	1	1600	0	.00	276	.17	.17	0	.00	806	.50	.50
140. SR-126 EB Off At Franklin	1	1600	0	.00	1023	.64	.64	0	.00	364	.23	.23
141. SR-126 EB On At Franklin	1	1600	0	.00	725	.45	.45	0	.00	378	.24	.24
142. SR-126 WB Off At Chiquito	1	1600	0	.00	790	.49	.49	0	.00	1604	1.00	1.00
143. SR-126 WB On At Chiquito	1	1600	0	.00	217	.14	.14	0	.00	167	.10	.10
144. SR-126 EB Off At Chiquito	1	1600	0	.00	157	.10	.10	0	.00	280	.17	.17
145. SR-126 EB On At Chiquito	1	1600	0	.00	1858	1.16	1.16 [P]	0	.00	190	.12	.12
146. SR-126 EB On Loop Chiquito	1	1600	0	.00	246	.15	.15	0	.00	683	.43	.43

[P] Project Impact - Specific Plan causes V/C to exceed 1.00
[C] Contribution - No-project and with-project V/C exceeds 1.00

(a) I-5/Valencia

The northbound off-ramp at this location was shown to be over capacity in the A.M. peak hour (Alternative Highway Network only). The mitigation for this deficiency is the proposed additional northbound off-ramp at Magic Mountain Parkway, which would divert some traffic from Valencia to that location, thereby relieving the deficiency.

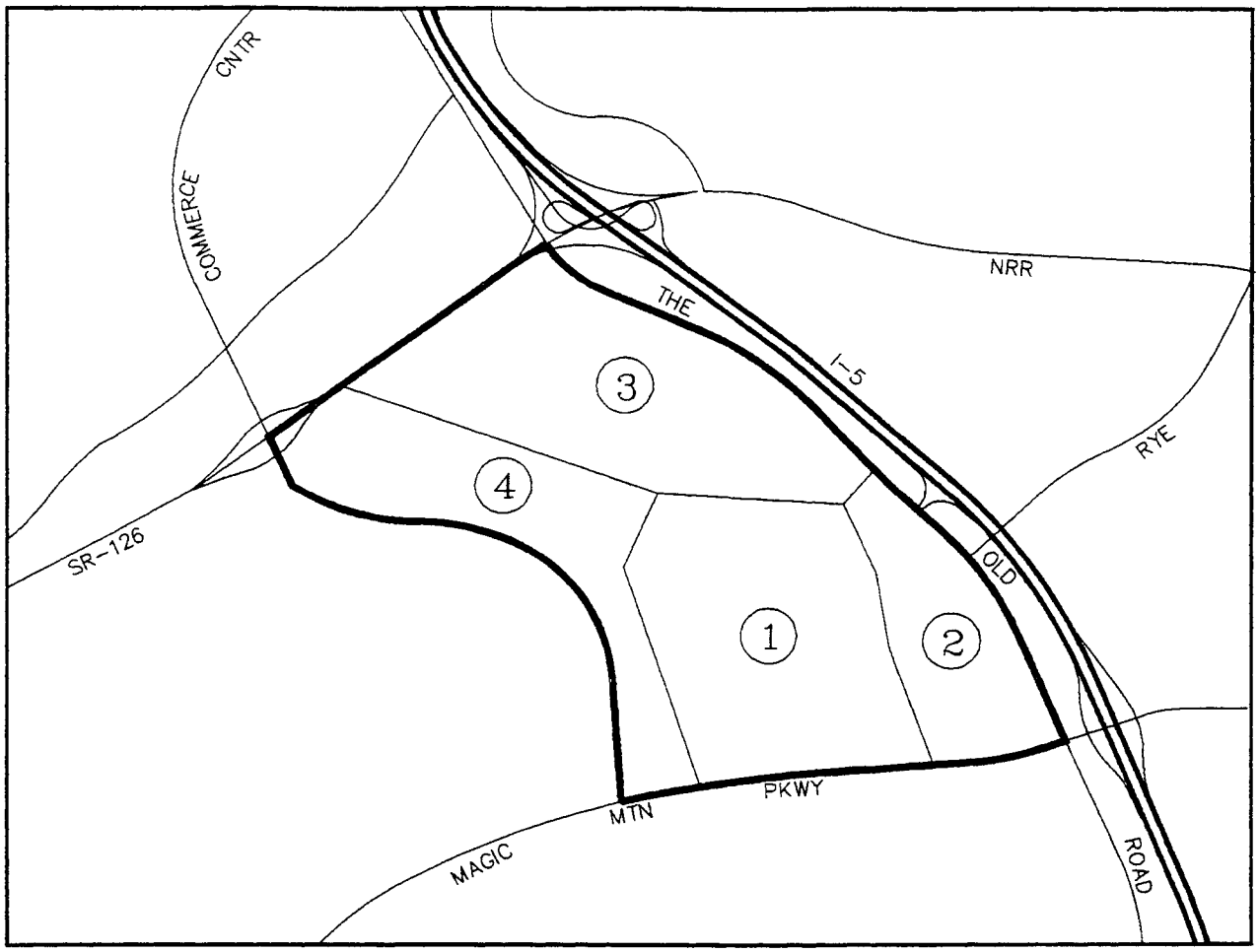
(b) Magic Mountain Parkway at I-5

The section of Magic Mountain Parkway west of I-5 will serve a variety of future land uses and is a major entry point to the proposed Specific Plan from the east. At the present time, this portion of Magic Mountain Parkway extends only to the theme park entrance. Volumes are seasonal and relatively low west of The Old Road. Between The Old Road and I-5, current traffic volumes are somewhat higher due to the adjacent commercial area, plus the use of this section of roadway to reach the Valencia Industrial Center.

Future traffic forecasts show significant increases in traffic on Magic Mountain Parkway west of I-5. The primary sources of this increase in traffic can be seen in **Figure 4.8-25, Magic Mountain Area Trip Generation**, which summarizes the existing and future trip generation for the area north of Magic Mountain Parkway and west of The Old Road. In the future, the Magic Mountain Theme Park is assumed in the SCVCTM to offer year-round weekday evening operation, resulting in 24,000 daily trips. The theme park and Magic Mountain resort area account for a future 73,300 vehicles per day (VPD) of the total trip generation. This results in a no-project trip generation of 94,300 VPD for this area.

The Specific Plan area adjacent to the theme park has land uses which generate 63,000 VPD, and when added to the above, results in a total daily trip generation of 157,300 VPD for this area. In addition, Specific Plan development west of this area is served by Magic Mountain Parkway, adding to the total future traffic demand. The result is that future traffic demands on sections of Magic Mountain Parkway just west of The Old Road are estimated to be approximately 73,000 ADT, considerably higher than the 54,000 ADT capacity of a six-lane roadway.

The proposed improvements to Magic Mountain Parkway in the vicinity of I-5 are illustrated in **Figure 4.8-26, Magic Mountain/I-5 Proposed Improvements**. It is anticipated that they will occur in two stages. The first stage involves a relocation of the northbound off-ramp and the addition of a northbound loop on-ramp. These two new ramps would have an intersection with Tourney Road. The



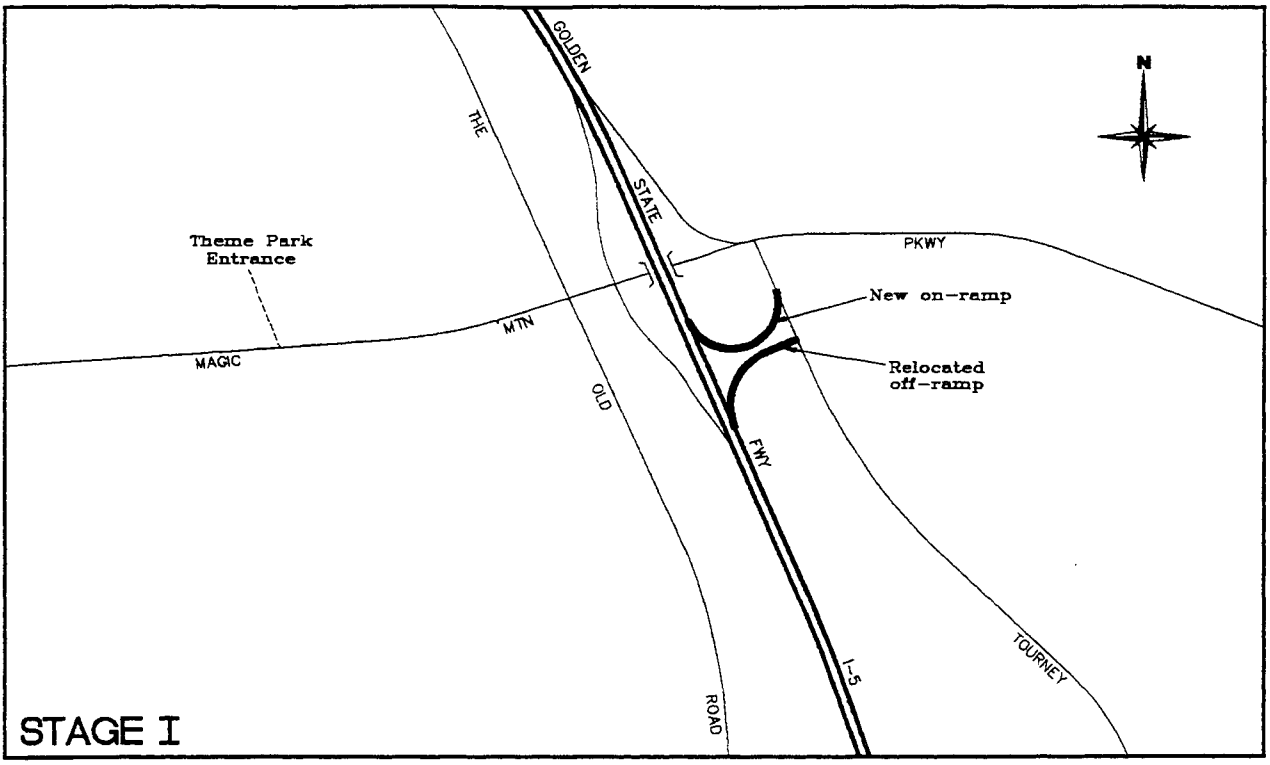
TRIP GENERATION SUMMARY

AREA	USE	EXISTING VPD	FUTURE VPD
1	THEME PARK	16000	24000
2	MAGIC MOUNTAIN RESORT	3800	49300
3	INDUSTRIAL PARK	400	21000
4	NEWHALL RANCH PROJECT	--	63000
	TOTAL	20200	157300

VPD – VEHICLES PER DAY

FIGURE 4.8-25

MAGIC MOUNTAIN AREA
TRIP GENERATION



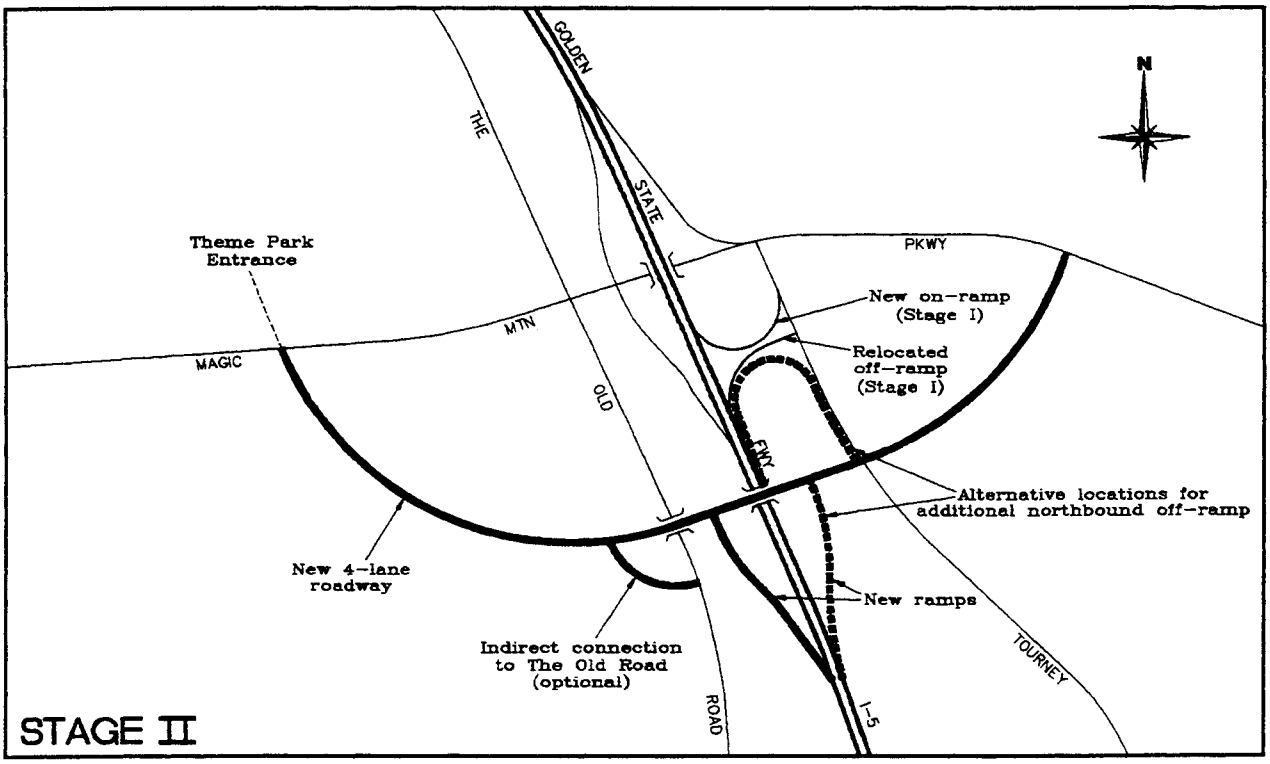


FIGURE 4.8-26

MAGIC MOUNTAIN/I-5
PROPOSED IMPROVEMENTS

primary purpose of the new on-ramp is to eliminate the eastbound left-turn at the existing northbound on-ramp. This existing ramp would be for westbound traffic only, and eastbound traffic would make a right-turn at Tourney Road then another right-turn onto the ramp. This configuration has been reviewed conceptually by Caltrans.

For longer term capacity increases at this interchange, there are two serious constraints: the width of the I-5 undercrossing, and the short distance between the southbound ramp intersection with Magic Mountain Parkway and The Old Road. The undercrossing can only provide sufficient width for two thru-lanes in each direction plus a westbound left-turn lane to access the southbound on-ramp. The short distance between that ramp intersection and The Old Road causes operational problems which, in turn, degrade the capacity at this location. Stage II improvements would, therefore, provide a new parallel crossing of the freeway and additional ramps to and from the south. The added northbound off-ramp would either connect directly to the new overcrossing or be a second lane on the relocated (Stage I) off-ramp. The added southbound on-ramp would be accessed from the new overcrossing. This concept provides several major benefits:

1. East-west capacity across I-5 is doubled (from four lanes to eight lanes).
2. Newhall Ranch Specific Plan traffic to and from the south on I-5 does not use the section of Magic Mountain Parkway under and adjacent to I-5, but rather uses the new overcrossing.
3. Theme Park traffic is likewise diverted from Magic Mountain Parkway at I-5.
4. The critical westbound left-turn from Magic Mountain Parkway onto the southbound on-ramp is reduced, since westbound traffic can turn at Tourney Road and use the new overcrossing and on-ramp.

Ideally, the new overcrossing would have some form of indirect connection to The Old Road. However, this is not an essential part of the overall concept, and the benefits noted above would be achieved with or without such connection.

(c) I-5/SR-126 (Newhall Ranch Road)

Please see previous analysis under Freeways and State Highways.

(d) Chiquito Canyon Intersection

This intersection will serve Specific Plan traffic from development both north and south of SR-126. An analysis of peak hour volumes shows that an at-grade intersection will not have adequate capacity and that a grade-separated interchange will be necessary. The peak hour volumes and V/C results are illustrated in **Figure 4.8-27, SR-126/Chiquita Canyon Intersection Volumes and Layout**, together with a proposed interchange configuration. The half-diamond on the north side and parclove on the south side represent a suitable layout to serve anticipated traffic demands. However, it must be recognized that the final design will be the product of special design studies and may differ from what is shown here (for example, the south side could also be a half-diamond, which would eliminate the loop on-ramp, but necessitate a wider bridge).

In the interim, a signalized intersection will be provided at this location. The grade separation will not be needed until some time in the future when much of the west end of Newhall Ranch is developed and other (i.e., non-Specific Plan) traffic increases have occurred on SR-126. It is also possible that the interchange itself may be phased, with a half-section of the bridge being built first, followed by the full section.

(e) Wolcott/Franklin Avenue

There is currently a signalized intersection at Wolcott Avenue and SR-126. It is anticipated that this will remain for some time into the future, with capacity improvements taking the form of additional lanes on SR-126 itself. The Caltrans project will add two lanes to the existing SR-126 (for a total of four), and an additional two lanes will be needed as part of the full widening project to provide the six expressway lanes.

Eventually, a grade separation will need to be constructed at this location. **Figure 4.8-28, SR-126 Wolcott/Franklin Avenue Intersection** shows the long-range with-project traffic volumes and ICUs for an at-grade intersection plus the proposed grade separation. Under this proposal, the existing intersection will revert to on-off ramps, and Franklin Avenue will be extended over SR-126 as an over-crossing, essentially creating a full interchange at this location.

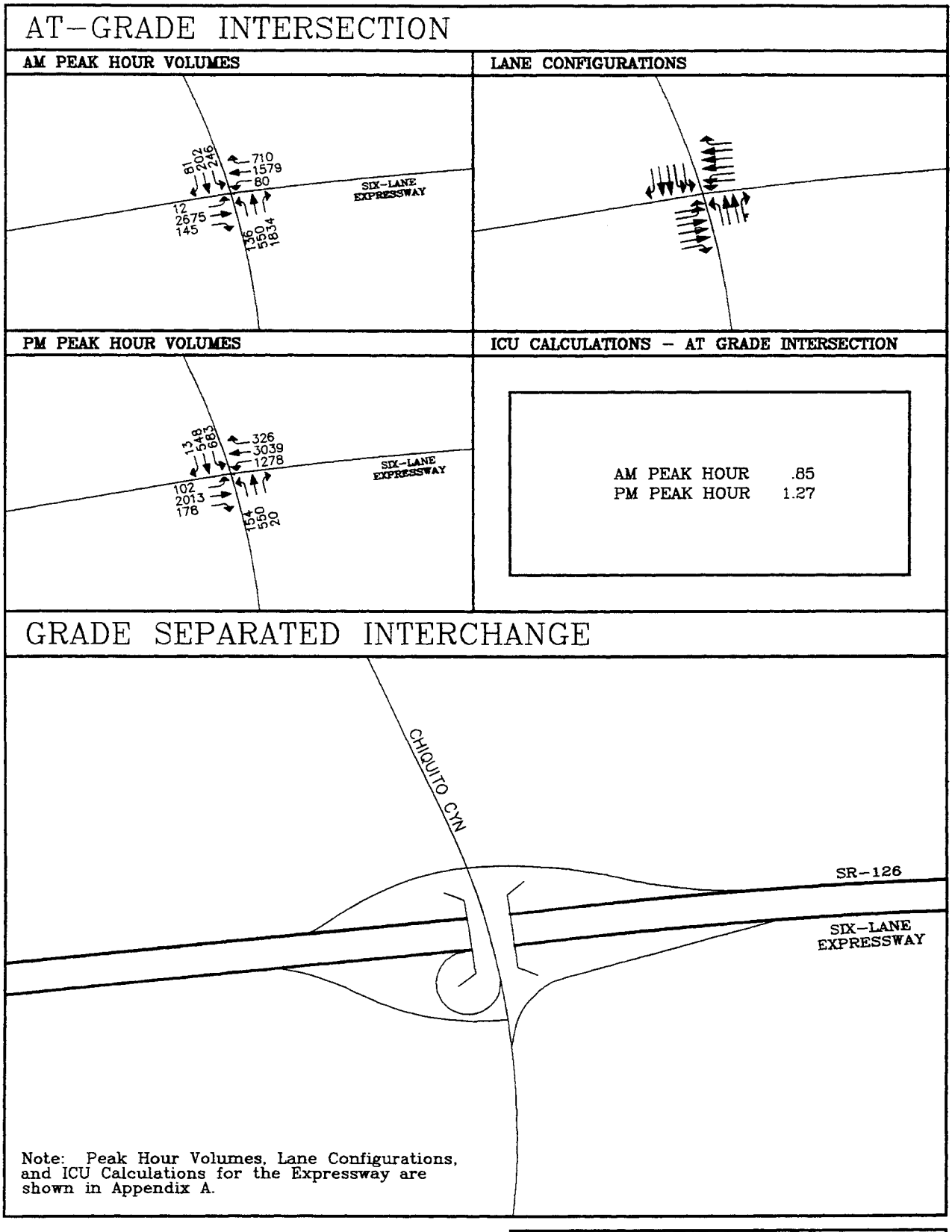
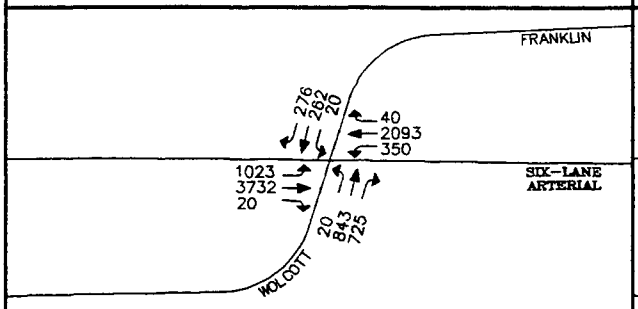


FIGURE 4.8-27

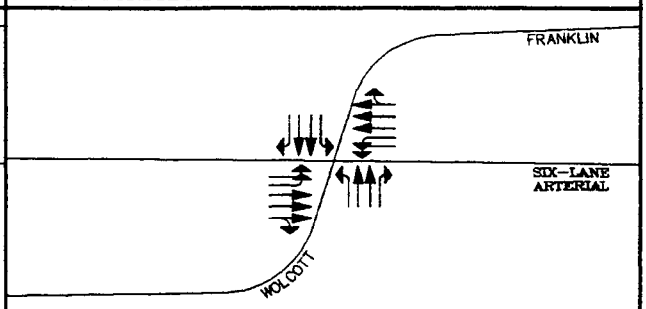
SR-126/CHIQUITO CANYON
INTERSECTION VOLUMES & LAYOUT

AT-GRADE INTERSECTION

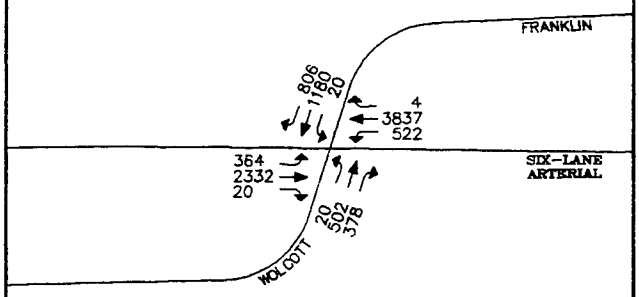
AM PEAK HOUR



LANE CONFIGURATIONS



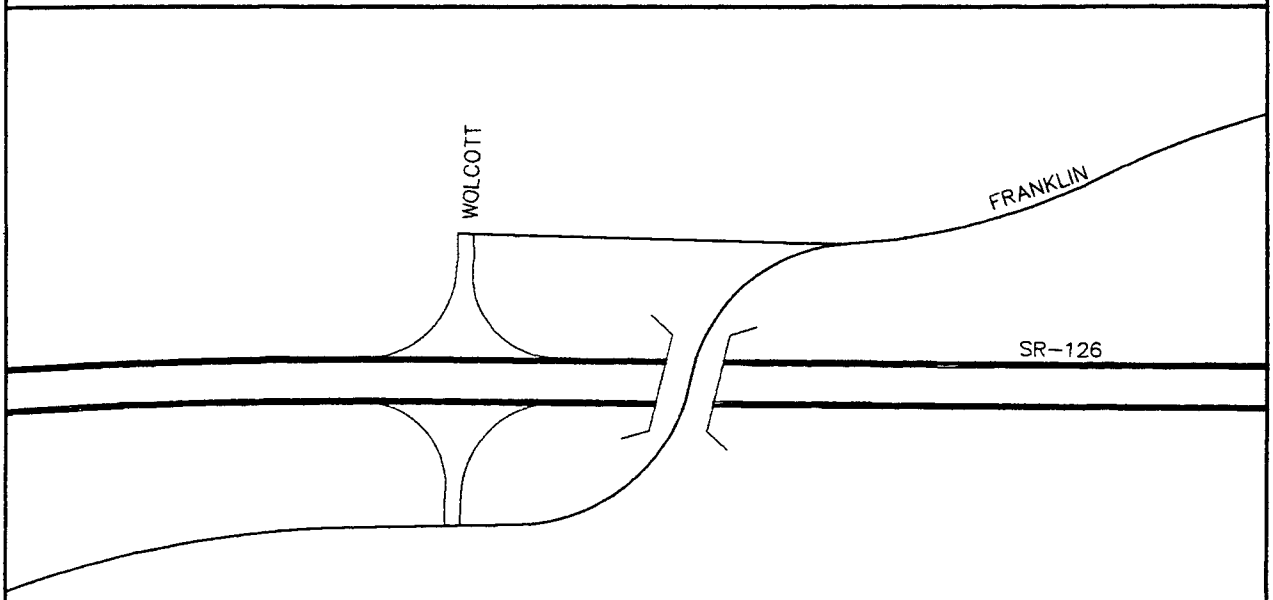
PM PEAK HOUR



ICU CALCULATIONS – AT GRADE INTERSECTION

AM PEAK HOUR	1.36
PM PEAK HOUR	1.44

GRADE SEPARATED INTERCHANGE



Note: Peak Hour Volumes, Lane Configurations, and ICU Calculations for the Expressway are shown in Appendix A.

FIGURE 4.8-28

SR-126 WOLCOTT/FRANKLIN INTERSECTION

(f) Commerce Center Drive

The Commerce Center traffic analysis and EIR identified the need for a future grade separation at this location. While no formal design studies have been carried out by or for Caltrans, preliminary work has suggested that a diamond configuration would provide adequate capacity within the space limitation of this location. This configuration was assumed in the impact analysis, and a Specific Plan impact was identified at the eastbound on-ramp where the addition of Specific Plan traffic caused the capacity of a single lane to be exceeded.

Figure 4.8-29, SR-126 Commerce Center Drive Interchange shows three potential layouts for this interchange. The first two feature conventional diamond configurations, while the third has a modified parclove on the south side. The first scheme has an at-grade intersection for Travel Village RV Park, while the second provides that access from Commerce Center Drive. In the third scheme, the eastbound off-ramp and the eastbound loop on-ramp would actually access a westward extension of Henry Mayo Drive. This extension would then connect to a new driveway serving the Travel Village area.

The loop on-ramp depicted in scheme three would provide one means of providing extra capacity for Specific Plan traffic. Even though it would not directly serve Specific Plan traffic, it would provide an additional eastbound on-ramp to be used by traffic from the Commerce Center heading east on SR-126. Specific Plan traffic would then have full utilization of the direct eastbound on-ramp. Alternatively, two lanes would need to be deployed for a single eastbound ramp in the standard diamond configuration.

A variation on schemes one and two could be an urban diamond rather than a tight diamond. The actual configuration will be the subject of special design and environmental studies. The obligation of Newhall Ranch will be to provide whatever additional capacity is required over and above that needed to serve no-project volumes.

g. Special Issues

This Subsection discusses several special issues related to the Newhall Ranch Specific Plan. Addressed here are the proposed Pico Canyon Road deletion; access to the Chiquita Canyon Landfill; access to Travel Village RV Park; the I-5 High Occupancy Vehicle (HOV) Lanes; and an alternative Chiquito Canyon road alignment.

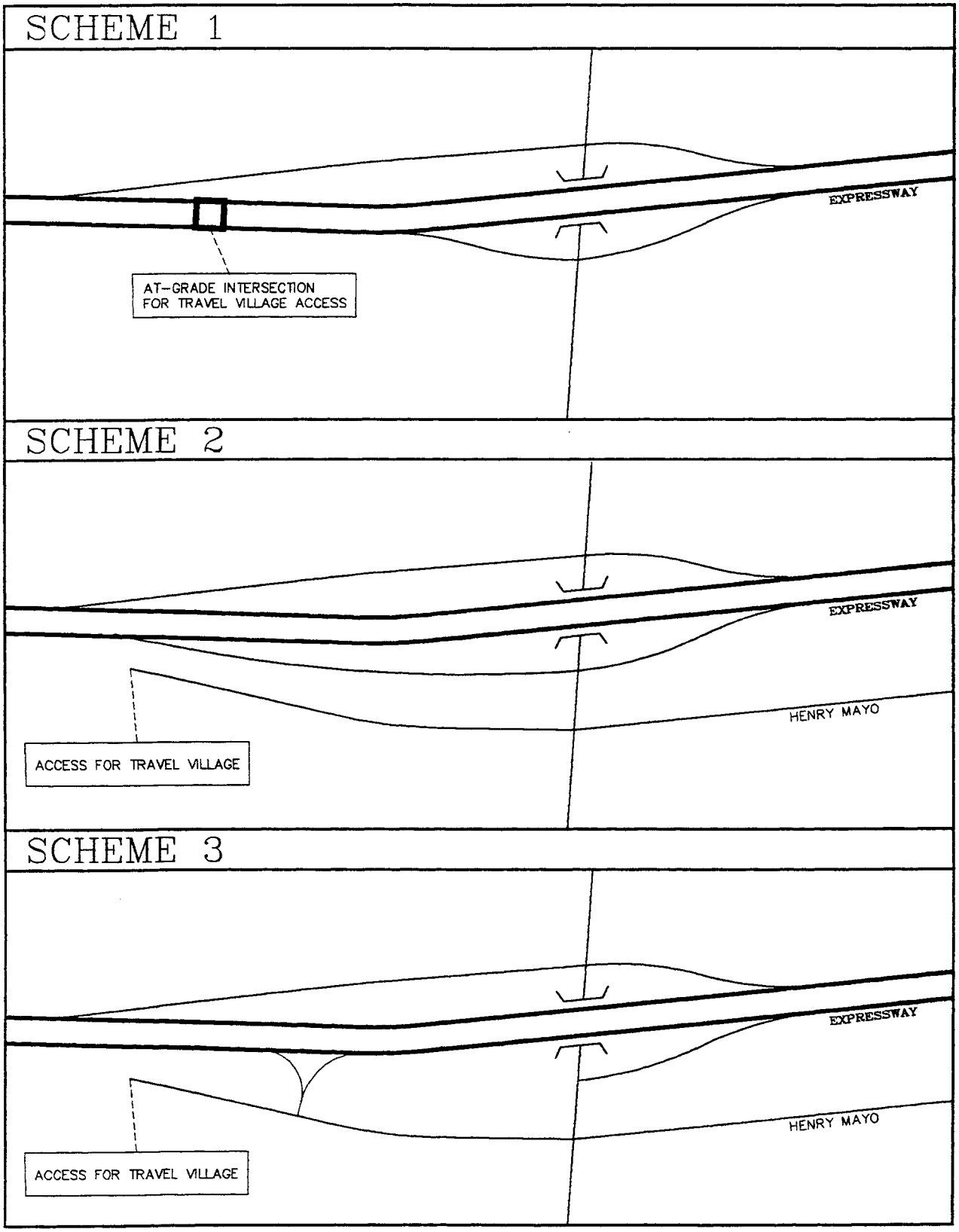


FIGURE 4.8-29

SR-126 COMMERCE CENTER DRIVE INTERCHANGE

(1) Pico Canyon Road Deletion

As noted in earlier subsections, the proposed changes to the County Master Plan of Highways include deleting Pico Canyon Road south of the Specific Plan. To show the effect of the proposed Pico Canyon Road deletion, traffic forecasts were made for a network that included this link so that comparisons could be made with the forecasts presented earlier in this EIR section. This special alternative has the proposed Newhall Ranch circulation system, but also includes a connection of Pico Canyon Road to the Pico/Lyons interchange at I-5. The ADT results are illustrated in **Figure 4.8-30, Long-Range ADT Volumes - Alternative Highway Plan (With Pico Canyon Extension)**.

The effects of this deletion can be seen from **Table 4.8-16, Pico Extension Capacity Summary - Alternative Highway Plan**. Shown here are with-project volumes for arterials and freeway ramps where there is a deficiency (V/C > 1.00). On an ADT basis, the section of Valencia Boulevard east of The Old Road would be relieved by the addition of Pico Canyon Road. However, Lyons Avenue east of I-5 and Magic Mountain Parkway west of The Old Road would need some form of augmentation.

With the Pico Canyon extension in place, the Specific Plan contributes around 14,000 ADT to this facility. By deleting this roadway and emphasizing other east-west arterials (Valencia Boulevard, Magic Mountain Parkway, and SR-126), the potential Specific Plan impacts on Pico Canyon are eliminated, yet adequate access capacity is still provided for the Specific Plan.

For the freeway ramps, Pico Canyon Road would relieve the deficiency at the northbound I-5/Valencia Boulevard off-ramp. However, the proposed improvements at Magic Mountain Parkway are able to mitigate that deficiency without the need for Pico Canyon Road.

(2) Chiquita Canyon Landfill Access

The Chiquita Canyon Landfill is located east of Chiquito Canyon Road and north of SR-126. It is currently operational, taking access from SR-126. An EIR has been prepared for an expansion of the landfill operation, which could significantly extend its operational life. Without the expansion, the landfill is due to close in 1997.

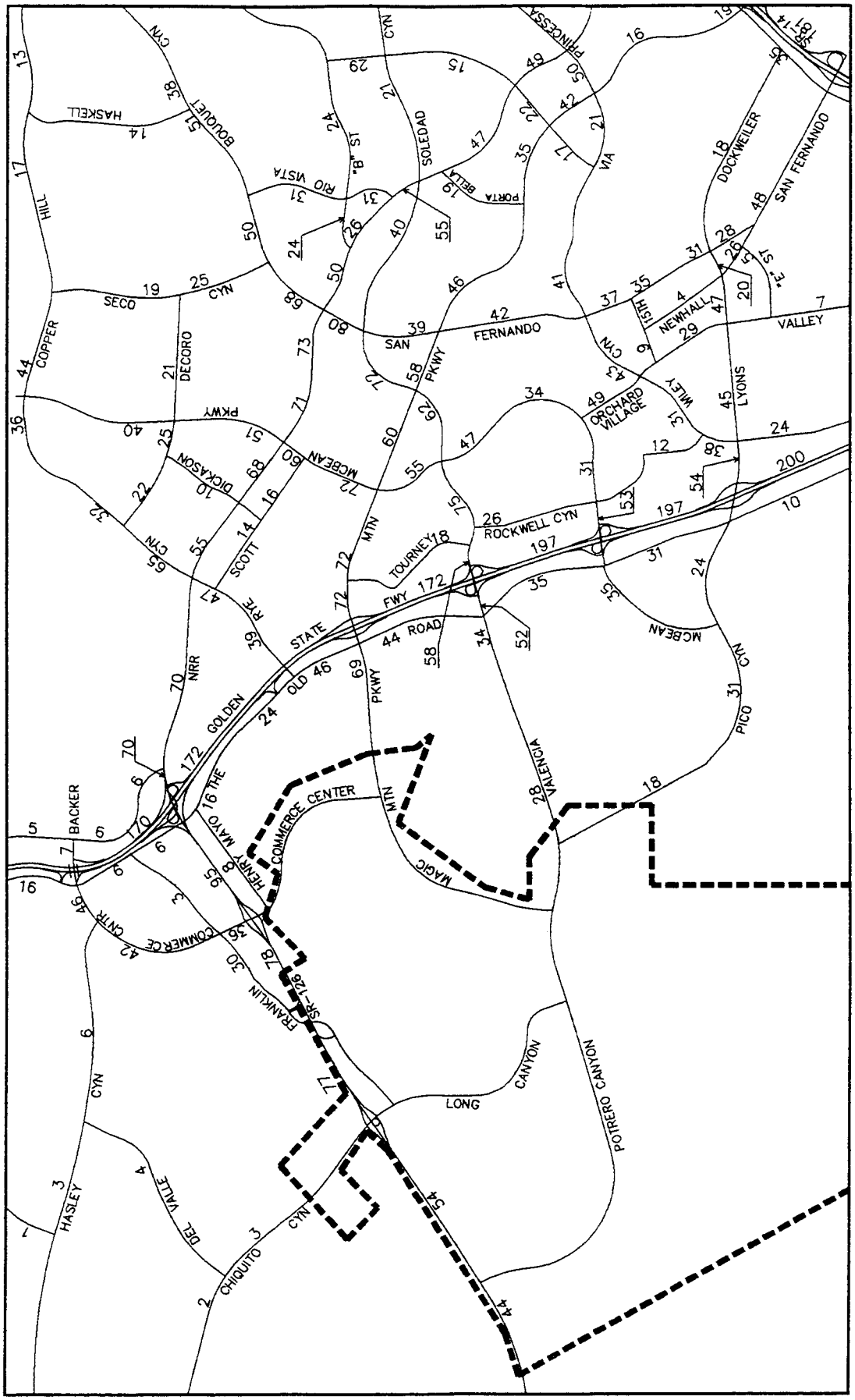


FIGURE 4.8-30
LONG RANGE ADT VOLUMES (000's)
ALTERNATIVE HIGHWAY PLAN
WITH PICO CANYON EXTENSION

Table 4.8-16
Pico Extension Capacity Summary
Alternative Highway Plan

LONG-RANGE ADT VOLUMES

LOCATION	LANES	CAPACITY	W/O PICO CONNECTION VOL	W/O PICO CONNECTION V/C	WITH PICO CONNECTION VOL	WITH PICO CONNECTION V/C
22. Magic Mtn w/o The Old Rd	6	54000	73000	1.35	69000	1.28
115. Lyons e/o I-5	6	54000	55000	1.02	54000	1.00

PEAK HOUR FREEWAY RAMP VOLUMES

			AM PEAK HOUR				PM PEAK HOUR			
			W/O PICO		WITH PICO		W/O PICO		WITH PICO	
LOCATION	LANES	CAPACITY	VOL	V/C	VOL	V/C	VOL	V/C	VOL	V/C
115. I-5 NB Off at Valencia	1	1600	1726	1.08	1575	.98	1580	.99	1522	.95
123. I-5 SB Off at MMP	1	1600	1549	.97	1554	.97	1869	1.17	1642	1.03
127. I-5 NB Off at NRR/SR-126	1	1600	1824	1.14	1763	1.10	1632	1.02	1677	1.05
130. I-5 NB Off-West at NRR/SR-126	1	1600	1422	.89	1460	.91	1529	.96	1755	1.10
131. I-5 SB On at NRR/SR-126	1	1600	1872	1.17	1737	1.09	1674	1.05	1544	.96
134. SR-126 WB Off at Comm Center	1	1600	1744	1.09	1978	1.24	905	.57	900	.56
137. SR-126 EB On at Comm Center	1	1600	553	.35	687	.43	1620	1.01	1749	1.09
142. SR-126 WB Off at Chiquito	1	1600	790	.49	721	.45	1604	1.00	1430	.89
145. SR-126 EB On at Chiquito	1	1600	1858	1.16	1369	.86	190	.12	177	.11

The Newhall Ranch Specific Plan is a long-range plan with an estimated twenty-five to thirty-year absorption. If the landfill is still operational at the time the Specific Plan would need to complete the SR-126 expressway section, then the landfill can continue to obtain access via an at-grade intersection with SR-126. Such an intersection would be consistent with expressway status, which seeks to minimize access, but does allow for a limited number of at-grade intersections, provided they can operate at an acceptable level of service.

To verify the level of service adequacy, a long-range analysis was made for the landfill access point as an at-grade intersection. The results are illustrated in **Figure 4.8-31, SR-126/Chiquita Canyon Landfill Intersection**. Landfill volumes shown here are based on the maximum development scenario of 10,000 tons per day, which has a Specific Plan trip generation of 3,936 vehicles per day (passenger car equivalents). Using a peak hour factor of 10 percent and representative directionality, peak hour volumes were derived and applied into the thru-traffic volumes on SR-126.

As can be seen from the long-range ICU values, the landfill access can operate as an at-grade intersection if four thru-lanes in each direction are provided on SR-126. Since the long-range plan is for this section of roadway to be a six-lane expressway, some local flaring at the intersection would be necessary to accomplish this.

(3) Travel Village RV Park Access

Travel Village RV Park currently takes access from SR-126. Three potential alternatives, presented previously in this subsection under the discussion of Freeway/Highway Interchanges and Intersections, would provide future access off Commerce Center Drive when SR-126 is expanded to an expressway. Alternatively, a signalized at-grade intersection could be provided.

An analysis of the signalized intersection option gives the following long-range ICU values:

A.M. .76
P.M. .75

To achieve these ICU values, SR-126 would require local flaring to four lanes in each direction, similar to that shown for the Chiquita Canyon Landfill intersection.

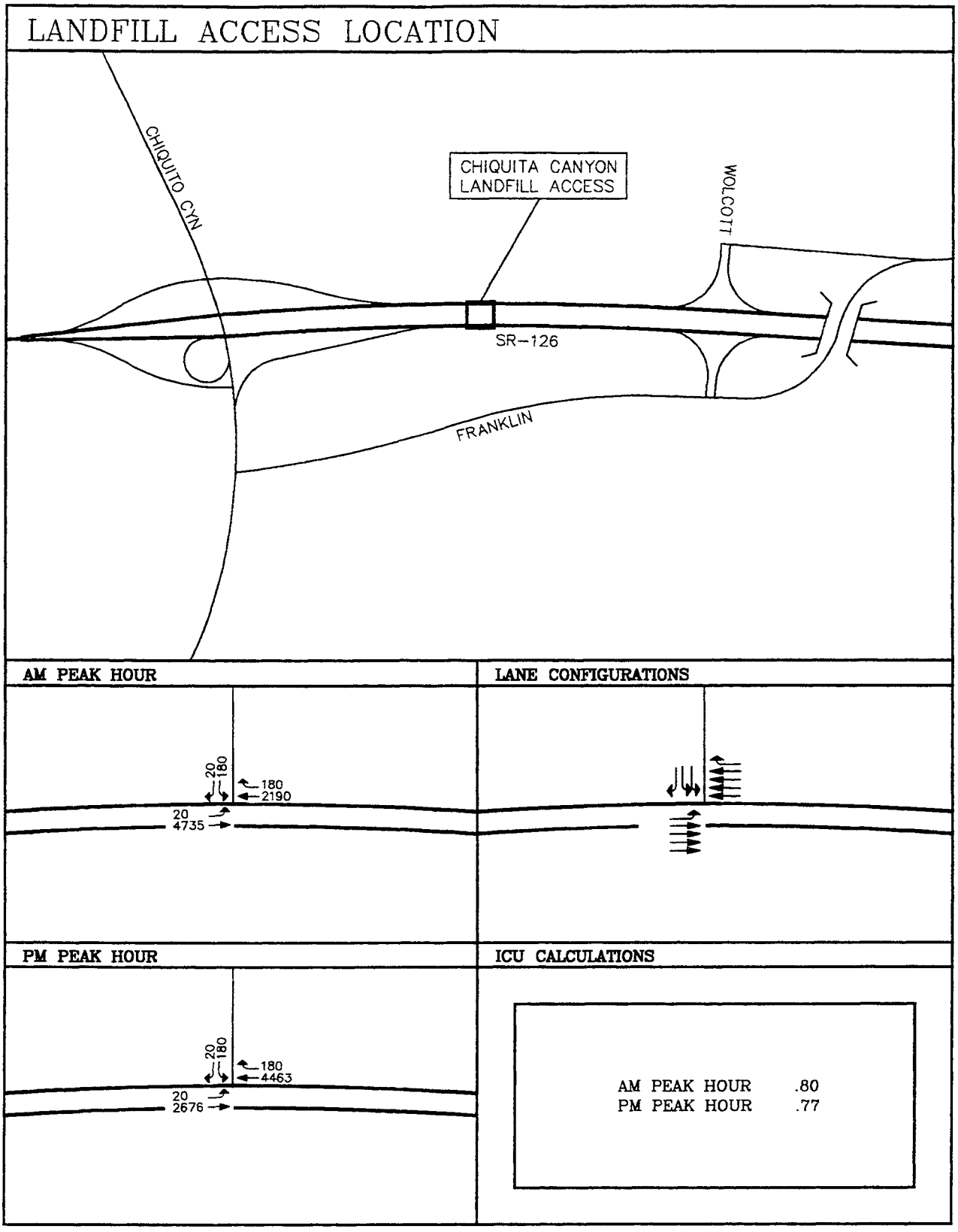


FIGURE 4.8-31

SR-126/CHIQUITA CANYON LANDFILL INTERSECTION

(4) I-5 HOV Lanes

The freeway impact analysis assumed that the I-5 north of the SR-14 interchange would be expanded from an eight-lane facility to a ten-lane facility, with the provision of high occupancy vehicle (HOV) lanes. Truck lanes would also be added as noted in the I-5 Widening Status discussion in Subsection 5.c.(3). As noted in the Interstate 5 Widening Status discussion, the Route Concept Report for I-5 indicates the need for the HOV lanes, but the widening project is not currently listed in the Los Angeles County Metropolitan Transportation Authority's (MTA) twenty-year long-range transportation plan.

The Route Concept Report describes an operating deficiency as when the projected LOS falls below the concept LOS. The concept LOS for the I-5 is F0 (V/C between 1.01 - 1.25). **Table 4.8-17, I-5 Freeway Capacity Analysis Without HOV Lanes**, shows the results of the capacity analysis without the HOV lanes. As shown, only one location, I-5 south of SR-14, exceeds the concept LOS (V/C > 1.25) and is considered to be significantly impacted under that methodology. The CMP uses a V/C of > 1.00 to evaluate impacts and, under that criterion, the Specific Plan would have a significant impact on I-5 from just south of SR-14 north to Valencia Boulevard. As discussed in Subsection 5.d., Congestion Management Program, mitigation exists in the form of tax revenues and the CMP's deficiency plan, which mitigate these impacts to the regional transportation system.

Table 4.8-17
I-5 Freeway Capacity Analysis without HOV Lanes

				-- NO-PROJECT --		-- WITH PROJECT --	
LOCATION	LANES	CAPACITY	VOLUME	V/C	VOLUME	V/C	VOLUME
I. COUNTY BASE NETWORK							
200.	I-5 n/o SR-126	8	180,000	164,000	.91	165,000	.92
201.	I-5 s/o Newhall Ranch Rd	8	180,000	148,000	.82	160,000	.89
202.	I-5 s/o Magic Mountain Pkwy	8	180,000	153,000	.85	167,000	.93
203.	I-5 s/o Valencia	8	180,000	181,000	1.01	199,000	1.11
204.	I-5 s/o McBean	8	180,000	184,000	1.02	201,000	1.12
205.	I-5 s/o Lyons	8	180,000	191,000	1.06	203,000	1.13
211.	I-5 n/o SR-14	8	180,000	203,000	1.13	216,000	1.20
212.	I-5 s/o SR-14	12	270,000	393,000	1.46	412,000	1.53
II. ALTERNATIVE HIGHWAY NETWORK							
200.	I-5 n/o SR-126	8	180,000	168,000	.93	171,000	.95
201.	I-5 s/o Newhall Ranch Rd	8	180,000	157,000	.87	174,000	.97
202.	I-5 s/o Magic Mountain Pkwy	8	180,000	160,000	.89	175,000	.97
203.	I-5 s/o Valencia	8	180,000	183,000	1.02	202,000	1.12
204.	I-5 s/o McBean	8	180,000	186,000	1.03	202,000	1.12
205.	I-5 s/o Lyons	8	180,000	188,000	1.04	200,000	1.11
211.	I-5 n/o SR-14	8	180,000	200,000	1.11	212,000	1.18

(5) Chiquito Canyon Business Park Alternative Roadway

The purpose of this analysis is to determine the traffic implications of an alternative roadway alignment of Chiquito Canyon Road that would provide separate access into the Chiquito Canyon Business Park, retaining the existing rural-type character of Chiquito Canyon Road into the Val Verde community.

(a) Alignment Alternative

Figure 4.8-32, Chiquito Canyon Road Alternative Alignment, shows the roadway alignment alternative. Chiquito Canyon Road would connect with Business Park Road approximately 1,600 feet north of the SR-126 westbound on/off ramps. Business Park Road would continue past the intersection with Chiquito Canyon Road, exclusively serving the Business Park. For the purpose of this analysis, certain assumptions have been made with respect to local access between the Chiquito Canyon Road/Business Park Road intersection and SR-126. Commercial Road is shown as a new four-way intersection serving the commercial uses just north of SR-126 on Business Park Road approximately 400 feet north of the SR-126 westbound on/off ramps. Residential Road would become a new three-way intersection serving the residential areas north of SR-126 and west of Business Park Road. Residential Road would intersect Business Park Road approximately 900 feet north of the SR-126 westbound on/off ramps. The operational effectiveness of all three intersections during the peak hours is analyzed below to show how this section of roadway would operate under the alternative alignment scenario for Chiquito Canyon Road; however, it should be noted that the spacing of the intersections will be examined as part of the future subdivision process for this area.

(b) Background Assumptions

The existing peak hour volumes along Chiquito Canyon Road were taken from a February 1995 traffic count. Growth in the Val Verde community was then analyzed using the Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (SCVCTM) forecasts for the buildout time frame. The model assumes that there will be 185 new dwelling units in the Val Verde community. In terms of average daily traffic (ADT), single family homes generate 10 trips per dwelling unit, which equates to 1850 additional trips. Both the A.M. and P.M. peak hour trips equate to 10 percent of the ADT, which equates to 185 additional A.M. and P.M. peak hour trips. These additional residential trips were added to the existing count volumes using the same directionality as the existing volumes. This established the base case volumes (i.e., without Chiquito Canyon Business Park) for Chiquito Canyon Road. These base case volumes can be summarized as follows:

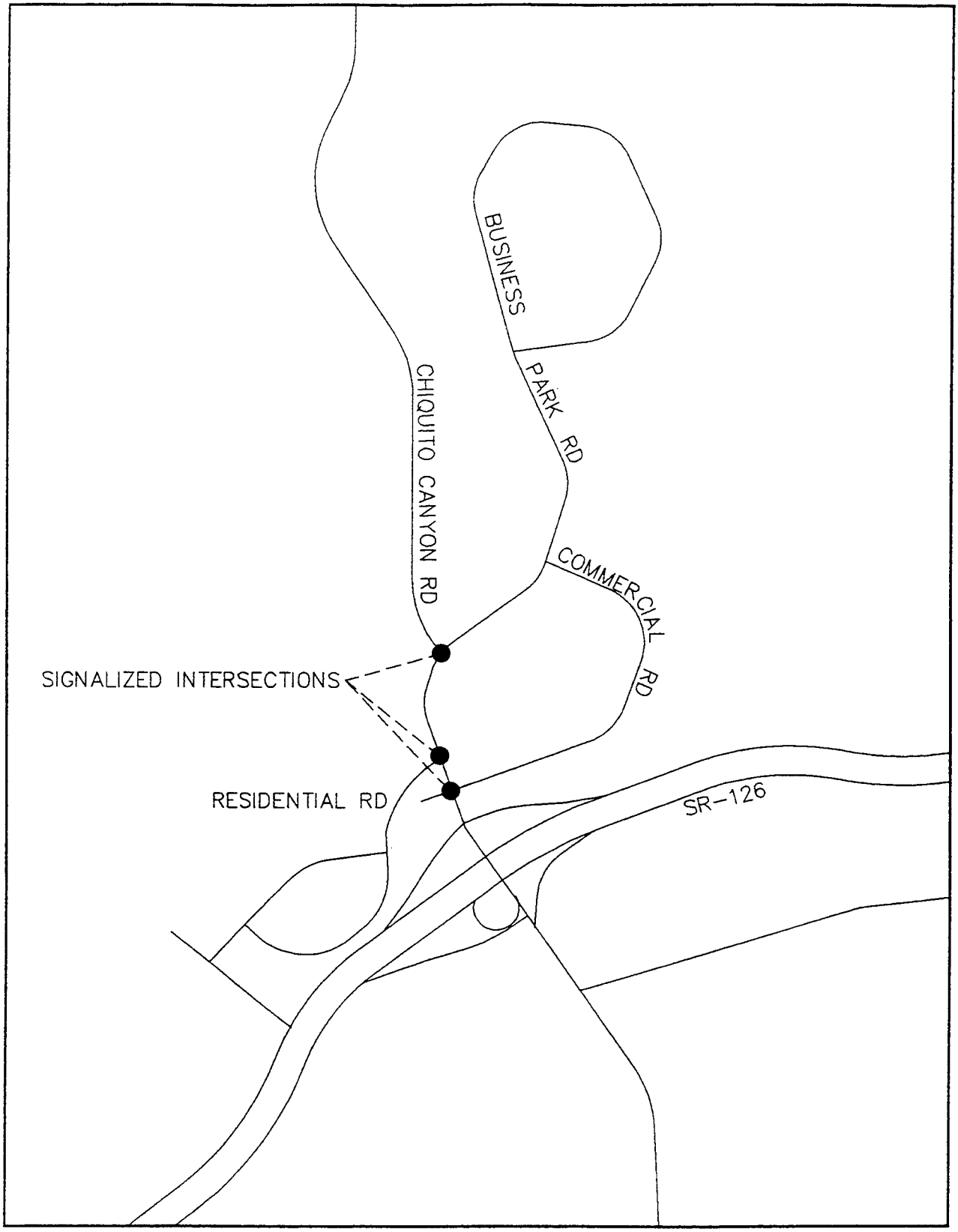


FIGURE 4.8-32

CHIQUITO CANYON ROAD
ALTERNATIVE ROADWAY ALIGNMENT

Peak-Hour Volumes (No-Project)

CHIQUITO CYN RD	AM	PM
northbound	43	279
southbound	333	115

Traffic from the proposed Newhall Ranch land uses was then added to these volumes as discussed below.

(c) Newhall Ranch Specific Plan Land Use

Figure 4.8-33, Chiquito Canyon Future Land Use, shows the amount and location of the projected land use for the Newhall Ranch Specific Plan in the Chiquito Canyon area. The proposed land uses comprise 1,040 dwelling units, 1,095,000 square feet of business park, 357,000 square feet of office uses and 119,000 square feet of retail uses. East of Chiquito Canyon Road, land uses are comprised of thirty single family dwelling units and 1,380,000 square feet of business park, retail and office uses. The thirty dwelling units account for 300 ADT, with 30 A.M. and P.M. peak hour trips. The non-residential trips account for 19,682 ADT with 1968 A.M. and P.M. peak hour trips.

Near the north end of the business park on the west side of Chiquito Canyon Road, 114 single family homes are planned, which will generate 114 A.M. and P.M. peak hour trips. The remainder of the non-residential uses are located west of Business Park Road and north of SR-126. Non-residential uses are comprised of 191,000 square feet of office and retail uses, which account for 5,736 ADT (574 A.M. and P.M. peak hour trips). Residential uses west of Business Park Road consist of 896 dwelling units (633 single family and 263 multi-family homes), which account for 896 A.M. and P.M. peak hour trips.

All of the residential trips from the northern residential areas were assigned to Chiquito Canyon Road. From the southern residential areas, all the multi-family dwelling unit trips and half of the single family trips were assigned to Residential Road/Business Park Road. The remaining half of single family dwelling unit trips were assigned to San Martinez Grande Road west of the area depicted here.

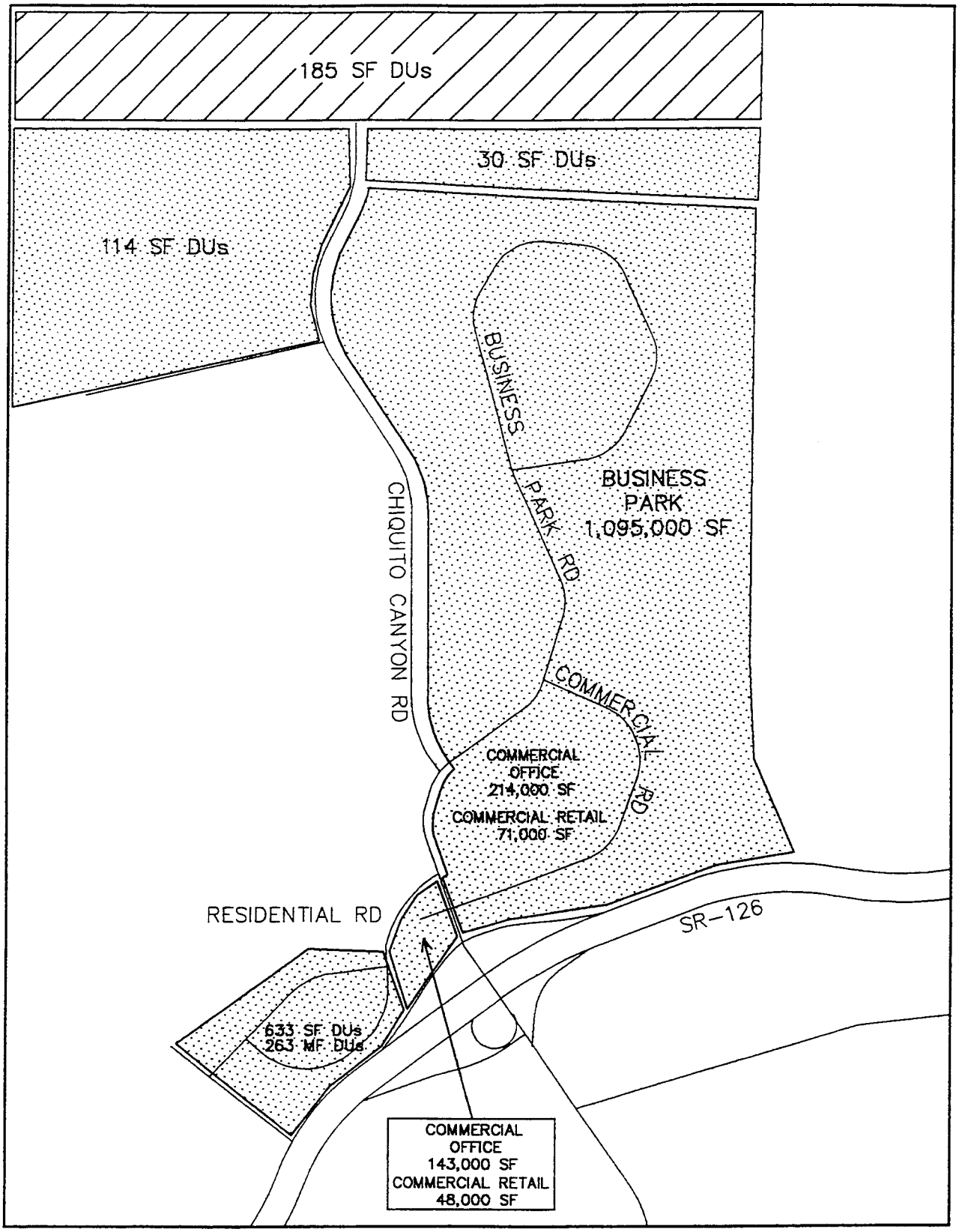


FIGURE 4.8-33

CHIQUITO CANYON FUTURE LAND USE

All of the trips from the Business Park were assigned to Business Park Road. Based on the overall site layout, two-thirds of the commercial office and retail trips east of Business Park Road were assigned to the southern intersection of Business Park Road/Commercial Road, while the remaining one-third was assigned to the northern intersection of Business Park Road/Commercial Road. All of the office and retail trips west of Business Park Road were assigned to the southern intersection of Business Park Road/Commercial Road. The following table shows the trip generation for each type of land use:

Trip Generation Summary

LAND USE	UNITS	---AM PEAK HOUR--- IN	OUT	TOTAL	---PM PEAK HOUR--- IN	OUT	TOTAL	ADT
East of Chiquito Canyon Road								
Single Family Res	30 DU	7	23	30	20	10	30	300
Business Park	1,095,000 SF	950	167	1117	223	894	1117	11170
Office	214,000 SF							
1/3 to BP Rd/N Comm Rd		75	9	84	17	67	84	840
2/3 to BP Rd/S Comm Rd		147	16	163	33	130	163	1630
Retail	71,000 SF							
1/3 to BP Rd/N Comm Rd		144	62	206	103	103	206	2060
2/3 to BP Rd/S Comm Rd		279	119	398	199	199	398	3980
West of Chiquito Canyon Road								
Single Family Res	114 DU	26	88	114	75	39	114	1140
Office	143,000 SF	149	16	165	33	132	165	1650
Retail	48,000 SF	286	122	408	204	204	408	4080
Multi-Family Res	263 DU	60	203	263	174	89	263	2630
Single Family Res	633 DU							
1/2 to BP Rd		73	244	317	209	108	317	3170
1/2 to San Martinez Grande		73	243	316	209	107	316	3160

(d) Business Park Road Intersections

Peak hour intersection capacity utilization (ICU) calculations were performed for each of the intersections for the background plus project volumes. **Figure 4.8-34, Volumes and Lane Configurations Business Park Road at Chiquito Canyon and Commercial Road,** shows the lane configurations and peak hour volumes for the three intersections located along the southern portion of Business Park Road. As shown, Business Park Road would have two lanes in each direction, while Chiquito Canyon Road could remain at the existing one lane in each direction. The following table shows that each intersection operates at LOS "D" or better (i.e., ICU less than .91).

Peak-Hour ICU Summary
(With Project)

LOCATION	AM	PM
Business Park Rd/Chiquito Canyon Rd	.45	.62
Business Park Rd/Residential Rd	.54	.66
Business Park Rd/Commercial Rd	.68	.78

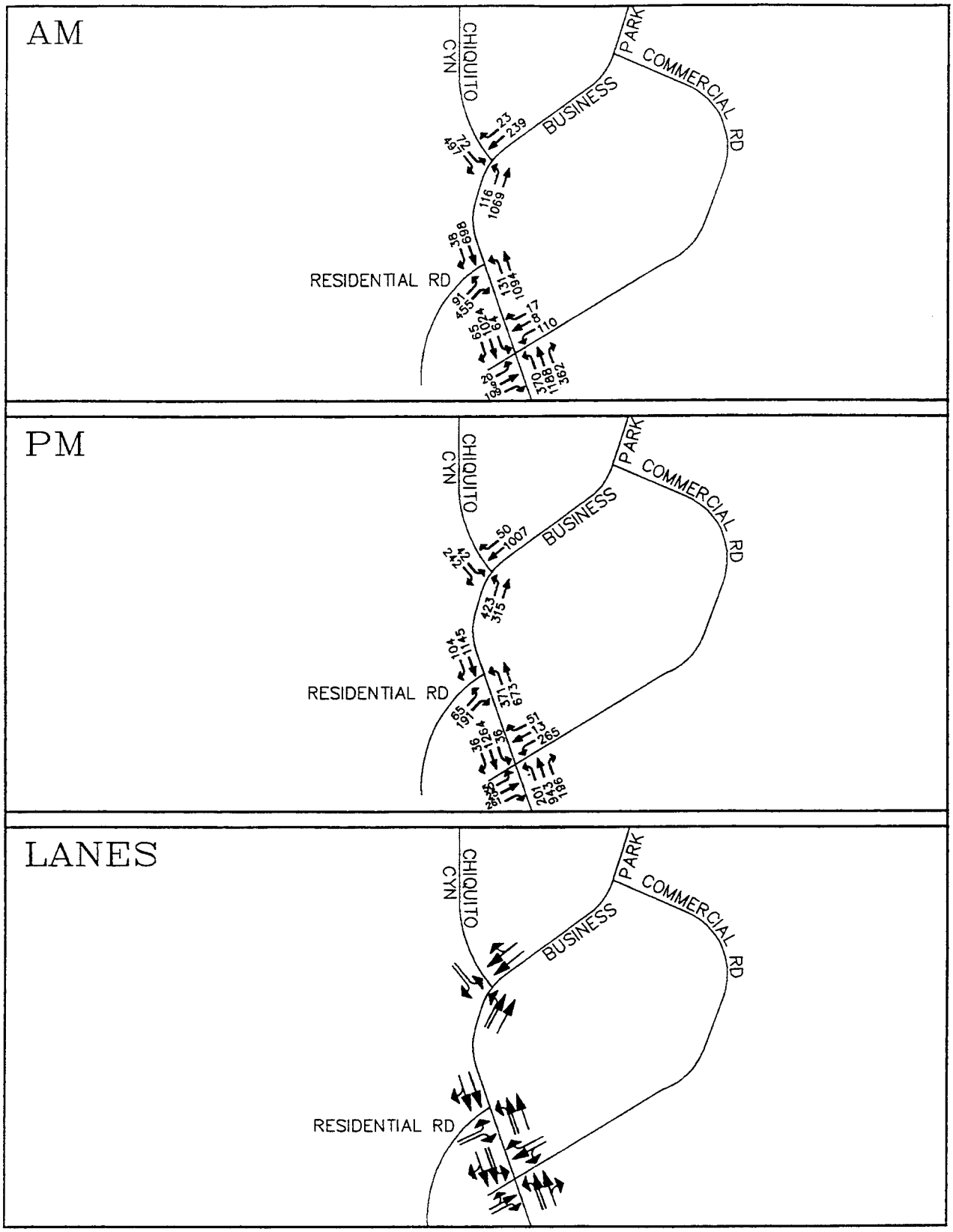


FIGURE 4.8-34
VOLUMES AND LANE CONFIGURATIONS
BUSINESS PARK ROAD AT CHIQUITO
CANYON AND COMMERCIAL ROAD

Individual calculations for each intersection can be found in **Appendix 4.8.**

(e) Conclusion

The roadway alternative plan is a viable alternative in terms of traffic impact and operational effectiveness. It can adequately serve the projected traffic demand created by the Newhall Ranch Specific Plan. The section of Chiquito Canyon Road north of Business Park Road would remain at its current two-lane section, retaining its existing rural character and serving only a small increase in traffic compared to present day volumes.

h. Summary of Impacts

Table 4.8-18, Specific Plan Significant Impact Summary (Alternative Highway Plan), summarizes the significant impacts of the Specific Plan on the surrounding circulation system. This table combines the results from the preceding impact sections and lists where mitigation is required. The Subsection 6. provides mitigation measures which will reduce these impacts to below the level of significance.

The Alternative Highway Plan represents the most likely Valley transportation circulation system to occur in the future. The Alternative Highway Plan also results in a greater level of Specific Plan impact than the Master Plan of Highways. Therefore, the Alternative Highway Plan represents a worst-case scenario as far as Specific Plan impacts and mitigation requirements are concerned. Therefore, the Alternative Highway Plan has been used here to summarize the significant impacts associated with the Specific Plan.

(1) On-site Impacts

The Specific Plan will be required to construct the complete transportation network (including roadways and traffic signals) indicated in the Backbone Circulation Plan (Figure 1.0-5 with the exception of SR-126 which is discussed separately below. After implementation, no significant on-site traffic impacts would occur.

(2) Impacts to Off-Site Arterials

As shown in **Table 4.8-18, Specific Plan Significant Impact Summary (Alternative Highway Plan)**, the Specific Plan would have significant impacts on a total of nineteen off-site arterial roadways. **Table 4.8-18** identifies the Specific Plan's share of responsibility to fund or construct traffic mitigation improvements based upon the Specific Plan's impacts to those facilities.

Table 4.8-18
Specific Plan Significant Impact Summary
(Alternative Highway Plan)

LOCATION OF IMPACT	IMPROVEMENT(S)	SPECIFIC PLAN SHARE(%)
I. ON-SITE HIGHWAY SYSTEM		
On-site roadways	Construction of complete on-site roadway system including signalization where warranted	100
II. OFF-SITE ARTERIALS		
COUNTY ARTERIALS		
Magic Mtn w/o The Old Rd	Augmented capacity	100
Newhall Ranch e/o McBean	Augmented capacity	12
Newhall Ranch w/o Bouquet	Augmented capacity	6
COUNTY/CITY ARTERIALS		
McBean n/o Magic Mtn	Augmented capacity	10
Newhall Ranch e/o Dickason	Augmented capacity	20
Bouquet n/o Newhall Ranch	Augmented capacity	7
Bouquet s/o Newhall Ranch	Augmented capacity	4
CITY ARTERIALS		
Newhall Ranch e/o I-5	Augmented capacity	100
Newhall Ranch w/o Rye	Augmented capacity	94
Magic Mtn e/o I-5	Augmented capacity	39
Magic Mtn e/o Tourney	Augmented capacity	44
Magic Mtn e/o McBean	Augmented capacity	57
Magic Mtn e/o Valencia	Augmented capacity	60
Valencia e/o I-5	Augmented capacity	100
Valencia e/o Rockwell	Augmented capacity	14
Valencia e/o McBean	Augmented capacity	38
Valencia n/o Magic Mtn	Augmented capacity	6
Lyons e/o I-5	Augmented capacity	100
Newhall Ranch e/o Santa Clarita Pkwy	Augmented capacity	100
III. FREEWAYS & STATE HIGHWAYS [1]		
SR-126 from San Martinez Grande to I-5	Two additional highway lanes	100
IV. SR-126 IN VENTURA COUNTY		
City of Fillmore	Augmented Capacity at intersections with SR-126 at Central Ave., A Street & C Street, El Dorado Mobile Home Park, Mountain View, D Street and E Street	100% of Project Increment
Near Community of Piru	Augmented Capacity at intersections with SR-126 at Main Street & Center Street	100% of Project Increment
V. FREEWAY/HIGHWAY INTERCHANGES AND INTERSECTIONS		
Chiquito Cyn and Franklin/Wolcott	Grade separated interchanges	100
I-5/Magic Mtn Parkway Stage II	Construct parallel crossing of I-5; Construct additional ramps to/from the south Construct additional northbound off-ramp	70
I-5/Valencia Blvd.	Additional NB off ramp at Magic Mtn Parkway/I-5 (See Magic Mtn above)	70
SR-126/Commerce Ctr. Dr.	Construct add'l eastbound on-ramp	100
SR-126/Chiquita Cyn Landfill access	Augmentation of Intersection	100
SR-126/Travel Village access	Augmentation of Intersection or relocation of access	100

[1] Shall not preclude use of State, Federal or local transportation funds.

(3) Impacts to Freeways and State Highways

The Specific Plan impacts two State Highways (SR-126 and I-5) within the study area as well as the I-5/SR-126 interchange. Using the Caltrans concept level of service and the planned infrastructure as indicated in the Route Concept reports, the Specific Plan has a significant impact on I-5 south of SR-14. For CMP analysis purposes, significant impacts were found on I-5 south of Osborne and on I-5 south of SR-14. Assuming no improvements are made in the future to I-5, significant impacts would occur under the CMP on I-5 from SR-14 north to Valencia Boulevard. SR-126 will require widening to a total of eight lanes from I-5 to Commerce Center Drive, and six lanes from Commerce Center Drive to just west of San Martinez Grande Road. This widening is beyond the current Caltrans project which includes a total of four-lanes. Funding and construction of main-line freeway and State highway capacity (I-5, SR-14 and SR-126) and interchanges connecting freeways or freeways and State highways (i.e., I-5/SR-126) are provided by existing sources of tax revenue and by Caltrans. Newhall Ranch future residents are estimated to generate over $140 million in applicable tax revenue to Caltrans over the twenty-five year buildout period, and nearly $11 million (in 1996 dollars) per year at Specific Plan buildout and annually thereafter from these existing sources (See Appendix 6.0, Fiscal Impact Study). In addition, the Specific Plan exceeds its mitigation goal as required by the CMP which offsets any Specific Plan impacts to the regional transportation system (i.e., CMP governed facilities) (See Subsection 5.d. Congestion Management Program). As a result of these revenues and because the project exceeds its mitigation goal as determined pursuant to the Congestion Management Program, impacts to freeways and State highways are mitigated. Consequently, the project would have no significant impact on freeways and State highways, and would only be responsible to fund or construct the widening of SR-126 to six lanes in the event that adequate capacity did not exist for a Specific Plan subdivision map which allows construction. However, this would not preclude the applicant from pursuing reimbursement from State, Federal or local sources.

(4) Impacts to SR-126 in Ventura County

The capacity analysis described previously showed this section of highway to have adequate capacity with and without the Specific Plan based on the capacity assumptions given in the Caltrans SR-126 Route Concept Report. However, as the rural highway transitions into an urban arterial in the City of Fillmore at the intersections with SR-126 at Central Avenue, A Street, and C Street, it is likely that improvements beyond the basic four lanes will be required at those intersections as a result of Specific Plan peak-hour traffic at buildout. Similarly, access for the community of Piru at the intersections with SR-126 at Main Street and Center Street may require some intersection improvements beyond the four lanes provided by Caltrans. At these intersections, Specific Plan impacts are considered potentially significant.

(5) Impacts to Freeway/Highway Interchanges and Intersections

Evaluation of the Alternative Network shows that the Specific Plan causes significant impacts at the following locations:

(a) I-5/Valencia Interchange

The northbound off-ramp at this location was shown to be over capacity in the A.M. peak hour at full buildout of the Specific Plan.

(b) I-5/Magic Mountain Parkway Interchange

Future traffic forecasts show significant increases in traffic on Magic Mountain Parkway west of I-5. The result is that future traffic demands on sections of Magic Mountain Parkway just west of The Old Road are estimated to be over the capacity of a six-lane roadway at full buildout of the Specific Plan. The Specific Plan's share of these improvements is 70 percent of the Stage II improvements identified in Table 4.8-18.

(c) Chiquito Canyon Road Intersection with SR-126

An analysis of peak hour volumes shows that an at-grade intersection will not have adequate capacity at buildout and that a grade-separated interchange will ultimately be necessary due to the Specific Plan.

(d) Wolcott/Franklin Avenue Intersection with SR-126

There is currently a signalized intersection at Wolcott Avenue and SR-126. Eventually, a grade separated interchange will need to be constructed at this location due to the Specific Plan.

(e) Commerce Center Drive

A traffic analysis and certified EIR for the Valencia Commerce Center identified the need for a future grade separated interchange at this location. While no formal design studies have been carried out by or for Caltrans, preliminary studies show that a diamond configuration would provide adequate

capacity within the space limitation of this location. This configuration was assumed in the impact analysis, and a Specific Plan impact was identified at the eastbound on-ramp where the addition of Specific Plan traffic caused the capacity of a single lane to be exceeded. As indicated in Table 4.8-18, the Specific Plan's share of an additional lane on the eastbound on-ramp is 100 percent.

6. SPECIFIC PLAN MITIGATION MEASURES

This subsection provides specific mitigation measures which, when implemented, will serve to mitigate the impacts of the proposed Specific Plan to less than significant levels. As indicated previously, the Alternative Highway Plan represents the most likely Valley transportation circulation system to occur in the future and results in a greater level of Specific Plan impacts than the Master Plan of Highways. Therefore, the Alternative Highway Plan represents a worst-case scenario as far as Specific Plan impacts and mitigation requirements are concerned. For this reason, the following Specific Plan mitigation measures are based on the Alternative Highway Plan.

a. On-Site (Except SR-126 - See below)

The following mitigation is required relative to all on-site roadways and intersections except SR-126, which is discussed separately below:

4.8-1. The applicants for future subdivision maps which permit construction shall be responsible for funding and constructing all on-site traffic improvements except as otherwise provided below. The obligation to construct improvements shall not preclude the applicants' ability to seek local, State or Federal funding for these facilities.

4.8-2. Prior to the approval of each subdivision map which permits construction, the applicant for that map shall prepare a transportation performance evaluation which shall indicate the specific improvements for all on-site roadways which are necessary to provide adequate roadway and intersection capacity as well as adequate right-of-way for the subdivision and other expected traffic. Transportation performance evaluations shall be approved by Los Angeles County Department of Public Works according to standards and policies in effect at that time. The transportation performance evaluation shall form the basis for specific conditions of approval for the subdivision.

4.8-3. The applicants for future subdivisions shall provide the traffic signals at the 15 locations labeled "B" through "P" shown in **Figure 4.8-17 above** as well as any additional signals warranted by future subdivision design. Signal warrants shall be prepared as part of the transportation performance evaluations noted in **Mitigation 2.**

4.8-4. All development within the Specific Plan shall conform to the requirements of the Los Angeles County Transportation Demand Management (TDM) Ordinance.

4.8-5. The applicants for all future subdivision maps which permit construction shall consult with the local transit provider regarding the need for, and locations of, bus pull-ins on highways within the Specific Plan area. All bus pull-in locations shall be approved by the Department of Public Works, and approved bus pull-ins shall be constructed by the applicant.

b. Off-Site Arterials

4.8-6. Prior to the recordation of the first subdivision map which permits construction, the applicant for that map shall prepare a transportation performance evaluation which shall determine the specific improvements needed to each off-site arterial and related costs in order to provide adequate roadway and intersection capacity for the expected Specific Plan and General Plan buildout traffic trips. The transportation performance evaluation shall be based on the Master Plan of Highways in effect at that time and shall be approved by the Los Angeles County Department of Public Works. The applicant shall be required to fund its fair share of improvements to these arterials, as stated on **Table 4.8-18.** The applicants total funding obligation shall be equitably distributed over the housing units and non-residential building square footage (i.e. Business Park, Visitor-Serving, Mixed-Use, and Commercial) in the Specific Plan, and shall be a fee to be paid to the County and/or the City at each building permit. For off-site areas within the County unincorporated area, the applicant may construct improvements for credit against or in lieu of paying the fee.

c. Freeways and State Highways (I-5 and SR-126 in Los Angeles County)

Funding and construction of freeway and highway capacity (i.e., I-5, SR-14, and SR-126) and interchanges with other regional highways (i.e. I-5/SR-126) is provided by existing sources of tax revenue and by Caltrans through allocations made by the Metropolitan Transportation Authority (MTA). Newhall Ranch future residents are estimated to generate over $140 million in applicable tax revenue to Caltrans over the twenty-five year buildout period, and nearly $11 million (in 1996 dollars)

per year at year twenty-five and annually thereafter from these existing sources (see **Appendix 6.0, Fiscal Impact Study**). In addition, the Specific Plan exceeds its mitigation goal as determined pursuant to the Congestion Management Program. As a result of these revenues and the CMP, impacts to freeways and State highways are considered to be mitigated.

4.8-7. Each future performance evaluation which shows that a future subdivision map will create significant impacts on SR-126 shall analyze the need for additional travel lanes on SR-126. If adequate lane capacity is not available at the time of subdivision, the applicant of the subdivision shall fund or construct the improvements necessary to serve the proposed increment of development. Construction or funding of any required facilities shall not preclude the applicant's ability to seek State, Federal or local funding for these facilities.

d. Congestion Management

The following measure ensures that the Specific Plan will continue to meet its CMP mitigation goal, thereby offsetting impacts to the regional transportation system:

4.8-8. Project-specific environmental analysis for future subdivision maps which allow construction shall comply with the requirements of the Congestion Management Program in effect at the time that subdivision map is filed.

e. SR-126 in Ventura County

4.8-9. Prior to the recordation of the first subdivision map which permits construction, the applicant for that map shall prepare a transportation evaluation including all of the Specific Plan land uses which shall determine the specific improvements needed to the following intersections with SR-126 in the City of Fillmore and community of Piru in Ventura County: ~~those listed on Table 4.8-18 and at~~ "A", "B", "C", "D" and "E" Streets, Old Telegraph, Olive, Central, Santa Clara, Mountain View ~~and~~ El Dorado Road, and Pole Creek ~~Mobile Home Park~~(Fillmore), and Main/Torrey and Center (Piru). The related costs of those intersection improvements and the project's fair share shall be estimated based upon the expected Specific Plan traffic volumes. The transportation performance evaluation shall be based on the Los Angeles County Master Plan of Highways in effect at that time and shall be approved by the Los Angeles County Department of Public Works. The applicant's total funding obligation shall be equitably distributed over the housing units and non-residential building square footage (i.e., Business

Park, Visitor Center, Mixed Use, and Commercial) in the Specific Plan, and shall be a fee to be paid to the City of Fillmore and the County of Ventura at each building permit. ~~Prior to the recordation of the first subdivision map which permits construction, the applicant for that map shall prepare a transportation performance evaluation which shall determine the specific improvements needed to intersections with SR 126 in Fillmore and Piru listed on Table 4.8-18 and related costs in order to provide adequate intersection capacity for the expected Specific Plan traffic volumes. The transportation performance evaluation shall be based on the Master Plan of Highways in effect at that time and shall be approved by the Los Angeles County Department of Public Works. The applicant's total funding obligation shall be equitably distributed over the housing units and non-residential building square footage (i.e. Business Park, Visitor Serving, Mixed Use, and Commercial) in the Specific Plan, and shall be a fee to be paid to the City of Fillmore and the County of Ventura at each building permit.~~

f. Freeway/Highway Intersections and Interchanges

4.8-10. The Specific Plan is responsible to construct or fund its fair-share of the intersections and interchange improvements indicated on **Table 4.8-18**. Each future transportation performance evaluation required by mitigation measure 4.8-2 which identifies a significant impact at these locations due to subdivision map-generated traffic shall address the need for additional capacity at each of these locations. If adequate capacity is not available at the time of subdivision map recordation, the performance evaluation shall determine the improvements necessary to carry Specific Plan generated traffic, as well as the fair share cost to construct such improvements. If the future subdivision is conditioned to construct a phase of improvements which results in an overpayment of the fair-share cost of the improvement, then an appropriate adjustment (offset) to the fees paid to Los Angeles County and/or City of Santa Clarita pursuant to **Mmitigation Mmeasure 4.8-6** above shall be made.

4.8-11. The applicant of the Newhall Ranch Specific Plan shall participate in an Interstate 5 developer fee program, if adopted by the Board of Supervisors for the Santa Clarita Valley.

4.8.12. The applicant of the Newhall Ranch Specific Plan shall participate in a transit fee program, if adopted for the entire Santa Clarita Valley by Los Angeles County and City of Santa Clarita.

4.8.13. Prior to the approval of each subdivision map which permits construction, the applicant for that map shall prepare a traffic analysis approved by the Los Angeles County Department of

Works. The analysis will assess project and cumulative development (including an existing plus cumulative development scenario under the County's Traffic Impact Analysis Report Guidelines (TIA) and its Development Monitoring System (DMS)). In response to the traffic analysis, the applicant may construct off-site traffic improvements for credit against, or in lieu of paying, the mitigation fees described in Mitigation Measure 4.8-6 above. If future subdivision maps are developed in phases, a traffic study for each phase of the subdivision map may be submitted to determine the improvements needed to be constructed with that phase of development.

7. CUMULATIVE IMPACTS

This subsection describes the results of a cumulative analysis which includes current general plan amendment applications in addition to the land uses in the current City of Santa Clarita General Plan and the Los Angeles County Area Plan. Impacts of the Specific Plan are addressed in this long-range time setting.

a. Land Use

This cumulative impact scenario (herein referred to as the "Santa Clarita Valley (SCV) Cumulative Buildout Scenario") entails buildout of all lands under the current land use designations indicated in the Los Angeles County Santa Clarita Valley Area Plan and the City of Santa Clarita General Plan, plus the proposed Specific Plan, plus all known active pending General Plan Amendment requests for additional urban development in the unincorporated area of Santa Clarita Valley and the City of Santa Clarita. The source of data for the Santa Clarita Valley Buildout Scenario is the Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (SCVCTM). The SCVCTM was developed jointly by the City of Santa Clarita and the County of Los Angeles Department of Public Works. The modeled area extends from the Ventura County line east to where the Antelope Valley Freeway (SR-14) passes out of the Santa Clarita Valley near Vasquez Rocks Park. The northern boundary is the Grapevine area north of Castaic and, to the south, the model area extends to the confluence of the I-5 and SR-14 freeways south of Newhall Pass (this is the area that is the subject of the County's Santa Clarita Valley Area Plan). A list of these cumulative projects and a corresponding traffic analysis zone (TAZ) map are included in **Appendix 4.8**, and a discussion of cumulative impact analysis methodology is provided in EIR Section 3.0.

An ADT capacity analysis was conducted to include the cumulative projects in the long-range database. A comparison of trip-ends with and without the cumulative projects shows an additional 129,467 ADT

(or an increase of 4 percent), which is distributed throughout the model area on both the east and west side of Interstate 5. The resulting capacity analysis was conducted for both the County Base Highway Network and the Alternative Highway Plan Network.

b. Cumulative Impact Analysis - Arterial Highways

(1) County Base Network

Figure 4.8-35, Long-Range ADT Volumes County Base Network With Newhall Ranch and Cumulative Projects, shows the long-range with-project ADT volumes with the addition of the cumulative projects using the County Base Highway Network. These forecasts can be compared with the corresponding with-project volumes for the General Plan and Area Plan database (see **Figure 4.8-21** in Subsection 5.).

The resulting impact of the cumulative projects on the County Base circulation system along with the Newhall Ranch project can be seen on **Table 19, Long-Range ADT Volume Summary - County Base Network**. This table shows the combined project contribution for both the cumulative projects and the Newhall Ranch project and also shows the project contribution for the Newhall Ranch project alone. The lane and capacity assumptions listed in the table are the same as those used previously in Subsection 5. for the County Base Highway Network.

Several locations exceed the acceptable level of service (V/C > 1.00) with the addition of the cumulative projects, these impacted locations are as follows:

Deficient Locations

10.	Commerce Ctr w/o I-5	65.	Copperhill e/o Newhall Ranch
19.	Valencia w/o The Old Rd	79.	Bouquet s/o Newhall Ranch
22.	Magic Mtn w/o The Old Rd	88.	Magic Mtn e/o I-5
40.	McBean n/o Magic Mtn	96.	Valencia e/o I-5
53.	Newhall Ranch e/o Dickason	100.	Valencia n/o Magic Mtn
54.	Newhall Ranch e/o McBean	111.	San Fernando e/o Newhall
60.	Franklin w/o Commerce Ctr	123.	Dickason s/o Ave Scott
64.	Rye e/o Scott	128.	Newhall Ranch w/o Bouquet

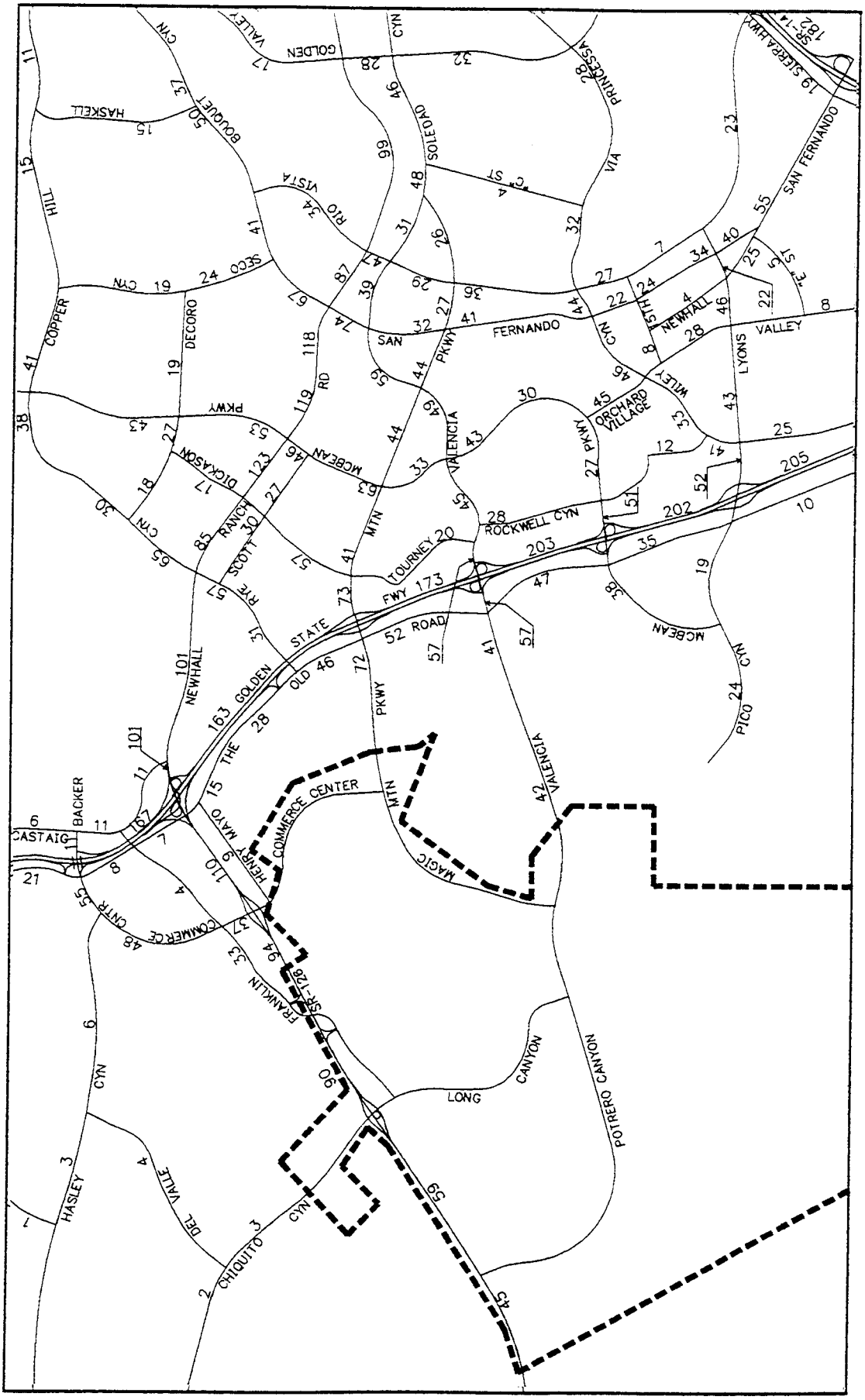


FIGURE 4.8-35

LONG RANGE ADT VOLUMES (000's)
COUNTY BASE NETWORK WITH NR
AND CUMULATIVE PROJECTS

Table 4.8-19
Long-Range ADT Volume Summary
County Base Network

LINK #/LOCATION	LANES	CAPACITY	NO-PROJECT VOL	NO-PROJECT V/C	W/NEWHALL RANCH W/CUMULATIVE PROJECTS COMBINED VOL	W/NEWHALL RANCH W/CUMULATIVE PROJECTS COMBINED V/C	COMBINED NEWHALL PROJ. CONTR.	NEWHALL RANCH CONTR.
1. Hasley Cyn w/o Del Valle	4	32000	3000	.09	3000	.09	.00	.00
2. Hasley Cyn e/o Del Valle	4	32000	6000	.19	6000	.19	.00	.00
3. Del Valle n/o Chiquito Cyn	4	32000	4000	.13	4000	.13	.00	.00
4. Chiquito Cyn w/o Del Valle	2	14000	2000	.14	2000	.14	.00	.00
5. Chiquito Cyn e/o Del Valle	4	32000	3000	.09	3000	.09	.00	.00
9. Commerce Ctr Dr e/o I-5	6	54000	10000	.19	11000	.20	.02	-.02
10. Commerce Ctr Dr w/o I-5	6	54000	47000	.87	55000	1.02	.15	.09
11. Commerce Ctr Dr s/o Hasley	6	54000	43000	.80	48000	.89	.09	.06
12. Commerce Ctr Dr n/o SR-126	6	54000	31000	.57	37000	.69	.11	.06
14. Valencia e/o MMP	4	54000	5000	.09	42000	.78	.69	.58
18. Valencia w/o The Old Rd	4	54000	23000	.43	41000	.76	.33	.31
19. Valencia e/o The Old Rd	6	54000	40000	.74	57000	1.06	.31	.26
22. Magic Mtn w/o The Old Rd	6	54000	40000	.74	72000	1.33	.59	.57
23. The Old Rd n/o Commerce Ctr	4	32000	18000	.56	21000	.66	.09	.06
24. The Old Rd n/o Franklin	6	54000	7000	.13	8000	.15	.02	.00
25. The Old Rd n/o SR-126	6	54000	6000	.11	7000	.13	.02	.00
26. The Old Rd s/o SR-126	6	54000	10000	.19	19000	.35	.16	.09
27. The Old Rd s/o Henry Mayo	6	54000	21000	.39	28000	.52	.13	.06
28. The Old Rd n/o Magic Mtn	6	54000	31000	.57	46000	.85	.28	.15
29. The Old Rd s/o Magic Mtn	6	54000	47000	.87	52000	.96	.09	.07
30. The Old Rd s/o Valencia	6	54000	26000	.48	47000	.87	.39	.31
31. The Old Rd s/o McBean	6	54000	30000	.56	35000	.65	.09	.09
32. The Old Rd s/o Lyons	4	32000	10000	.31	10000	.31	.00	.00
33. Pico w/o McBean	4	32000	23000	.72	24000	.75	.03	-.19
34. Pico e/o McBean	4	32000	19000	.59	19000	.59	.00	-.13
35. McBean w/o The Old Rd	6	54000	27000	.50	38000	.70	.20	.11
36. McBean e/o I-5	6	54000	53000	.98	51000	.94	-.04	.02
37. McBean e/o Tournament	6	54000	29000	.54	27000	.50	-.04	-.02
38. McBean s/o Valencia	6	54000	41000	.76	43000	.80	.04	.02
39. McBean n/o Valencia	6	54000	32000	.59	33000	.61	.02	.02
40. McBean n/o Magic Mtn	6	54000	57000	1.06	63000	1.17	.11	.06
41. McBean s/o Newhall Ranch Rd	6	54000	48000	.89	46000	.85	-.04	-.04
42. McBean n/o Newhall Ranch Rd	6	54000	51000	.94	53000	.98	.04	-.02
43. McBean n/o Decoro	6	54000	41000	.76	43000	.80	.04	.00
50. Newhall Ranch Rd e/o I-5	8	112000	65000	.58	101000	.90	.32	.23
51. Newhall Ranch Rd w/o Rye	8	112000	72000	.64	101000	.90	.26	.20
52. Newhall Ranch Rd e/o Rye	8	112000	78000	.70	85000	.76	.06	.06
53. Newhall Ranch e/o Dickason	8	112000	111000	.99	123000	1.10	.11	.07
54. Newhall Ranch Rd e/o McBean	8	112000	112000	1.00	119000	1.06	.06	.04
56. Castaic n/o Newhall Ranch Rd	4	32000	12000	.38	11000	.34	-.03	-.06
57. Castaic s/o Commerce Ctr Dr	4	32000	11000	.34	11000	.34	.00	-.03
58. Castaic n/o Commerce Ctr Dr	4	32000	5000	.16	6000	.19	.03	.03
60. Franklin w/o Commerce Ctr Dr	4	32000	0	.00	33000	1.03	1.03	.94
61. Franklin e/o Commerce Ctr Dr	4	32000	2000	.06	4000	.13	.06	.03
63.Rye e/o I-5	6	54000	24000	.44	31000	.57	.13	.09

(Continued)

Table 4.8-19 (cont.)
Long-Range ADT Volume Summary
County Base Network

LINK #/LOCATION	LANES	CAPACITY	NO-PROJECT VOL	NO-PROJECT V/C	W/NEWHALL RANCH W/CUMULATIVE PROJECTS COMBINED VOL	W/NEWHALL RANCH W/CUMULATIVE PROJECTS COMBINED V/C	COMBINED PROJ. CONTR.	NEWHALL RANCH CONTR.
64.Rye e/o Scott	6	54000	44000	.81	57000	1.06	.24	.13
65.Copperhill e/o Newhall Ranch	6	54000	61000	1.13	65000	1.20	.07	.06
66.Copperhill n/o Decoro	6	54000	26000	.48	30000	.56	.07	.02
67.Copperhill e/o McBean	6	54000	41000	.76	41000	.76	.00	.00
68.Copperhill e/o Seco	4	32000	13000	.41	15000	.47	.06	.03
69.Copperhill e/o Haskell	6	54000	10000	.19	11000	.20	.02	.02
70.Decoro e/o Copperhill	4	32000	15000	.47	18000	.56	.09	.06
71.Decoro e/o Dickason	4	32000	26000	.81	27000	.84	.03	.00
72.Decoro e/o McBean	4	32000	19000	.59	19000	.59	.00	.00
73.Haskell n/o Bouquet	4	32000	14000	.44	15000	.47	.03	.03
74.Seco n/o Decoro	4	32000	17000	.53	19000	.59	.06	.03
75.Seco s/o Decoro	4	32000	23000	.72	24000	.75	.03	.00
76.Bouquet e/o Haskell	6	54000	37000	.69	37000	.69	.00	.00
77.Bouquet e/o Rio Vista	6	54000	49000	.91	50000	.93	.02	.02
78.Bouquet n/o Newhall Ranch	8	72000	65000	.90	67000	.93	.03	.03
79.Bouquet s/o Newhall Ranch	6	54000	71000	1.31	74000	1.37	.06	.06
80.Bouquet n/o Magic Mtn	6	54000	30000	.56	32000	.59	.04	.04
81.San Fernando s/o Magic Mtn	6	54000	39000	.72	41000	.76	.04	.02
82.San Fernando s/o Wiley	6	54000	21000	.39	22000	.41	.02	.00
83.San Fernando n/o Placerita	6	54000	23000	.43	24000	.44	.02	.02
84.San Fernando s/o Placerita	6	54000	33000	.61	34000	.63	.02	.02
85.San Fernando s/o Lyons	6	54000	38000	.70	40000	.74	.04	.02
86.Ave Scott e/o Rye	6	54000	18000	.33	30000	.56	.22	.11
87.Ave Scott e/o Dickason	6	54000	17000	.31	27000	.50	.19	.11
88.Magic Mtn e/o I-5	6	54000	65000	1.20	73000	1.35	.15	.11
89.Magic Mtn e/o Tourney	6	54000	38000	.70	41000	.76	.06	.04
90.Magic Mtn e/o McBean	6	54000	38000	.70	44000	.81	.11	.06
91.Magic Mtn e/o Valencia	6	54000	37000	.69	44000	.81	.13	.09
93.Tourney n/o Valencia	4	32000	18000	.56	20000	.63	.06	.00
94.Rockwell s/o Valencia	4	32000	25000	.78	28000	.88	.09	.09
95.Tournament s/o McBean	4	32000	12000	.38	12000	.38	.00	.00
96.Valencia e/o I-5	6	54000	46000	.85	57000	1.06	.20	.11
98.Valencia e/o Rockwell	6	54000	43000	.80	45000	.83	.04	.04
99.Valencia e/o McBean	6	54000	46000	.85	49000	.91	.06	.04
100.Valencia n/o Magic Mtn	6	54000	57000	1.06	59000	1.09	.04	.00
101.Soledad e/o Bouquet	6	54000	31000	.57	31000	.57	.00	.00
102.Wiley s/o Lyons	4	32000	22000	.69	25000	.78	.09	.06
103.Wiley n/o Lyons	6	54000	35000	.65	41000	.76	.11	.06
104.Wiley e/o Tournament	6	54000	28000	.52	33000	.61	.09	.04
105.Wiley e/o Orchard Village	6	54000	45000	.83	46000	.85	.02	.00
106.Via Princessa e/o San Fern	6	54000	43000	.80	44000	.81	.02	-.02
107.Via Princessa e/o Magic Mtn	6	54000	28000	.52	28000	.52	.00	-.04
108.15th St e/o Orchard Village	4	32000	7000	.22	8000	.25	.03	.03

(Continued)

Table 4.8-19 (cont.)
Long-Range ADT Volume Summary
County Base Network

LINK #/LOCATION	LANES	CAPACITY	NO-PROJECT VOL	NO-PROJECT V/C	W/NEWHALL RANCH W/CUMULATIVE PROJECTS COMBINED VOL	W/NEWHALL RANCH W/CUMULATIVE PROJECTS COMBINED V/C	COMBINED NEWHALL PROJ. CONTR.	NEWHALL RANCH CONTR.
109.Newhall n/o Lyons	4	32000	5000	.16	4000	.13	-.03	-.03
110.Newhall s/o Lyons	4	32000	22000	.69	25000	.78	.09	.03
111.San Fernando e/o Newhall	6	54000	51000	.94	55000	1.02	.07	.02
112.Orchard Village s/o McBean	6	54000	42000	.78	45000	.83	.06	.00
113.Orchard Village s/o Wiley	6	54000	27000	.50	28000	.52	.02	.00
114.Orchard Village s/o Lyons	4	32000	8000	.25	8000	.25	.00	.00
115.Lyons e/o I-5	6	54000	44000	.81	52000	.96	.15	.09
116.Lyons e/o Wiley	6	54000	39000	.72	43000	.80	.07	.04
117.Lyons e/o Orchard Village	6	54000	42000	.78	46000	.85	.07	.04
118.Lyons w/o San Fernando	6	54000	20000	.37	22000	.41	.04	.02
119.McBean e/o Orchard Village	6	54000	27000	.50	30000	.56	.06	.04
123.Dickason s/o Ave Scott	6	54000	51000	.94	57000	1.06	.11	.02
124.Dickason s/o Decoro	4	32000	12000	.38	17000	.53	.16	.00
126.Bouquet e/o Seco	6	54000	42000	.78	41000	.76	-.02	-.02
128.Newhall Ranch w/o Bouquet	8	112000	111000	.99	118000	1.05	.06	.04
138.Golden Valley s/o Plum	4	32000	16000	.50	17000	.53	.03	.00
143.Soledad w/o Golden Valley	6	54000	40000	.74	46000	.85	.11	.09
151.Via Princessa w/o MMP	6	54000	31000	.57	32000	.59	.02	.00
159.Sierra Hwy e/o San Fern	6	54000	16000	.30	19000	.35	.06	.00
164.Rio Vista n/o NRR	6	54000	32000	.59	34000	.63	.04	.00
165.NRR e/o San Fernando	8	112000	85000	.76	87000	.78	.02	.01
166.NRR e/o Rio Vista	8	112000	97000	.87	99000	.88	.02	.01
171.Rio Vista n/o Soledad	6	54000	43000	.80	47000	.87	.07	.02
172.Rio Vista s/o Soledad	6	54000	35000	.65	36000	.67	.02	.00
173.Golden Valley s/o NRR	6	54000	24000	.44	28000	.52	.07	.06
174.Golden Valley s/o Soledad	6	54000	29000	.54	32000	.59	.06	.04
176.Rio Vista s/o Via Princess	6	54000	26000	.48	27000	.50	.02	.02
177.Rio Vista n/o Lyons	6	54000	7000	.13	7000	.13	.00	.00
178.Rio Vista n/o Sierra Hwy	6	54000	21000	.39	23000	.43	.04	.02
186.Soledad e/o San Fernando	6	54000	36000	.67	39000	.72	.06	.04
187.Soledad e/o MMP	6	54000	45000	.83	48000	.89	.06	.04
188.MMP e/o San Fernando	4	32000	20000	.63	27000	.84	.22	.19
189.MMP e/o Rio Vista	4	32000	23000	.72	26000	.81	.09	.09
190.C Street s/o Soledad	4	32000	3000	.09	4000	.13	.03	.03
191.North of Hasley	4	32000	1000	.03	2000	.06	.03	.00
192.Henry Mayo w/o The Old Rd	2	14000	1000	.07	9000	.64	.57	.36
193.Rio Vista s/o Soledad	6	54000	25000	.46	29000	.54	.07	.06
194.Copperhill w/o McBean	6	54000	32000	.59	38000	.70	.11	.00

(2) Alternative Highway Plan Network

Figure 4.8-36, Long-Range ADT Volumes-Alternative Highway Plan With Newhall Ranch and Cumulative Projects, shows the long-range with-project ADT volumes with the addition of the cumulative projects using the Alternative Highway Plan Network. These forecasts can be compared with the corresponding with-project volumes for the general plan database (see **Figure 4.8-23** in Subsection 5.).

The cumulative projects result in volume increases on most east-west arterials in the vicinity of the I-5 Freeway. The resulting impact of the cumulative projects on the Alternative Highway Plan circulation system along with the Newhall Ranch Specific Plan, can be seen on **Table 4.8-20, Long-Range ADT Volume Summary Cumulative Impact Analysis**. Like the previous table, this table shows the combined Specific Plan contribution for both the cumulative projects and the Newhall Ranch Specific Plan, and also shows the Specific Plan contribution for the Newhall Ranch Specific Plan alone. The lane and capacity assumptions listed in the table are the same as those used previously in Subsection 5. for the Alternative Highway Network.

Several locations exceed the acceptable level of service (V/C > 1.00), with the addition of the cumulative projects, these impacted locations are as follows:

Deficient Locations

19.	Valencia w/o The Old Rd	60.	Franklin w/o Commerce Ctr
22.	Magic Mtn w/o The Old Rd	79.	Bouquet s/o Newhall Ranch
28.	The Old Rd n/o Magic Mtn	115.	Lyons e/o I-5
40.	McBean n/o Magic Mtn	192.	Henry Mayo w/o The Old Rd

The combination of the Newhall Ranch Specific Plan and the cumulative projects contribute to the deficiencies on the arterial segments noted above. The deficiencies need to be mitigated by providing additional capacity to each segment. This can be accomplished through a variety of strategies including intersection improvements, roadway improvements, and operational efficiency improvements The proposed Specific Plan mitigation is to participate in capacity augmentation on a fair share basis. Examples of how a fair share formula could be derived for individual sections of roadways using the County Base Network can be seen in **Table 4.8-21, Specific Plan Participation in Augmented Arterial Roadway Improvements Cumulative Project Setting (County Base Highway Network). Table 4.8-22, Specific Plan Participation in Augmented Arterial Roadway Improvements Cumulative Project Setting (Alternative Highway Plan)** shows the fair share formula applied to the deficient roadways under the Alternative Highway Plan Network. These tables show the roadways which need augmentation beyond a standard Master Plan of Highways roadway capacity, the additional capacity needed, and how the Specific Plan share of that capacity is divided between the cumulative projects and the Newhall Ranch Specific Plan based on the proportion of Specific Plan contribution percentages.

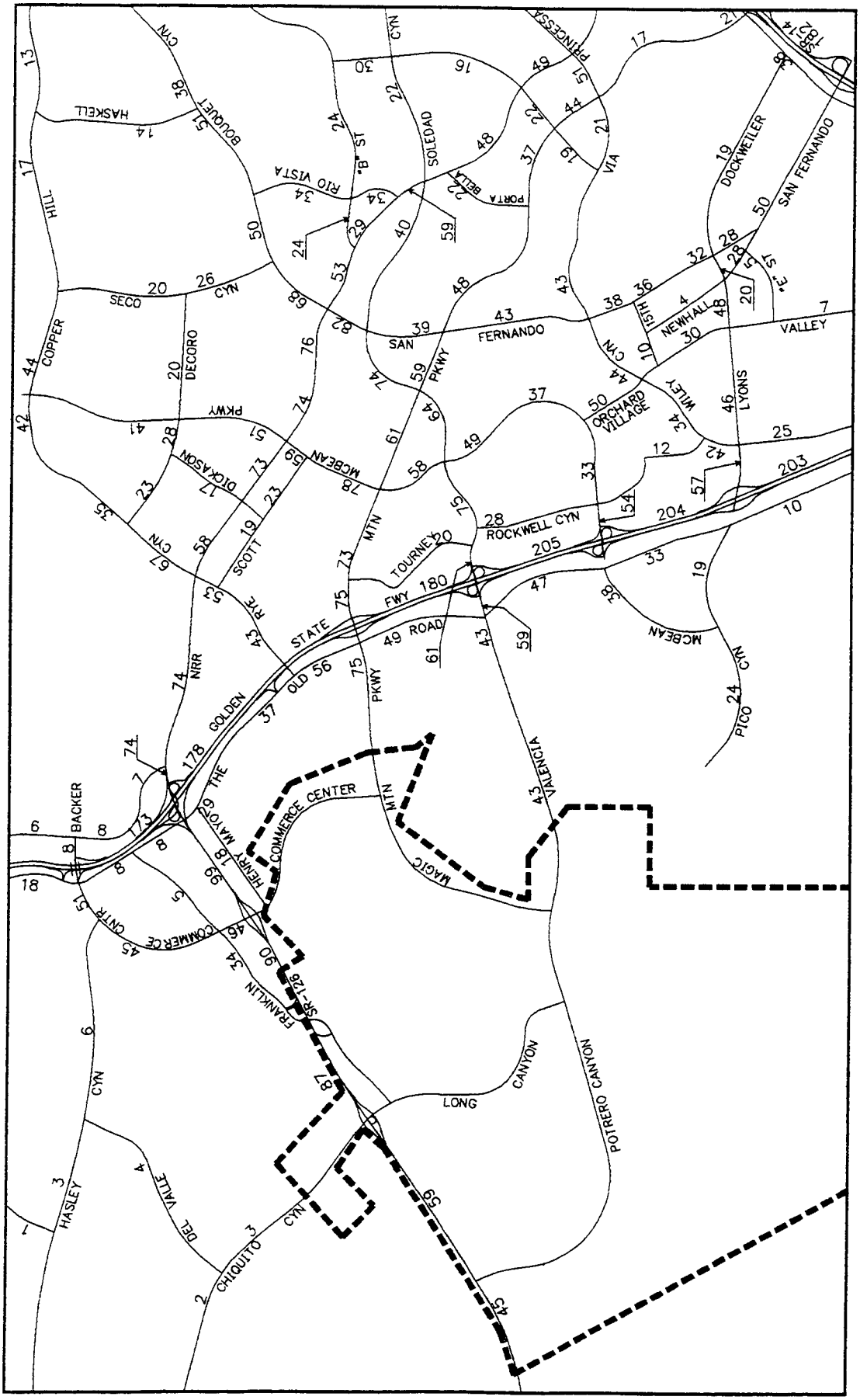


FIGURE 4.8-36
LONG RANGE ADT VOLUMES (000's)
ALTERNATIVE HIGHWAY PLAN WITH NR
AND CUMULATIVE PROJECTS

Table 4.8-20
Long-Range ADT Volume Summary
Cumulative Impact Analysis
(Alternative Highway Plan Network)

LINK #/LOCATION	LANES	CAPACITY	NO-PROJECT VOL	NO-PROJECT V/C	W/NEWHALL RANCH & CUMULATIVE PROJECTS COMBINED VOL	W/NEWHALL RANCH & CUMULATIVE PROJECTS COMBINED V/C	COMBINED PROJ. CONTR.	NEWHALL RANCH CONTR.
1. Hasley Cyn w/o Del Valle	4	32000	3000	.09	3000	.09	.00	.00
2. Hasley Cyn e/o Del Valle	4	32000	6000	.19	6000	.19	.00	.00
3. Del Valle n/o Chiquito Cyn	4	32000	4000	.13	4000	.13	.00	.00
4. Chiquito Cyn w/o Del Valle	2	14000	2000	.14	2000	.14	.00	.00
5. Chiquito Cyn e/o Del Valle	4	32000	3000	.09	3000	.09	.00	.00
9. Commerce Cnt Dr e/o I-5	6	54000	5000	.09	8000	.15	.06	.04
10. Commerce Cnt Dr w/o I-5	6	54000	45000	.83	51000	.94	.11	.06
11. Commerce Cnt Dr s/o Hasley	6	54000	42000	.78	45000	.83	.06	.04
12. Commerce Cnt Dr n/o SR-126	6	54000	30000	.56	46000	.85	.30	.12
14. Valencia e/o MMP	6	54000	5000	.09	43000	.80	.71	.56
18. Valencia w/o The Old Rd	6	54000	23000	.43	43000	.80	.37	.31
19. Valencia e/o The Old Rd	6	54000	39000	.72	59000	1.09	.37	.28
22. Magic Mtn w/o The Old Rd	6	54000	45000	.83	75000	1.39	.56	.52
23. The Old Rd n/o Commerce Cnt	4	32000	17000	.53	18000	.56	.03	-.03
24. The Old Rd n/o Franklin	6	54000	8000	.15	8000	.15	.00	-.04
25. The Old Rd n/o SR-126	6	54000	7000	.13	8000	.15	.02	-.02
26. The Old Rd s/o SR-126	6	54000	10000	.19	29000	.54	.35	.13
27. The Old Rd s/o Henry Mayo	6	54000	21000	.39	37000	.69	.30	.07
28. The Old Rd n/o Magic Mtn	6	54000	41000	.76	56000	1.04	.28	.09
29. The Old Rd s/o Magic Mtn	6	54000	41000	.76	49000	.91	.15	.09
30. The Old Rd s/o Valencia	6	54000	24000	.44	47000	.87	.43	.33
31. The Old Rd s/o McBean	6	54000	29000	.54	33000	.61	.07	.07
32. The Old Rd s/o Lyons	4	32000	10000	.31	10000	.31	.00	.00
33. Pico w/o McBean	4	32000	23000	.72	24000	.75	.03	-.19
34. Pico e/o McBean	4	32000	19000	.59	19000	.59	.00	-.13
35. McBean w/o The Old Rd	6	54000	27000	.50	38000	.70	.20	.11
36. McBean e/o I-5	6	54000	51000	.94	54000	1.00	.06	.04
37. McBean e/o Tournament	6	54000	30000	.56	33000	.61	.06	.00
38. McBean s/o Valencia	6	54000	47000	.87	49000	.91	.04	.02
39. McBean n/o Valencia	6A	76000	55000	.72	58000	.76	.04	.00
40. McBean n/o Magic Mtn	6A	76000	71000	.93	78000	1.03	.09	.03
41. McBean s/o Newhall Ranch Rd	6A	76000	60000	.79	59000	.78	-.01	.00
42. McBean n/o Newhall Ranch Rd	6	54000	52000	.96	51000	.94	-.02	-.02
43. McBean n/o Decoro	6	54000	41000	.76	41000	.76	.00	-.02
50. Newhall Ranch Rd e/o I-5	6A	76000	54000	.71	74000	.97	.26	.22
51. Newhall Ranch Rd w/o Rye	6A	76000	55000	.72	74000	.97	.25	.21
52. Newhall Ranch Rd e/o Rye	6A	76000	56000	.74	58000	.76	.03	-.01
53. Newhall Ranch e/o Dickason	6A	76000	66000	.87	73000	.96	.09	.04
54. Newhall Ranch Rd e/o McBean	6A	76000	69000	.91	74000	.97	.07	.03
55. Newhall Ranch e/o Bouquet	6A	76000	51000	.67	53000	.70	.03	-.01
56. Castaic n/o Newhall Ranch Rd	4	32000	7000	.22	7000	.22	.00	-.03
57. Castaic s/o Commerce Cnt Dr	4	32000	5000	.16	8000	.25	.09	.03
58. Castaic n/o Commerce Cnt Dr	4	32000	5000	.16	6000	.19	.03	.00
60. Franklin w/o Commerce Cnt Dr	4	32000	0	.00	34000	1.06	1.06	.97
61. Franklin e/o Commerce Cnt Dr	4	32000	2000	.06	5000	.16	.09	.03
63. Rye e/o I-5	6	54000	36000	.67	43000	.80	.13	.06

(Continued)

Table 4.8-20 (cont.)
Long-Range ADT Volume Summary
Cumulative Impact Analysis
(Alternative Highway Plan Network)

LINK #/LOCATION	LANES	CAPACITY	NO-PROJECT VOL	NO-PROJECT V/C	W/NEWHALL RANCH & CUMULATIVE PROJECTS COMBINED VOL	W/NEWHALL RANCH & CUMULATIVE PROJECTS COMBINED V/C	COMBINED PROJ. CONTR.	NEWHALL RANCH CONTR.
64. Rye e/o Scott	6	54000	50000	.93	53000	.98	.06	-.04
65. Copperhill e/o Newhall Ranch	6A	76000	66000	.87	67000	.88	.01	-.01
66. Copperhill n/o Decoro	6	54000	31000	.57	35000	.65	.07	.02
67. Copperhill e/o McBean	6	54000	44000	.81	44000	.81	.00	.00
68. Copperhill e/o Seco	4	32000	17000	.53	17000	.53	.00	.00
69. Copperhill e/o Haskell	4	32000	13000	.41	13000	.41	.00	.00
70. Decoro e/o Copperhill	4	32000	19000	.59	23000	.72	.13	.09
71. Decoro e/o Dickason	4	32000	26000	.81	28000	.88	.06	-.03
72. Decoro e/o McBean	4	32000	21000	.66	20000	.63	-.03	.00
73. Haskell n/o Bouquet	4	32000	14000	.44	14000	.44	.00	.00
74. Seco n/o Decoro	4	32000	18000	.56	20000	.63	.06	.03
75. Seco s/o Decoro	4	32000	25000	.78	26000	.81	.03	.00
76. Bouquet e/o Haskell	6	54000	38000	.70	38000	.70	.00	.00
77. Bouquet e/o Rio Vista	6	54000	51000	.94	51000	.94	.00	.00
78. Bouquet n/o Newhall Ranch	6A	76000	67000	.88	68000	.89	.01	.01
79. Bouquet s/o Newhall Ranch	8A	80000	79000	.99	82000	1.02	.04	.01
80. Bouquet n/o Magic Mtn	6	54000	36000	.67	39000	.72	.06	.06
81. San Fernando s/o Magic Mtn	6	54000	42000	.78	43000	.80	.02	.00
82. San Fernando s/o Wiley	6	54000	37000	.69	38000	.70	.02	.00
83. San Fernando n/o Placerita	6	54000	35000	.65	36000	.67	.02	.00
84. San Fernando s/o Placerita	6	54000	31000	.57	32000	.59	.02	.00
85. San Fernando s/o Lyons	6	54000	29000	.54	28000	.52	-.02	-.02
86. Ave Scott e/o Rye	4	32000	12000	.38	19000	.59	.22	.09
87. Ave Scott e/o Dickason	4	32000	15000	.47	23000	.72	.25	.03
88. Magic Mtn e/o I-5	6A	76000	65000	.86	75000	.99	.13	.09
89. Magic Mtn e/o Dickason	6A	76000	64000	.84	73000	.96	.12	.11
90. Magic Mtn e/o McBean	6A	76000	57000	.75	61000	.80	.05	.05
91. Magic Mtn e/o Valencia	6A	76000	56000	.74	59000	.78	.04	.04
92. Magic Mtn e/o San Fern	6	54000	48000	.63	48000	.89	.26	.24
93. Tourney n/o Valencia	4	32000	20000	.63	20000	.63	.00	-.03
94. Rockwell s/o Valencia	4	32000	24000	.75	28000	.88	.13	.09
95. Tournament s/o McBean	4	32000	12000	.38	12000	.38	.00	.00
96. Valencia e/o I-5	6A	76000	52000	.68	61000	.80	.12	.05
98. Valencia e/o Rockwell	6A	76000	72000	.95	75000	.99	.04	.04
99. Valencia e/o McBean	6A	76000	59000	.78	64000	.84	.07	.04
100. Valencia n/o Magic Mtn	6A	76000	71000	.93	74000	.97	.04	.01
101. Soledad e/o Bouquet	6	54000	37000	.69	40000	.74	.06	.06
102. Wiley s/o Lyons	4	32000	20000	.63	25000	.78	.16	.13
103. Wiley n/o Lyons	6	54000	36000	.67	42000	.78	.11	.07
104. Wiley e/o Tournament	6	54000	29000	.54	34000	.63	.09	.06
105. Wiley e/o Orchard Village	6	54000	42000	.78	44000	.81	.04	.00
106. Via Princessa e/o San Fern	6	54000	41000	.76	43000	.80	.04	.00
107. Via Princessa e/o Magic Mtn	6	54000	51000	.94	51000	.94	.00	-.02
108. 15th St e/o Orchard Village	4	32000	9000	.28	10000	.31	.03	.00
109. Newhall n/o Lyons	4	32000	4000	.13	4000	.13	.00	.00
110. Newhall s/o Lyons	4	32000	25000	.78	28000	.88	.09	.03
111. San Fernando e/o Newhall	6	54000	49000	.91	50000	.93	.02	-.02

(Continued)

Table 4.8-20 (cont.)
Long-Range ADT Volume Summary
Cumulative Impact Analysis
(Alternative Highway Plan Network)

LINK #/LOCATION	LANES	CAPACITY	NO-PROJECT VOL	NO-PROJECT V/C	W/NEWHALL RANCH & CUMULATIVE PROJECTS COMBINED VOL	W/NEWHALL RANCH & CUMULATIVE PROJECTS COMBINED V/C	COMBINED PROJ. CONTR.	NEWHALL RANCH CONTR.
112. Orchard Village s/o McBean	6	54000	43000	.80	50000	.93	.13	.11
113. Orchard Village s/o Wiley	6	54000	29000	.54	30000	.56	.02	.00
114. Orchard Village s/o Lyons	4	32000	7000	.22	7000	.22	.00	.00
115. Lyons e/o I-5	6	54000	49000	.91	57000	1.06	.15	.11
116. Lyons e/o Wiley	6	54000	43000	.80	46000	.85	.06	.04
117. Lyons e/o Orchard Village	6	54000	44000	.81	48000	.89	.07	.06
118. Lyons w/o San Fernando	6	54000	18000	.33	20000	.37	.04	.04
119. McBean e/o Orchard Village	6	54000	33000	.61	37000	.69	.07	.04
122. Dockweiler e/o San Fernando	4	32000	16000	.50	19000	.59	.09	.06
124.Dickason s/o Decoro	4	32000	7000	.22	17000	.53	.31	.09
126. Bouquet e/o Seco	6A	76000	49000	.64	50000	.66	.01	.01
128. Newhall Ranch w/o Bouquet	6A	76000	71000	.93	76000	1.00	.07	.01
129. Newhall Ranch e/o B St	6	54000	27000	.50	29000	.54	.04	-.01
130. NRR e/o Santa Clarita Pkwy	6A	76000	54000	.71	59000	.78	.07	.01
131. NRR e/o Porta Bella	6A	76000	46000	.61	48000	.63	.02	.01
132. NRR e/o Golden Valley	6A	76000	47000	.62	49000	.64	.02	.03
135. Golden Valley e/o MMP	4	32000	23000	.72	22000	.69	-.03	-.03
136. Golden Valley e/o NRR	4	32000	12000	.38	16000	.50	.13	.09
137. Golden Valley n/o Soledad	6	54000	29000	.54	30000	.56	.02	.00
139. B St w/o Rio Vista	4	32000	24000	.75	24000	.75	.00	.00
140. B St e/o Rio Vista	4	32000	24000	.75	24000	.75	.00	.00
141. Rio Vista s/o B St	6	54000	30000	.56	34000	.63	.07	.02
142. Santa Clarita n/o B St	6	54000	30000	.56	34000	.63	.07	.02
143. Soledad w/o Golden Valley	6	54000	25000	.46	22000	.41	-.06	-.07
151. Via Princessa w/o MMP	6	54000	20000	.37	21000	.39	.02	.00
155. MMP e/o Golden Valley	6	54000	44000	.81	44000	.81	.00	-.02
156. MMP s/o Via Princessa	4	32000	16000	.50	17000	.53	.03	.00
159. Sierra Hwy e/o San Fern	6	54000	32000	.59	38000	.70	.11	.06
191. North of Hasley	4	32000	1000	.03	2000	.06	.03	.00
192. Henry Mayo w/o The Old Rd	2	14000	1000	.07	18000	1.29	1.22	.57
194. Copperhill w/o McBean	6	54000	34000	.63	42000	.78	.15	.04
196. Porta Bella s/o NRR	4	32000	20000	.63	22000	.69	.06	.00
197. MMP e/o Porta Bella	6	54000	41000	.54	37000	.69	.15	.13
198. "E" St e/o Valley	2	16000	5000	.31	5000	.31	.00	.00
199. Golden Valley n/o Via Princessa	4	32000	18000	.56	19000	.59	.03	.00

Table 4.8-21
Project Participation in Augmented Arterial Roadway Improvements
Cumulative Project Setting
(County Base Highway Network)

LOCATION	NON-AUG CAPACITY	ADT WITHOUT PROJECTS	ADT WITH CUM PROJ AND NR	CUM PROJ DIFF.[1]	AUG CAPACITY NEEDED[2]	CUM PROJ SHARE[3]	NR PROJ SHARE[4]
10. Commerce Ctr w/o I-5	54000	47000	55000	8000	1000	.40	.60
19. Valencia w/o The Old Road	54000	40000	57000	17000	3000	.16	.84
22. Magic Mtn w/o The Old Road	54000	40000	72000	32000	18000	.03	.97
40. McBean n/o Magic Mtn	54000	57000	63000	6000	9000	.45	.55
53. Newhall Ranch e/o Dickason	112000	111000	123000	12000	11000	.36	.64
54. Newhall Ranch e/o McBean	112000	112000	119000	7000	7000	.33	.67
60. Franklin w/o Commerce Ctr	32000	0	33000	33000	1000	.09	.91
64. Rye e/o Ave Scott	54000	44000	57000	13000	3000	.46	.54
65. Copperhill e/o Newhall Ranch	54000	61000	65000	4000	11000	.14	.86
79. Bouquet s/o Newhall Ranch	54000	71000	74000	3000	20000	.00	1.00
88. Magic Mtn e/o I-5	54000	65000	73000	8000	19000	.27	.73
96. Valencia e/o I-5	54000	46000	57000	11000	3000	.45	.55
100. Valencia n/o Magic Mtn	54000	57000	59000	2000	5000	1.00	.00
111. San Fernando e/o Newhall	54000	51000	55000	4000	1000	.71	.29
123. Dickason s/o Ave Scott	54000	51000	57000	6000	3000	.82	.18
128. Newhall Ranch w/o Bouquet	112000	111000	118000	7000	6000	.33	.67

AUG - augmented
CUM - cumulative
NR - Newhall Ranch

[1] ADT with projects minus ADT without projects
[2] ADT with projects minus non-augmented capacity
[3] Cumulative projects share of needed augmented capacity
[4] Newhall Ranch share of needed augmented capacity (Newhall Ranch contribution divided by the combined project contribution

Table 4.8-22
Specific Plan Participation in Augmented Arterial Roadway Improvements
Cumulative Project Setting
(Alternative Highway Plan Network)

LOCATION*	NON-AUG CAPACITY	ADT WITHOUT PROJECTS	ADT WITH CUM PROJ AND NR	CUM PROJ DIFF.[1]	AUG CAPACITY NEEDED[2]	CUM PROJ SHARE[3]	NR PROJ SHARE[4]
19. Valencia w/o The Old Road	54000	39000	59000	20000	5000	.24	.76
22. Magic Mtn w/o The Old Road	54000	45000	75000	30000	21000	.07	.93
28. The Old Road n/o Magic Mtn	54000	41000	56000	15000	2000	.68	.32
40. McBean n/o Magic Mtn	54000	71000	78000	7000	24000	.67	.33
60. Franklin w/o Commerce Ctr	32000	0	34000	34000	2000	.08	.92
79. Bouquet s/o Newhall Ranch	54000	79000	82000	3000	28000	.75	.25
115. Lyons e/o I-5	54000	49000	57000	8000	3000	.27	.73
192. Henry Mayo w/o The Old Road	14000	1000	18000	17000	4000	.53	.47

AUG - augmented
CUM - cumulative
NR - Newhall Ranch

Note: The ADT volumes used here are based on the Alternative Highway Plan.

* A link location map can be found in **Appendix 4.8**

[1] ADT with projects minus ADT without projects
[2] ADT with projects minus non-augmented capacity
[3] Cumulative projects share of needed augmented capacity
[4] Newhall Ranch share of needed augmented capacity (Newhall Ranch contribution divided by the combined project contribution as shown in **Table** 4.8-19)

Table 4.8-23
Freeway and Expressway Long-Range Volume Summary
Cumulative Analysis

LINK #	LOCATION*	LANES	CAPACITY	VOL	NO-PROJECT V/C	NO-PROJECT VOL	WITH-PROJECT WITH CUMULATIVE V/C	WITH-PROJECT WITH CUMULATIVE CONTR.	COMBINED PROJ. CONTR.	PROJ. CONTR.
I. COUNTY BASE NETWORK										
45.	SR-126 w/o Potrero Cyn**	6	54000	38000	.70		45000	.83	.13	.13
46.	SR-126 w/o Chiquito Cyn	6	84000	36000	.43		59000	.70	.27	.22
47.	SR-126 e/o Chiquito Cyn	6	84000	40000	.48		90000	1.07	.59	.50
48.	SR-126 w/o Commerce Cnt Dr	6	84000	35000	.42		94000	1.11	.69	.59
49.	SR-126 w/o I-5	8	112000	58000	.52		110000	.98	.46	.39
200.	I-5 n/o SR-126	10	225000	164000	.73		167000	.74	.01	.00
201.	I-5 s/o Newhall Ranch Rd	10	225000	148000	.66		163000	.72	.06	.05
202.	I-5 s/o Magic Mountain Pkwy	10	225000	153000	.68		173000	.77	.09	.06
203.	I-5 s/o Valencia	10	225000	181000	.80		203000	.90	.10	.08
204.	I-5 s/o McBean	10	225000	184000	.82		202000	.90	.08	.08
205.	I-5 s/o Lyons	10	225000	191000	.85		205000	.91	.06	.05
206.	SR-14 e/o San Fernando	10	225000	174000	.77		182000	.81	.04	.02
210.	SR-14 e/o I-5	10	225000	200000	.89		209000	.93	.04	.03
211.	I-5 n/o SR-14	10	225000	203000	.90		218000	.97	.07	.06
212.	I-5 s/o SR-14	14	315000	393000	1.25		416000	1.32	.07	.06
II. ALTERNATIVE HIGHWAY NETWORK										
45.	SR-126 w/o Potrero Cyn	6	54000	38000	.70		45000	.83	.13	.13
46.	SR-126 w/o Chiquito Cyn	6	84000	36000	.43		59000	.70	.27	.22
47.	SR-126 e/o Chiquito Cyn	6	84000	40000	.48		87000	1.04	.56	.49
48.	SR-126 w/o Commerce Cnt Dr	6	84000	36000	.43		90000	1.07	.64	.55
49.	SR-126 w/o I-5	8	112000	53000	.47		99000	.88	.44	.39
200.	I-5 n/o SR-126	10	225000	168000	.75		173000	.77	.02	.01
201.	I-5 s/o Newhall Ranch Rd	10	225000	157000	.70		178000	.79	.09	.08
202.	I-5 s/o Magic Mountain Pkwy	10	225000	160000	.71		180000	.80	.09	.07
203.	I-5 s/o Valencia	10	225000	183000	.81		205000	.91	.10	.08
204.	I-5 s/o McBean	10	225000	186000	.83		204000	.91	.08	.07
205.	I-5 s/o Lyons	10	225000	188000	.84		203000	.90	.06	.05
206.	SR-14 e/o San Fernando	10	225000	176000	.78		182000	.81	.03	.02
210.	SR-14 e/o I-5	10	225000	202000	.90		210000	.93	.03	.03
211.	I-5 n/o SR-14	10	225000	200000	.89		214000	.95	.06	.05
212.	I-5 s/o SR-14	14	315000	393000	1.25		416000	1.32	.07	.06

Note: The 10-lanes shown for I-5 north of SR-14 include eight general purpose lanes and two HOV lanes. The 14 lanes shown for I-5 south of SR-14 include 12 general purpose lanes and two HOV lanes. The Caltrans route concept report also includes truck lanes, and those are included in the capacities listed above.
of EIR Appendix 4.8.
** SR-126 will transition back to 4-lanes prior to County line.

c. Cumulative Impact Analysis - State Highways and Freeways

The cumulative impact analysis results for State Highways and Freeways is summarized in **Table 4.8-23, Freeway and Expressway Long-Range Volume Summary - Cumulative Analysis**. This table shows the combined cumulative and proposed Specific Plan contribution to the V/C ratio at each location, and also lists the Specific Plan-only contribution. The results show that freeway volumes for the cumulative setting can be carried by the planned freeway system in this area within the LOS concept criteria (V/C = 1.25) except for I-5 south of SR-14, which would be significantly impacted. Discussed previously were the CMP criteria and Special Issues where no additional lanes are added in the future.

Under theses scenarios, the addition of the cumulative projects would worsen levels of service of significantly impacted locations.

8. CUMULATIVE MITIGATION MEASURES

If cumulative projects are approved, additional augmentation of the Master Plan of Highways will be required beyond what has been identified for Specific Plan mitigation. The following mitigation is proposed based on the Santa Clarita Valley Cumulative Buildout Scenario in order to reduce the traffic related impacts of the cumulative projects to below a level of significance:

The applicants of future subdivisions shall fund fair share capacity augmentation of affected roadways as listed on **Tables 4.8-19** and **4.8-20**, following the examples illustrated on **Tables 4.8-21** and **4.8-22**. All other developments proposed which impact the facilities listed shall also pay their fair share of required funding.

With respect to impacts on the regional transportation system, project-specific environmental analysis for other cumulative projects shall comply with the requirements of the Congestion Management Program which provides lead agencies with the opportunity to assess each project's improvement program to ensure that it meets its mitigation goal.

9. UNAVOIDABLE SIGNIFICANT IMPACTS

Assuming that the mitigation measures discussed above that are attributable to the proposed Specific Plan are implemented along with the Specific Plan, and assuming that the County requires fair-share participation of other projects in the mitigation measures, no unavoidable significant Specific Plan or cumulative traffic and access impacts would occur.

4.9 NOISE

1. SUMMARY

Vehicular traffic on Interstate 5 (I-5) and State Route 126 (SR-126) is the dominant existing source of noise on, and in the vicinity of, the Newhall Ranch Specific Plan site. Other sources of noise include the Magic Mountain Theme Park, the Chiquita Canyon Landfill, and on-site activities associated with oil production, and a very small amount of residential development.

Development of the proposed Specific Plan would occur on a tract-by-tract basis over an estimated 25 year period and would involve grading of the ground surface, and the building of proposed uses. These activities typically involve the temporary use of heavy equipment, smaller equipment, and motor vehicles which generate both steady state and episodic noise. This noise would primarily affect the occupants of on-site uses constructed in the earlier developments. Off-site residential uses that would be most sensitive to construction noise are located along the northern border of the Specific Plan site in the southern portion of Val Verde. Any locations within these residential areas which would have an uninterrupted line-of-sight to the construction noise sources could be exposed to noise levels which exceed the County's Noise Ordinance standards for residential land uses when construction activities are occurring. Because the construction activities could cause the Noise Ordinance standards to be exceeded for an extended period of time at existing off-site and future on-site residential uses, construction noise impacts are considered significant without mitigation.

Noise impacts would also result from on-going activities as a result of buildout of the Specific Plan. These impacts would result from vehicular traffic generated by the Specific Plan, as well as the human activity on the site itself. Depending on future tract map design, on-site residences and schools could potentially be exposed to roadway and stationary noise levels that exceed County standards, thereby potentially creating significant on-site noise impacts if the Specific Plan is ultimately not sensitive to such issues. At off-site locations in the local vicinity, traffic generated by the Specific Plan would cause a significant increase in noise levels at the Travel Village RV Park along SR-126. No other significant off-site noise impacts would occur at locations within the City of Santa Clarita or the Counties of Los Angeles or Ventura as a result of traffic volumes generated by the Specific Plan or on-site activities within the Specific Plan site.

Cumulative noise impacts would primarily occur as a result of the increased traffic on local roadways due to the proposed Specific Plan and other developments in the Santa Clarita Valley. The cumulative noise level increases at all but one location (Travel Village) would not cause a significant noise impact at noise sensitive locations off the Newhall Ranch Specific Plan site. However, the increase in noise levels at the Travel Village RV Park would be considered cumulatively significant.

Several mitigation measures are identified that would mitigate the Specific Plan's noise impacts to less than significant levels. The significant cumulative noise impacts would also be mitigated with these measures. Therefore, no unavoidable on- or off-site significant noise impacts would result from the construction or buildout of the proposed Specific Plan or other cumulative development.

2. METHODOLOGY

a. Introduction to Noise

Noise is usually defined as unwanted sound. It is an undesirable by-product of society's normal day-to-day activities. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. The definition of noise as unwanted sound implies that it has an adverse effect on people and their environment.

Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). The human ear does not respond uniformly to sounds at all frequencies, being less sensitive to low and high frequencies than to medium frequencies which correspond with human speech. In response to this, the A-weighted noise level (or scale) has been developed. It corresponds better with people's subjective judgment of sound levels. This A-weighted sound level is called the "noise level" referenced in units of dB(A). Noise is measured on a logarithmic scale; a doubling of sound energy results in a three dB(A) increase in noise levels. However, changes in a community noise level of less than three dB(A) are not typically noticed by the human ear.[1] Changes from three to five dB(A) may be noticed by some individuals who are extremely sensitive to changes in noise. A 5.0 dB(A) increase is readily noticeable, while the human ear perceives a 10 dB(A) increase in sound level to be a doubling of sound.

Noise sources occur in two forms: (1) point sources, such as stationary equipment, a water reclamation plant, or individual motor vehicles; and (2) line sources, such as a roadway with a large number of point sources (motor vehicles). Sound generated by a point source typically diminishes (attenuates) at a rate of 6.0 dB(A) for each doubling of distance from the source to the receptor at acoustically "hard" sites

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1 Highway Noise Fundamentals, (Springfield, Virginia: U. S. Department of Transportation, Federal Highway Administration, September 1980), p. 81.

and 7.5 dB at acoustically "soft" sites.[2] For example, a 60 dB(A) noise level measured at 50 feet from a point source at an acoustically hard site would be 54 dB(A) at 100 feet from the source and 48 dB(A) at 200 feet from the source. Sound generated by a line source typically attenuates at a rate of 3.0 dB(A) and 4.5 dB(A) per doubling of distance from the source to the receptor for hard and soft sites, respectively.[3] Sound levels can also be attenuated by man-made or natural barriers, as illustrated in **Figure 4.9-1, Noise Attenuation by Barriers**.

Solid walls, berms, or elevation differences typically reduce noise levels by 5.0 to 10.0 dB(A).[4] Sound levels for a source may also be attenuated 3.0 to 5.0 dB(A) by a first row of houses and 1.5 dB(A) for each additional row of houses.[5] The noise attenuation provided by typical structures in California is provided in **Table 4.9-1, Typical Outside to Inside Noise Attenuation for Structures in California**.

Table 4.9-1
Typical Outside to Inside Noise Attenuation for Structures in California

Building Type	Noise Reduction - dB(A) Open Windows	Noise Reduction - dB(A) Closed Windows
Residences	12	20
Schools	12	20
Churches	20	30
Hospitals/Convalescent Homes	17	25
Offices	17	25
Theaters	20	30
Hotels/Motels	17	25

Source: Highway Noise Fundamentals, (Springfield, Virginia: U. S. Department of Transportation, Federal Highway Administration, September 1980), p. 117.

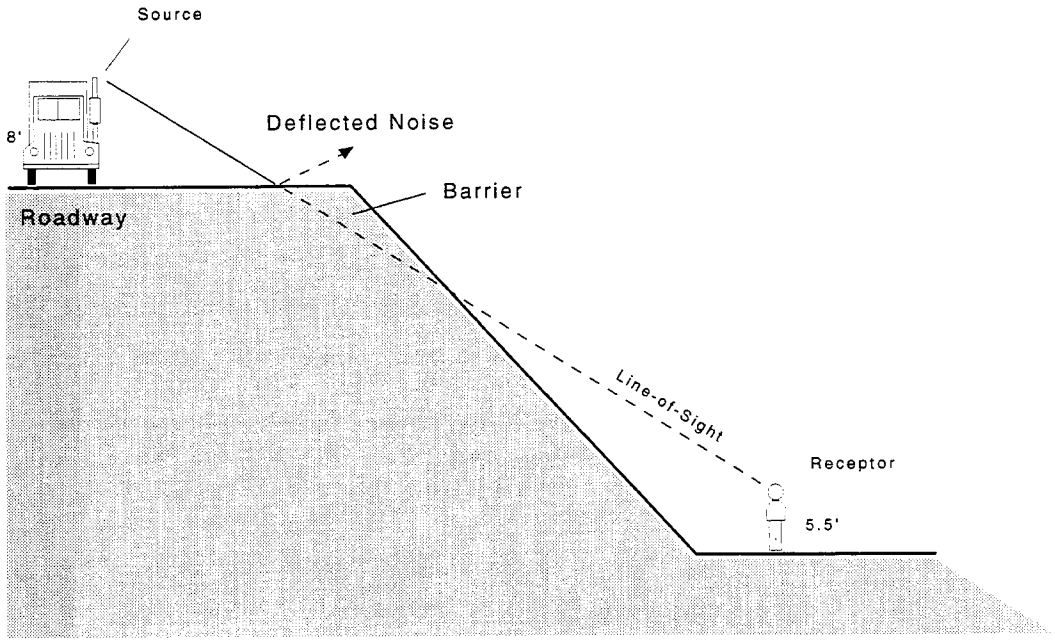
When assessing community reaction to noise, there is an obvious need for a scale which averages varying noise exposure over time and quantifies the result in terms of a single number descriptor. Several scales have been developed which address community noise levels. Those that are applicable to this analysis are the Equivalent Noise Level (L_{eq}) and the Community Noise Equivalent Level (CNEL). L_{eq} is the average A-weighted sound level measured over a given time interval. L_{eq} can be

2 Highway Noise Fundamentals, (Springfield, Virginia: U. S. Department of Transportation, Federal Highway Administration, September 1980), p. 97. A "hard" or reflective site does not provide any excess ground-effect attenuation and is characteristic of asphalt, concrete, and very hard packed soils. An acoustically "soft" or absorptive site is characteristic of normal earth and most ground with vegetation.

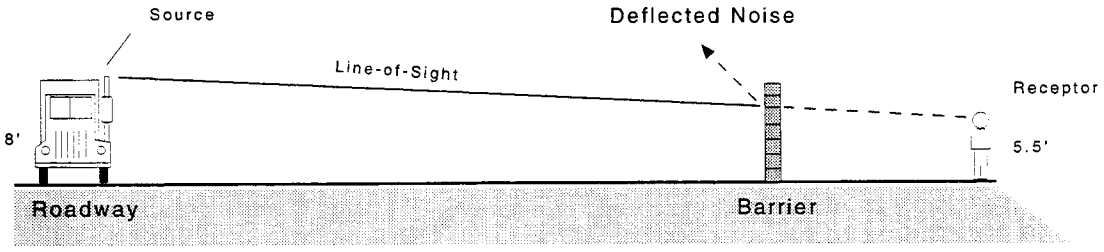
3 Highway Noise Fundamentals, (Springfield, Virginia: U. S. Department of Transportation, Federal Highway Administration, September 1980), p. 97.

4 Highway Noise Mitigation, (Springfield, Virginia: U. S. Department of Transportation, Federal Highway Administration, September 1980), p. 18.

5 T. M. Barry and J. A. Reagan, FHWA Highway Traffic Noise Prediction Model, (Washington D.C.: U.S. Department of Transportation, Federal Highway Administration, Office of Research, Office of Environmental Policy, December 1978), NTIS, FHWA-RD-77-108, p. 33.



"Barrier Effect" Resulting from Differences in Elevation.



"Barrier Effect" Resulting from Typical Soundwall.

SOURCE: IMPACT SCIENCES, INC., 1993.

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FIGURE 4.9-1
NOISE ATTENUATION FROM BARRIERS

measured over any time period, but is typically measured for 1-minute, 15-minute, 1-hour, or 24-hour periods. CNEL is another average A-weighted sound level measured over a 24-hour time period. However, this noise scale is adjusted to account for some individual's increased sensitivity to noise levels during the evening and nighttime hours. A CNEL noise measurement is obtained after adding five decibels to sound levels occurring during the evening from 7 P.M. to 10 P.M., and 10 decibels to sound levels occurring during the nighttime from 10 P.M. to 7 A.M. The five and 10 decibel penalties are applied to account for peoples' increased sensitivity during the evening and nighttime hours. For example, the logarithmic effect of these additions is that a 60 dB(A) 24-hour L_{eq} would result in a CNEL measurement of 66.7 dB(A).

b. Noise Analysis Purpose and Methodology

(1) Purpose of Analysis

The purpose of this noise analysis is twofold: (1) to evaluate the proposed Specific Plan in terms of its design to ensure that land uses are planned appropriately from a noise perspective; and (2) to evaluate the noise impact of the Specific Plan on the surrounding (off-site) area.

(2) Analysis Methodology

The analysis of the existing and future noise environments presented in this section is based on technical reports, noise level monitoring, and noise prediction modeling. Existing stationary noise data are identified based on reviews of available technical reports and on noise level monitoring conducted by Impact Sciences, Inc. using a Brüel and Kjær Type 2226 sound level meter which satisfies the American National Standards Institute (ANSI) for general environmental noise measurement instrumentation. Future noise levels for stationary activities and equipment were estimated based on available technical reports, and literature which are cited in this EIR section. Noise modeling procedures involved the calculation of existing and future vehicular noise levels along individual roadway segments in the vicinity of the Newhall Ranch Specific Plan site. This was accomplished using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108). This model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) utilized in the FHWA Model have been modified to reflect average vehicle noise rates identified for California by the California Department of Transportation (Caltrans).[6] The Caltrans data show that California automobile noise is 0.8 to 1.0 dB(A) higher than national levels and that medium and

6 Rudolf W. Hendriks, California Vehicle Noise Emission Levels, (Sacramento, California: California Department of Transportation, January 1987), NTIS, FHWA/CA/TL-87/03.

heavy truck noise is 0.3 to 3.0 dB(A) lower than national levels.[7] Traffic volumes utilized as data inputs into the noise prediction model were calculated by the Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (June 1995).[8] These numbers were provided by the Specific Plan traffic engineer and are consistent with the traffic and circulation analysis provided in **Section 4.8, Traffic/Access** of this EIR.

The analysis in this section addresses the existing and future noise environments on and off the Newhall Ranch Specific Plan site.

(a) On-Site Methodology

The primary concern regarding on-site noise is the potential for proposed on-site land uses to be exposed to noise levels that exceed adopted or recommended thresholds (discussed later on in this EIR section). In essence, the analysis of on-site noise levels deals with the compatibility of the proposed on-site land uses with adjacent on- and off-site land uses and with on-site roadway traffic noise.

(b) Off-Site Methodology

The assessment of off-site noise levels concerns itself with potential noise increases at other locations due to on-site activities and the addition of traffic generated by the proposed Specific Plan as calculated by the Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (June 1995). This section specifically focuses on impacts to all planned and existing noise-sensitive uses, or those uses that would be most sensitive to an increase in noise levels. These include all residential uses, transient lodging, schools, libraries, churches, hospitals, day care centers, and nursing homes located along roadways subject to increased traffic volumes generated by the Specific Plan. At these locations, noise levels were modeled both with and without the Specific Plan's traffic volumes to determine those locations at which the Specific Plan may have an impact on existing and planned noise sensitive uses.

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7 Rudolf W. Hendriks, California Vehicle Noise Emission Levels, (Sacramento, California: California Department of Transportation, January 1987), NTIS, FHWA/CA/TL-87/03

8 Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (June 1995), Buildout Traffic plus Project Traffic. This information is provided for review in Appendix 4.8 of this EIR.

3. PLANS AND POLICIES FOR NOISE CONTROL

In advance of presenting the existing and future noise environments and the thresholds of significance utilized in this document, plans and policies which pertain to the noise conditions affecting and affected by the proposed Specific Plan are discussed below. These plans and policies include; (1) the State CEQA Guidelines, Appendix G, Significant Effects, (2) the County of Los Angeles Noise Ordinance, and (3) the State of California, Department of Health Services, Environmental Health Division Guidelines for Noise and Land Use Compatibility.

a. State CEQA Guidelines

The State CEQA Guidelines state that a project will normally have a significant effect on the noise environment if it will substantially increase the ambient noise levels for adjoining areas. However, this guideline does not define what a substantial increase in ambient noise is. Appendix G of the CEQA Guidelines does not provide an impact threshold for potential on-site noise impacts.

b. County of Los Angeles Noise Ordinance (For Point and Stationary Source Noise)

The County of Los Angeles has adopted a Noise Ordinance which identifies exterior noise standards for stationary and point noise sources, specific noise restrictions, exemptions, and variances for exterior point, or stationary, noise sources. Several of these are applicable to the Specific Plan's development and proposed uses and are discussed below.

The County Noise Ordinance states that exterior noise levels caused by stationary or point noise sources shall not exceed the levels identified in **Table 4.9-2 (County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources)** or the ambient noise level,[9] whichever is greater, when the ambient noise level is determined without the noise source operating. The Noise Ordinance also states that interior noise levels resulting from outside point or stationary sources within multi-family residential units shall not exceed 45 dB(A) L_{eq} between 7 A.M. and 10 P.M., and 40 dB(A) L_{eq} between 10 P.M. and 7 A.M.

9 The existing background noise level at the time of measurement or prediction.

Table 4.9-2
County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources

Noise Zone	Designated Noise Zone Land Use (Receptor Property)	Time Interval	Exterior Noise Level dB(A) L_{eq} [1]
I	Noise Sensitive Area[2]	Anytime	45
II	Residential Properties	10:00 P.M. to 7:00 A.M.	45
		7:00 A.M. to 10:00 P.M.	50
III	Commercial Properties	10:00 P.M. to 7:00 A.M.	55
		7:00 A.M. to 10:00 P.M.	60
IV	Industrial Properties	Anytime	70

Source: County of Los Angeles Ordinance No. 11743, §12.08.390.

[1]***Standard No. 1*** *shall be the exterior noise level which may not be exceeded for a cumulative period of more than 30 minutes in any hour. Standard No. 1 shall be the applicable noise level; or, if the ambient L_{50} exceeds the forgoing level, then the ambient L_{50} becomes the exterior noise level for Standard No. 1.*
Standard No. 2 *shall be the exterior noise level which may not be exceeded for a cumulative period of more than 15 minutes in any hour. Standard No. 2 shall be the applicable noise level from Standard 1 plus 5 dB(A); or, if the ambient L_{25} exceeds the forgoing level, then the ambient L_{25} becomes the exterior noise level for Standard No. 2.*
Standard No. 3 *shall be the exterior noise level which may not be exceeded for a cumulative period of more than five minutes in any hour. Standard No. 3 shall be the applicable noise level from Standard 1 plus 10 dB(A); or, if the ambient $L_{8.3}$ exceeds the forgoing level, then the ambient $L_{8.3}$ becomes the exterior noise level for Standard No. 3.*
Standard No. 4 *shall be the exterior noise level which may not be exceeded for a cumulative period of more than one minute in any hour. Standard No. 4 shall be the applicable noise level from Standard 1 plus 15 dB(A); or, if the ambient $L_{1.7}$ exceeds the forgoing level, then the ambient $L_{1.7}$ becomes the exterior noise level for Standard No. 4.*
Standard No. 4 *shall be the exterior noise level which may not be exceeded for any period of time. Standard No. 4 shall be the applicable noise level from Standard 1 plus 20 dB(A); or, if the ambient L_0 exceeds the forgoing level, then the ambient L_0 becomes the exterior noise level for Standard No. 4.*

[2]*Not defined in the County Noise Ordinance. To be designated by the County Health Officer.*

The County Noise Ordinance identifies specific restrictions regarding construction noise. The operation of equipment used in construction, drilling, repair, alteration or demolition work is prohibited between weekday hours of 7:00 P.M. to 7:00 A.M. and anytime on Sundays or legal holidays if such noise would create a noise disturbance across a residential or commercial real-property line.[10] The Noise Ordinance further states that the contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in **Table 4.9-3, County of Los Angeles Construction Noise Restrictions**. All mobile and stationary internal-combustion-powered equipment and machinery is also required to be equipped with suitable exhaust and air-intake silencers in proper working order.

10 County of Los Angeles Ordinance No. 11743, §12.08.440. Noise disturbance is not defined in the noise ordinance. The County Health Officer has the authority to define and determine the extent of a noise disturbance on a case-by-case basis.

Table 4.9-3
County of Los Angeles Construction Equipment Noise Restrictions

Residential Structures			
	Single Family Residential	Multi-Family Residential	Commercial[1]
Mobile Equipment: Maximum noise levels for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment:			
Daily, except Sundays and legal holidays, 7:00 A.M. to 8:00 P.M.	75 dB(A) L_{eq}	80 dB(A) L_{eq}	85 dB(A) L_{eq}
Daily, 8:00 P.M. to 7:00 A.M. and all day Sunday and legal holidays	60 dB(A) L_{eq}	64 dB(A) L_{eq}	70 dB(A) L_{eq}
Stationary Equipment: Maximum noise level for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment:			
Daily, except Sundays and legal holidays, 7:00 A.M. to 8:00 P.M.	60 dB(A) L_{eq}	65 dB(A) L_{eq}	70 dB(A) L_{eq}
Daily, 8:00 P.M. to 7:00 A.M. and all day Sunday and legal holidays	50 dB(A) L_{eq}	55 dB(A) L_{eq}	60 dB(A) L_{eq}
Business Structures			
		All Structures	
Mobile Equipment; Maximum noise levels for nonscheduled, intermittent, short-term operation of mobile equipment:			
Daily, including Sunday and legal holidays, all hours		85 dB(A) L_{eq}	

Source: County of Los Angeles Ordinance No. 11743, §12.08.440.
[1]Refers to residential structures within a commercial area. This standard does not apply to commercial structures.

The County exempts all vehicles of transportation (with a few exemptions) that operate in a legal manner within the public right-of-way, railway, or air space, or on private property, from the standards of the Noise Ordinance. The County has no adopted ordinance regulating individual motor vehicle noise levels. These are regulated by the State.

c. California Department of Health Services (For Mobile Source Noise)

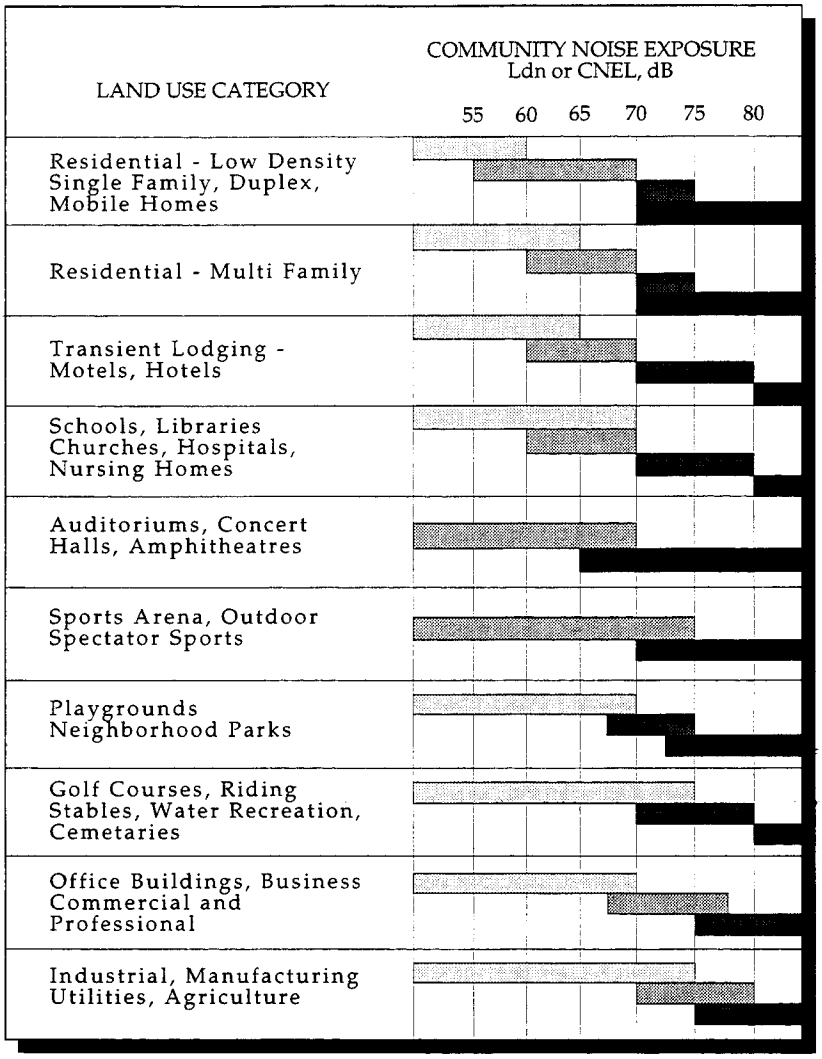
The State of California, Department of Health Services, Environmental Health Division has published recommended guidelines for mobile source noise and land use compatibility. Each jurisdiction is required to consider these guidelines when developing its general plan noise element and determining

the acceptable noise levels within its community. The County of Los Angeles defers to these guidelines when assessing a land use's compatibility with motor vehicle noise sources. These guidelines are illustrated in **Figure 4.9-2, Land Use Compatibility Guidelines for Noise**. In addition, interior noise levels of 45 dB(A) CNEL are recommended for residential uses.

Based on these guidelines, Los Angeles County typically considers an exterior noise level of 60 dB(A) CNEL to be an acceptable level for single family, duplex, and mobile homes involving normal, conventional construction, without any special noise insulation requirements (normally acceptable noise levels). Exterior noise levels up to 65 dB(A) CNEL are typically considered acceptable for multi-family units and transient lodging without any special noise insulation requirements. Between these values and 70 dB(A) CNEL, exterior noise levels are typically considered acceptable only if the buildings are conditioned to include noise insulation features (conditionally acceptable noise levels). Conventional construction of the buildings with the inclusion of fresh air supply systems or air conditioning will normally ensure that interior noise levels are acceptable (reference **Table 4.9-1** for noise reduction provided by conventional construction techniques). However, detailed acoustical analyses must be conducted to identify all needed noise insulation features and confirm their effectiveness. An exterior noise level of 70 dB(A) CNEL is typically the dividing line between an acceptable and unacceptable exterior noise environment for all noise sensitive uses, including schools, libraries, churches, hospitals, day care centers, and nursing homes of conventional construction. Noise levels below 75 dB(A) CNEL are typically acceptable for office and commercial buildings, while levels up to 75 dB(A) CNEL are typically acceptable for industrial uses.

4. EXISTING CONDITIONS

Vehicular traffic is the dominant source of noise on, and in the vicinity of, the Newhall Ranch Specific Plan site. Other sources of noise in the area that potentially affect noise levels on the Specific Plan site include the Magic Mountain Theme Park, the Chiquita Canyon Landfill, on-site activities associated with oil and natural gas production, and a minor amount of residential development. These noise sources are discussed below.



NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

NORMALLY UNACCEPTABLE

New construction or development should generally be discouraged. If new constuction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise reduction features included in the design.

CLEARLY UNACCEPTABLE

New construction or development should generally not be undertaken.

SOURCE: CAL. DEPT. OF HEALTH, FEBRUARY 1976.

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FIGURE 4.9-2

LAND USE COMPATIBILITY GUIDELINES FOR NOISE

a. Roadway Noise

(1) On-Site Roadway Noise

The Newhall Ranch Specific Plan site is undeveloped and the vast majority of the site maintains no roadways open to the public. Many private unpaved roadways traverse the site in order to provide access to oil-related facilities, Southern California Edison Company electrical transmission lines, and to land used for grazing and agriculture. These roadways carry small amounts of vehicular traffic (approximately 120 trips per day combined) and, therefore, do not generate any appreciable amounts of roadway noise.

One exception of note is State Route 126 which traverses the northern site periphery. Existing noise levels adjacent to this roadway range from 65 dB(A) at 121 feet from the centerline of the roadway to 60 dB(A) at 260 feet from the centerline (reference Table N-1 in Appendix 4.9 of this EIR).

(2) Off-Site Roadway Noise

Noise levels resulting from vehicular traffic off the Newhall Ranch Specific Plan site were calculated at various noise sensitive locations along roadway segments that would be affected by traffic volumes generated by the proposed Specific Plan in order to characterize the existing ambient noise environment. Existing average noise levels identified through these calculations are shown in **Table 4.9-4, Existing Off-Site Roadway Noise Levels at Noise Sensitive Uses**. The noise levels shown for these locations are calculated for the nearest edge of the nearest existing building to the roadway. Buildings located farther from the roadways would have lower noise levels. Based on the calculations, all but two of the locations that have existing or planned noise sensitive land uses would have average noise levels that are within County of Los Angeles standards for motor vehicle noise sources. The two locations that exceed these standards are exposed to noise levels of 70.7 and - 70.8 dB(A) CNEL, which would be considered unacceptable for noise sensitive uses. These locations exceed the standard of 70.0 dB(A) CNEL by 0.7 and 0.8 dB(A), respectively.

Table 4.9-4
Existing Off-Site Roadway Noise Levels at Noise Sensitive Locations

ROADWAY • Segment	Existing and Planned Noise Sensitive Land Uses	dB(A) CNEL
MCBEAN PARKWAY		
• east of Interstate 5	Cal Arts College	59.5
• east of Tournament Road	Single Family Residential	61.1
	Church of Latter Day Saints	62.4
• south of Valencia Boulevard	Single Family Residential	64.1
	Multi-Family Residential	63.6
	Henry Mayo Newhall Hospital	58.9
• north of Newhall Ranch Road	Single Family Residential	58.7
STATE ROUTE 126		
• west of the Old Road	Transient Lodging (Travel Village)	66.0
VALENCIA BOULEVARD		
• east of Rockwell Canyon Road	Single Family Residential	59.6
	Multi Family Residential	61.8
• east of McBean	Valencia Library	68.1
NEWHALL RANCH ROAD		
• east of McBean	Planned Single Family Residential	69.8
MAGIC MOUNTAIN PARKWAY		
• east of I-5	Planned Multi-Family Residential	69.6
ORCHARD VILLAGE		
• south of McBean	Single Family Residential	64.5
	Pinecrest School	65.9
• south of Wiley	Single Family Residential	64.2
LYONS		
• east of Wiley	Single Family Residential	63.0
	Elementary School	60.5
• east of Orchard Village	Our Lady...Church/School	70.8
SAN FERNANDO		
• south of Placerita	Mixed Residential	70.7
ROCKWELL CANYON		
• north of McBean	Single Family Residential	59.3
WILEY CANYON		
• north of Lyons	Single Family	62.1
	Day Care Facility	68.4
• east of Tournament	Planned Single Family Residential	66.3
	Single Family Residential	59.9

Source: Impact Sciences, Inc. Calculations are provided in Table N-2 in Appendix 4.9. Noise levels are calculated for the nearest edge of the existing building to the roadway.

b. Point (or Stationary) Sources of Noise

(1) On-Site Point Sources of Noise

On the Newhall Ranch Specific Plan site, point source noise is generated by the existing oil and natural gas operations, stationary internal combustion engines used to drive oil pumps, and flaring operations where natural gas is burned off when pumps are temporarily not operating. The central and

northeastern portions of the property are heavily traversed with dirt and asphalt roads which provide access to numerous graded oil well pads and pipelines, and storage and transmission facilities. The noise levels generated by the oil pump engines and flaring operations were surveyed by Impact Sciences, Inc., on December 15, 1994. The noise level monitored for the oil pump engines was very stable (nonfluctuating) and averaged 65.5 dB(A) L_{eq} at a distance of 50 feet from the source to the receptor. The noise levels for the flaring operations were also very stable and averaged 85.0 dB(A) L_{eq} at 50 feet from the flaring station to the receptor, 81.0 dB(A) L_{eq} at 100 feet, 74.5 dB(A) L_{eq} at 200 feet, and 64.5 L_{eq} at 400 feet. Medallion Resources, the operator of the Potrero Field on the Newhall Ranch Specific Plan site, is in the process of converting its diesel-fueled oil and natural gas pump motors to electric motors and plans to complete this process within the next few months. These electric motors will be much quieter than the existing motors. Medallion Resources will also be eliminating its flaring operations in 1996.

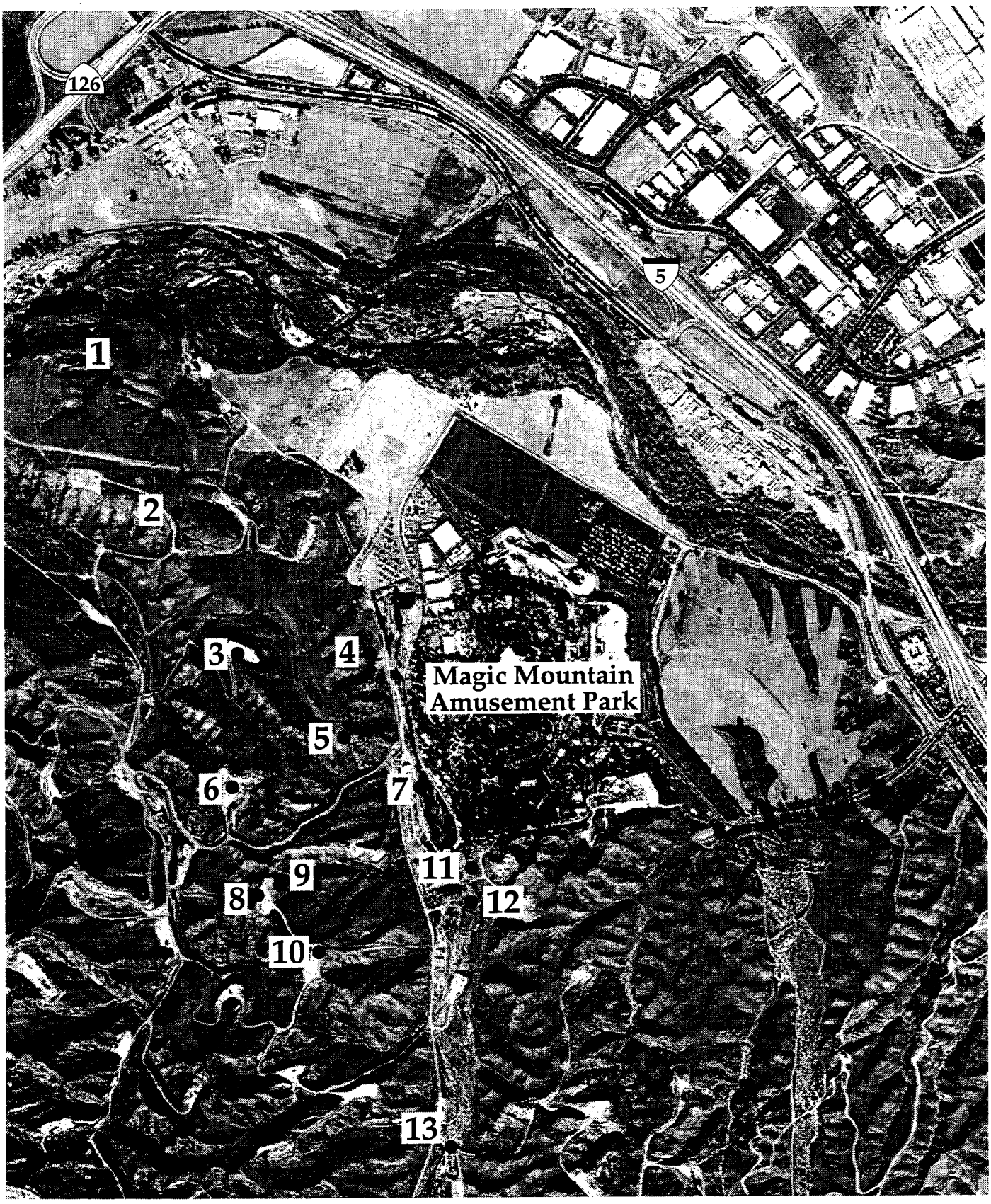
Existing agricultural operations and activities associated with on-site residences (approximately 10), offices and the occasional use of the site by the movie industry generate very little on-site noise.

(2) Off-site Point Sources of Noise

Point sources of noise in the vicinity that potentially affect the Newhall Ranch Specific Plan site include the Magic Mountain Theme Park and the Chiquita Canyon Landfill. Both of these are discussed below.

Activities at Magic Mountain are the primary sources of noise in the northeastern area of the Specific Plan site. The noise levels on the Specific Plan site generated by Magic Mountain were surveyed at 13 locations by Impact Sciences, Inc. on June 8, 1995. These locations are identified in **Figure 4.9-3, Magic Mountain Noise Monitoring Locations**. All of the major rides and facilities on the southern and western areas of Magic Mountain were operating on that day and weather conditions were favorable for noise measurements (i.e., clear skies and wind speeds ranging from 0 to 15 miles per hour).

The primary sources of noise included ride operations and loud speaker use. The noise levels monitored during the survey are presented in **Table 4.9-5, Noise Levels Generated by Magic Mountain**. Also shown in this table are the CNEL noise levels that are calculated based on the park's operating hours of 10 A.M. and 12 A.M. on Friday and Saturday during the summer. This logarithmic CNEL calculation involved the addition of 5.0 dB(A) added to the noise level between 7 P.M. and 10 P.M., and 10 dB(A) added between 10 P.M. and 12 A.M. to account for the increased sensitivity to noise of individuals during these hours.



SOURCE: IMPACT SCIENCES, INC., 1995.

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FIGURE 4.9-3
MAGIC MOUNTAIN NOISE MONITORING LOCATIONS

Table 4.9-5
Noise Levels Generated by Magic Mountain

Survey Site	Distance from Magic Mountain in Feet	Direction from Magic Mountain	Monitored Noise Level in dB(A) L_{eq}	Perceived Noise Level in dB(A) CNEL
1	150	northwest	48.5	52.9
2	105	west	46.5	50.9
3	85	west	48.5	52.9
4	20	west	52.5	56.9
5	60	west	61.5	65.9
6	165	west	42.0	46.4
7	5	west	67.0	71.4
8	150	west	46.0	50.4
9	135	west	49.0	53.4
10	125	southwest	55.5	59.9
11	10	south	62.5	66.9
12	25	south	60.0	64.4
13	290	south	41.0	45.4

Source: Impact Sciences, Inc.

The Chiquita Canyon Landfill is another source of noise in the vicinity of the Newhall Ranch Specific Plan site. Most of the noise is generated by truck traffic to and from the landfill, and was included in the existing noise levels identified in **Table 4.9-4** for the segment of State Route 126 west of The Old Road. Noise levels generated by landfill operations are very low (50 dB(A) L_{eq} or less) at the landfill property boundary and are hardly perceptible on the Specific Plan site.

A request by the operator is currently being considered by the County of Los Angeles to extend the operating permit and expand the capacity of the Chiquita Canyon Landfill. Should this proposal be approved, the operational noise levels generated after the expansion are not expected to exceed 39 dB(A) L_{eq} at any residential receptor in the Community of Val Verde.[11] Because the Newhall Ranch Specific Plan site is located approximately the same or greater distances from the proposed work face, noise levels on the Specific Plan site would be similar or less than the Val Verde noise levels.

5. SIGNIFICANCE THRESHOLD CRITERIA

The following thresholds of significance were developed for this noise impact analysis based on the plans and policies identified previously in this EIR section. These thresholds apply to both Specific Plan and cumulative project impacts.

11 Ogden Environmental and Energy Services Co., Inc., Draft Environmental Impact Report for the Chiquita Canyon Landfill and Resource Recovery Facilities, (Los Angeles, California: County of Los Angeles, May 1995), p. IV.J-10.

a. On-Site Thresholds of Significance

The proposed Specific Plan would result in a significant on-site mobile source noise impact if it causes on-site exterior locations to be exposed to noise levels above the normally acceptable Land Use Compatibility Guidelines utilized by the County (i.e., 60 dB(A) CNEL for single family, 65 dB(A) CNEL for multi-family, 70 dB(A) CNEL for schools, parks, business park, and commercial uses as identified in **Figure 4.9-2**). Also, if components of the proposed Specific Plan were to be subject to point source noise levels originating on or off the Newhall Ranch Specific Plan site which are above County Noise Ordinance standards identified in **Tables 4.9-2 and 4.9-3** for the types of use proposed, a significant on-site noise impact would occur. Future point sources on the Specific Plan site are not known at this time and cannot be precisely predicted; however, all on-site noise sources would be subject to the County Noise Ordinance (**Table 4.9-2**).

b. Off-Site Thresholds of Significance

Off-site noise impacts consider both the Land Use Compatibility Guidelines identified in **Figure 4.9-2**, and community responses to changes in noise levels. Changes in a noise level of less than three dB(A) are not typically noticed by the human ear.[12] Changes from three to five dB(A) may be noticed by some individuals who are extremely sensitive to changes in noise. A five dB(A) increase is readily noticeable. Based on this information, significant off-site noise impacts would occur when:

1. an increase of five dB(A) or greater in noise level occurs from project-related activities if levels remain within the same land use compatibility classification (e.g., noise levels remain within the normally acceptable range); or
2. an increase of three dB(A) or greater in noise level occurs from project-related activities which results in a change in land use compatibility classification (e.g., noise levels change from normally acceptable to conditionally acceptable).

12 Highway Noise Fundamentals, (Springfield, Virginia: U. S. Department of Transportation, Federal Highway Administration, September 1980), p. 81.

6. SPECIFIC PLAN IMPACTS

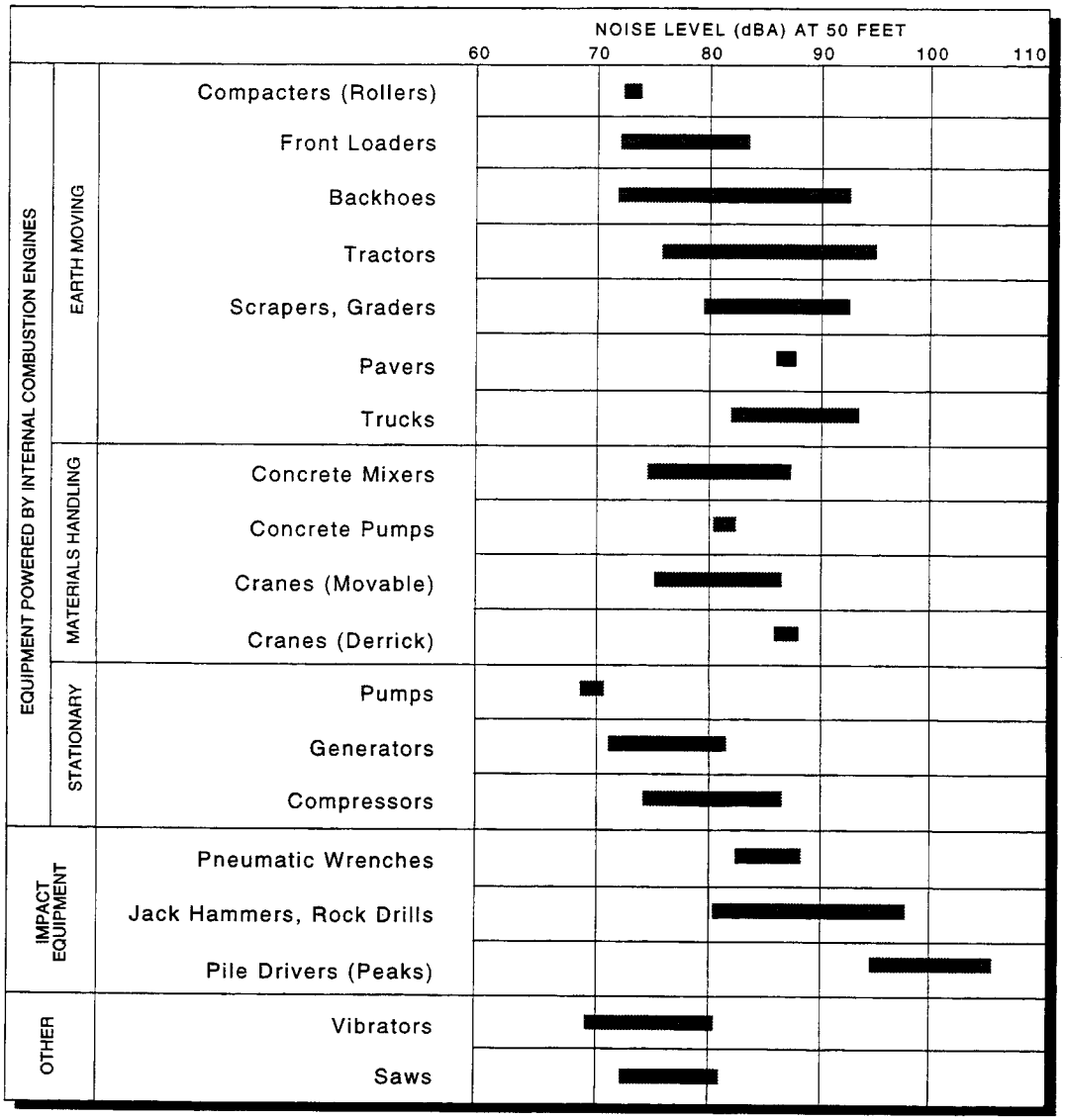
The proposed Specific Plan would result in the generation of both construction-related noise during the development stages and operational noise associated with increased on-site activity and increased vehicle trips. The potential noise impacts associated with the proposed Specific Plan are discussed below.

a. Construction Noise Impacts

Development of the proposed Specific Plan would occur on a tract-by-tract basis over a 25 year period. Construction activities would primarily include grading of the ground surface, and the building of proposed uses. These activities typically involve the temporary use of heavy equipment, such as tractors, loaders, concrete mixers, and cranes. Trucks would be used to deliver equipment and building materials, and to haul away waste materials. Smaller equipment, such as jack hammers, pneumatic tools, saws, and hammers, would also be used throughout the site during construction stages. This equipment would generate both steady state and episodic noise that would be heard both on and off the Newhall Ranch Specific Plan site.

The U.S. Environmental Protection Agency (U.S. EPA) has compiled data regarding the noise generating characteristics of specific types of construction equipment. This data is presented in **Figure 4.9-4, Noise Levels of Typical Construction Equipment**. As shown, noise levels generated by heavy equipment can range from approximately 68 dB(A) to noise levels in excess of 100 dB(A) when measured at 50 feet. However, these noise levels would diminish rapidly with distance from the construction-site at a rate of approximately six dB(A) per doubling of distance. For example, a noise level of 68 dB(A) measured at 50 feet from the noise source to the receptor would reduce to 62 dB(A) at 100 feet from the source to the receptor, and further reduce by another six dB(A) to 56 dB(A) at 200 feet from the source to the receptor.

Noise levels generated during the construction stages would primarily affect the occupants of on-site uses constructed in the earlier development stages. The off-site residential uses that would be most sensitive to construction noise are located along the northern border of the Newhall Ranch Specific Plan site in the southern portion of Val Verde. Any locations within these areas which would have an uninterrupted line of sight to the construction noise sources could be exposed to temporary noise levels which exceed the County's Noise Ordinance standards for construction equipment noise levels identified in **Table 4.9-3**. Because the construction activities could cause the Noise Ordinance standards to be exceeded for an extended period of time at existing off-site and future on-site residential uses, construction noise impacts are considered potentially significant without mitigation. In order to reduce



SOURCE: US EPA, 1971.

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FIGURE 4.9-4

NOISE LEVELS OF TYPICAL CONSTRUCTION EQUIPMENT

the potential impacts associated with construction activities, the County Department of Public Works, Construction Division typically limits construction activities to between the hours of 6:30 A.M. and 8:00 P.M. daily and prohibits work on Sundays and legal holidays. The County Department of Health Services has the authority to further restrict construction activities to between the hours of 7:00 A.M. and 7:00 P.M. and any time on Sundays or legal holidays if such noise would create a noise disturbance across a residential or commercial real-property line.[13] These controls are considered capable of reducing construction noise to less than significant levels.

b. Operational Noise Impacts

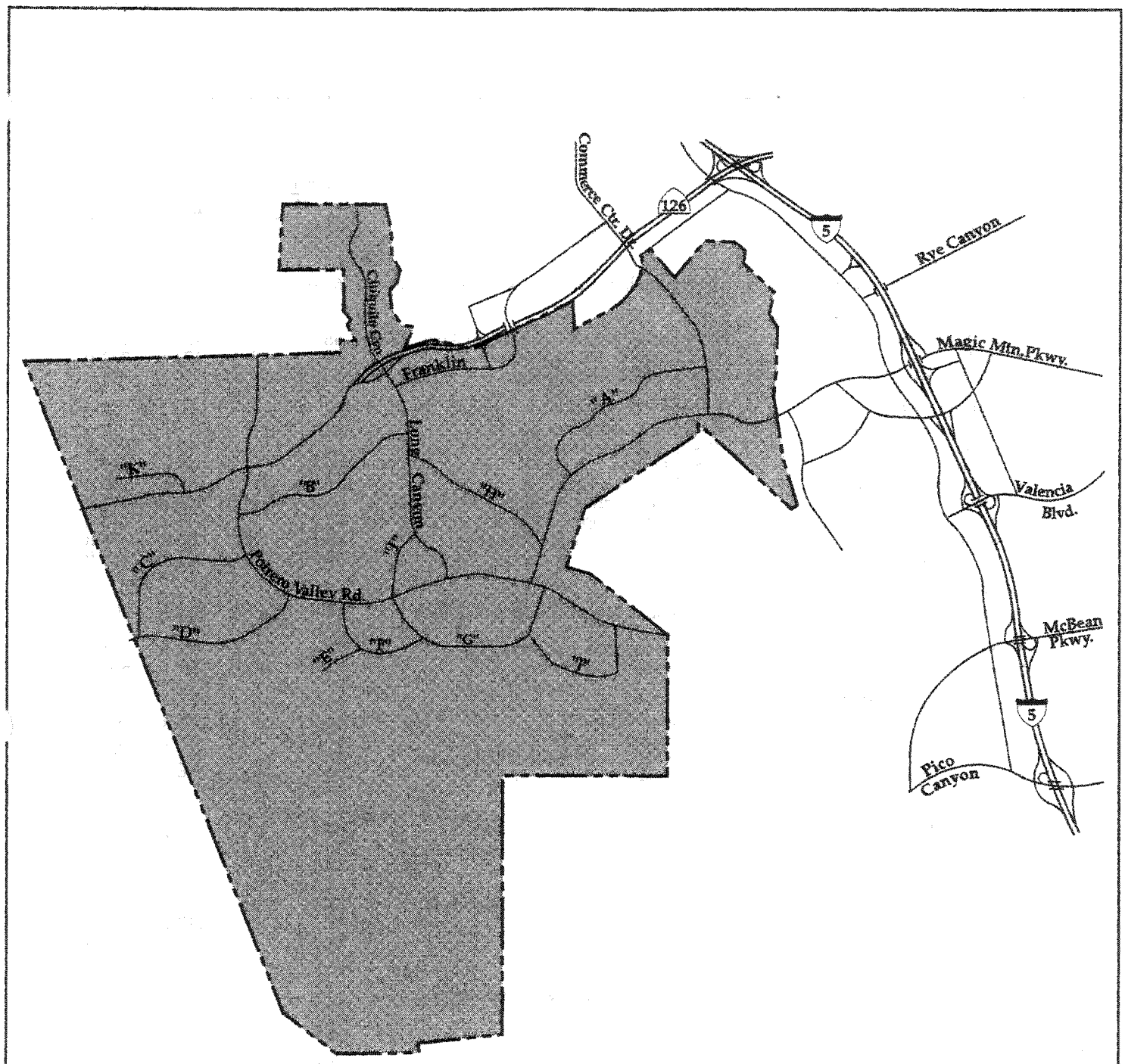
Noise impacts would also result from on-going activities as a result of Specific Plan buildout. These impacts would result from vehicular traffic generated by the Specific Plan, as well as the human activity on the Newhall Ranch Specific Plan site itself. Each of these potential noise impacts are discussed separately below.

(1) Roadway Noise

(a) On-Site Roadway Noise

As stated in **Section 4.8, Traffic/Access** of this EIR, the proposed Specific Plan is projected to generate approximately 387,000 average daily trips when completed and fully operational. Approximately 201,240 (52 percent) of these trips would remain internal to the Newhall Ranch Specific Plan site. The future on-site roadways are illustrated in **Figure 4.9-5, Future On-Site Roadways,** and their noise levels assuming no noise attenuation, are identified in **Table 4.9-6, Predicted Future On-Site Roadway Noise Levels.**

13 County of Los Angeles Ordinance No. 11743, §12.08.440. Noise disturbance is not defined in the noise ordinance. The County Health Officer has the authority to define and determine the extent of a noise disturbance on a case-by-case basis.



NORTH NOT TO SCALE

SOURCE: IMPACT SCIENCES, INC., 1995

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FIGURE 4.9-5
FUTURE ON-SITE ROADWAYS

Table 4.9-6
Predicted Future On-Site Roadway Noise Levels

ROADWAY[2] • Segment	Primary Land Uses	Distance from Center of Roadway CNEL at 75 Feet	CNEL Contour[1] 70	65	60
CHIQUITO CANYON ROAD					
• north of State Route 126	Residential, Business Park & Mixed Use	66.6	-	96 ft	206 ft
COMMERCE CENTER DRIVE					
• south of Henry Mayo	Residential, Mixed Use & Open Area	68.6	-	131 ft	282 ft
• north of "A" Street	Residential & Mixed Use	70.4	80 ft	173 ft	372 ft
• north of Magic Mountain Pkwy	Residential & Commercial	70.1	76 ft	163 ft	352 ft
POTRERO VALLEY ROAD					
• north of State Route 126	Residential & Open Area	58.5	-	-	-
• south of State Route 126	Residential, Commercial & Open Area	66.8	-	98 ft	212 ft
• south of "B" Street	Open Area	66.0	-	87 ft	188 ft
• south of "C" Street	Residential & Open Area	66.0	-	87 ft	188 ft
• east of "D" Street	Residential, School & Open Area	67.1	-	103 ft	223 ft
• east of "F" Street	Residential & Open Area	67.7	-	113 ft	244 ft
• east of "G" Street	Lake, Open Area & Residential	65.6	-	82 ft	176 ft
• east of Long Canyon	Residential	68.2	-	123 ft	265 ft
STATE ROUTE 126					
• east of Chiquito Canyon	Residential, Mixed Use, Business Park, School	75.0	162 ft	350 ft	754 ft
• west of Chiquito Canyon Road	Residential, School & Mixed Use	73.4	126 ft	270 ft	583 ft
• west of Potrero Valley Road	Residential & Commercial	72.5	110 ft	237 ft	510 ft
MAGIC MOUNTAIN PARKWAY					
• north of Potrero Valley Road	Residential	66.2	-	90 ft	194 ft
• north of "H" Street	Residential & Commercial	67.1	-	103 ft	223 ft
• east of "A" Street	Residential, Commercial & Open Area	67.6	-	111 ft	239 ft
• east of Commerce Center Drive	Residential & Commercial	70.7	83 ft	179 ft	387 ft
VALENCIA BOULEVARD					
• east of Magic Mountain Pkwy	Residential	67.4	-	108 ft	234 ft
LONG CANYON ROAD					
• south of State Route 126	Mixed Use	68.6	-	131 ft	282 ft
• south of Franklin	Mixed Use, Residential & Open Area	68.8	-	134 ft	288 ft
• south of "B" Street	Residential & Open Area	67.7	-	113 ft	244 ft
• south of "H" Street	Residential	66.4	-	93 ft	200 ft
• south of "I" Street	Lake & Residential	65.1	-	76 ft	164 ft
FRANKLIN	Mixed Use, Residential, Commercial &				
• east of Long Canyon Road	School	67.6	-	111 ft	239 ft
• east of State Route 126 Ramps	Commercial & Residential	63.2	-	-	122 ft
"A" STREET	Residential, Commercial & School	62.0	-	-	102 ft
"B" STREET					
• east of Potrero Valley Road	Open Area	49.5	-	-	-
• west of Long Canyon Road	Residential	58.0	-	-	-
"C" STREET	Residential	56.5	-	-	-
"D" STREET	Residential & Park	58	-	-	-
"E" STREET	Residential & Visitor	60.3	-	-	78 ft
"F" STREET					
• south of Potrero Valley Road	Residential	59.5	-	-	-
• west of "G" Street	Residential	55.5	-	-	-

Table 4.9-6 (Continued)
Predicted Future On-Site Roadway Noise Levels

ROADWAY • Segment	Primary Land Uses	Distance from Center of Roadway CNEL at 75 Feet	CNEL Contour[1] 70	65	60
"G" STREET					
• south of Potrero Valley Road	Residential & Park	57.3	-	-	-
• east of "F" Street	Residential & School	58.5	-	-	-
• south of Magic Mountain Parkway	Residential & Open Area	59.5	-	-	-
"H" STREET					
• east of Long Canyon Road	Residential, Open Area & School	58.5	-	-	-
• west of Magic Mountain Pkwy	Residential & Open Area	59.5	-	-	-
"I" STREET	Residential, Lake & School	63.9	-	-	137 ft
"J" STREET	Residential & School	54.3	-	-	-
"K" STREET	Residential	59.0	-	-	-

Source: Impact Sciences, Inc. Calculations are provided in Table N-3 in Appendix 4.9. Predicted noise levels assume no attenuation by barriers. When present, intervening walls, terrain, or structures can reduce these noise levels by 5 to 10 dB(A) CNEL.
[1]*"-" = CNEL noise contour is located within the roadway lanes or within 75 feet of the roadway centerline.*
[2]*Reference Figure 4.9-5 for roadway locations.*

Based on the information in **Table 4.9-6**, noise levels on the Newhall Ranch Specific Plan site along these roadways would range from 49.5 dB(A) CNEL along "B" Street to 75.0 dB(A) CNEL along SR-126 when measured at 75 feet from the roadway centerline. Sensitive uses, such as residential land uses and schools, are proposed along most of the on-site roadways. If individual units or classrooms are planned close enough to the roadways, they could, in the absence of mitigation, be exposed to noise levels in excess of the Land Use Compatibility Guidelines shown in **Figure 4.9-2,** which would be a significant impact. **Figure 4.9-6, Potentially Impacted On-Site Locations** shows the roadway segments and the sides of the roadways where sensitive uses are planned which have the potential to be exposed to significant noise levels. However, the specific locations of individual residential units and classrooms have not yet been determined for any of the on-site areas at the Specific Plan level, and would be determined when individual tract maps are prepared. Actual set-backs and other noise attenuating features are not known at this time and, therefore, it is not possible to determine which, if any, uses would actually be significantly affected. The noise levels in **Table 4.9-6** assume no attenuation by either natural or man-made barriers (as illustrated in **Figure 4.9-1**) and, as such, represent maximum, worst-case, noise levels. If the affected uses would be located far enough from the roadways so that noise levels would not exceed the County's noise standards for those uses (e.g., single family structures

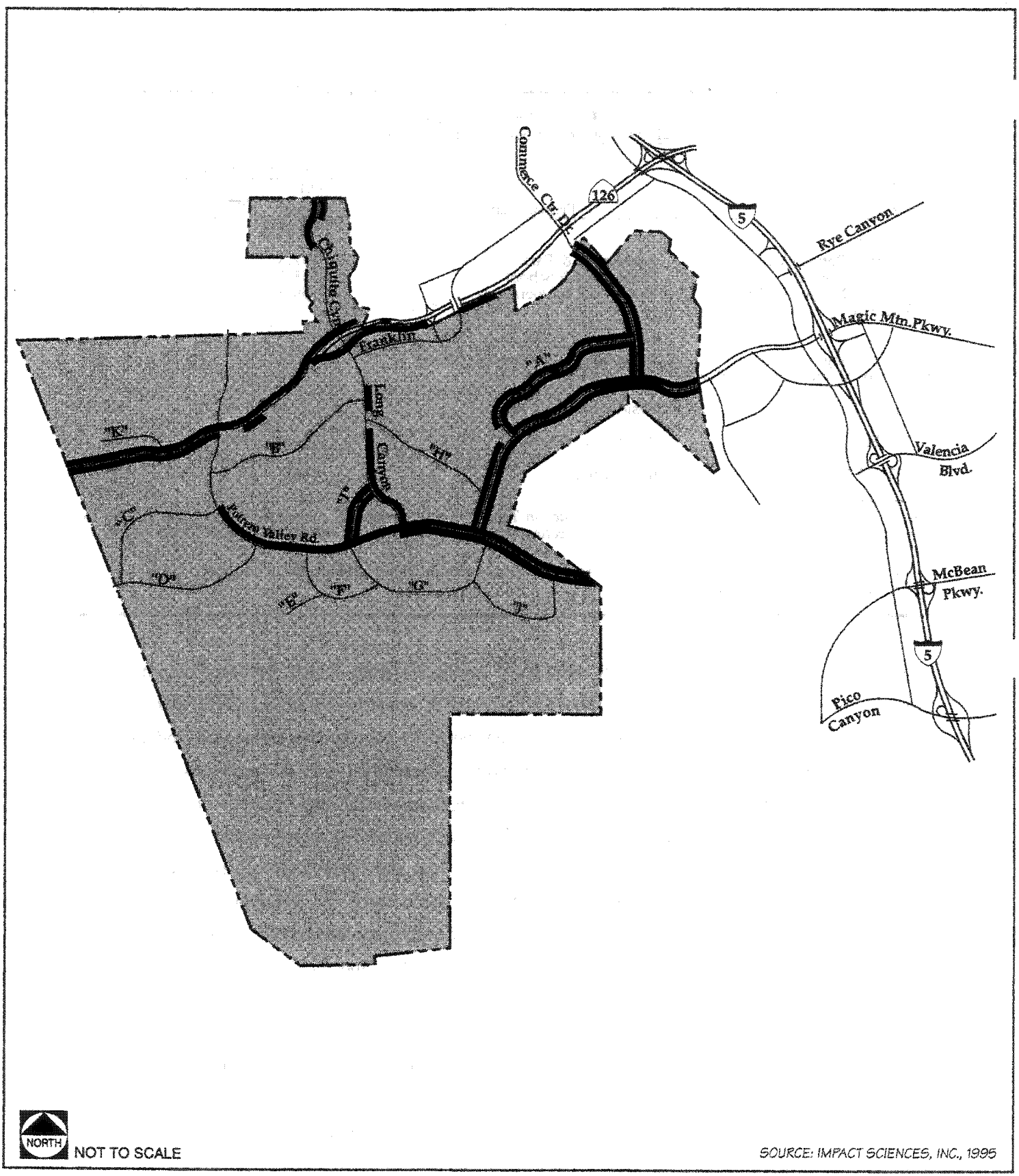

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FIGURE 4.9-6
POTENTIALLY IMPACTED ON–SITE LOCATIONS

are located farther from the roadway centerline than the 60 dB(A) CNEL contour distances identified in **Table 4.9-6**), or if typical attenuation measures, such as walls, berms, double-glazing on windows, building orientation, etc., are incorporated into the tract map designs to reduce the exterior and interior noise levels to the recommended standards, impacts would not be significant.

The Commercial, Business Park, and Open Area uses proposed along the surrounding roadways would not be exposed to noise levels that exceed the Land Use Compatibility Guidelines for these uses identified in **Figure 4.9-2** and no special noise reduction measures would be required.

(b) Off-Site Roadway Noise

The Newhall Ranch Specific Plan's impacts on off-site noise levels are assessed using a methodology similar to that used in the Traffic/Access section (Section 4.8), in which the analysis is based on the difference between the traffic volumes projected for the long-range buildout of the Santa Clarita Valley area without and with the proposed Specific Plan. The noise levels that would be generated by these traffic volumes adjacent to noise sensitive land uses are identified in **Table 4.9-7, Predicted Future Off-Site Roadway Noise Levels at Noise Sensitive Locations** for the current County Master Plan of Highways and the Alternative Highway Plan being considered by the County and City of Santa Clarita.

As shown in **Table 4.9-7**, the noise level increases created by the Specific Plan would be less than 1.0 dB(A) CNEL at all but one location (Travel Village RV Park). Increases less than 3.0 dB(A) CNEL would not exceed the off-site mobile source thresholds of significance for this analysis and would hardly be perceptible to the human ear. Therefore, no significant noise impacts would occur at the noise sensitive locations in the City of Santa Clarita or in the County of Ventura.

Development of the Specific Plan would result in noise level increases up to 3.8 dB(A) CNEL at the Travel Village RV Park under the current County Master Plan of Highways and 3.6 dB(A) CNEL at this location under the Alternative Highway Plan. The increase in noise levels at the Travel Village RV Park would exceed the off-site mobile source thresholds of significance previously identified. Without the Specific Plan, future noise levels at the Travel Village RV Park would be in the "conditionally acceptable" noise compatibility classification. With the Specific Plan, the noise levels at the RV Park would then be in the "normally unacceptable" noise compatibility classification. Furthermore, the noise increase attributable to the Specific Plan would cause a change in land use compatibility noise classification and be more than 3.0 dB(A) under both the current Master Plan of Highways scenario and the Alternative Highway Plan scenario. Therefore, this increase in noise at this location would exceed the identified thresholds and would be considered significant.

Table 4.9-7
Predicted Future Off-Site Roadway Noise Levels at Noise Sensitive Locations

ROADWAY • Segment	Existing and Planned Noise Sensitive Land Use	Valley Buildout CNEL	With Specific Plan CNEL	Increase in CNEL	Significant Impact
CURRENT MASTER PLAN OF HIGHWAYS					
MCBEAN PARKWAY					
• east of Interstate 5	Cal Arts College	63.8	63.9	0.1	No
• east of Tournament Road	Single Family Residential	64.3	64.3	0.0	No
	Church of Latter Day Saints	64.8	64.7	-0.1	No
• south of Valencia Boulevard	Single Family Residential	65.5	65.7	0.2	No
	Multi-Family Residential	65.4	65.5	0.1	No
	Henry Mayo Newhall Hospital	59.4	59.6	0.2	No
• north of Newhall Ranch Road	Single Family Residential	62.6	62.6	0.0	No
STATE ROUTE 126					
• west of Commerce Center Drive	Travel Village	69.3	73.1	3.8	Yes
• west of Potrero Valley Road	Ventura County	69.1	70.0	0.9	No
VALENCIA BOULEVARD					
• east of Rockwell Canyon Road	Single Family Residential	61.3	61.5	0.2	No
	Multi Family Residential	63.5	63.7	0.2	No
• east of McBean	Valencia Library	69.5	69.8	0.3	No
NEWHALL RANCH ROAD					
• east of McBean	Planned Single Family Residential	86.3	86.5	0.2	No
MAGIC MOUNTAIN PARKWAY					
• east of I-5	Planned Multi-Family Residential	76.0	76.3	0.3	No
ORCHARD VILLAGE					
• south of McBean	Single Family Residential	69.5	69.5	0.0	No
	Pinecrest School	67.7	67.7	0.0	No
• south of Wiley	Single Family Residential	66.5	66.6	0.1	No
LYONS					
• east of Wiley	Single Family Residential	64.7	65.0	0.3	No
	Elementary School	62.2	62.5	0.3	No
• east of Orchard Village	Our Lady...Church/School	71.6	71.8	0.2	No
SAN FERNANDO					
• south of Placerita	Mixed Residential	73.0	73.1	0.1	No
ROCKWELL CANYON					
• north of McBean	Single-Family Residential	63.9	64.5	0.6	No
WILEY CANYON					
• north of Lyons	Single-Family Residential	68.6	69.0	0.4	No
	Day Care Facility	73.2	73.6	0.4	No
• east of Tournament	Planned Single Family Residential	72.3	72.7	0.4	No
	Single Family Residential	67.7	68.1	0.4	No
ALTERNATIVE HIGHWAY PLAN					
MCBEAN PARKWAY					
• east of Interstate 5	Cal Arts College	63.7	63.8	0.1	No
• east of Tournament Road	Single Family Residential	64.6	64.6	0.0	No
	Church of Latter Day Saints	65.0	65.0	0.0	No
• south of Valencia Boulevard	Single Family Residential	66.1	66.3	0.2	No
	Multi-Family Residential	66.0	66.1	0.1	No
	Henry Mayo Newhall Hospital	60.0	60.2	0.2	No
• north of Newhall Ranch Road	Single Family Residential	62.7	62.6	-0.1	No
STATE ROUTE 126					
• west of Commerce Center Drive	Travel Village	69.4	73.0	3.6	Yes
• west of Potrero Valley Road	Ventura County	69.1	70.0	0.9	No

Table 4.9-7 (Continued)
Predicted Future Off-Site Roadway Noise Levels at Noise Sensitive Locations

ROADWAY • Segment	Existing Noise Sensitive Land Use	Valley Buildout CNEL	With Specific Plan CNEL	Increase in CNEL	Significant Impact
VALENCIA BOULEVARD					
• east of Rockwell Canyon Road	Single Family Residential	63.5	63.7	0.2	No
	Multi Family Residential	65.7	65.9	0.2	No
• east of McBean	Valencia Library	70.7	70.9	0.2	No
NEWHALL RANCH ROAD					
• east of McBean	Planned Single Family Residential	76.2	76.3	0.1	No
MAGIC MOUNTAIN PARKWAY					
• east of I-5	Planned Multi-Family Residential	75.9	76.4	0.5	No
ORCHARD VILLAGE					
• south of McBean	Single Family Residential	69.6	70.1	0.5	No
	Pinecrest School	67.8	68.4	0.6	No
• south of Wiley	Single Family Residential	67.9	67.9	0.0	No
LYONS					
• east of Wiley	Single Family Residential	65.1	65.4	0.3	No
	Elementary School	62.7	62.9	0.2	No
• east of Orchard Village	Our Lady...Church/School	71.9	72.1	0.2	No
SAN FERNANDO					
south of Placerita	Mixed Residential	72.7	72.7	0.0	No
ROCKWELL CANYON					
• north of McBean	Single Family Residential	63.9	64.3	0.4	No
WILEY CANYON					
• north of Lyons	Single Family Residential	68.8	69.3	0.5	No
	Day Care Facility	73.4	73.8	0.4	No
• east of Tournament	Planned Single Family Residential	72.4	72.9	0.5	No
	Single Family Residential	67.8	68.3	0.5	No

Source: Impact Sciences, Inc. Calculations are provided in Tables N-4, N-5, N-6, and N-7 in Appendix 4.9.

At some locations along the roadway segments examined, vacant land is found which is planned for noise sensitive uses. A review of the City of Santa Clarita General Plan and the County's Santa Clarita Valley Area Plan indicates that residential uses are planned for these areas. As shown in **Table 4.9-7**, the increases in noise levels at all areas other than Travel Village (including these currently undeveloped areas) would not exceed 1.0 dB(A) with the addition of Specific Plan traffic to Valley buildout traffic volumes. Increases less than 3.0 dB(A) CNEL would not exceed the off-site mobile source thresholds of significance for this analysis and would hardly be perceptible to the human ear. Therefore, the change in noise levels at these areas would not be considered significant. In addition, it is assumed that these areas would be subject to individual acoustical analyses prepared as part of the development review process to ensure that future noise levels do not exceed adopted standards.

(2) Point Source Noise Impacts

(a) Residential Uses

1. On-Site

Future residents of the Newhall Ranch Specific Plan site would generate and be the recipients of point source noise that would include people talking, doors slamming, lawn care equipment operation, stereos, domestic animals, etc. Noise levels generated by these sources would typically not exceed County guidelines for residential land uses nor the standards previously identified. Therefore, these noise impacts are typically not considered significant. These noise levels also contribute to the ambient noise levels which are experienced in all residential areas. Suburban residential areas typically have ambient noise environments of between 52 to 61 dB(A) L_{eq}, which are composites of all noise levels: traffic and other noise sources.

The Mixed-Uses proposed for the northeastern area of the site could also be exposed to noise levels generated by activities at the Magic Mountain Theme Park. These activities include equipment operation, sound systems, people screaming, etc. These noise levels were presented earlier in **Table 4.9-5**. Based on these noise levels, residential units developed within these Mixed-Use areas could, depending on their location and whether or not they have direct lines of sight to the equipment at the Magic Mountain Theme Park, potentially be exposed to noise levels that would exceed the County Noise Ordinance standards for residential uses presented in **Table 4.9-2**. This would be a significant impact. While other residential uses located in the Mixed-Use areas without direct lines of sight to the park would not be exposed to noise levels above the Noise Ordinance standards, some of these residents could be sensitive to the noise generated at the park, and consider it an annoyance.

2. Off-Site

Existing residential areas in Val Verde and San Martinez Grande that are located in close proximity to a proposed Low Medium Residential development area on the Newhall Ranch Specific Plan site could also experience a change in their ambient noise environment as a result of the proposed Specific Plan. Noise monitoring conducted by Impact Sciences, Inc. on June 23, 1995 identified daytime noise levels of 48 dB(A) L_{eq} just north of the Specific Plan property line near Chiquito Canyon Road in Val Verde, 41.0 dB(A) L_{eq} in a residential area in eastern Val Verde, and 44.0 dB(A) L_{eq} at the Specific Plan property line along San Martinez Grande. For comparison purposes, Impact Sciences, Inc. monitored evening and

daytime noise levels in two suburban developments.[14] Evening noise levels at these locations ranged from a low of 37.3 dB(A) L_{eq} to a high of 42.4 dB(A) L_{eq}. Daytime noise levels ranged from 37.0 dB(A) L_{eq} to 56.0 dB(A) L_{eq}. These levels are similar to those noise levels experienced in Val Verde and San Martinez Grande.

Existing residential uses located near Chiquito Canyon Road and the northern boundary of the Newhall Ranch Specific Plan site would experience an increase in their existing noise environment. These increases would consist of intermittent noise associated with human activity, such as people talking, doors slamming, lawn care equipment operation, stereos, domestic animals, etc. Given the range of noise levels monitored in similar settings, such as those discussed above, and given the fact that the proposed residential uses would generate similar types and magnitudes of noise as are presently generated in the adjacent communities in Val Verde and San Martinez Grande, only negligible noise increases would be expected to occur (if any) in these off-site locations. Consequently, no significant off-site noise impacts would occur at these locations.

(b) Commercial and Recreational Uses

Future residents with direct lines-of-sight to the proposed Commercial and/or recreational areas would detect noise associated with human activity, such as people talking, car doors slamming, auto alarms, tires squealing, etc. These noise levels could be considered an annoyance if they occur at odd hours (i.e., between 10:00 P.M. and 7:00 A.M.); however, they are not expected to exceed the County Noise Ordinance standards identified in **Table 4.9-2** or be considered significant at locations on or off of the Newhall Ranch Specific Plan site.

Noise would also be generated by medium and heavy trucks making deliveries to the Commercial uses on the site. In addition, noise would be generated through the use of parking lot vacuums and other facility-cleaning activities. These activities can occur during the late night or early morning hours when parking lots are empty. As a result, they are activities which could be heard by local residents during nighttime hours and could be considered an annoyance, or even a significant impact if they exceed the County Noise Ordinance standards identified in **Table 4.9-2** and are not mitigated. However, §12.08.460 of the County Noise Ordinance prohibits the loading, unloading, opening, closing, or other handling of boxes, crates, containers, building materials, garbage cans or similar objects between the hours of 10:00 P.M. and 6:00 A.M. in such a manner as to cause a noise disturbance; thereby reducing potential impacts to less than significant levels.

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14 Monitoring locations in Westlake Village, CA. Readings taken June 27, 1995. Weather clear, no wind.

Noise levels generated by operations at the Chiquita Canyon Landfill are very low [50 dB(A) or less] at the landfill property boundary and are hardly perceptible on the Newhall Ranch Specific Plan site. Also, as discussed earlier, future noise levels generated by the expanded landfill are not expected to exceed 39 dB(A) L_{eq} at any residential receptor in the Community of Val Verde.[15] Because the Specific Plan site is located approximately the same or greater distances from the proposed work face, noise levels on the Specific Plan site would be similar or less than the Val Verde noise levels and not cause a significant impact. Most of the noise associated with landfill operations that would affect the Newhall Ranch Specific Plan is generated by truck traffic to and from the landfill and was included in the future noise levels for State Route 126 and Chiquito Canyon Road. As identified in **Tables 4.9-6** and **4.9-7**, these noise levels would not significantly impact the proposed uses.

(3) Operational Noise Impacts Conclusions

Individual residential areas and school sites that are proposed along on-site roadways could be exposed to roadway noise levels that would exceed recommended standards. However, required compliance with County Land Use Compatibility Guidelines for Noise through setbacks and/or construction techniques would reduce the noise at these locations to less than significant levels. Traffic generated by the Specific Plan would cause an increase in off-site noise levels at the Travel Village RV Park which would exceed 3.0 dB(A) CNEL and cause the noise level to exceed 70.0 dB(A) CNEL, which is considered normally unacceptable for sensitive uses, such as transient lodging. Consequently, significant noise impacts would result at this location. On-site activities could, in some cases, cause significant impacts if the noise levels exceed County Noise Ordinance standards for various uses. Residential uses in the northeastern portion of the site could also be exposed to noise levels generated by the Magic Mountain Theme Park, which could exceed the County Noise Ordinance standards for residential uses. Each of these could potentially be a significant noise impact.

7. SPECIFIC PLAN MITIGATION MEASURES

a. Mitigation Measures Already Incorporated Into the Specific Plan

The Newhall Ranch Specific Plan does not incorporate any measures to mitigate noise impacts.

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15 Ogden Environmental and Energy Services Co., Inc., Draft Environmental Impact Report for the Chiquita Canyon Landfill and Resource Recovery Facilities, (Los Angeles, California: County of Los Angeles, May 1995), p. IV.J-10.

b. Mitigation Measures Recommended by the EIR

(1) Construction

4.9-1. All construction activity occurring on the Newhall Ranch Specific Plan site shall adhere to the requirements of the "County of Los Angeles Construction Equipment Noise Standards," County of Los Angeles Ordinance No. 11743, §12.08.440 as identified in **Table 4.9-3**.

4.9-2. Limit all construction activities near occupied residences to between the hours of 6:30 A.M. and 8:00 P.M., and exclude all Sundays and legal holidays pursuant to County Department of Public Works, Construction Division standards.

The following measures are recommended to reduce noise levels associated with grading and construction activities on the Newhall Ranch Specific Plan site to County Noise Ordinance standards:

4.9-3. When construction operations occur adjacent to occupied residential areas, implement appropriate additional noise reduction measures that include changing the location of stationary construction equipment, shutting off idling equipment, notifying adjacent residences in advance of construction work, and installing temporary acoustic barriers around stationary construction noise sources.

4.9-4. Locate construction staging areas on-site to maximize the distance between staging areas and occupied residential areas.

(2) Operation

4.9-5. Where new single family residential buildings are to be constructed within an exterior noise contour of 60 dB(A) CNEL or greater, or where any multi-family buildings are to be constructed within an exterior noise contour of 65 dB(A) CNEL or greater, an acoustic analysis shall be completed prior to approval of building permits. The acoustical analysis shall show that the building is designed so that interior noise levels resulting from outside sources will be no greater than 45 dB(A) CNEL.

4.9-6. For single family residential lots located within the 60 dB(A) CNEL or greater noise contour, an acoustic analysis shall be submitted prior to tentative approval of the subdivision. The acoustic analysis shall show that exterior noise in outdoor living areas (e.g., back yards, patios etc.) will be reduced to 60 dB(A) CNEL or less.

4.9-7. For multi-family residential lots located within the 65 dB(A) CNEL or greater noise contour, an acoustic analysis shall be submitted prior to tentative approval of the subdivision. The acoustic analysis shall show that exterior noise in outdoor living areas (e.g., back yards, patios etc.) will be reduced to 65 dB(A) CNEL or less.

4.9-8. For school sites located within the 70 dB(A) CNEL or greater noise contour, an acoustic analysis shall be submitted prior to tentative approval of the subdivision. The acoustic analysis shall show that noise at exterior play areas will be reduced to 70 dB(A) CNEL or less.

4.9-9. All residential air conditioning equipment installed within the Newhall Ranch Specific Plan site shall adhere to the requirements of the "County of Los Angeles Residential Air Conditioning and Refrigeration Noise Standards," County of Los Angeles Ordinance No. 11743, §12.08.530.

4.9-10. All stationary and point sources of noise occurring on the Newhall Ranch Specific Plan site shall adhere to the requirements of the County of Los Angeles Ordinance No. 11743, §12.08.390 as identified in **Table 4.9-2, County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources.**

4.9-11. Loading, unloading, opening, closing, or other handling of boxes, crates, containers, building materials, garbage cans or similar objects between the hours of 10:00 P.M. and 6:00 A.M. in such a manner as to cause a noise disturbance is prohibited in accordance with the County of Los Angeles Ordinance No. 11743, §12.08.460.

4.9-12. Loading zones and trash receptacles in commercial and Business Park areas shall be located away from adjacent residential areas, or provide attenuation so that noise levels at residential uses do not exceed the standards identified in §12.08.460 of the Ordinance No. 11743.

4.9-13. Where residential lots are located with direct lines of sight to the Magic Mountain Theme Park, an acoustic analysis shall be submitted to show that exterior noise on the residential lots generated by activities at the park do not exceed the standards identified in §12.08.390 of the Ordinance No. 11743 as identified in **Table 4.9-2, County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources.**

4.9-14. After the time that occupancy of uses on the Newhall Ranch Specific Plan site occurs, and when noise levels at the Travel Village RV Park reach 70 dB(A) CNEL at locations where

recreational vehicles are inhabited, the applicant shall construct a noise abatement barrier to reduce noise levels at the RV Park to 70 dB(A) CNEL or less.

4.9-15 Despite the absence of a significant impact, a~~A~~pplicants for all building permits of Residential, Mixed-Use, Commercial, and Business Park land uses (Project) shall pay to the Santa Clara Elementary School District, prior to issuance of building permits, the project's pro rata share of the cost of a sound wall to be located between SR-126 and the Little Red School House. The project's pro rata share shall be determined by multiplying the estimated cost of the sound wall by the ratio of the project's estimated contribution of average daily trips on SR-126 (ADT) at the Little Red School House (numerator) to the total projected cumulative ADT increase at that location (denominator)[16]. The total projected cumulative ADT increase shall be determined by subtracting the existing trips on SR-126[17] from the projected cumulative trips as shown in Table 1 of Topical Response 5 - Traffic Impacts to State and Local Roads in Ventura County after adding the total Newhall Ranch ADT traveling west of the City of Fillmore.

4.9-16 Despite the absence of a significant impact, the applicant for all building permits of Residential, Mixed-Use, Commercial and Business Park land uses (Project) shall participate on a fair-share basis in noise attenuation programs developed and implemented by the City of Moorpark to attenuate vehicular noise on SR-23 just north of Casey Road for the existing single-family homes which front SR-23. The mitigation criteria shall be to reduce noise levels to satisfy State noise compatibility standards. The project's pro rata share shall be determined by multiplying the estimated cost of attenuation by the ratio of the project's estimated contribution of average daily trips on SR-23 (ADT) north of the intersection of SR-23 and Casey Road (numerator) to the total projected cumulative ADT increase at that location (denominator).[18] The total projected cumulative ADT increase shall be determined by subtracting the existing trips on SR-23 north of Casey Road[19] from the projected cumulative trips as shown in **Topical Response 5** - Traffic Impacts to State and Local Roads in Ventura County after adding the total Newhall Ranch ADT traveling south of the City of Fillmore.

4.9-17 Prior to the approval of any subdivision map which permits construction within the Specific Plan area, the applicant for that map shall prepare an acoustical analysis assessing project and cumulative development (including an existing plus project analysis, and an existing plus cumulative development analysis including the project). The acoustical analysis shall be based

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16 Cost of Sound Wall X (Project ADT on SR-126 @ LRSH*/Total Projected Cumulative ADT Increase on SR-126 @ LRSH*) * LRSH = Little Red School House.

17 25,165 ADT using linear extrapolation from Table 1 of Topical Response 5 - Traffic Impacts to State and Local Roads in Ventura County.

18 Cost of mitigation x (Project ADT on SR-23 north of Casey Road/Total Projected cumulative ADT Increase on SR-23 north of Casey Road).

19 ADT using linear extrapolation from Table 1 of **Topical Response 5** - Traffic Impacts to State and Local Roads in Ventura County.

upon State noise land use compatibility criteria and shall be approved by the Los Angeles County Department of Health Services.

In order to mitigate any future impacts resulting from the project's contribution to significant cumulative noise impacts to development in existence as of the adoption of the Newhall Ranch Specific Plan and caused by vehicular traffic on off-site roadways, the applicant for building permits of Residential, Mixed-Use, Commercial, Visitor Serving and Business Park land uses shall, prior to issuance of building permits, pay a fee to Los Angeles County, Ventura County, the City of Fillmore or the City of Santa Clarita. The amount of the fee shall be the project's fair-share under any jurisdiction-wide or Santa Clarita Valley-wide noise programs adopted by any of the above jurisdictions.

8. CUMULATIVE IMPACTS

Cumulative noise impacts would primarily occur as a result of increased traffic on local roadways due to the proposed Specific Plan and other developments in the Santa Clarita Valley as identified in **Section 4.8, Traffic/Access** of this EIR. It is generally agreed upon by the County of Los Angeles and the City of Santa Clarita that the future roadway network identified in the County Master Plan of Highways is unlikely to be implemented. Instead, the two agencies are formulating an alternative plan that will meet the future needs of the area. Although this Alternative Highway Plan has not yet been finalized, the network utilized in this EIR is representative of the efforts being taken to provide a useable future roadway network. Therefore, cumulative noise level impacts have been assessed using a methodology similar to that used in the Traffic/Access section (Section 4.8), in which the cumulative analysis is based on the difference between the traffic volumes projected for the long-range buildout of the Santa Clarita Valley area under the Alternative Highway Plan, without and with the proposed Specific Plan and all other cumulative projects. The noise levels that would be generated by these traffic volumes adjacent to noise sensitive land uses are identified in **Table 4.9-8, Predicted Cumulative Off-Site Roadway Noise Levels at Noise Sensitive Locations**.

As shown in **Table 4.9-8**, the proposed Specific Plan and other cumulative projects would result in noise level increases up to 4.0 dB(A) CNEL at the Travel Village RV Park under the Alternative Highway Plan. The proposed Specific Plan would contribute 3.6 dB(A) of this increase and the other cumulative projects would contribute the remaining 0.4 dB(A). The cumulative noise level increases at all but one location would not exceed 1.0 dB(A) with the addition of cumulative traffic volumes to future traffic volumes at Valley buildout. Increases less than 3.0 dB(A) CNEL would not exceed the off-site mobile source thresholds of significance for this analysis and would hardly be perceptible to the human ear. Therefore, with the exception of Travel Village, no cumulative significant noise impacts would occur at noise sensitive locations which exist off the Newhall Ranch Specific Plan site.

Table 4.9-8
Predicted Cumulative Off-Site Roadway Noise Levels at Noise Sensitive Locations

ROADWAY • Segment	Existing and Planned Noise Sensitive Land Use	Valley Buildout CNEL	Cumul. With Specific Plan CNEL	Increase in CNEL	Significant Cumulative Impact
ALTERNATIVE HIGHWAY PLAN					
MCBEAN PARKWAY					
• east of Interstate 5	Cal Arts College	63.7	64.0	0.3	No
• east of Tournament Road	Single Family Residential	64.6	64.9	0.3	No
	Church of Latter Day Saints	65.0	65.4	0.4	No
• south of Valencia Boulevard	Single Family Residential	66.1	66.4	0.3	No
	Multi-Family Residential	66.0	66.2	0.2	No
	Henry Mayo Newhall Hospital	60.0	60.3	0.3	No
• north of Newhall Ranch Road	Single Family Residential	62.7	62.7	0.0	No
STATE ROUTE 126					
• west of Commerce Center Drive	Travel Village	69.4	73.4	4.0	Yes
• west of Potrero Valley Road	Ventura County	69.1	70.0	0.9	No
VALENCIA BOULEVARD					
• east of Rockwell Canyon Road	Single Family Residential	63.5	63.7	0.2	No
	Multi Family Residential	65.7	66.0	0.3	No
• east of McBean	Valencia Library	70.7	71.0	0.3	No
NEWHALL RANCH ROAD					
• east of McBean	Planned Single Family Residential	76.2	76.5	0.3	No
MAGIC MOUNTAIN PARKWAY					
• east of I-5	Planned Multi-Family Residential	75.9	76.6	0.7	No
ORCHARD VILLAGE					
• south of McBean	Single Family Residential	69.6	70.3	0.7	No
	Pinecrest School	67.8	68.5	0.7	No
• south of Wiley	Single Family Residential	67.9	68.0	0.1	No
LYONS					
• east of Wiley	Single Family Residential	65.1	65.4	0.3	No
	Elementary School	62.7	63.0	0.3	No
• east of Orchard Village	Our Lady...Church/School	71.9	72.3	0.4	No
SAN FERNANDO					
• south of Placerita	Mixed Residential	72.7	72.8	0.1	No
ROCKWELL CANYON					
• north of McBean	Single-Family Residential	63.9	64.4	0.5	No
WILEY CANYON					
• north of Lyons	Single-Family Residential	68.8	69.5	0.7	No
	Day Care Facility	73.4	74.1	0.7	No
• east of Tournament	Planned Single Family Residential	72.4	73.2	0.8	No
	Single Family Residential	67.8	68.6	0.8	No

Source: Impact Sciences, Inc. Calculations are provided in Tables N-7 and N-8 in Appendix 4.9.

The increase in noise levels at the Travel Village RV Park would, however, exceed the off-site mobile source thresholds of significance previously identified. Without the proposed Specific Plan and other cumulative projects, future noise levels at the Travel Village RV Park would be in the "conditionally acceptable" noise compatibility classification. With the proposed Specific Plan and cumulative development, the RV Park would then be in the "normally unacceptable" noise compatibility classification. Furthermore, the noise increase attributable to the proposed Specific Plan and other cumulative projects would be more than 3.0 dB(A) which would exceed the identified threshold and be considered cumulatively significant. However, construction of a noise abatement barrier at this location, as identified in Mitigation Measure 4.9-14, would reduce this cumulative impact to a less than significant level.

9. CUMULATIVE MITIGATION MEASURES

No additional mitigation measures are recommended or required.

10. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Specific Plan Impacts

No unavoidable on-site or off-site significant noise impacts would result from the Specific Plan with the implementation of the recommended mitigation measures.

b. Cumulative Impacts

Construction of a noise abatement barrier to reduce noise levels at the Travel Village RV Park to 70 dB(A) CNEL or less would mitigate the significant cumulative noise level increase at this location. With its implementation, no unavoidable significant noise impacts would result from cumulative development.

4.10 AIR QUALITY

1. SUMMARY

Implementation of the proposed Newhall Ranch Specific Plan would generate both construction-related and operation-related air pollutant emissions. The following summarizes the conclusions presented in this EIR section regarding these pollutants:

Construction-related emissions would be generated by on-site stationary sources, heavy-duty construction vehicles, construction worker vehicles, and energy use. During the construction stages, emissions of carbon monoxide (CO), volatile organic compounds (VOC), oxides of nitrogen (NO_x) and particulate matter - 10 micron (PM_{10}) would exceed thresholds of significance recommended by the South Coast Air Quality Management District (SCAQMD). Operational emissions generated by the Newhall Ranch Specific Plan would exceed SCAQMD thresholds of significance for CO, VOC, NO_x, oxides of sulfur (SO_x), and PM_{10}.

Measures are recommended that would reduce construction-related and operational-related emissions. However, no feasible mitigation exists which would reduce these emissions to below the SCAQMD's recommended thresholds of significance. Therefore, the proposed Specific Plan's construction-related and operation-related emissions would be considered unavoidably significant.

However, once fully developed and occupied, the proposed Village concept and mixed-use nature of the Specific Plan would reduce the need for, or distance of, some automobile trips, thereby reducing automotive emissions. In addition, population growth attributed to the Specific Plan is within growth forecasts contained in the Growth Management Chapter of the Regional Comprehensive Plan and Guide (RCPG), which forms the basis for the land use and transportation control portions of the Air Quality Management Plan (AQMP). The Specific Plan would, consequently, be consistent with the AQMP, indicating that the Specific Plan should not jeopardize attainment of State and Federal ambient air quality standards.

The SCAQMD's approach towards assessing cumulative impacts is based on the fact that the AQMP forecasts attainment of ambient air quality standards inclusive of growth in population, employment, and vehicle miles traveled. Projects found to be consistent with the growth assumptions upon which the AQMP forecasts are based are deemed to be consistent with the AQMP and would not impede attainment of the ambient air quality standards. The rate of growth in vehicle miles traveled (VMT) associated with the proposed residential and supporting uses (i.e., parks, schools, and golf course)

would occur at a lower rate than the rate of growth associated with the expected on-site population. This is consistent with the AQMP performance standard. Therefore, the proposed residential uses and supporting uses would not cause a significant cumulative impact. The Specific Plan would also exceed the SCAQMD's performance standard for annual emissions reductions of one percent and would not be considered cumulatively significant in this context. However, the rate of growth of VMT generated by the proposed on-site employment centers (i.e., Commercial, Business Park, commercial office, and WRP uses) would exceed the rate of growth in jobs provided by the uses and would, therefore, cause a significant cumulative air quality impact. Because the Newhall Ranch Specific Plan is not a transportation project, it is not compared to the AQMP performance standard of 1.5 persons per vehicle average vehicle occupancy for transportation projects.

2. INTRODUCTION TO AIR QUALITY

The southern California area has been divided into a number of geographical air basins. The Newhall Ranch Specific Plan site is located within the South Coast Air Basin (herein referred to as the Basin), which includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. This area consistently generates the highest levels of smog in the United States and, therefore, is considered to have the worst air quality. The factors that influence this determination are discussed below.

a. Smog and its Causes

Smog is a general term based on the words smoke and fog that is used to describe dense, visible air pollution. Although some air pollutants are colorless, smog is commonly used to describe the general concentrations of pollutants in the air. Smog is formed when combustion emissions and gaseous emissions, such as VOC, NO_x, and SO_x, undergo photochemical reactions in sunlight to form ozone (O_3). Ozone is a gas that, in the upper atmosphere, helps to shield the Earth from harmful radiation. However, in the lower atmosphere where people live, ozone poses health risks and damages crops, rubber, and other materials. Particulates, such as soil and dust materials, and vehicle exhaust particulates often mix with ozone, CO, and other compounds and create a brownish, haze in the air. "Smog episode" warnings occur when an occurrence of high concentrations of ozone is predicted that could endanger or cause harm to the public.

The topography and climate of the Basin combine to make it an area of high smog potential. During the summer months, a warm air mass frequently descends over the lower, cool, moist marine air layer. The warm upper layer forms a cap over the marine layer and inhibits the air pollutants generated near the ground from dispersing upward. Light summer winds and the surrounding mountains further limit

the horizontal disbursement of the pollutants. Concentrating volumes of pollutants in this manner allows the summer sunlight to generate high levels of smog. In the winter, cool ground temperatures and very light winds cause extremely low inversions and air stagnation which traps CO and NO_x during the late night and early morning hours. On days when no inversions occur, or when winds average 25 miles per hour or more, there will be no important smog effects in summer or winter. A detailed discussion of the Basin's regional climate and its effect on air quality is provided in **Appendix 4.10** of this EIR. A summary of local climatic conditions are provided later in this Air Quality section of the EIR.

The air pollutants within the Basin are primarily generated by two categories of sources: these are stationary and mobile sources. Stationary sources are known as "point sources" which have one or more emission sources at a single facility, or "area sources" which are widely distributed and produce many small emissions. Point sources are usually associated with manufacturing and industrial uses and include sources, such as refinery boilers or combustion equipment, that produce electricity or process heat. Examples of area sources include residential water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products, such as barbecue lighter fluid or hair spray. "Mobile sources" refer to operational and evaporative emissions from motor vehicles. They account for over 95 percent of the CO emissions, approximately two-thirds of the SO_x emissions, three-quarters of the NO_x emissions, and one-half of the VOC found within the Basin.[1]

b. Regulatory Agencies and Responsibilities

Air quality within the Basin is addressed through the efforts of various Federal, State, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies primarily responsible for improving the air quality within the Basin are discussed below along with their individual responsibilities.

(1) U. S. Environmental Protection Agency

The U. S. Environmental Protection Agency (U.S. EPA) is responsible for enforcing the 1990 amendments to the Federal Clean Air Act (CAA) and the national ambient air quality standards (Federal standards) that it establishes. These standards identify levels of air quality for six "criteria" pollutants which are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare. The six criteria

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1 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 3-5.

pollutants include ozone, CO, nitrogen dioxide (NO_2 - a form of NO_x), sulfur dioxide (SO_2 - a form of SO_x), PM_{10}, and lead. The U.S. EPA also has regulatory and enforcement jurisdiction over emission sources beyond State waters (outer continental shelf), and those that are under the exclusive authority of the Federal government, such as aircraft, locomotives, and interstate trucking.

In response to its enforcement responsibilities, the U.S. EPA requires each state to prepare and submit a State Implementation Plan (SIP) that describes how the state will achieve the Federal standards by specified dates, depending on the severity of the air quality within the state or air basin. The South Coast Air Basin is classified by the U.S. EPA as an extreme nonattainment area for ozone -- the only area in the nation to be classified as such -- a serious nonattainment area for CO, and a nonattainment area for NO_x and PM_{10}. Under the compliance timetables which pertain to ozone, the Basin must achieve attainment status for ozone within 20 years. To do so, the Basin must show a 15 percent reduction from its 1990 Basin-wide emissions inventory within six years, and a 3 percent annual reduction thereafter for the remainder of the 20 years. For the other nonattainment pollutants, the Basin must achieve attainment status by the most expeditious date that can be achieved, but no later than five years from the date the area was designated nonattainment. If the Basin experiences difficulty doing so, the U.S. EPA may extend the period for attainment for an additional 10 years.

(2) California Air Resources Board

The California Air Resource Board (ARB), a department of the California Environmental Protection Agency (CALEPA), oversees air quality planning and control throughout California. It is primarily responsible for ensuring implementation of the 1989 amendments to the California Clean Air Act (CCAA), responding to the Federal CAA requirements, and for regulating emissions from motor vehicles and consumer products within the State. The ARB has established emission standards for vehicles sold in California and for various types of equipment available commercially. It also sets fuel specifications to further reduce vehicular emissions.

The amendments to the CCAA establish ambient air quality standards for the State (State standards) and a legal mandate to achieve these standards by the earliest practicable date. These standards apply to the same six criteria pollutants as the Federal CAA, and also include sulfate, visibility, hydrogen sulfide, and vinyl chloride. They are also more stringent than the Federal standards and, in the case of PM_{10} and SO_2, far more stringent.

Based on monitored pollutant levels, the CCAA divides nonattainment areas into three categories -- moderate, serious, severe, and extreme -- to which progressively more stringent requirements apply. The Basin is classified as an extreme nonattainment area for ozone and a serious nonattainment area for

CO and NO_2. Under these classifications, an air quality management plan is required to be prepared to include specific emission reduction strategies, and to meet specified milestones in implementing emission controls to achieve more healthful air. The new control strategies include an indirect and area source control program, best available retrofit control technology for existing sources, a program to mitigate all emissions from new and modified permitted stationary sources (no net increase), transportation control measures, and substantial use of low-emission vehicles (e.g., natural gas, or methanol-powered vehicles) by fleet operators. The CCAA also requires control measures to be ranked by priority and cost-effectiveness. The air quality management plans must achieve a reduction in emissions of 5 percent or more per year, or 15 percent or more in a three year period for pollutants causing severe nonattainment.

(3) Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a council of governments for the Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. SCAG is a regional planning agency and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SCAG also serves as the regional clearinghouse for projects requiring environmental documentation under Federal and State law. In this role, SCAG reviews proposed projects to analyze their impacts on SCAG's regional planning efforts.

Although SCAG is not an air quality management agency, it is responsible for several air quality planning issues. Specifically, as the designated Metropolitan Planning Organization (MPO) for the southern California region, it is responsible, pursuant to §176(c) of the 1990 amendments to the CAA, for providing current population, employment, travel, and congestion projections for regional air quality planning efforts. It is required to quantify and document the demographic and employment factors influencing expected transportation demand, including land use forecasts. Pursuant to California Health and Safety Code Section §40460(b), SCAG is also responsible for preparing and approving the portions of the Basin's air quality management plans relating to demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. SCAG's method of accomplishing these requirements is through the preparation of the Growth Management Chapter of the Regional Comprehensive Plan and Guide (RCPG).

(4) South Coast Air Quality Management District

The management of air quality in the Basin is the responsibility of the South Coast Air Quality Management District (SCAQMD). This responsibility was given to the SCAQMD by the California Legislature's adoption of the 1977 Lewis-Presley Air Quality Management Act which merged four

county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in the areas under its jurisdiction into conformity with Federal and State air quality standards. Specifically, the SCAQMD has the responsibility to monitor ambient air pollutant levels throughout the Basin and to develop and implement attainment strategies to ensure that future emissions will be within Federal and State standards.

(a) SCAQMD Air Quality Management Plan

As discussed previously, the Federal and State Clean Air Acts require the preparation of plans to reduce air pollution to healthful levels. The SCAQMD has responded to this requirement by preparing a series of air quality management plans, the most recent of which was adopted by the governing board on September 9, 1994 and the ARB on November 15, 1994. The 1994 Air Quality Management Plan (AQMP) was prepared to comply with the provisions of the 1989 California Clean Air Act and the 1990 Federal Clean Air Act amendments, to accommodate growth, to reduce the high levels of pollutants within the Basin, to meet State and Federal air quality standards, and to minimize the fiscal impact pollution control measures have on the local economy. Principal control policies and measures for improving the Basin's air quality include: extensive use of clean fuels, transportation control measures, market incentives, and facility permitting. Many of these policies and measures have been adopted as rules by the SCAQMD Governing Board or may be adopted as rules in the future.

The air quality levels projected in the AQMP are based on several assumptions. For example, the AQMP assumes that general development associated with general plans, specific plans (such as the proposed Newhall Ranch Specific Plan), residential projects, and wastewater facilities will be constructed in accordance with population growth projections identified by SCAG in its most current version of the RCPG. The AQMP also assumes that general development projects will implement strategies (mitigation measures) to reduce emissions generation during the construction and operational stages of development. The Specific Plan's consistency with the AQMP is discussed later in this EIR section.

(b) SCAQMD Rules and Regulations

The SCAQMD is responsible for limiting the amount of emissions that can be generated throughout the Basin by various stationary and mobile sources. Specific rules and regulations have been adopted by the SCAQMD Governing Board which limit the emissions that can be generated by various uses and/or

activities, and identify specific pollution reduction measures which must be implemented in association with various uses and activities. These rules not only regulate the emissions of the six criteria pollutants, but also toxic emissions and acutely hazardous materials.[2] They are also subject to ongoing refinement by the SCAQMD.

Emissions sources subject to these rules are regulated through the SCAQMD's permitting process. Through this permitting process, the SCAQMD also monitors the amount of stationary emissions being generated and uses this information in developing the AQMP. The proposed Specific Plan would be subject to SCAQMD rules and regulations to reduce specific emissions and to mitigate potential air quality impacts. These are identified in the Mitigation Measures discussion in this EIR section.

(c) CEQA Air Quality Handbook

In 1994, the SCAQMD prepared its CEQA Air Quality Handbook as a guidance document to assist local government agencies and consultants in preparing environmental documents for projects subject to the California Environmental Quality Act (CEQA). The Handbook is an advisory document and local jurisdictions are not required to utilize the methodology outlined therein. This document describes the criteria that the SCAQMD uses when reviewing and commenting on the adequacy of environmental documents, such as this EIR. It recommends thresholds for use in determining whether projects would have significant adverse environmental impacts, identifies methodologies for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts. Although the CEQA Air Quality Handbook has been adopted by the Governing Board of the SCAQMD, it does not, nor does it intend to supersede a local jurisdiction's CEQA procedures. This EIR was prepared following the recommendations of the SCAQMD found in the SCAQMD's CEQA Air Quality Handbook.

(5) Local Governments

Local governments, such as the County of Los Angeles, have the authority and responsibility to reduce air pollution through their police power and land use decision-making authority. Specifically, local governments are responsible for the mitigation of emissions resulting from land use decisions and for the implementation of transportation control measures as outlined in the AQMP.[3] The AQMP assigns local governments certain responsibilities to assist the Basin in meeting air quality goals and policies. In

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2 Defined by the Federal government as an air pollutant to which no ambient air quality standard is applicable and which, in the judgment of the administrator of the U.S. EPA, may result in an increase in mortality, serious irreversible illness, or incapacitating reversible illness.

3 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 2-2.

general, a first step toward implementation of a local government's responsibility is accomplished by identifying air quality goals, policies, and implementation measures in its general plan. Through capital improvement programs, local governments can fund infrastructure that contributes to improved air quality, by requiring such improvements as bus turnouts, energy-efficient street lights, and synchronized traffic signals.[4] In accordance with CEQA requirements and the CEQA review process, local governments assess air quality impacts, require mitigation of potential air quality impacts by conditioning discretionary permits, and monitor and enforce implementation of such mitigation.[5]

3. EXISTING CLIMATE AND AMBIENT AIR QUALITY

a. Existing Local Climate

The Newhall Ranch Specific Plan site is located in the unincorporated portion of the Santa Clara River Valley, and immediately adjacent to the Santa Clarita Valley. This area lies in the transitional microclimatic zone of the South Coast Air Basin, located between two climatic types, termed valley marginal and high desert. Situated far enough from the ocean to usually escape coastal damp air and fog, the summers are hot and the winters sunny and warm. Summer nights are pleasantly cool and the surrounding slopes drain off cold air near the ground on clear winter nights.

Climate in the immediately adjacent Santa Clarita Valley (and also, therefore, the Newhall Ranch Specific Plan site) is relatively mild and annual average daytime temperatures range from 89.7 degrees Fahrenheit (F) in summer to 63.6 degrees F in winter. Low temperatures average 58.9 degrees F in summer and 41.3 degrees F in winter. In wintertime during calm, clear nights, the localized mountain/valley wind patterns are enhanced and cool air blows down from the mountains towards the Valley floor. Annual precipitation in the Santa Clarita Valley is 13.10 inches, which occurs almost exclusively from late October to early April. As elsewhere in the Basin, precipitation is higher in the mountains than in the Valley. Portions of the Santa Susana and San Gabriel Mountains, which form the outer limits of the Valley, receive between 22 and 24 inches of rainfall per year.

Predominant wind patterns for the greater Newhall Ranch Specific Plan area are typical for areas in which valleys and mountains are located in proximity to one another. During the day, onshore winds reach the Valley and are enhanced by local topographical features. During the night, surface radiation cools the air in the mountains and hills, which flows down the Valley, producing a gentle

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4 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 2-2.

5 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 2-3.

wind pattern. The predominant daytime wind flows from the south/southeast as the effects of the regional onshore flow are modified by the up-valley flow from the San Fernando Valley through the Newhall Pass. This pattern is most dominant during summer, the peak smog season. At night, local winds flow down the Santa Clara River Valley as winds flowing from the east.

b. Existing Ambient Air Quality

(1) Regional Air Quality

To monitor the concentrations of the six criteria pollutants, the SCAQMD has divided the Basin into source receptor areas (SRAs) in which 32 air quality monitoring stations are operated. The Newhall Ranch Specific Plan site is located within SRA 13, which encompasses the Santa Clarita Valley west to the Ventura County line. The station that monitors this SRA is located approximately 7 miles east of the center of the Specific Plan site at the Los Angeles County Fire Station No. 73, 24875 North San Fernando Road. This station presently only monitors emission levels of O_3, CO, NO_2, and PM_{10}. No other station monitors air pollutant concentrations in the Santa Clarita Valley. However, the Ventura County Air Pollution Control District monitors air pollutant concentrations in the Santa Clara River Valley at a station in the community of Piru. This station is located approximately 10 miles east of the center of the Newhall Ranch Specific Plan site and only monitors emission levels of O_3 and PM_{10}.

Table 4.10-1, Ambient Pollutant Concentrations Registered in the Vicinity of the Newhall Ranch Specific Plan Site, lists the concentrations registered and the violations of State and Federal standards that have occurred at the two nearest monitoring stations from 1990 through ~~1994~~ 1995. As shown, the Santa Clarita and Piru monitoring stations have registered values above State and Federal standards for O_3 and the State standard for PM_{10}. Concentrations of CO and NO_2 have not been exceeded within the Santa Clarita Valley and concentrations of the other two criteria pollutants -- sulfur dioxide and lead -- have not been exceeded anywhere within the Basin for several years. Also shown in this table is that concentrations registered at the Piru monitoring station are lower than those registered at the Santa Clarita monitoring station. Ambient pollutant concentrations on the Newhall Ranch Specific Plan site would be somewhere between the values identified for the two monitoring stations.

Table 4.10-1
Ambient Pollutant Concentrations Registered in the Vicinity of the Newhall Ranch Specific Plan Site

Pollutant	Standards[1, 2]	Year 1990	1991	1992	1993	1994	1995
SANTA CLARITA MONITORING STATION							
OZONE (O_3)							
Maximum 1-hour concentration monitored (ppm)		0.23	0.24	0.22	0.22	0.26	0.21
Number of days exceeding Federal standard	>0.12 ppm	62	65	71	44	66	26
Number of days exceeding state standard	>0.09 ppm	115	118	127	92	118	72
Number of days with stage 1 ozone episode	≥0.20 ppm	6	8	4	3	6	1
Number of days with stage 2 ozone episode	≥0.35 ppm	0	0	0	0	0	0
CARBON MONOXIDE (CO)							
Maximum 1-hour concentration monitored (ppm)		11	9	8	8	8	7
Number of days exceeding Federal 1-hour standard	>35.0 ppm	0	0	0	0	0	0
Number of days exceeding state 1-hour standard	>20.0 ppm	0	0	0	0	0	0
Maximum 8-hour concentration monitored (ppm)		4.6	5.1	3.7	3.9	3.9	4.1
Number of days exceeding Federal and state 8-hour standard	≥9.1 ppm	0	0	0	0	0	0
NITROGEN DIOXIDE (NO_2)							
Maximum 1-hour concentration monitored (ppm)		0.15	0.17	0.11	0.13	0.12	0.16
Annual average monitored (ppm)		0.031	0.032	0.027	0.028	0.032	.0305
Percentage of average exceeding Federal standard	0.0534 ppm aam	6 0	4 0	6 0	9 0	7 0	0
Number of days exceeding state standard	>0.25 ppm 1-hour	0	0	0	0	0	0
PARTICULATE MATTER (PM_{10})							
Maximum 24-hour concentration ($\mu g/m^3$)		93	81	84	75	66	87
Number of samples		57	59	60	55	58	61
Number of samples exceeding Federal standard	>150 $\mu g/m^3$	0	0	0	0	0	0
Number of samples exceeding state standard	>50 $\mu g/m^3$	15	25	8	8	13	13
Percent of samples exceeding Federal standard	>150 $\mu g/m^3$	0	0	0	0	0	0
Percent of samples exceeding state standard	>50 $\mu g/m^3$	26.3	42.4	13.3	14.5	22.4	21.3
PIRU MONITORING STATION							
OZONE (O_3)							
Maximum 1-hour concentration monitored (ppm)		0.14	0.15	0.12	0.11	0.14	0.13
Number of days exceeding Federal standard	>0.12 ppm	4	4	0	0	2	1
Number of days exceeding state standard	>0.09 ppm	46	44	15	4	18	20
Number of days with stage 1 ozone episode	≥0.20 ppm	0	0	0	0	0	0
Number of days with stage 2 ozone episode	≥0.35 ppm	0	0	0	0	0	0
PARTICULATE MATTER (PM_{10})							
Maximum 24-hour concentration ($\mu g/m^3$)		133	79	67	118	58.1	64
Number of samples exceeding Federal standard	>150 $\mu g/m^3$	0	0	0	0	0	0
Number of samples exceeding state standard	>50 $\mu g/m^3$	6	11	5	5	2	4

Sources: South Coast Air Quality Management District, Air Quality Data (for 1990, 1991,1992, 1993, ~~and~~ 1994, and 1995), (Diamond Bar, California: South Coast Air Quality Management District, 1991, 1992, 1993, 1994, 1995); California Air Resources Board, Technical Support Division, California Air Quality Data (for 1990, 1991,1992, and 1993), (Sacramento, California: California Air Resources Board, 1991, 1992, 1993, 1994); and interview with Phil Moyal, Ventura County Air Pollution Control District, Ventura, California, January 25, 1996.

[1] *Parts by volume per million of air (ppm), micrograms per cubic meter of air ($\mu g/m^3$), or annual arithmetic mean (aam).*

[2] *Federal and State standards are for the same time period as the maximum concentration measurement unless otherwise indicated.*

(2) Local Vicinity Emissions

The vicinity of the Newhall Ranch Specific Plan site is characterized on the north by relatively sparse residential uses (the communities of Val Verde and San Martinez Grande), a landfill (Chiquita Canyon Landfill), oil and natural gas production uses, business park uses in the Valencia Commerce Center, urban uses and low intensity commercial uses (Castaic/Interstate 5 corridor), and open area; on the east, a County Water Reclamation Plant (WRP No. 32), a California Highway Patrol station, high intensity commercial/recreational uses (Magic Mountain Theme Park), hotels, restaurants and service stations adjacent to Interstate 5 (I-5), urban intensity residential uses (Stevenson Ranch), and open area; on the south, open area; and on the west, citrus orchards, sparse rural residential uses, oil and natural gas production uses and open area. Regional transportation corridors in the vicinity include State Route 126 (SR-126) and I-5. Emissions sources include stationary activities, such as space heating, cooking, and water heating; and mobile activities -- primarily automobile and truck traffic. In addition, the Chiquita Canyon Landfill generates fugitive dust emissions, as well as motor vehicle emissions from landfill covering operations and travel on dirt roads and surfaces.

(3) Site Specific Emissions

Present (and historical) land uses on the Newhall Ranch Specific Plan site include: vacant land, oil and natural gas operations; agriculture primarily along the Santa Clara River Corridor, on the mesas overlooking the River and in the wider canyon bottoms; and cattle grazing in Potrero Canyon, along the River, and in other upland and mountainous portions of the Ranch. The Newhall Ranch Specific Plan site is also periodically used by the movie industry for set locations. Several houses (approximately 10), an oil company office, and miscellaneous other structures are also on site. Related to the oil and natural gas uses on the site, the central, northern and northeastern portions of the property are heavily traversed with dirt and asphalt roads which provide access to numerous graded oil well pads and pipelines, and storage and transmission facilities. Each of these uses and activities generate emissions.

Emissions are generated by the existing oil and natural gas operations, by motor vehicles, stationary internal combustion engines used to drive oil pumps, and flaring operations where natural gas is burned off when pipeline pumps are temporarily not operating. Medallion Resources, the operator of the Potrero Field on the Newhall Ranch Specific Plan site, is in the process of converting its diesel-fueled oil and natural gas pump motors to electric motors. Medallion Resources also anticipates eliminating its

flaring operations in 1996. It is anticipated that Medallion Resources will either use its permitted emissions allocation for other operations, or sell them to another use as allowed by the SCAQMD's Regional Clean Air Incentives Market (Regulation XX). Emissions are also generated by employee vehicles traveling to and on the Specific Plan site; however, the amount of such emissions would be negligible due to the relatively low number of trips made (estimated at less than 25 per day).

The existing agricultural operations on the site generate very little traffic and vehicular emissions. The primary pollutant associated with these operations is fugitive dust generated during plowing operations and wind when the ground is freshly plowed.

Additional sources of emissions on the Newhall Ranch Specific Plan site are generated by stationary sources and automobiles associated with on-site residences, offices and the occasional use of the site by the movie industry.

(4) Toxic Air Contaminants

The existing flaring operations are a source of toxic air contaminants on the Newhall Ranch Specific Plan site. As discussed previously, Medallion Resources anticipates eliminating its flaring operations in 1996. The other source of toxic air contaminants affecting the Newhall Ranch Specific Plan site is the Chiquita Canyon Landfill. Gas generated within the landfill is currently collected and flared for disposal. Minor amounts of toxic air contaminants such as benzene, carbon tetrachloride, chloroform, dichlorobenzene, ethylene dichloride, perchloroethylene, and vinyl chloride are emitted by the landfill flaring operations.[6] Laidlaw Waste Systems, Inc., the operator of the landfill, has proposed an expansion to extend the landfill life from November 1997 to 2005. The EIR for the landfill expansion indicates that the location of maximum health risk associated with flaring operations with the expansion would be on the Newhall Ranch Specific Plan site along the foothills south of the Santa Clara River.[7] However, the incremental excess cancer risk at this location would be 0.33 in one million which is less than the SCAQMD's acceptable risk level of one in one million.[8] No other sources of toxic

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6 Ogden Environmental and Energy Services, Draft Environmental Impact Report Chiquita Canyon Landfill Expansion and Resource Recovery Facilities (San Diego, California Los Angeles County Department of Regional Planning, May 1995), p. IV.G-23.

7 Ogden Environmental and Energy Services, Draft Environmental Impact Report Chiquita Canyon Landfill Expansion and Resource Recovery Facilities (San Diego, California Los Angeles County Department of Regional Planning, May 1995), p. IV.G-34.

8 Ogden Environmental and Energy Services, Draft Environmental Impact Report Chiquita Canyon Landfill Expansion and Resource Recovery Facilities (San Diego, California Los Angeles County Department of Regional Planning, May 1995), p. IV.G-34.

air contaminants are located within one quarter mile of the Specific Plan site. One quarter mile is the distance which the SCAQMD uses in evaluating impacts on sensitive receptors.[9] Sensitive receptors are populations that are more susceptible to the effects of air pollution than is the population at large.[10] The SCAQMD identifies the following as sensitive receptors: long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, child care centers, and athletic facilities.[11] Based on this definition, sensitive receptors within the vicinity of the Newhall Ranch Specific Plan site include the community of Val Verde, the few existing residences on the Specific Plan site, and the Travel Village RV Park along SR-126.

4. PROPOSED IMPROVEMENTS

The Newhall Ranch Specific Plan is proposed to contain a broad mix of land uses, including a wide range of housing unit types and job-creating uses, such as Commercial office and retail uses and Business Park uses. Such uses would occur in five Villages which are linked by an arterial street system, and a pedestrian and bicycle trails network. The Specific Plan includes features which promote efficient local travel by a combination of transportation modes, including bicycles, walking, bus transit, and automobiles. The Specific Plan also includes supporting uses, such as an on-site water reclamation Plant (WRP) with a treatment capacity of 7.7 million gallons per day. The WRP would consist of primary, secondary, and tertiary treatment facilities, as well as solids handling and disinfection facilities. Additional facilities would include an operations and administration building, a maintenance and repair facility, and a chemical handling building.

Because the Newhall Ranch Specific Plan has been designed to provide future residents of the site with a range of on-site employment opportunities and services, including parks, schools, and retail shopping areas, and is promoting efficient means of access to these uses, vehicle miles traveled (VMT) and air pollutant emissions can be reduced when compared with a community designed without such a balance of land uses. Furthermore, the Newhall Ranch Specific Plan site is located adjacent to existing job centers (e.g., Valencia Commerce Center, Industrial Center and Corporate Center), which helps reduce longer commutes from the site to more distant employment centers in Ventura County, the San Fernando Valley and beyond. As a result of reduced commutes, VMT and, consequently, air pollutant emissions, can be further reduced.

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9 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 5-1.

10 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 5-1.

11 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 5-7.

5. SIGNIFICANCE THRESHOLD CRITERIA

New and modified projects will often affect regional air quality both directly and indirectly. When determining the extent of a project's environmental impact and the significance of such impact, the project should be compared to established thresholds of significance. The County of Los Angeles has not officially adopted any thresholds of significance for determining air quality impacts. Therefore, in the absence of such thresholds, EIRs prepared for projects in the County typically refer to the thresholds recommended by the SCAQMD in its CEQA Air Quality Handbook. The following discusses the thresholds for both construction and operational emissions generated by the proposed Specific Plan, as well as the threshold for cumulative impacts.

a. Construction Emission Thresholds

The SCAQMD recommends that projects with construction-related emissions that exceed any of the following emissions thresholds should be considered significant:

- 24.75 tons per quarter or 550 pounds per day of CO
- 2.5 tons per quarter or 75 pounds per day of VOC
- 2.5 tons per quarter or 100 pounds per day of NO_x
- 6.75 tons per quarter or 150 pounds per day of SO_x
- 6.75 tons per quarter or 150 pounds per day of PM_{10}

b. Operational Emissions

The SCAQMD has recommended two types of air pollution thresholds to assist lead agencies in determining whether or not the operational stage of a project's development would be significant. These are identified in the following discussion under Emission Significance Thresholds and Additional Indicators of Potential Air Quality Impacts. The SCAQMD recommends that a project's impacts be considered significant if either of these thresholds is exceeded.

(1) Emission Significance Thresholds

The SCAQMD has established these thresholds, in part, based on Section 182(e) of the Federal CAA which identifies 10 tons a year of volatile organic gases as the significance level for stationary sources of emissions in extreme nonattainment areas for ozone.[12] As discussed earlier, VOC, NO_x, and SO_x

12 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 6-1.

undergo photochemical reactions in sunlight to form ozone and the Basin is the only extreme nonattainment area for ozone in the United States. This emission threshold has been converted to a pound per day threshold for the operational stage of a project. Thresholds for other emissions have been identified based on their levels in the Basin in comparison with ozone levels. Because they are converted from a CAA threshold, the SCAQMD believes that these thresholds are based on scientific and factual data.[13] Therefore the District recommends that the following thresholds be used by lead agencies in making a determination of operation-related project significance:

- 550 pounds per day of CO
- 55 pounds per day of VOC
- 55 pounds per day of NO_x
- 150 pounds per day of SO_x
- 150 pounds per day of PM_{10}

(2) Additional Indicators of Potential Air Quality Impacts

The SCAQMD recommends that projects meeting any of the following criteria also be considered to have significant air quality impacts:

- Project could interfere with the attainment of the Federal or State ambient air quality standards by either violating or contributing to an existing or projected air quality violation;

- Project could result in population increases within an area which would be in excess of that projected by SCAG in the AQMP, or increase the population in a census tract where SCAG has not projected that growth for the project's build-out year;

- Project could generate vehicle trips that cause a CO hotspot or project could be occupied by sensitive receptors that are exposed to a CO hotspot;

- Project will have the potential to create, or be subjected to, an objectionable odor that could impact sensitive receptors.

- Project will have hazardous materials on site and could result in an accidental release of toxic air emissions or acutely hazardous materials posing a threat to public health and safety;

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13 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 6-2.

- Project could emit a toxic air contaminant regulated by SCAQMD rules or that is on a Federal or State air toxic list;

- Project could be occupied by sensitive receptors within one quarter mile of an existing facility that emits air toxics identified in SCAQMD Rule 1401; or

- Project could emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of one in one million.

c. Cumulative Significance Thresholds

The SCAQMD's CEQA Air Quality Handbook identifies three possible methods to determine the cumulative significance of land use projects. If the analysis shows that an individual project is consistent with the AQMP performance standards, the project's cumulative impact could be considered less than significant. If the analysis shows that the project does not comply with the standards, then cumulative impacts are considered to be significant unless there is other pertinent information to the contrary. The performance standards are:

- Reduce the Rate of Growth in Vehicle Miles Traveled and Trips

- 1 Percent Per Year Reduction in Project Emissions of CO, VOC, NO_x, SO_x, and PM_{10}

- 1.5 Average Vehicle Ridership, or Average Vehicle Occupancy, if a Transportation Project

The following discussion reviews the proposed Specific Plan's potential impacts relative to each of the recommended significance criteria identified above.

6. SPECIFIC PLAN IMPACTS

Development of the Newhall Ranch Specific Plan would generate air emissions from a wide variety of stationary and mobile sources. Stationary source emissions would be generated by on-site construction activities and equipment, and consumption of natural gas and electricity once the proposed uses are occupied. Stationary source emissions could also result from the operation of certain types of commercial business -- such as dry cleaners -- within the Specific Plan. Mobile source emissions would be generated by motor vehicle travel associated with construction activities and occupancy of the proposed development. An assessment of construction and operational emissions is presented below and is based on the methodologies recommended in the SCAQMD's CEQA Air Quality Handbook.

a. Construction Impacts

Development of the proposed Specific Plan would require site preparation (i.e., grading) and construction of the proposed uses. These construction activities would occur on a tract-by-tract basis over an approximate 25-year period. During this time, emissions would be generated by on-site stationary equipment (e.g., generators and compressors), heavy-duty construction vehicles, construction worker vehicles, and energy use. In addition, fugitive dust would be generated by grading and construction activities. Project grading would require the movement of approximately 95 million cubic yards of earth over a 25-year buildout period. The grading would be balanced on site and would entail mass grading for development areas, final grading for development pads, remedial grading, and custom grading. The Conceptual Grading Plan contained in the Specific Plan indicates that approximately 5,132 acres of the site would be graded during the site's buildout.

(1) Construction Exhaust Emissions

The SCAQMD's CEQA Air Quality Handbook provides alternative methodologies for calculating emissions generated by all types of vehicles and equipment associated with construction activities. The methodologies can be classified into two categories: a detailed methodology and a generalized methodology. The detailed method of analysis applies to those situations where highly detailed and specific information is available regarding all aspects of the proposed construction activity, such as the daily number of construction employees working on the site, the number of trucks hauling materials to and from the site on a daily basis, and the specific number, types, and operating time of construction equipment used on a daily basis. Detailed methodology regarding emissions generated during site preparation is typically applicable to subdivisions for which grading and other infrastructure plans have been prepared. Based on this level of detail, construction emissions can be more precisely determined. Recognizing that this level of information is often unavailable to complete this programmatic level of analysis, the SCAQMD provides a generalized methodology that can be applied when detailed information is unavailable. This generalized methodology, identified in Table A9-3-H of the SCAQMD's CEQA Air Quality Handbook, calculates the total amount of emissions generated during a project's construction stage and includes all typical emissions, such as stationary and mobile construction equipment, worker travel exhaust, and truck and material transport exhaust. This methodology is appropriate for this programmatic analysis given the unknown and speculative factors regarding the construction of the proposed Specific Plan.

Table 4.10-2, Estimated Newhall Ranch Specific Plan Construction Equipment Emissions identifies the total emissions that would be generated by construction equipment over 25 years. Emission calculations are provided in **Appendix 4.10** of this EIR. Also shown in **Table 4.10-2** are the average daily and quarterly emissions that would be generated by construction equipment. The daily totals were calculated by dividing the total construction emissions by the estimated number of construction days over the 25 year period, and multiplying those numbers by 2,000 to convert tons to pounds. Using an assumption of 25 construction days per month, this equates to 7,500 total construction days. Quarterly emissions were calculated by multiplying the daily emissions by 75 work days per calendar quarter and dividing this by 2,000 to convert pounds to tons. This table also includes the emissions associated with the construction of the proposed on-site water reclamation plant. As shown, recommended thresholds for CO, VOC, and NO_x would likely be exceeded most of the time during the Specific Plan grading and construction stages due to the operation of construction equipment, employee vehicles, and the transport of materials to and from the site. In reality, construction equipment emissions could be higher on the days that heavy equipment is operating during the grading stages and lower on the majority of days when only construction employees vehicles and delivery trucks are operating; but the average works out to the values shown in **Table 4.10-2**.

Table 4.10-2
Estimated Newhall Ranch Specific Plan Construction Equipment Emissions

Emissions Source	Average Daily and Quarterly Emissions				
	CO	VOC	NO_x	SO_x	PM_{10}
Grading and Construction Equipment[1] Total Emissions in Tons:	21,271.0	1,258.0	8,239.7	540.9	290.5
Emissions in Pounds Per Day:	5,672.3	335.5	2,197.2	144.2	77.5
Recommended Daily Thresholds:	550.0	75.0	100.0	150.0	150.0
Exceeds Threshold?	YES	YES	YES	NO	NO
Emissions in Tons Per Quarter:	212.71	12.58	82.40	5.41	2.90
Recommended Quarterly Thresholds:	24.75	2.50	2.50	6.75	6.75
Exceeds Threshold?	YES	YES	YES	NO	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 4.10. Based on Table A9-3-H of the SCAQMD's CEQA Air Quality Handbook.

[1]*Includes all construction equipment, employee vehicles, truck and material transport exhaust emissions.*

(2) Fugitive Dust Emissions

In addition to construction vehicle emissions, fugitive dust would also be generated during grading, excavation, and construction activities. The project engineer conservatively estimates that approximately 40 pieces of earthmoving equipment could be used to move 50,000 cubic yards of earth on

a daily basis to conduct mass, final, remedial, and custom grading, and excavation.[14] Using a generation rate identified in the SCAQMD's CEQA Air Quality Handbook of 21.8 pounds per earthmover per hour and eight hours of activity per day, the mass grading operations are predicted to generate approximately 6,976.0 pounds of PM_{10} per day without any dust control measures. These emissions also include dust generated during the construction of the on-site water reclamation plant. If unmitigated, these emissions would exceed the SCAQMD's recommended threshold of 150.0 pounds per day and would be considered significant.

(3) Architectural Coatings and Building Materials

During the finishing stages of development, emissions of VOC would be generated through the use of architectural coatings and building materials (i.e., paints, solvents, roofing materials, etc.). Using the recommended generation rate of 18.5 pounds of VOC per 1,000 square feet of building surface area identified in Table A9-13 of the SCAQMD's CEQA Air Quality Handbook, the Specific Plan is estimated to generate a total of 22,042.2 tons of ROC emissions over the 25-year buildout period, including the development of the proposed on-site water reclamation plant. Dividing this total by the estimated number of construction days over the 25 year period (25 construction days per month multiplied by 25 years equates to 7,500 total construction days), and multiplying this amount by 2,000 to convert tons to pounds identifies an average of 5,877.9 pounds of ROC per day generated over 25 years. Quarterly emissions were calculated by multiplying the daily emissions by 75 work days per calendar quarter and dividing this by 2,000 to convert pounds to tons in order to identify an average of 220.42 tons per quarter. Emissions calculations are provided in **Appendix 4.10** of this EIR. These emissions would exceed the SCAQMD's recommended thresholds. However, this analysis assumed that only readily-available, surface-coating materials meeting all current SCAQMD rules would be used to coat the surfaces of the proposed structures. Materials not meeting SCAQMD rules are not available for sale or use within the Basin. While such emissions would be no different and no more severe than any other coating activities (e.g., repainting an existing structure), these emissions do exceed the SCAQMD's thresholds and, therefore, construction-related impacts would be considered significant.

14 Interview with Mr. Ronald Horn, Sikand Engineering Associates, Van Nuys, California, May 15, 1995.

(4) Total Construction Emissions-All Sources

Table 4.10-3, Total Estimated Newhall Ranch Specific Plan Construction Emissions, provides a summary of all construction-related emissions predicted to occur on a daily basis during buildout of the Specific Plan. As shown, recommended thresholds for CO, VOC, NO_x, and PM_{10} would likely be exceeded most of the time during grading and construction stages. Therefore, total construction-related emissions are considered to be significant. For a breakdown of the specific construction emission sources identified in **Table 4.10-3**, please review the previous discussions.

Table 4.10-3
Total Estimated Newhall Ranch Specific Plan Construction Emissions

Emissions Source	Emissions in Pounds per Day CO	VOC	NO_x	SO_x	PM_{10}
Grading and Construction Equipment[1]	5,672.3	335.3	2,197.2	144.2	77.5
Fugitive Dust					6,976.0
Architectural Coatings		5,877.9			
Totals:	5,672.3	6,213.2	2,197.2	144.2	7,053.5
Recommended Thresholds:	550.0	75.0	100.0	150.0	150.0
Exceeds Threshold?	YES	YES	YES	NO	YES

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 4.10.
[1]*Includes all construction equipment, fugitive dust, employee vehicles, truck and material transport exhaust emissions.*

b. Operation Impacts

(1) Daily Emissions

Operational emissions would be generated by both stationary and mobile sources as a result of normal day-to-day activity on the Specific Plan site after occupation. Stationary emissions would be generated by the consumption of natural gas for space and water heating devices (including commercial, office, and institutional use boilers), and from electric power generation sources. Although there are adequate electricity supplies for the Newhall Ranch Specific Plan, it is unknown where the electricity would be generated or what source would generate it (e.g., dam, nuclear reactor, natural gas). While dams and nuclear reactors generate little, if any, air pollutants, only natural gas facilities are located within the Basin. Therefore, to assume a worst-case analysis, the electricity is assumed to be generated by natural gas facilities somewhere within the Basin. Mobile emissions would be generated by the motor vehicles traveling to, from, and within the Newhall Ranch Specific Plan site.

As discussed previously, the Newhall Ranch Specific Plan is proposed to contain a broad mix of land uses which would afford residents the opportunity to work, shop, and recreate in close proximity to their homes. The Specific Plan has been designed to provide efficient local travel by a combination of transportation modes, provide on-site employment opportunities and services, and provide access to nearby existing job centers. The Specific Plan includes five Villages, each clustering development around a centralized core; as proposed, the Specific Plan would cluster approximately 59 percent of its dwelling units (14,763 of the 25,218 possible units) within one quarter of a mile of Mixed-Use and Commercial areas. By concentrating development in the core areas, the Plan can then allow land units of higher intensity while preserving more land as Open Area, and can also reduce the number of vehicle miles traveled when compared with a non-clustered planning approach.

The project's traffic consultant has conducted an analysis using the Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (SCVCTM) and identified average trip lengths for the proposed Specific Plan. These trip lengths include those trips that do not leave the Newhall Ranch Specific Plan site, those that only travel to and from the site within the Santa Clarita Valley, and those that travel to and from areas beyond the Santa Clarita Valley (reference **Section 4.8 Traffic/Access** for a discussion of these trips). **Table 4.10-4, Average Trip Lengths in Year 2010,** provides a comparison between these Newhall Ranch Specific Plan trip lengths and the average trip lengths identified by SCAG for all land uses within Los Angeles County. As shown, the average trip lengths associated with the Newhall Ranch Specific Plan would be slightly lower for some trip types and slightly higher for others.

Table 4.10-4
Average Trip Lengths in Year 2010

	Average Trip Lengths in Miles				
	Residential			Non-Residential	
Condition	Home to Work	Home to Shop	Home to Other	Work	Non-Work
SCAG Traffic Demand Model	11.70	5.90	7.50	10.80	6.30
Newhall Ranch Specific Plan - SCVCTM	10.21	6.52	6.52	6.25	6.41

Source: Impact Sciences, Inc. Based on SCAG Travel Demand Model results published in the SCAQMD's CEQA Air Quality Handbook, p. A9-24, and calculations provided by Austin-Foust Associates, Inc. using the SCVCTM.

The analysis of daily operational emissions has been prepared utilizing a computer model developed by Impact Sciences, Inc., using the data and methodologies identified in the SCAQMD's CEQA Air Quality Handbook, and current motor vehicle emission factors (EMFAC7F).[15] The predicted emissions are based upon buildout of all land uses within the Specific Plan area. The SCAQMD has approved this model for use.[16]

The Newhall Ranch Specific Plan is not expected to be fully built out until sometime around the year 2023 to 2025. However, the air quality impact analysis presented in this EIR section is based on buildout of the Specific Plan in 2023 and emission factors for the year 2020. This was done because the ARB's EMFAC7F computer model provides emission factors for the years 1990 to 2020.[17]

This analysis also does not assume any emissions reductions due to the use of electric vehicles which may be sold in California in the future or by pass-by[18] traffic stopping at commercial uses while on the way from a primary origin to a primary destination. Therefore, this analysis overestimates the actual emissions that would be expected and is considered a worst-case scenario.

This analysis has been divided into two separate discussions. In the first discussion, emissions are predicted for a development scenario in which the proposed uses are not developed in a mixed-use nor clustered Village design. These emissions are calculated by utilizing the SCAG Traffic Demand Model trip lengths which are average for all land uses in Los Angeles County as shown in **Table 4.10-4**, and which do not assume any emissions reduction efficiencies provided by the Specific Plan's mixed-use, clustered design, and on-site mobility system. For comparison purposes, the second discussion identifies the predicted emissions that would be generated by the Specific Plan as proposed, utilizing the Newhall Ranch Specific Plan - SCVCTM trip lengths and anticipated emissions reduction efficiencies provided by the design of the Specific Plan. The purpose of this comparison is to determine whether the design of the Specific Plan would actually reduce the amount of emissions that could potentially be added to the Basin to a level below that which would result if it were:

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15 California Air Resources Board, Technical Support Division, Mobile Source Emission Inventory Branch, Methodology for Estimating Emissions from On-Road Motor Vehicles, vol.1, EMFAC7F (Sacramento, California: California Air Resources Board, September 1993).

16 Interview with Steve Smith, South Coast Air Quality Management District, Diamond Bar, California, January 25, 1996.

17 A difference of three years exists between the last year of EMFAC7F model data (2020) and the expected year of Specific Plan buildout (2023). If the model data was extrapolated out to the year 2023, the model data output would be slightly less, thereby slightly reducing the estimation of Specific Plan emissions.

18 In the case of commercial uses, particularly retail establishments, certain restaurants, banks, service stations, and convenience markets, trips are attracted from the passing traffic on adjacent streets – that is, traffic already "passing by" the site. The only emissions directly associated with these commercial uses are generated by the stopping and starting of the vehicles at the commercial pass-by site.

- not configured in a more clustered Village design,
- did not provide efficient local travel by a combination of transportation modes,
- did not provide on-site employment opportunities and services, and
- did not provide access to nearby existing job centers.

As discussed in EIR **Section 1.0, Project Description,** the Specific Plan is proposed to accommodate projected regional growth in a location which is adjacent to existing and planned infrastructure, urban services, transportation corridors, and major employment centers; arrange land uses to reduce vehicle miles traveled and energy consumption; include a mobility system which includes alternatives to automobile use; and establish a diverse system of pedestrian and bicycle trails, segregated from vehicle traffic, to serve as an alternative to the automobile.

(a) Predicted Emissions Without Mixed-Use and Village Design Concept

Table 4.10-5, Estimated Operational Emission - Non-Mixed-Use and Non-Village Concept identifies the predicted emission associated with developing the same land uses as proposed for the Newhall Ranch Specific Plan, but without the design features discussed above. Under this development scenario, the same land uses:

- would be planned and built separately,
- would not be configured in a clustered Village design,
- would not provide as efficient local travel by a combination of transportation modes, would not provide the same level of on-site employment opportunities and services, and
- would not provide as direct access to nearby existing job centers.

Table 4.10-5
Estimated Operational Emissions - Non-Mixed-Use and Non-Village Concept

Emissions Source	Emissions in Pounds per Day CO	VOC	NO_x	SO_x	PM_{10}
Mobile Sources	25,096.8	1,143.5	2,568.0	330.4	65,236.2
Electricity Demand	151.2	7.6	869.6	90.7	30.2
Natural Gas Consumption	94.4	25.0	396.8	0.0	0.9
WRP Stationary Sources	0.9	0.1	2.7	0.0	0.9
Totals:	25,343.3	1,176.2	3,837.0	421.1	65,268.3
Recommended Thresholds:	550.0	55.0	55.0	150.0	150.0
Exceeds Threshold?	YES	YES	YES	YES	YES

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 4.10.

Calculating the emissions associated with such a scenario involves using the average vehicle trip lengths for Los Angeles County as identified by SCAG and as shown in **Table 4.10-4**, not providing any reduction in vehicle trips internal to the Specific Plan site, and not considering any other emission reductions from alternatives to automobile travel.

The stationary emissions expected to be generated by the WRP have been estimated based on the emissions generated by another WRP located in Los Angeles County. The Valencia WRP is located approximately one mile from the Newhall Ranch Specific Plan site and emissions data used for this plant are from when it had a capacity of 7.86 million gallons per day (mgd)[19]. This is very similar to the 7.7 mgd capacity of the proposed WRP. County Sanitation Districts of Los Angeles County (CSDLAC) staff have reviewed preliminary plans for the Newhall Ranch Specific Plan and provided an annual emissions inventory report for the Valencia WRP containing the data used for this analysis. This report is provided in **Appendix 4.10** of this EIR. According to CSDLAC staff, the Valencia WRP is similar to the proposed Newhall Ranch Specific Plan WRP in plant configuration and influent quantities and, therefore, the emissions inventory values provided by the CSDLAC would provide an adequate emissions estimate for the proposed WRP.[20] However, SCAQMD staff indicate that the Valencia WRP has a mix of older equipment than would be used at the Newhall Ranch WRP.[21] Therefore, the emissions estimates provided by the CSDLAC are greater then would be expected at the Newhall Ranch WRP and represent a worst-case analysis.[22]

As shown in **Table 4.10-5**, the proposed uses developed in a non-mixed-use and Non-Village design scenario would generate emissions of CO, VOC, NO_x, SO_x, and PM_{10} that would exceed the thresholds of significance recommended by the SCAQMD.

(b) Predicted Emissions With Proposed Mixed-Use and Village Design Concept

The predicted emissions associated with the proposed Specific Plan have been calculated utilizing the same natural gas and electricity demand as the Non-Village Design, the same WRP stationary emissions, and the Newhall Ranch Specific Plan - SCVCTM trip lengths identified previously in **Table 4.10-4**, which more accurately reflect the characteristics of the Specific Plan. The results of these calculations are provided in **Appendix 4.10** of this EIR and are summarized in **Table 4.10-6, Estimated Operational Emissions - Proposed Specific Plan.**

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19 The Valencia WRP has recently been expanded to a permitted capacity of 12.6 mgd.

20 Robert Ferrente, County Sanitation Districts of Los Angeles County, Whittier, California, correspondence to Impact Sciences, Inc., February 7, 1996.

21 Interview with Steve Smith, South Coast Air Quality Management District, Diamond Bar, California, June 26, 1996.

22 Interview with Steve Smith, South Coast Air Quality Management District, Diamond Bar, California, June 26, 1996.

Table 4.10-6
Estimated Operational Emissions - Proposed Specific Plan

Emissions Source		Emissions in Pounds per Day CO	VOC	NO_x	SO_x	PM_{10}
Mobile Sources		17,850.2	822.6	1,801.3	225.2	44,537.3
Electricity Demand		151.2	7.6	869.6	90.7	30.2
Natural Gas Consumption		94.4	25.0	396.8	0.0	0.9
WRP Stationary Sources		0.9	0.1	2.7	0.0	0.9
	Totals:	18,096.7	855.3	3,070.4	315.9	44,569.4

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 4.10.

The emissions identified in **Table 4.10-6** do not take into consideration the reductions in emissions which would occur as a result of the many features incorporated onto the Specific Plan that are intended to reduce VMT. However, the Specific Plan does include a mobility system with alternatives to automobile use, including a system of pedestrian and bicycle trails, segregated from vehicle traffic, and infrastructure that accommodates a bus transit system, a railway right-of-way, and a park and ride lot. Ranges of emission reduction efficiencies are identified in Table 11-6 of the SCAQMD's CEQA Air Quality Handbook for the mobile emissions reductions provided by these types of measures.[23] The SCAQMD recommends that the low end of the range should be used when selecting the efficiencies for various projects unless otherwise justified.[24] However, the SCAQMD also indicates that the efficiencies that best coincide with the on-site characteristics of the project, as well as the community in which it is located, should be selected.[25] In the case of the Newhall Ranch Specific Plan, the proposed uses, design, and features, as well as the Specific Plan's location near major employment centers, are expected to have average emission reduction efficiencies at a minimum. However, **Table 4.10-7, Estimated Emission Reduction Efficiencies - Proposed Specific Plan (Mobile Sources)** shows the emission reduction efficiencies predicted for the Specific Plan and the mobile emissions that would be reduced by these measures using the low end of the reduction efficiency ranges to provide a worst-case analysis. These numbers represent reductions of 2.9 percent of the Specific Plan's CO emissions, 2.3 percent of VOC emissions, 1.8 percent of NO_x, and 3.1 percent of PM_{10} emissions.

The total operational emissions generated by the proposed Specific Plan, after the emission reductions provided by its design features, are identified in **Table 4.10-8, Operational Emissions Significance - Proposed Specific Plan**. These totals are compared with the SCAQMD's recommended thresholds of significance. As shown, the proposed Specific Plan would generate total regional emissions which

23 No emissions reduction efficiencies are provided for SO_x emissions.

24 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 11-7.

25 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 11-7.

would exceed SCAQMD recommended thresholds for each identified pollutant. As the amount of emissions would exceed the recommended thresholds, this impact would be considered significant. The estimated emissions reductions efficiencies are not capable of reducing the Specific Plan's emissions to levels below the SCAQMD's recommended thresholds.

Table 4.10-7
Estimated Emission Reduction Efficiencies - Proposed Specific Plan
(Mobile Sources)

Proposed Measure	Emission Reduction Efficiency (percentage and pounds per day) CO	VOC	NO_x	PM_{10}
Residential Uses				
• Include retail services within or adjacent to residential subdivisions	1.3% 134.5	1.0% 4.5	1.3% 12.6	1.3% 298.1
• Construct bus turnouts, passenger benches, and shelters	0.2% 20.7	0.2% 0.9	0.2% 1.9	0.2% 45.9
• Construct pedestrian facility improvements, such as overpasses and wider sidewalks	0.1% 10.3	0.1% 0.5	0.1% 1.0	0.1% 22.9
• Construct, contribute, or dedicate land for the provision of bicycle trails linking the uses to designated bicycle commuting routes	0.1% 10.3	0.1% 0.5	0.1% 1.0	0.1% 22.9
Commercial/Industrial Uses				
• Include residential units within or adjacent to commercial/industrial projects	4.0% 300.0	3.0% 11.5	4.0% 33.3	4.0% 864.3
• Construct bus turnouts	0.1% 7.5	0.1% 0.4	0.1% 0.8	0.1% 21.6
• Construct pedestrian facility improvements, such as overpasses, wider sidewalks, building access which is physically separated from street and parking lot traffic, and walk paths	0.2% 15.0	0.2% 0.7	0.2% 1.7	0.2% 43.2
• Construct bicycle facility improvements, such as bicycle trails linking the uses to designated bicycle commuting routes, or bike paths	0.3% 22.5	0.2% 0.7	0.3% 2.5	0.3% 64.8
Total Reductions	521.0	19.7	54.8	1,383.8
Percent Reductions	2.9%	2.3%	1.8%	3.1%

Sources: CEQA Air Quality Handbook, pp. 11-18 - 11-26; and Impact Sciences, Inc. Calculations are provided in Appendix 4.10

Table 4.10-8
Operational Emissions Significance - Proposed Specific Plan

Emissions Source	Emissions in Pounds per Day CO	VOC	NO_x	SO_x	PM_{10}
Total Specific Plan Emissions	18,096.7	855.3	3,070.4	315.9	44,569.4
Emission Reduction Efficiencies	-521.0	-19.7	-54.8	-0.0	-1,383.8
Net Totals:	17,575.7	835.6	3,045.6	315.9	43,185.6
Recommended Threshold:	550.0	55.0	55.0	150.0	150.0
Exceeds Threshold?	YES	YES	YES	YES	YES

Source: Impact Sciences, Inc.

Finally, **Table 4.10-9, Total Daily Emissions Associated With Construction and Operation - Proposed Specific Plan** provides a summary of all emissions projected to be generated during the last stages of development of the Specific Plan. Emissions included in the table are operational emissions associated with operation of those tracts previously developed plus the construction emissions generated by the final tract(s) under development. This condition represents the worst-case scenario because, at this point, the majority of the mobile and stationary sources associated with development of the Newhall Ranch Specific Plan would be generating emissions associated with daily operational activity. In addition to these operational emissions, construction equipment would be generating emissions and fugitive dust associated with site preparation and construction of the final tracts planned for development in the Specific Plan. After development of these tract(s), construction emissions would cease, thereby reducing total emissions generated by buildout of the Specific Plan. As shown, the emissions generated would be considered significant, as SCAQMD thresholds for all pollutants would be exceeded.

Table 4.10-9
Total Daily Emissions Associated With Construction and Operation - Proposed Specific Plan

Emissions Source	Emissions in Pounds per Day CO	VOC	NO_x	SO_x	PM_{10}
Grading and Construction[1]	5,672.3	6,213.4	2,197.2	144.2	7,053.5
Reduced Operational Emissions[2]	17,575.7	835.6	3,015.6	315.9	43,185.6
Totals:	23,248.0	7,049.0	5,212.8	460.1	50,239.1
Recommended Thresholds:	550.0	55.0	55.0	150.0	150.0
Exceeds Threshold?	YES	YES	YES	YES	YES

Source: Impact Sciences, Inc.
[1]Reference Table 4.10-3.
[2]Reference Table 4.10-8.

(c) Emissions Comparison: Without Mixed-Use and Village Design Concept Versus Proposed Specific Plan Design Concept

For information purposes, an analysis has been conducted to compare the emissions generation of the non-mixed-use and non-Village design concept (see **Table 4.10-5**) with the proposed Specific Plan (see **Table 4.10-9**). The purpose of this comparison is to determine whether the Specific Plan is being planned in a manner that:

- would reduce the amount of emissions that could potentially be added to the Basin if it were not configured in a more clustered Village design,
- would not provide efficient local travel by a combination of transportation modes,
- would not provide on-site employment opportunities and services, and
- would not provide access to nearby existing job centers.

The results of this analysis are provided in **Table 4.10-10, Air Emission Scenario Comparison.**

As shown, when compared with the non-mixed-use and non-Village design scenario, the proposed Specific Plan's air emission reduction characteristics would reduce potential CO emissions by 30.6 percent, VOC emissions by 29.0 percent, NO_x by 21.4 percent, SO_x by 25.0 percent, and PM_{10} by 33.8 percent. Although the emissions generated by the Specific Plan would exceed the SCAQMD's recommended thresholds of significance, they do represent a substantial reduction in the amount of emissions that could be emitted into the air by similar uses if developed without any of the proposed emission reduction characteristics.

Table 4.10-10
Air Emission Scenario Comparison

Emissions Source	Emissions in Pounds per Day CO	VOC	NO_x	SO_x	PM_{10}
Non-Mixed-Use & Non-Village Design Scenario[1]	25,343.3	1,176.2	3,837.0	421.1	65,268.3
Proposed Specific Plan[2]	17,575.7	835.6	3,015.6	315.9	43,185.6
Emissions Reduction:	7,767.6	340.6	821.4	105.2	22,082.7
Percent Reduction:	30.6%	29.0%	21.4%	25.0%	33.8%

Source: Impact Sciences, Inc.
[1]*Reference Table 4.10-5.*
[2]*Reference Table 4.10-8.*

(2) Additional Indicators of Potential Air Quality Impacts

(a) Project could interfere with the attainment of the Federal or State ambient air quality standards by either violating or contributing to an existing or projected air quality violation and,

(b) Project could result in population increases within an area which would be in excess of that projected by SCAG in the AQMP, or increase the population in an area where SCAG has not projected that growth for the project's buildout year.

In order to address the first criterion identified above, the SCAQMD's CEQA Air Quality Handbook indicates that an air quality modeling analysis that identifies the project's impact on ambient air quality would need to be performed.[26] In order for a project to found consistent, the analysis would have to demonstrate that the project's emissions would not increase the frequency or the severity of existing air quality violations, or contribute to a new violation.[27] However, SCAQMD staff indicate that air quality models do not exist for this kind of analysis for specific plans, residential projects, or wastewater facilities and that no such analysis can be undertaken.[28] Instead, SCAQMD staff state that a project's consistency with the population number and location assumptions identified by SCAG and used in the preparation of the AQMP should be assessed.[29]

As discussed earlier in this analysis, the 1994 AQMP is designed to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of the SCAQMD, to return clean air to the region by 2010, and to minimize the impact on the economy. Projects which are considered to be consistent with the AQMP do not interfere with attainment and do not contribute to the exceedance of an existing air quality violation because this growth is included in the projections utilized in the formulation of the AQMP. Therefore, projects, uses, and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended thresholds. The following analysis discusses the Specific Plan's consistency with the AQMP.

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26 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 12-3.

27 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 12-3.

28 Interview with Steve Smith, South Coast Air Quality Management District, Diamond Bar, California, February 23, 1996.

29 Interview with Steve Smith, South Coast Air Quality Management District, Diamond Bar, California, February 23, 1996.

Projects that are consistent with the projections of population forecasts identified in the Growth Management Chapter of the RCPG are considered consistent with the AQMP growth projections. This is because the Growth Management Chapter forms the basis of the land use and transportation control portions of the AQMP.

As indicated in **Section 4.21, Population, Housing and Employment**, of this EIR, the Specific Plan's entire contribution to the population of the Santa Clarita Valley has been accounted for in SCAG's population forecast for the years 2000, 2010, and 2015.[30] By the time Newhall Ranch is built out in 2023, the community would total approximately 68,524 residents, constituting only 12 percent of the projected 2015 population projection of 552,796 for the Santa Clarita Valley. The additional population generated by the proposed Newhall Ranch Specific Plan for the Santa Clarita Valley is not only within the growth forecast for the area, but is only a small percentage of the total population growth projected for the Santa Clarita Valley. Therefore, the population generated by the proposed Newhall Ranch Specific Plan is consistent with SCAG population growth projections for the Santa Clarita Valley and would be consistent with the AQMP forecasts for this area. Federal

Another measurement tool in determining AQMP consistency is to determine how a project accommodates the expected increase in population and employment. Generally, if a project is planned in a way that results in the minimization of VMT, and consequently the minimization of air pollutant emissions, that project is consistent with the AQMP.[31]

As discussed earlier, the planned Village design would allow local residents to access nearby uses without the need of an automobile trip, thereby substantially reducing automobile trip lengths, and maximizing use of pedestrian and bicycle trails. In this manner, the number of vehicle trips leaving the Newhall Ranch Specific Plan site would not only be reduced; but the number of trips traveling from one Village to another would also be reduced. These Villages would be linked by an arterial street system, and a pedestrian and bicycle trails network. Bus pull-ins would be provided along highways as the Specific Plan develops. Together these elements would promote efficient local travel by a combination of transportation modes, including bicycles, walking, bus transit, and automobiles. Because the Specific Plan has been designed to provide future residents of the site with a range of on-site employment opportunities and services, including parks, schools, and retail shopping areas, and is promoting efficient means of access to these uses, VMT and air pollutant emissions can be reduced. Furthermore, because the Newhall Ranch Specific Plan site is located adjacent to existing job centers (e.g., Valencia Commerce Center, Industrial Center and Corporate Center) which helps preclude longer commutes from

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30 Interview with Terry Bills, Southern California Association of Governments, Los Angeles, California, 22 August 1994.

31 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 12-5.

the site to more distant employment centers in the San Fernando Valley, Ventura County, and beyond, VMT, and consequently air pollutant emissions, can again be reduced. Based on this information, the proposed Specific Plan is consistent with the AQMP and it should not jeopardize attainment of the air quality standards predicted in the AQMP because the Specific Plan is consistent with the goals, objectives, and assumptions outlined in the AQMP.

Localized emissions would also likely be generated by various stationary or point sources from commercial and business park uses within the Newhall Ranch Specific Plan site. Although the specific types and numbers of commercial and business park emissions sources are not known at his time, it is conservatively assumed that the potential exists for stationary sources of emissions to operate within the Specific Plan site. By considering the potential presence of on-site point source emitters, this analysis represents conditions under worst-case circumstances.

Under SCAQMD Regulation XIII, all point source emitters must obtain construction as well as operating permits from the SCAQMD. Furthermore, should any modifications in business operations occur subsequent to permit issuance, such modifications would also be subject to permit review and approval by the SCAQMD. Regulation XIII requires the Executive Director of the SCAQMD to deny the permit to construct for any relocation or for any new or modified permit unit which results in a net increase of any nonattainment air contaminant, any halogenated hydrocarbons, or ammonia unless 1) Best Available Control Technology (BACT) is employed for the new or relocated permit unit or for the actual modification to an existing permit unit; 2) computer modeling indicates that the new facility or modification will not cause a significant increase in air quality concentration; 3) the emissions are offset by emissions reduction; and 4) the subject facility fully complies with all applicable SCAQMD rules and regulations. Compliance with this regulation would reduce potential point source emissions to less than significant levels.

(c) Project could generate vehicle trips that cause a CO hotspot or project could be occupied by sensitive receptors that are exposed to a CO hotspot

Motor vehicles are the primary sources of pollutants in the vicinity of the Newhall Ranch Specific Plan site. Although these vehicles generate several types of emissions on a regional basis (as discussed previously), CO is considered the foremost localized problem related to motor vehicle sources.[32] Traffic-congested roadways and intersections have the potential to generate localized high levels of CO within approximately 1,000 feet of the roadways. Localized areas where ambient concentrations exceed State and/or Federal standards are termed CO "hotspots."

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32 State of California Department of Transportation, Office of Transportation Laboratory, Air Quality Technical Analysis Notes (Sacramento, California: California Department of Transportation, June 1988, p. 1100-1.

The SCAQMD recommends the use of CALINE4, a dispersion model developed by the California Department of Transportation (Caltrans) for predicting CO concentrations near roadways, as the preferred method of estimating localized pollutant concentrations at various locations. CALINE4 adds roadway-specific CO emissions calculated from peak traffic volumes to background ambient CO air concentrations. For this analysis, CO concentrations were calculated based on a CALINE4 screening procedure developed by Caltrans.[33] This methodology assumes worst-case conditions (i.e., wind speed of less than one meter per second and extreme atmospheric stability) and provides a screening of maximum, worst-case, CO concentrations. Traffic volumes utilized in the analysis were taken from the traffic report, which uses buildout figures taken from the Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (June 1995).

The SCAQMD also recommends that the CO analysis focus on "sensitive receptors." Sensitive receptors are populations that are more susceptible to the effects of air pollution than is the population at large.[34] The SCAQMD identifies the following as sensitive receptors: long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, child care centers, and athletic facilities.[35]

Maximum future CO concentrations were calculated for peak hour traffic volumes at the same intersections on and in the vicinity of the Specific Plan site that were assessed in **Section 4.8, Traffic/Access**, of this EIR. The results of these calculations are presented in **Table 4.10-11, Predicted Future Carbon Monoxide Concentrations,** for representative receptors located 15, 25, and 50 meters (50, 82, and 164 feet) from each roadway under the planned County Base Roadway Network and the Alternative Roadway Network being considered by the City of Santa Clarita and the County (reference **Section 4.8, Traffic/Access** of this EIR for a detailed discussion of these roadway networks). As shown, the CALINE4 screening procedure predicts that, under worst-case conditions, future CO concentrations at each intersection would not exceed the State or Federal 1-and 8-hour ppm standards with the development of the proposed Specific Plan, and no significant CO hotspot impacts would occur to sensitive receptors in the vicinity of these intersections.

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33 Vicente J. Garza, Peter Graney, and Daniel Sperling, Draft Final Transportation Project-Level Carbon Monoxide Protocol (Sacramento, California: California Department of Transportation).

34 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 5-1.

35 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 5-7.

(d) Project will have the potential to create, or be subjected to, an objectionable odor that could impact sensitive receptors.

Airborne odors associated with the proposed Specific Plan would result primarily from cooking activities within the proposed food services and eating establishments. Food-related odors would be typical of food service businesses. In each case, such odors would be controlled in accordance with County Department of Health Services, SCAQMD permit requirements for proper air filtration and food storage and disposal, and SCAQMD Rule 402 which prohibits persons from discharging quantities of air contaminants which cause nuisance to any considerable number of persons. Consequently, no significant impacts from such odors are anticipated.

Table 4.10-11
Predicted Future Carbon Monoxide Concentrations

Intersection	15 Meters		25 Meters		50 Meters	
	1-Hour[1]	8-Hour[2]	1-Hour[1]	8-Hour[2]	1-Hour[1]	8-Hour[2]
Chiquito Canyon & SR-126 WB Ramps						
County Base Roadway Network:	9.9	4.9	9.1	4.4	8.4	4.0
Alternative Roadway Network:	9.9	4.9	9.1	4.4	8.4	4.4
Chiquito Canyon & SR-126 EB Ramps						
County Base Roadway Network:	8.1	3.8	7.8	3.6	7.5	3.5
Alternative Roadway Network:	8.5	4.1	8.1	3.8	7.7	3.6
Franklin & SR-126 WB Ramps						
County Base Roadway Network:	9.3	4.5	8.7	4.2	8.1	3.8
Alternative Roadway Network:	9.2	4.5	8.6	4.1	8.0	3.8
Franklin & SR-126 EB Ramps						
County Base Roadway Network:	8.5	4.0	8.1	3.8	7.7	3.6
Alternative Roadway Network:	8.1	3.8	7.8	3.6	7.5	3.5
Commerce Center & SR-126 WB Ramps						
County Base Roadway Network:	11.1	5.6	10.1	5.0	9.0	4.4
Alternative Roadway Network:	10.5	5.3	9.6	4.7	8.7	4.2
Commerce Center & SR-126 EB Ramps						
County Base Roadway Network:	9.9	4.9	9.1	4.4	8.4	4.0
Alternative Roadway Network:	9.9	4.9	9.1	4.4	8.4	4.0
San Martinez Grande & SR-126						
County Base Roadway Network:	9.2	4.5	8.6	4.1	8.0	3.8
Alternative Roadway Network:	9.2	4.5	8.6	4.1	8.0	3.8
Long Canyon & Potrero Valley	8.3	3.9	7.9	3.7	7.6	3.5
Magic Mountain & Potrero Valley	10.2	5.1	9.3	4.6	8.5	4.1
Commerce Center & Magic Mountain	12.7	6.6	11.3	5.7	9.8	4.9

Source: Impact Sciences, Inc. Emissions calculations are provided in Appendix 4.10.
[1]*State standard is 20.0 parts per million. Federal standard is 35 parts per million.*
[2]*State and Federal standard is 9.0 parts per million.*

As discussed in **Section 5.0 (Subsection 5.10, WRP Air Quality)**, of this EIR, the WRP is a potential source of odors that could affect sensitive receptors on nearby lands. The primary source of odor at WRPs is hydrogen sulfide produced by the activity of anaerobic organisms in anaerobic treatment processes at the plant site. Another common odor is that of nonionized ammonia, which is prevalent and readily volatilized whenever the wastewater pH is elevated (becomes less acidic and more alkaline).[36] In addition, other organic compounds can contribute to odor production. These odors can be adequately controlled through physical design of the facility and proper operations management. The SCAQMD also controls the potential for odors through Regulation IX, Subpart O - Standards of Performance for Sewage Treatment Plants, which requires Best Available Control Technology (BACT) for new WRP sources. This regulation also requires that the primary treatment processes be covered and sealed, and that the exhaust gases from the primary treatment processes be vented to carbon absorbers (scrubbers).

According to the CSDLAC, each of these physical and managerial strategies has proven to be effective in controlling odors when properly applied.[37] However, if odor control equipment should fail and plant operators also fail to conduct odor and equipment monitoring to ensure odor controls are functioning properly, it is possible that objectionable odors could reach sensitive receptors at the adjacent proposed Business Park. The presence of strong easterly winds could also possibly cause objectionable odors to reach sensitive residential receptors to the east.

One additional potential source of odors is the Chiquita Canyon Landfill located along the northern Specific Plan boundary. There are two potential sources of odors associated with landfill operations. These are: 1) aerobic decomposition of organic refuse materials prior to being covered with soil, and 2) gases produced by anaerobic bacterial digestion of buried refuse. Each of these sources is controlled by landfill operations and equipment. For example, odors emanating from aerobic decomposition of refuse are controlled by compaction and covering of waste on a daily basis, while odoriferous gases produced by anaerobic decomposition of material within covered landfill cells are collected and disposed of in a landfill gas collection and flaring system.[38] Given the operational techniques employed as part of a sanitary landfill operation and the use of the gas collection and flaring system, no significant impacts from such odors are expected.

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36 Jones & Stokes, Associates Inc., Draft Program Environmental Impact Report for the Joint Outfall System 2010 Master Facilities Plan (Whittier, California: County Sanitation Districts of Los Angeles County: November 1994), p. 8-10.

37 Jones & Stokes, Associates Inc., Draft Program Environmental Impact Report for the Joint Outfall System 2010 Master Facilities Plan (Whittier, California: County Sanitation Districts of Los Angeles County: November 1994), p. 8-10.

38 Ogden Environmental and Energy Services, Draft Environmental Impact Report Chiquita Canyon Landfill Expansion and Resource Recovery Facilities (San Diego, California Los Angeles County Department of Regional Planning, May 1995), p. IV.H-2.

(e) Project will have hazardous materials on site and could result in an accidental release of toxic air emissions or acutely hazardous materials posing a threat to public health and safety; Project could emit a toxic air contaminant regulated by SCAQMD rules or that is on a Federal or State air toxic list; Project could be occupied by sensitive receptors within one quarter mile of an existing facility that emits air toxics identified in SCAQMD Rule 1401; or Project could emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of one in one million.

The primary source of toxic air pollutants on the Newhall Ranch Specific Plan site would be the proposed WRP. As discussed in **Section 5.0 (Subsection 5.5, Environmental Safety)**, of this EIR, the WRP would generate a variety of toxic air emissions which would be controlled in accordance with the permit requirements of the SCAQMD, pursuant to its Regulation XIV. This process will ensure that the WRP emissions do not exceed the limits established to protect public health and safety and that no permit to operate can be issued unless it is proven that emissions would not exceed the limits. No significant air toxics risks, therefore, are anticipated from the proposed WRP.

Toxic air pollutants are not expected to occur in any large amounts in conjunction with operation of the other proposed land uses. Only common forms of hazardous or toxic substances typically used, stored, or sold in conjunction with office, retail, business park, and household activities would be present in small quantities. Most uses of such substances would occur indoors. Only a few uses that could be developed on the site would require emitting toxic pollutants as a by-product. These common uses, their source types, and the potential emissions are identified in **Table 4.10-12, Examples of Toxic Air Emissions Expected to be Generated within the Newhall Ranch Specific Plan Site**. Any uses of toxic substances that could involve an air release would be subject to regulatory control under the permitting authority of the SCAQMD. The potential for toxic air pollutants would be evaluated during the permit process by the SCAQMD, which may require emission control equipment at the site. Based on the requirement to obtain permits, and the common uses expected on the site, no significant impacts are expected to occur.

Table 4.10-12
Examples of Toxic Air Emissions Expected to be Generated within the Newhall Ranch Specific Plan Site

Land Use	Source Type	Air Toxic Emissions
Business Park/Schools	Fuel Oil Boiler Unit	Cadmium, Hexavalent Chromium
Gas Station	Fuel Dispensers	Benzene
Medical Clinic and Laboratory	Ethylene Oxide Medical Sterilizer	Ethylene Oxide
Dry Cleaners	Cleaning Equipment	Perchloroethylene

Source: South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 5-13.

The Specific Plan site could also be exposed to toxic emissions generated by the flaring operations at the Chiquita Canyon Landfill. Minor amounts of toxic air contaminants, such as benzene, carbon tetrachloride, chloroform, dichlorobenzene, ethylene dichloride, perchloroethylene, and vinyl chloride, would be emitted by the landfill flaring operations.[39] Laidlaw Waste Systems, Inc., the operator of the landfill, has proposed an expansion of the landfill to extend its life from November 1997 until early 2008, given the maximum daily disposal volumes.[40] The EIR for the landfill expansion indicates that the location of maximum health risk associated with flaring operations for the expansion would be on the Specific Plan site along the foothills south of the Santa Clara River.[41] However, the incremental excess cancer risk at this location would be 0.33 in one million, which is less than the SCAQMD's maximum individual cancer risk level of one in one million.[42] No other sources of toxic air contaminants are located within one quarter mile of the Newhall Ranch Specific Plan site. One quarter mile is the distance which the SCAQMD uses in evaluating impacts on sensitive receptors.[43] Therefore, no off-site locations are expected to significantly affect the Specific Plan site.

(3) Operation Impacts Conclusion

Operational emissions generated primarily from vehicular traffic generated by the proposed uses would exceed SCAQMD recommended thresholds of significance and, for that reason, they are considered significant. The Specific Plan would, however, be consistent with the AQMP. Consequently, the Specific Plan would not jeopardize attainment of the air quality standards predicted in the AQMP.

7. SPECIFIC PLAN MITIGATION MEASURES

a. Mitigation Measures Already Incorporated into the Specific Plan

As discussed previously in this EIR section, the proposed Specific Plan includes an on-site mobility system with alternatives to automobile use. Bus transit service within the Santa Clarita Valley currently provides linkages to the Metrolink rail station located on Soledad Canyon Road in the City of

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39 Ogden Environmental and Energy Services, Draft Environmental Impact Report Chiquita Canyon Landfill Expansion and Resource Recovery Facilities (San Diego, California Los Angeles County Department of Regional Planning, May 1995), p. IV.G-23.

40 Ogden Environmental and Energy Services, Draft Environmental Impact Report Chiquita Canyon Landfill Expansion and Resource Recovery Facilities (San Diego, California Los Angeles County Department of Regional Planning, May 1995), p. I-3.

41 Ogden Environmental and Energy Services, Draft Environmental Impact Report Chiquita Canyon Landfill Expansion and Resource Recovery Facilities (San Diego, California Los Angeles County Department of Regional Planning, May 1995), p. IV.G-34.

42 Ogden Environmental and Energy Services, Draft Environmental Impact Report Chiquita Canyon Landfill Expansion and Resource Recovery Facilities (San Diego, California Los Angeles County Department of Regional Planning, May 1995), p. IV.G-34.

43 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 5-1.

Santa Clarita, as well as to major commercial and other high activity centers within the Santa Clarita Valley. As set forth in Specific Plan, bus pull-ins will be provided throughout the Newhall Ranch Specific Plan site. Transit service is expected to serve the site when the demand for service justifies the extension of service to the area. The bus transit system will serve to implement SCAQMD mitigation measures pertaining to the establishment of shuttles from the Specific Plan site to commercial core areas and to major rail transit centers.

In addition, the Specific Plan incorporates a variety of design concepts which will reduce total vehicle miles traveled and encourage alternative modes of transportation. These features include Mixed-Use areas, the location of employment centers in proximity to residential areas, and trails which will accommodate bicycles and pedestrians which link employment centers and commercial areas. The Specific Plan also reserves land for a future rail right-of-way and an area has been identified for a future transit station within the Specific Plan area. The Specific Plan is designed to reduce vehicle miles traveled through encouraging alternative modes of travel and allowing for residents to work, shop, and recreate in close proximity to their homes.

The Specific Plan would be built out over an estimated 25 year period. It is unknown at this time what technological developments may take place that may affect the identification and implementation of mitigation measures; however, preliminary information is available on the direction that these developments appear to be taking. Projects planned today should be able to integrate improvements which facilitate use of new technologies as they become commercially available. For example, several alternatives to gasoline-powered vehicles are being developed today. Fuel cells which generate little, if any, pollutant emissions are being designed and tested as means to supply energy, heat, and cooling for structures. The potential application of measures such as these to reduce emissions should be studied as they become readily available and economically viable. However, with regard to "a fuel cell program for the commercial and industrial buildings,"there is no supportable evidence that such a mitigation measure is economically achievable and therefore feasible. Nor is any data available to demonstrate that such a measure would have a measurable or significant effect on reducing air emissions. In addition, Los Angeles County is not aware of any objective data demonstrating that such a measure, if implemented, would measurably reduce air emissions. SCAQMD's CEQA *Air Quality Handbook* does not recommend this measure for non-residential land uses. For all these reasons, Los Angeles County rejects this measure as infeasible.

However, ~~T~~the following features have been incorporated as part of the Specific Plan to reduce motor vehicle trips:

4.10-1. The Specific Plan will provide Commercial and Service uses in close proximity to residential subdivisions.

4.10-2. The Specific Plan will locate residential uses in close proximity to Commercial uses, Mixed-Uses, and Business Parks.

4.10-3. Bus pull-ins will be constructed throughout the Specific Plan site.

4.10-4. Pedestrian facilities, such as sidewalks, and community regional, and local trails, will be provided throughout the Specific Plan site.

4.10-5. Roads with adjacent trails for pedestrian and bicycle use will be provided throughout the Specific Plan site connecting the individual Villages and community.

b. Mitigation Measures Recommended by the EIR

(1) Construction Impacts

4.10-6. The applicant of future subdivisions shall implement all rules and regulations adopted by the Governing Board of the SCAQMD which are applicable to the development of the subdivision (such as Rule 402 - Nuisance, Rule 403 - Fugitive Dust, Rule 1113 - Architectural Coatings) and which are in effect at the time of development. The purpose of Rule 403 is to reduce the amount of particulate matter entrained in the ambient air as a result of man-made fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 applies to any activity or man-made condition capable of generating fugitive dust such as the mass and remedial grading associated with the project as well as weed abatement and stockpiling of construction materials (i.e., rock, earth, gravel). Rule 403 requires that grading operations either (1) take actions specified in Tables 1 and 2 of the Rule for each applicable source of fugitive dust and take certain notification and record keeping actions; or (2) obtain an approved Fugitive Dust Control Plan. A complete copy of the SCAQMD's Rule 403 Implementation Handbook, which has been included in **Appendix 4.10**, provides guideline tables to demonstrate the typical mitigation program and record keeping required for grading operations (Tables 1 and 2 and sample record keeping chart). The record keeping is accomplished by on-site construction personnel, typically the construction superintendent.

Each future subdivision proposed in association with the Newhall Ranch Specific Plan shall implement the following if found applicable and feasible for that subdivision:

Grading

a. Apply non-toxic soil stabilizers according to manufacturers' specification to all inactive construction areas (previously graded areas inactive for ten days or more).

b. Replace groundcover in disturbed areas as quickly as possible.

c. Enclose, cover, water twice daily, or apply non-toxic soil binders according to manufacturers' specifications, to exposed piles (i.e., gravel, sand, dirt) with 5 percent or greater silt content.

d. Water active sites at least twice daily.

e. Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph.

f. Monitor for particulate emissions according to District-specified procedures.

g. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer) in accordance with the requirements of CVC Section 23114.

Paved Roads

h. Sweep streets at the end of the day if visible soil material is carried onto adjacent public paved roads (recommend water sweepers with reclaimed water).

i. Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip.

Unpaved Roads

j. Apply water three times daily, or non-toxic soil stabilizers according to manufacturers' specifications, to all unpaved parking or staging areas or unpaved road surfaces.

k. Reduce traffic speeds on all unpaved roads to 15 mph or less.

l. Pave construction roads that have a traffic volume of more than 50 daily trips by construction equipment, 150 total daily trips for all vehicles.

m. Pave all construction access roads at least 100 feet on to the site from the main road.

n. Pave construction roads that have a daily traffic volume of less than 50 vehicular trips.

4.10-7. ~~The applicant of future subdivisions shall implement all applicable and feasible construction measures that are identified in Tables 11-2 and 11-4 of the SCAQMD's CEQA Air Quality Handbook, or which are in effect at that time.~~ Prior to the approval of each future subdivision proposed in association with the Newhall Ranch Specific Plan, each of the construction emission reduction measures indicated below (and in Tables 11-2 and 11-3 of the SCAQMD's *CEQA Air Quality Handbook*, as amended) shall be implemented if found applicable and feasible for that subdivision. –Tables of currently applicable measures are provided for reference in EIR **Appendix 4.10**.

On-Road Mobile Source Construction Emissions:

a. Configure construction parking to minimize traffic interference.

b. Provide temporary traffic controls when construction activities have the potential to disrupt traffic to maintain traffic flow (e.g., signage, flag person, detours).

c. Schedule construction activities that affect traffic flow to off-peak hours (e.g., between 7:00 P.M. and 6:00 A.M. and between 10:00 A.M. and 3:00 P.M.).

d. Develop a trip reduction plan to achieve a 1.5 average vehicle ridership (AVR) for construction employees.

e. Implement a shuttle service to and from retail services and food establishments during lunch hours.

f. Develop a construction traffic management plan that includes the following measures to address construction traffic that has the potential to affect traffic on public streets:

- Rerouting construction traffic off congested streets;
- Consolidating truck deliveries; and
- Providing temporary dedicated turn lanes for movement of construction trucks and equipment on and off of the site.

g. Prohibit truck idling in excess of two minutes.

Off-Road Mobile Source Construction Emissions:

h. Use methanol-fueled pile drivers.

i. Suspend use of all construction equipment operations during second stage smog alerts.

j. Prevent trucks from idling longer than two minutes.

k. Use electricity from power poles rather than temporary diesel-powered generators.

l. Use electricity from power poles rather than temporary gasoline-powered generators.

m. Use methanol- or natural gas-powered mobile equipment instead of diesel.

n. Use propane- or butane-powered on-site mobile equipment instead of gasoline.

(2) Operation Impacts

The following measures based on current technology and feasibility will be implemented to reduce the operational emissions of the Specific Plan.

4.10-8. The applicant of future subdivisions shall implement all rules and regulations adopted by the Governing Board of the SCAQMD which are applicable to the development of the subdivision (such as Rule 402 - Nuisance, Rule 1102 - Petroleum Solvent Dry Cleaners, Rule 1111 - NOx Emissions from Natural Gas-Fired, Fan-Type Central Furnaces, Rule 1146 - Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters) and which are in effect at the time of occupancy permit issuance.

4.10-9. ~~The applicant of future subdivisions shall implement all applicable and feasible operational measures that are identified~~ Prior to the approval of each future subdivision proposed in association with the Newhall Ranch Specific Plan, each of the operational emission reduction measures indicated below (and in Tables 11-6 and 11-7 of the SCAQMD's CEQA Air Quality Handbook, as amended) shall be implemented if found applicable and feasible for that subdivision ~~or which are in affect at that time~~. Tables of currently applicable measures are provided for reference in **Appendix 4.10**.

On-Road Mobile Source Operational Emissions

Residential Uses

a. Include satellite telecommunications centers in residential subdivisions.

b. Establish a shuttle service from residential subdivisions to commercial core areas.

c. Construct on-site or off-site bus stops (e.g., bus turnouts, passenger benches, and shelters).

d. Construct off-site pedestrian facility improvements, such as overpasses and wider sidewalks.

e. Include retail services within or adjacent to residential subdivisions.

f. Provide shuttles to major rail transit centers or multi-modal stations.

g. Contribute to regional transit systems (e.g., right-of-way, capital improvements, etc.).

h. Synchronize traffic lights on streets impacted by development.

i. Construct, contribute, or dedicate land for the provision of off-site bicycle trails linking the facility to designated bicycle commuting routes.

Commercial Uses

j. Provide preferential parking spaces for carpools and vanpools and provide 7'2" minimum vertical clearance in parking facilities for vanpool access.

k. Implement on-site circulation plans in parking lots to reduce vehicle queuing.

l. Improve traffic flow at drive-throughs by designing separate windows for different functions and by providing temporary parking for orders not immediately available for pickup.

m. Provide video-conference facilities.

n. Set up resident worker training programs to improve job/housing balance.

o. Implement home dispatching system where employees receive routing schedule by phone instead of driving to work.

p. Develop a program to minimize the use of fleet vehicles during smog alerts (for business not subject to Regulation XV (now Rule 2202) or XII).

q. Use low-emissions fleet vehicles:

- TLEV
- ULEV
- LEV
- ZEV

r. Reduce employee parking spaces for those businesses subject to Regulation XV (now Rule 2202).

s. Implement a lunch shuttle service from a worksite(s) to food establishments.

t. Implement compressed work-week schedules where weekly work hours are compressed into fewer than five days.

- 9/80
- 4/40
- 3/36

u. Develop a trip reduction plan to achieve 1.5 AVR for businesses with less than 100 employees or multi-tenant worksites.

v. Utilize satellite offices rather than regular worksite to reduce VMT.

w. Establish a home-based telecommuting program.

x. Provide on-site child care and after-school facilities or contribute to off-site development within walking distance.

y. Require retail facilities or special event centers to offer travel incentives such as discounts on purchases for transit riders.

z. Provide on-site employee services such as cafeterias, banks, etc.

aa. Establish a shuttle service from residential core areas to the worksite.

ab. Construct on-site or off-site bus stops (e.g., bus turnouts, passenger benches, and shelters).

ac. Implement a pricing structure for single-occupancy employee parking and/or provide discounts to ridesharers.

ad. Include residential units within a commercial project.

ae. Utilize parking in excess of code requirements as on-site park-n-ride lots or contribute to construction of off-site lots.

af. Any two of the following:

- Construct off-site bicycle facility improvements, such as bicycle trails linking the facility to designated bicycle commuting routes, or on-site improvements, such as bicycle paths.
- Include bicycle parking facilities, such as bicycle lockers and racks.
- Include showers for bicycling employees' use.

ag. Any two of the following:

- Construct off-site pedestrian facility improvements, such as overpasses, wider sidewalks.
- Construct on-site pedestrian facility improvements, such as building access which is physically separated from street and parking lot traffic and walk paths..
- Include showers for pedestrian employees' use.

ah. Provide shuttles to major rail transit stations and multi-modal centers.

ai. Contribute to regional transit systems (e.g., right-of-way, capital improvements, etc.).

aj. Charge visitors to park.

ak. Synchronize traffic lights on streets impacted by development.

al. Reschedule truck deliveries and pickups to off-peak hours.

am. Set up paid parking systems where drivers pay at walkup kiosk and exit via a stamped ticket to reduce emissions from queuing vehicles.

an. Require on-site truck loading zones.

ao. Implement or contribute to public outreach programs.

ap. Require employers not subject to Regulation XV (now Rule 2202) to provide commuter information area.

Business Park Uses

aq. Provide preferential parking spaces for carpools and vanpools and provide 7'2" minimum vertical clearance in parking facilities for vanpool access.

ar. Implement on-site circulation plans in parking lots to reduce vehicle queuing.

as. Set up resident worker training programs to improve job/housing balance.

at. Implement home dispatching system where employees receive routing schedule by phone instead of driving to work.

au. Develop a program to minimize the use of fleet vehicles during smog alerts (for business not subject to Regulation XV (now Rule 2202) or XII).

av. Use low-emissions fleet vehicles:

- TLEV
- ULEV
- LEV
- ZEV

aw. Require employers not subject to Regulation XV (now Rule 2202) to provide commuter information area.

ax. Reduce employee parking spaces for those businesses subject to Regulation XV (now Rule 2202).

ay. Implement compressed work-week schedules where weekly work hours are compressed into fewer than five days.

- 9/80
- 4/40
- 3/36

az. Offer first right of refusal, low interest loans, or other incentives to employees who purchase or rent local residences.

ba. Develop a trip reduction plan to achieve 1.5 AVR for businesses with less than 100 employees or multi-tenant worksites.

bb. Provide on-site child care and after-school facilities or contribute to off-site development within walking distance.

bc. Provide on-site employee services such as cafeterias, banks, etc.

bd. Establish a shuttle service from residential core areas to the worksite.

be. Construct on-site or off-site bus stops (e.g., bus turnouts, passenger benches, and shelters).

bf. Implement a pricing structure for single-occupancy employee parking and/or provide discounts to ridesharers.

bg. Utilize parking in excess of code requirements as on-site park-n-ride lots or contribute to construction of off-site lots.

bh. Any two of the following:

- Construct off-site bicycle facility improvements, such as bicycle trails linking the facility to designated bicycle commuting routes, or on-site improvements, such as bicycle paths.
- Include bicycle parking facilities, such as bicycle lockers and racks.
- Include showers for bicycling employees' use.

bi. Any two of the following:

- Construct off-site pedestrian facility improvements, such as overpasses, wider sidewalks.
- Construct on-site pedestrian facility improvements, such as building access which is physically separated from street and parking lot traffic and walk paths..
- Include showers for pedestrian employees' use.

bj. Provide shuttles to major rail transit stations and multi-modal centers.

bk. Contribute to regional transit systems (e.g., right-of-way, capital improvements, etc.).

bl. Synchronize traffic lights on streets impacted by development.

bm. Reschedule truck deliveries and pickups to off-peak hours.

bn. Implement a lunch shuttle service from a worksite(s) to food establishments.

bo. Require on-site truck loading zones.

bp. Install aerodynamic add-on devices to heavy-duty trucks.

bq. Implement or contribute to public outreach programs.

Stationary Source Operational Emissions

Residential Uses

br. Use solar or low emission water heaters.

bs. Use central water heating systems.

bt. Use built-in energy-efficient appliances.

bu. Provide shade trees to reduce building heating/cooling needs.

bv. Use energy-efficient and automated controls for air conditioners.

bw. Use double-paned windows.

bx. Use energy-efficient low-sodium parking lot lights.

by. Use lighting controls and energy-efficient lighting.

bz. Use fuel cells in residential subdivisions to produce heat and electricity.

ca. Orient buildings to the north for natural cooling and include passive solar design (e.g., daylighting).

cb. Use light-colored roofing materials to reflect heat.

cc. Increase walls and attic insulation beyond Title 24 requirements.

Commercial Uses

cd. Use solar or low emission water heaters.

ce. Use central water heating systems.

cf. Provide shade trees to reduce building heating/cooling needs.

cg. Use energy-efficient and automated controls for air conditioners.

ch. Use double-paned windows.

ci. Use energy-efficient low-sodium parking lot lights.

cj. Use lighting controls and energy-efficient lighting.

ck. Use light-colored roofing materials to reflect heat.

cl. Increase walls and attic insulation beyond Title 24 requirements.

cm. Orient buildings to the north for natural cooling and include passive solar design (e.g., daylighting).

Business Park Uses

cn. Provide shade trees to reduce building heating/cooling needs.

co. Use energy-efficient and automated controls for air conditioning.

cp. Use double-paned windows.

cq. Use energy-efficient low-sodium parking lot lights.

cr. Use lighting controls and energy-efficient lighting.

cs. Use light-colored roofing materials to reflect heat.

ct. Orient buildings to the north for natural cooling and include passive solar design (e.g., daylighting).

cu. Increase walls and attic insulation beyond Title 24 requirements.

cv. Improved storage and handling or source materials.

cw. Materials substitution (e.g., use water-based paints, life-cycle analysis).

cx. Modify manufacturing processes (e.g., reduce process stages, closed-loop systems, materials recycling).

cy. Resource recovery systems that redirect chemicals to new production processes.

4.10-10. All non-residential development of 25,000 gross square feet or more shall comply with the County's Transportation Demand Management (TDM) Ordinance (Ordinance No. 93-0028M) in effect at the time of subdivision. The sizes and configurations of the Specific Plan's non-residential uses are not known at this time and the Ordinance specifies different requirements based on the size of the project under review. All current provisions of the ordinance are summarized in **Appendix 4.10**.

4.10-11. Subdivisions and buildings shall comply with Title 24 of the California Code of Regulations which are current at the time of development.

4.10-12. Lighting for public streets, parking areas, and recreation areas shall utilize energy efficient light and mechanical, computerized or photo cell switching devices to reduce unnecessary energy usage.

4.10-13. Any on-site subterranean parking structures shall provide adequate ventilation systems to disperse pollutants and preclude the potential for a pollutant concentration to occur.

4.10-14. The sellers of new residential units shall be required to distribute brochures and other relevant information published by the SCAQMD or similar organization to new homeowners regarding the importance of reducing vehicle miles traveled and related air quality impacts, as well as on local opportunities for public transit and ridesharing.

8. CUMULATIVE IMPACTS

The SCAQMD's CEQA Air Quality Handbook identifies three possible methods to determine the cumulative significance of land use projects.[44] These methods are different than the methodology used throughout the remainder of this EIR in which all foreseeable future development within a given service boundary or geographical area is predicted and its impacts measured. The SCAQMD has not identified thresholds to which the total emissions of all cumulative development can be compared. The thresholds identified and used earlier in this EIR section only apply to the emissions generated by individual projects rather than the emissions generated by a cumulative project set. Instead, the SCAQMD's methods are based on performance standards and emission reduction targets necessary to attain the Federal and State air quality standards identified in the AQMP. As discussed earlier, the 1994 AQMP was prepared to accommodate growth, to reduce the high levels of pollutants within the Basin, to meet State and Federal air quality standards, and to minimize the fiscal impact that pollution control measures have on the local economy. If the analysis shows that an individual project is consistent with the AQMP performance standards, the project's cumulative impact could be considered less than significant.[45] If the analysis shows that the project does not comply with the standards, then cumulative impacts are considered to be significant, unless there is other pertinent information to the contrary.[46]

The following analysis assesses the proposed Specific Plan's cumulative impacts based on the performance standards and emissions reduction targets recommended in the SCAQMD's CEQA Air Quality Handbook.

a. Reduce the Rate of Growth in Vehicle Miles Traveled and Trips

According to the Air Resources Board's (ARB's) transportation performance standards, the rate of growth in vehicle miles traveled (VMT) and trips should be held to the rate of population or household growth. Compliance with this performance standard for development projects (including general plan amendments and specific plans) is assessed by determining the population and/or employment for the projected buildout year of the project and comparing it with the population and/or employment figures projected for the local jurisdiction (in this case the County of Los Angeles) for the

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44 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 9-12.

45 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 9-12.

46 South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 9-12.

same year. The resulting ratio should be the same or greater than the ratio of growth in VMT for the project when compared to the projected VMT for the local jurisdiction in the same year.

An assessment of the Specific Plan's cumulative impacts based on this methodology is presented in **Table 4.10-13, Cumulative Impact Analysis**. As shown, the rate of growth in VMT (and hence vehicular air emissions) caused by the proposed residential uses would occur at a lower rate than the rate of growth associated with the expected on-site population. This is consistent with the AQMP performance standard. Therefore, the proposed residential uses would not cause a significant cumulative impact.

Table 4.10-13 indicates that the rate of growth of VMT (and hence vehicular air emissions) generated by the other proposed on-site employment-generating uses would exceed the rate of growth in jobs provided by the uses. This is inconsistent with the AQMP performance standard and is considered a significant cumulative impact.

Table 4.10-13
Cumulative Impact Analysis

	Population	Employment
Specific Plan Daily VMT[1]	1,096,215	830,968
Countywide Daily VMT[2]	214,264,776	214,264,776
Daily VMT Ratio	0.00512	0.00388
Specific Plan Population or Employment	68,524	19,323
Countywide Population or Employment[3]	11,286,000	5,670,000
Population and Employment Ratios	0.00607	0.00341
Significance Test -- Daily Traffic Ratio Greater Than Population or Employment Ratio	Not Significant	Cumulatively Significant

Source: Impact Sciences, Inc.
[1]*Source: Appendix 4.10. Population VMT includes VMT generated by residential uses. Employment VMT includes VMT generated by all other on-site uses.*
[2]*Source: South Coast Air Quality Management District, CEQA Air Quality Handbook (Diamond Bar, California: South Coast Air Quality Management District, November 1993), pp. A9-127 - A9-128.*
[3]*Source: Southern California Association of Governments, Growth Management Chapter to the Regional Comprehensive Plan and Guide (Los Angeles, California: Southern California Association of Governments, June 1994), p. 2-21.*

b. One Percent Per Year Reduction in Project Emissions of CO, VOC, NO_x, SO_x, and PM_{10}

According to the SCAQMD's CEQA Air Quality Handbook, the one percent per year reduction analysis can be performed by calculating a project's total unmitigated emissions and then dividing them by the

reductions from the application of mitigation measures. This will provide the percent reduction in project emissions.

As shown previously in **Table 4.10-8, Estimated Emission Reduction Efficiencies - Proposed Specific Plan**, the emission reduction efficiencies predicted for the Specific Plan and the mobile emissions that would be reduced by the proposed on-site mobility system with alternatives to automobile use represent reductions of 2.9 percent of the Specific Plan's CO emissions, 2.3 percent of VOC emissions, 1.8 percent of NO_x, and 3.1 percent of PM_{10} emissions. Similar reduction percentages can be expected to occur on an annual basis. These reductions exceed the SCAQMD's performance standard for annual emissions reductions. The SCAQMD's CEQA Air Quality Handbook does not identify any reduction efficiencies for emissions of SO_x. It should be assumed, however, that these measures would reduce emissions of SO_x by a minimum of 1.0 percent given that the minimum reduction for other mobile emissions is 1.8 percent. Therefore, the Specific Plan would exceed the SCAQMD's performance standard for annual emissions reductions and would not be considered cumulatively significant in this context.

c. 1.5 Average Vehicle Ridership, or Average Vehicle Occupancy if a Transportation Project

The Newhall Ranch Specific Plan is not a transportation project. Therefore, this performance standard does not apply to the Specific Plan.

9. CUMULATIVE MITIGATION MEASURES

Cumulative impacts are considered significant because the rate of growth of VMT (and hence vehicular air emissions) generated by the proposed on-site employment centers (Commercial, Business Park, commercial office, and WRP uses) would exceed the rate of growth in jobs provided by the uses. This is inconsistent with the AQMP performance standard and is considered a significant cumulative impact. The mitigation measures already incorporated into the Newhall Ranch Specific Plan and recommended by the EIR would reduce VMT generated by the Specific Plan. Therefore, no additional mitigation measures are recommended.

10. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Specific Plan Impacts

The Specific Plan's construction-related and operation-related emissions would be considered unavoidably significant. The recommended mitigation measures would reduce the magnitude of

construction-related and operation-related emissions associated with the Newhall Ranch Specific Plan to some extent. However, no feasible mitigation exists which would reduce these emissions to below the SCAQMD's recommended thresholds of significance.

While the Specific Plan's air emission generation would be significant, it is important to understand that the Newhall Ranch Specific Plan is designed in such a way as to reduce vehicle miles traveled when compared with more conventional, or non-Village, designs. Consequently, air emissions would be reduced as well. The Specific Plan is also consistent with the AQMP, and, based on SCAQMD methods of analysis, its emissions should not jeopardize attainment of State and Federal ambient air quality standards in the Santa Clarita Valley and the region.

b. Cumulative Impacts

The recommended mitigation measures would help to reduce VMT (and related air emissions) associated with the on-site employment-generating uses. However, the total reduction in VMT (and related air emissions) afforded by these measures has not been quantified since the information necessary to conduct such an analysis, per SCAQMD methodologies, is not available at this time. Therefore, the Specific Plan's significant cumulative air quality impact would be considered unavoidably significant.

4.11 Water Resources

4.11 WATER RESOURCES

1. SUMMARY

In 1995 the State legislature passed, and Governor Wilson signed, SB 901 (Costa) which requires certain elements within an EIR to address the availability of water sources in conjunction with land planning. This is applicable to all projects filing Notices of Preparation on or after January 1, 1996 for general plan amendments. The Notice of Preparation (NOP) for the proposed Newhall Ranch Specific Plan was filed with the State of California Office of Planning and Research in January, 1995. However, the following analysis uses the basic requirements of SB 901 as the guide to analyze the impact of this Specific Plan on water resources.

The proposed Newhall Ranch Specific Plan site is located within the wholesale water service area of the Castaic Lake Water Agency and partially within the retail water service area of the Valencia Water Company. Currently, the site is not developed with urban land uses. As it develops, the Specific Plan would increase water demand within the area. The Specific Plan is analyzed in this section with respect to its water demand, water supply, and potential impacts associated with an aquifer storage and retrieval water supply management alternative which could be used if other alternatives are not forthcoming.

The projected total water demand for the Specific Plan is 19,345 acre-feet per year. Of this amount, 10,094 acre-feet would be required for potable uses (e.g., drinking) and 9,251 acre-feet would be required for non-potable/landscape irrigation uses.

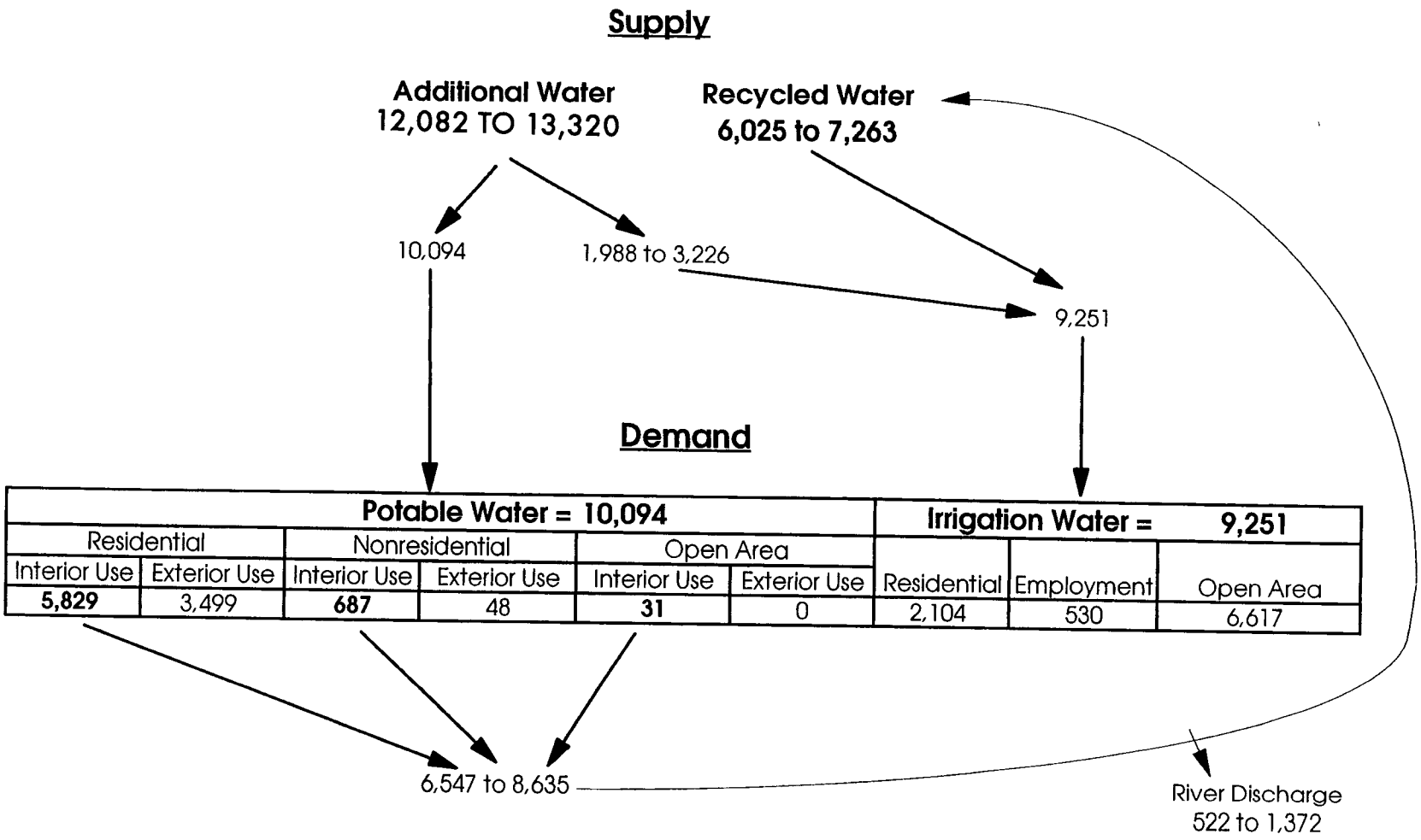
Of the 9,251 acre-feet per year of non-potable water demand, 6,547 to 8,635 acre-feet per year could be met by reclaimed water, after use and tertiary treatment at the proposed water reclamation plant. The variance or range in the amount of reclaimed water is the result of differing estimates of the internal/external distributions of household and business water uses. Due to the seasonal nature of landscape irrigation requirements, however, not all of the reclaimed water may be needed during winter months when landscape irrigation demands are low. As a result, about 522 to 1,372 acre-feet annually (worst-case) of tertiary-treated water could be discharged from the water reclamation plant into the Santa Clara River over a five-month period. Therefore, of the non-potable water demand (9,251 acre-feet), 6,025 to 7,263 acre-feet (65 to 79 percent) would be met by reclaimed water from the proposed water reclamation plant.

The remaining 12,082 to 13,320 acre-foot demand (10,094 acre-feet per year for potable demands and 1,988 to 3,226 acre-feet per year for non-potable demands) would primarily be met through deliveries from the Valencia Water Company (VWC) which obtains some of its water from the Castaic Lake Water Agency (CLWA), and potentially the use of The Newhall Land and Farming Company's rights to Castaic Creek flood flows ~~and the remainder from the underground alluvial and Saugus Aquifers~~. As much as 8,300 acre-feet per year of Castaic Creek flows could be utilized by the Specific Plan through The Newhall Land and Farming Company's rights to 44.867 percent of the annual Castaic Creek winter flows exceeding 100 cubic feet per second (prior to May 1) if existing agreements between the Department of Water Resources, The Newhall Land and Farming Company, and three other agencies are amended to permit CLWA to take the flows at Castaic Lake and to extend the agreements.

Specific Plan use of reclaimed water (6,547 to 8,635 acre-feet) and treated Castaic Creek flood flows could, together, reduce the Specific Plan's dependence upon State imported water by 33.8 to 44.6 percent during a dry year when no flood flows are available, and by as much as 74.0 to 80.4 percent during a wet year, when as much as 8,300 acre-feet of flood flows could be available to the Specific Plan. A summary of dry year and wet year water use by the Specific Plan from the three sources of water supply by the Specific Plan is summarized in ***Table 4.11-1, Specific Plan Water Demand and Supply Summary.*** *The dry year scenario presents a worst-case scenario when no Castaic Creek flood flows would be available to development in the Specific Plan area; however, all of the treated water from the water reclamation plant would be consumed for year-around irrigation. The wet year scenario presents a scenario when 8,300 acre-feet of flood flows would be available and reclaimed water would only be used for the nine dry months out of the year, with 522 to 1,372 acre-feet being discharged into the River. On average, it is estimated that 2,900 acre-feet of water would be available from treated Castaic Creek flood flows.*

The primary water source for the Specific Plan would be water from the Valencia Water Company, supplemented by reclaimed water from the proposed Newhall Ranch water reclamation plant (up to 6,547 to 8,635 acre-feet per year) and Castaic Creek flood flows (up to 8,300 acre-feet per year). ***Figure 4.11-1, Water Balance,*** *illustrates the balance between water demands by type and supply, including reclaimed water generation and other sources of water supply.*

The Specific Plan applicant proposes to utilize Castaic Creek flood flows as a water resource for the Newhall Ranch Specific Plan under one of two operational alternatives. Under the first and preferred alternative, referred to as the Coordinated Operations/Water Transfer Alternative, The Newhall Land and Farming Company would use its Castaic Creek flood flows for the Specific Plan area and would provide the excess of its share of Castaic Creek flood flows that would exceed Specific Plan demands during the period prior to May 1 to CLWA for use in the Santa Clarita Valley. After May 1,



Source: CH2M Hill, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Jan 1996, Rev. July 1996)

NOTE: ALL UNITS IN ACRE-FEET/YEAR

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FIGURE 4.11-1
WATER BALANCE

development in the Specific Plan area would receive CLWA supplies in exchange for the Castaic Creek flows. If implementation of the first alternative is not possible, the second alternative, referred to as the Aquifer Storage and Recovery Alternative, may be implemented. Under this alternative, The Newhall Land and Farming Company's share of the flood flows would be treated and injected into the Saugus Aquifer for later retrieval. The Coordinated Operations/Water Transfer Alternative would be an institutional arrangement for transferring The Newhall Land and Farming Company's share of water to development in the Specific Plan area. Castaic Creek flood flows would be treated at Castaic Lake Water Agency water treatment plants to drinking water standards prior to injection, without negatively affecting ground water quality.

Table 4.11-1
Specific Plan Water Demand and Supply Summary

	Dry Year Scenario		Wet Year Scenario	
	Water Use (acre-feet/yr)	**Percent of Total**	**Water Use (acre-feet/yr)**	**Percent of Total**
Total Demand	19,345	100.00	19,345	100.00
Source of Water Supply				
Reclaimed Water[1]	6,547 to 8,635	33.8 to 44.6	6,025 to 7,263	31.1 to 37.5
Castaic Creek Flood Flows[2]	0	0.00	8,300	42.9
CLWA and VWC[3]	10,710 to 12,798	55,4 to 66.2	3,782 to 5,020	19.6 to 26.0

Source: Compiled by Impact Sciences, Inc. (June 1996).
[1]In the wet year scenario, the demand for reclaimed water is only 6,025 to 7,263 acre-feet, resulting in the possible discharge of 522 to 1,372 acre-feet (6,547 - 6,025 = 522; 8,635 - 1,372 = 7,263) of reclaimed water into the Santa Clara River.
[2]The historical average (1956-1986) of The Newhall Land and Farming Company's share of untreated Castaic Creek flood flows is 5,400 acre-feet per year, and the range for treated flood flows is 0 to 8,300 acre-feet per year.
[3]CLWA and Valencia Water Company water would be delivered in an unknown combination of State Water Project water and ground water.

Potential hydraulic impacts on the Santa Clara River from water reclamation plant discharge of excess treated wastewater is analyzed in ***Section 4.2 (Flood)****. Potential water quality impacts relative to water reclamation plant discharges into the Santa Clara River are discussed in* ***Section 4.12, Wastewater Disposal****, and* ***Section 5.0, Water Reclamation Plant Impacts, Mitigation Measures, and Unavoidable Significant Impacts.***

Although the Valencia Water Company and Castaic Lake Water Agency have indicated that they intend to serve the Specific Plan, the agencies do not, at the time of this writing, have all of the water resources that would ultimately be needed as the Specific Plan and other projects in the CLWA service area build out. While agencies plan for the long-term build out of their service areas, they increase

their water supplies and build their treatment and delivery facilities on an incremental basis. It is not common practice for service providers to build capital facilities and acquire supplies far in advance of demands which would occur in the distant future. Projections of demand tend to be increasingly speculative the longer the term of projection. The rate of growth, sources of supply, political and legal factors, and financing abilities must all be factored into an agency's plans, making it imperative that agencies extend infrastructure and purchase supplies in an incremental fashion as these factors become clear.

Since all of the supplies of water which would be needed from CLWA and the Valencia Water Company are not available as of the writing of this EIR, implementation of the Newhall Ranch Specific Plan would potentially result in a significant impact on water availability. Therefore, mitigation is recommended that, prior to recordation of final subdivision maps which permit construction, assurance is to be obtained from Valencia Water Company that adequate water would be available to serve that portion of the Specific Plan being recorded. Consequently, no development would take place on the Specific Plan site unless the applicant can demonstrate the existence of adequate water at the time it is needed. Such mitigation would reduce Specific Plan impacts on water availability to less than significant.

2. INTRODUCTION

In 1995 the State legislature passed, and Governor Wilson signed into law SB 901 (Costa), which requires certain elements within an EIR to address the availability of water sources in conjunction with land planning. This is applicable to all projects filing Notices of Preparation on or after January 1, 1996 for general plan amendments. The Notice of Preparation (NOP) for the proposed Newhall Ranch Specific Plan was filed with the State of California Office of Planning and Research in January, 1995. However, the following analysis uses the basic requirements of SB 901 as the guide to analyze the impact of this Specific Plan on water resources.

Water from the Valencia Water Company would be the Specific Plan's primary water source, which would be supplemented by reclaimed water from the proposed Newhall Ranch water reclamation plant and Castaic Creek flood flows to the extent available. The following discussion identifies existing local wholesale and retail water agencies and conditions in the Specific Plan area, water requirements for the Specific Plan, sources of water supply and water supply management alternatives for the Specific Plan, and three alternative routes of delivering imported water to the Specific Plan site. Specific Plan and cumulative impacts to water supplies are evaluated, along with impacts associated with the water supply management alternatives identified for the Plan. Finally, mitigation to assure adequate water availability and delivery to the Specific Plan as it builds out is presented. The

information provided in this section is based in part on technical reports entitled Water Resource and Wastewater Management for the Newhall Ranch Project (Revised June 1996) and Addendum to Water Resources and Wastewater Management for the Newhall Ranch Project (June 1996) prepared by CH2M. These reports are included in their entireties in **Appendix 4.11** of this EIR and are herein incorporated by reference.

As Santa Clarita Valley's wholesale State Water Project (SWP) supplier, Castaic Lake Water Agency (CLWA) treats the State Water Project water at its two filtration plants and distributes it to four local water purveyors: Los Angeles County Waterworks District 36, Newhall County Water District (NCWD), Santa Clarita Water Company (SCWC), and the Valencia Water Company (VWC). The local purveyors use CLWA's imported water and water from their own wells in the Saugus and Alluvial Aquifers to meet the overall water supply needs of the Valley.

The proposed Specific Plan is located within CLWA's service area **(Figure 4.11-2)** and partially within the current service area of the Valencia Water Company, which provides water service to the community of Valencia and portions of the communities of Newhall and Saugus. As the Specific Plan builds out, it would be annexed to and also receive water service from the Valencia Water Company. The Specific Plan would be annexed into Valencia Water Company's service area in stages as subdivision maps are approved by the County of Los Angeles (**see Figure 4.11-3, Valencia Water Company Service Area**). Annexation would occur in stages and in accordance with Public Utilities Commission (PUC) rules and regulations over approximately 25 years as the various stages of development proceed. Each subdivision would require preliminary and final water plans for review and approval by the Valencia Water Company. The plans would indicate anticipated water demand, required water storage facilities, booster pump stations, and on- and off-site piping needed for adequate domestic and fire water flow pressure to the Specific Plan site. Once a plan is reviewed and approved by the Valencia Water Company and the tentative tract map is approved, an application would be filed with the Public Utilities Commission requesting approval of annexation of the subdivision Specific Plan area into Valencia Water Company's water service area.

CLWA and the Valencia Water Company are pursuing a wide range of options that are intended to collectively provide for the adequate supply, treatment, and delivery of water to meet the projected demands for water within their service areas. As part of this process, the Valencia Water Company and CLWA would also incorporate planning for additional water supplies for the Specific Plan into their overall planning processes for water supply and facilities. For a fuller discussion of CLWA and Valencia Water Company water availability and long-range water resource planning efforts, see the discussion in Subsection 4., Specific Plan Water Supply.

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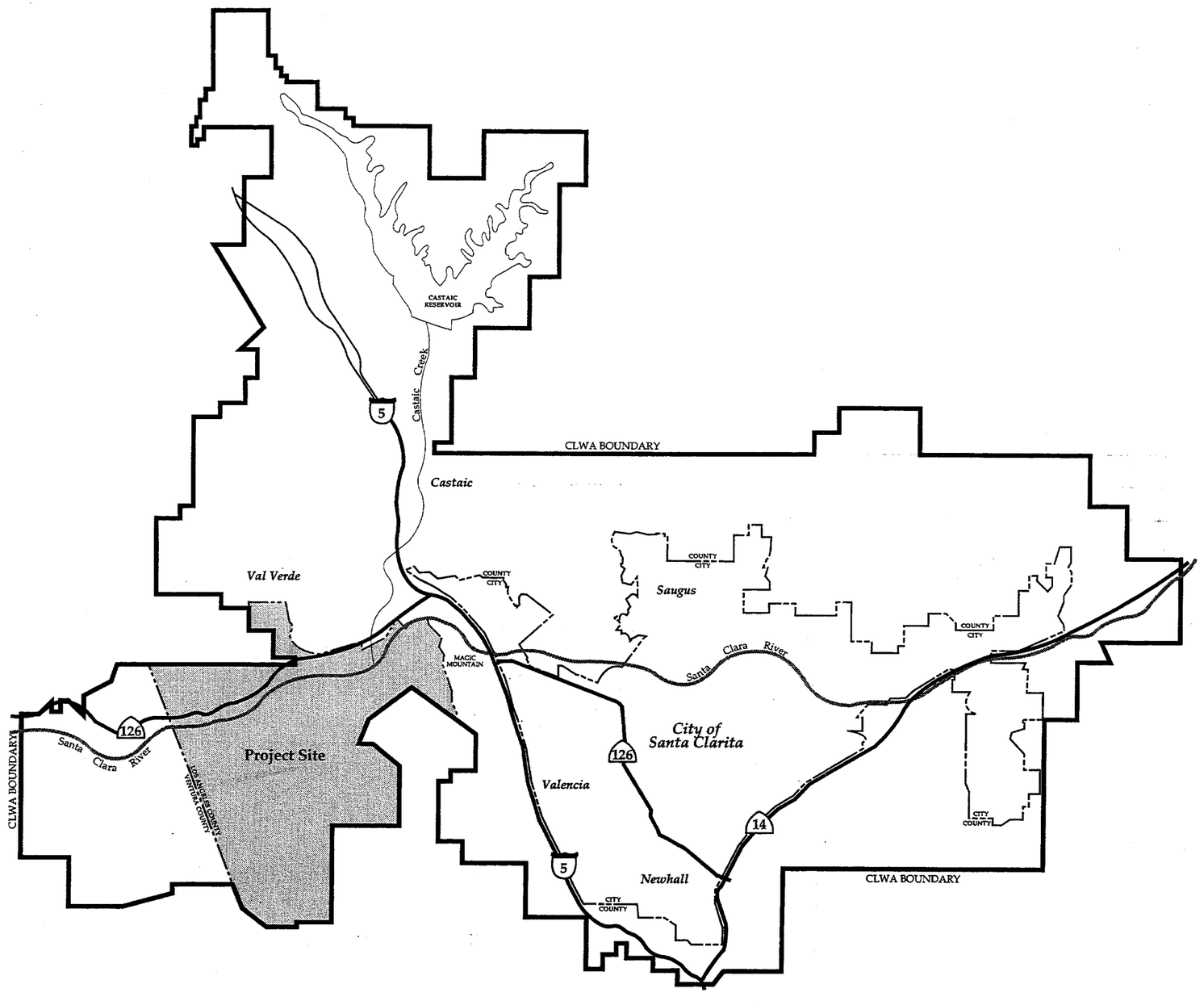

SCALE:

IMPACT SCIENCES INC

FIGURE 4.11-2

CASTAIC LAKE WATER AGENCY SERVICE AREA

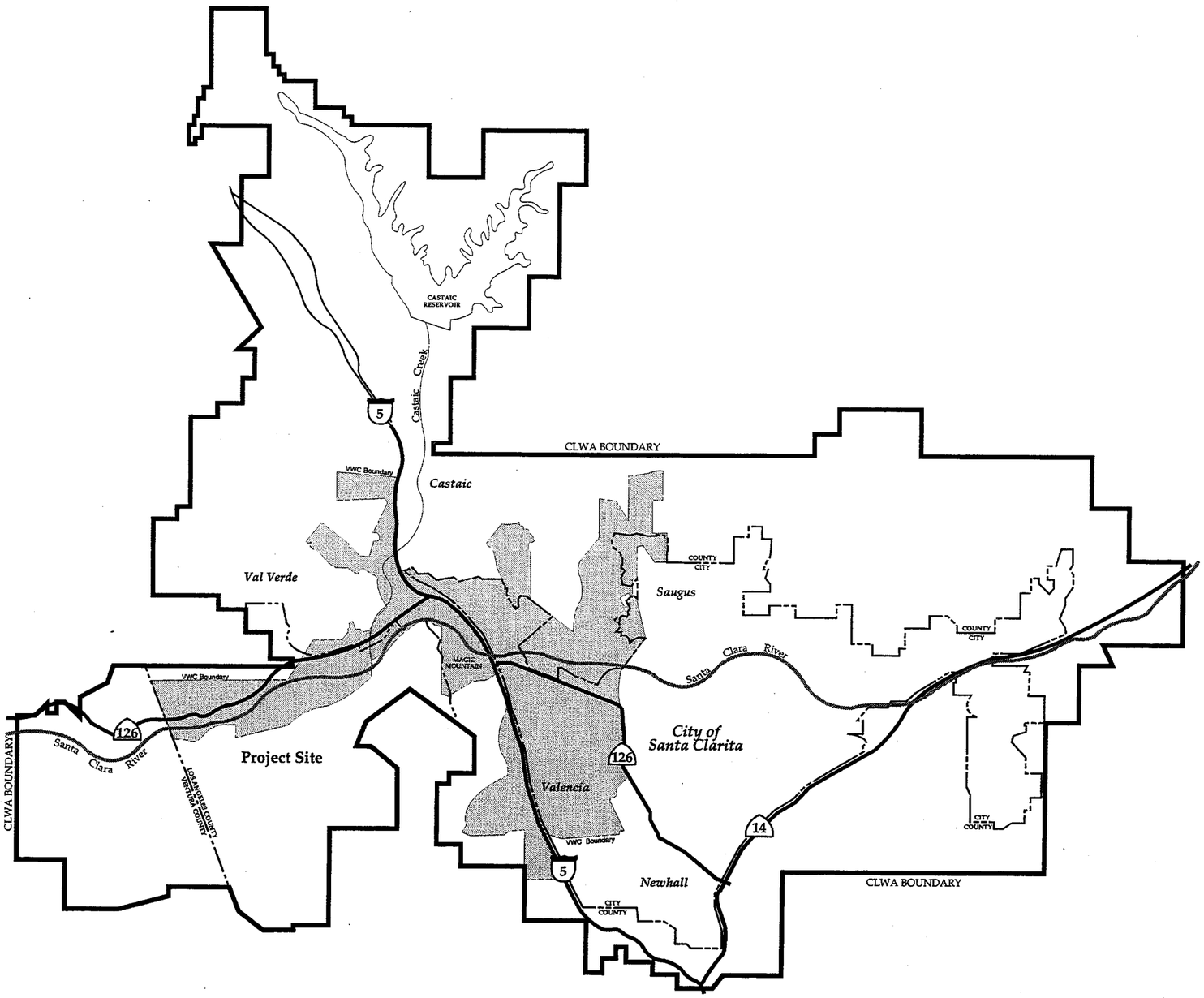

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FIGURE 4.11- 3

VALENCIA WATER COMPANY SERVICE AREA

3. SPECIFIC PLAN WATER DEMAND

Water demand projections serve as the basis for all water planning of a community. Accurate projections of water demands are required to provide a strong foundation for both reliable water supply planning and water system facility planning, layout, and sizing.

a. Methodology

The Newhall Ranch Specific Plan proposes a dual water system. One system would provide potable water, while a parallel system would provide reclaimed water for outdoor (irrigation) use. To plan a dual water distribution system for potable and non-potable water, water demands must be "disaggregated"; that is, they must differentiate between indoor (potable) demands, outdoor potable demands, and outdoor demands that can be met with non-potable water. The availability of reclaimed water to meet non-potable outdoor demands is based on the amount of water that can be reclaimed at the water reclamation plant. The amount of reclaimed water, in turn, is based on the amount of water used for indoor purposes.

Since reclaimed water is not used extensively in the Santa Clarita Valley (except for some grading use) as of the time of this writing, neither the CLWA nor local water retailers have developed potable versus non-potable water demand factors. Therefore, CH2M HILL looked to the Irvine Ranch Water District (IRWD) in Orange County, a long-term leader in wastewater recycling, for a potable-vs.-non-potable approach to estimate disaggregated water demands.

The IRWD created 19 land use categories for which water use factors were determined, and from which water demands could be projected. Water use factors disaggregate demands into residential, nonresidential, and irrigation water demand. Residential water demands are further subdivided into interior and local exterior demands,[1] the bulk of which must meet potable standards. Water demands for common area irrigation within residential neighborhoods are calculated as "irrigation" demands, which may be met with non-potable water. Non-residential potable demands are also divided into interior and exterior water demands for businesses, institutions, schools, and parks. Irrigation demands in the IRWD approach include all landscape irrigation demands that can be met with non-potable

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1 Interior water demands include drinking, bathing, laundry, sanitation, etc., and are generally considered synonymous with water that enters the wastewater collection and treatment system. Local exterior water is used for landscape irrigation near the home, washing cars, filling swimming pools, etc.

water, such as for greenbelts, parkways, golf courses, school yards, common areas, and parks. IRWD further derived population projections from land use factors by applying average occupancy estimates of 2.0 to 3.5 persons per dwelling unit, depending on the land use (see **Appendix 4.11** for a more detailed discussion on IRWD methodology).

IRWD water use factors were compared to CLWA and Valencia Water Company factors to determine whether the projections of total aggregated water demands are consistent. Generally, the approaches provide similar estimates of total water demands; however, the IRWD approach provides a more refined breakdown of demands and wastewater generation to allow water balance estimates. Consequently, the IRWD approach was applied to the Newhall Ranch Specific Plan.[2]

b. Water Demands

(1) Annual Demands

Applying the IRWD water demand estimating approach to land use projections for the Specific Plan yields an estimated total annual demand of 19,345 acre-feet per year. Of this total, 10,094 acre-feet per year must be met with potable supplies and 9,251 acre-feet per year could be met from potable or non-potable supplies. **Table 4.11-2, Summary of Newhall Ranch Water Demands,** summarizes water demands by type and by use: total residential demands are 11,432 acre-feet per year, total nonresidential demands are 1,265 acre-feet per year, and open area and parks demands are 6,648 acre-feet per year.

(2) Seasonal Demands

Seasonal demands are important in analyzing whether all of the reclaimed water generated at the proposed Newhall Ranch water reclamation plant can be used for irrigation as it is generated, or whether some amounts would need to be stored for later use or released into the Santa Clara River, as discussed in **Section 4.12, Wastewater Disposal,** and **Section 5.0, Water Reclamation Plant Impacts, Mitigation Measures, and Unavoidable Significant Impacts.** Knowledge of seasonal water demands is also important in order to balance water supplies and demands and to identify potential impacts on the potential water retailer (Valencia Water Company) and water wholesaler (CLWA).

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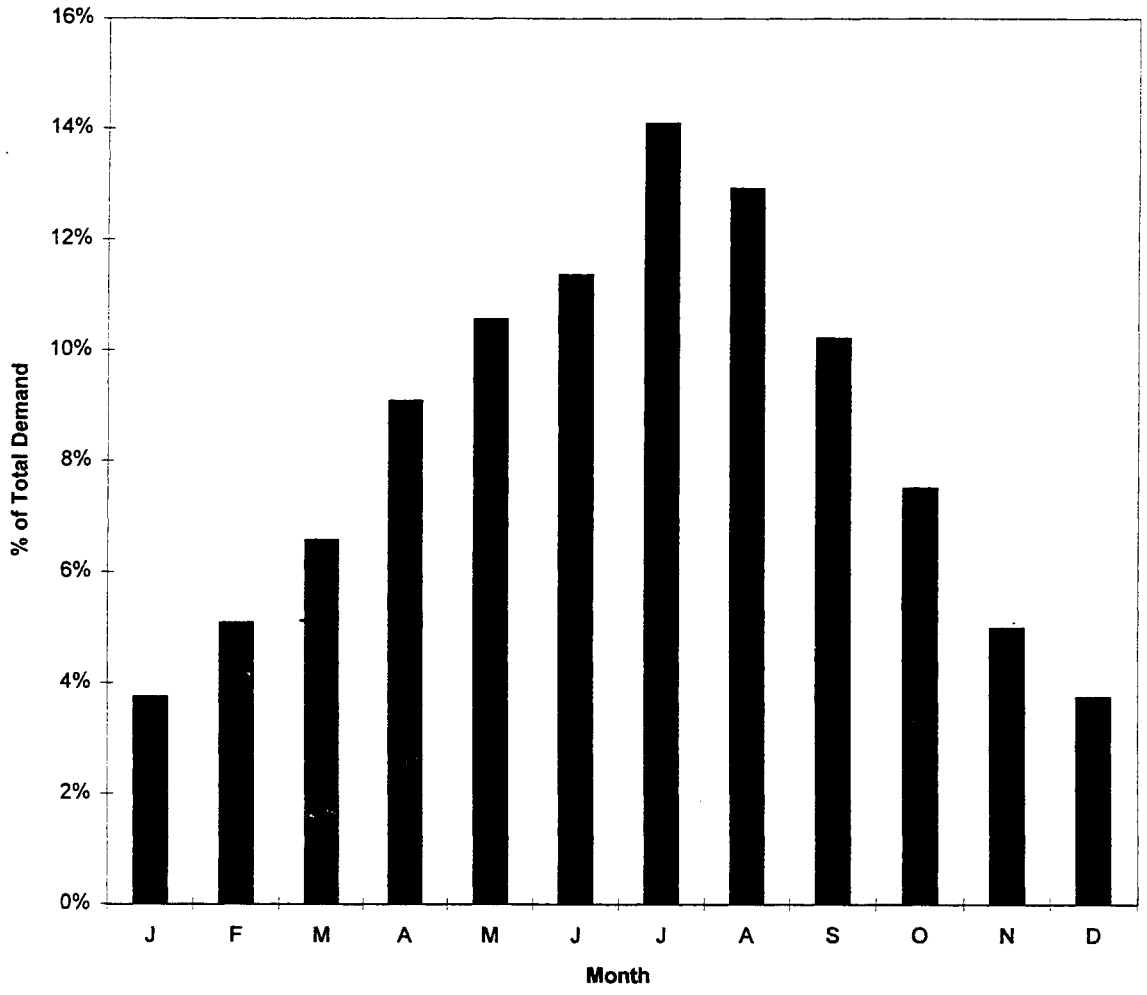
2 For comparison purposes, water demand factors from the VWC master plan were applied to the land use categories in the Specific Plan. VWC factors yield an estimated annual demand of about 19,222 ac-ft per year. The IRWD approach provided a slightly more conservative (about 2 percent higher) estimate and allowed for a more detailed breakdown of water demand by type.

Table 4.11-2
Summary of Newhall Ranch Water Demands

Land Use Type		Water Demand (acre-feet/year) Potable	Non-potable
Residential Development			
Estate		530	194
Low		977	283
Low-Medium		3,270	838
Medium		2,665	507
High		702	97
Mixed-Use		1,184	185
	Subtotals	9,328	2,104
Nonresidential Development			
Mixed-Use Commercial			
Retail		9	62
Office		139	62
Commercial		160	52
Business Park		374	82
Visitor-Serving		2	57
Water Reclamation Plant		13	12
Fire Stations		9	2
Schools		29	201
	Subtotals	735	530
Open Areas and Parks			
Recreation			
Community Parks		6	212
Neighborhood Parks		6	231
Lake - Water		0	57
Lake - Park Area		0	36
Golf Course		19	932
Arterial Highways			
Landscape Area		0	306
Major Open Areas			
Community Slopes		0	4,843
	Subtotals	31	6,617
	Totals	**10,094**	**9,251**
		Total Demand	**19,345**

Source: CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), p. 2-5.

Indoor water demands are relatively constant throughout the year, while exterior demands vary annually and throughout the year mainly due to fluctuations in evapotranspiration which affects the demand for irrigation water (see **Figure 4.11-4, Monthly Irrigation Demands**). Although total Specific Plan potable demands would vary monthly, they would not exhibit as much variation as irrigation demands due to the dampening effect of the more constant indoor use. As shown in **Figure 4.11-5, Monthly Water Demands,** maximum-month potable demands would be 1,056 acre-feet, while maximum-month non-potable demands would be 1,305 acre-feet. As shown in **Figure 4.11-6, Total Monthly Water Demands,** total monthly demands would range from a low of 1,038 acre-feet per month in January and December to a maximum of 2,362 acre-feet projected for July.



Source: Reference Evapotranspiration (ETo) for California Maps, Agricultural Experiment Station, University of California, Division of Agriculture and Natural Resources, Bulletin 1922.

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FIGURE 4.11-4
MONTHLY IRRIGATION WATER DEMANDS

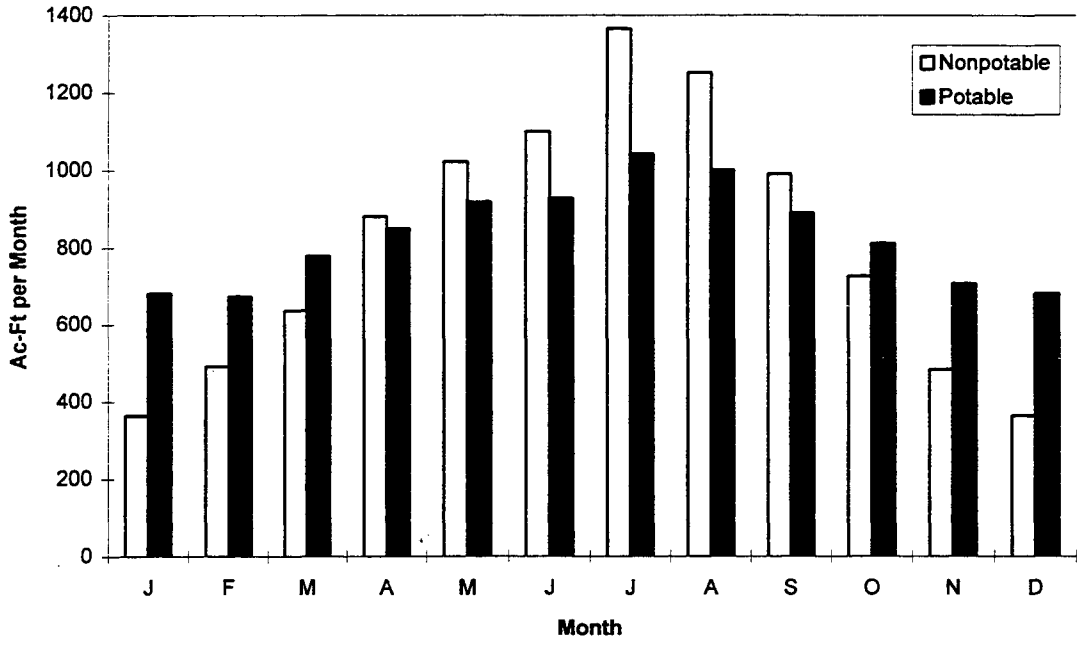

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FIGURE 4.11-5
MONTHLY WATER DEMANDS

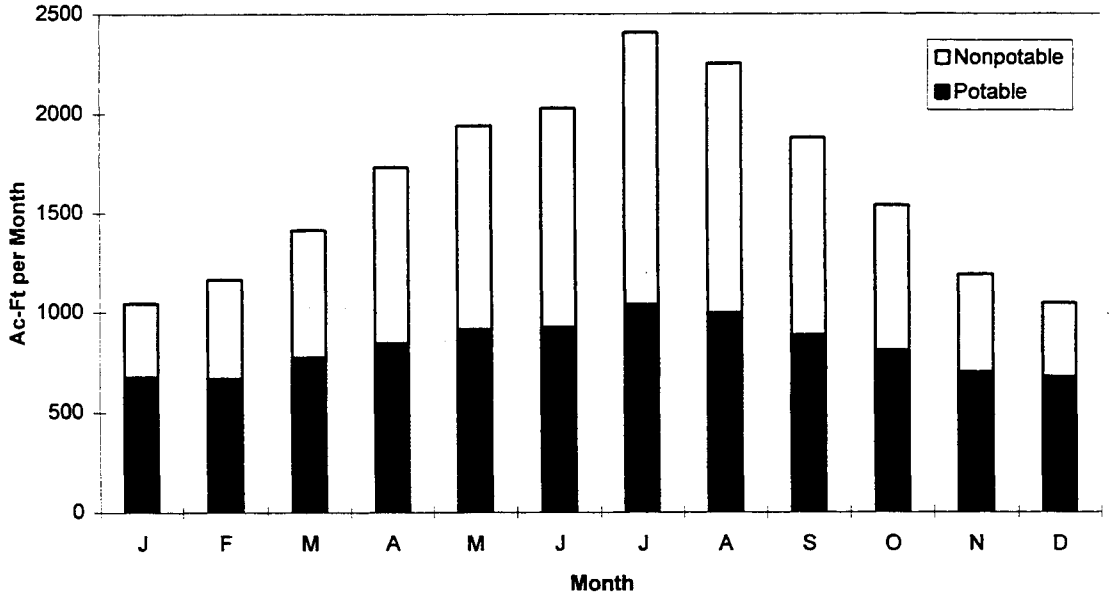

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FIGURE 4.11-6
TOTAL MONTHLY WATER DEMANDS

4. SPECIFIC PLAN WATER SUPPLY

As is required by law for water wholesalers, CLWA has stated that it intends to serve all parts of its service area, including Newhall Ranch. The Valencia Water Company has also said that it will serve the Specific Plan site, that it is the most logical water retailer to provide water service to the Specific Plan, and would annex the Specific Plan site to its service area.[3] Therefore, given the combined resources of these agencies, the Specific Plan would be served with water through the CLWA and the Valencia Water Company. As part of the Specific Plan subdivision process, water availability would be confirmed for the subdivision under review by the County through its Development Monitoring System (DMS) to determine whether there would be sufficient water for the subdivision, given the demands from existing development and other subdivisions which are approved and/or recorded. The County would also require confirmation from the Valencia Water Company that it can serve the subdivision.

Specific Plan reliance on CLWA and Valencia Water Company water would be substantially reduced through the use of reclaimed water from the proposed 7.7 mgd water reclamation plant (up to 6,547 to 8,635 acre-feet per year[4]) and through the Specific Plan's potential use of The Newhall Land and Farming Company's rights to Castaic Creek flood flows (up to 8,300 acre feet per year). Taken together, use of reclaimed water and the flood flows could reduce the Specific Plan's dependence on CLWA water by as much as 74.0 to 80.4 percent during a wet year. In a worst-case scenario where no Castaic Creek flood flows would be available in a dry year, a demand for all available tertiary-treated water reclamation plant water (6,547 to 8,635 acre-feet) would occur and Specific Plan dependence upon CLWA water would be reduced by 33.8 to 44.6 percent. These sources of water supply and Specific Plan water demand are described in **Table 4.11-3**, and more fully discussed below.

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3 Robert J. DiPrimio, Managing Director, Valencia Water Company, correspondence to Impact Sciences, Inc., 30 January 1996.

4 Based on interior water demand estimates for the Specific Plan, it would generate 6,547 acre-feet per year of wastewater. The proposed WRP was not, however, sized based on the total Specific Plan interior water demand; rather, it was sized for 7.7 mgd (which is equivalent to 8,635 acre-feet per year) using County Sanitation Districts of Los Angeles County (CSDLAC) wastewater generation factors (see Section 4.12, Wastewater Disposal). For the purposes of this impact analysis, and to acknowledge CSDLAC methodology for calculating wastewater generation, it will be stated throughout this section that the Specific Plan would have a reclaimed water supply of 6,547 to 8,635 acre-feet per year.

Table 4.11-3
Specific Plan Water Demand and Supply Summary

	Dry Year Scenario		Wet Year Scenario	
	Water Use (acre-feet/yr)	**Percent of Total**	**Water Use (acre-feet/yr)**	**Percent of Total**
Total Demand	19,345	100.00	19,345	100.00
Source of Water Supply				
Reclaimed Recycled Water[1]	6,547 to 8,635	33.8 to 44.6	6,025 to 7,263	31.1 to 37.5
Castaic Creek Flood Flows[2]	0	0.00	8,300	42.9
CLWA and VWC[3]	10,710 to 12,798	55.4 to 66.2	3,782 to 5,020	19.6 to 26.0

Source: Compiled by Impact Sciences, Inc. (June 1996).
[1]*In the wet year scenario, the demand for reclaimed water is only 6,025 to 7,263 acre-feet, resulting in the possible discharge of 522 to 1,372 acre-feet (6,547 - 6,025 = 522; 8,635 - 1,372 = 7,263) of reclaimed water into the Santa Clara River.*
[2]*The historical average (1956-1986) of The Newhall Land and Farming Company's share of untreated Castaic Creek flood flows is 5,400 acre-feet per year, and the range for treated flood flows is 0 to 8,300 acre-feet per year.*
[3]*CLWA and Valencia Water Company water would be delivered in an unknown combination of State Water Project water and ground water.*

a. Reclaimed Water

Based on the IRWD approach to calculate Specific Plan water demand, interior water demand estimates for the Newhall Ranch Specific Plan would be for 6,547 acre-feet per year of water. The proposed WRP was not, however, sized based on the total Specific Plan interior water demand; rather, it was sized using CSDLAC waste water generation factors, resulting in a proposed treatment plant capacity of 7.7 mgd, which is equivalent to 8,635 acre-feet per year (see **Section 4.12, Wastewater Disposal** for further discussion). If operated at full capacity, therefore, the proposed 7.7 mgd plant would generate 8,635 acre-feet per year of reclaimed water. Therefore, for the purposes of this impact analysis and to acknowledge the differences between the way interior water demand was calculated and the way wastewater generation was calculated for the Specific Plan, it will be stated throughout this section that the Specific Plan would generate between 6,547 and 8,635 acre-feet of reclaimed water per year. The variance or range in the amount of reclaimed water is the result of differing estimates of the internal/external distribution of household and business water uses.

As mentioned in Section 1.0, Project Description, it is a goal of the Specific Plan to facilitate the construction of a water reclamation plant as a near zero-discharge facility, which would generate 6,547 to 8,635 acre-feet per year of tertiary-treated wastewater which could be reclaimed to help meet the non-potable water demands of the Specific Plan as identified in **Table 4.11-2** (9,251 acre-feet per year). In an average rainfall year, all tertiary-treated wastewater from the water reclamation plant would

be reclaimed for irrigation, except in the months of October through March. For these months collectively, about 522 to 1,372 acre-feet of the treated wastewater would not be needed to meet the non-potable demands and could be discharged to the Santa Clara River, transported to other uses outside of the Specific Plan boundaries, or stored for later use. For the purposes of this impact analysis, it is assumed that no reclaimed water would be stored seasonally or transported for use elsewhere. Rather, reclaimed water exceeding the Specific Plan's non-potable demands would be discharged to the Santa Clara River as a worst-case scenario, leaving 6,025 to 7,263 acre-feet per year of treated wastewater available for reclamation.

The expected 6,025 to 7,263 acre-feet per year of reclaimed water supply from the water reclamation plant, however, would not be sufficient to meet all of the Specific Plan's non-potable demands. Consequently, the reclaimed water would need to be supplemented with 1,988 to 3,226 (9,251 - 7,263 = 1,988; 9,251 - 6,025 = 3,226) acre-feet per year of water from potable sources, such as the Valencia Water Company water and/or Castaic Creek flood flows.

b. Castaic Creek Flood Flows

(1) Background

The Newhall Land and Farming Company (NLF), of which The Newhall Ranch Company is a division, has rights to the use of natural flows from Castaic Creek into Castaic Lake. Prior to construction of Castaic Dam as a part of the State Water Project, the Department of Water Resources entered into agreements with The Newhall Land and Farming Company and other downstream water users, including United Water Conservation District, Los Angeles County, and Newhall County Water District. The agreements assure continuance of the reasonable and beneficial use of the Castaic Creek flow by Downstream Water Users as would have occurred if the dam had not been constructed and in accordance with the following allocation:

United Water Conservation District	48.000%
The Newhall Land and Farming Company	44.867%
Los Angeles County	4.471%
Newhall County Water District	2.662%

Agreements provide that, when the inflow to Castaic Lake exceeds 100 cubic feet per second (cfs), the total flow of Castaic Creek is retained behind the dam, if storage capacity exists, until releases are requested by Downstream Water Users. On May 1 of each year, all flood water in storage behind Castaic Dam that would have historically percolated into the ground or been discharged to the ocean becomes the property of the State of California and a part of the State Water Project supply.

Castaic Creek flows have been and are anticipated to be variable, ranging from no flow in some years to over 43,000 acre-feet in wet years; therefore, the amount of water available to Downstream Water Users varies from year to year. In the past, flows have occasionally been released since 1991 when requested by the Downstream Water Users or to reduce reservoir water elevations at Castaic Dam during periods of high flow. Whenever available flows were not released to Downstream Water Users, they were reverted to the Department of Water Resources, as specified in the agreement, and became part of the State Water Project supply.

(2) The Newhall Land and Farming Company's Historical Share of Flood Flows

As previously mentioned, water available from Castaic Creek flood flows has historically ranged from no flows to as much as approximately 43,000 acre-feet per year. However, between 1956 and 1986, the average annual water availability to all Downstream Users from Castaic Creek runoff above 100 cfs was approximately 12,300 acre-feet. The Newhall Land and Farming Company's 44.867 percent allocation of this flow is approximately 5,400 acre-feet per year. However, because there was a notable absence of "average years" between 1956 and 1986, with dry periods being periodically broken by very wet years, NLF's annual share of the flood flows would have ranged from no flows to 44.867 percent of the high flow of 43,000 acre-feet (approximately 19,300 acre-feet) during that time period.

The Specific Plan applicant proposes to utilize its share of the Castaic Creek flood flows as a water source for the Newhall Ranch Specific Plan. Two alternative methods of operation for the water source are evaluated in this section. Under the first and preferred alternative, referred to as the Coordinated Operations/Water Transfer Alternative, The Newhall Land and Farming Company would use its Castaic Creek flood flows for on-site development and would provide the excess of its share of Castaic Creek flood flows that would exceed development demands during the period prior to May 1 to CLWA for use in the Santa Clarita Valley. After May 1, the Specific Plan development would receive CLWA supplies in exchange for the Castaic Creek flows. If implementation of the first alternative would not be possible, the second alternative, referred to as the Aquifer Storage and Recovery Alternative, would be implemented. Under this alternative, The Newhall Land and Farming Company's share of the flood flows would be treated and injected into the Saugus Aquifer for later retrieval. Either alternative would require amendments to the existing agreements governing the timing and method of taking the flood flows and to extend the agreements. These alternatives are individually discussed below.

(a) Coordinated Operations/Water Transfer Alternative

Under this alternative, during the rainy season from about November 1 until May 1, The Newhall Land and Farming Company Castaic Creek flows would be diverted, as available, through CLWA's turnout at Castaic Dam, treated at CLWA water treatment plants, and delivered to the site and to CLWA's water retailers in lieu of CLWA using SWP water. After the May 1 cutoff, CLWA would resume full use of State Water Project water and would provide SWP water to the site in an amount equivalent to the amount of flood flow water which was previously provided to CLWA.

(b) Aquifer Storage and Recovery (ASR) Alternative

If the preferred, Coordinated Operation/Water Transfer Alternative is not possible, another potential opportunity for storage and use of Castaic Creek flood flows is a conjunctive use program in the Saugus Aquifer.[5] Many existing conjunctive use programs are dependent on spreading basins for recharge of the ground water basin. However, when land is of limited availability or hydrogeologic conditions are unfavorable to surface spreading (e.g., where storage would be in a confined aquifer, such as the Saugus Aquifer), spreading basins may not be feasible. Under these conditions, ~~injection~~ wells that enable both injection and pumping may be used to store~~as a method for storing~~ and recover~~ing~~ water (i.e., ~~for~~ conjunctive use of the available water resources)~~projects~~. This approach to conjunctive use is referred to as aquifer storage and recovery (ASR). For more information about the application of ASR technology to the proposed Specific Plan, please refer to EIR **Appendix 4.11.**

Conceptually, under an ASR Alternative, The Newhall Land and Farming Company's Castaic Creek flood flow allocation would be captured and temporarily stored in Castaic Lake up to the May 1 cutoff date. These flows would be diverted out of the reservoir (as available up to the May 1 cutoff), treated to drinking-water standards at CLWA water treatment plants, and be either used directly to meet Specific Plan development demands or used to recharge the Saugus Aquifer to meet future demands. Because the flood flows would be treated and injected into the Saugus Aquifer, implementation of this alternative would require coordination with CLWA for treatment and conveyance of the treated flows to the injection site. Additionally, a method to ensure that the Valencia Water Company can recover the injected flow, through either physical or institutional methods, would also need to be developed. The Saugus Basin, located west of and isolated by the Holser Fault, would be a suitable location for the ASR Alternative wells (because this part of the Basin overlies the heart of the Saugus Aquifer, and because this part of the basin is overlain almost exclusively by lands owned by The Newhall Land and Farming Company, such that other wells that could recover the stored flood flows are unlikely to be developed in this location).

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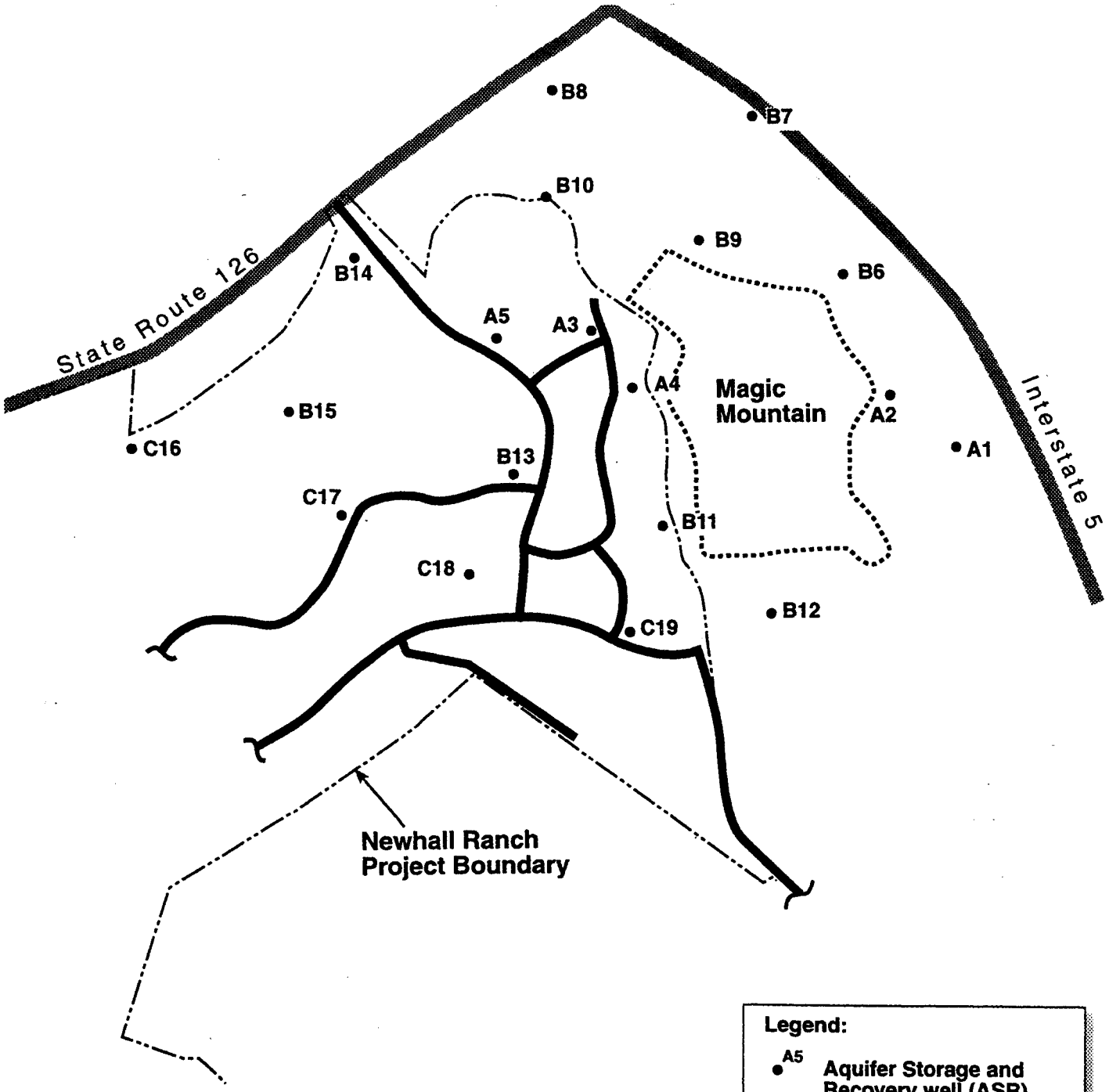
5 Conjunctive use is the coordinated management of ground water basins and surface water supplies. When these supplies are operated together in a planned and coordinated fashion, more water can be developed on a long-term basis than if they are operated independently.

Nineteen ASR wells are proposed in three areas of the Saugus Aquifer, identified as Areas A, B and C (**see Figure 4.11-7, Locations of Proposed ASR Wells**). The number of ASR wells was determined based on an assumed total injection rate of 30 mgd and the hydraulic properties associated with the three most productive areas of the Saugus Aquifer, as defined by Slade (1994). Twelve of the 19 ASR wells are proposed to be located generally in the northeastern portion of the Specific Plan site, and the remaining seven wells are proposed to be located immediately adjacent to the Specific Plan site's eastern boundary. Precise well locations would be determined after development plans have been finalized and adequate physical access to each well site has been verified. The ASR well field for the Specific Plan would be designed to accommodate approximately 8,300 acre-feet of water annually at a rate of up to 30 mgd. The potential injection rates are as follows: 3.0 mgd per well in Area A (four wells), 1.5 mgd per well in Area B (10 wells), and 0.75 mgd per well in Area C (four wells). The total of 19 wells includes an additional ASR well that would enable the capacity of the system to be maintained should any well be temporarily removed from service. See **Appendix 4.11** for further discussion on the siting criteria for the well locations. There are three physical constraints to successfully implementing the ASR Alternative. First, CLWA must have available water treatment plant capacity to treat the flood flows. Second, CLWA must have the capacity to not only deliver the Specific Plan's potable demands to Newhall Ranch, but also to ~~also~~ deliver the treated flood flows to the ASR Alternative wells for injection into the Saugus Aquifer. Third, injection well capacity and the ability of the aquifer to receive the treated water must match the available water treatment plant capacity dedicated for injection. Each of these constraints is discussed more fully below.

Conceptually, CLWA is projected to have water treatment plant capacity available during the winter months to treat Castaic Creek flood flows for injection into the Saugus Aquifer. Water demands are high during the summer due to high landscape irrigation demands, and low during the winter when landscape demands are low. Because water treatment plants are sized to meet peak flow rates for the highest demand periods, which are in the summer, there would be a significant unused capacity during the winter months. Currently, the CLWA water treatment plants have a combined capacity of about 55 to 60 million gallons per day (mgd). By the year 2004, the combined water treatment plant capacity is projected to be 110 mgd as a result of facility expansions.[6] Conversations between the Newhall Ranch Specific Plan water consultant and CLWA indicate that potentially half the current capacity of the two water treatment plants may be available to treat Castaic Creek flood flows during the winter months. Therefore, a total capacity of 30 mgd (one-half of existing capacity) has been used to size injection facilities (i.e., the ASR wells) for the Specific Plan.

6 Castaic Lake Water Agency, Data Document dated 9 June 1995, prepared by Reiter Lowery Consultants.



Legend:

- A5 — Aquifer Storage and Recovery well (ASR)
  - AXX T = 90,000 GPD/FT
  - BXX T = 60,000 GPD/FT
  - CXX T = 30,000 GPD/FT
- Approximate location of proposed water distribution pipeline

0 2000

Approximate Scale in Feet

SOURCE: CH2M HILL, WATER RESOURCES AND WASTEWATER MANAGEMENT FOR THE NEWHALL RANCH PROJECT, (THOUISAND OAKS, CALIFORNIA: JAN 1996, REV. JUNE 1996)

NEWHALL RANCH™
Newhall Ranch Company

FIGURE 4.11-7

LOCATIONS OF PROPOSED ASR WELLS

Because water delivery facilities, like treatment capacity, are sized to deliver peak flows to meet peak water demands, delivery facilities to the ASR~~injection~~ wells are not considered to be more of a constraint than is water treatment plant capacity, addressed above.

The capacity of the ASR~~injection~~ wells to inject and the ability of the Saugus Aquifer to receive the treated flows is also a constraint. The Newhall Land and Farming Company's share of untreated Castaic Creek flood flows, which has ranged from 0 to 19,300 acre-feet of water annually, would need to be treated at a CLWA treatment plant prior to injection through~~into~~ ASR wells. It should be noted that secondary drinking water standards pertain to constituents that do not have specific health-based standards but, when present at elevated concentrations, could adversely affect the aesthetic characteristics of drinking water (*e.g.*, color, odor, taste and/or appearance). Secondary standards are enforceable if the water is intended for drinking. If operated continuously for up to three months per year (i.e., January 1 through March 31, when The Newhall Land & Farming Company has rights to the flows~~presumably during the winter months when flood flows are highest~~), a 30-mgd water treatment plant could treat about 8,300 acre-feet of water during that three month period. As a result, the capacity limitations of the treatment plant would reduce the availability of Castaic Creek flood flows to the Specific Plan to a maximum of 8,300 acre-feet per year.[7] Therefore, the injection wells in the Saugus Aquifer would need to accommodate this amount of water in order for the ASR Alternative to be successfully implemented. Subsection 7.b. ~~below~~ of this section presents the results of the evaluation of~~evaluates~~ potential impacts by the ASR Alternative ~~impacts on~~ the Saugus Aquifer. Findings indicate that the Saugus Aquifer would be able to accept the treated flows and that the increase in water level as a result of the injection would result in a beneficial impact. See Subsection 7.b. below for further discussion on this topic.

c. Water Agency Supplies

The Specific Plan development would receive water from the Castaic Lake Water Agency and the Valencia Water Company. Under a best (wet-year) scenario when 6,025 to 7,263 acre-feet of reclaimed water and 8,300 acre-feet of treated Castaic Creek flood flows would be available to the Specific Plan, Specific Plan demand for CLWA and Valencia Water Company water would be 3,782 to 5,020 acre-feet per year. Under a dry-year scenario when no Castaic Creek flood flows would be available, but all 6,547 to 8,635 acre-feet of reclaimed water would be used for on-site landscaping, Specific Plan demand for CLWA and Valencia Water Company water would be 10,710 to 12,798 acre-feet per year (reference **Table 4.11-1 on page 4.11-3**).

CLWA is a water wholesaler which provides imported water from the State Water Project. The Valencia Water Company purchases water from CLWA and provides additional water from wells in the Alluvial and Saugus Aquifers. The following is a discussion of the existing and future water

7 With the average available treated creek flows being 2,900 acre-feet per year (see Appendix 4.11).

supplies of these agencies, as well as the efforts made by these agencies to increase their long-term sources of water supply. The actual mix of water delivered to the Specific Plan site by the agencies is an operational decision and probably would vary over time between State water and ground water due to operational and cost considerations.

(1) Castaic Lake Water Agency

Formed in 1962, the Castaic Lake Water Agency provides imported water to the Santa Clarita Valley from the State Water Project. The State Water Project originates in the Sacramento River Basin and California Delta and delivers water to a series of reservoirs in Southern California, including Castaic Lake.

According to 6 June 1996 Los Angeles County Development Monitoring System (DMS) information, current water demand within the CLWA service area is 43,283 acre-feet per year[8] and water supply is 91,577 acre-feet per year. This information is summarized in **Table 4.11-4, Existing Demand and Supply.**

Table 4.11-4
Existing DMS Demand and Supply[1]

Water Purveyor	Existing Demand	Existing Supply[2]
Valencia Water Company	16,634 AFY	40,458 AFY
Santa Clarita Water Company	18,976 AFY	36,500 AFY
County Water District #36	454 AFY	539 AFY
Newhall County Water District	7,219 AFY	14,080 AFY
Totals	43, 283 AFY	91,577 AFY

[1] *Los Angeles County Development Monitoring System (6 June 1996).*
[2] *Existing supply for the Valencia Water Company is based on information provided by Robert DiPrimio, Managing Director of the Valencia Water Company. Existing Supply for VWC includes 35.9% of the Devil's Den Water District supply. Other agencies are not adjusted.*
AFY = acre-feet per year

Future water demand for the purveyors, based on the pending, approved and recorded projects in the County's DMS system as of 6 June 1996, is 62,964 acre-feet per year, or 68.7 percent of CLWA's future supply of 91,656 acre-feet per year. This information is summarized in **Table 4.11-5, DMS Water Demand and Supply.**

8 The total of 43,283 acre-feet is the sum of water demands of the four water retailers in the Valley, which is an approximation of the water demand for the CLWA service area. Purveyors report groundwater and imported water supplies to the County for the DMS.

Table 4.11-5
Future DMS Water Demand and Supply

Water Demand	Acre-Feet/Year
Existing Demand	43,283
Development Monitoring System[1]	
Pending Projects	8,749
Approved Projects	9,234
Recorded Projects	1,698
Total Water Demand	62,964
Total Future Water Supply[2]	91,656
Net Water Availability (supply minus demand)	28, 692

Information compiled by Impact Sciences, Inc. (June 1996).
[1]Los Angeles County Regional Planning Department, Land Management Agency (6 June 1996).
[2]Total future CLWA water supply represents a near-term projection. County Water District #36 is planning to increase its existing supply by 79 AFY, which results in a projected supply of 91,656 AFY (91,577 AFY Existing supply + 79 AFY = 91,656 Future Supply).

To accommodate water demands of new development, CLWA determines needed construction of future facilities based on its Capital Facilities Program. The adopted Program at the time of this writing projects a service area population of 270,000 by year 2010. CLWA is in the process of updating its Capital Facilities Program in order to address future demand and supply of water, capital facilities, and financing. The new Program being prepared is expected to use a projected 2020 service area population consistent with growth forecasts by SCAG.

The County's currently adopted projection of a 270,000 population by 2010 for the Santa Clarita Valley Planning Area results in a total service area demand of 120,000 acre-feet of water per year (see **Table 4.11-6, Castaic Lake Water Agency - 2010 Water Supply and Demand**). CLWA estimates that existing conservation programs can reduce this demand by 10 percent, or 12,000 acre-feet, which would reduce total water demand to 108,000 acre-feet per year. Imported water supplies include 41,500 acre-feet of municipal and industrial (M&I) water supply entitlements from the State Water Project, and 12,700 acre-feet of State Project Water, which is transferable from the Devil's Den Water District. Local water supplies projected by CLWA include the Alluvial and Saugus Aquifers, which the CLWA has determined to collectively totals 52,500 acre-feet per year.[9] CLWA additionally projects that reclaimed (sometimes called recycled) water will add 10,000 acre-feet to its total yearly supply. As shown in ~~the~~ Ttable 4.11-6, CLWA's projected supply of 116,700 acre-feet per year would exceed the year 2010 projected demand by 8,700 acre-feet per year.

9 Ground water is included in CLWA's projections to provide a comprehensive analysis of supply, even though ground water is pumped and delivered by the retail water companies.

Table 4.11-6
Castaic Lake Water Agency
2010 Water Supply and Demand

Water Supply (acre-feet per year)		Water Demand (acre-feet per year)	
Alluvial Aquifer	32,500		
Saugus Aquifer	20,000	Demand Year 2010	120,000
Imported Water[1]	54,200	Less Conservation	(12,000)
Subtotal	106,700		
Reclaimed Water	10,000		
Total	116,700	**Total**	108,000

Source: CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), p. 3.3. Original data are from Reiter-Lowry Consultants, Castaic Lake Water Agency, 1994.

[1]*Represents 41,500 acre-feet of M&I water supply entitlements plus 12,700 acre-feet of SWP water transferable from Devil's Den Water District.*

The data in **Table 4.11-6** need to be tempered by the fact that imported water supplies, and to a lesser extent local ground water, are not fully "reliable," which means that they could be reduced in drought years. CLWA programs geared to increasing reliability and adding water to its sources of supply include conservation and public education programs, additional development of ground water reserves, water banking (both inside and outside CLWA's service area), and use of reclaimed water from the County water reclamation plants located in the Santa Clarita Valley. In addition, CLWA is conducting a study of the ground water basin on the Devil's Den property, acquired by CLWA in 1988, to determine whether surplus ground water is available for export via the California Aqueduct to CLWA's service area.

CLWA is currently considering several opportunities to augment its State Water Project entitlement. With four other State Water Project contractors, CLWA has made an offer to purchase an entitlement of State water from San Luis Obispo and Santa Barbara Counties that would yield about 7,500 acre-feet. In addition, the landmark Monterey Agreement between the urban and agricultural State Water Project contractors would permit the transfer of 130,000 acre-feet of water from agriculture to urban users (including CLWA) on a willing buyer/willing seller basis. A buyers and sellers group of 10 water wholesalers has formed and has agreed to a process by which the Monterey Agreement water would be allocated. Under this process, CLWA would be able to purchase approximately 35,000 acre-feet of this water to meet projected future demands.

As a State Water Project contractor, CLWA's efforts to meet its water supply needs are supported by on-going Statewide water planning. The Department of Water Resources develops comprehensive plans to guide and coordinate the current and future beneficial use of California's water resources. The latest

update of the California Water Plan, known as Bulletin 160-93, was finalized in October 1994. Bulletin 160-93 presents both short-term (Level I) and long-term (Level II) supply augmentation and demand management options for meeting anticipated water needs of California. Level I options are to help California meet its water supply needs to the year 2020, while Level II options include demand management and water supply augmentation measures.

Following are the Level I State-wide options recommended in Bulletin 160-93 to help meet California's water supply needs to the year 2020.

- Demand Management
  - Water Conservation - Implementation of urban best management practices (BMPs) are projected to reduce annual urban demand by 1.3 million acre-feet per year and net water demand by 0.9 acre-feet after accounting for reuse. Agricultural efficient water management practices (EWMPs) could reduce agricultural water demands by 1.7 million acre-feet and net water demand by 0.3 million acre-feet after accounting for reuse.
  - Land Fallowing and Water Bank Programs During Droughts - Temporary, compensated reductions of agricultural water demands and purchases of surplus water supplies could reallocate at least 0.6 million acre-feet of drought year supply.
  - Drought Demand Management - Voluntary rationing averaging 10 percent statewide during a drought could reduce annual landscape irrigation and net water demand by 1.0 million acre-feet.
  - Land Retirement - Retirement of 45,000 acres of land with poor subsurface drainage and disposal in the western San Joaquin Valley could reduce annual irrigation and net water demand by 100,000 acre-feet.

- Supply Management
  - Water Reclamation - An additional 1.2 million acre-feet of water recycling and ground water reclamation could provide annual net water supplies of 0.8 million acre-feet after accounting for reuse.
  - Solutions to Delta Water Management Problems (Monterey Agreement) - Although the Delta debate has not ended, California and the federal government took a giant step in December 1994 by signing a landmark agreement to provide certainty in water supplies for cities and farmers and environmental protection for the Delta. The agreement is designed to restore and protect the aquatic environmental resources while minimizing the effects on agriculture and urban uses of fresh water flowing through the Delta.

- Conjunctive Use - More efficient use of major ground water basins through programs such as the Kern Water Bank could provide about 0.4 million acre-feet of drought year net water supplies.
- Additional Storage Facilities - Los Banos Grandes Reservoir could provide 0.3 million acre-feet of average and drought year supplies by storing water during periods of high winter flow in the Delta.

Level II Options identified in Bulletin 160-93 for long term water needs include demand management and water supply augmentation measures, such as additional conservation, land retirement, increased water recycling and desalting, and surface water development.

(2) Valencia Water Company

The Valencia Water Company is owned by The Newhall Land and Farming Company and is regulated by the California Public Utilities Commission. Its water is supplied by ground water and imported water from the CLWA. At the time of this writing, the Valencia Water Company's total water supply is approximately 40,458 acre-feet per year.[10] On January 10, 1996 the CLWA adopted a resolution changing the method of allocating imported water among the four water purveyors served by CLWA. The new method allocates water to water service areas allowing the water to be delivered where new development occurs. The previous allocation system divided the total water supply among the four purveyors based on fixed percentages. The fixed percentage of CLWA water allocated to Valencia Water Company was 35.9 percent, or approximately 19,500 acre-feet. CLWA is in the process of establishing reasonable rules and regulations for operating under the new system of water allocation. The Valencia Water Company believes the new system of water allocation will increase its share of water available from CLWA.

According to 6 June 1996 County Development Monitoring System (DMS) information, existing demand within the Valencia Water Company service area is 16,634 acre-feet per year and existing water supply is 35,222 acre-feet per year. Existing Valencia Water Company supply has been, however, revised to 40,458 acre-feet per year based on information provided by the Valencia Water Company.[11] This information is summarized below:

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10 Robert DiPrimio, Valencia Water Company, correspondence to Newhall Ranch Company, 18 April 1995. This supply quantity deviates from that of the County Development Monitoring System (35,222 acre-feet per year). According to Mr. DiPrimio, it appears that the County supply number does not include the additional SWP entitlement from CLWA's acquisition of the Devil's Den water supply.

11 Robert DiPrimio, Valencia Water Company, correspondence to Newhall Ranch Company, 18 April 1995. This supply quantity deviates from that of the County Development Monitoring System (35,222 acre-feet per year). According to Mr. DiPrimio, it appears that the County supply number does not include the additional SWP entitlement from CLWA's acquisition of the Devil's Den water supply.

Existing DMS Water Demand and Supply
Valencia Water Company

Existing Demand	Existing Supply
16,634 AFY	40,458 AFY

Future water demand for the Valencia Water Company, based on the pending, approved and recorded projects in the County's DMS system, is 26,405 acre-feet per year, or 65.3 percent of the Valencia Water Company's supply of 40,458 acre-feet per year (**see Table 4.11-7, DMS Water Demand and Supply - Valencia Water Company**). Under the County's DMS system, this suggests a net water availability for Valencia Water Company of 14,053 acre-feet per year.

Table 4.11-7
Future DMS Water Demand and Supply
Valencia Water Company

Water Demand	**Acre-Feet/Year**
Existing Demand	16,634
Development Monitoring System[1]	
Pending Projects	4,330
Approved Projects	4,296
Recorded Projects	1,145
Total Water Demand	26,405
Total Water Supply	40,458
Net Water Availability (demand minus supply)	14,053

Information compiled by Impact Sciences, Inc. (June 1996).
[1]*Los Angeles County Regional Planning Department, Land Management Agency (6 June 1996).*

5. SPECIFIC PLAN WATER DELIVERY

a. Conceptual Backbone Water Plan

As discussed in **Section 4.12, Wastewater Disposal,** and **Section 5.0, Water Reclamation Plant Impacts, Mitigation Measures, and Unavoidable Significant Impacts,** the intent is to create a "near zero-discharge" wastewater treatment system for the Newhall Ranch that would maximize the use of reclaimed wastewater with no or only minor seasonal discharges to the Santa Clara River. A total reclamation system with near zero-discharge would provide a double benefit: it would minimize discharges of treated wastewater to the River which could affect River hydraulics, and it would help Newhall Ranch meet non-potable water demands, thereby reducing Specific Plan potable water demand.

Two water distribution systems are proposed for the Specific Plan: a potable water system and a non-potable water system (see **Figure 4.11-8, Conceptual Backbone Water Plan**). It is expected that the non-potable water system would be used for irrigating the open areas, such as the golf course, parks, and landscaped areas along highways, and in other landscaped areas of the community. The Specific Plan areas which can be served with potable versus non-potable water are shown in **Table 4.11-2.**[12] Other permitted uses of reclaimed water under Title 22 of the California Code of Regulations, Division 4, Chapter 3 include the irrigation of playgrounds, school yards and similar areas; non-restricted recreational impoundment (with no limitations on body-contact sports and activities); and surface and spray irrigation of food crops.

All facilities of the water system would be designed and constructed to withstand the physical stresses to which they would be subjected, and would be free from structural and sanitary hazards. All equipment would be designed to meet Los Angeles County Department of Public Works requirements for storage and peak flows, and to meet Los Angeles County Fire Department requirements for fire flows. In addition, facilities and equipment must meet all applicable State standards.

b. Water Delivery Alternatives to the Specific Plan Site

Castaic Lake water may potentially be delivered to the Specific Plan site through either proposed Castaic Lake Water Agency-constructed facilities or through proposed Metropolitan Water District (MWD)-constructed facilities as part of the District's West Valley Project. Neither CLWA nor MWD facilities would be constructed to serve just the Newhall Ranch Specific Plan. Both facility options (CLWA or MWD) are being planned in order to deliver water regionally, independent of the Newhall Ranch Specific Plan. The precise alternative for delivering the water to the Specific Plan site has not been determined at the time of this writing and to analyze them at this time would be speculative; however, any water delivered to the Specific Plan site via these facilities would first be purchased by the Valencia Water Company from CLWA. These proposed water delivery alternatives are discussed below. Connections from the site to the Valencia Water Company system would likely occur at existing facilities located at the Valencia Commerce Center to the northeast and on the site of the proposed Westridge Project to the east.

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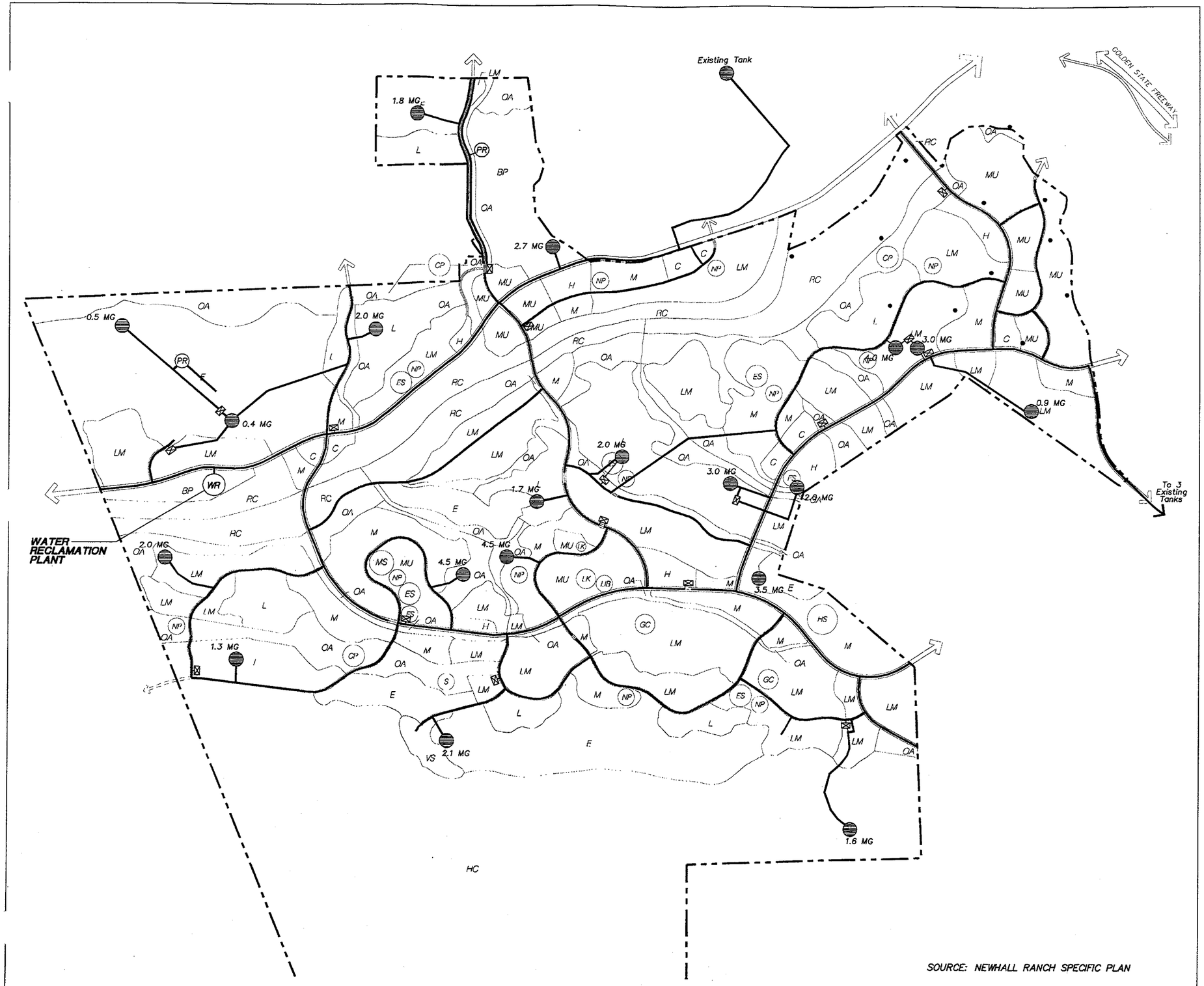
12 Under the Water Reclamation Requirements program, treated wastewater may be used for ground water recharge, recreational impoundments, industrial processing and supply, and landscape irrigation. California Regional Water Quality Control Board, Los Angeles Region. Draft Water Quality Control Plan (Basin Plan) [for the] Los Angeles Region, (Monterey Park, California: 13 June 1994), p. 1-23.



NEWHALL RANCH™

Newhall Ranch Company

L E G E N D

- WATER TANK SITE (POTABLE AND/OR RECLAIMED)
- PUMP STATION
- PRESSURE REDUCTION STATION
- POTENTIAL AQUIFER STORAGE AND RECOVERY WELLS (ASR)
- WATER AND/OR RECLAIMED WATER LINES
- WR WATER RECLAMATION PLANT

IMPACT SCIENCES INC

NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

10 ACRES 40 ACRES 160 ACRES

FIGURE 4.11-8

CONCEPTUAL BACKBONE WATER PLAN

2/19/96

(1) Castaic Lake Water Agency Facilities

Should the Specific Plan be served from extensions of existing CLWA facilities, it would be through a 42-inch pipeline, called the Ventura Lateral, which would extend to the western boundary of CLWA's service area and which would have a nominal capacity of 36 million gallons per day. According to CLWA's Data Document,[13] CLWA proposes a 42-inch lateral extension through the Specific Plan site from an existing 54-inch Castaic Conduit north of Castaic Junction and east of Interstate 5. The alignment for this extension through the site that is identified in the Data Document is generally along State Route 126 (SR-126); however, CLWA's engineer, Kennedy/Jenks Consultants, has proposed two alternative alignments.[14] One alternative would begin at the existing 54-inch Castaic Conduit within the Pitchess Honor Rancho and the other alternative would begin at the terminus of the recently constructed 84-inch pipeline near Bouquet Creek.

If the Ventura Lateral originates from the Castaic Conduit under the first alternative, it would extend southeasterly along the bank of Castaic Creek, under I-5, and southerly along Commerce Center Drive which would cross SR-126 and the Santa Clara River to the proposed junction with the proposed extension of Magic Mountain Parkway on the Newhall Ranch site.

If the Ventura Lateral originates from the 84-inch pipeline under the second alternative, it would extend southerly along McBean Parkway from the 84-inch pipeline to Magic Mountain Parkway where it would extend westerly along Magic Mountain Parkway and the proposed Magic Mountain Parkway extension to Newhall Ranch. This alternative would require tunneling under I-5 and the Old Road.[15] To the extent feasible, the pipeline would be laid within existing and proposed roadways (e.g., Magic Mountain Parkway, Valencia Boulevard, and Commerce Center Drive extensions).

(2) Metropolitan Water District Facilities

Through the West Valley Project, the Metropolitan Water District (MWD) proposes to construct State Water Project conveyance facilities to provide additional imported water to the Calleguas Municipal Water District service area in Ventura County to meet increasing normal year and peak demands, provide greater reliability of imported water delivery, and to increase local storage for seasonal, emergency, and drought carryover needs. The West Valley Project would, upon implementation, increase the reliability of water supplies to retail water purveyors in Ventura County.

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13 Reiter-Lowery Consultants, Castaic Lake Water Agency Data Document (San Diego, California: 9 June 1995).

14 Lynn M. Takaichi, Kennedy/Jenks Consultants, correspondence to Impact Sciences, Inc., 4 April 1995.

15 Lynn M. Takaichi, Kennedy/Jenks Consultants, correspondence to Impact Sciences, Inc., 4 April 1995.

Two major alternative alignments for the conveyance facilities include the Santa Clara River Valley Alternative and the San Fernando Valley Alternative. The Santa Clara River Valley Alternative includes a 35-mile long pipeline from the Rio Vista Treatment Plant (located west of Bouquet Canyon Road and north of the Santa Clara River) west through the Specific Plan site towards the City of Fillmore and south to the Calleguas MWD Treatment Plant. The San Fernando Valley Alternative includes a pipeline from the Jensen Filtration Plant (located east of I-5 and north of SR-118) west to Calleguas MWD Treatment Plant following an alignment that runs parallel to and south of SR-118. Should the Santa Clara River Valley Alternative be implemented, CLWA may decide (by a future agreement) to share capacity in the pipeline to provide service to the western parts of the CLWA service area. This would be an alternative to a separate CLWA pipeline. At the time of this writing, it is unknown if either the San Fernando Valley Alternative or the Santa Clara River Valley Alternative is the preferred alternative of the Metropolitan Water District. The Draft EIR for the West Valley Project has not been released for public review as of the date of this writing.

The segment of the 35-mile Santa Clara River Valley Alternative that would traverse the site would begin along SR 126 near the termination of Henry Mayo Drive and would be buried adjacent to the future widened SR 126 roadbed. Through the Specific Plan site, the pipeline would be installed on the northern side of the highway in a permanent, unpaved right-of-way.

There are two options for routing this segment of the pipeline, referred by the MWD as SC-1 and SC-2, through the site. Option SC-1 would cross the Santa Clara River at the proposed location of Commerce Center Drive and enter Newhall Ranch. The pipeline would be located within Magic Mountain Parkway and the proposed Potrero Valley Road alignment to SR 126 where it would be buried on the northern side of the highway in permanent, unpaved right-of-way. Option SC-2 would follow the same alignment as Option SC-1 to Potrero Canyon, except it would connect (via a tunnel) to Salt Canyon and continue past the Los Angeles/Ventura County line into Ventura County.

6. SIGNIFICANCE THRESHOLD CRITERIA

During the previous discussion of Specific Plan water supply and supply management, three water resource issues were identified which may result in significant environmental impacts on local and regional water resources: (1) Specific Plan water availability, (2) downstream effects related to the use of Castaic Creek flood flows, and (3) potential impacts of the ASR Castaic Creek flood flow management alternative to store water in the Saugus Aquifer. Significance threshold criteria are

established below for these issues. No environmental impacts associated with implementation of the Coordinated Operations/Water Transfer Alternative are anticipated because it would only involve an institutional arrangement to transfer Castaic Creek flood flows to the Specific Plan site in amounts already determined in previous agreements between the Department of Water Resources and The Newhall Land and Farming Company.

a. Water Availability Criteria

Significance criteria for water availability are defined by CEQA and the County of Los Angeles. The CEQA Guidelines[16] state that a project would normally have a significant effect on the environment if it will use water in a wasteful manner. According to the County of Los Angeles Environmental Document Reporting Procedures and Guidelines,[17] the County requires analysis of adverse impacts on water availability when a project cannot be served by the existing area water system facilities due to inadequate water supplies to meet the domestic demands, and/or fire flows for fire protection.

b. Use of Castaic Creek Flood Flow Criteria

CEQA and the Regional Water Quality Control Board (RWQCB) define significance criteria which are applicable to the use of Castaic Creek flood flows.

The CEQA Guidelines[18] state that a project would normally have a significant effect on the environment if it will use water in a wasteful manner, substantially degrade water quality, contaminate a public water supply, and/or substantially degrade or deplete ground water resources. A significant effect would also occur if the project would interfere substantially with ground water recharge and/or cause substantial flooding erosion or siltation.

The RWQCB requires that projects meet the surface water and ground water objectives which are contained in the Water Quality Control Plan (also called the Basin Plan) for the region. Newhall Ranch is located within the Upper Santa Clara River Hydrologic Area, which is a part of the Basin

16 Guidelines for California Environmental Quality Act (Sections 15000-15387, California Administrative Code, Title 14, Chapter 3), (Sacramento, California: Amended 1 January 1995), Appendix G.

17 County of Los Angeles Department of Regional Planning, Environmental Document Reporting Procedures and Guidelines, (Los Angeles, California: Adopted by the County Board of Supervisors 17 November 1987), Appendix D.

18 Guidelines for California Environmental Quality Act, Appendix G.

Plan for the Los Angeles Region. The RWQCB also has authority under State Water Resources Control Board Resolution No. 68-16, "Statement of Policy With Respect to Maintaining High Quality of Waters in California," also known as the anti-degradation policy. The State Water Resources Control Board anti-degradation policy, adopted in 1968, specifically states:

> Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that presented in the policies.

For the purposes of this analysis, use of Castaic Creek flood flows would also result in a significant environmental impact if it would reduce flows to Downstream Water Users.

c. ASR/Saugus Aquifer Criteria

CEQA and Regional Water Quality Control Board criteria, and other criteria identified by CH2M HILL are used to define the thresholds of significance for the effects of the ASR Alternative on the Alluvial and Saugus Aquifers.

The CEQA Guidelines[19] state that a project would normally have a significant effect on the environment if it will interfere substantially with ground water recharge, substantially degrade water quality, contaminate a public water supply, and/or substantially degrade or deplete ground water resources.

As mentioned in the criteria for use of Castaic Creek flood flows, the RWQCB requires that project impacts be assessed for water quality parameters where objectives have been defined in the Water Quality Control Plan (Basin Plan) for the Los Angeles Region. Therefore, if the proposed Specific Plan degrades water quality to below the water quality objectives for the Upper Santa Clara River Hydrologic Area (specified below), the Specific Plan would result in a significant water quality impact.

CH2M HILL also provided the following determinants of significance related to water levels, ground water quality, ground water recharge, land surface elevation, and surface water flow and quality. These latter determinants either add to, or add specification to, the criteria already identified by CEQA and the RWQCB, and have been utilized to determine Specific Plan impact significance.

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19 Guidelines for California Environmental Quality Act, Appendix G.

(1) Water Levels

A significant impact would be realized upon depletion of the current available supply from either the Saugus or Alluvial Aquifers~~of these aquifers~~, with depletion being defined as a serious decline in ground water levels. For the Saugus Aquifer, a ~~A~~ serious decline is defined as a Specific Plan-induced ground water level decline of more than 10 percent of the 1991 average annual dynamic water column in a given well ~~(See EIR Appendix 4.11 for additional information)~~. For the Alluvial Aquifer, depletion is defined as a continued rate of overall water-level decline that results in the Aquifer being lost as a local water supply, caused by Specific Plan use of the Saugus Aquifer.

Impacts on the Saugus Aquifer will be considered to be beneficial if the Specific Plan stabilizes or increases water levels in existing Saugus wells which continue to pump for at least one month per year.

(2) Ground Water Quality

The ASR Alternative would be subject to the RWQCB water quality objectives for the Alluvial and Saugus Aquifers contained in the Basin Plan, as well as State Water Resources Control Board Resolution No. 68-16, "Statement of Policy With Respect to Maintaining High Quality of Waters in California," also known as the anti-degradation policy.

Numerical objectives have been set by the RWQCB for various water quality parameters to protect local beneficial uses of ground water (and surface water). Exceedance of these limits as a result of the Specific Plan would be considered a significant impact. These limits have been established for selected inorganic parameters, which are summarized in **Table 4.11-8, Surface Water Quality Objectives - Eastern Hydrologic Subarea.** The limits have been established for each hydrologic subdivision within the Eastern Hydrologic Subarea of the Upper Santa Clara River Hydrologic Area.

Typical concentrations of several water-quality parameters in the Saugus Aquifer are listed in **Table 4.11-9, Typical Saugus Aquifer and The Newhall Land and Farming Company Well #156 Water Quality**. Because~~Since~~ the anti-degradation policy is~~provides~~ more restrictive ~~water quality objectives for the aquifers~~ than the RWQCB objectives, it will serve as the water quality threshold of significance for the ASR Alternative. Therefore, the ASR Alternative would result in a significant water quality impact if it would introduce constituents through the ASR~~into injection~~ wells at ~~such~~ concentrations that ~~they~~ would cause widespread water quality degradation in either the Saugus or Alluvial Aquifer pursuant to RWQCB policy ~~of either aquifer~~.

Table 4.11-8
Surface Water Quality Objectives
Eastern Hydrologic Subarea

Parameter	Area[1] Upstream	Area[1] Downstream
Boron	1.5	1.5
Chloride	100	100
Nitrogen[2]	10	5
Sulfate	350	400
SAR[3]	5.0	10.0
TDS[4]	1,000	1,000

Source: CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), p. 3.36. The information in this table is originally from the California Department of Water Resources, Investigation of Water Quality and Beneficial Uses, Upper Santa Clara River Hydrologic Area, (1993).

[1]All values are in milligrams per liter (mg/L), except for SAR.

[2]Nitrogen = nitrate and nitrite as nitrogen.

[3]SAR = sodium adsorption ratio (Na/(0.5(Ca+Mg))

[4]TDS = Total dissolved solids.

Table 4.11-9
Typical Saugus Aquifer and
The Newhall Land and Farming Company Well #156 Water Quality

Parameter	Concentration[1] Typical Saugus Aquifer Condition[2]	Concentration[1] The Newhall Land and Farming Company Well #156
Bicarbonate	246	285
Boron	0.1	NA
Calcium	92	89.7
Carbonate	0.5	1.0
Chloride	35	22.6
Fluoride	0.4	1.2
Iron	0.3	0.1
Magnesium	23	58.8
Manganese	0.08	30
Nitrate (NO_3)	15	20.3
Potassium	2.1	3.6
Sodium	74	165
Sulfate	35	520
Conductance	894 µmhos	NA
pH	7.8 pH units	7.4
TDS[3]	619	1022
Total Hardness	314	272
Gross Alpha	2.1 pCi/l	NA
Gross Beta	4.2 pCi/l	NA

NA = not available

Source: CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), p. 3.37.

[1]All values are in milligrams per liter (mg/L), except where indicated. Concentrations are averages of detected values for 1989 to 1994,

[2]µmhos is a unit of measurement for calculating the electrical conductivity of water; pCi/l - picoCurie per liter, or one-trillionth of a curie, is a unit of radioactivity equal to the amount of radioactive isotope that decays at the rate of 3.7 x 10 (to the tenth power) disintegrations per second.

[3]TDS = total dissolved solids.

Any improvement in the quality of ground water (i.e., a decrease below background level in the concentration of dissolved constituents) as a result of the ASR Alternative would be considered a beneficial impact.

(3) Ground Water Recharge

As a result of implementing the ASR Alternative in the Saugus Aquifer, any Specific Plan-induced change in recharge to either the Alluvial or Saugus Aquifers would be considered a significant environmental impact. In this analysis, the level of accuracy associated with the values used for aquifer recharge is estimated to be not less than approximately 1,000 acre-feet/year. As a result, a decrease of 1,000 acre-feet/year was selected to be the minimum value beyond which a "significant" change in the recharge to either the Saugus or the Alluvial Aquifers will be considered to occur. This represents approximately 10 percent of the minimum annual recharge to the Saugus Aquifer (10,800 acre-feet/year) and approximately 16 percent of the minimum annual recharge to the Alluvial Aquifer (6,100 acre-feet/year).[20]

(4) Land Surface Elevation

Any change in the elevation of the ground surface (subsidence or mounding) as a result of Specific Plan uses of the Saugus Aquifer will be considered a significant impact.

(5) Surface Water

Potential Specific Plan impacts on surface water resulting from use of the Saugus Aquifer to store ASR-injected water involve both changes in the flow rate and water quality of the Santa Clara River. An evaluation of the consequences of site activities and storm water drainage designs that influence the surface-water runoff characteristics from the development is not within the scope of this impact analysis **(see Section 4.2, Flood)**. Concerning flow in the Santa Clara River, significant impacts are those that would decrease flow as a result of the implementation of the ASR Alternative by the Specific Plan.

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20 Slade, Richard C., Hydrogeologic Investigation Perennial Yield and Artificial Recharge Potential of the Alluvial Sediments in the Santa Clara River Valley of Los Angeles County, California. Volume 1 and 2, December 1986.

Numerical objectives have been set by the Department of Water Resources for various water quality parameters to protect local beneficial uses of surface water. Exceedance of these limits as a result of implementing the ASR Alternative will be considered a significant impact. These limits have been established for selected inorganic parameters only and are summarized in **Table 4.11-8.**

7. SPECIFIC PLAN IMPACTS

a. Construction Impacts

Development of the Specific Plan would require a total of 5,831 acre-feet of water over the buildout period during site grading if a pre-wetting technique is utilized, while 14,577 acre-feet of water would be consumed if a dry grading technique is used. It is expected that the water that would be consumed on the site during the initial construction stages would be either trucked to the site or would be from existing operating wells until VWC infrastructure is extended to the site. At that time, it is assumed for this impact analysis that VWC water would be the main source of water supply for construction activities. Because site preparation and development would be continuous until Specific Plan buildout and would cease at buildout, water demand from both construction and operational activities on the site would not exceed the Specific Plan buildout demand of 19,345 acre-feet per year. Because the supplies of water which would be needed from CLWA and the Valencia Water Company for both construction and operation of the Specific Plan are not all currently available assuming buildout of all other General Plan land uses, the Newhall Ranch Specific Plan would potentially result in a significant impact on water availability.

The Specific Plan would be subject to the requirements of the Federal Clean Water Act (National Pollutant Discharge Elimination System) during construction (see **Section 4.2, Flood** for a detailed discussion of these requirements) and would, therefore, not have a significant impact on water quality.

b. Operational Impacts

(1) Water Availability Impacts

The water demand for the Specific Plan is estimated to be approximately 19,345 acre-feet per year. As shown in **Table 4.11-10, Specific Plan Water Demand and Supply Summary**, under a wet-year scenario when 6,025 to 7,263 acre-feet of reclaimed water and 8,300 acre-feet of treated Castaic Creek flood flows would be available to the Specific Plan, CLWA and Valencia Water Company water demand

would be 3,782 to 5,020 acre-feet per year. Under a dry-year scenario when no Castaic Creek flood flows would be available, but all 6,547 to 8,635 acre-feet of reclaimed water would be used for on-site landscaping, Specific Plan demand for CLWA and Valencia Water Company water would be 10,710 to 12,798 acre-feet per year.

Table 4.11-10
Specific Plan Water Demand and Supply Summary

	Dry Year Scenario		Wet Year Scenario	
	Water Use (acre-feet/yr)	**Percent of Total**	**Water Use (acre-feet/yr)**	**Percent of Total**
Total Demand	19,345	100.00	19,345	100.00
Source of Water Supply				
Reclaimed Recycled Water[1]	6,547 to 8,635	33.8 to 44.6	6,025 to 7,263	31.1 to 37.5
Castaic Creek Flood Flows[2]	0	0.0	8,300	42.9
CLWA and VWC[3]	10,710 to 12,798	55,4 to 66.2	3,782 to 5,020	19.6 to 26.0

Source: Compiled by Impact Sciences, Inc. (June 1996).
[1]In the wet year scenario, the demand for reclaimed water is only 6,025 to 7,263 acre-feet, resulting in the possible discharge of 522 to 1,372 acre-feet (6,547 - 6,025 = 522; 8,635 - 1,372 = 7,263) of reclaimed water into the Santa Clara River
[2]The historical average (1956-1986) of The Newhall Land and Farming Company's share of untreated Castaic Creek flood flows is 5,400 acre-feet per year, and the range for treated flood flows is 0 to 8,300 acre-feet per year.
[3]CLWA and Valencia Water Company water would be delivered in an unknown combination of State Water Project water and ground water.

Both the Valencia Water Company and Castaic Lake Water Agency have indicated that they intend to serve the Specific Plan; however, at the time of this writing, they do not have all of the water resources that would ultimately be needed as the Specific Plan and other projects in the CLWA service area build out. While agencies plan for the long-term build-out of their service areas, they increase their water supplies and build their treatment and delivery facilities on an incremental basis. It is not common practice for service providers, such as CLWA and the Valencia Water Company, to build capital facilities and acquire new supplies far in advance to meet demands which would occur in the distant future. Projections of demand for new development tend to be increasingly speculative the longer the term of projection. The rate of growth, sources of supply, political and legal factors, and financing abilities must all be factored into an agency's plans, making it imperative that agencies extend infrastructure and purchase supplies in an incremental fashion as these factors become clear. Therefore, projections of water availability as the Specific Plan builds out would be uncertain at this time.

Since the supplies of water which would be needed from CLWA and the Valencia Water Company are not all currently available, the Newhall Ranch Specific Plan would potentially result in a significant impact on water availability.

(2) Use of Castaic Creek Flood Flow Impacts

Impacts discussed in this section for use of Castaic Creek flood flows focus on the downstream water quantity and quality impacts.

The Specific Plan would use The Newhall Land and Farming Company's allocation of Castaic Creek flood flows under existing agreements to serve Specific Plan water demands. Such use of Castaic Creek flood flows would not change releases or flows to Castaic Creek and the Santa Clara River. Existing agreements with the Department of Water Resources and other Downstream Water Users specify that any flood waters in storage after May 1 become the property of the State. Since the signing of the agreements, very little water has been used by the downstream parties. Consequently, for the most part, the flows above 100 cfs have been retained by Department of Water Resources to become part of the State Water Project supply. Flows have not been released for downstream uses except when requested by the United Water Conservation District or to reduce reservoir water elevation when it encroached on the flood pool at Castaic Dam during periods of high flow.

Since Specific Plan use of Castaic Creek flood flows would cause no change in downstream flows, it follows that such an alternative would not create the potentially significant impacts defined by CEQA. Specifically, use of the flood flows would not reduce flows to downstream water users, affect the water quality of the Santa Clara River, substantially degrade water quality, exceed water quality objectives, contaminate a public water supply, substantially degrade or deplete a ground water resource, interfere with ground water recharge, use water in a wasteful manner, or cause flooding erosion or siltation. Specific Plan use of The Newhall Land and Farming Company's share of the flood flows would eliminate up to 8,300 acre-feet per year from State Water Project water; however, this would not impact State water contractors because the State Water Project would continue to meet its contract water obligations to its contractors from its Feather River source under State Water Project contracts.

(3) Impacts of the ASR Alternative for the Specific Plan

The potential impacts from managing Castaic Creek flood flows through the ASR Alternative are evaluated in this subsection according to the aforementioned criteria, which define significant changes in ground water levels, water quality, aquifer recharge, land surface, and surface flows.

(a) Ground Water Level Impacts - Saugus Aquifer

Potential impacts on water levels in the Saugus Aquifer were analyzed using a mathematical model of the aquifer in order to evaluate the potential response of the aquifer to the injection of the Castaic

Creek flood flows into the aquifer and its eventual withdrawal (refer to **Appendix 4.11** for more information regarding the mathematical equations and assumptions concerning the aquifer). This analysis was applied to assess the conditions that may occur during extremes of both~~a typical annual~~ injection and ~~/~~pumping ~~cycle~~ and was applied to three scenarios involving either injection or pumping to quantify the change in water level in representative existing Saugus Aquifer wells (see **Table 4.11-11, ASR Alternative Scenarios Analyzed**).

Scenario I represents only the injection (storage) phase of the ASR Alternative. Approximately 8,300 acre-feet per year (under the Coordinated Operations/Water Transfer Alternative) are injected at a combined injection rate of 30 mgd continually for 90 days during the first three months of the year when this water is most likely to be available.

Scenario II is a high pumping regime which follows the injection period in Scenario I. Stored water is pumped from 18 wells at the anticipated maximum daily rate for a period of 60 days. The pumping rates are a function of the potential yields at each well location. This scenario is representative of an extreme~~represents the maximum anticipated~~ short-term stress on the aquifer with respect to pumping.

Scenario III represents ground water pumping from all 18 ASR Alternative wells to meet average demand during the nine-month period following injection (Scenario I). The pumping rates are a function of the potential yields at each well location.

The results of the injection scenario (**Table 4.11-12, Results of Scenario I Injection**) indicate that there could~~may~~ be an increase in hydraulic head of the Saugus Aquifer and that water levels in wells may rise above initial pumping levels between approximately 40 and 90 feet. The storage phase of the ASR Alternative would not pose a significant environmental impact on the water level in the Saugus Aquifer because injection would not result in a decrease in the dynamic water columns of existing wells in this aquifer. Instead, the increase in water level would result in a beneficial impact.

Neither~~None~~ of the ASR Alternative pumping scenarios is anticipated to result in a significant impact on ground water levels in the Saugus Aquifer. The Saugus Aquifer is bound laterally on all sides by rocks of the Pico Formation, which is characterized by finer-grained and more tightly cemented sediments. As a result, the permeability of the Pico Formation locally is thought to be considerably less than that of the Saugus Aquifer.[21] The analysis of the pumping phase of the ASR Alternative indicates that water-level declines could range up to approximately 55 feet, in one case representing a maximum change in the initial dynamic water column of approximately 3 percent (**Tables 4.11-13 and**

21 This conclusion is supported by information in Slade (1988), who reports that well yields in the Pico Formation are typically between one and two orders of magnitude less than those in the Saugus Aquifer.

Table 4.11-11
ASR Alternative Scenarios Analyzed

Scenario	Number of Wells	Pumping/Injection Rates Per Well[1] (gallons/minute)	Pumping/Injection Duration	Groundwater Injected/Pumped (acre-feet)	Description
I	18	A Wells: 2,083 gpm B Wells: 1,042 gpm C Wells: 521 gpm	3 months of injection	8,300	Injection of Castaic Creek flood flows at 30 mgd for ninety days during January through March
II	18	All Wells: 817 gpm/well	2 months of pumping	3,900	Pumping equally from eighteen wells continually for two months at 817 gpm, which combined is equivalent to peak daily demand
III	18	All Wells: 470 gpm/well	9 months of pumping	10,272	Pumping equally from eighteen wells continually for nine months at 470 gpm, which would meet the anticipated project demand over that period

Source: CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), p. 3.40.

[1]*A, B, and C refer to areas of the Saugus Aquifer from Slade (1994).*

4.11-14). Another scenario indicated a 4 percent decrease in the height of the dynamic water column of one well representing a drawdown of 30 feet. As an additional point of comparison, water levels in some Saugus wells have historically varied by approximately 60 feet. Therefore, because the pumping phase of the ASR Alternative would only cause a maximum decline of 3 to 4 percent in the initial dynamic water column, it would fall below the significance threshold of 10 percent and not result in a significant environmental impact.

Table 4.11-12
Results of Scenario I Injection for 3 Months at 30 mgd

Well	1991 Depth to Ground Water (feet)[1]	Calculated Increase in Water Level (ft)
V-160	125 (est.)[2]	93
V-201	190 (est.)	68
V-157	168 (est.)	65
NC-11	220	48
NC-12	360	48
NC-7	310	41
NLF-159	375 (est.)	55

Source: CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), p. 3.42.
Water level data are from Slade (1994) and Newhall County Water District.
[1]under pumping (dynamic) conditions
[2]Pumping water level estimated from specific capacity, static water levels and pumping rates.

Table 4.11-13
Results of Scenario II Pumping for 2 Months at Maximum Daily Demand

Well	1991 Depth to Groundwater (ft)[1]	1991 Dynamic Water Column Height (feet)	Estimated Drawdown from ASR Pumping (ft)	Drawdown[2]
V-160	125 (est.)[3]	1,866 (est.)[3]	55	3
V-201	190 (est.)	1,480 (est.)	39	3
V-157	168 (est.)	1,840 (est.)	37	2
NC-11	220	855	26	3
NC-12	360	920	26	3
NC-7	310	664	22	3
NLF-159	375 (est.)	1,525	32	2

Source: CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), p. 3.42.
Water level data are from Slade (1994) and Newhall County Water District.
[1]under pumping (dynamic) conditions
[2]represented as a percentage of initial dynamic water column height
[3]Pumping water level estimated from specific capacity, static water levels and pumping rates information.

Table 4.11-14
Results of Scenario III
Nine Months of Pumping at Average Annual Demand

Well	1991 Depth to Groundwater (ft)[1]	1991 Dynamic Water Column Height (ft)	Estimated Drawdown from ASR Pumping (ft)	Drawdown[2]
V-160	125 (est.)[3]	1,866 (est.)[3]	48	3
V-201	190 (est.)	1,480 (est.)	38	3
V-157	168 (est.)	1,840 (est.)	38	2
NC-11	220	855	30	4
NC-12	360	920	30	3
NC-7	310	664	27	4
NLF-159	375 (est.)	1,525	34	2

Source: CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), p. 3.43.
Water level data are from Slade (1994) and Newhall County Water District.
[1]under pumping (dynamic) conditions
[2]represented as a percentage of initial dynamic water column height
[3]Pumping water level estimated from specific capacity, static water levels and pumping rates information.

The impacts on water levels should be localized to wells in the Saugus Aquifer. Consequently, the anticipated water-level declines in the Saugus are not likely to extend to adjacent aquifers and affect down-gradient (i.e., downstream) ground water users. This conclusion is based primarily on the relative composition of the Saugus Aquifer and adjacent geologic units.[22]

(b) Ground Water Level Impacts - Alluvial Aquifer

Although ground water in the Saugus Aquifer is thought to be confined under pressure, the aquifer is hydraulically connected to some extent to the overlying Alluvial Aquifer. Understanding this interconnection is key to predicting the potential water-level changes in the Alluvial Aquifer resulting from the ASR Alternative injection and pumping in the Saugus Aquifer. The general lack of specific data on the potential interconnection, however, precludes a precise determination of potential effects on the Alluvial Aquifer. In the absence of these data, the hydraulic interconnection between the two aquifers is approximated in this analysis by simplifying assumptions for the properties of both aquifers. These assumptions are based on the professional judgment of CH2M HILL, the Specific Plan hydrogeologists, and result in an over exaggeration of the potential water-level decline in the Alluvial Aquifer as a result of the ASR ~~Alternative~~ pumping in the Saugus Aquifer. The over exaggeration is deliberate to compensate for the lack of complete understanding of the potential flow between aquifers and, therefore, creates a "worst-case" water-level decline scenario.

22 CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), p. 3-43.

The methodology to assess the potential water-level changes in the Alluvial Aquifer is the same as the Saugus Aquifer water-level analyses, with one exception. The exception is the assumption that there is no hydraulic barrier between the aquifers and that both aquifers function as one aquifer that has the transmissive properties of the Saugus Aquifer (i.e., transmissivity of 90,000 gallons/day/foot) and the storage properties of the Alluvial Aquifer (i.e., an unconfined aquifer with a specific yield[23] of 0.1). The consequence of this conservative assumption is that the resulting drawdowns would be greater than what would occur in reality (i.e., because the transmissivity of the Saugus Aquifer is significantly lower than the alluvium, the influence of pumping would be laterally inhibited, causing more water to be produced closer to the wells and resulting in higher local drawdowns).

This representation of the aquifer system enables the source of water to the ASR ~~Alternative~~ wells, when pumping, to come from drainage (dewatering) of the Alluvial Aquifer and allows water levels, equivalent to those in the Alluvial Aquifer to decline as a result of deeper pumping in the Saugus Aquifer. This approach, therefore, over-estimates the water-level decline in the Alluvial Aquifer because it exaggerates the amount of water allowed to drain from the alluvium into ASR wells in the Saugus Aquifer wells. The result is a more localized area around the pumping wells that contributes water to the wells, and a maximum of drawdown in the aquifer that represents a worst-case value.

The assessment applied the equations used in the Saugus Aquifer water-level assessment to approximate the magnitude and pattern of drawdown that would occur in an unconfined aquifer. Pumping Scenario II (all 18 wells pumping continuously for two months at peak daily demand) was selected because it resulted in the largest drawdowns in the existing wells closest to the proposed ASR well locations. The results of the drawdown approximation were then compared to typical water-level conditions in the Alluvial Aquifer to assess the significance of the water-level decline.

Based on the pre-established criteria, the potential impacts associated with the anticipated Specific Plan-induced water-level declines in the Alluvial Aquifer are not considered to be significant.

Under the ASR Alternative maximum potential pumping scenario, essentially all of the portion of the Alluvial Aquifer that extends approximately 1.5 miles upstream and 2 miles downstream of Castaic Junction could~~may~~ experience water-level declines~~drawdowns~~ up to approximately 10 feet.

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23 In hydrogeology, specific yield refers to the amount of water that a given mass of saturated rock or soil would yield through gravity flow. Specifically, it is the ratio of the volume of water to the volume of rock or soil mass.

The assessment approach over-estimates the amount of water-level decline in the Alluvial Aquifer because both aquifers are represented by a single unconfined aquifer. This simplification creates a uninhibited hydraulic connection between the two aquifers and assumes that water drains directly from the Alluvial Aquifer into the Saugus Aquifer in response to pumping. In addition, the analysis does not take into account any increase in water-levels resulting from a preceding injection phase, thus adding to the overestimation. Even when considering the overestimated water levels, however, the maximum Specific Plan-induced drawdowns in the Alluvial Aquifer are not considered to affect the overall water supply potential of this aquifer (i.e., the significance threshold criterion) because the resulting declines represent less than 10 percent of the saturated thickness and are likely to be within the range of typical water-level fluctuations in the potentially affected portion of the aquifer.

(c) Ground Water Quality Impacts - Saugus Aquifer

Potential changes in ground water quality due to the injection phase of the ASR ~~Alternative~~ were assessed qualitatively by comparing the quality of the CLWA water to be injected against the quality of the existing ground water in the Saugus Aquifer (representative of depths and locations of potential potable supplies), and the standards associated with the RWQCB water-quality objectives and the California maximum contaminant levels (MCLs) for drinking water.

The water quality in the Saugus Aquifer is not anticipated to be degraded as a result of injecting water into the aquifer during the ASR Alternative. This conclusion is based on the data in **Table 4.11-15**, Water Quality of Injection Water, Saugus Aquifer and The Newhall Land and Farming Company Well #156, which characterizes the quality of both the injection water and current ground water in the Saugus Aquifer. The Newhall Land and Farming Company Well No. 156 is located on the Newhall Ranch property, in the general area of the ASR well field. Ground water quality of the Saugus aquifer in the ASR well field area appears to be somewhat higher in TDS and other constituents than the average for the Saugus Aquifer. Data indicate that water quality in the Saugus Aquifer is currently within the limits imposed by both sets of standards. The quality of the proposed injected water would also be within these limits and would generally have lower levels of measured constituents than the Saugus Aquifer because the water would be treated prior to injection.

The quality of the CLWA water, proposed for injection, meets all drinking water MCLs and exceeds the requirements of the Basin Plan objectives, and overall it is better than the quality of ground water in the Saugus Aquifer in the area of The Newhall Land and Farming Company Well No. 156. The concentration of potassium (3.8 mg/l) is slightly above the concentrations in the Saugus Aquifer (average of 2.1 and 3.6 mg/l in Well No. 156). The concentration of sodium (79 mg/l) is slightly higher than the average concentration (74 mg/l), but much less than the value in Well No. 156 (165 mg/l).

Chloride concentrations are higher in CLWA water than the Saugus Aquifer levels (89 mg/l vs. 35 mg/l for the average and 22.6 mg/l in Well No. 156). The higher concentrations of potassium, sodium, and chloride are not considered to be significant because they do not impact the beneficial use of the Saugus Aquifer, which is predominantly drinking water. In addition, the concentrations of total hardness, nitrate, sulfate, calcium, iron, magnesium, and manganese are lower than those concentrations observed in the Saugus Aquifer. Also, the operation of the ASR project is expected to minimize the migration of injected water from the ASR well field, so the effects on water quality are expected to be localized to the Newhall Ranch area, where the water will be used. Injection of CLWA water is, therefore, anticipated ~~to~~ generally to improve the quality of the Saugus Aquifer for its intended use, and the impact is expected to be beneficial.

Table 4.11-15
Water Quality of Injection Water, Saugus Aquifer and The Newhall Land and Farming Company Well #156

Constituent	Injection Water[1]	Saugus Aquifer	The Newhall Land and Farming Company Well #156	Ground Water Quality Objective	Maximum Contaminant Level (MCL)
Bicarbonate	NA	246	285	--	--
Carbonate	NA	-.5	1.0	--	--
Chloride	89	35	22.6	100	250(S)
Sulfate	92	218	520	250	250(S)
Fluoride	0.22	0.4	1.2	--	1.8
Total Hardness	161	314	272	--	--
TDS	360	619	1022	700	1,000(S)
pH	7.7 pH	7.8	7.4	--	6.5-8.5(S)
Conductance	NA	894 µmhos	NA	--	900(S)
Nitrate (NO3)	2.6	15	20.3	--	45
Boron	NA	0.1	NA	1.0	--
Calcium	32	92	89.7	--	--
Iron	<0.1	0.3	0.1	--	0.3(S)
Magnesium	18	23	58.8	--	--
Manganese	18	23	30	--	0.05(S)
Potassium	3.8	2.1	3.6	--	--
Sodium	79	74	165	--	--
TTHMs	0.077	ND	ND	--	0.1
Gross Alpha	0.1 pCi/1	2.1	NA	--	15
Gross Beta	4 pCi/1	4.2	4.2	--	50

Source: CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), p. 3.46.

[1]Values are in mg/L except where noted. Injection water quality is the average from CLWA Water Quality Report for 1992.

MCL = maximum contaminant level

(S) = secondary drinking water standard(Secondary drinking water standards pertain to constituents that do not have specific health-based standards but, when present at elevated concentrations, could adversely affect the aesthetic characteristics of drinking water (e.g., color, odor, taste and/or appearance). Secondary standards are enforceable if the water is intended for drinking.)

NA = not available

-- = there is no associated numerical standard

ND = not detected

The concentrations of trihalomethanes (THMs), however, may be of potential concern. These constituents are potential by-products of water treatment and do not occur naturally in groundwater. THMs are discussed because of the potential conflict with the anti-degradation policy, even though the injected concentrations are below Federal drinking water standards (currently, there are no State standards for THMs in California).

It is not anticipated, however, that THMs will pose a significant environmental impact, based on the results of on-going studies. Several existing ASR projects have been the subject of extensive water-quality monitoring. Specifically, Calleguas Municipal Water District and the Metropolitan Water District of Southern California cooperated on an ASR demonstration project in the North Las Posas Basin near the Specific Plan site. The results of monitoring several injection and recovery cycles indicate that total THMs (TTHMs) were less than 50 percent of the initial TTHM concentration in the injected water after approximately 50 percent of the injected water was recovered. This figure was reduced to 20 percent of the initial concentrations after 100 percent of the injected water had been recovered. In addition, the American Water Well Association Research Foundation is currently sponsoring research on the fate of THMs at five ASR sites in the U.S. and in the United Kingdom. To date, the data indicate that the concentrations of THMs are typically reduced by over 50 percent after approximately 10 weeks of storage. In southern California, THMs have been observed to be significantly reduced after injection in the West Coast Basin Barrier Project, where for the past 30 years treated surface water from Metropolitan Water District has been injected into several hundred wells to form a barrier between seawater and potable water.

(d) Ground Water Quality Impacts - Alluvial Aquifer

Potential water-quality impacts in the Alluvial Aquifer resulting from the ASR Alternative injection were assessed qualitatively in two ways. First, the water quality of the injected water was compared with that of the Alluvial Aquifer, and then both were compared to the local water-quality objectives for the aquifer as defined by the RWQCB. This comparison provides an idea of the effects of a theoretical direct mixing of the two waters, but is not very representative of actual conditions. The second method of analysis was to compare the existing water quality of the two aquifers. This approach is more representative of actual conditions, because the injected water would first mix with ground water in the Saugus Aquifer, and water that would enter the Alluvial Aquifer would most likely consist of unmixed Saugus Aquifer water under the pressure of injection.

For the pumping phase, the potential water-quality impacts on the Alluvial Aquifer resulting from the ASR Alternative pumping would be tied to the hydraulic interaction between the Alluvial and the Saugus Aquifers and local flows in the Santa Clara River and its tributaries. The potential water-quality impacts on the Alluvial Aquifer were, therefore, evaluated qualitatively by reviewing the anticipated water-level changes in the Alluvial Aquifer relative to the general water levels in the River, and comparing the water-quality characteristics of the aquifer with those of the River.

The ground water quality of the Alluvial Aquifer is not anticipated to be significantly affected by the Specific Plan's implementation of the ASR Alternative. For the injection phase, this conclusion is based in part on the data summarized in **Table 4.11-16, Water Quality of Injection Water and Alluvial Aquifer**. These data indicate that the injected water would be generally of better quality than that of the Alluvial Aquifer, except for chloride concentrations in the Castaic-Bouquet Hydrologic Subarea. More importantly, however, the concentrations in the injected water would be lower than the water-quality objectives for all constituents for which objectives have been established.

Table 4.11-16
Water Quality of Injection Water and Alluvial Aquifer[1]

Water Source	TDS	Sulfate	Chloride	Boron
Injection Water[2]	360	92	89	NA[4]
Castaic-Blue Cut[3]				
Ground Water Quality Objective	1,000	350	150	1.0
Alluvial Aquifer	460	330	103	<0.1
Castaic-Bouquet[3]				
Ground Water Quality Objective	700	250	100	1.0
Alluvial Aquifer	600	330	45	0.1
South Fork Santa Clara River[3]				
Ground Water Quality Objective	700	200	100	0.5
Alluvial Aquifer	620	240	40	0.1

Source: CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), p. 3.50.
[1]*Values are in mg/L.*
[2]*Injection water quality is the average from CLWA Water Quality Report for 1992.*
[3]*Ground water data represent average values from 1989 sampling event (DWR, 1993).*
[4]*NA = not available*

Any water that would enter the Alluvial Aquifer during injection would have originated in the Saugus Aquifer and, therefore, would have water quality characteristics similar to that of the Saugus Aquifer (a comparison of the water quality of the two aquifers indicates that the Saugus Aquifer has generally better water quality than does the Alluvial Aquifer). In addition, because there is some degree of hydraulic interconnection between these two aquifers under natural conditions, the Alluvial Aquifer

would likely be recharged by the Saugus Aquifer in various places at different times of the year, in the absence of the ASR Alternative injection. As a result, any water that would enter the Alluvial Aquifer from injection in the Saugus Aquifer is not anticipated to degrade the water quality in the Alluvial Aquifer.

From the assessment of water-level impacts in the Alluvial Aquifer, it is anticipated that pumping in the Saugus Aquifer may lower the water levels in the Alluvial Aquifer on the order of 10 feet (under maximum short-term pumping conditions) along a 4-mile reach of the Santa Clara River in the vicinity of the Specific Plan site. Along this reach, extending approximately 2 miles on either side of Castaic Junction, the River typically changes from a source of ground water recharge (losing River) to a sink for ground water discharge (gaining River). Historical ground water levels in this portion of the Alluvial Aquifer most likely fluctuate causing the transition point from losing to gaining to move up and down the River in response to the prevailing difference between water levels in the River and in the Alluvial Aquifer.

Any ground water-level decline resulting in the water level in the Alluvial Aquifer to fall below the water level in the River would cause the transition between a losing and gaining River to move further downstream than it would otherwise have done. Where the water levels in the alluvium are already below River levels, additional declines would have essentially no effect.

The implication for this analysis, therefore, is that the Specific Plan-induced water-level decline may result in an increase in the reach of the River that recharges the Alluvial Aquifer, causing more of the Alluvial Aquifer to be influenced by the water quality in the River. This increase to the reach where aquifer recharge occurs, however, would be limited to the area influenced by the pumping. Based on the available water-level data and the location of the potentially influenced area with respect to the entire Alluvial Aquifer system, the River may currently recharge the aquifer within the area of potential influence during much of the year.[24]

Upstream of Castaic Junction, the natural flow of water under existing conditions is generally from the Santa Clara River into the Alluvial Aquifer, and the quality of the surface water is generally better than it is downstream of Castaic Junction. Pumping of the Saugus Aquifer under the ASR Alternative would, therefore, only enhance the current recharge process, and should not degrade the current water quality in the Alluvial Aquifer.

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24 CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), p. 3-51.

Because Specific Plan-induced lowering of ground water levels would not increase the recharge from the River where this condition (i.e., recharge) is already occurring, the water quality of the Alluvial Aquifer is not anticipated to be made worse by further declines in water level, irrespective of their magnitude.

(e) Ground Water Recharge Impacts

Potential ASR Alternative induced impacts on natural ground water recharge would not occur as a result of the ASR Alternative, but may occur with a change in land use. Specifically, the Specific Plan development may inhibit recharge where the ground surface is covered by roads, buildings, paved parking areas, or other relatively impermeable features that may be constructed. Refer to **Section 4.2, Flood,** for a discussion of Newhall Ranch land development impacts on ground water recharge.

Natural recharge to the Alluvial Aquifer originates from infiltration of both direct precipitation on outcrop areas and flows in the Santa Clara River and its tributaries. The contribution from River flows is believed to be the greater of the two, because these flows are a continuous source of water to the aquifer along reaches generally upstream of Castaic Junction and the Specific Plan area. Recharge to the Saugus Aquifer occurs through the infiltration of precipitation where the formation outcrops or through the overlying alluvium. Development that results in relatively impermeable surfaces on outcrop areas or the alluvium would, therefore, reduce the potential for ground water recharge.

The methodology for assessing the potential impacts on ground water recharge focuses on the potential amount of ground surface that would be made relatively impermeable by development of the Specific Plan. This analysis was conducted for both aquifers independently by quantifying the proportion of the outcrop area occupied by a particular proposed land-use type and then estimating the corresponding area that would be rendered effectively impermeable to recharge. These estimates were based on general assumptions of the percentage of impacted area associated with a particular land use (**Table 4.11-17, Percentage of Impermeable Surface Area by Land Use**). The area of the Saugus Aquifer overlain by the Alluvial Aquifer was not included in this analysis because the contribution to the Saugus Aquifer recharge from the alluvium is assumed to be constant and not affected by Specific Plan development. This assumption is based on the premises that ground water in the alluvium largely originates from surface-water infiltration and that the percentage of alluvium potentially affected by the Specific Plan is relatively small.

As a result, this analysis will be a more conservative assessment of the reduction in recharge potential because it is applied only to a portion of the overall areal extent of the aquifer. Similarly, when this analysis is applied to the Alluvial Aquifer, the results will overestimate the reduction in recharge potential because the analysis does not account for the recharge contribution from surface water, which is considered to be the largest component of recharge to the Alluvial Aquifer.

Table 4.11-17
Percentage of Impermeable Surface Area by Land Use

Land Use	Impermeable Area (% of Land Area)
Estate residential	30
Residential, low-density	40
Residential, low-medium-density	50
Residential, medium-density	65
Residential, high-density	70
Multi-Use	70
Commercial	90
Business park	95
River Corridor	0
Open area	2
Roads	100
Neighborhood park	5
School	60

Source: CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), p. 3.53.

The results of the recharge analysis are summarized below in **Table 4.11-18, Results of Aquifer Recharge Analysis**, for both aquifers. The results indicate that a reduction of only 3e percent is likely to result from full Specific Plan development as currently proposed. This amount of reduction is not considered to be a significant environmental impact because it does not constitute a substantial interference with ground water recharge.

Table 4.11-18
Results of Aquifer Recharge Analysis

Parameter	Saugus	Alluvial
Outcrop area (total)[1]	37,390 acres	17,370 acres
Area of Aquifer impacted by Specific Plan	1,026 acres	524 acres
Percentage of Aquifer impacted	3 percent	3 percent
Annual recharge attributed to precipitation on outcrop (without Specific Plan)[2]	5,000 ac-feet/yr	2,000 ac-feet/yr
Reduction in recharge resulting from Specific Plan	150 acre-feet/yr	60 acre-feet/yr

Source: CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), p. 3.54.

[1]Aquifer areas are from Slade (1988).

[2]Annual recharge attributed to precipitation assumes an average annual value of 15 inches, of which 10 percent reaches the ground water (i.e., 90 percent of precipitation goes to runoff and evapotranspiration).

(f) Land-Surface Elevation Impacts

Under certain geologic conditions, ground water withdrawals can result in subsidence of the land surface. Specifically, subsidence can occur when extensive ground water withdrawals are made from aquifer-aquitard[25] systems that consist of thick sequences of unconsolidated or poorly consolidated sediments containing a large percentage of highly compressible clays.

The Saugus Aquifer is composed of consolidated sediments; therefore, land subsidence is not anticipated to result from ASR pumping from this aquifer. Subsidence is also not anticipated to occur as a result of conditions in the Alluvial Aquifer, primarily because the potential Specific Plan-induced water-level declines are not considered to be significant. This conclusion is further supported by the following:

- incremental ground water is not proposed to be pumped from the Alluvial Aquifer for use by the Specific Plan,
- the Alluvial Aquifer is not characterized by thick layers of clay that are likely to compress significantly, and
- the Alluvial Aquifer is currently extensively developed, and the resulting fluctuations in ground water levels have not resulted in known occurrences of subsidence.

(g) Surface Water Impacts

Potential impacts on surface water resulting from the ASR Alternative pumping in the Saugus Aquifer include both changes in water levels (i.e., changes in flow) and water quality. The assessment of both of these potential impacts focused on the reach of the Santa Clara River where Specific Plan pumping could affect water levels in the Alluvial Aquifer. This reach extends approximately 2 miles on either side of Castaic Junction based on the analysis of potential water-level declines in the Alluvial Aquifer.

A Specific Plan-induced reduction in River flow would occur over that portion of the affected reach where the ground water levels are reduced below the water level in the River. Where the ground water levels are already below the River, additional ground water-level declines would not result in additional reductions in River flow. Therefore, to assess the potential impact on River flow, it is important to know the relative difference in water levels between the River and the Alluvial Aquifer

25 Aquitards are geologic units (typically layers of fine-grained, low-permeability sediments) that inhibit the movement of ground water, and act to confine ground water in aquifers under pressure.

for the entire reach of the River potentially affected (i.e., where the ASR Alternative pumping could lower water levels in the Alluvial Aquifer). In addition, because the relative differences are likely to change during the course of a given year and between years, this information should be known as a function of time to assess fully the potential impact.

Ground water-level maps from the Los Angeles County Department of Public Works and data reported in Slade (1986) enable the development of the general picture of the interaction between water levels in the River and ground water. The data are not available in sufficient detail, however, to assess the potential impacts which may occur from Specific Plan-induced ground water-level declines of less than 10 feet. As a result, only a very generalized assessment can be made.

Water quality is directly related to flow in the Santa Clara River. Potential impacts to surface-water quality, therefore, can only be assessed in a general manner and are conditional on the actual flow conditions that prevail in the River in response to ASR pumping.

With respect to the injection phase of the ASR Alternative, neither the flow nor the water quality in the Santa Clara River is anticipated to be affected by the implementation of the ASR Alternative, because water levels in the Alluvial Aquifer are not anticipated to be significantly affected.

During the pumping phase of the ASR Alternative, the results of the water-level analysis indicate that the flow, and thus the water quality, in the Santa Clara River may be affected by this phase of operation. However, based on what is known of existing and potential Specific Plan-induced conditions, the ASR Alternative pumping is not anticipated to have a significant impact on the flow in the Santa Clara River. This conclusion is based on the following summary of relevant factors:

- Along the 2-mile reach of the Santa Clara River, extending approximately one mile on either side of Castaic Junction, the River typically changes from a source of ground water recharge (losing River) to a sink for ground water discharge (gaining River). Over this reach of transition the relative water-level position may differ at different locations at the same point in time, and will likely change seasonally and from year to year as a function of natural flows in the River and direct ground water pumping in the Alluvial Aquifer. The Valencia Water Reclamation Plant (District No. 32) exists in this reach of the River, upstream of the Specific Plan site. It discharges approximately 8.8 mgd to the River, which accounts for some of the surface water present in this reach of the River.

- Along this reach of the River, the anticipated water level decline in the Alluvial Aquifer is up to approximately 10 feet. This decline is an over-estimated (or maximum) value that could occur in response to heavy pumping over a period of two months.

- Water-level changes in this portion of the Alluvial Aquifer are understood to vary annually in the absence of the ASR Alternative pumping.

Water-quality in the River would not be significantly impacted as a result of the ASR Alternative pumping because the flow in the River is not anticipated to be significantly affected.

8. SPECIFIC PLAN MITIGATION MEASURES

a. Mitigation Measures Already Incorporated into the Specific Plan

4.11-1. The proposed Specific Plan shall implement a water reclamation system in order to reduce the Specific Plan's demand for imported potable water. The Specific Plan shall install a distribution system to deliver non-potable reclaimed water to irrigate land uses suitable to accept reclaimed water, pursuant to Los Angeles County Department of Health Standards.

4.11-2. Landscape concept plans shall include a palette rich in drought-tolerant and native plants.

4.11-3. Major manufactured slopes shall be landscaped with materials that will eventually naturalize, requiring minimal irrigation.

4.11-4. Water conservation measures, as required by the State of California, shall be incorporated into all irrigation systems.

b. Mitigation Measures Recommended by the EIR

4.11-5. The area within each future subdivision within Newhall Ranch shall be annexed to the Valencia Water Company prior to issuance of building permits.

4.11-6. Prior to recordation of any final subdivision map that allows construction, and in accordance with the requirements of the Los Angeles County Development Monitoring System (DMS), as amended, Los Angeles County shall require the applicant of the subdivision to obtain written confirmation from the retail water agency that a water source is available to supply the subdivision concurrent with need. If the applicant of the subdivision cannot obtain confirmation

that a water source is available for buildout of the subdivision, the subdivision shall be phased with the timing of an available water source. ~~Prior to recordation of final subdivision maps which allow construction, the applicant of that subdivision will demonstrate water availability.~~

4.11-7 Prior to commencement of use, all uses of recycled water shall be reviewed and approved by the State of California Health and Welfare Agency, Department of Health Services.

4.11-8 Prior to the issuance of building permits ~~recordation of any final subdivision map~~ that allows construction, the applicant of the subdivision shall finance the expansion costs of water service extension to the subdivision through the payment of connection fees to the appropriate water agency(ies).

4.11-9 Pursuant to Public Resources Code §21081(a)(2), the County shall recommend that the Upper Santa Clara Water Committee, made up of the Castaic Lake Water Agency, Los Angeles County Waterworks District No. 36, Newhall County Water District, Santa Clarita Water Company and the Valencia Water Company, prepare an annual water report that will discuss the status of groundwater levels within the Alluvial and Saugus Aquifers, and State Water Project water supplies as they relate to the Santa Clarita Valley. In those years when the Committee does not prepare such a report, the applicant at his expense shall cause the preparation of such a report that is acceptable to the County to address these issues. This annual report should be provided to Los Angeles County who may use the report as part of the local land use decision-making process.

4.11-10 In conjunction with the submittal of applications for and prior to approval of tentative tract and parcel maps which permit construction, a letter from the retail water provider will be submitted to the County identifying the source(s) of supply of water for the land uses within that tentative tract or parcel map. The source(s) of water identified shall not result in the net use of groundwater over that which is planned for the Santa Clarita water basin, which is identified as the annual safe perennial yield of the Alluvial Aquifer and the annual recharge rate of the Saugus Aquifer in the Final EIR for the Newhall Ranch Specific Plan or subsequent environmental documentation.

9. CUMULATIVE IMPACTS

The following discussion focuses solely on the cumulative impacts to water availability, as the other topics considered in this section (e.g., the use of Castaic Creek flows and aquifer storage and recovery are not proposed as alternative water sources by any other known project in the Santa Clarita Valley) do not lend themselves to a cumulative analysis. No cumulative analysis of water quality is necessary because this Specific Plan must meet all Federal Clean Water Act water quality standards.

The following analysis evaluates cumulative impacts under the following two future water demand and availability scenarios:

Scenario 1 Existing development within the Valencia Water Company service area plus Development Monitoring System (DMS) projections plus the Specific Plan (termed "DMS Buildout Scenario"), and

Scenario 2 Build out within the CLWA service area based on buildout projections for CLWA service area plus active pending General Plan Amendment requests plus the Specific Plan (termed "Santa Clarita Valley Cumulative Buildout Scenario").

a. Scenario 1: DMS Buildout Scenario

The first scenario (herein referred to as the "DMS Buildout Scenario") entails buildout of the more near term subdivision projects listed in the County's DMS plus the proposed Specific Plan. The analysis of this cumulative development scenario is required by the County General Plan for the cumulative analysis of water service. The County DMS lists all pending, recorded and approved projects for which land divisions have been filed within County unincorporated lands and within the City of Santa Clarita. The City plus County unincorporated area together constitute the County's Santa Clarita Valley Planning Area, the area for which DMS is run. **Table 4.11-19, Scenario 1: DMS Projected Demand and Supply for Valencia Water Company,** illustrates cumulative water demand for the Valencia Water Company service area. This cumulative water demand is compared to the near-term projected water supply of VWC of 40,458 acre-feet per year.

Total cumulative demand under Scenario 1 would be for 37,115 to 39,203 acre-feet of water, which would be 1,255 to 3,345 acre-feet less than the projected supply of 40,458 acre-feet per year, respectively (see **Table 4.11-19, Scenario 1: DMS Projected Demand and Supply for Valencia Water Company**). As a result, given existing and near-future water supplies of the Valencia Water Company, there is

adequate water for the Specific Plan and no cumulative water supply impacts would occur; however, limitations are that the supply projection is near-term and that the demand projection does not include all future uses in the land use plans of the jurisdictions located within the water company service area (i.e., the Santa Clarita Valley Area Plan and the City of Santa Clarita General Plan).

Table 4.11-19
Scenario 1: DMS Buildout Scenario Demand and Supply for Valencia Water Company

Water Demand	Acre-Feet/Year
Existing Demand	16,634
Development Monitoring System[1]	
Pending Projects	4,330
Approved Projects	4,296
Recorded Projects	1,145
Newhall Ranch Specific Plan[2]	10,710 to 12,798
Total Water Demand	37,115 to 39,203
Total Water Supply[3]	40,458
Net Water Availability (demand minus supply)	1,255 to 3.343

Information compiled by Impact Sciences, Inc. (June Revised June 1996).
[1]Los Angeles County Regional Planning Department, Land Management Agency (6 June 1996).
[2]Specific Plant water demand includes the use of reclaimed water and represents the maximum annual Specific Plan water demand from Valencia Water Company water during a dry year when Castaic Creek flood flows would not be available.
[3]Water supply was provided by Robert DiPrimio, Managing Director of the Valencia Water Company.

Given CLWA's efforts to expand its sources of water supply (as previously discussed in this section of the EIR) and the January 10, 1996 CLWA-adopted resolution which changes CLWA's method of water allocation to the four water purveyors, it is not unreasonable to assume that water could be made available to Valencia Water Company and the Specific Plan as it builds out. However, because the Valencia Water Company has yet to fully expand its source of supply, there is the potential for the cumulative impacts on Valencia Water Company to be significant.

b. Scenario 2: Santa Clarita Valley Cumulative Buildout Scenario

The second scenario (herein referred to as the "Santa Clarita Valley (SCV) Cumulative Buildout Scenario") entails buildout of all lands under the current land use designations indicated in the Los Angeles County Santa Clarita Valley Area Plan and the City of Santa Clarita General Plan, plus the proposed Specific Plan, plus all known active pending General Plan Amendment requests for additional urban development in the County unincorporated area and the City of Santa Clarita.

Table 4.11-20 summarizes cumulative water demand for this buildout scenario. As shown, total water demand under Scenario 2 would be 188,804 to 190,892 acre-feet per year, which is 72,104 to 74,192 acre-feet per year more than CLWA's 2010 projected water supply of 116,700 acre-feet per year (see **Appendix 4.11** for the detailed calculation of CLWA water demand for this scenario). Even without the Newhall Ranch Specific Plan, water demand from CLWA buildout would exceed projected supplies, which would be a significant impact. Because the water demand for CLWA at Santa Clarita Valley buildout, including the proposed Newhall Ranch Specific Plan, would exceed CLWA's projected supplies, Scenario 2 would result in a significant cumulative impact to water availability.

Table 4.11-20
Scenario 2: Santa Clarita Valley Cumulative Buildout Scenario **Water Demand and Supply**

Water Demand	**Acre-Feet/Year**
Valley Buildout Water Demand Projection[1]	178,094
Newhall Ranch Specific Plan[2]	10,710 to 12,798
Total Water Demand	188,804 to 190,892
Total 2010 CLWA Water Supply	116,700
Net Water Availability (supply minus demand)	(74,192) to (72,104)

Information compiled by Impact Sciences, Inc. (June 1996).
[1] The CLWA buildout water demand projection excludes the use of reclaimed water and water conservation measures. Also includes active pending General Plan Amendment requests.
[2]Specific Plan water demand includes the use of reclaimed water and represents the maximum annual Specific Plan water demand from Valencia Water Company water during a dry year when Castaic Creek flood flows would not be available.

CLWA is, however, in the process of updating its Capital Facilities Program in order to address long-range future water needs. The Capital Facilities Program is a necessary step for the agency to take in order to plan for water supplies, facilities and financing programs to provide for the long range water service within its territory.

10. CUMULATIVE MITIGATION MEASURES

All cumulative projects (including the proposed Specific Plan) will be required to meet Federal Clean Water Act standards (and others) for drinking water and site runoff. Furthermore, all future subdivisions proposed in the Planning Area (in addition to the Newhall Ranch Specific Plan) shall demonstrate that an adequate supply of water exists prior to map recordation.

11. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Specific Plan Impacts

Provided that the mitigation measures identified in this section are implemented, the Specific Plan would not result in unavoidable significant impacts to water resources in the Santa Clarita Valley.

b. Cumulative Impacts

Because each development project in the Santa Clarita Valley, including the proposed Specific Plan, would be required to demonstrate water availability as part of the approval process, cumulative development would not result in an unavoidable significant cumulative impact on Santa Clarita Valley water resources.

4.12 Wastewater Disposal

4.12 WASTEWATER DISPOSAL

1. SUMMARY

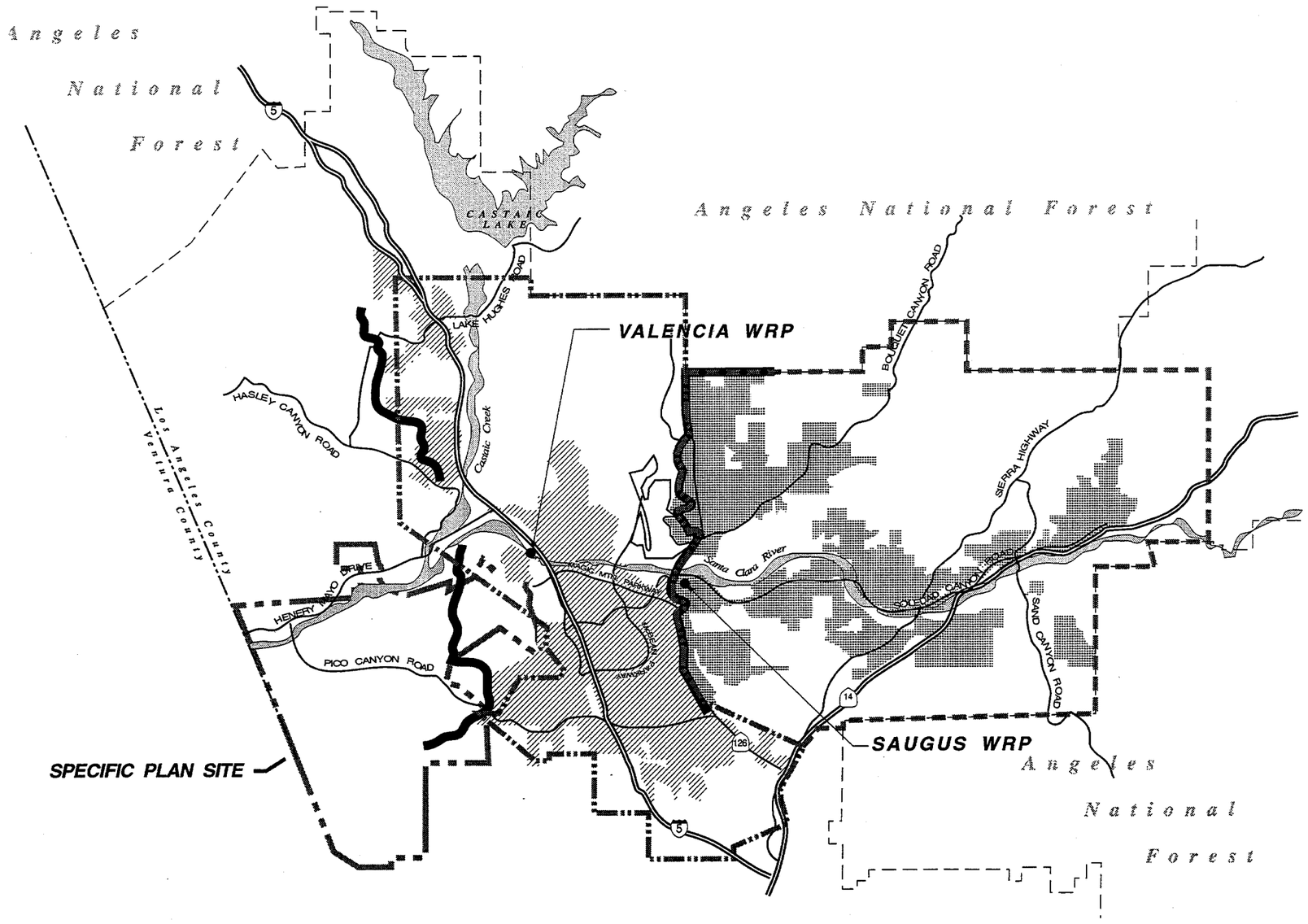
The Specific Plan would generate approximately 7.7 million gallons of wastewater on a daily basis. The existing water reclamation plants in the Santa Clarita Valley would not have the capacity to treat this amount of wastewater. Furthermore, the existing plants are upstream of the Newhall Ranch site. Consequently, the Specific Plan would cause a significant impact to County services unless its wastewater were to be treated with new capacity or a new water reclamation plant. In response to this potential impact, a water reclamation plant (WRP) is proposed as part of the Specific Plan. Therefore, no unavoidable significant impacts would occur with regard to wastewater treatment. The specific details regarding the proposed WRP are presented in ***Section 5.0, Water Reclamation Plant (WRP) Impacts, Mitigation Measures, and Unavoidable Significant WRP Impacts****, of this EIR. The flooding impacts potentially generated by the WRP are addressed in* ***Sections 4.2, and 5.2, Flood****, water quality impacts are addressed in* ***Sections 4.11, Water Resources, and 5.12, Wastewater Disposal****, and biological impacts are addressed in* ***Sections 4.6 and 5.6, Biota.***

2. INTRODUCTION

The following analysis is derived from the reports entitled Water Resource and Wastewater Management for the Newhall Ranch Project (Revised June 1996) and Addendum to Water Resources and Wastewater Management for the Newhall Ranch Project (June 1996) prepared by CH2M HILL. These reports are presented in their entireties in **Appendix 4.11** of this EIR and are herein incorporated by reference.

3. EXISTING CONDITIONS

Most wastewater generated within the Santa Clarita Valley is treated at two existing water reclamation plants (WRPs) which are upstream of the proposed Specific Plan site and are operated by the County Sanitation Districts of Los Angeles County (CSDLAC). The Saugus WRP, in District No. 26, has a permitted capacity of 6.5 million gallons per day (mgd). The Valencia WRP, in District No. 32, recently completed an expansion to increase its permitted capacity to 12.6 mgd. These two facilities, illustrated in **Figure 4.12-1, Existing Wastewater Treatment Facilities and Sanitation Districts,** have been interconnected to form a regional treatment system known as the Santa Clarita Valley Joint



SOURCE: COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY. POTENTIAL SERVICE AREAS FROM SPHERE OF INFLUENCE MAP ADOPTED LAFCo 8 JUNE 1983.

NEWHALL RANCH™
Newhall Ranch Company

L E G E N D

- COUNTY SANITATION DISTRICT No 26
- COUNTY SANITATION DISTRICT No 26 POTENTIAL SERVICE AREA
- COUNTY SANITATION DISTRICT No 32
- COUNTY SANITATION DISTRICT No 32 POTENTIAL SERVICE AREA
- DRAINAGE AREA BOUNDARIES

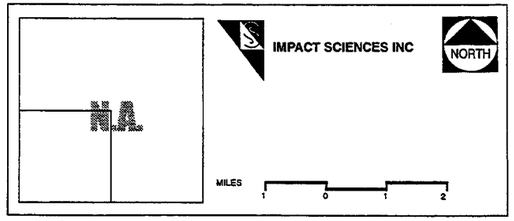


FIGURE 4.12-1

EXISTING WASTEWATER TREATMENT FACILITIES AND SANITATION DISTRICTS

Sewerage System (SCVJSS). The relationship between the two districts was established through a joint powers agreement that created the regional treatment system and permits the Valencia WRP to accept flows that exceed the capacity of the Saugus WRP. The SCVJSS has a combined permitted treatment capacity of 19.1 mgd and treated an average of 15.96 mgd in 1995.

The Newhall Ranch Specific Plan site is not located within the service areas of either of the two existing sanitation districts serving the Santa Clarita Valley; however, a small portion of the Specific Plan site is within the sphere of influence of Sanitation District No. 32. Currently, wastewater generated by the few existing buildings located on the Newhall Ranch Specific Plan site is accommodated by on-site septic systems.

4. PROPOSED IMPROVEMENTS

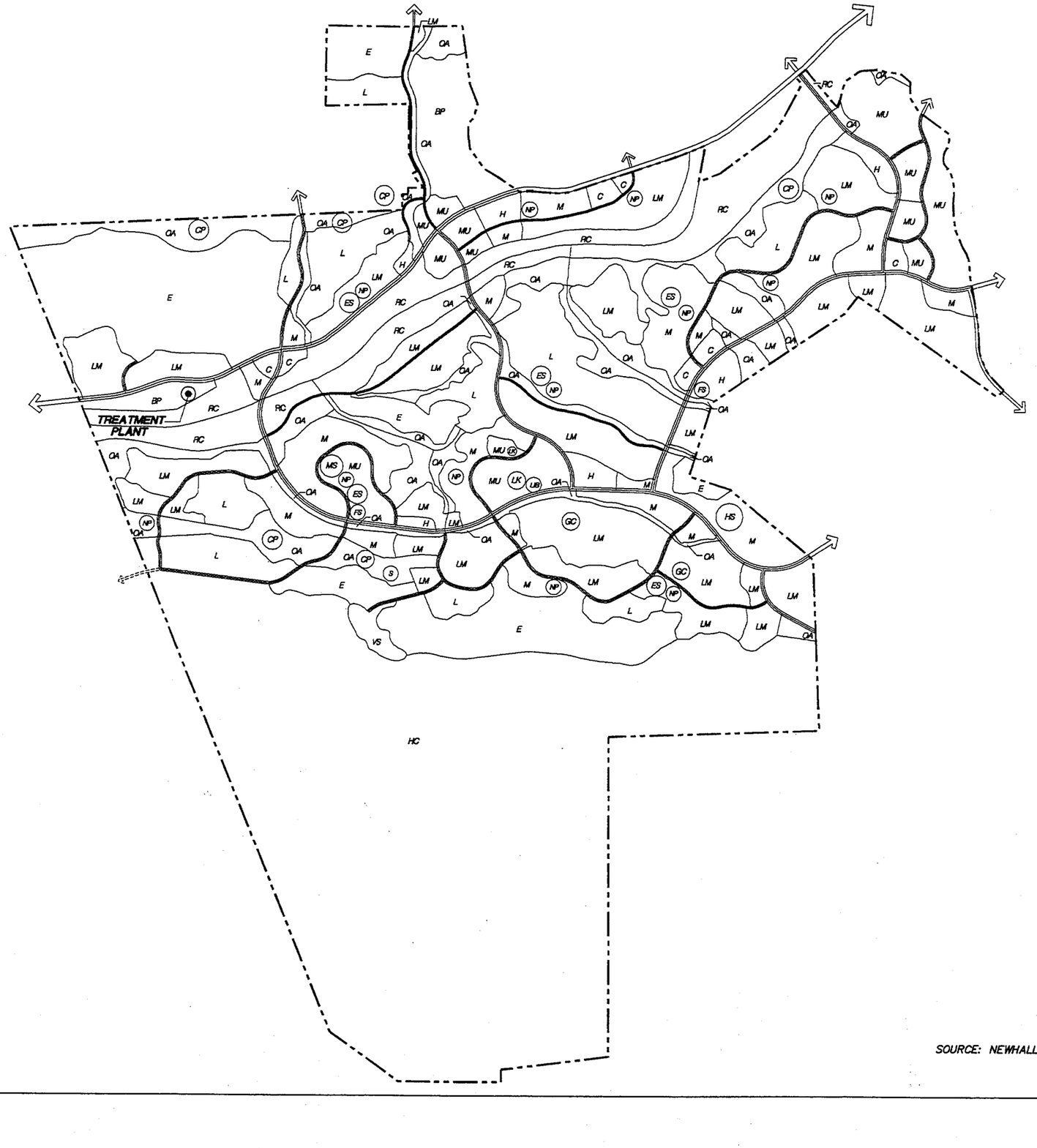
As discussed in Section 1.0, Project Description, an on-site, 7.7 mgd capacity water reclamation plant is proposed on the southern side of SR-126 adjacent to the Santa Clara River, and near the Ventura County border (see **Figure 4.12-2, Proposed Wastewater Treatment Facility and Service Area**). In addition, a wastewater collection and conveyance system comprised of gravity sewers, force mains, and pump stations is proposed within the Conceptual Backbone Sewer Plan (**Figure 1.0-10, Conceptual Backbone Sewer Plan**). For a complete description of the proposed WRP and the impacts which might be caused by the WRP, please refer to **Section 5.0, Water Reclamation Plant (WRP) Impacts, Mitigation Measures, and Unavoidable Significant WRP Impacts**, of this EIR.

5. SPECIFIC PLAN IMPACTS

A 7.7 mgd water reclamation plant is proposed on the site to exclusively serve the Newhall Ranch Specific Plan. The formation of a new County sanitation district is also proposed and the Specific Plan site will be required to annex into the Consolidated Sewer Maintenance District if it's sewers are to be maintained by the County. The following impact analysis identifies how much wastewater will be generated by the Specific Plan and how such wastewater will be disposed of. Refer to **5.0, Water Reclamation Plant (WRP) Impacts, Mitigation Measures, and Unavoidable Significant WRP Impacts,** for the environmental analysis of the proposed water reclamation plant and sanitation district, including the environmental impacts associated with the disposal of the treated wastewater.

a. Significance Threshold Criteria

Appendix G of the CEQA Guidelines does not identify thresholds of potential project significance which would apply to the proposed Specific Plan. However, the County of Los Angeles Environmental Document Reporting Procedures and Guidelines for utilities/other services state that Department staff



SOURCE: NEWHALL RANCH SPECIFIC PLAN

NEWHALL RANCH™
Newhall Ranch Company

L E G E N D

PROPOSED SEWAGE TREATMENT PLANT

PROPOSED SANITATION DISTRICT BOUNDARY (NEWHALL RANCH)

IMPACT SCIENCES INC

NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

100 ACRES 400 ACRES

FIGURE 4.12-2

PROPOSED WASTEWATER TREATMENT FACILITY AND SERVICE AREA

is concerned with adverse impacts on utilities/other services (other than water) when: (1) service to the project site is not presently available; (2) the service facility requires considerable extension to the project site; or (3) there exists an inadequate service supply. Based on these guidelines, the proposed Specific Plan would have a significant effect on the environment if: (1) service to the project site is not presently available, (2) it would require a considerable extension of sewer facilities to the site, or (3) if it would generate more wastewater than could be treated by the SCVJSS.

b. Construction Impacts

Construction contractors to the applicants of future subdivisions would provide portable, on-site sanitation facilities that would be serviced at approved disposal facilities and/or treatment plants. The amount of construction-related wastewater that would be generated is not expected to have a significant impact on these disposal/treatment facilities due to expected low volumes of wastewater.

c. Operational Impacts

Based on interior water demand estimates for the Specific Plan, it would generate 6,547 acre-feet per year of wastewater, which is equivalent to 5.8 mgd (see **Section 4.11, Water Resources,** for a detailed discussion on Specific Plan water demand). The proposed WRP was not, however, sized based on the total Specific Plan interior water demand; rather, it was sized using one of two CSDLAC approaches to estimate sewage flow. Under the first approach, wastewater generation factors are disaggregated by land use; applying this approach to Newhall Ranch, Specific Plan wastewater generation would be 7.71 mgd as shown on **Table 4.12-1, Summary of Project Wastewater Generation.** Under the second approach, which is used in the Valencia and Saugus WRP area, CSDLAC uses a residential and commercial sewage generation rate of 101 gallons per capita per day. Applying the second approach to Newhall Ranch, the Specific Plan wastewater generation would be 7.52 mgd.[1] Because the first approach provides the most conservative estimate of wastewater generation, it was used to size the proposed WRP.

For the purposes of this impact analysis and to acknowledge the differences between the way interior water demand was calculated in **Section 4.11** and the way wastewater generation is calculated using CSDLAC criteria, it will be stated throughout this section that the Specific Plan would generate between 5.8 and 7.7 mgd of wastewater.

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1 This is based on a generation rate of 100 gallons per capita per day plus estimated flows from the Business Park uses, the water reclamation plant, and the fire stations.

Table 4.12-1
Summary of Project Wastewater Generation

Land Use[1]	CSDLAC Category	Wastewater Design Flow Calculations: Number of Units	Usage Factor[2,3]	Generated Flows (mgd)[4]
Residential				
Estate	Residential	2,959 people	85 gpcpd	0.25
Low	Residential	6,701 people	85 gpcpd	0.57
Low-Medium	Residential	24,328 people	85 gpcpd	2.07
Medium	Residential	19,828 people	85 gpcpd	1.68
High	Residential	5,700 people	85 gpcpd	0.48
Mixed-Use	Residential	9,435 people	85 gpcpd	0.80
Mixed Use Commercial				
Retail	General Commercial	76 acres	0.006 cfs/ac	0.30
Office	General Commercial	76 acres	0.006 cfs/ac	0.30
Commercial	General Commercial	66 acres	0.006 cfs/ac	0.25
Business Park	General Commercial	87 acres	0.006 cfs/ac	0.53
Visitor-Serving	Limited Commercial	16 acres	0.006 cfs/ac	0.06
Water Reclamation Plant	Light Industry	11 acres	0.008 cfs/ac	0.08
Fire Station	Light Industry	2.2 acres	0.008 cfs/ac	0.01
Schools				
Elementary	School	5 schools	0.062 cfs/sch	0.20
Middle	School	1 school	0.062 cfs/sch	0.04
High	School	1 school	0.062 cfs/sch	0.04
Recreation Areas (Parks)				
Community	Park	52.9 acres	0.0003 cfs/ac	0.01
Neighborhood	Park	57.7 acres	0.0003 cfs/ac	0.01
Golf Course	Park	172.6 acres	0.0003 cfs/ac	0.03
			Total	7.71

Source: CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), p. 5-2.

[1] *Land uses not listed (lake, highways, and minor open areas) do not generate wastewater.*

[2] *Based on CSDLAC's sewer design sizing criteria (via fax, July 14, 1993).*

[3] *cfs = cubic feet per second, ac = acre, sch = school, gpcpd = gallons per capita per day.*

[4] *mgd = million gallons per day.*

A water reclamation plant is proposed within the Specific Plan area to treat Specific Plan-generated wastewater. The site is located on the south side of SR-126 adjoining the Santa Clara River, near the Ventura County boundary (see **Figure 4.12-2, Proposed Wastewater Treatment Facility and Service Area**). There are currently twenty-six County sanitation districts. Under a Joint Powers Agreement among these districts, the Districts are served by a common joint administrative staff. It is proposed that the new County sanitation district enter into a joint powers agreement with the other existing County sanitation districts to enable it to utilize the currently available joint administrative staff. Based on the assumption that the new WRP would be operated and maintained by this joint administrative staff, the WRP would be constructed to meet CSDLAC specifications and requirements, as well as requirements of other governmental agencies. The average flow to the WRP is expected to be approximately 5.8 to 7.7 million gallons per day (mgd). A standard CSDLAC peaking factor of 2.0 was

applied to the 7.7 mgd to calculate a maximum peak flow of 15.4 mgd through the plant. The peaking factor is the ratio between the maximum flow and the average flow. The peaking factor provides a level of conservatism so that the WRP can accommodate daily flow variations. The WRP has been sized to exclusively serve the needs of the Newhall Ranch Specific Plan.

A new County sanitation district is proposed to be formed that would be separate and independent from County Sanitation Districts Nos. 26 and 32. This new district is proposed because the Specific Plan is entirely within the unincorporated area of Los Angeles County, is downstream of County Sanitation District No. 32, and has only a very small portion of its area within the sphere of influence of District No. 32.[2] The proposed district boundaries would be coterminous with the Specific Plan boundaries.

Within the Conceptual Backbone Sewer Plan, a wastewater collection and treatment system comprised of gravity sewers, force mains, and pump stations, and a water reclamation plant is proposed. A complete description of the water reclamation plant is provided in **Section 5.0, Water Reclamation Plant (WRP) Impacts, Mitigation Measures, and Unavoidable Significant WRP Impacts**, of this EIR. The flooding impacts potentially caused by the WRP are addressed in **Sections 4.2 and 5.2, Flood**, water quality impacts are addressed in **Sections 4.11, Water Resources,** and **5.12, Wastewater Disposal,** and biological impacts are addressed in **Sections 4.6** and **5.6, Biota.**

Sanitation Districts Nos. 26 and 32 employ a system of connection fees to pay for the full cost of constructing water reclamation plant capacity. It is anticipated that connection fees would be utilized to finance the WRP and that the new County sanitation district would initiate a connection fee program which would be applicable to land uses within the proposed sanitation district.

Because the proposed WRP would be constructed with a sufficient amount of capacity and infrastructure to treat all wastewater generated by the Specific Plan, and using connection fees which pay for the full costs of water reclamation plant capacity needed to serve the proposed district, no significant wastewater treatment impacts would occur. As indicated in **Section 5.0, Water Reclamation Plant (WRP) Impacts, Mitigation Measures, and Unavoidable Significant WRP Impacts**, no significant wastewater disposal impacts would occur as a result of Specific Plan implementation.

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2 A small area within the Specific Plan area, on Airport Mesa, is within the sphere of influence of District 32, but is proposed to be sewered by gravity to the new WRP.

6. SPECIFIC PLAN MITIGATION MEASURES

The following measures must be implemented to mitigate the Specific Plan's potential significant wastewater disposal impacts:

a. Mitigation Measures Already Incorporated into the Specific Plan

4.12-1. The Specific Plan shall reserve a site of sufficient size to accommodate a water reclamation plant to serve the Newhall Ranch Specific Plan.

4.12-2. A 5.8 to 6.9 ~~7.7~~ mgd water reclamation plant shall be constructed on the Specific Plan site, pursuant to County, State and Federal design standards, to serve the Newhall Ranch Specific Plan.

4.12-3. The Conceptual Backbone Sewer Plan shall be implemented pursuant to County, State and Federal design standards.

b. Mitigation Measures Recommended by the EIR

4.12-4. Prior to recordation of each subdivision permitting construction, the applicant of each subdivision shall obtain a letter from the County sanitation district stating that treatment capacity will be adequate for that subdivision.

4.12-5. All facilities of the sanitary sewer system will be designed and constructed for maintenance by the County of Los Angeles Department of Public Works and the County Sanitation Districts of Los Angeles County, and/or the new County sanitation district or similar entity in accordance with their manuals, criteria, and requirements.

4.12-6. Pursuant to Los Angeles County Code, Title 20, Division 2, all industrial waste pretreatment facilities shall, prior to the issuance of building permits, be reviewed by the County of Los Angeles Department of Public Works, Industrial Waste Planning and Control Section and/or the new County sanitation district, to determine if they would be subject to an Industrial Wastewater Disposal Permit.

4.12-7. ~~Prior to recordation of e~~Each subdivision permitting construction~~, the applicant of each subdivision~~ shall be required to be annexed ~~the subdivision~~ into the Los Angeles County Consolidated Sewer Maintenance District.

7. CUMULATIVE IMPACTS

In order to analyze the cumulative impacts of this Specific Plan in combination with other expected future growth, the amount and location of growth expected to occur in addition to that of the Specific Plan was predicted. For this EIR, two separate cumulative development scenarios are analyzed to meet Los Angeles County and CEQA requirements.

a. DMS Buildout Scenario

The County DMS Methodology uses sanitation districts as the area of analysis for wastewater treatment. The Newhall Ranch Specific Plan proposes to form a new sanitation district (including a new WRP) which is outside the sphere of influence of the existing districts and which will have boundaries contiguous with the boundaries of the Specific Plan site. Because this proposed sanitation district has not been formed, it is not yet included in the County's Development Monitoring System. It is expected that the County would establish a new DMS analysis for the new district upon the district's formation, and that the analysis would reflect a district capacity of 5.8 to 7.7 mgd and one project: the Newhall Ranch Specific Plan. Should future development occur within the expected tributary area[3] of the proposed WRP and request to be annexed to the new sanitation district, the new development projects would also be included in the County's DMS.

The mere formation of a service district does not create an environmental impact. It is the land uses within the district that have the potential to create impact. It has been estimated that buildout of the area tributary by gravity to the new district (in addition to the Newhall Ranch Specific Plan) per existing Santa Clarita Valley Area Plan land use designations would generate approximately 3.32 mgd of wastewater.[4] Because wastewater generated in this tributary area would flow by gravity to the proposed Newhall Ranch WRP, the additional 3.32 mgd, when added to the 7.7 mgd of wastewater that would be generated based on CSDLAC's sewer design sizing criteria by the Newhall Ranch Specific Plan at buildout, would result in a need for a 11.02 mgd water reclamation plant. Because the Newhall Ranch WRP capacity is proposed to be 7.7 mgd, the addition of 3.32 mgd to plant flows could create a significant impact. However, it is not possible to know when, or if, such demands on the proposed plant capacity would ever be created and any analysis of this impact would be speculative at this time. When or if development in this tributary area outside of the Newhall Ranch Specific Plan

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3 Areas which flow by gravity to the proposed WRP and which are outside the Spheres of Influence of Districts 26 and 32.

4 Water Resources and Wastewater Management for the Newhall Ranch Project, CH2M HILL, Revised June 1996.

area occurs, each development project would be required to analyze and mitigate its impact on wastewater disposal. Development projects in the tributary area would either have their wastewater treated in individual septic systems, or would be required to annex to the new sanitation district and to pay connection fees to construct the additional necessary treatment capacity.

b. County Sanitation Districts of Los Angeles County Facilities Plan for the Santa Clarita Valley Joint Sewerage System

The CSDLAC is in the process of preparing a Facilities Plan, with a horizon year of 2015, for the Santa Clarita Valley Joint Sewerage System. The Facilities Plan will estimate future wastewater generation for the probable future service area of County Sanitation District Nos. 26 and 32 in order to anticipate future treatment capacity and wastewater conveyance needs. Unlike this EIR, which estimates future wastewater generation based on the buildout of land uses (under no certain horizon year) within the Santa Clarita Valley Area Plan and City of Santa Clarita General Plan, plus known active pending General Plan Amendments, the CSDLAC Facilities Plan bases its projections for wastewater generation on the Southern California Association of Governments (SCAG) 1996 population projection for the year 2015. The Facilities Plan will use a residential and commercial wastewater generation rate of 101 gallons per capita per day, plus projected industrial wastewater and contracted entitlement flow. The Facilities Plan will also assume that if the Specific Plan is approved, its wastewater would be treated at a new WRP, as proposed, rather than by the SCVJSS. According to CSDLAC estimates (as opposed to the estimates of this EIR), total flows projected from the Santa Clarita Valley in 2015, exclusive of the Specific Plan, would be 35.8 mgd (or approximately 36 mgd).[5] The combined projected site capacity of Districts Nos. 26 and 32 is 37.1 mgd, which would include the combined permitted capacity of 19.1 mgd plus 18.0 mgd of projected future capacity available at the existing plant sites.[6]

c. Santa Clarita Valley Cumulative Buildout Scenario

The second scenario of cumulative analysis for this EIR [herein referred to as the "Santa Clarita Valley (SCV) Cumulative Buildout Scenario"] entails buildout of all lands under the current land use designations indicated in the Los Angeles County Santa Clarita Valley Area Plan and the City of Santa Clarita General Plan, plus the proposed Specific Plan, plus all known active pending General Plan Amendment requests in the unincorporated area of Santa Clarita Valley and the City of Santa Clarita.

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5 CSDLAC comments (July 16, 1996) on the Newhall Ranch Specific Plan Screencheck Draft EIR.

6 Preliminary WRP Site Capacity Evaluations for the SCVJSS, County Sanitation Districts of Los Angeles County, 1996.

A list of the future development activity (with and without the Newhall Ranch Specific Plan) expected in the Valley under the Santa Clarita Valley Cumulative Buildout Scenario is presented below in **Table 4.12-2, Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario.**

Table 4.12-2
Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario

Land Use Types	Cumulative Buildout w/o Specific Plan[1]	Newhall Ranch Specific Plan [2]	Cumulative Buildout w/ Specific Plan
Single Family	89,015 du[3]	11,025 du	100,040 du
Multi-Family	38,729 du	14,193 du[4]	52,922 du
Mobile Home	3,177 du		3,177 du
Commercial Retail	20,107,660 sf[3]	1,718,000 sf	21,825,660 sf
Hotel	336,420 sf		336,420 sf
School	3,049 sta[3]	400 sta	3,449 sta
College	1,152 sta		1,152 sta
Hospital	285,470 sf		285,470 sf
Library	226,000 sf	25,000 sf	251,000 sf
Church	399,170 sf		399,170 sf
Business Park	7,773,730 sf	1,513,000 sf	9,286,730 sf
Industrial/Manufact.	33,480,250 sf		33,480,250 sf
Utilities	1,421,160 sf	35,000 sf	1,456,160 sf
Commercial/Med. Office	8,653,790 sf	2,489,000 sf	11,142,790 sf
Golf Course/Park	1,314 ac[3]	313 ac	1,627 ac
Special Generator	53,600 sf	24,000 sf	77,600 sf

[1] *Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (June 1995). Includes existing development and active pending general plan amendment requests.*
[2] *Draft Newhall Ranch Specific Plan, July 1996.*
[3] *du = dwelling unit; sf = square feet; sta = staff; ac = acres*
[4] *Includes 538 Second Units.*

Utilizing CSDLAC sewer design coefficients for wastewater generation, flow under this buildout scenario would be 43.2 mgd (including Newhall Ranch's estimated wastewater of 7.7 mgd and the 3.32 mgd from the area tributary to the proposed WRP) (See **Table 4.12-3, Wastewater Generation Impact Analysis - SCV Cumulative Buildout Scenario,** and **Appendix 4.12** for the detailed SCV Cumulative Buildout Scenario wastewater calculations).

Table 4.12-3
Wastewater Generation Impact Analysis
SCV Cumulative Impact Buildout Scenario[1]

Land Use	Generation (mgd)
Residential Uses	
Single Family	25.370
Multi-Family	8.727
Mobile Homes	0.567
Second Units	0.075
Non-Residential Uses	
Commercial Retail	4.341
Hotel	0.143
School	0.126
College	0.010
Hospital	0.071
Library	0.013
Church	0.020
Business Park	1.857
Industrial/Manufacturing	0.837
Utilities	0.291
Commercial/Medical Office	0.557
Golf Course/Park	0.163
Visitor-Serving	0.002
Special Generator	0.016
Total	43.186

Source: Impact Sciences, Inc. (June 1996).
[1] Includes the proposed Specific Plan and the area tributary by gravity to the proposed WRP.

As shown in **Table 4.12-4**, the Saugus and Valencia WRPs would have a combined total projected 2015 capacity of approximately 37.1 mgd of wastewater. Estimates made as part of this EIR (as opposed to the estimates calculated by the CSDLAC) indicate that buildout of the Santa Clarita Valley (less the Specific Plan) would increase the amount of wastewater generated in the two districts to 35.5 mgd. The Saugus and Valencia WRPs are planned to be expanded accordingly to accommodate this flow. The 35.5 mgd includes 3.32 mgd which is tributary to the proposed WRP. However, as the Saugus and Valencia WRPs have sufficient planned capacity, this flow could be conveyed via pumping to the SCVJSS facilities. [As indicated in the previous Subsection, the CSDLAC estimates that by the year 2015 a total of approximately 36 mgd will be generated in the CSDLAC's planning area (which includes the area tributary to the proposed WRP, but excludes the Newhall Ranch Specific Plan). From a long-term planning perspective, the CSDLAC projection for year 2015 of 36 mgd is close to this EIR's ultimate buildout projection for the Valley excluding the Newhall Ranch Specific Plan of 35.5 mgd.] When combining Valley buildout with the proposed Specific Plan, the Saugus and Valencia WRPs and the proposed WRP would have adequate capacity to treat the estimated flow.

Numerous safeguards exist within the County's project approval process to ensure available treatment capacity for a new development project within its service area prior to its approval. As previously indicated, Sanitation Districts Nos. 26 and 32 collect connection fees to pay for the full cost of

constructing water reclamation plant capacity and it is anticipated that connection fees would be utilized to finance the WRP. It is anticipated that the new County sanitation district would initiate a connection fee program which would also be applicable to land uses within the proposed district's tributary area should these areas annex to this district. Although it is assumed that an unknown amount of development in the Santa Clarita Valley would utilize on-site septic or package treatment facilities, it is expected that most of the buildout wastewater would be treated at CSDLAC plants. If buildout of the Valley was permitted to occur without provision of additional treatment capacity at either the Saugus and Valencia WRPs, or another site, significant wastewater disposal impacts would occur. However, with the collection of connection fees which pay for the full costs of water reclamation plant capacity needed to serve development areas tributary to the proposed district and with the continuation of the same type of funding system within District Nos. 26 and 32, the CSDLAC indicates that it expects to have adequate capacity to treat the estimated flow and no significant cumulative wastewater treatment impacts would be created.

Table 4.12-4
Cumulative Wastewater Generation vs. Treatment Capacity
(in Million Gallons per Day)

	Future Capacity	Future Wastewater Generation	Future Capacity (Deficiency) or Surplus
Proposed District			
Newhall Ranch	7.7	7.7	0.0
Combined Districts 26 and 32 Sphere Buildout[1]	37.1[1]	35.5 [2]	(1.6)
Total	44.8	43.2	(1.6)

[1] *2015 planned site capacity per CSDLAC of 34.1 mgd plus additional capacity beyond 2015 of 3.0 mgd.*
[2] *Total SCV Cumulative Buildout Scenario generation of 43.2 mgd minus Specific Plan generation of 7.7 mgd, and including the 3.32 mgd which could be generated in the area tributary by gravity to the proposed WRP.*

8. CUMULATIVE MITIGATION MEASURES

All new development projects within Santa Clarita Valley shall be approved by the County only if the project applicants can demonstrate that adequate wastewater treatment capacity will be available to serve the project. In order to fund required capacity expansions, all new development projects would be required to pay sewer connection fees to pay for the cost of providing service.

9. UNAVOIDABLE SIGNIFICANT IMPACTS

Because the proposed WRP would be of adequate size to serve the proposed Specific Plan, no unavoidable significant Specific Plan impacts would occur with regard to wastewater treatment and disposal.

If adequate wastewater treatment capacity is constructed to serve cumulative development, no unavoidable significant cumulative impacts would occur.

4.13 NATURAL GAS

1. SUMMARY

Neither the proposed Specific Plan (including the proposed water reclamation plant) nor anticipated cumulative project development would have a significant impact on natural gas resources provided by Southern California Gas Company (SCGC). However, because natural gas is a nonrenewable and finite resource, the Specific Plan would be subject to the conservation measures required under Title 24 of the California Administrative Code, which would assure responsible natural gas consumption on the part of the Specific Plan developer, residents, employees, and others. In addition, the Specific Plan would be required to meet the requirements of SCGC in terms of infrastructure relocation (if applicable) and development within SCGC easements.

2. INTRODUCTION

The purpose of this section is to discuss the following potential impacts of providing natural gas to the Specific Plan: 1) availability of natural gas supply, 2) availability of distribution facilities to serve the Specific Plan, and 3) potential use of gas in a wasteful manner. Because this section discusses natural gas in terms of its availability to commercially serve residential and non-residential uses on the Specific Plan site, and because Southern California Gas Company (SCGC) is the commercial distributor of natural gas in the Specific Plan area and is expected to be the primary distributor in the Specific Plan area as the Specific Plan builds out, only SCGC natural gas resources and distribution facilities are discussed in this section. The California Public Utilities Commission has recently deregulated the natural gas industry. It is conceivable that natural gas in the future may be provided to the Newhall Ranch site by other organizations than SCGC. However, at the time of this writing, no other organization has indicated that it intends to supply natural gas to the area. Therefore, only SCGC data were used in this analysis.

SCGC was contacted regarding existing the Specific Plan site, Specific Plan area distribution infrastructure, and Specific Plan-related impacts to natural gas supplies and SCGC's distribution infrastructure. Potential safety impacts relative to placing development in proximity to SCGC high pressure transmission lines are discussed in Section 4.5, Environmental Safety.

3. EXISTING CONDITIONS

SCGC gas is currently delivered to the Specific Plan vicinity via a medium-pressure main which parallels State Highway 126 (SR-126).[1] In addition to this main, there are two high pressure mains on the site, including a 34-inch main within a 25- to 30-foot-wide easement which traverses the central portion of the site and connects to the Saugus Station located on the eastern side of Interstate 5 (I-5) across from Magic Mountain Theme Park, and a 12- to 16-inch main which connects to the Newhall Station on San Fernando Road south of Lyons Avenue and generally follows Pico Canyon Road to Potrero Canyon and on to Ventura County (see **Figure 2.0-3, Selected Utility Easements**).[2] At the time of this writing, these lines are functioning at approximately 75 percent of their design capacities.[3]

Several smaller gas lines, which stem from the main in SR-126, occur on the Specific Plan site, including a line in Chiquito Canyon Road. These local lines serve several SCGC customers on the Specific Plan site that consume natural gas; the amount of natural gas that they consume annually is not publicly available, but it is considered relatively negligible. None of the oil production facilities located on site consume SCGC natural gas.[4]

4. SPECIFIC PLAN IMPACTS

a. Significance Threshold Criteria

According to the CEQA Guidelines (Appendix G), a project has a significant impact on the environment if it encourages activities that consume large amounts of fuel or energy, or if it consumes fuel or energy in a wasteful manner. The Guidelines do not indicate what is meant by "large amounts of fuel or energy." For the purposes of this analysis, a project would consume a large amount of fuel or energy if its consumption could not be accommodated within the long-term natural gas source and distribution planning of SCGC. Furthermore, and for the purposes of this analysis, a project would consume fuel or energy in a wasteful manner if it failed to comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the California Administrative Code).

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1 This main was damaged in the Northridge Earthquake; it was repaired and has been put back into service. An upgrade analysis is being performed to determine whether the line should be replaced.

2 According to Cornell R. Agee, Technical Supervisor, Technical Services, Southern California Gas Company (26 January 1996), the Saugus Station serves as a storage facility for SCGC's gas supply and the Newhall Station serves as the main feed for the system in the Specific Plan area.

3 Cornell R. Agee, Technical Supervisor, Technical Services, Southern California Gas Company, correspondence to Impact Sciences, Inc., 27 January 1995.

4 Interview with Ron Horn, Sikand Engineering Associates, Van Nuys, California, 16 January 1995.

In addition, the County of Los Angeles considers a project to have an adverse impact on utilities and other services when the utility or service is not available to serve the project as proposed; the service facility requires considerable extension to the project site; and/or there exists an inadequate service supply.

b. Construction Impacts

Due to the nature of construction activities, no SCGC natural gas would be consumed during site construction. Some natural gas, however, may be consumed during the installation of natural gas distribution lines through the Specific Plan site and during their testing; however, the amount consumed would be negligible.

c. Operational Impacts

The Specific Plan would place new demands on SCGC natural gas service for heating and cooling that would increase the amount of natural gas consumed on the site. The Specific Plan would also require new and possibly upgraded infrastructure.

In order to determine how much natural gas would be consumed by the proposed Specific Plan, Impact Sciences, Inc. used rates for natural gas consumption published by the South Coast Air Quality Management District in its 1994 Air Quality Handbook. Using these rates, total natural gas consumption by the Specific Plan at buildout would be approximately 145.6 million cubic feet per month (please refer to **Appendix 4.13** for the detailed natural gas consumption calculations).

Given that its supply of natural gas is adequate, and given that no element of this Specific Plan would consume this resource at a rate greater than anticipated in SCGC's long-term resource planning,[5] no significant impact on SCGC's natural gas quantities is expected to result from Specific Plan implementation.

According to SCGC, the Specific Plan can be served from existing gas mains in the area without major impact on the overall system capacity; however, new natural gas distribution infrastructure would need to be further extended onto the site to serve the Specific Plan's various uses. The natural gas distribution system that would serve the Specific Plan would be designed as part of the site's

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5 Cornell R. Agee, Technical Supervisor, Technical Services, Southern California Gas Company, correspondence to Impact Sciences, Inc., 27 January 1995. SCGC stipulates that the availability of natural gas is based on present conditions of supply and regulatory policies. As a public utility, SCGC is under the jurisdiction of the California Public Utilities Commission (CPUC) and is also affected by actions of federal regulatory agencies. Should these agencies take any action that affects natural gas supply or the conditions under which service is available, gas service would be provided to the site in accordance with the revised conditions.

subdivision and would be paid for by the development. Gas lines would be constructed parallel to roadways. Because serving new areas and upgrading the size of existing gas mains are routine for SCGC, and because SCGC's long-term infrastructure planning takes local and regional general plans into account so that new developments are planned for, extending natural gas infrastructure on the Specific Plan site would not result in a significant Specific Plan impact on SCGC facilities.[6]

The Specific Plan proposes Low-Medium and Medium Residential uses, a Community Park, a neighborhood park, and Open Areas within the easements of the two high pressure gas mains which traverse the Specific Plan site. If these gas mains cannot be accommodated in the future site plans, they may require relocation because SCGC does not permit permanent structures to be constructed over its gas mains. According to SCGC, if relocation is required to accommodate the proposed development, the pipelines can be relocated within public streets or within private right-of-ways in non-residential areas subject to the approval of the route by SCGC.[7] Refer to Section 4.5, Environmental Safety, for a discussion of potential safety impacts relative to placing development in proximity to SCGC high pressure gas mains.

In conclusion, the Specific Plan would not have a significant impact on SCGC natural gas resources or infrastructure because its consumption can be accommodated within the long-term natural gas source and distribution planning of SCGC, because it would comply with Title 24 of the California Administrative Code, and because the Specific Plan would not require considerable extension of facilities to the Specific Plan site.

5. SPECIFIC PLAN MITIGATION MEASURES

a. Mitigation Measures Already Incorporated into the Specific Plan

The Newhall Ranch Specific Plan does not contain any specific measures to mitigate impacts on natural gas.

b. Mitigation Measures Recommended by the EIR

The proposed Specific Plan would not have a significant impact on natural gas resources and infrastructure; however, natural gas comes from a nonrenewable and finite resource and its conservation is of local and Statewide concern.

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6 Cornell R. Agee, Technical Supervisor, Technical Services, Southern California Gas Company, correspondence to Impact Sciences, Inc., 27 January 1995.

7 Karen M. Clark, Operations Planner, Pipeline Group, Southern California Gas Company, correspondence to Impact Sciences, Inc., 20 January 1995.

4.13-1. All development within the Specific Plan area shall comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the California Administrative Code), as applicable.

4.13-2. A letter from Southern California Gas Company or other gas provider is to be obtained prior to recordation of all future subdivisions stating that service can be provided to the subdivision under recordation.

4.13-3. The Specific Plan is to meet the requirements of SCGC in terms of pipeline relocation, grading in the vicinity of gas mains, and development within Southern California Gas Company easements. These requirements would be explicitly defined by SCGC at the future tentative map stage.

SCGC also makes the following recommendation:

4.13-4. All potential buyers or tenants of property in the vicinity of Southern California Gas Company transmission lines are to be made aware of the line's presence in order to assure that no permanent construction or grading occurs over and within the vicinity of the high-pressure gas mains.

6. CUMULATIVE IMPACTS

In order to analyze the cumulative impacts of this Specific Plan in combination with other expected future growth, the amount and location of growth expected to occur in addition to that of the Specific Plan was predicted.

The cumulative development scenario (referred to as the "Santa Clarita Valley (SCV) Cumulative Buildout Scenario") entails buildout of all lands under the current land use designations indicated in the Los Angeles County Santa Clarita Valley Area Plan and the City of Santa Clarita General Plan, plus the proposed Specific Plan, plus all known active, pending General Plan Amendment requests for additional urban development in the unincorporated areas of Santa Clarita Valley and the City of Santa Clarita. In this report, the Planning Area is often referred to as the "Valley." A list of the future development activity (with and without the Newhall Ranch Specific Plan) expected in the Valley under the Santa Clarita Valley Cumulative Buildout Scenario is presented below in **Table 4.13-1, Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario**.

Table 4.13-1
Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario

Land Use Types	Cumulative Buildout w/o Specific Plan[1]	Newhall Ranch Specific Plan [2]	Cumulative Buildout w/ Specific Plan
Single Family	89,015 du[3]	11,025 du	100,040 du
Multi-Family	38,729 du	14,193 du[4]	52,922 du
Mobile Home	3,177 du		3,177 du
Commercial Retail	20,107,660 sf[3]	1,718,000 sf	21,825,660 sf
Hotel	336,420 sf		336,420 sf
School	3,049 sta[3]	400 sta	3,449 sta
College	1,152 sta		1,152 sta
Hospital	285,470 sf		285,470 sf
Library	226,000 sf	25,000 sf	251,000 sf
Church	399,170 sf		399,170 sf
Business Park	7,773,730 sf	1,513,000 sf	9,286,730 sf
Industrial/Manufact.	33,480,250 sf		33,480,250 sf
Utilities	1,421,160 sf	35,000 sf	1,456,160 sf
Commercial/Med. Office	8,653,790 sf	2,489,000 sf	11,142,790 sf
Golf Course/Park	1,314 ac[3]	313 ac	1,627 ac
Special Generator	53,600 sf	24,000 sf	77,600 sf

[1] *Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (June 1995). Includes existing development and active pending general plan amendment requests.*
[2] *Draft Newhall Ranch Specific Plan, July 1996.*
[3] *du = dwelling unit; sf = square feet; sta = staff; ac = acres*
[4] *Includes 538 Second Units.*

Under this scenario, including the Newhall Ranch Specific Plan, total natural gas consumption would be 1,135.6 million cubic feet per month (see **Appendix 4.13** for detailed calculations). Newhall Ranch Specific Plan's share (145.6 million cubic feet per month) would represent 12.8 percent of this total. Although natural gas is currently readily available and although large pockets of natural gas reserves are currently being discovered, tapped, and supplied for commercial uses worldwide, it is not possible at the time of this writing to predict that natural gas will always be available as an energy resource to Santa Clarita Valley or that alternative energy sources would not be available to replace natural gas in the future. From a relatively short-term perspective (i.e., twenty-five years), it is realistic to say that natural gas will be available to serve development in Santa Clarita Valley as it builds out with no significant impact on the resource.

7. CUMULATIVE MITIGATION MEASURES

Cumulative development would be subject to the aforementioned Title 24 requirements regarding energy resource conservation in order to assure that natural gas resources would not be used in a wasteful manner; therefore, no further mitigation for cumulative development is required.

8. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Specific Plan Impacts

With implementation of the aforementioned required mitigation measures, no unavoidable significant impacts to natural gas resources or distribution facilities would occur during Specific Plan development or after Specific Plan buildout.

b. Cumulative Impacts

With adherence to the aforementioned Title 24 requirements regarding energy resource conservation, no unavoidable significant impacts associated with cumulative development would occur.

4.14 ELECTRICITY

1. SUMMARY

Neither the Specific Plan nor anticipated cumulative project development would have a significant impact on electrical resources provided by Southern California Edison Company (SCE). However, because petroleum-based energy is a nonrenewable and finite resource, the Specific Plan would be subject to the conservation measures required under Title 24 of the California Administrative Code. In addition, the Specific Plan would be required to meet the requirements of SCE in terms of infrastructure relocation (if applicable). Environmental safety concerns relative to the high-power transmission lines on the project site and electromagnetic fields are discussed in ***Section 4.5 (Environmental Safety).***

2. INTRODUCTION

Electricity is provided to the Specific Plan area and to the Santa Clarita Valley area by Southern California Edison (SCE), which generates its electrical energy from a variety of energy resources, including natural gas, nuclear energy, and hydroelectric, solar, and geothermal resources. In addition, SCE purchases 30 percent of its energy resources from independent power producers.[1] All of this energy is distributed by SCE through a broad network of generating stations, substations, and transmission lines.

The California Public Utilities Commission has recently deregulated the electrical energy industry. It is conceivable that electricity in the future may be provided to the Newhall Ranch site by other organizations than SCE. However, at the time of this writing, no other organization has indicated that it intends to supply electricity to the area. Therefore, only SCE data were used in this analysis.

The purpose of this section is to discuss the following potential impacts of providing electricity to the Newhall Ranch Specific Plan site: 1) availability of electricity supply, 2) availability of distribution facilities to serve the site, and 3) potential use of electricity in a wasteful manner. Environmental safety concerns relative to the high-power transmission lines on the Newhall Ranch site and electromagnetic fields are discussed in **Section 4.5 (Environmental Safety).**

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1 Interview with Christina Bradley, Rosemary Jones, and Roger Krenkler, Southern California Edison, Valencia, California, 11 January 1995.

To prepare this document, SCE was contacted regarding existing Specific Plan area and Specific Plan site transmission and distribution infrastructure, the amount of electrical power already consumed on the site versus the amount that would be consumed after Specific Plan buildout, and Specific Plan-related impacts to electrical supplies and SCE's transmission infrastructure.

3. EXISTING CONDITIONS

On the Newhall Ranch property, 66 kilovolt (kV) and 220 kV regional transmission lines exist within a 300-foot wide easement on the northern portion of the site, and 66 kV and 230 kV regional transmission lines exist within a 75- to 240-foot wide easement through the central portion of the site. The northernmost transmission lines originate at the Pardee Substation at the Valencia Industrial Center east of Interstate 5 (I-5) and north of the Santa Clara River, and the centrally-located transmission lines originate at the Saugus Substation east of (I-5) across from the Magic Mountain Theme Park. The lines terminate in Chatsworth, Fillmore, Thousand Oaks, Ventura, and Bakersfield.[2] The loading of these transmission lines varies with fluctuating electrical demand; however, according to SCE representatives, the transmission lines are at about 70 percent of their design capacity. No electrical improvements are planned for the existing transmission lines on or in the vicinity of the Specific Plan site at the time of this writing. Pole-mounted electrical distribution lines occur throughout the property to serve the various uses which currently occupy the site (see **Figure 2.0-3, Selected Utility Easements**).

Uses on the Specific Plan site that consume electricity provided by Southern California Edison include the oil and natural gas production facilities and operations buildings, and the limited number of The Newhall Land and Farming Company-owned residences. SCE estimates that electrical consumption on the site at the time of this writing is approximately 4.7 million kilowatt hours (kWh) per year.[3]

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2 Interview with Christina Bradley, Rosemary Jones, and Roger Krenkler, Southern California Edison, Valencia, California, 11 January 1995.

3 Interview with Roger Krenkler, Southern California Edison, Valencia, California, 11 January 1995. Mr. Krenkler estimates that uses on the site currently consumes 2 to 5 percent of the electrical energy than would be consumed upon Specific Plan buildout (233.2 million kilowatt hours - see Specific Plan Impacts discussion). Given that, at the time this environmental impact report is being prepared, Exxon is closing its facilities, the consumption would probably be closer to 2 percent of what would be consumed at Specific Plan buildout.

4. SPECIFIC PLAN IMPACTS

a. Significance Threshold Criteria

According to the CEQA Guidelines (Appendix G), a project has a significant impact on the environment if it encourages activities that consume large amounts of fuel or energy, or if it consumes fuel or energy in a wasteful manner. The Guidelines do not indicate what is meant by "large amounts of fuel or energy"; therefore, for the purposes of this analysis, a project would consume a large amount of fuel or energy if its consumption could not be accommodated within the long-term electricity source and distribution planning of SCE. Furthermore, and for the purposes of this analysis, a project would consume fuel or energy in a wasteful manner if it failed to comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the California Administrative Code).

In addition, the County of Los Angeles considers a project to have an adverse impact on utilities and other services when the utility or service is not available to serve the project as proposed, the service facility requires considerable extension to the project site, and/or there exists an inadequate service supply.

b. Improvements Proposed as Part of the Specific Plan

An electrical substation and related sub-transmission lines are proposed to serve the Specific Plan. An approximate location of this substation has been indicated on the Land Use Plan (**Figure 1.0-3**). This conceptual location reflects SCE's desire to locate the substation in close proximity to the existing high power transmission lines located in the center of the site (Potrero Canyon) and where future access and distribution will be economical, practical, and convenient.

c. Construction Impacts

SCE electricity would be temporarily used on the Specific Plan site during construction to serve light trailers, power tools, tool sheds, work and storage areas, and other facilities (electrical wires would be strung from existing SCE lines on the Specific Plan site to provide electrical energy to these facilities). No construction facility is expected to consume significant amounts of SCE energy and construction impacts on SCE electrical resources would not be significant.

d. Operational Impacts

(1) Specific Plan Service Demands and Impacts

The Specific Plan would place new demands on electrical service provided by SCE. Specifically, the Specific Plan would result in an increase in the amount of electricity consumed on the site for lighting and other uses, as well as a need for new delivery infrastructure.

In order to determine how much electricity would be consumed by the Specific Plan, Impact Sciences, Inc. used consumption rates for electricity published by the South Coast Air Quality Management District in its Air Quality Handbook. Using these rates, total electricity consumption by the Specific Plan at buildout would be approximately 233.2 million kilowatt hours (kWh) per year (please refer to **Appendix 4.13** for the detailed electricity consumption calculations). However, because 4.7 million kWh of electricity per year are already used on site, the Specific Plan would result in a net annual increase in use of 228.5 million kWh of electricity. No significant impact on SCE's electricity supply is expected to result from Specific Plan implementation.[4]

With respect to transmission infrastructure, SCE representatives state that the Specific Plan would have no adverse impact on the capacity of the existing transmission system that serves the site,[5] and that SCE would provide design and engineering assistance for the Specific Plan's electrical distribution plan. There are no plans or proposals to relocate the high power transmission lines either off site or elsewhere on site; however, other support SCE infrastructure on the Specific Plan site, such as distribution lines, may either need to be removed or relocated to accommodate development of the Specific Plan. Distribution lines serving oil production and other uses on the Specific Plan site may be relocated or removed as future development progresses. SCE's Rule 15, the Line Extension Rule, states that the developer is responsible for trenching, backfilling, necessary conduits, and substructures for the installation of distribution lines as their contribution for extending service to the Specific Plan site.

The conceptual location for the SCE substation reflects SCE's request that the substation be as close to existing electrical transmission lines as possible and as close to the center of the development as possible. By placing the substation close to existing transmission lines, no additional transmission lines

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4 Interview with Christina Bradley, Rosemary Jones, and Roger Krenkler, Southern California Edison, Valencia, California, 11 January 1995.

5 Interview with Christina Bradley, Rosemary Jones, and Roger Krenkler, Southern California Edison, Valencia, California, 11 January 1995.

would need to be erected between the existing lines and the substation. By placing the substation as close to the center of the development as possible, it would be centrally loaded and could serve the entire Specific Plan development more effectively and cost efficiently than it would if it were placed on or beyond the Specific Plan site boundaries.

(2) Other Impacts

While SCE would be able to review each tract map for this Specific Plan as it builds out and would be able to ensure proper accessibility to their facilities, SCE representatives identified accessibility as a general site development concern and have asked that the issue be addressed in this environmental impact report.[6] Because the transmission lines and other SCE facilities would remain on the Specific Plan site, unimpaired accessibility to these facilities would need to be maintained within the developed areas. In addition, upon transfer of the High Country Special Management Area to another entity for long term maintenance, continued access to electrical facilities in the Special Management Area would need to be ensured through an agreement with this entity. As the Specific Plan builds out and tentative tract maps are prepared, SCE would have the opportunity to review the maps and to ensure that their accessibility concerns are met.

For an analysis of potential impacts associated with electromagnetic fields (EMFs), please refer to **Section 4.5 (Environmental Safety).**

5. SPECIFIC PLAN MITIGATION MEASURES

a. Mitigation Measures Already Incorporated into the Specific Plan

The Newhall Ranch Specific Plan does not contain any specific measures to mitigate impacts on electricity.

b. Mitigation Measures Recommended by the EIR

As mentioned, the proposed Specific Plan would not have a significant impact on electricity resources and infrastructure; however, some of the Specific Plan's electrical power would come from a nonrenewable and finite petroleum resource and its conservation is of local and Statewide concern.

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6 Interview with Christina Bradley, Rosemary Jones, and Roger Krenkler, Southern California Edison, Valencia, California, 11 January 1995.

4.14-1. All development within the Specific Plan area shall comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the California Administrative Code), as applicable.

4.14-2. Southern California Edison or other energy provider is to be notified of the nature and extent of future development on the Specific Plan site prior to recordation of all future subdivisions.

4.14-3. All future tract maps are to comply with Southern California Edison or other energy provider guidelines for grading, construction, and development within SCE easements.

4.14-4. Electrical infrastructure removals and relocations are to be coordinated between the Specific Plan engineer and Southern California Edison or other energy provider as each tract is designed and constructed.

4.14-5. All future tract maps are to be reviewed by Los Angeles County to ensure adequate accessibility to Edison or other energy provider facilities as a condition of their approvals.

4.14-6. Upon transfer of the High Country Special Management Area to another entity for long-term maintenance, continued and adequate access to all Southern California Edison facilities in the High Country Special Management Area is to be ensured within the transfer agreement.

No additional mitigation measures are recommended with respect to Specific Plan-related electricity consumption or delivery of this energy resource to the Specific Plan site.

6. CUMULATIVE IMPACTS

In order to analyze the cumulative impacts of this Specific Plan in combination with other expected future growth, the amount and location of growth expected to occur in addition to that of the Specific Plan was predicted.

The cumulative development scenario (referred to as the "Santa Clarita Valley (SCV) Cumulative Buildout Scenario") entails buildout of all lands under the current land use designations indicated in the Los Angeles County Santa Clarita Valley Area Plan and the City of Santa Clarita General Plan, plus the proposed Specific Plan, plus all known active pending General Plan Amendment requests for additional urban development in the unincorporated areas of Santa Clarita Valley and the City of

Santa Clarita. In this report, the Planning Area is often referred to as the "Valley." A list of the future development activity (with and without the Newhall Ranch Specific Plan) expected in the Valley under the Santa Clarita Valley Cumulative Buildout Scenario is presented below in **Table 4.14-1, Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario.**

Table 4.14-1
Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario

Land Use Types	Cumulative Buildout w/o Specific Plan[1]	Newhall Ranch Specific Plan [2]	Cumulative Buildout w/ Specific Plan
Single Family	89,015 du[3]	11,025 du	100,040 du
Multi-Family	38,729 du	14,193 du[4]	52,922 du
Mobile Home	3,177 du		3,177 du
Commercial Retail	20,107,660 sf[3]	1,718,000 sf	21,825,660 sf
Hotel	336,420 sf		336,420 sf
School	3,049 sta[3]	400 sta	3,449 sta
College	1,152 sta		1,152 sta
Hospital	285,470 sf		285,470 sf
Library	226,000 sf	25,000 sf	251,000 sf
Church	399,170 sf		399,170 sf
Business Park	7,773,730 sf	1,513,000 sf	9,286,730 sf
Industrial/Manufact.	33,480,250 sf		33,480,250 sf
Utilities	1,421,160 sf	35,000 sf	1,456,160 sf
Commercial/Med. Office	8,653,790 sf	2,489,000 sf	11,142,790 sf
Golf Course/Park	1,314 ac[3]	313 ac	1,627 ac
Special Generator	53,600 sf	24,000 sf	77,600 sf

[1] *Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (June 1995). Includes existing development and active pending general plan amendment requests.*
[2] *Draft Newhall Ranch Specific Plan, July 1996.*
[3] *du = dwelling unit; sf = square feet; sta = staff; ac = acres*
[4] *Includes 538 Second Units.*

Under this scenario, total electrical energy consumption would be 1,980.3 million kWh per year (see **Appendix 4.13** for detailed calculations). Electricity that would be consumed by the Newhall Ranch Specific Plan (233.2 million kWh) would represent 11.8 percent of this total. SCE staff have indicated that SCE would be able serve new development within its service area as it builds out under this scenario with no significant impact.[7] Because electricity is currently readily available through a variety of energy resources (e.g., wind, solar, co-generation, etc.), it is reasonable to predict that electricity will always be available as an energy resource to Santa Clarita Valley and will be available to serve development in Santa Clarita Valley as it builds out. Therefore, buildout of the Valley would not have a significant impact on this energy resource.

7 Interview with Christina Bradley, Rosemary Jones, and Roger Krenkler, Southern California Edison, Valencia, California, 11 January 1995.

7. CUMULATIVE MITIGATION MEASURES

Cumulative development would be subject to the aforementioned Title 24 requirements regarding energy resource conservation in order to assure that electrical resources would not be used in a wasteful manner; therefore, no further mitigation for cumulative development is required. No additional mitigation measures are recommended with respect to electricity consumption by or delivery of this resource to cumulative development.

8. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Specific Plan Impacts

With implementation of the aforementioned required mitigation measures, no unavoidable significant impacts to electricity resources or distribution would occur as a result of Specific Plan buildout.

b. Cumulative Impacts

With adherence to the aforementioned Title 24 requirements regarding energy resource conservation, fuel or energy would not be consumed in a wasteful manner and no unavoidable significant impacts associated with cumulative development would occur.

4.15 Solid Waste Disposal

1. SUMMARY

The Newhall Ranch Specific Plan would generate approximately 293,281 pounds per day, or approximately 53,524 tons per year, of solid waste upon buildout assuming no solid wastes from the Specific Plan would be recycled (a worst-case scenario). The Specific Plan may also generate household type hazardous wastes. Cumulative development within the Santa Clarita Valley area would generate 631,334 tons per year of solid waste, as well as hazardous waste. The Newhall Ranch Specific Plan's share of 53,524 tons per year would represent 8.5 percent of this total. Land suitable for landfill development or expansion is quantitatively finite and limited due to numerous environmental, regulatory and political constraints. This is not to say, though, that alternative solid waste disposal technologies that could substantially reduce landfill disposal will not be developed and legislatively approved in the future; given the market forces that drive the solid waste industry, it is reasonable to assume they will. However, until the County can demonstrate that approved landfill space or other disposal alternatives will be adequate to serve existing and future uses for the foreseeable future, Specific Plan and cumulative solid and hazardous waste impacts within the County are considered unavoidably significant.

2. INTRODUCTION

The County of Los Angeles Department of Public Works (LACDPW) has the responsibility to develop plans and strategies to manage the solid waste generated (including hazardous waste) in the County unincorporated areas and to address the disposal needs of Los Angeles County as a whole. In the past, solid waste was simply collected and disposed of at landfills in the local vicinity. More recently, many jurisdictions - such as the County of Los Angeles - are stating that existing local landfill space may reach capacity in the very near future. Current LACDPW estimates indicate that Los Angeles County may experience a daily disposal capacity shortfall as early as 1999 if no additional capacity is permitted. Furthermore, the existing hazardous waste management (HWM) facilities in Los Angeles County are inadequate to handle the hazardous waste currently being generated.[1] Even with waste

[1] Carlos Ruiz, Los Angeles County Department of Public Works, letter dated April 25, 1996. This is confirmed in the Executive Summary for the Countywide Siting Element (Los Angeles County Department of Public Works, Environmental Programs Division, Preliminary Draft Los Angeles County Countywide Siting Element [Alhambra, California: January 1996], p. ES-10).

reduction and recycling efforts, many jurisdictions are having tremendous difficulty approving new local landfill space or alternative means of disposal to address the anticipated shortage. While solid waste (including hazardous waste) continues to be generated and the public expects it to be collected and disposed, the public has strongly opposed proposed new or expanded facilities during the permitting process.

In response to this dilemma, alternative methods of collection, transfer, disposal, and even the reduction, recycling and reuse of solid waste have been considered. It is speculative to identify specific options for waste disposal which will exist 20, 50, or 100 years from now. Disposal options that have been discussed at the State and County levels, as well as by the private waste disposal industry, include expanding existing landfills, developing new landfills locally, transferring solid waste out of the County or State by truck or rail car, and incineration within co-generation plants locally and regionally. Options to reduce the amount of waste disposed of in landfills have included curbside recyclable materials collection and materials separation. The technology and economics for these options are changing on an almost daily basis. As an example, 20 years ago few people would have envisioned the amount of recycling that occurs today.

The recycling issue points to the privatization that is occurring within the solid waste industry today. In the past, many municipalities provided the service of collecting solid waste and disposing of it in their own landfills. Today, solid waste has become a commodity and has supported the growth of the private solid waste-handling industry. In this free-enterprise system, private industries now compete to collect and dispose of solid waste largely because of the difficulty that municipalities have in approving new disposal sites. Private solid waste haulers dispose of their loads at landfills which provide the greatest economic advantage (considering location, transportation cost, and disposal tipping fees). As local landfills reach capacity, economic forces will even more actively drive the collection and disposal of solid waste. In fact, the Los Angeles County Department of Public Works has maintained a steadfast opinion that prudent public policy includes a balance of in-County and out-of-County disposal capacity to provide for the long-term disposal needs of the County.[2] Without multiple options, the County would have little negotiating leverage against unfavorable pricing structures.[3]

It is unrealistic to assume, however, that all existing landfill space will reach capacity and that no new landfill space or disposal options will be made available. If solid waste could not be disposed of regionally or locally and the waste accumulated, serious health problems (e.g., disease) would result,

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2 Dames & Moore, Draft Environmental Impact Report/Environmental Impact Statement for the Proposed Elsmere Solid Waste Management Facility, (Arcadia, California: U.S. Department of Agriculture, Forest Service, January 1995), p. 1-7.

3 Dames & Moore, Draft Environmental Impact Report/Environmental Impact Statement for the Proposed Elsmere Solid Waste Management Facility, (Arcadia, California: U.S. Department of Agriculture, Forest Service, January 1995), p. 1-7.

and State and local health agencies would be forced to address the crisis. Since it would not be possible to halt the generation of solid waste, it is likely that the State would intervene and implement new landfilling and/or other disposal options. Discussion of such intervention is currently taking place at the State level.

This EIR analyzes the solid waste impacts of the Newhall Ranch Specific Plan. Prediction, however, of the type of disposal and recycling options that will be available in the future is difficult and speculative due to the changing dynamics of the field.

Because of this difficulty in prediction and the constantly changing dynamic value of the solid waste generation and disposal situation, it became necessary in this EIR to formulate a method to evaluate impacts on the landfills that are most likely to serve the Specific Plan site. Specifically, this EIR section compares the solid waste generation of the proposed Specific Plan with the capacity of the existing landfills operating within Los Angeles County which accept waste from unincorporated areas. This is considered a worst-case scenario as it does not assume the development of any new landfills or the implementation of any other disposal options. The reader should also be aware that it is unrealistic to assume that no changes would occur.

Information in this section was derived from the Los Angeles County Source Reduction and Recycling Element (August 1993), the Draft Environmental Impact Report/Environmental Impact Statement for the Proposed Elsmere Solid Waste Management Facility (January 1995), the Preliminary Draft Los Angeles County Countywide Siting Element (January 1996), and interviews with County Sanitation Districts of Los Angeles County and Los Angeles County Public Works Department Environmental Programs Division staff.

3. EXISTING CONDITIONS

a. Existing Solid Waste Generation

(1) Regional Solid Waste Generation

Approximately 1.1 million tons of solid wastes were generated in the unincorporated areas of Los Angeles County in 1990.[4] Of this total, residential uses generated about 48 percent, industrial uses 16 percent, commercial uses 32 percent, and miscellaneous uses 4 percent. Nearly 6 percent of the solid waste stream was diverted from landfills through various source reduction, recycling and re-use efforts.

(2) Site Specific Solid Waste Generation

The Newhall Ranch site currently supports agricultural/ranching activities, oil and natural gas operations, and a small number of single family units. These operations contribute a quantitatively insignificant amount of solid waste to the area's waste stream.

b. Existing Solid Waste Collection and Disposal

(1) Solid Waste Collection

Residential, commercial, and industrial trash collection in the unincorporated areas of Los Angeles County is handled by private haulers. These haulers operate in a free-enterprise system and make their profits by collecting disposal fees. When collected, the waste may be taken to any landfill that is willing to accept it and which provides the greatest economic advantages to the hauler, based on location and disposal fees. The private haulers are free to operate in any of the unincorporated areas of the County, as well as outside the County. Currently, about 240 haulers are permitted by the County of Los Angeles Department of Health Services to collect residential, commercial and industrial waste in unincorporated Los Angeles County.

Currently, most solid waste collected within Los Angeles County by private haulers is disposed of within the County. However, this is not to say with absolute certainty that independent solid waste haulers do not or would not take solid wastes over the County line. In fact, the Los Angeles County Department of Public Works has maintained a steadfast opinion that prudent public policy includes a

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4 Los Angeles County Department of Public Works, Environmental Programs Division, Los Angeles County Source Reduction and Recycling Element, Volume I - The Element (Alhambra, California: Los Angeles County Department of Public Works, August 1993), p. 2.

balance of in-County and out-of-County disposal capacity to provide for the long-term disposal needs of the County.[5] Landfills in the California desert, which would receive Los Angeles area waste by rail car, are currently in the permit process. Inter-county transfer of solid waste may occur in the near future if landfills outside of Los Angeles County provide greater economic advantages to haulers or if landfills within the County reach capacity. The U.S. Supreme Court has ruled that jurisdictional solid waste disposal restrictions infringe on a landfill operator's ability to actively participate in interstate commerce.[6] In that case, the court ruled that the City of Philadelphia could not prevent the State of New Jersey from bringing solid waste to Philadelphia for disposal. The County Department of Public Works maintains that long-term waste disposal needs can only be met with in-County and out-of-County disposal capacity.[7] Demonstration of the potential for in-County waste disposal capacity and expansion is important to the County in the effective negotiation of out-of-County disposal contracts.[8] If the County becomes totally reliant on out-of-County disposal capacity, it would have little negotiating leverage against unfavorable pricing structures.[9]

(2) Solid Waste Disposal

Figure 4.15-1, Locations of Major Los Angeles County Landfill Sites, illustrates the locations of Los Angeles County landfills in relation to the Newhall Ranch Specific Plan site and **Table 4.15-1, Existing Landfill Capacity and Regional Needs Analysis for Los Angeles County,** identifies the anticipated remaining capacity and anticipated remaining years of operation of each landfill. Not reflected in Table 4.15-1 is the recent Chiquita Canyon Landfill expansion approval for 23.0 million tons, which will add an additional twenty-two years to the landfill capacity.[10]

These landfills are classified as major landfills, which are defined as those facilities that receive more than 50,000 tons of solid waste per year. Additionally, these landfills are classified as Class III since they are permitted to accept only non-hazardous wastes. As shown in **Table 4.15-1**, Los Angeles County's landfills have adequate capacity to service the existing population and planned growth until 1997. After that time, the daily volume of solid waste generated would exceed the volumes that these landfills are permitted to accept unless new landfills or other disposal alternatives are approved.

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5 Dames & Moore, Draft Environmental Impact Report/Environmental Impact Statement for the Proposed Elsmere Solid Waste Management Facility, (Arcadia, California: U.S. Department of Agriculture, Forest Service, January 1995), p. 1-7.

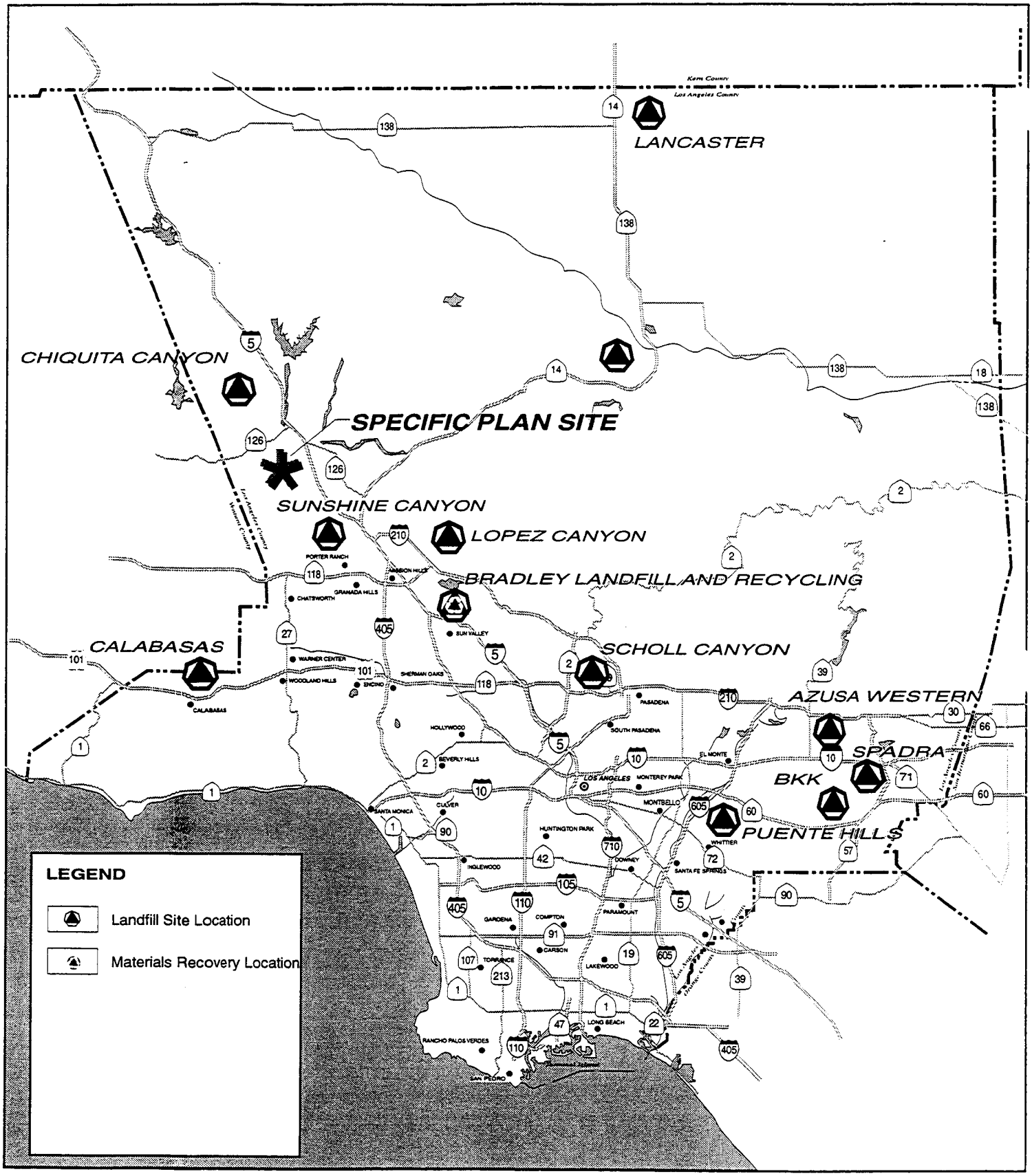
6 Philadelphia vs. New Jersey, 98 Supreme Court 2531, 1978.

7 Dames & Moore, Draft Environmental Impact Report/Environmental Impact Statement for the Proposed Elsmere Solid Waste Management Facility, (Arcadia, California: U.S. Department of Agriculture, Forest Service, January 1995), p. 1-7.

8 Dames & Moore, Draft Environmental Impact Report/Environmental Impact Statement for the Proposed Elsmere Solid Waste Management Facility, (Arcadia, California: U.S. Department of Agriculture, Forest Service, January 1995), p. 1-7.

9 Dames & Moore, Draft Environmental Impact Report/Environmental Impact Statement for the Proposed Elsmere Solid Waste Management Facility, (Arcadia, California: U.S. Department of Agriculture, Forest Service, January 1995), p. 1-7.

10 Telephone interview with Rodney Walter, General Manager, LAIDLAW Waste Systems, Inc. (operator of Chiquita Canyon Landfill), February 26, 1997. This expansion was approved February 25, 1997. The permitted daily disposal rate is 5,000 tons.



NEWHALL RANCH™

FIGURE 4.15

LOCATIONS OF MAJOR LOS ANGELES COUNTY LANDFILL SITES

Table 4.15-1
Existing Landfill Capacity and Regional Needs Analysis for Los Angeles County

Year	Waste Generation Rate[1] (tpd-6)	Percent[2] Diversion	Total Disposal Need (tpd-6)	Expected Daily Tonnage[3] - Six-Day Average (Remaining Landfill Capacity at Year's End - Million Tons)															Daily Disposal Capacity Shortfall (Excess) (tpd-6)
				Puente Hills	Spadra	Calabasas[R]	Scholl[R]	BKK	Bradley	Lopez[R]	Chiquita[5]	Azuza	Sunshine	~~Elsmere~~	Antelope Valley	Burbank[R]	Lancaster	Whittier[R]	
1995	50,129	25.00%	37,596	12,000 (29.3)	2,500 (2.1)	2,334 (15)	1,487 (10.90)	12,000 (2.7)	7,000 (7.5)	3,333 (0.5)	1,489 (1.8)	6,000 (3.1)	6,000 (16.9)	P	750 (2.1)	134 (6.4)	1,000 (0.47)	229 (2.7)	
1996	52,332	30.00%	36,632	12,000 (25.6)	2,500 (1.4)	2,320 (14.3)	1,478 (10.4)	12,000 P	7,000 (5.3)	3,333 P	1,650 (1.4)	6,000 (1.2)	6,000 (16.0)		1,400 (1.7)	133 (6.3)	1,000 (0.16)	227 (2.6)	(22,425)
1997	53,587	35.00%	34,832	12,000 (21.8)	2,500 (0.6)	2,260 (13.6)	1,440 (10.0)		7,000 (3.1)		1,650 P	6,000 C[4]	6,000 (14.1)		1,400 (1.3)	129 (6.3)	1,000 C	222 (2.5)	(8,784)
1998	53,714	40.00%	32,228	12,000 (18.1)	2,500 C	2,152 (12.9)	1,371 (9.6)		7,000 (1.0)				6,000 (12.2)		1,400 (0.8)	123 (6.2)		211 (2.5)	(2,543)
1999	54,057	45.00%	29,731	12,000 (14.4)		2,058 (12.3)	1,312 (9.2)		C				6,000 (10.3)		1,400 (0.4)	118 (6.2)		202 (2.4)	4,629
2000	54,903	50.00%	27,452	12,000 (10.6)		1,988 (11.6)	1,267 (8.8)						6,000 (8.5)		1,400 C	114 (6.2)		195 (2.3)	2,477
2001	56,188	50.00%	28,094	12,000 (6.9)		2,034 (11.0)	1,296 (8.4)						6,000 (6.6)			116 (6.1)		199 (2.3)	4,435
2002	57,267	50.00%	28,634	12,000 (3.1)		2,073 (10.4)	1,321 (7.9)						6,000 (4.7)			119 (6.1)		203 (2.2)	4,904
2003	58,344	50.00%	29,172	12,000 P		2,112 (9.7)	1,346 (7.5)						6,000 (2.9)			121 (6.1)		207 (2.1)	5,372
2004	59,302	50.00%	29,651			2,147 (9.0)	1,368 (7.1)						6,000 (1.0)			123 (6.0)		210 (2.1)	17,789
2005	60,212	50.00%	30,106			2,180 (8.3)	1,389 (6.7)						6,000 C			125 (6.0)		214 (2.0)	18,200
2006	61,052	50.00%	30,526			2,210 (7.7)	1,408 (6.2)									127 (5.9)		217 (1.9)	24,565
2007	61,822	50.00%	30,911			2,238 (7.0)	1,426 (5.8)									128 (5.9)		219 (1.9)	24,899
2008	62,524	50.00%	31,262			2,263 (6.3)	1,442 (5.3)									130 (5.9)		222 (1.8)	25,205
2009	63,158	50.00%	31,579			2,286 (5.5)	1,457 (4.9)									131 (5.8)		224 (1.7)	25,480
2010	63,725	50.00%	31,863			2,307 (4.8)	1,470 (4.4)									132 (5.8)		226 (1.7)	25,727

Source: Los Angeles County Department of Public Works, Preliminary Draft Los Angeles County Countywide Siting Element, (Alhambra, California: January 1996), Table 4-5.

1 The Waste Generation Rate was estimated using the County Integrated Waste Management Board's adjustment methodology, utilizing population and economic projections available from the State Department of Finance and the Southern California Association of Governments.

2 Diversion Rate 25% in 1995, increase to 50% by 2000 and thereafter.

3 Expected Daily Tonnage Rates are based on permitted daily capacity for the Antelope Valley, Azusa, BKK, Bradley, Lancaster, Lopez, Puente Hills, Spadra, and Sunshine landfills. The average daily tonnage rate for Burbank, Calabasas, Chiquita, Scholl, and Whittier (Savage) landfills are based on the average daily tonnages for the period of 10/1/94 to 9/30/95. These figures, as well as the 1995 total disposal need, will be updated in the final Countywide Siting Element once complete 1995 Disposal Quantity Reporting Data are available.

4 Azusa Landfill's closure date is based on California Regional Water Quality Control Board's - Los Angeles Region decision to allow the Landfill to continue accepting Municipal Solid Waste while implementing engineering alternatives until 12/31/97. The California Regional Water Quality Control Board's - Los Angeles Region will then reevaluate the effectiveness of these alternatives. This facility ceased accepting non-inert solid waste on October 3, 1996.

5 Not reflected in this table is the recent Chiquita Canyon Landfill expansion approval for 23.0 million tons, which will add an additional twenty-two years to the landfill capacity.

"tpd-6" - tons per day, 6 days per week.
C - Closed due to Exhausted Capacity
P - Closed due to Permit Expiration
R - Restricted Wasteshed

As with the solid waste haulers, these landfills operate in a free-enterprise system. Their operating expenses and profits are obtained by collecting disposal fees from the haulers on a per ton basis. The capacities of the landfills are regulated for the most part through the amount of solid waste that each particular facility is permitted to collect per day and in their total capacity.

Although it is likely that solid wastes from the Santa Clarita Valley area would go to the Chiquita Canyon Landfill (located immediately to the north and east of the Specific Plan site), and/or to the Sunshine Canyon Landfill located in Sylmar,[11] other more distant landfills may also receive solid wastes from the area. For instance, the Antelope Valley Landfill in Palmdale, Bradley West Landfill in Sun Valley, Lancaster Landfill in Lancaster, and the Simi Valley Landfill in Simi Valley, ~~, and the Toland Road Landfill in Ventura County (if a proposed expansion is approved)~~ could all conceivably accept waste from the area (the Toland Landfill in Ventura County is not permitted to accept waste from Los Angeles County, or the Newhall Ranch Specific Plan site).

4. FUTURE SOLID WASTE MANAGEMENT CONDITIONS

a. Landfill Expansion and Development Plans

(1) Expansion Plans

Several of the landfills identified in **Table 4.15-1** have the potential to be expanded in order to provide additional capacity. Of these landfills, ~~Chiquita Canyon~~, Lancaster, and Sunshine Canyon, as well as Antelope Valley have proposed expansion plans and are in the permit hearing process. All of these landfills could serve the Santa Clarita Valley, including the Newhall Ranch Specific Plan, as well as the surrounding region.

Table 4.15-2, Proposed Major Landfill Expansion Plans in Los Angeles County, provides a summary of expansion plans for Antelope Valley, ~~Chiquita Canyon,~~ Lancaster, and Sunshine Canyon Landfills. Expansion of these landfills would provide an additional ~~121.4~~ 91.9 million tons of capacity with a daily capacity of ~~2~~ 14,500 tons.

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11 The Elsmere Canyon Landfill is proposed approximately 2.5 miles northeast of I-5 and SR-14 Freeway interchange; however, it is still in entitlement process.

Table 4.15-2
Proposed Major Landfill Expansion Plans in Los Angeles County

Landfill	Operator/ Owner	Expansion Capacity (mill. tons)	Daily Capacity (tons)	Years of Add'l Capacity	Expansion Location
Antelope Valley	Palmdale Disposal Co.	6.4	1,800	11.6	Adjacent
~~Chiquita Cyn.~~	~~Laidlaw Waste Systems~~	~~29.5~~	~~10,000~~	~~8~~	~~Adjacent~~
Lancaster	Waste Management, Inc.	10.5	1,700	20	Adjacent
Sunshine Canyon (North Valley)	Browning-Ferris Indust.	75.0	11,000	22	Sunshine
	Totals	~~121.4~~ 91.9	~~2~~14,500		

Source: Los Angeles County Department of Public Works Environmental Programs Division, Preliminary Draft Los Angeles County Countywide Siting Element, (Alhambra, California: January 1996), Chapter 6 - Proposed In-County Facility Location and Description.
Numbers indicated are per applicants' requests. Reduction in capacity or life of actual permits is dependent upon ultimate County approvals.

~~(2) Proposed Landfill Sites~~

~~The Elsmere Corporation has proposed to develop a site for a new landfill within the Santa Clarita Valley at Elsmere Canyon. This landfill is proposed to accommodate 190 million tons of solid waste over a 32 year lifetime.[12] However, this landfill is still in the entitlement process and it is not known when, or if, it may ultimately be approved.~~

b. Solid Waste Disposal Options

Currently, most solid waste is disposed of in local landfills. Approximately 25 percent of the solid waste generated is currently being diverted on a Countywide basis. ~~Very little is recycled or diverted from the landfills (as discussed earlier, only about 6 percent of the solid waste generated in 1990 was diverted).~~ In the future, this amount is expected to increase as jurisdictions throughout the State comply with the provisions of the California Integrated Waste Management Act (discussed later in this EIR section). This diversion will increase the life expectancy of landfills, but not eliminate the need for new landfills. As growth occurs throughout southern California, new landfills will need to be developed and/or other waste disposal alternatives will need to be implemented.

It is extremely speculative to identify specific options that will be implemented to dispose of solid waste 20, 50, or 100 years from now. Options that have been discussed include expanding existing landfills, developing new landfills locally, transferring solid waste out of the County or State by truck

12 Los Angeles County Department of Public Works Environmental Programs Division, Preliminary Draft Los Angeles County Countywide Siting Element, (Alhambra, California: January 1996), p. 6-16.

or rail car, and incineration within co-generation plants locally and regionally. The management of future solid waste disposal is concerned with where and how solid waste will be handled, and how much it will cost to do so. It is largely an open market, regulated by various government controls.

New and expanded landfills are expected to be approved as part of a comprehensive program. It is unrealistic to assume that all existing landfill space will reach capacity and no new landfill space will be made available. The existing population continues to generate solid waste and expects it to be collected and disposed. If no space in landfills existed locally or regionally and waste accumulated, serious health problems (e.g., disease) would result and State and local agencies would be forced to address the crisis. Since it would not be possible to halt the generation of solid waste, it is likely that the State would intervene and implement new landfilling and/or other disposal options.

The transfer of solid waste either out of the County or even out of the State is also an option. Although some landfills are currently restricted to accept solid waste from limited geographical areas, which limits inter-county or inter-state transfer, the U.S. Supreme Court has held that restrictions which limit inter-jurisdictional transfers to landfills willing to accept solid waste infringe on the landfill operator's ability to actively participate in interstate commerce and are unconstitutional.

~~Although solid waste is not presently incinerated in Los Angeles County, it is a solid waste disposal option used in other areas.~~ Incineration facilities may provide a dual function of disposing of solid waste and generating regional power supplies. If local landfills are not expanded or developed and solid waste is hauled to distant locations, incineration facilities may also become an economically attractive means of disposing of solid waste. As previously stated, prediction of the range, type and location of all future disposal options is not possible. Consequently, this EIR methodology will focus only on the present situation, which primarily is recycling and disposal in Los Angeles County.

c. Plans and Policies for Solid Waste Disposal

A consequence of California's growth has been a substantial increase in solid waste generation. Landfills are also seen as undesirable land uses and, consequently, new landfills and expansions of capacity have proven very difficult to approve. If current rates of landfill disposal continue, remaining landfill capacities could be exhausted before alternative disposal sites or methods are available, and a significant solid waste disposal problem could result. This situation has focused public attention on what is believed to be rapidly dwindling landfill capacities, and has stimulated legislation in the State of California to reduce the amount of solid wastes entering existing landfills, and to reuse solid waste through recycling efforts, pursuant to the Integrated Waste Management Act.

(1) Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (AB 939) requires every city and county in the State to prepare a Source Reduction and Recycling Element (SRRE) to its Solid Waste Management Plan that identifies how each jurisdiction will meet the mandatory State waste diversion goals of 25 percent by the year 1995 and 50 percent by the year 2000. The purpose of AB 939 is to "reduce, recycle, and reuse solid waste generated in the State to the maximum extent feasible." Noncompliance with the goals and timelines set forth within the Act can be severe, as the bill imposes fines up to $10,000 per day on jurisdictions (cities and counties) not meeting these recycling and planning goals.

The term "integrated waste management" refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. The Act has established waste management prioritization as follows:

- Source Reduction
- Recycling
- Composting
- Energy Recovery
- Landfilling
- Household Hazardous Waste Management

(2) California Integrated Waste Management Board Model Ordinance

Subsequent to the Integrated Waste Management Act, additional legislation was passed to assist local jurisdictions in accomplishing the goals of AB 939. The California Solid Waste Reuse and Recycling Access Act of 1991 (§42900-42911 of the Public Resources Code) directs the California Integrated Waste Management Board (CIWMB) to draft a "model ordinance" relating to adequate areas for collecting and loading recyclable materials in development projects. If by September 1, 1994, a local agency did not adopt its own ordinance based on the CIWMB model, the CIWMB model took effect for that local agency. The County of Los Angeles did not adopt its own ordinance, and the CIWMB model ordinance has been in effect in the County since September 1, 1994.

The model ordinance (provided in **Appendix 4.15**) is used by the County as the basis for imposing recycling conditions on new development projects and on existing projects that add 30 percent or more to their existing floor area. The model ordinance requires that any new development project[13] for which an application is submitted on or after September 1, 1994 include "adequate, accessible, and convenient areas for collecting and loading recyclable materials." For subdivisions of single family detached homes, recycling areas are required to serve only the needs of the living units which utilize the solid waste collection and loading areas. The model ordinance also requires recycling areas to be:

- compatible with nearby structures;
- secured and protected against adverse environmental conditions;
- clearly marked, and adequate in capacity, number and distribution;
- in conformance with local building code requirements for garbage collection access and clearance;
- designed, placed and maintained to protect adjacent developments and transportation corridors from adverse impacts, such as noise, odors, vectors, or glare;
- in compliance with Federal, State, or local laws relating to fire, building, access, transportation, circulation, or safety; and
- convenient for persons who deposit, collect, and load the materials.

The model ordinance is provided in its entirety in **Appendix 4.15.**

(3) County of Los Angeles Solid Waste Management Action Plan

The County of Los Angeles Board of Supervisors in 1988 approved the Los Angeles County Solid Waste Management Action Plan to provide long-range management of the solid waste generated within the County. This plan includes such approaches as source reduction, recycling and composting programs, household hazardous waste management programs, and public education awareness programs. The plan concludes that landfilling will remain an integral part of the waste management system and calls for the establishment of 50 years of in-County permitted landfill capacity, as well as the County's support for the development of disposal facilities out of the County.[14]

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13 The ordinance defines a development project as "a project for which a building permit is required for a commercial, industrial, or institutional building, marina, or residential building having five or more living units, where solid waste is collected and loaded and any residential project where solid waste is collected and loaded in a location serving five or more living units."

14 Dames & Moore, Draft Environmental Impact Report/Environmental Impact Statement for the Proposed Elsmere Solid Waste Management Facility, (Arcadia, California: U.S. Department of Agriculture, Forest Service, January 1995), p. 1-6.

(4) County of Los Angeles Source Reduction and Recycling Element

The Source Reduction and Recycling Element (SRRE) was prepared in response to AB 939. It describes policies and programs that will be implemented by the County for the County unincorporated areas to achieve the State's mandates of 25 and 50 percent waste disposal reductions by the years 1995 and 2000, respectively. Per the Integrated Waste Management Act of 1989, the Source Reduction and Recycling Element projects disposal capacity needs for a 15-year period. The current SRRE 15-year period commenced in 1991.

(5) County of Los Angeles Household Hazardous Waste Element

AB 939 requires every city and county within the State to prepare a Household Hazardous Waste Element (HHWE) and to provide for management of household hazardous waste generated by the residents within its jurisdiction. The Countywide household hazardous waste management program, consisting of collection and public education/information services, has been formulated to serve residents throughout the County in a convenient and cost-effective manner. In addition to reducing the amount of waste that might otherwise be sent to a landfill as required by AB 939, these programs are important facets in the County's effort to clean up the solid waste stream.

(6) County of Los Angeles Non-disposal Facility Element

AB 939 requires every city and county within the State to prepare and adopt a Non-disposal Facility Element (NDFE) identifying all existing, expansions of existing, and proposed new non-disposal facilities which will be needed to implement the local jurisdiction's SRRE. The County's NDFE identifies 20 existing materials recovery facilities/transfer stations, and nine proposed material recovery facilities as non-disposal facilities that the County intends to utilize to implement its SRRE and meet the diversion requirements of AB 939. In addition, the County's NDFE also identifies the utilization of four landfill facilities, operated by the County Sanitation Districts of Los Angeles County, for diversion of yard/green waste which is intended to be used as alternative daily cover at the landfills.

5. SPECIFIC PLAN IMPACTS

The Newhall Ranch Specific Plan would generate solid waste (including hazardous waste) during its construction and operational stages of development. Where the solid wastes are disposed and how they are recycled is driven by economics and adopted State and County of Los Angeles regulations. As previously discussed, solid waste disposal in Los Angeles County is based on the free-enterprise system

and, theoretically, waste can be disposed at any landfill depending upon the preference of individual solid waste haulers and other factors, such as proximity to the collection area, tipping fees, and daily capacities at the landfill sites. Furthermore, the amount of solid waste entering landfills versus the amount generated would be based upon a number of variables, including market demand for recyclables (fluctuations in prices for recyclables will affect willingness to recycle certain materials), product packaging, purchase of reusable products (e.g., cloth diapers), disposal alternatives (incineration within co-generation plants), as well as recycling regulations.

a. Significance Threshold Criteria

Appendix G of the CEQA Guidelines state that "a project will normally have a significant effect on the environment if it will breach published national, state, or local standards relating to solid waste or litter control." The CEQA Guidelines do not identify any quantitative standards for determining the significance of a new development project's solid waste generation.

The County of Los Angeles Environmental Document Reporting Procedures and Guidelines for utilities/other services state that Department staff is concerned with adverse impacts on utilities/other services (other than water) when: (1) the service to the project site is not presently available; (2) the service facility requires considerable extension to the project site; or (3) there exists an inadequate service supply. However, no quantifiable standards are available for solid waste generation impacts.

Therefore, for the purpose of this EIR, the Newhall Ranch Specific Plan would cause a significant solid waste (including hazardous waste) impact if it does not implement measures to reduce the amount of solid waste entering landfills in accordance with State and County standards and/or if capacity at existing landfills would be inadequate to serve the Specific Plan.

(1) Construction-Related Impacts

Site preparation and construction activities would generate a total of approximately 550,000 tons or approximately 22,000 tons per year of construction wastes over the 25-year buildout of the Specific Plan assuming no recycling or approximately 275,000 total tons using recycling practices in effect today. These waste materials are expected to be typical construction debris, including wood, paper, glass, plastic and green wastes. Construction activities could also generate household-type hazardous waste products. The wastes generated would result in an incremental and intermittent increase in solid waste disposal at landfills and other waste disposal facilities within Los Angeles County.

Generally, typical construction-related solid waste is composed of small scrap materials and construction employee food waste. The waste generation typically occurs over short time periods and ceases following completion of the construction stage. However, construction of the proposed Newhall Ranch would occur intermittently over an estimated 25-year period. Unless construction-related wastes are recycled, this would be considered a significant impact on the capacity of the County's solid waste management system. Also, an adequate amount of landfill space has not been approved to accommodate solid waste generation after 1997 at current disposal rates (reference Table 4.15-1). Therefore, the Specific Plan's construction-related solid waste would be considered significant.

(2) Operational Impacts

It is estimated that it would take approximately 25 years for the Specific Plan to be built out. At project buildout, the Newhall Ranch Specific Plan would generate approximately 293,281 pounds of solid waste per day, or 53,524 tons per year, as shown in **Table 4.15-3, Daily Newhall Ranch Specific Plan Solid Waste Generation (No Recycling) and may generate household type hazardous wastes.** This quantity represents the Specific Plan's solid waste generation under a worst-case scenario without any recycling activities in place. The uses within the Specific Plan would, however, be required to provide adequate areas for collecting and loading recyclable materials in accordance with the County Model Ordinance. This recycling, implemented in concert with the Countywide efforts and programs, would substantially reduce the volume of solid waste generated by the Specific Plan and entering landfills.

Because an adequate supply of landfill space has not been approved for beyond 1997 and because existing hazardous waste management facilities in the County are inadequate, this increase in solid and hazardous waste generation would cause a significant impact unless additional landfill space or other disposal alternatives are approved.

As discussed previously, however, it is unreasonable to assume that solid waste disposal facilities or other options will be unavailable in the future to accommodate the disposal needs of the existing or future populations. It is reasonable to assume that new facilities and other options will be created to meet this demand and to reap the financial benefits of providing this service. Solid and hazardous waste haulers will continue to collect the waste and transport it to the facilities that they choose - whether they be in Los Angeles County, other counties, or other states.

Table 4.15-3
Daily Newhall Ranch Specific Plan Solid Waste Generation (No Recycling)

Land Use	Units[1]	Generation Factor (pounds/day)[2]	Total Waste Generation (pounds/day)	Total Waste Generation (tons/year)
Residential				
Single Family Detached	11,025 DUs	11.1781	123,238	22,491
Multi-Family/Attached[3]	14,193 DUs	6.4110	90,991	16,606
General Retail[4]	1,160 TSF	0.0132	15,255	2,784
Non-Retail4	318 TSF	0.0395	12,546	2,290
Eating & Drinking Establ.4	120 TSF	0.0592	7,101	1,296
Hotel & Motel4	120 TSF	0.0290	3,485	636
Business Park[5]	1,513.0 TSF	0.0077	11,607	2,118
Commercial Office	2,489.0 TSF	0.0077	19,094	3,485
Library[5]	25.0 TSF	0.0077	192	35
Schools[6]	965.334 TSF	0.0071	6,876	1,255
Utilities	35.0 TSF	0.0433	1,515	277
Special Generator[7]	24.0 TSF	0.0433	1,039	190
Golf Course	180 AC	1.0959	197	36
Developed Park[8]	133 AC	1.0959	146	27
		Total	293,281	53,524

Source: Impact Sciences, Inc. (June 1996).

[1]*DU = dwelling unit; TSF = thousand square feet; AC = acres.*

[2]*The solid waste generation rates are derived from the Ventura County Solid Waste Management Department's Guidelines for the Preparation of Environmental Assessments for Solid Waste Impacts. The Los Angeles County solid waste generation factor of 11 pounds/capita/day was not used in this analysis because it is very general and may not yield an accurate solid waste generation analysis for the Specific Plan. These factors do not reflect any recycling activities.*

[3]*Includes 538 Second Units on the single family estate lots.*

4*The split of Newhall Ranch General Retail, Non-Retail, Eating and Drinking Establishments and Hotel/Motel is from Table A3 of the Fiscal Impact Study (see* ***Appendix 6.0****).*

[5]*Assumes the same daily generation rate as for commercial offices.*

[6]*School square footage is based upon the ITE Trip Generation Manual.*

[7]*Two fire stations of 12,500 square feet each. Assumes same daily generation rate as for utilities.*

[8]*Assumes same daily generation rate as for golf courses.*

6. SPECIFIC PLAN MITIGATION MEASURES

a. Mitigation Measures Already Incorporated Into the Specific Plan

The Newhall Ranch Specific Plan does not incorporate any specific measures to mitigate solid waste impacts.

b. Mitigation Measures Recommended by the EIR

4.15-1. Each future subdivision which allows construction within the Newhall Ranch Specific Plan shall meet the requirements of all applicable solid waste diversion, storage, and disposal regulations that are in effect at the time of subdivision review. Current applicable regulations include recycling areas that are:

- compatible with nearby structures;
- secured and protected against adverse environmental conditions;
- clearly marked, and adequate in capacity, number and distribution;
- in conformance with local building code requirements for garbage collection access and clearance;
- designed, placed and maintained to protect adjacent developments and transportation corridors from adverse impacts, such as noise, odors, vectors, or glare;
- in compliance with Federal, State, or local laws relating to fire, building, access, transportation, circulation, or safety; and
- convenient for persons who deposit, collect, and load the materials.

4.15-2. Future multi-family, commercial, and industrial projects within the Specific Plan shall provide accessible and convenient areas for collecting and loading recyclable materials. These areas are to be clearly marked and adequate in capacity, number, and distribution to serve the development.

4.15-3. The first purchaser of each residential unit within the Specific Plan shall be given educational or instructional materials which will describe what constitutes recyclable and hazardous materials, how to separate recyclable and hazardous materials, how to avoid the use of hazardous materials, and what procedures exist to collect such materials.

4.15-4. The applicant of all subdivision maps which allow construction within the Specific Plan shall comply with all applicable future State and Los Angeles County regulations and procedures for the use, collection and disposal of solid and hazardous wastes.

7. CUMULATIVE IMPACTS

As discussed earlier in this section, new landfills will need to be developed and/or other waste disposal options implemented to accommodate future growth. These options may include increased recycling efforts, transferring solid waste out of the County or State by truck or rail car, and incineration. In the future, haulers will have flexibility to determine where solid waste is ultimately disposed of based on economic factors.

Because solid waste (including hazardous waste) can be disposed outside of Los Angeles County, it is not reasonable to assume that the cumulative development analyzed for solid waste generation only occurs in Los Angeles County. If solid waste is disposed of in other states in the future, the list of cumulative projects could actually include development proposals in several other states. It is reasonable to assume that the locations and methods of solid waste disposal will continue to be driven by the free-enterprise system. It is beyond the scope of this EIR and too speculative to attempt to quantify the solid waste that could be generated by cumulative development that is proposed in greater Los Angeles County or the region beyond, or to assess the landfills that might be available or, more importantly, other solid waste disposal options which could be available. However, in order to analyze the cumulative impacts of this Specific Plan in combination with other expected future growth in the Santa Clarita Valley, the amount and location of growth expected to occur in the Santa Clarita Valley in addition to that of the Specific Plan were predicted.

The cumulative development scenario (herein referred to as the "Santa Clarita Valley (SCV) Cumulative Buildout Scenario") entails buildout of all lands under the current land use designations indicated in the Los Angeles County Santa Clarita Valley Area Plan and the City of Santa Clarita General Plan, plus the Newhall Ranch Specific Plan, plus all known active pending General Plan Amendment requests for additional urban development in the unincorporated area of Santa Clarita Valley and the City of Santa Clarita. In this EIR section, the Planning Area is often referred to as the "Valley." A list of the future development activity (with and without the Newhall Ranch Specific Plan) expected in the Valley under the Santa Clarita Valley Cumulative Buildout Scenario is presented below in **Table 4.15-4, Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario.**

Under this scenario, which includes the Newhall Ranch Specific Plan, total solid waste generation would be 631,334 tons per year (see **Appendix 4.15** for detailed calculations). Newhall Ranch Specific Plan's share of 53,524 tons per year would represent 8.5 percent of this total.

Table 4.15-4
Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario

Land Use Types	Cumulative Buildout w/o Specific Plan[1]	Newhall Ranch Specific Plan [2]	Cumulative Buildout w/ Specific Plan
Single Family	89,015 du[3]	11,025 du	100,040 du
Multi-Family	38,729 du	14,193 du[4]	52,922 du
Mobile Home	3,177 du		3,177 du
Commercial Retail	20,107,660 sf[3]	1,718,000 sf	21,825,660 sf
Hotel	336,420 sf		336,420 sf
School	3,049 sta[3]	400 sta	3,449 sta
College	1,152 sta		1,152 sta
Hospital	285,470 sf		285,470 sf
Library	226,000 sf	25,000 sf	251,000 sf
Church	399,170 sf		399,170 sf
Business Park	7,773,730 sf	1,513,000 sf	9,286,730 sf
Industrial/Manufact.	33,480,250 sf		33,480,250 sf
Utilities	1,421,160 sf	35,000 sf	1,456,160 sf
Commercial/Med. Office	8,653,790 sf	2,489,000 sf	11,142,790 sf
Golf Course/Park	1,314 ac[3]	313 ac	1,627 ac
Special Generator	53,600 sf	24,000 sf	77,600 sf

[1] *Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (June 1995). Includes existing development and active pending general plan amendment requests.*
[2] *Draft Newhall Ranch Specific Plan, July 1996.*
[3] *du = dwelling unit; sf = square feet; sta = staff; ac = acres*
[4] *Includes 538 Second Units.*

It is reasonable to assume that the market forces that drive the waste disposal industry will put pressure on the industry and governmental agencies to continually identify new economically feasible means of waste disposal in the future to accommodate this growth. However, in the immediate term, adequate landfill space has not been approved to serve the needs of the existing and planned populations within Los Angeles County beyond 1999, and existing hazardous waste management facilities in the County are inadequate. Without the approval of additional landfill space or other disposal alternatives, the continued generation of solid and hazardous waste generation would cause a significant cumulative impact.

8. CUMULATIVE MITIGATION MEASURES

All new development is required to meet the requirements of all applicable solid waste diversion, storage, and disposal regulations that are in effect at the time of development.

9. UNAVOIDABLE SIGNIFICANT IMPACTS

Land suitable for landfill development or expansion is quantitatively finite and limited due to numerous environmental, regulatory and political constraints. This is not to say, though, that alternative solid waste disposal technologies that could substantially reduce landfill disposal will not be developed and legislatively approved in the future; given the market forces that drive the solid waste industry, it is reasonable to assume they will.

However, until the County can demonstrate that approved landfill space or other disposal alternatives will be adequate to serve existing and future uses for the foreseeable future, Specific Plan and cumulative solid and hazardous waste impacts within the County will be considered unavoidably significant.

4.16 Education

4.16 EDUCATION

1. SUMMARY

Public elementary, junior high/middle school and high school education in the Specific Plan area is currently provided by the Castaic Union School District, the Newhall School District, and William S. Hart Union High School District. The portion of the Specific Plan site north of the Santa Clara River is presently within the Castaic Union School District which provides elementary (grades K through 5) and middle school (6 through 8) service, while the Specific Plan site south of the River is within the Newhall School District, which provides elementary school (K through 6) service. The William S. Hart Union High School District serves the entire Specific Plan area for high schools (9 through 12) and the Specific Plan area south of the River for junior high schools (7 and 8).

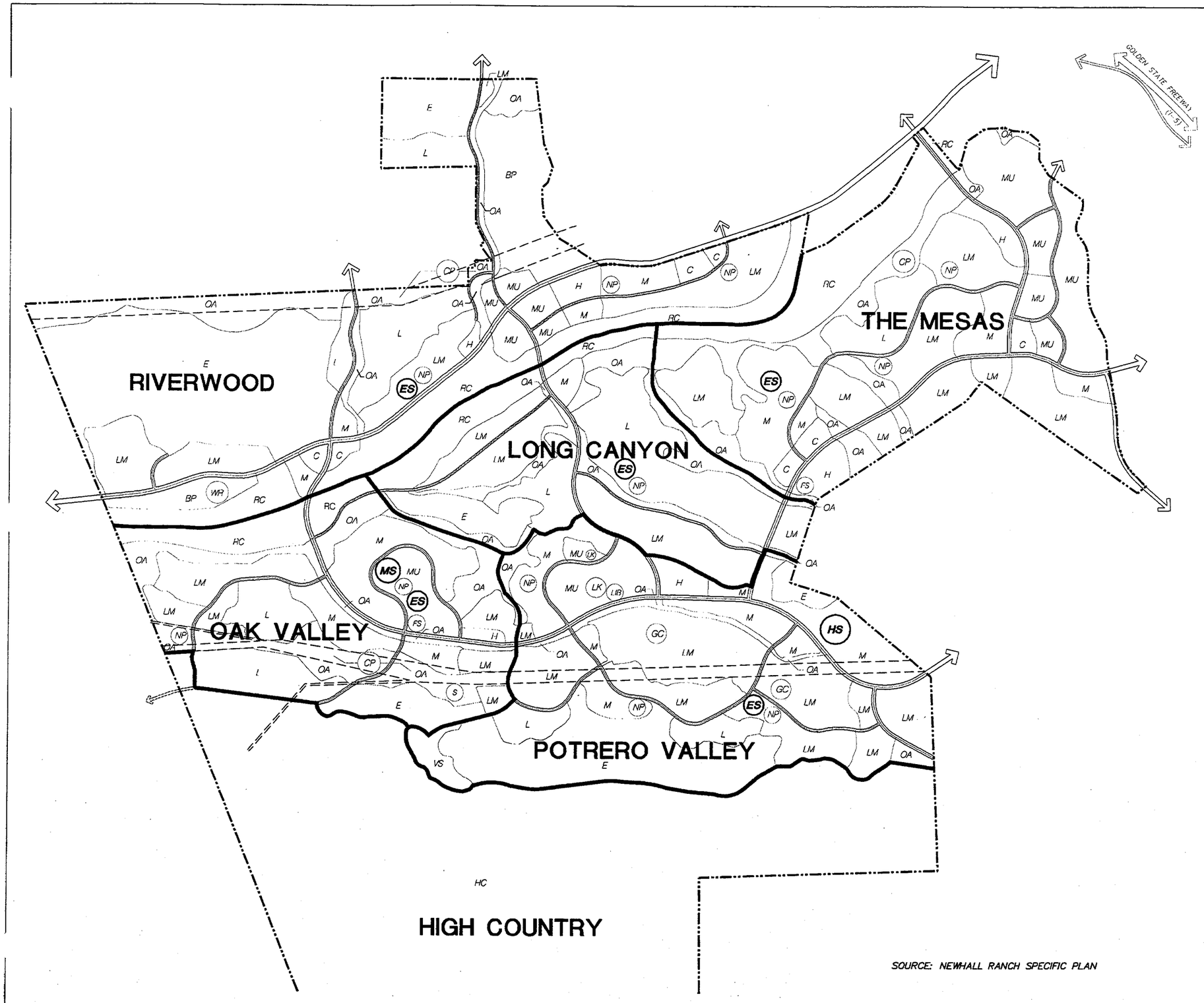
In order to provide more efficient educational services on the Specific Plan site, the Specific Plan proposes the reorganization of elementary and junior high/middle School District boundaries. Under this reorganization, public elementary school education (grades K through 6) would be provided to the Newhall Ranch Specific Plan site by the Newhall School District, while public junior high school (grades 7 through 8) and high school (grades 9 through 12) education would be provided by the William S. Hart Union High School District. The Newhall School District has agreed to annex the portion of the Specific Plan site north of the River into its service area. However, the Castaic Union School District has indicated it opposes reorganization of its boundaries. It is estimated that 5,714 elementary students, 1,610 junior high students and 2,750 high school students would be generated. The Specific Plan has reserved land for five elementary school sites, one junior high school site, and one high school site within the Specific Plan boundaries with sufficient size to construct schools to accommodate the estimated number of students generated. The implementation of the agreement between the Newhall School District and The Newhall Land and Farming Company, the payment of school mitigation fees pursuant to the Valley-Wide Joint Fee Resolution (which constitutes more than the applicant's fair share of school funding per State legislation) of which the County and City of Santa Clarita are signatories, and the receipt of State matching funds, as well as the reservation of seven school sites within Newhall Ranch would reduce the impact of the Specific Plan to below a level of significance. However, the Castaic Union and William S. Hart Union High School Districts believe that State funding is uncertain and, therefore, believe the Specific Plan's individual and cumulative impact to the Districts is unavoidably significant. At the time of this writing, additional discussions are underway by the applicant with both the William S. Hart Union High School District and the Castaic Union School District regarding the housing and education of Specific Plan students.

2. INTRODUCTION

Public elementary, junior high/middle school, and high school education in the Specific Plan area is currently provided by the Castaic Union School District, the Newhall School District, and William S. Hart Union High School District. The portion of the Specific Plan site north of the Santa Clara River is presently within the Castaic Union School District which provides elementary (grades K through 5) and middle school (6 through 8) service, while the Specific Plan site south of the River is within the Newhall School District, which provides elementary school (K through 6) service. The William S. Hart Union High School District serves the entire Specific Plan area for high schools (9 through 12) and the Specific Plan area south of the River for junior high schools (7 and 8).

In order to provide more efficient public education service to the Newhall Ranch Specific Plan site, the applicant is proposing to reorganize elementary School District boundaries on the site as follows: (1) the Newhall Ranch Specific Plan site would be de-annexed from the Castaic Union School District service boundary. Therefore, the Castaic Union School District would no longer provide elementary (grades K through 5) and middle school (grades 6 through 8) education services on the site north of the Santa Clara River; and (2) that same area north of the Santa Clara River would be annexed to the Newhall School District (the William S. Hart Union High School District already encompasses the entire site). Therefore, Castaic Union School District would no longer provide elementary (grades K through 5) and middle school (grades 6 through 8) education services on the site north of the Santa Clara River. As a result, the Newhall School District would provide the entire site with elementary school (grades K through 6) education services and the William S. Hart Union High School District would provide the entire site with junior high school (grades 7 and 8) and high school (grades 9 through 12) education services. However, since it is possible that the proposed School District reorganization will not be enacted, the following Specific Plan analysis addresses potential impacts on the Newhall, Castaic Union and William S. Hart Union High School Districts both with and without the District reorganization action.

The location of each school proposed within the Specific Plan area is illustrated on **Figure 4.16-1, Locations of Proposed School Sites.** It should be noted that, in order to estimate the costs of housing and educating students, the Castaic Union and William S. Hart Union High School Districts use student generation rates and school construction costs that have been questioned by the Specific Plan applicant. Regarding student generation rates, the School Districts use a model which adjusts the current rates by a forecasted County-wide future birth rate and a mobility factor which estimates an adjustment to the rate for drop-outs, moves in and out of the District, and impacts of private schools. The model used by the Districts is theoretical, has not been demonstrated to be an accurate reliable forecaster of enrollment, and uses assumptions of birth rates which may be totally inappropriate to the District and



SOURCE: NEWHALL RANCH SPECIFIC PLAN

NEWHALL RANCH™
Newhall Ranch Company

L E G E N D

POTENTIAL LOCATIONS:

- (ES) *ELEMENTARY SCHOOL*
- (MS) *MIDDLE SCHOOL*
- (HS) *HIGH SCHOOL*

IMPACT SCIENCES INC

NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

100 ACRES 400 ACRES

FIGURE 4.16-1
PROPOSED SCHOOL SITES

2/19/96

the Specific Plan (the District's student generation rates are herein referred to as the "theoretical student generation rates"). Student generation rates calculated by separating the existing number of students by the type of home in which they live (single family, multi-family, and apartment) and dividing the number of students by the total number of homes in the District of each type is a more reliable indicator of student generation rates (these rates are herein referred to as the "actual student generation rates"). Regarding school construction costs, the School Districts include in the estimate of the cost of new construction items that are not listed as being permitted by the State for State matching funds. (The costs identified by the School Districts are herein referred to as the "School District's construction costs." The costs permitted by the State are herein referred to as the "State permitted construction costs.").[1] Examples of such items not listed by the State include sports facilities, central administration buildings, and the interim (temporary) housing and transport of students. School construction is a State responsibility; schools should be constructed to State standards. Because of this controversy, the following analysis uses both School District student generation rates and construction cost data and the actual student generation rates and State permitted construction cost data.

3. HISTORY OF NEW SCHOOL CONSTRUCTION FINANCING IN CALIFORNIA AND THE SANTA CLARITA VALLEY

In order to fully understand the impacts to schools created by development projects, it is useful to understand the history of new school financing in California. Education has been of primary, Statewide importance since California became a state. California has, since the adoption of its first Constitution in 1849, required the Legislature to provide for a system of free public schools. The financing for the construction and operation of those schools has, since the beginning, been provided by both State and local governments.

School construction was originally financed through local property taxes and bond issues. This continued until 1933 when, because of the Great Depression, the California Constitution was amended to require that the State provide all amounts which previously had been raised through local property taxes. This situation continued until the constitutional amendment was repealed in 1946. Thereafter, property taxes, either directly, or in order to repay local bonds, provided the primary method of financing the construction and reconstruction of schools throughout California.

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1 Pursuant to the Applicant Handbook for the State School Building Lease-Purchase Program.

In 1971, the California Supreme Court held, in Serrano v. Priest, that the use of property taxes to support schools resulted in a violation of the Equal Protection Clauses of both the United States and the California Constitutions. In the next five years, the Legislature shifted part of the burden of operating school systems to the State. However, the efforts made by the Legislature were held by the California Supreme Court in 1976, in Serrano v. Priest II, to be insufficient. The result was to eliminate property taxes as a direct means of financing the operation of schools in California.

Since 1976, three basic methods have been used to finance the construction of schools in California. The first is the Leroy F. Greene State School Building Lease-Purchase Law of 1976 whereby the State provides money, obtained through the sale of State bonds, to local school districts for the construction of schools. The second is through the local provision of money either through school bonds or financing districts organized under the Mello-Roos Community Facilities Act of 1982. Both involve the imposition of local taxes to raise the money needed to pay bondholders. The extent to which Mello-Roos districts can be used is currently unclear. On occasion, land use approvals have been conditioned on the formation of Mello-Roos districts. However, because the formation of a Mello-Roos district requires an affirmative vote by the landowner, questions have been raised as to whether such a condition compels the landowner to vote in a specified manner which may be impermissible under the California Elections Code.

Finally, financing for new school construction has been provided through the imposition of fees on new development. First, by means of the School Facilities Act of 1977 which allowed cities and counties, at the request of school boards, to require new development to provide interim school facilities for up to five years (the maximum amount of the fee that is allowed under the 1986 legislation discussed below). Second, the present system whereby local school districts may levy fees on new development projects to help finance construction or reconstruction of school facilities was established in 1986 by Assembly Bill (AB) 2926 (the "School Facilities Act of 1986"). A primary objective of the School Facilities Act of 1986 was to form a partnership between the State, local school districts and the private sector for the funding of school facilities. Section 7 (d) of the School Facilities Act of 1986, which sets forth the legislature's intent in adopting this legislation, expressly acknowledges the shared responsibility in providing for new schools. That section clarifies that: "[A] comprehensive school facilities finance program based upon a partnership of state and local governments and the private sector is required to ensure the availability of school facilities to serve the population growth generated by new development."

In relying on the State for funding, the School Facilities Act of 1986 continued the then existing practice of financing new school construction through a State entitlement program. It was intended that the State's share would be funded from such revenue sources as general obligation bond proceeds and

specified tidelands monies, as well as other revenues. The "local match," or school district's share of the funding, was to be a floating share approximately equal to the maximum amount that could be raised by the district through the imposition of the developer fees authorized by the School Facilities Act of 1986. The 1986 legislation allowed school districts to charge up to $1.50 per square foot for new residential development and up to $.25 per square foot for new commercial/industrial development, both of which have increased over time to account for inflation. Further, the California Supreme Court has held that the 1986 legislation prohibited the imposition of special taxes for schools, except for those levied by Mello-Roos districts.

A review of the legislative history of AB 2926 provides some additional insight into the intended partnership arrangement. It reveals that, in 1986, the cost of meeting school construction needs over the next five-year period (from January 1, 1987 through January 1, 1992) was established at between $4 billion and $5 billion.[2] Based on the projected level of residential and commercial/industrial construction, it was estimated that developer fees enacted pursuant to AB 2926 would produce approximately $1.3 billion in revenues over the same five-year period. Thus, developer fees were estimated to provide for between 26 and 38 percent of the total cost of new school facilities.

The School Facilities Act of 1986 also anticipated that, in addition to levying developer fees, school districts would use year-round schools to reduce the need for projected new construction. Incentives to encourage this conversion to year-round schools were included in the 1986 school legislation package (of which AB 2926 was a part).

In court cases decided after enactment of the School Facilities Act of 1986, the specific limits on developer fees set forth in that legislation were deemed not to be applicable to legislative land use decisions, such as general plan amendments, specific plans and zone changes (legislative approvals). However, there is no indication from these cases that, even with projects involving legislative approvals, developers were to shoulder the full responsibility for constructing needed school facilities from a funding partnership similar to that established by the School Facilities Act of 1986.

The approach taken in this EIR is consistent with the spirit of court decisions interpreting the 1986 legislation in that the Specific Plan applicant's contribution towards mitigating the identified impacts has not been dictated by the precise levels set forth in AB 2926. In fact, the Specific Plan applicant's share of funding for required school facilities (as discussed in Subsection 7 of this EIR

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2 Legislative Bill file of Assemblyman Larry Stirling, author of AB 2926, August 27, 1986.

Section) far exceeds the developer's share anticipated by AB 2926. This share, 73.1 percent with District boundary reorganization and 74.3 percent without District boundary reorganization, is well over half of the costs of construction. This contribution, together with the continuing contribution of State funds and the ability of the Castaic Union and William S. Hart Union High School Districts to significantly reduce construction requirements through more efficient utilization of their school facilities, reflects a reasonable funding partnership and provides adequate mitigation to reduce identified impacts to below significant levels.

Although there has been concern expressed by some about future levels of State funding, there is no indication that the State has abandoned its strong historical commitment to the provision of school facilities nor is there any indication that support will not be forthcoming from the State in the future. In fact, immediate past history demonstrates that the Castaic Union, Newhall and Hart School Districts have received State funding for school construction.

In light of all of the above, the Specific Plan applicant's level of participation in the mitigation of identified school impacts appears to be consistent with the intent of the 1986 legislation, as clarified by the courts.

New school construction is generally funded via more than one of these financing mechanisms. Each of these sources is discussed below.

a. State School Construction Program

Adopted in April of 1977 by the California State Legislature, the State School Construction Program (also known as the Leroy F. Greene State School Building Lease Purchase Law of 1976) allows for the issuance of bond measures by the State to acquire new school sites and buildings for the purpose of making them available to local school districts. In addition, the program allows for the reconstruction, remodeling and replacement of existing school buildings which are educationally inadequate or which do not meet present-day structural safety requirements.

Through the State school construction program, State funds have been a common financing mechanism for new school construction. Most new school facilities in California have been funded through this program. In fact, the recently constructed La Mesa Junior High School and Valencia High School (both in the William S. Hart Union High School District), Stevenson Ranch Elementary School (Newhall School District), and the new Castaic Middle School (Castaic Union School District) were all

constructed in part with State matching funds. In March of 1996, a State bond measure was passed by the voters in order to fund the construction of new schools. As of this writing, there is a long list of projects which have been filed by various school districts which are in line for funding. These projects will be funded based on their assigned priority and filing date as described in **Table 4.16-1, Priority of State School Construction Financing.**

Table 4.16-1
Priority of State School Construction Financing

In California, the State provides project funding for new construction of school facilities on a priority basis, as per Education Code section 17717.7, as follows:[1]

"(a) Not withstanding any other provision of this chapter, priority for the approval of project funding for new construction under this chapter, shall be as follows:

"(1) First priority for construction funds shall be given to school districts with a substantial enrollment in multi-track year-round schools requesting state funding for 50 percent of the cost of a project that would be constructed to operate on a multi-track year-round basis.

"(2) Second priority shall be for school districts with a substantial enrollment in multi-track year-round schools requesting state funding for the entire cost of a project that would be constructed to operate on a multi-track year-round basis.

"(3) Third priority shall be for school districts without a substantial enrollment in multi-track year-round schools requesting state funding for 50 percent of the cost of a project to operate on a multi-track year-round basis.

"(4) Fourth priority shall be for school districts without a substantial enrollment in multi-track year-round schools requesting state funding for the entire cost of a project that would be constructed to operate on a multi-track year-round basis.

"(5) Fifth priority shall be for school districts with a substantial enrollment in multi-track year-round schools requesting state funding for 50 percent of the cost of a project that would not operate on a multi-track year-round basis.

"(6) Sixth priority shall be for school districts with a substantial enrollment in multi-track year-round schools requesting state funding for the entire cost of a project that would not operate on a multi-track year-round basis.

"(b) The board shall not restrict the availability of funding for construction of multi-track year-round schools, from any funding source available to the State School Building Lease-Purchase Fund, but shall make approval of project funding for those projects the first priority in accordance with this section.

"'Substantial enrollment,' for the purposes of this section, means enrollment of at least 30 percent of the district pupils in kindergarten and grades 1 to 6, inclusive, or 40 percent of pupils in Kindergarten and grades 1 to 12, inclusive, in the high school attendance area for which the school district is applying for new facilities.

"'Multi-track Year-round school,' for the purposes of this section, means a school for which the applicant district demonstrates that both of the following criteria are satisfied:

"(1) The pupils are divided into three or more groups or tracks, which rotate attendance so that, for a majority of schooldays during the school year, at least one group or track is not attending the school which all other groups or tracks are in attendance.

"(2) The operation of the school on a multi-track year-round basis has resulted in an increase in enrollment capacity.

cont.

Table 4.16-1 (continued)
Priority of State School Construction Financing

Title 2, California Code of Regulations, section 1865.9., Priority Points, indicates the following:

"(a) Priority points shall be computed and assigned to applications whenever the board determines that there will be insufficient funds to meet the estimated needs for all districts in any given fiscal year. Whenever the assignment of priority points is required, applications that are in order for approval shall be considered by the board in sequence according to the number of priority points credited to each application...

"(d) Priority points for new construction shall be allowed as follows:

"(1) Five priority points shall be allowed for each percent of the maximum allowable building area which may be included in an application as new building area (not replacement area)...

"(3) One priority point shall be allowed for each 5% of increase between the current average daily attendance and the average daily attendance 5 years previously...

"(6) Priority points shall be allowed for the degree of utilization of the facilities in the district or attendance area by dividing the pupil capacity of all the facilities in the district or attendance area, computed by State aid standards, into the actual average daily attendance or the district or attendance area and multiplying such quotient by 10. "

[1] *The State also requires that school districts which are granted priority funding and which do not contain multi-track year-round school operations when such operations are determined to be feasible must operate the new school at 120% of its design capacity.*

In light of the information presented in **Table 4.16-1**, any measure that increases capacity and utilization of existing facilities increases the priority for available funds. Operating on a multi-track year-round school schedule is one of the most, if not the most, important measure a school district can enact to increase its priority status with the State. School districts not operating on such a schedule are limited in their ability to collect the maximum amount of State funds available for new school construction.

b. Local Bond Issues

The issuance of local bonds is a second source of funding for new school construction. Local bonds are authorized by the voters within a particular school district and have been a traditional means of constructing new school facilities throughout the State. Prior to the passage of Proposition 13, local bond approval required support by a simple majority of the voters. However, since Proposition 13, two-thirds of the voters within a school district must support the issuance of local bonds to fund new school construction. While this requirement has made it more difficult for local bonds to be used as a funding source, the issuance of local bonds continues to be a viable option for the funding of new school construction. Within recent history, six local bond measures have come before the voters of the Santa Clarita Valley. Of these six local bond measures, two local bond measures within the Newhall School District (June and November of 1991) failed to garner the requisite two-thirds support by the voters. Four local bond measures within the Saugus Union School District (June 1992), the William S. Hart

Union High School District (November 1992), the Sulphur Springs Union School District (June 1991), and the Castaic Union School District (June 1993) were approved by the voters. In June of 1995, a local tax measure intended to generate funding for several projects within the William S. Hart Union High School District was rejected by voters within the District.[3]

c. Developer Fees

In 1986, the State Legislature enacted legislation which authorized school districts to collect a fee from new development projects to be used for the construction or reconstruction of school facilities. That legislation (Government Code Sections 65995 and 65996), which became effective on January 1, 1987, set the maximum allowable fee at $1.50 per square foot of new residential development and $0.25 per square foot of new commercial/industrial development. Both fees have been increased bi-annually to account for inflation. In late January 1996, the State Allocation Board authorized school districts to increase their fees to $1.84 per square foot for new residential development and $0.30 per square foot for new commercial/industrial development. The next time the State Allocation Board will consider authorizing school districts to increase their statutory school fees will be January 1998.[4]

In accordance with Government Code Sections 65995 and 65996, the maximum amount which a developer can be required to pay to a school district for the construction or reconstruction of school facilities is limited to $1.84 per square foot of new residential construction and $0.30 per square foot of new commercial/industrial construction as of this writing. In addition, Government Code Section 65995 specifies that this maximum statutory amount applies to "development projects" which have been interpreted as projects which require administrative actions, such as subdivision approvals, variances, and conditional use permits. Section 65996 further states that local governments may not deny a "development project" pursuant to CEQA or the Subdivision Map Act on the basis of inadequate school facilities, nor may local agencies impose mitigation measures other than those specified in Section 65996.

Since Sections 65995 and 65996 apply specifically to "development projects," the Courts have held that Sections 65995 and 65996 are not applicable to land use decisions which are legislative in nature, such as general plan amendments, specific plans, and zone changes. The Courts have held that, when acting in a legislative capacity, local governments have the authority to deny a land use application on the basis of the adequacy of available school facilities or to phase the development of projects.

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3 Interview with William Maddigan, William S. Hart Union High School District, Santa Clarita, California, 27 June 1996.

4 Interview with Karen Steentoft, Special Consultant for the Department of Education, Sacramento, California, 21 February 1996.

d. Valley-Wide Joint Fee Resolution

In 1991, a resolution known as the "Valley-Wide Joint Fee Resolution" was adopted by the Los Angeles County Board of Supervisors, the City Council of the City of Santa Clarita, and the William S. Hart Union High, Sulphur Springs Union, Castaic Union, Newhall, and Saugus Union School Districts. A copy of the Valley-Wide Joint Fee Resolution (provided in **Appendix 4.16** of this EIR) was adopted by all parties on a voluntary basis, for, as stated in Government Code Section 65995(e), no legal authority has been established to allow a legislative body to levy a mitigation fee in excess of the statutory fee. This agreement was adopted in order to establish a fixed fee to be used to mitigate the effects of growth on school capacity throughout the Santa Clarita Valley. The William S. Hart Union, Sulphur Springs Union, Castaic Union, Newhall, and Saugus Union School Districts, indicated that such a fee was necessary since the statutory fee set forth in Government Code Sections 65995 and 65996 does not provide adequate financing to construct new school facilities made necessary by the development of projects which are subject to this fee. In addition, the Districts also indicated that the fee set forth in the Valley-Wide Joint Fee Resolution is necessary since additional mitigation may not be imposed on these development projects, and many funding sources are no longer available.

The School Districts collectively conducted a study to determine their financial needs for school facilities due to new residential development prior to adopting the Valley-Wide Joint Fee Resolution. Based on this study, a fee of $2.50 per square foot of accessible area of new residential development was agreed upon as the mitigation fee for the 1991-1992 fiscal year. The established fee was approximately $1.00 more than the amount authorized by Government Code Sections 65995 and 65996. The resolution stipulates that this 1991-92 base year fee would be adjusted annually based upon increases set forth in the Consumer Price Index published by the United States Department of Labor, Bureau of Labor Statistics Index for all Urban Consumers in the Los Angeles-Anaheim-Riverside Metropolitan Area. At the time of this writing, the mitigation fee is calculated at $2.72 per square foot and the payment of this fee constitutes the "School Mitigation Payment" for the purposes of this analysis. The remaining portion of the costs are presumed to be paid through participation in the State school construction program or via other sources.[5]

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5 Development north of the River would pay 35 percent of the $2.72 per square foot fee to the William S. Hart Union High School District (for grades 9 through 12) and 65 percent of the fee to the Castaic Union School District (for grades K through 8) as agreed to by the districts, as well as the statutory school fees for commercial and industrial development established under Government Code Sections 65995 and 65996. With District reorganization, development within the Specific Plan would pay 55 percent of the $2.72 per square foot fee to the William S. Hart Union High School District as set forth in the Valley-Wide Joint Fee Resolution, as well as the statutory school fees for commercial and industrial development. These fees would be paid at the time building permits are issued.

The resolution states that, prior to the approval of any legislative act to permit residential development in the Santa Clarita Valley, the County or City shall require the developer to provide an executed agreement to pay the established fee. The resolution authorizes a per square foot mitigation fee which is greater than the amount authorized by Government Code Sections 65995 and 65996. The resolution also states that "payment of the School Mitigation Payment represents only a portion of the costs for providing school facilities as a result of approval of new development in the Santa Clarita Valley. The remaining portion of the costs shall be paid through participation in the State building program and other local or district-wide efforts." The resolution further states that "the School Districts shall not oppose the legislative acts or the agreements to provide for financing educational facilities as set forth in the Resolution unless the Boards of Trustee or the Governing Boards of the School District adopt Resolutions determining that they can no longer adequately provide school facilities for new development with the School Mitigation Payment." In late 1995, the Newhall School District, William S. Hart Union High School District, Castaic Union School District, and Saugus Union School District all withdrew from the Valley-Wide Joint Fee Resolution. However, the terms of the agreement are still relevant for this Specific Plan for the following reasons: (1) Los Angeles County, the City of Santa Clarita, and the Sulphur Springs Union School District are still parties to the Resolution; (2) the Specific Plan applicant has agreed to continue funding Santa Clarita Valley School Districts pursuant to the terms of the agreement; (3) State funding conditions have not necessarily worsened for the School Districts since the agreement was signed. In fact a strong argument can be made that conditions have improved since the agreement was signed (e.g., in March of 1996, State voters passed a $3 billion bond measure to fund new schools and the economy State-wide has improved) and that the fee remains adequate; and (4) local School Districts are not presently enacting all measures at their disposal to increase the capacity of their schools without building new schools and increasing the fee level (e.g., multi-track year-round scheduling[6]) and, therefore, do not necessarily need developer fees higher than specified in the agreement. Furthermore, the County maintains that the original intent of the Valley-Wide Joint Fee Resolution was to have the State, local school districts, and local developers share in the cost of constructing new school facilities. It was never the Resolution's intent (nor that of the Legislature) to have developers pay 100 percent of such costs, as the School Districts are proposing. If the School Districts believe that the developer fees being collected are not enough to cover their share of the agreed upon costs, then the School Districts could take measures of their own to generate additional funds in accordance with the original intent of the school fee legislation.

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6 The School Districts could implement a multi-track year-round schooling system where the pupils are divided into three or more groups or tracks, which rotate attendance. Therefore, for a majority of school days during the school year, at least one group or track is not attending school when all other groups or tracks are in attendance. Such a measure could increase school capacity by approximately 20 percent. Not enacting such a measure limits the priority of funding available from the State for school construction, and certainly reduces capacity.

e. School Facilities Agreement Between The Newhall Land and Farming Company and the Newhall School District

On October 17, 1995, an agreement was signed by The Newhall Land and Farming Company and the Newhall School District to guarantee that there will be adequate school facilities available to house every elementary school student generated by the Newhall Ranch Specific Plan. The agreement states that the District agrees that the terms of the agreement constitute full mitigation of school impacts for the life of the project. Specifically, the agreement states that it "will ensure that the development of . . . Newhall Ranch, either individually or cumulatively with other projects within the District's boundaries, will have no adverse impacts on the District's ability to provide adequate educational opportunities to every student in the District."[7] The agreement calls for the payment by The Newhall Land and Farming Company to the Newhall School District funds required to construct each new elementary school on the Newhall Ranch Specific Plan site to a maximum of $6,760,962 per school, adjusted beginning in 1996 to account for inflation. The agreement indicates that a total of five elementary schools will be needed to serve the Newhall Ranch Specific Plan, which will result in a maximum unadjusted payment of $33,804,810 by The Newhall Land and Farming Company to the Newhall School District as part of the Specific Plan, excluding the value of the land for the school sites. The Newhall School District is similarly obligated to take all necessary actions to qualify for State matching funds, including year-round multi-track operations or other operational actions as deemed appropriate by the Newhall School District, among other things. The agreement also stipulates site size, school size, site delivery condition, public park joint-use agreements, and construction standards, among others. This agreement is herein referred to as the "Newhall School Facilities Funding Agreement," and is provided within EIR **Appendix 4.16.**

4. EXISTING CONDITIONS

The current enrollment, as well as permanent and additional capacities for the three potentially affected Districts, is listed in **Table 4.16-2, Existing Design Capacities and Enrollments of Affected School Districts.** Additional capacities are based upon the current use of temporary relocatable/portable facilities.

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7 Section G. of the School Facilities Funding Agreement Between The Newhall School District and the Newhall Land and Farming Company, dated October 17, 1995. This agreement is included in total within EIR Appendix 4.16.

Table 4.16-2
Existing Design Capacities and Enrollments of Affected School Districts

District	Grade Levels	Current Enroll'mt[1]	Permanent & Add'l Temporary Capacity
Newhall[1]	K-6	5,208	6,150
Castaic Union[2]	K-5	1,271	1,280
Castaic Union[2]	6-8	545	800
Hart Jr. High	7-8	4,166	4,554
Hart Sr. High	9-12	8,185	8,564
	Totals	19,375	21,348

[1]*Source: California Basic Educational Data System.*
[2] *Source: Impact of New Development on the Need for School Facilities and School Impact Fee Justification, Recht Hausrath & Associates, March 1996. A temporary elementary school and the new Castaic Middle School will both open in Fall 1996, but are counted as existing capacity because they will replace the existing Castaic Elementary and Middle Schools, which will close at the end of the 1995/96 school year. The temporary elementary school will be used until a permanent elementary school is opened, which is expected to be in Fall 1997.*

a. Newhall School District

Newhall School District includes seven elementary school sites for students in kindergarten through sixth grade. The District's capacity is for 6,150 students (including permanent and temporary relocatable classrooms), while its enrollment is 5,208. Therefore, the Newhall School District is operating within available capacity limits. According to the Newhall School District, there are no plans to bring additional temporary classrooms into operation.

b. Castaic Union School District

The Castaic Union School District (Castaic District) is composed of two elementary schools (grades K-5) and one middle school (grades 6-8). Castaic District enrollment is 1,271 in the elementary schools and 545 in the middle school. The elementary schools provide for a total capacity of 1,280 students, while the middle school provides for a total capacity of 800 students. Therefore, all schools are operating within available capacity limits.

c. William S. Hart Union High School District

The William S. Hart Union High School District (Hart District) is composed of four junior high schools (grades 7-8) and four senior high schools (grades 9-12). Hart District enrollment is 4,166 in the junior high schools and 8,185 in the senior high schools. The junior high schools provide for a total capacity of 4,554 students, while the senior high schools provide for a total capacity of 8,564 students. Therefore, all schools are operating within available capacity limits. Recent capacity increases to the junior and senior high schools are due to the opening of La Mesa Junior High School and Valencia High School.[8]

5. PROPOSED IMPROVEMENTS

The Specific Plan reserves sites for five elementary schools, one junior high school, and one high school. **Figure 4.16-1, Locations of Proposed School Sites,** indicates the general locations of the proposed school sites. The school sites would be precisely located in consultation with the School Districts at the time of subdivision. Provisions to transfer the land to the Newhall School District have been agreed to by the land owner and the District. The specific details of the provisions are contained in the Newhall School Facilities Funding Agreement which is provided in **Appendix 4.16** of this EIR. Provisions to transfer the land to the William S. Hart Union High School District for junior high school and high school facilities (or to the Castaic Union School District in the area north of the Santa Clara River if the proposed School District reorganization does not occur) have not been determined, and it is expected that the sites would be purchased by the District(s) at the time the schools are required.

a. Elementary Schools

Of the five elementary schools, one is proposed in each Village. One of the elementary schools is located north of the River on land presently within the Castaic Union School District and four schools are located south of the River on land presently within the Newhall School District. With the proposed reorganization, the land north of the River and the one school proposed on that land would be annexed into the Newhall School District. Each of the sites would be approximately seven usable acres in size when located adjacent to a public local park of at least five acres and with a joint-use

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8 La Mesa Junior High School has been funded 50 percent with State funds, and 50 percent with local funds provided by development fees and Mello-Roos Bonds. Valencia High School has been funded 100 percent with State bonds.

agreement[9] between the County and the Newhall School District (and the Castaic Union School District with no District reorganization). Otherwise, the school sites will be 10 acres of usable area. A joint use agreement allows a school and adjacent park to share space, thereby reducing the amount of land necessary for the school.

b. Junior High School

One 20-acre junior high school (junior high) is proposed in the Village of Oak Valley[10] which is on land presently within the William S. Hart Union High School District.

c. High School

One high school is proposed in the Village of Potrero Valley which is on land presently within the William S. Hart Union High School District. Pursuant to State of California standards, the high school site would be approximately 40 acres in size.[11]

6. METHODOLOGY

The analysis contained within this section of the document has been prepared using two separate methods. In accordance with the County's Development Monitoring System (DMS), the first method evaluates Specific Plan and cumulative impacts based on the adequacy of existing facilities within the Newhall School District, Castaic Union School District and William S. Hart Union High School District to accommodate the demand for classrooms attributable to proposed development. As indicated previously, The Newhall Land and Farming Company and the Newhall School District have agreed to a school mitigation plan which establishes that the Specific Plan will have adequate funds to construct elementary schools to fully mitigate the Specific Plan's elementary school impacts. For the specific details regarding the Facilities Funding Agreement, please refer to EIR **Appendix 4.16.**

In accordance with the approach utilized by the School Districts in the Santa Clarita Valley, the second method is based on the sufficiency of funding for the construction of new school facilities within the Castaic Union School District and William S. Hart Union High School District to accommodate the elementary (with no District reorganization), junior high/middle and high school students generated by the Specific Plan and cumulative development. This second method of analysis is applied

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9 Policy 7.2 of the Land Use Element of the Santa Clarita Valley Area Plan states, "Encourage joint use of school playgrounds for community recreation."

10 Twenty-five acres is the preferred size for a junior high school, although a smaller school site is acceptable to the District if it is located adjacent to a public park and with a joint use agreement.

11 Forty-five acres is the preferred size for a senior high school, although a smaller school site is acceptable to the District if it is located adjacent to a public park and with a joint use agreement.

only to the Castaic Union School District and William S. Hart Union High School District because elementary school impacts within the Newhall School District are fully mitigated pursuant to the above discussion. Therefore, "the development of . . . Newhall Ranch, either individually or cumulatively with other projects within the District's boundaries, will have no adverse impacts on the District's ability to provide adequate educational opportunities to every student in the District."[12]

a. Los Angeles County DMS Methodology

(1) Specific Plan Impact Methodology

In accordance with Los Angeles County Development Monitoring System (DMS) methodology, the analysis of Specific Plan impacts is based on estimates of the number of students expected to be generated by the Specific Plan at build-out using the relevant student generation factors for residential units.[13] In addition, the analysis is based on future school enrollments resulting from student population growth attributable to the existing housing stock within the Santa Clarita Valley exclusive of any additional housing constructed subsequent to the date of the DMS analysis. This analysis recognizes that the student enrollment projections available from the School Districts do not extend beyond 1996 and 1997 and, therefore, do not provide the enrollments created by other Santa Clarita area housing developments at the time of Specific Plan buildout, which is forecasted to occur in 2023. However, these projections represent the best information available. Once the estimated number of existing and Specific Plan-generated students is calculated, this number is compared to the available capacity of the schools (considering new school facilities and future school enrollments without additional housing growth) to determine the Specific Plan's potential impacts on school services. Future school capacity is calculated based on the number of permanent, as well as temporary and relocatable classroom facilities. Temporary and relocatable classrooms are used throughout the School Districts in the Santa Clarita Valley as a means of mitigating overcrowded conditions. State school financing policy also requires 30 percent of capacity to be provided by relocatable classrooms. Until such time that permanent facilities are available to meet the demand for classroom space or until enrollment declines due to aging of the local population, the School Districts will continue to use temporary and relocatable classrooms. Given these circumstances, and for the purpose of this analysis, temporary and relocatable classrooms are included in the calculation of total capacity within each of the School Districts.

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12 Section G. of the School Facilities Funding Agreement Between The Newhall School District and the Newhall Land and Farming Company, dated October 17, 1995. This agreement is included in EIR Appendix 4.16.

13 In accordance with the procedures used by the County DMS and the School Districts in the Santa Clarita Valley area for evaluating Specific Plan impacts on schools, student generation rates are applied to residential development only.

(2) Cumulative Impact Methodology

In order to analyze the cumulative impacts of this Specific Plan in combination with other expected future growth, the amount of growth expected to occur in addition to that of the Specific Plan must be predicted. Section 15130(b) of the CEQA Guidelines allows two methods of prediction as described below: "(A) a list of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the agency, or (B) a summary of projections contained in an adopted general plan or related planning document which is designed to evaluate regional or areawide conditions." In order to analyze a worst-case condition, this EIR uses a combination of both methods which provides a reasonable and comprehensive estimate of cumulative impacts. For this EIR, two separate cumulative development scenarios are compared with existing conditions to meet Los Angeles County and CEQA requirements.

The first scenario (herein referred to as the "DMS Buildout Scenario") entails buildout of the subdivision projects listed in the County's Development Monitoring System (DMS) plus the Specific Plan. County DMS data used include all pending, recorded and approved projects involving land divisions located in Los Angeles County (including both incorporated and unincorporated lands). This analysis uses data for the City of Santa Clarita and unincorporated area in the Santa Clarita Valley, which, together, constitute the Santa Clarita Valley Planning Area. The second scenario [herein referred to as the "Santa Clarita Valley (SCV) Cumulative Buildout Scenario"] entails buildout of all lands under the current land use designations indicated in the Santa Clarita Valley Area Plan and the General Plan, plus the Specific Plan, plus all known active pending General Plan Amendment requests for additional urban development in the unincorporated area of Santa Clarita Valley and the City of Santa Clarita. Because this scenario combines both of the CEQA future development prediction methods [i.e., (A) the listing of known projects, and (B) a summary of development projections from an adopted general plan], the Santa Clarita Valley Buildout Scenario is considered a worst-case projection of future development activity. The source of data for the Santa Clarita Valley Buildout Scenario is the Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (SCVCTM). The SCVCTM was developed jointly by the City of Santa Clarita and the County of Los Angeles Public Works Department. In this EIR section, the Santa Clarita Valley Planning Area is often referred to as the "Valley."

To complete the analyses, a complete update of the cumulative projects list for each of the School Districts was obtained. Student generation for the two cumulative development scenarios was calculated in accordance with County DMS methodology which evaluates the adequacy of school facilities based on classroom availability.

Once the amount of cumulative development was predicted for each of the School Districts under both scenarios, student generation for these projects was determined by multiplying the various unit types by the student generation rate. The number of students which could be generated by these projects under both scenarios was then divided by the desired average classroom size as identified by that school district to determine the number of classrooms which would be required.

b. School Districts' Methodology

(1) Specific Plan Impact Methodology

In accordance with the School Districts' methodology, impacts were also evaluated based on whether sufficient funding would be available to cover new elementary and middle school construction costs in the Castaic Union School District if no District reorganization occurs, and junior high and high school construction costs in the William S. Hart Union High School District (with and without District reorganization) made necessary by the development of the Specific Plan. Consistent with the School Districts' current approach of comparing funding needs generated by development with revenue generated by development, the analysis evaluates the Specific Plan's contribution of new construction costs based on a per square foot fee using the $2.72 per square foot fee set forth in the Valley-Wide Joint Fee Resolution, as well as the statutory fee of $0.30 per square foot of commercial/industrial space.

(2) Cumulative Impact Methodology

In accordance with the School Districts' methodology, impacts were evaluated based on the sufficiency of funding for the construction of new elementary and middle school facilities in the Castaic Union School District if no District reorganization occurs, and junior high and high school facilities in the William S. Hart Union High School District (with and without District reorganization) to accommodate the students generated by Specific Plan and cumulative development. The $2.72 per square foot fee set forth in the Valley-Wide Joint Fee Resolution, as well as the statutory fee for commercial/industrial development, is included in this analysis. Because the Specific Plan mitigates its project-specific elementary school impacts by virtue of the Newhall School Facilities Agreement, it also mitigates its potential cumulative impact on elementary schools assuming reorganization occurs. Consequently, this analysis focuses only on the cumulative impact of student generation and classroom needs on elementary and middle schools in the Castaic Union School District if no reorganization occurs, and junior high and high schools in the William S. Hart Union High School District (with and without reorganization).

c. Assumptions

It is assumed that no Specific Plan students would permanently attend existing schools within the Castaic Union, Newhall, or William S. Hart Union High School Districts, and that Specific Plan students would require completely new senior and junior high (middle) school facilities that would be located within the Specific Plan boundaries. While it is possible that permanent available capacity could exist at schools located off the Newhall Ranch site for students generated by the Specific Plan, it would be speculative at this time to predict such capacity. Consequently, this analysis assumes a worst-case impact scenario.

d. Other Variables in the Impact Analysis

In order to best quantify Specific Plan and cumulative impacts on existing and planned school facilities, a number of variables in the impact analysis must be made explicit, including the numbers and sizes of residential units within each district, commercial/industrial square footage buildout, student generation rates, maximum school capacity standards, and per student capita costs to construct new school facilities.

(1) Specific Plan Residences

It is estimated that, of the Residential uses proposed, the following types of structures would be built: 11,025 detached (single family), 9,790 attached multi-family (including 538 Second Units), and 4,403 apartment residential units. The breakdown of these units by School District is provided in **Table 4.16-3, Project Residential Units Within Each School District,** and the average square footages of units are shown in **Table 4.16-4, Project Residential Buildout by School District.**

Table 4.16-3
Project Residential Units Within Each School District

School District	Single Family Units	Multi-Family Units	Apartment Units
Castaic Union	2,658	877	983
Newhall	8,367	8,913	3,420
W. S. Hart Junior	8,367	8,913	3,420
W. S. Hart Senior	11,025	9,790	4,403

Source: Newhall Ranch Company (April 1996).

Table 4.16-4
Project Residential Buildout by School District

Residential Land Use Designation	Quantity	Estimated Dwelling Unit Square Footage	Residential Units[1] Castaic Union	Newhall	W.S. Hart Union High
Estates[2]	538	4,500	246	292	538
Low	1,917	3,000	404	1,513	1,917
Low Medium	6,951	2,200	1,783	5,168	6,951
Medium (detached)	1,619	1,250	224	1,395	1,619
Medium (attached)	6,312	1,100	878	5,434	6,312
High (attached)	2,850	1,000	737	2,113	2,850
Mixed-Use (attached)	4,493	1,100	0	4,493	4,493
Second Units	538	800	246	292	538
Total	25,218	--	4,518	20,700	25,218

Source: Newhall Ranch Company, (June 1995).
[1]The residential units shown for the William S. Hart Union High School District includes those found in the Castaic Union and Newhall School Districts because the School District boundaries overlap within the Specific Plan boundaries.
[2]This includes 15 Estate residential units within the High Country Special Management Area.

(2) Non-Residential Buildout

The project includes a total of 5,720,000 square feet of commercial and industrial space. Non-residential buildout by School District is provided below:

Square Footage[1] Castaic Union	Newhall	W.S. Hart Union High
3,005,000	2,715,000	5,720,000

[1]The non-residential square footage shown for the William S. Hart Union High School District includes that found in the Castaic Union and Newhall School Districts because the School District boundaries overlap within the Specific Plan boundaries.

(3) Student Generation Rates

Student generation factors per residential unit by housing type is shown in **Table 4.16-5, Student Generation Rates.**

Table 4.16-5
Student Generation Rates

School District	Student Generation Rate		
	Single Family	Multi-Family	Apartment
Newhall Elementary[1]	0.348	0.078	0.253
Castaic Union Elementary[2]	0.3021	0.1079	0.0998
Castaic Union Middle[2]	0.1578	0.0618	0.0585
W. S. Hart Junior High[3]	0.098	0.037	0.038
W. S. Hart Senior High[3]	0.171	0.064	0.054

[1]*Eric R. Doering, Bowie, Arneson, Kadi, Wiles & Giannone, correspondence to Impact Sciences, Inc., 5 January 1995. These rates are based upon a study for the Newhall School District by David Taussig and Associates, Inc. in June 1994.*
[2] *Recht Hausrath & Associates, Impact of New Development on the Need for School Facilities and School Impact Fee Justification, prepared for the Board of Trustees for the Castaic Union School District, (Oakland, California: March, 1996).*
[3]*Source: Based on data provided by Davis Demographics and Planning, December 12, 1995.*

The student generation rates shown for the William S. Hart Union High School District are from Davis Demographics and Planning (December 12, 1995). The rates shown in **Table 4.16-5** are lower than the rates currently used by the District which are as follows: 0.1066, 0.044, and 0.0416 for junior high students generated from single family units, multi-family units and apartment units, respectively; and 0.2007, 0.087, and 0.0776 senior high students generated from single family units, multi-family units and apartment units, respectively.[14] Student generation rates shown in **Table 4.16-5** are calculated by separating the existing number of students by the type of home in which they live (single family, multi-family, and apartment) and dividing the number of students by the total number of homes in the District of each type. In contrast, the generation factors used by the William S. Hart Union High School District and Castaic Union School District use a theoretical model which adjusts the above rates by a forecasted County-wide future birth rate and a mobility factor which estimates an adjustment to the rate for drop-outs, moves in and out of the District, and impacts of private schools. The model used by the Districts is theoretical, has not been demonstrated to be an accurate reliable forecaster of enrollment, and uses assumptions of birth rates which may be totally inappropriate to the District and the Specific Plan. Consequently, the actual generation rate as described above is a more accurate portrayal of the students to be generated, especially in light of the large statistical sample size and the age of the community upon which it is based.

14 Recht Hausrath & Associates, Impact of New Development on the Need for School Facilities and School Impact Fee Justification, prepared for the Board of Trustees for the William S. Hart Union High School District, (Oakland, California: January, 1996).

For instance, the birth rate of all of Los Angeles County is significantly greater than the birth rate expected for the type of community that Newhall Ranch is proposed to be. The closest comparison of a similar community to that which is proposed is Valencia, immediately adjacent to the Newhall Ranch Specific Plan and being developed by the parent company of the applicant. The Valencia birth rate is 16.3 births per thousand population (1994). In contrast, the birth rate for all of Los Angeles County is 23.0 births per thousand population (1990). The County-wide birth rate is 41 percent greater than that of Valencia, a community with similar socio-economic demographics to the Newhall Ranch Specific Plan.

(4) School Capacities

In accordance with the Newhall School Facilities Funding Agreement, elementary schools within the Newhall Ranch Specific Plan will use a classroom size of 30 students as a design standard and a 1,004-student capacity school as its maximum acceptable standard,[15] assuming the use of multi-track year-round education programs or other operational actions as deemed appropriate by the Newhall School District.

The elementary school capacity, according to Castaic Union School District standards, is 630 students and the middle school capacity is 800 students. According to the State, year round multi-track scheduling increases school capacities 20 percent, so that elementary school capacity is 756 students and middle school capacity is 960 students. The desirable classroom size according to the County Development Monitoring System (DMS) as reported by the School District is 30 students.

The Hart District standard for school capacity is 1,000 students for junior high schools, and 2,000 students for senior high schools, excluding year round multi-track scheduling. The County DMS, as reported by the School District, assumes classroom sizes of 32 students in the junior and senior high schools.

(5) Per Student Capita Costs for New School Construction

The costs listed in **Table 4.16-6, Per Student Capita Costs for New School Facilities**, represent the full cost of land and construction. As indicated in the table below, two sets of costs are indicated. The first set represents the costs of new schools constructed to State standards with 20 percent greater capacity using year round multi-track scheduling (herein referred to as "State permitted construction costs").

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15 The Newhall Land and Farming Company/Newhall School District School Facilities Funding Agreement, October 1995.

The School Districts could educate more students within existing facilities if they enacted year-round multi-track scheduling. The second set represents the costs of new schools constructed to local School District requirements and includes costs for sports facilities, interim housing and transportation, as well as central administration (herein referred to as the "School District's construction costs"). Such costs are not allowed for matching funds by the State per its Applicant Handbook for the State School Building Lease-Purchase Program. School construction is a State responsibility; it is assumed that schools will be constructed to State standards. Additional costs for higher standards or more amenities are a local decision and should, therefore, be funded by the local school district, not the State and developer. In order to achieve full disclosure, both sets of costs are used in this analysis.

Table 4.16-6
Per Student Capita Costs for New School Facilities

School District	State Permitted Construction Costs[1]	School District's Construction Costs[2]
Castaic Union (Elementary)	$11,558	$16,720
Castaic Union (Middle)	$16,133	$22,210
W.S. Hart Union (Junior High)	$21,307	$28,439
W.S. Hart Union (Senior High)	$18,250	$24,770

[1] *Excludes costs for sports facilities, interim housing and transportation as well as Central Administration. Such costs are not allowed for matching funds by the State per its Applicant Handbook for the State School Building Lease-Purchase Program. This also assumes the use of multi-track year-round scheduling which increases capacity by 20 percent.*
[2] *Recht Hausrath & Associates, Impact of New Development on the Need for School Facilities and School Impact Fee Justification, prepared for the Board of Trustees for the Castaic Union School District, (Oakland, California: March 1996). Recht Hausrath & Associates, Impact of New Development on the Need for School Facilities and School Impact Fee Justification, prepared for the Board of Trustees for the William. S. Hart Union High School District, (Oakland, California: March 1996).*

7. SPECIFIC PLAN IMPACTS

Two scenarios are analyzed below, which include the "Reorganization Scenario" and the "Current Organization Scenario." Under the Reorganization Scenario, the School District reorganization proposed by the applicant of the Specific Plan would occur with the result being that the Newhall Ranch Specific Plan site would be de-annexed from the Castaic Union School District service boundary. Therefore, the Castaic Union School District would no longer provide elementary (grades K through 5) and middle school (grades 6 through 8) education services on the site north of the Santa Clara River, and (2) that same area north of the Santa Clara River would be annexed to the Newhall School District boundary (the William S. Hart Union High School District school boundary already covers

the entire site). As a result, the Newhall School District would provide the entire site with elementary school (grades K through 6) education services and the William S. Hart Union High School District would provide the entire site with junior high school (grades 7 and 8) and high school (grades 9 through 12) education services.

Under the Current Organization Scenario, the portion of the Specific Plan site north of the Santa Clara River would remain within the Castaic Union School District which provides elementary (grades K through 5) and middle school (grades 6 through 8) service, while the Specific Plan site south of the River would remain within the Newhall School District, which provides elementary school (grades K through 6) service. The William S. Hart Union High School District would continue to serve the entire Specific Plan area for high schools (grades 9 through 12) and the Specific Plan area south of the River for junior high schools (grades 7 to 8).

Depending upon the scenario analyzed, the Specific Plan would increase student populations within the Newhall, Castaic Union and William S. Hart Union High School Districts. The following impact analysis is dependent upon the numbers of elementary, junior high (or middle), and high school students generated; County and School Districts' impact analysis methodologies; and the assumptions and variables listed above.

a. Significance Threshold Criteria

(1) Thresholds of Significance Using County DMS Methodology

The County DMS methodology assesses school impacts based on whether student generation from the Specific Plan and cumulative projects would be accommodated by school capacity (the number of classrooms). In accordance with this methodology, the number of classrooms which would be required as a result of development of the Specific Plan is calculated utilizing student generation factors and students per classroom standards. If the Specific Plan's demand plus the demand for classrooms attributable to the existing housing stock in the Santa Clarita Valley would exceed the existing supply plus planned school facilities, a significant impact to school services would exist. Similarly, if existing plus planned classroom facilities would not be adequate to meet the demand generated by cumulative projects, a significant cumulative impact to school services would exist.

(2) Thresholds of Significance Using School District's Methodology

The School Districts, in addition to assessing project impacts based on school capacity, also assess school impacts based on the funds required to construct new facilities to accommodate the students generated by a project. In accordance with the School Districts' approach to evaluating impacts on schools, a fiscal analysis has been completed utilizing construction and land cost data obtained from the Castaic Union School District and William S. Hart Union High School District. This information is utilized to determine per student costs for the construction of new elementary, junior high/middle and high school facilities within the Castaic Union School District and William S. Hart Union High School District. New elementary and junior high/middle school construction costs (in the Castaic Union School District under the Current Organization Scenario) and junior high and high school construction costs attributable to the development of the Newhall Ranch Specific Plan were then calculated by multiplying the number of Specific Plan-generated students within the school district by the corresponding per student costs. The mitigation fee set forth in the Valley-Wide Joint Fee Resolution is calculated for the Specific Plan and apportioned to the Castaic Union School District and William S. Hart Union High School District pursuant to the formula agreed to by the Districts. Specific Plan and cumulative impacts are then evaluated based on the sufficiency of funding for the construction of new elementary, junior high and high school facilities to accommodate the students generated by the Specific Plan. A significant impact would occur if the necessary funding to adequately house students would not exist.

b. Specific Plan Impact Analysis - Reorganization Scenario

This impact analysis evaluates the Specific Plan student generation impacts on the Newhall and William S. Hart Union High School Districts using the County DMS methodology, and the Specific Plan's financial impact on the William S. Hart Union High School District using the School Districts' methodology, both assuming that the proposed School District reorganization occurs. Because this Specific Plan involves the approval of a Specific Plan, General Plan Amendment, and Zone Change, its approval would be a legislative action. Therefore, because residential developments in the William S. Hart Union High School District and the Specific Plan are subject to the School Mitigation Payment set forth in the Valley-Wide Joint Fee Resolution of which Los Angeles County is still a signatory (commercial and industrial development throughout the Specific Plan would be subject to the statutory school fee), the funds collected from that fee are compared with the cost of construction of required facilities.

(1) Impacts to Newhall School District

The Specific Plan would generate a total of 5,714 elementary students within the District. Using District standards for classroom size and a school size of 1,004 students, the Specific Plan would generate a need for 190.5 elementary classrooms. The Specific Plan reserves five elementary school sites within the proposed boundary of the Newhall School District, which would be adequate to accommodate Specific Plan students along with construction cost funding to be provided per the provisions of the Facilities Funding Agreement between the Newhall School District and The Newhall Land and Farming Company. As part of the Funding Agreement, student generation rates will be periodically adjusted to reflect actual conditions. Also as part of the Facilities Funding Agreement, if more than five elementary schools are required to house students, additional funding necessary to house students will be provided.

(2) Impacts to William S. Hart School District

Using actual student generation rates as explained in subsection 6. D. (3) above, the Specific Plan would generate a total of 1,610 junior high school students and 2,750 senior high school students. Using District standards for classroom size and District standards for school size, the Specific Plan would generate a need for 50.3 junior high school classrooms and 85.9 high school classrooms on the Specific Plan site.

The Specific Plan reserves one junior high school site in the Village of Oak Valley and one high school site within the Village of Potrero Valley. According to William S. Hart Union High School District, the junior high site would need to be approximately 25 acres in size in order to educate 1,000 junior high students. The high school site would need to be approximately 45 acres in size to educate 2,000 high school students. The school sites could be smaller if they are located adjacent to a public park site with a joint use agreement.

Using the District's theoretical student generation rates, the Specific Plan would generate a total of 1,789 junior high school students and 3,406 senior high school students. Using District standards for classroom size and State standards for school size, the Specific Plan would generate a need for 55.9 junior high school classrooms and 106.4 high school classrooms on the Specific Plan site.

(3) Assessment of Specific Plan Impacts Using County Methodology

Using the County DMS methodology, which evaluates project impacts based on the adequacy of existing facilities to accommodate classroom demand, Specific Plan impacts upon existing plus planned classroom capacity within the Newhall and William S. Hart Union High School Districts are deemed to be significant, even if all of the Districts fully implemented year-round multi-track operations.

(4) Assessment of Specific Plan Impacts Using School District Methodology

School districts in the Santa Clarita Valley evaluate impacts on schools based on whether sufficient funding will be available to cover new school construction costs made necessary by students generated by a project. Under the State funding program, the State will provide matching funds in an amount up to 50 percent of the total funds needed to acquire land and construct a school. Funding by the State, developer fees, and other local sources have, in the past, provided complete funding for new school construction costs.

In accordance with the School Districts' approach, this fiscal analysis evaluates Specific Plan and cumulative impacts based on the sufficiency of funding for the construction of new junior high and high school facilities to accommodate the students generated by the Specific Plan development. The Specific Plan requires a legislative approval and is, therefore, subject to the $2.72 per square foot fee set forth in the Valley-Wide Joint Fee Resolution, as well as the statutory fee for commercial/industrial development established under Government Code Sections 65995 and 65996.

Using the actual student generation rates and State permitted construction costs, **Table 4.16-7, Costs of New School Construction versus Revenues**, identifies the costs to the William S. Hart Union High School District to construct new school facilities pursuant to State standards versus the revenues that the District would receive through the Joint Fee Resolution and statutory commercial/industrial fees. Based on State construction standards, it would cost approximately $84.5 million dollars to purchase land for and construct schools for all of the students generated. The Specific Plan would contribute approximately $61.8 million (73.1 percent of the costs) through the School Mitigation Payment and the statutory school fees for commercial/industrial development.

Table 4.16-7
Costs of New School Construction versus Revenues

	School District		
	W.S. Hart Junior High	**W.S. Hart Senior High**	**Total**
Construction Costs per Student	$21,307	$18,250	
Total Students Generated	1,610	2,750	
Total Construction Costs[1]	$34,304,270	$50,187,500	$84,491,770
Specific Plan Fee Schedule[2]			
Joint Resolution Fee & Commercial/Industrial Statutory Fee			See footnote below
Total Square Footage			
Residential			40,653,850
Commercial/Industrial			5,720,000
Total Specific Plan Revenues[2]			
Joint Resolution Fee			$60,818,159
Commercial/Industrial Statutory School Fees			$943,800
Total			$61,761,959
Percent of Costs Financed by the Specific Plan			73.1%

[1]*Construction Costs per Student times Total Students Generated.*
[2]*These revenues are based on a School Mitigation Fee of $2.72 per square foot for residential uses and the statutory fee of $0.30 per square foot for commercial and industrial uses. Fifty-five percent of the fees would go to William S. Hart Union High School District. The distribution of fees between the Hart junior and senior high schools is based on the number of students the Specific Plan would generate within each category and is subject to the fee distribution between the School Districts.*

Based on the Districts' theoretical student generation rates and construction costs, it would cost approximately $135.2 million dollars to purchase land for and construct schools for all the students generated. The Specific Plan would contribute approximately $62.0 million (45.7 percent of the costs) through the School Mitigation Payment and the statutory school fees for commercial/industrial development.

Given the current State and local school funding situation, and the Specific Plan's share of new construction costs for William S. Hart Union High School District facilities on the Specific Plan site, Specific Plan impacts on the William S. Hart Union High School District are considered to be significant, but mitigable if State and local sources provide funding to augment the fee set forth in the Valley-Wide Joint Fee Resolution as intended by that agreement. Should such State and/or local funding, which has been historically available, remain available, Specific Plan impacts would be considered less than significant.

California has had a history of commitment to State funding of its public school system. All schools built recently in the Castaic Union, Newhall and William S. Hart Union High School Districts have received State funds. In March 1996, State voters approved a $3 billion bond measure to fund new school construction. Based on this funding mechanism and on a history of commitment at the State level, funds for new school construction could be available before school facilities will have to be provided to house students from the Newhall Ranch Specific Plan.

(5) Note on Assessment of Specific Plan Impacts

In the opinion of the County, the County DMS methodology provides a better measure of the Specific Plan's impacts on school facilities than does the School Districts' methodology. The DMS methodology focuses on the impact of projects both individually and cumulatively. On the other hand, the methodology utilized by the School Districts omits any reference to the relationship between the time a project begins to make its impacts felt and the capacity existing at that time. For example, using the DMS methodology, a project which generates 150 students in a school district which has available capacity for 300 students would not create a significant impact on that school district. However, based on the School District's methodology, an assumption is made that the School Districts are operating at full capacity and all project students would require new school facilities. The School Districts' methodology, therefore, fails to provide decision-makers and the public with the totality of the information needed to allow informed decisions on individual projects.

c. Specific Plan Impact Analysis - Current Organization Scenario

This impact analysis scenario evaluates the Specific Plan student generation impacts on the Newhall, Castaic Union and William S. Hart Union High School Districts using the County DMS methodology, and the Specific Plan's financial impact on the Castaic Union School District and William S. Hart Union High School District using the School Districts' methodology in the event that the proposed School District reorganization does not occur. The impacts in the Newhall School District are fully mitigated pursuant to the School Facilities Funding Agreement between The Newhall Land and Farming Company and the Newhall School District. This Specific Plan involves the approval of a Specific Plan, General Plan Amendment, and Zone Change. Consequently, its approval would represent a legislative action by the County. Therefore, because residential developments in the Castaic Union School District, William S. Hart Union High School District and the Specific Plan are subject to the School Mitigation Payment set forth in the Valley-Wide Joint Fee Resolution of which Los Angeles County is still a signatory, the funds collected from that fee are compared with the cost of construction of required facilities. Commercial/industrial development throughout the Specific Plan would be subject to the statutory school fee.

(1) Impacts to Newhall School District

The Specific Plan would generate a total of 4,472 elementary students within the District. Using District standards for classroom size (30 students), the Specific Plan would generate a need for 149 elementary classrooms. The Specific Plan reserves four elementary school sites within the proposed boundary of the Newhall School District, which would be adequate to accommodate Specific Plan students along with construction cost funding to be provided per the provisions of the Facilities Funding Agreement between the Newhall School District and The Newhall Land and Farming Company. As part of the Facilities Funding Agreement, student generation rates will be periodically adjusted to reflect actual conditions. Also as part of the Facilities Funding Agreement, if more than four elementary schools are required to house students, additional funding necessary to house students will be provided by The Newhall Land and Farming Company.

(2) Impacts to Castaic Union School District

Based on actual student generation rates, the Specific Plan would generate a total of 996 elementary school students (K through 5) and 531 middle school students (6 through 8). Using District standards for classroom size and State standards for school size, the Specific Plan would generate a need for 33.2 elementary school classrooms and 17.7 middle school classrooms within the Specific Plan.

A total of 1.3 elementary schools and 0.6 middle schools would be required to serve the student population generated by the Specific Plan. The Specific Plan reserves one elementary school site and no middle school site within the bounds of this District.

(3) Impacts to William S. Hart Union School District

The Specific Plan would generate a total of 1,280 junior high school students and 2,750 senior high school students using the actual student generation rates. Using District standards for classroom (32 students) and school size, the Specific Plan would generate a need for 40 junior high school classrooms and 85.9 high school classrooms on the Specific Plan site.

The Specific Plan reserves one junior high school site in the Village of Oak Valley and one high school site within the Village of Potrero Valley. Based on District standards, the junior high site would need to be approximately 25 acres in size in order to educate 1,000 junior high students. The high school site would need to be approximately 45 acres in size to educate 2,000 high school students. The school sites could be smaller if they are located adjacent to a public park site with a joint use agreement.

Using District student generation rates, the Specific Plan would generate a total of 1,426 junior high school students and 3,406 senior high school students. Using District standards for classroom and school size, the Specific Plan would generate a need for 44.6 junior high school classrooms and 106.4 high school classrooms on the Specific Plan site.

(4) Assessment of Specific Plan Impacts Using County Methodology

Using the County DMS methodology, which evaluates project impacts based on the adequacy of existing and planned facilities to accommodate classroom demand, Specific Plan impacts upon existing plus planned classroom capacity within the Newhall and William S. Hart Union High School Districts are deemed to be significant, even if all of the Districts fully implemented year-round multi-track operations.

(5) Assessment of Specific Plan Impacts Using School District Methodology

School Districts in the Santa Clarita Valley evaluate impacts on schools based on whether sufficient funding will be available to cover new school construction costs made necessary by students generated by a project. Under the State funding program, the State will provide matching funds in an amount up to 50 percent of the total funds needed to acquire land and construct a school. Funding by the State, developer fees, and other local sources have, in the past, provided complete funding for new school construction costs.

In accordance with the School Districts' approach, this fiscal analysis evaluates Specific Plan impacts based on the sufficiency of funding for the construction of new elementary and middle school facilities (in the Castaic Union School District), and junior high and high school facilities (in the William S. Hart Union High School District) to accommodate the students generated by the Specific Plan development. Newhall School District impacts are fully mitigated pursuant to the Facilities Funding Agreement. The Specific Plan requires a legislative approval and is, therefore, subject to the $2.72 per square foot fee set forth in the Valley-Wide Joint Fee Resolution, as well as the statutory fee for commercial/industrial development established under Government Code Sections 65995 and 65996.

Using actual student generation rates and State permitted construction costs, **Table 4.16-8, Costs of New School Construction versus Revenues Without Reorganization,** identifies the costs to the Castaic Union and William S. Hart Union High School Districts to construct new school facilities versus the revenues that the Districts would receive through the Joint Fee Resolution and statutory fees. The Castaic Union School District would incur a total cost of $20.1 million to purchase land for and construct the school

Table 4.16-8
Costs of New School Construction versus Revenues Without Reorganization

	School District					
	Castaic Elementary	Castaic Middle	Total	W.S. Hart Junior High	W.S. Hart Senior High	Total
Construction Costs per Student[1]	$11,558	$16,133		$21,307	$18,250	
Total Students Generated	996	531		1,280	2,750	
Total Construction Costs[2]	$11,511,768	$8,566,623	$20,078,391	$27,272,960	$50,187,500	$77,460,460
Specific Plan Fee Schedule[3]						
Joint Resolution Fee & Commercial/Industrial Statutory Fee			See footnote below			See footnote below
Total Square Footage						
Residential	8,421,200	8,421,200		32,232,650	40,653,850	
Commercial/Industrial	3,005,000	3,005,000		2,715,000	5,720,000	
Total Specific Plan Revenues[3]						
Joint Resolution Fee			$14,888,682			$56,237,027
Commercial/Industrial Statutory School Fees			585,975			763,500
Total			$15,474,657			$57,000,527
Percent of Costs Financed by the Specific Plan			77.1%			73.6%

[1]*These costs are estimates and based upon the applicant's data and State standards for capacity. See Section 5d.*

[2]*Construction Costs per Student times Total Students Generated.*

[3]*These revenues are based on a School Mitigation Fee of $2.72 per square foot for residential uses and the statutory fee of $0.30 per square foot for commercial and industrial uses. North of the Santa Clara River, 35 percent of the fees would go to William S. Hart Union High School District and 65 percent would go to the Castaic Union School District. South of the River, 55 percent of the fees would go to William S. Hart Union High School District and 45 percent would go to the Newhall School District. The distribution of fees between the junior and senior high schools is based on the number of students the Specific Plan would generate within each category and is subject to the fee distribution between the School Districts.*

space necessary to house and educate students generated by the Specific Plan. The Specific Plan would contribute approximately $15.5 million (77.1 percent of the costs) through the School Mitigation Payment and the statutory school fees for commercial/industrial development. Using State permitted construction costs, the William S. Hart Union High School District would incur a total cost of $77.5 million to purchase land for and construct the school space necessary to house and educate students generated by the Specific Plan. The Specific Plan would contribute approximately $57 million (73.6 percent of the costs) through the School Mitigation Payment and the statutory school fees for commercial/industrial development.

Based on the theoretical student generation rates and the Castaic Union School District's construction costs, it would cost the Castaic Union School District approximately $28.4 million dollars to purchase land for and construct schools for all students generated. The Specific Plan would contribute approximately $15.5 million (54.4 percent of the costs) through the School Mitigation Payment and the statutory school fees for Specific Plan commercial/industrial development occurring in the Castaic Union School District.

Based on the theoretical student generation rates and the School District's construction costs, it would cost the William S. Hart Union High School District approximately $124.9 million dollars to purchase land for and construct schools for all students generated. The Specific Plan would contribute approximately $57.0 million (45.6 percent of the costs) through the School Mitigation Payment and the statutory school fees for Specific Plan commercial/industrial development occurring in the William S. Hart Union High School District.

Given the current State and local school funding situation, and the Specific Plan's share of new construction costs for Castaic Union and William S. Hart Union High School District facilities on the Specific Plan site, Specific Plan impacts on the Castaic Union and William S. Hart Union High School Districts are considered to be significant, but mitigable if State and local sources provide funding to augment the fee set forth in the Valley-Wide Joint Fee Resolution as intended by that agreement. Should such State and/or local funding, which has been historically available, remain available, Specific Plan impacts would be considered less than significant.

California has had a history of commitment to State funding of its public school system. All schools built recently in the Castaic Union, Newhall and William S. Hart Union High School Districts have received State funds. In March 1996, State voters approved a $3 billion bond measure to fund new school construction. Based on this funding mechanism and on a history of commitment at the State level, funds for new school construction may be available before school facilities will have to be provided to house students from the Newhall Ranch Specific Plan.

(6) Note on Assessment of Specific Plan Impacts

In the opinion of the County, the County DMS methodology provides a better measure of the Specific Plan's impacts on school facilities than does the School Districts' methodology. The DMS methodology focuses on the impact of projects both individually and cumulatively. On the other hand, the methodology utilized by the School Districts omits any reference to the relationship between the time a project begins to make its impacts felt and the capacity existing at that time. For example, using the DMS methodology, a project which generates 150 students in a school district which has available capacity for 300 students would not create a significant impact on that school district. However, based on the School Districts' methodology, an assumption is made that the School Districts are operating at full capacity and all project students would require new school facilities. The School Districts' methodology, therefore, fails to provide decision-makers and the public with the totality of the information needed to allow informed decisions on individual projects.

8. SPECIFIC PLAN MITIGATION MEASURES

The Newhall Land and Farming Company and the Newhall School District have agreed to a school mitigation plan which establishes terms and provisions that assures the timely funding and construction of elementary schools to fully mitigate the Specific Plan's elementary school impacts even if State matching funds are not available. For the specific details regarding such terms and provisions, please refer to EIR **Appendix 4.16, School Mitigation Agreements**. Specifically, the agreement states that it "will ensure that the development of . . . Newhall Ranch, either individually or cumulatively with other projects within the District's boundaries, will have no adverse impacts on the District's ability to provide adequate educational opportunities to every student in the District."[16]

In the past, the mitigation fee set forth in the Valley-Wide Joint Fee Resolution had been accepted by the County, City of Santa Clarita, the Newhall School District, the Castaic Union and William S. Hart Union High School Districts as adequate mitigation for the funding of new elementary, junior high/middle and high school facilities in the Santa Clarita Valley. This fee was established at a level sufficient to cover new school construction based on the assumption that funds collected under this fee would be augmented by participation in the State school construction program and other local efforts (it was assumed that the developer would contribute a portion of the costs only). As indicated above, the Newhall Ranch Specific Plan would contribute well over 50 percent of the costs to house students of the Specific Plan when estimated using actual student generation rates and State permitted

16 Section G. of the School Facilities Funding Agreement Between The Newhall School District and the Newhall Land and Farming Company, dated October 17, 1995. This agreement is included in total within EIR Appendix 4.16.

construction costs. The State permitted construction costs are believed by the State to be sufficient for the construction of necessary school facilities. Should such State and local funds be available to augment the mitigation fee set forth in the Valley-Wide Joint Fee Resolution and should the Castaic Union (assuming no District reorganization) and William S. Hart Union High School Districts enact measures currently available to them to increase capacity and thereby qualify for priority State matching funds pursuant to the information presented on **Table 4.16-1, Priority of State School Construction Financing,** above, new elementary, junior high/middle and high school facility construction costs made necessary by development of the Specific Plan would be provided for, and Specific Plan impacts on schools would not be considered adverse or significant, and additional mitigation measures would not be required.

The Specific Plan requires a legislative approval. Without District reorganization, development south of the River would pay 55 percent of the $2.72 per square foot fee to the William S. Hart Union High School District as set forth in the Valley-Wide Joint Fee Resolution, as well as the statutory school fees for commercial and industrial development established under Government Code Sections 65995 and 65996.

The following mitigation measures are intended to be at a Specific Plan (more general) level of detail. As future subdivision maps allowing construction are processed, more precise mitigation measures will be imposed by the County of Los Angeles if the subdivision maps are approved.

a. Mitigation Measures Already Incorporated into the Specific Plan

4.16-1. The Specific Plan developer shall reserve five elementary schools sites, one junior high school site and one high school site, of 7 to 10, 20 to 25, and 40 to 45 acres in size, respectively, depending upon adjacency to local public parks and joint use agreements.

b. Mitigation Measures Recommended by the EIR

4.16-2. The developer of future subdivisions which allow construction will comply with the terms and conditions of the School Facilities Funding Agreement between The Newhall Land and Farming Company and the Newhall School District.

4.16-3. The developer of future subdivisions which allow construction will comply with the terms and conditions of the School Facilities Funding Agreement between The Newhall Land and Farming Company and the William S. Hart Union High School District. ~~The builder of future residential dwelling units for which building permits are issued ("the Project") is required to~~

~~mitigate the impacts to the William S. Hart Union High School District ("Hart") through the payment of fees for the Project's pro rata share of all grades 7-12 school facility construction required by the Project. Such mitigation fee shall be provided consistent with, and only to the extent of, the laws, rules, and regulations for eligibility for State school facility construction funds, classroom loading standards, "Priority one" funding eligibility standards, construction cost guidelines and allowances and overall accounting principles approved by the State Allocation Board for funding school facility construction pursuant to the Leroy F. Green State School Building Lease Purchase Law of 1976, (Education Code §17700 *et seq.*).~~

~~Prior to receiving individual building permits for one or more units in the Project, the builder shall pay to Hart 50 percent of the pro rata share of costs of grades 7-12 school facility construction attributable to those units, except those units within the overlapping Castaic Union School District in which case it shall be for costs of grades 9-12 school facilities. For these purposes, the Project's pro rata share of school facility construction costs shall be determined by dividing the number of Project students estimated to attend the facility in the mitigation fee calculation by the total student capacity of the facility. The builder shall, at the same time, make a deposit into an escrow, or provide a bond or such other form of guarantee of payment agreed to by the builder, in an amount equal to 50 percent of the mitigation fee for such school facility construction costs attributable to the Project. The escrow or form of guarantee shall provide as follows:~~

~~1. Hart shall apply for and comply with State rules, laws, regulations and procedures necessary to qualify as "Priority one" eligibility for state 50 percent matching funds for such school facility construction projects;~~

~~2. If, prior to construction of any school facility for which the fees are being collected, Hart qualifies for and receives State matching funds sufficient to pay 50 percent of such school facility construction costs, the escrow shall be canceled or the guarantee shall be released as to such construction, the funds returned to the builder, and the builder shall have no obligation to pay any additional amounts to Hart toward such school facility construction. If Hart receives State matching funds but in some lesser amount, the amount of the escrow deposit or guarantee shall be reduced by the amount of the Project's pro rata share of matching funds which are received by Hart from the State;~~

~~3. If Hart applies for and complies with State rules, regulations, and procedures necessary to qualify as "Priority one" for state 50 percent matching funds for such school facility construction projects, but does not receive the full 50 percent matching funds prior to construction, the escrow or guarantee amount, or such portion of it equal to the amount of the Project's pro rata share of costs not covered by state matching funds or previous payments by the builder, shall be~~

transferred to Hart (in some form of transfer agreeable to the builder and Hart) and Hart will provide assurance that such amount will be repaid to the builder, if appropriate. This transfer shall be conditioned on the following: (i) Hart shall apply for "Priority one" eligibility for all future years, if any, in which State matching funds for the specific school facility construction projects for which mitigation fees have been collected may still be obtained; and (ii) Hart shall agree, in a form acceptable to the builder, to pay the builder on the transfer of the Project's pro rata share of such State matching funds if and when such State matching funds are obtained by Hart;

4. If Hart obtains a determination from the State that it may no longer obtain State matching funds for such specific school facility construction projects, then the transfer or such portion of it which remains unpaid after transfer to the builder of any matching funds which were received, shall be released and Hart shall have no further obligation with respect to the repayment of such amounts;

5. If Hart fails to apply for and comply with State rules, laws, regulations, and procedures necessary to qualify as "Priority one" for state 50 percent matching funds for such school facility construction projects, the escrow shall be canceled or the guarantee shall be released. The builder shall have no further obligation with respect to payment of school mitigation fees, and the school fees which are required by the County for the Project shall be limited to the 50 percent of the pro rata share of costs of school facility construction paid initially the builder. In such a case, the County finds that, with respect to the significant impacts of the Project on school facility construction not mitigated by such initial payment, there are changes or alterations within the responsibility and jurisdiction of Hart that can and should be adopted by Hart which would fully mitigate such significant impacts.

6. If the builder and Hart reach an overall agreement concerning school fees before all building permits are issued, the builder shall include the units for which building permits have not been issued as part of that agreement and that agreement shall constitute the full mitigation required for school facilities construction impacts.Prior to recordation of all subdivision maps which allow construction, the developer of future subdivisions which allow construction is to provide to the County of Los Angeles and the William S. Hart Union High School District an executed agreement to provide for payment for junior and senior high school educational facilities, in either the form set forth in the Valley Wide Joint Fee Resolution, Exhibit A, or a separate agreement which achieves the equivalent mitigation.

4.16-4. The developer of future subdivisions which allow construction is to pay to the William S. Hart Union High School District the statutory school fee for commercial/industrial square footage pursuant to Government Code Sections 65995 and 65996, unless a separate agreement to the contrary is reached with the District.

4.16-~~45~~. The developer of future subdivisions which allow construction will comply with the terms and conditions of the School Facilities Funding Agreement between The Newhall Land & Farming Company and the Castaic Union School District. ~~In the event that School District boundaries on the Specific Plan site remain unchanged, prior to recordation of all subdivision maps which allow construction, the developer of future subdivisions which allow construction is to provide to the County of Los Angeles and the Castaic Union School District an executed agreement to provide for payment for elementary and middle school educational facilities, in either the form set forth in the Valley Wide Joint Fee Resolution, Exhibit A, or a separate agreement which achieves the equivalent mitigation.~~

4.16-~~56~~. In the event that School District boundaries on the Specific Plan site remain unchanged, prior to recordation of all subdivision maps which allow construction, the developer of future subdivisions which allow construction is to pay to the Castaic Union School District the statutory school fee for commercial/industrial square footage pursuant to Government Code Sections 65995 and 65996, unless a separate agreement to the contrary is reached with the District.

9. CUMULATIVE IMPACTS

In order to analyze the cumulative impacts of this Specific Plan, in combination with other expected future growth, the amount and location of growth expected to occur, in addition to that of the Specific Plan, were predicted. For this EIR, two separate cumulative development scenarios are compared with existing conditions to meet Los Angeles County and CEQA requirements. Both scenarios are analyzed with and without the proposed School District boundary reorganization.

a. DMS Buildout Scenario

The first scenario (herein referred to as the "DMS Buildout Scenario") entails buildout of the more near term subdivision projects listed in the County's Development Monitoring System (DMS) for the Newhall School District, Castaic Union School District and the William S. Hart Union High School District, plus the Specific Plan. County DMS data used for this analysis include all pending, recorded and approved projects involving land divisions located in these three Districts. Copies of the County DMS Inventory Information reports for the three Districts are found in **Appendix 3.0**.

A summary of this development by School District can be found in **Table 4.16-9, Summary of Cumulative Projects by School District - DMS Buildout Scenario.** As shown, the William S. Hart Junior High Schools have a smaller number of cumulative projects compared to the William S. Hart Senior High Schools. This variation exists because two School Districts in the Valley serve grades 7 and 8 students (the William S. Hart Union High School District and Castaic Union School District), while only one District serves high school students (the William S. Hart Union High School District).

Table 4.16-9
Summary of Cumulative Projects by School District
- DMS Buildout Scenario
(Pending, Approved, and Recorded Projects)

School District	Residential Units		
	Single Family	Multi-Family	Total Units
Newhall			
Cumulative Projects	4,162	2,702	6,864
Newhall Ranch Specific Plan	8,367	12,333	20,700
Total	12,529	15,035	27,564
Castaic Union			
Cumulative Projects	4,191	1,059	5,250
Newhall Ranch Specific Plan	2,658	1,860	4,518
Total	6,849	2,919	9,768
Hart Jr. High			
Cumulative Projects	16,711	15,488	32,199
Newhall Ranch Specific Plan	8,367	12,333	20,700
Total	25,078	27,821	52,899
Hart Sr. High			
Cumulative Projects	20,900	16,466	37,366
Newhall Ranch Specific Plan	11,025	14,193	25,218
Total	31,925	30,659	62,584

Source: Los Angeles County Department of Regional Planning and City of Santa Clarita (June 1996).

(1) Reorganization Scenario

Student generation for the DMS Buildout Scenario with District reorganization was calculated in accordance with the DMS methodology, as shown in **Table 4.16-10, Cumulative Projects Student Generation - DMS Buildout Scenario with Reorganization and without Newhall Ranch.**

The DMS Buildout Scenario with reorganization, without the Newhall Ranch Specific Plan, would generate a total of 8,660 students in the two School Districts (Newhall and William S. Hart Union High School Districts) using the actual student generation rates. These students would require a combined total of 275 elementary, junior and senior high school classrooms. In contrast, using the William S. Hart Union High School District's theoretical student generation rates, this scenario would generate a total of 9,891 students in the two School Districts, and would require a combined total of 313 elementary, junior and senior high school classrooms. Similar to the Specific Plan, cumulative projects within the service areas of these School Districts would be subject to the fees set forth in the Valley-

Table 4.16-10

Cumulative Projects Student Generation
- DMS Buildout Scenario with Reorganization and without Newhall Ranch

School District	Single Family Units	Students Per Unit	Multi-Family Units	Students Per Unit	Mobile Home Units	Students Per Unit	Number of Students	Number of Classrooms[4]
Newhall	4,162	0.348	2,702	0.166[1]	0	0.07	1,897	63
Hart Jr. High	16,711	0.098	15,488	0.0375[2]	0	0.0375[2]	2,218	69
Hart Sr. High	20,900	0.171	16,466	0.059[3]	0	0.059[3]	4,545	142
Totals[4]	--	--	--	--	--	--	8,661	275

[1]Multi-Family student generation rate is the midpoint between a multi-family rate of 0.078 and apartment rate of 0.253 students per unit for the Newhall School District.
[2]Multi-family and mobile home student generation rate is the midpoint between the multi-family rate of 0.038 and apartment rate of 0.037 for Hart Junior High Schools.
[3]Multi-family and mobile home student generation rate is the midpoint between the multi-family rate of 0.064 and the apartment rate of 0.054 for Hart Senior High Schools.
[4] Assumes 30 students per classroom for the Newhall School District and 32 students per classroom for the Wm. S. Hart Union High School District.
[5]Due to overlap of district boundaries, residential unit categories cannot be totaled.

Wide Joint Fee Resolution and/or the statutory commercial/industrial school fee set forth in Government Code Sections 65995 and 65996.

Cumulative impacts to the Newhall and William S. Hart Union High School Districts are described in detail below in **Table 4.16-11, Cumulative Specific Plan School Impact - DMS Buildout Scenario with Reorganization**. The analysis is structured and based upon projected enrollment levels and school district capacity, including planned facility expansions.

Table 4.16-11
Cumulative Specific Plan School Impact
- DMS Buildout Scenario with Reorganization

	School District		
	Newhall	**Hart Junior High**	**Hart Senior High**
Future Students			
Cumulative Projects	1,897	2,218	4,545
Newhall Ranch Specific Plan	5,714	1,610	2,750
Total	7,611	3,828	7,295
Projected Enrollment[1]	5,385	4,280	8,185
Total Future Enrollment[2]	12,996	8,108	15,480
Future Capacity	10,500[3]	4,554	8,564
Future Deficit Space[4]	2,496	3,554	6,916
Additional Classroom Req'd.[5]	83	111	216
Specific Plan % of Cumulative Impact	44.0%	19.9%	17.8%

[1]*Projected enrollment is based on 1997/1998 projections provided by each School District.*
[2]*Future Students plus Projected Enrollment*
[3]*The Newhall School District plans five additional schools (one each in the Gates project, the Porta Bella project, and the Westridge project, and two in the Stevenson Ranch project). Assuming school sizes of 870 students, the five schools would educate 4,350 students. Future capacity is calculated by adding existing capacity of 6,150 students to the future additional capacity of 4,350 students.*
[4] *Total Future Enrollment minus Future Capacity*
[5]*Calculated using 30 students per classroom for the Newhall School District and 32 students per classroom for the William S. Hart Union High School District schools.*

(a) Cumulative Impacts to Newhall School District

Students generated under the DMS Buildout Scenario with reorganization in the Newhall School District would result in a deficit of space for 2,496 elementary students. These students would require an estimated 83 additional classrooms. Of the total increased demand for classrooms generated under this scenario, inclusive of the Newhall Ranch Specific Plan, 44.0 percent of the total impact would be solely attributable to the development of the Newhall Ranch Specific Plan.

(b) Cumulative Impacts to William S. Hart Union High School District

Using the actual student generation rates, future enrollment in the William S. Hart Union High School District under the DMS Buildout Scenario with reorganization would result in a deficit of space for

3,554 junior high students and 6,916 senior high students. These students would require an estimated 111 additional classrooms in the junior high schools and 216 classrooms in the senior high schools. Of the total increased demand for classrooms generated under the DMS Buildout Scenario, approximately 19.9 percent of the total impact upon junior high schools, and 17.8 percent of the total impact upon senior high schools would be solely attributable to the Newhall Ranch Specific Plan.

Using William S. Hart Union High School District's theoretical student generation rates, the DMS Buildout Scenario with reorganization would result in a deficit of space for 3,959 junior high students and 8,577 senior high students. These students would require an estimated 124 additional classrooms in the junior high schools and 268 classrooms in the senior high schools. Of the total increased demand for classrooms generated under the DMS Buildout Scenario, approximately 21 percent of the total impact upon junior high schools, and 20 percent of the total impact upon senior high schools would be attributable to the Newhall Ranch Specific Plan.

(c) Assessment of Cumulative Impacts Using County DMS Methodology

In the absence of mitigation measures, development of the DMS Buildout Scenario with reorganization would result in significantly adverse conditions in the Newhall and William S. Hart Union High School Districts.

(2) Current Organization Scenario

Student generation for the DMS Buildout Scenario without District reorganization was calculated in accordance with the DMS methodology, as shown in **Table 4.16-12, Cumulative Projects Student Generation - DMS Buildout Scenario without Reorganization and without Newhall Ranch.**

Using the actual student generation rates, the DMS Buildout Scenario without reorganization, without the Newhall Ranch Specific Plan, would generate a total of 10,762 students in the three School Districts. These students would require a combined total of 345 elementary, junior high/middle and senior high school classrooms. In contrast, using the School Districts' theoretical student generation rates (as discussed previously), this scenario would generate a total of 11,992 students in the three School Districts (Newhall, Castaic Union, and the William S. Hart Union High School Districts), and would require a combined total of 383 elementary, junior high/middle and senior high school classrooms. Similar to the Specific Plan, cumulative projects within the service areas of these School Districts would be subject to the fees set forth in the Valley-Wide Joint Fee Resolution and/or the statutory commercial/industrial school fee set forth in Government Code Sections 65995 and 65996.

Table 4.16-12
Cumulative Projects Student Generation
- DMS Buildout Scenario without Reorganization and without Newhall Ranch

School District	Single Family Units	Students Per Unit	Multi-Family Units	Students Per Unit	Mobile Home Units	Students Per Unit	Number of Students	Number of Classrooms[6]
Newhall (K-6)	4,162	0.348	2,702	0.166[1]	0	0.07	1,897	63
Castaic (K-5)	4,191	0.3021	1,059	0.104[2]	0	0.104[2]	1,376	46
Castaic (6-8)	4,191	0.1578	1,059	0.06[3]	0	0.06[3]	725	24
Hart Jr. High	16,711	0.098	15,488	0.0375[4]	0	0.0375[4]	2,218	69
Hart Sr. High	20,900	0.171	16,466	0.059[5]	0	0.059[5]	4,545	142
Totals[7]	--	--	--	--	--	--	10,762	345

[1]*Multi-Family student generation rate is the midpoint between a multi-family rate of 0.078 and apartment rate of 0.253 students per unit for the Newhall School District.*
[2]*Multi-family and mobile home student generation rate is the midpoint between the multi-family of 0.1079 and apartment rate of 0.0998 for Castaic Union Elementary Schools.*
[3]*Multi-family and mobile home student generation rate is the midpoint between the multi-family of 0.0618 and apartment rate of 0.0585 for Castaic Union Middle Schools.*
[4]*Multi-family and mobile home student generation rate is the midpoint between the multi-family rate of 0.038 and apartment rate of 0.037 for Hart Junior High Schools.*
[5]*Multi-family and mobile home student generation rate is the midpoint between the multi-family rate of 0.064 and the apartment rate of 0.054 for Hart Senior High Schools.*
[6]*Assumes 30 students per classroom for the Newhall and Castaic Union School Districts and 32 students per classroom for the Wm. S. Hart Union High School District.*
[7]*Due to overlap of district boundaries, residential unit categories cannot be totaled.*

Cumulative impacts to each of the Newhall, Castaic Union and William S. Hart Union High School Districts are described in detail below in **Table 4.16-13, Cumulative Specific Plan School Impact - DMS Buildout Scenario without Reorganization.** The analysis is structured and based upon projected enrollment levels and school district capacity, including planned facility expansions.

(a) Cumulative Impacts to Newhall School District

Students generated under the DMS Buildout Scenario with reorganization in the Newhall School District would result in a deficit of space for 1,254 elementary students. These students would require an estimated 42 additional classrooms. Of the total increased demand for classrooms generated under this scenario, inclusive of the Newhall Ranch Specific Plan, 38.0 percent of the total impact would be solely attributable to the development of the Newhall Ranch Specific Plan.

Table 4.16-13
Cumulative Specific Plan School Impact
- DMS Buildout Scenario without Reorganization

	School District			
	Newhall	Castaic	Hart Junior High	Hart Senior High
Future Students				
Cumulative Projects	1,897	2,101	2,218	4,545
Newhall Ranch Specific Plan	4,472	1,527	1,280	2,750
Total	6,369	3,628	3,498	7,295
Projected Enrollment[1]	5,385	2,025	4,280	8,185
Total Future Enrollment[2]	11,754	5,653	7,778	15,480
Future Capacity	10,500[3]	2,480	4,554	8,564
Future Deficit Space[4]	1,254	3,173	3,224	6,916
Additional Classroom Req'd.[5]	42	106	101	216
Specific Plan % of Cumulative Impact	38.0%	27.0%	16.5%	17.8%

[1]*Projected enrollment is based on 1997/1998 projections provided by each School District.*
[2]*Future Students plus Projected Enrollment*
[3]*The Newhall School District plans five additional schools (one each in the Gates project, the Porta Bella project, and the Westridge project, and two in the Stevenson Ranch project). Assuming school sizes of 870 students, the five schools would educate 4,350 students. Future capacity is calculated by adding existing capacity of 6,150 students to the future additional capacity of 4,350 students.*
[4] *Total Future Enrollment minus Future Capacity*
[5]*Calculated using 30 students per classroom for the Newhall School District and 32 students per classroom for the William S. Hart Union High School District schools.*

(b) Cumulative Impacts to Castaic Union School District

Using the actual student generation rates, future enrollment in the Castaic Union School District under the DMS Buildout Scenario without reorganization would result in a deficit of space for 3,173 elementary and middle school students. These students would require an estimated 106 additional classrooms. Of the total increased demand for classrooms generated under the DMS Buildout Scenario,

approximately 27.0 percent of the total impact upon Castaic Union schools would be attributable to the Newhall Ranch Specific Plan.

(c) Cumulative Impacts to William S. Hart Union High School District

Based on the actual student generation rates, future enrollment in the William S. Hart Union High School District under the DMS Buildout Scenario without reorganization would result in a deficit of space for 3,224 junior high students and 6,916 senior high students. These students would require an estimated 101 additional classrooms in the junior high schools and 216 classrooms in the senior high schools. Of the total increased demand for classrooms generated under the DMS Buildout Scenario, approximately 16.5 percent of the total impact upon junior high schools, and 17.8 percent of the total impact upon senior high schools would be solely attributable to the Newhall Ranch Specific Plan.

Using William S. Hart Union High School District's theoretical student generation rates, the DMS Buildout Scenario without reorganization would result in a deficit of space for 3,596 junior high students and 8,577 senior high students. These students would require an estimated 112 additional classrooms in the junior high schools and 268 classrooms in the senior high schools. Of the total increased demand for classrooms generated under the DMS Buildout Scenario, approximately 17 percent of the total impact upon junior high schools, and 20 percent of the total impact upon senior high schools would be attributable to the Newhall Ranch Specific Plan.

(d) Assessment of Cumulative Impacts Using County DMS Methodology

In the absence of mitigation measures, development of the DMS Buildout Scenario without reorganization would result in significantly adverse conditions in the Newhall, Castaic Union and William S. Hart Union High School Districts.

b. Santa Clarita Valley Cumulative Buildout Scenario

The second scenario [herein referred to as the "Santa Clarita Valley (SCV) Cumulative Buildout Scenario"] entails buildout of all lands under the current land use designations indicated in the Los Angeles County Santa Clarita Valley Area Plan and the City of Santa Clarita General Plan, plus the Specific Plan, plus all known active pending General Plan Amendment requests for additional urban development in the unincorporated area of Santa Clarita Valley and the City of Santa Clarita (which, together, make up the Santa Clarita Valley Planning Area). In this EIR section, the Santa Clarita Valley Planning Area is often referred to as the "Valley." A list of the future development activity (with and without the Newhall Ranch Specific Plan) expected in the Valley under the Santa

Clarita Valley Cumulative Buildout Scenario is presented below in **Table 4.16-14, Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario.**

The focus of the SCV Cumulative Buildout Scenario impact analysis is to determine whether the cumulative increase in the residential population from Valley buildout, in combination with the Specific Plan, would adversely impact each of the School Districts located in the Valley, namely, the Newhall, William S. Hart Union High, Castaic Union, Saugus Union, and Sulphur Springs Union School Districts. A listing of the amount of development which could occur under the SCV Cumulative Buildout Scenario is found in **Appendix 3.0.**

A summary of the amount of development projected by School District can be found in **Table 4.16-15, Summary of Cumulative Development by School District - SCV Cumulative Buildout Scenario.** As shown, the William S. Hart Junior High Schools have a smaller number of cumulative projects compared to the William S. Hart Senior High Schools. This variation exists because two School Districts in the Valley serve junior high school students (the William S. Hart Union High School District and Castaic Union School District), while only one District serves high school students (the William S. Hart Union High School District)

Table 4.16-14
Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario

Land Use Types	Cumulative Buildout w/o Specific Plan[1]	Newhall Ranch Specific Plan [2]	Cumulative Buildout w/ Specific Plan
Single Family	89,015 du[3]	11,025 du	100,040 du
Multi-Family	38,729 du	14,193 du[4]	52,922 du
Mobile Home	3,177 du		3,177 du
Commercial Retail	20,107,660 sf[3]	1,718,000 sf	21,825,660 sf
Hotel	336,420 sf		336,420 sf
School	3,049 sta[3]	400 sta	3,449 sta
College	1,152 sta		1,152 sta
Hospital	285,470 sf		285,470 sf
Library	226,000 sf	25,000 sf	251,000 sf
Church	399,170 sf		399,170 sf
Business Park	7,773,730 sf	1,513,000 sf	9,286,730 sf
Industrial/Manufact.	33,480,250 sf		33,480,250 sf
Utilities	1,421,160 sf	35,000 sf	1,456,160 sf
Commercial/Med. Office	8,653,790 sf	2,489,000 sf	11,142,790 sf
Golf Course/Park	1,314 ac[3]	313 ac	1,627 ac
Special Generator	53,600 sf	24,000 sf	77,600 sf

[1] *Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (June 1995). Includes existing development and active pending general plan amendment requests.*
[2] *Draft Newhall Ranch Specific Plan, July 1996.*
[3] *du = dwelling unit; sf = square feet; sta = staff; ac = acres*
[4] *Includes 538 Second Units.*

Table 4.16-15
Summary of Cumulative Development by School District
- SCV Cumulative Buildout Scenario

School District	Residential Units			
	Single Family	Multi-Family	Mobile Home	Total Units
Newhall				
Cumulative Projects	12,451	4,410	0	16,861
Newhall Ranch Specific Plan	11,025	14,193	0	25,218
Total	23,476	18,603	0	42,079
Hart Jr. High				
Cumulative Projects	49,173	19,727	578	69,478
Newhall Ranch Specific Plan	11,025	14,193	0	25,218
Total	60,198	33,920	578	94,696
Hart Sr. High				
Cumulative Projects	58,673	22,800	578	82,051
Newhall Ranch Specific Plan	11,025	14,193	0	25,218
Total	69,698	36,993	578	107,269
Saugus	23,779	13,369	165	37,313
Castaic	11,137	3,073	0	14,210
Sulphur Springs	12,253	1,903	101	14,257

Source: Data compiled by Impact Sciences, Inc., January 1996.

(1) Reorganization Scenario

Student generation for the Santa Clarita Valley Cumulative Buildout Scenario was calculated as shown in **Table 4.16-16, Cumulative Development Student Generation - SCV Cumulative Buildout Scenario with Reorganization.**

Using the actual student generation rates, cumulative development under the SCV Cumulative Buildout Scenario with reorganization would generate a total of 44,377 students throughout all School Districts. These students would require a combined total of 1,444 elementary, junior/middle and senior high school classrooms, thereby approximately doubling the number that currently exists within these Districts. In contrast, using the School District's student generation rates, this scenario would generate a total of 47,194 students in the two School Districts (Newhall and William S. Hart Union High School Districts), and would require a combined total of 1,532 elementary, junior and senior high school classrooms. Similar to the Specific Plan, cumulative projects within the service areas of all School Districts, except the Newhall School District, would be subject to the fees set forth in the Valley-Wide Joint Fee Resolution and/or the statutory commercial/industrial school fee set forth in Government Code Sections 65995 and 65996. Elementary school fees required of the Specific Plan are based on the provisions of the Newhall School Facilities Funding Agreement.

Table 4.16-16
Cumulative Development Student Generation
-SCV Cumulative Buildout Scenario with Reorganization and without Newhall Ranch

School District	Single Family Units	Students Per Unit	Multi-Family Units	Students Per Unit	Mobile Home Units	Students Per Unit	Number of Students	Number of Classrooms[6]
Newhall (K-6)	12,451	0.348	4,410	0.166[1]	0	0.07	5,065	169
Hart Jr. (7-8)	49,173	0.098	19,727	0.0375[2]	578	0.0375[2]	5,580	174
Hart Sr. (9-12)	58,673	0.171	22,800	0.059[3]	578	0.059[3]	11,412	357
Saugus (K-6)	23,779	0.415	13,369	0.145	165	0.145	11,831	394
Castaic (K-5)	11,137	0.3021	3,073	0.104[4]	0	0.104[4]	3,684	123
Castaic (6-8)	11,137	0.1578	3,073	0.06[5]	0	0.06[5]	1,942	65
Sulphur Spgs (K-6)	12,253	0.38	1,903	0.10	101	0.17	4,863	162
Totals[7]		--		--		--	44,377	1,444

[1]*Multi-Family student generation rate is the midpoint between a multi-family rate of 0.078 and apartment rate of 0.253 students per unit for the Newhall School District.*
[2]*Multi-family and mobile home student generation rate is the midpoint between the multi-family rate of 0.038 and apartment rate of 0.037 for Hart Junior High Schools.*
[3]*Multi-family and mobile home student generation rate is the midpoint between the multi-family rate of 0.064 and the apartment rate of 0.054 for Hart Senior High Schools.*
[4]*Multi-family and mobile home student generation rate is the midpoint between the multi-family of 0.1079 and apartment rate of 0.0998 for Castaic Union Elementary Schools.*
[5]*Multi-family and mobile home student generation rate is the midpoint between the multi-family of 0.0618 and apartment rate of 0.0585 for Castaic Union Middle Schools*
[6] *Assumes 30 students per classroom for the Newhall, Saugus Union, Castaic Union and Sulphur Springs Union School Districts and 32 students per classroom for the Wm. S. Hart Union High School District.*
[7]*Due to overlap of district boundaries, residential unit categories cannot be totaled.*

Cumulative impacts to each of these Districts are described in detail below. The analysis is structured and based upon projected enrollment levels and school district capacities, including planned facility expansions.

(a) Cumulative Impacts to Newhall School District

As shown in **Table 4.16-17, Cumulative Specific Plan Impact - SCV Cumulative Buildout Scenario with Reorganization**, the 10,779 students generated by the Specific Plan and cumulative development in the Newhall School District would result in a deficit of space for 5,664 students when using the actual student generation rates. These students would require an estimated 189 additional classrooms.

(b) Cumulative Impacts to William S. Hart Union High School District

Based on the actual student generation rates, the 7,190 students generated by the Specific Plan and cumulative development in the junior high schools in the Hart District would result in a deficit of space for 6,916 students (See **Table 4.16-17, Cumulative Specific Plan Impact - SCV Cumulative Buildout Scenario with Reorganization)**. In addition, 14,162 students generated by the Specific Plan and cumulative development in the senior high schools in the Hart District would result in a deficit of space for 13,783 students. These students would require an estimated 216 additional classrooms in the junior high schools and 431 classrooms in the senior high schools.

Using William S. Hart Union High School District's theoretical student generation rates, the SCV Cumulative Buildout Scenario with reorganization would result in a deficit of space for 7,626 junior high students and 16,727 senior high students. These students would require an estimated 238 additional classrooms in the junior high schools and 523 classrooms in the senior high schools. Of the total increased demand for classrooms generated under the SCV Cumulative Buildout Scenario, approximately 15 percent of the total impact upon junior high schools, and 13 percent of the total impact upon senior high schools would be attributable to the Newhall Ranch Specific Plan.

(c) Cumulative Impacts to the Saugus Union, Castaic Union, and Sulphur Springs Union School Districts

With reorganization, the Newhall Ranch Specific Plan would not be located in the Saugus Union, Castaic Union or Sulphur Springs Union School Districts. Therefore, the Specific Plan would not impact these School Districts. The 11,831, 5,626, and 4,863 students generated by cumulative development in the Saugus Union, Castaic Union and Sulphur Springs Union School Districts, respectively, would result in a deficit of space for 11,488, 5,171, and 5,721 students, respectively (See

Table 4.16-17
Cumulative Specific Plan Impact
-SCV Cumulative Buildout Scenario with Reorganization

	School District					
	Newhall	**Hart Junior High**	**Hart Senior High**	**Saugus Union**	**Castaic Union**	**Sulphur Springs**
Future Students						
Future Projects	5,065	5,580	11,412	11,831	5,626	4,863
Newhall Ranch Specific Plan	5,714	1,610	2,750	0	0	0
Total	10,779	7,190	14,162	11,831	5,626	4,863
Projected Enrollment[1]	5,385[2]	4,280	8,185	6,857	2,025	5,448
Total Future Enrollment[3]	16,164	11,470	22,347	18,688	7,651	10,311
Future Capacity	10,500	4,554	8,564	7,200	2,480	4,590
Future Deficit Space (students) [4]	5,664	6,916	13,783	11,488	5,171	5,721
Additional Classrooms Req'd[5]	189	216	431	383	172	191
Specific Plan Percent of Cumulative Impact[6]	35%	14%	12%	0%	0%	0%

[1] *Projected enrollment is based on 1997/1998 projections supplied by each school district.*
[2] *The District plans five additional schools (one each in the Gates project, the Porta Bella project, and the Westridge project, and two in the Stevenson Ranch project). Assuming school sizes of 870 students, the five schools would educate 4,350 students. Future capacity is calculated by adding existing capacity of 6,150 students to the future additional capacity of 4,350 students.*
[3] *FutureStudents plus Projected Enrollment*
[4] *Total Future Enrollment minus Future Capacity*
[5] *Future Deficit Space divided by classroom size; calculated using 30 students per classroom for the Newhall, Saugus Union, Castaic Union and Sulphur Springs Union School Districts and 32 students per classroom for the Wm. S. Hart Union High School District.*
[6] *Specific Plan students divided by Total Future Enrollment*

Table 4.16-17, Cumulative Specific Plan Impact - SCV Cumulative Buildout Scenario). These students would require an estimated 383, 172 and 191 additional classrooms in these School Districts, respectively.

(d) Assessment of Cumulative Impacts Using County DMS Methodology

In the absence of mitigation measures, development of the SCV Cumulative Buildout Scenario with reorganization would result in significantly adverse conditions in all the Valley School Districts; however, the Newhall Ranch Specific Plan would only contribute to impacts in the Newhall School District and William S. Hart Union High School District.

(e) Assessment of Cumulative Impacts Using School District Methodology

Similar to the Specific Plan, development of the SCV Cumulative Buildout Scenario with reorganization within the service areas of all the Valley School Districts would be subject to the fees set forth in the Valley-Wide Joint Fee Resolution or the statutory fee set forth in Government Code Sections 65995 and 65996. Under the State funding program, the State will provide matching funds in an amount up to 50 percent of the total funds needed to acquire land and construct a school. Funding by the State, developer fees, and other local sources have, in the past, provided complete funding for new school construction costs. Should such State and/or local funding, which has been historically available, remain available, Specific Plan impacts would be considered less than significant.

(2) Current Organization Scenario

Student generation for the Santa Clarita Valley Cumulative Buildout Scenario was calculated as shown in **Table 4.16-18, Cumulative Development Student Generation - SCV Cumulative Buildout Scenario without Reorganization and without Newhall Ranch.**

Using the actual student generation rates, cumulative development under the SCV Cumulative Buildout Scenario without reorganization would generate a total of 44,377 students throughout all School Districts. These students would require a combined total of 1,444 elementary, junior and senior high school classrooms, thereby nearly doubling the number that currently exists within these Districts. In contrast, using the School Districts' theoretical student generation factors, this scenario would generate a total of 47,194 students in the three School Districts (Newhall, Castaic Union, and William S. Hart Union High School Districts), and would require a combined total of 1,532 elementary, junior and senior high school classrooms. Similar to the Specific Plan, cumulative projects within the service areas of all School Districts would be subject to the fees set forth in the Valley-Wide Joint Fee Resolution

Table 4.16-18
Cumulative Development Student Generation
-SCV Cumulative Buildout Scenario without Reorganization and without Newhall Ranch

School District	Single Family Units	Students Per Unit	Multi-Family Units	Students Per Unit	Mobile Home Units	Students Per Unit	Number of Students	Number of Classrooms[6]
Newhall (K-6)	12,451	0.348	4,410	0.166[1]	0	0.07	5,065	169
Hart Jr. (7-8)	49,173	0.098	19,727	0.0375[2]	578	0.0375[2]	5,580	174
Hart Sr. (9-12)	58,673	0.171	22,800	0.059[3]	578	0.059[3]	11,412	357
Saugus (K-6)	23,779	0.415	13,369	0.145	165	0.145	11,831	394
Castaic (K-5)	11,137	0.3021	3,073	0.104[4]	0	0.104[4]	3,684	123
Castaic (6-8)	11,137	0.1578	3,073	0.06[5]	0	0.06[5]	1,942	65
Sulphur Spgs (K-6)	12,253	0.38	1,903	0.10	101	0.17	4,863	162
Totals[7]		--		--		--	44,377	1,444

[1]*Multi-Family student generation rate is the midpoint between a multi-family rate of 0.078 and apartment rate of 0.253 students per unit for the Newhall School District.*
[2]*Multi-family and mobile home student generation rate is the midpoint between the multi-family rate of 0.038 and apartment rate of 0.037 for Hart Junior High Schools.*
[3]*Multi-family and mobile home student generation rate is the midpoint between the multi-family rate of 0.064 and the apartment rate of 0.054 for Hart Senior High Schools.*
[4]*Multi-family and mobile home student generation rate is the midpoint between the multi-family of 0.1079 and apartment rate of 0.0998 for Castaic Union Elementary Schools.*
[5]*Multi-family and mobile home student generation rate is the midpoint between the multi-family of 0.0618 and apartment rate of 0.0585 for Castaic Union Middle Schools.*
[6]*Assumes 30 students per classroom for the Newhall, Saugus Union, Castaic Union and Sulphur Springs Union School Districts and 32 students per classroom for the Wm. S. Hart Union High School District.*
[7]*Due to overlap of district boundaries, residential unit categories cannot be totaled.*

and/or the statutory commercial/industrial school fees set forth in Government Code Sections 65995 and 65996. Elementary school fees required of the Specific Plan area within the Newhall School District are based on the provisions of the School Facilities Funding Agreement.

Cumulative impacts to each of these Districts are described in detail below. The analysis is structured and based upon projected enrollment levels and school district capacities, including planned facility expansions.

(a) Cumulative Impacts to Newhall School District

As shown in **Table 4.16-19, Cumulative Specific Plan Impact - SCV Cumulative Buildout Scenario without Reorganization**, the 9,537 students generated by the Specific Plan and cumulative development in the Newhall School District would result in a deficit of space for 4,442 students. These students would require an estimated 147 additional classrooms.

(b) Cumulative Impacts to William S. Hart Union High School District

Using actual student generation rates, the 6,860 students generated by the Specific Plan and cumulative development in the junior high schools in the William S. Hart Union High School District would result in a deficit of space for 6,586 students (See **Table 4.16-19, Cumulative Specific Plan Impact - SCV Cumulative Buildout Scenario without Reorganization)**. In addition, 14,162 students generated by the Specific Plan and cumulative development in the senior high schools in the Hart District would result in a deficit of space for 13,783 students. These students would require an estimated 206 additional classrooms in the junior high schools and 430 classrooms in the senior high schools.

Using William S. Hart Union High School District's theoretical student generation rates, the SCV Cumulative Buildout Scenario without reorganization would result in a deficit of space for 7,263 junior high students and 16,727 senior high students. These students would require an estimated 227 additional classrooms in the junior high schools and 523 classrooms in the senior high schools. Of the total increased demand for classrooms generated under the SCV Cumulative Buildout Scenario, approximately 12 percent of the total impact upon junior high schools, and 13 percent of the total impact upon senior high schools would be solely attributable to the Newhall Ranch Specific Plan.

(c) Cumulative Impacts to Castaic Union School District

As shown in **Table 4.16-19, Cumulative Specific Plan Impact - SCV Cumulative Buildout Scenario without Reorganization**, the 7,153 students generated by the Specific Plan and cumulative development

Table 4.16-19
Cumulative Specific Plan Impact
-SCV Cumulative Buildout Scenario without Reorganization

	School District					
	Newhall	**Hart Junior High**	**Hart Senior High**	**Saugus**	**Castaic Union**	**Sulphur Springs**
Future Students						
Future Projects	5,065	5,580	11,412	11,831	5,626	4,863
Newhall Ranch Specific Plan	4,472	1,280	2,750	0	1,527	0
Total	9,537	6,860	14,162	11,831	7,153	4,863
Projected Enrollment[1]	5,385[2]	4,280	8,185	6,857	2,025	5,448
Total Future Enrollment[3]	14,922	11,140	22,347	18,688	9,178	10,311
Future Capacity	10,500	4,554	8,564	7,200	2,480	4,590
Future Deficit Space (students) [4]	4,422	6,586	13,783	11,488	6,698	5,721
Additional Classrooms Req'd.[5]	147	206	430	383	223	191
Specific Plan Percent of Cumulative Impact[6]	30%	11.5%	12.3%	0%	16.6%	0%

[1] *Projected enrollment is based on 1997/1998 projections supplied by each school district.*
[2] *The District plans five additional schools (one each in the Gates project, the Porta Bella project, and the Westridge project, and two in the Stevenson Ranch project). Assuming school sizes of 870 students, the five schools would educate 4,350 students. Future capacity is calculated by adding existing capacity of 6,150 students to the future additional capacity of 4,350 students.*
[3] *FutureStudents plus Projected Enrollment*
[4] *Total Future Enrollment minus Future Capacity*
[5] *Future Deficit Space divided by classroom size; calculated using 30 students per classroom for the Newhall, Saugus Union, Castaic Union and Sulphur Springs Union School Districts and 32 students per classroom for the Wm. S. Hart Union High School District.*
[6] *Specific Plan students divided by Total Future Enrollment*

in the Castaic Union School District would result in a deficit of space for 6,698 students. These students would require an estimated 223 additional classrooms.

(d) Cumulative Impacts to the Saugus Union and Sulphur Springs Union School Districts

Without reorganization, the Newhall Ranch Specific Plan would not be located in the either the Saugus Union or Sulphur Springs Union School Districts. Therefore, the Specific Plan would not impact these School Districts. The 11,831 and 4,863 students generated by cumulative development in the Saugus Union and Sulphur Springs Union School Districts would result in a deficit of space for 11,488 and 5,721 students, respectively (See **Table 4.16-19, Cumulative Specific Plan Impact - SCV Cumulative Buildout Scenario)**. These students would require an estimated 383 and 191 additional classrooms in these School Districts, respectively.

(e) Assessment of Cumulative Impacts Using County DMS Methodology

In the absence of mitigation measures, development of SCV Cumulative Buildout Scenario without reorganization would result in significantly adverse conditions in all the Valley School Districts; however, the Newhall Ranch Specific Plan would only contribute to impacts in the Newhall School District, Castaic Union School District and William S. Hart Union High School District.

(f) Assessment of Cumulative Impacts Using School District Methodology

Similar to the Specific Plan, development of the SCV Cumulative Buildout Scenario without reorganization within the service areas of all the Valley School Districts would be subject to the fees set forth in the Valley-Wide Joint Fee Resolution and the statutory fees set forth in Government Code Sections 65995 and 65996. Under the State funding program, the State will provide matching funds in an amount up to 50 percent of the total funds needed to acquire land and construct a school. Funding by the State, developer fees, and other local sources have, in the past, provided complete funding for new school construction costs. Should such State and/or local funding, which has been historically available, remain available, and the Districts take the necessary actions available to them to qualify for matching funds, Specific Plan impacts would be considered less than significant.

10. CUMULATIVE MITIGATION MEASURES

- All projects within the boundaries of the School Districts located within the Santa Clarita Valley are to pay the School Mitigation Payment pursuant to the Valley-Wide Joint Fee

Resolution Agreement and/or the statutory school fees pursuant to Government Code Sections 65995 and 65996.

As previously described, cumulative impacts are considered significant because sufficient school capacity is not available to accommodate the students generated by the Specific Plan and by cumulative development in the School Districts, and because State and local funding is not available to augment the mitigation fee set forth in the Valley-Wide Joint Fee Resolution to provide the capacity necessary to accommodate all students. Thus, to address cumulative impacts which would occur, on an individual as well as cumulative basis, and in the absence of additional State and local funding, several mitigation measures can be implemented by the School Districts (as was intended by the school fee legislation). Such mitigation measures are as follows: [17]

a. Issuance of Local Bonds

Recently, the construction of new school facilities in the Santa Clarita Valley has been funded with the assistance of local bonds. Under this strategy, local funds would provide the remainder of the funding necessary to construct additional school facilities made necessary by the Specific Plan, as well as cumulative projects. Issuance of local bonds remains a valid and feasible method of collecting necessary school construction funds.

b. Multi-track Year-Round Scheduling

The School Districts could implement a multi-track year-round schooling system where the pupils are divided into three or more groups or tracks, which rotate attendance. Therefore, for a majority of school days during the school year, at least one group or track is not attending school when all other groups or tracks are in attendance. Such a measure could increase school capacity by approximately 20 percent. Not enacting such a measure limits the amount of funding available from the State for school construction, and reduces capacity.

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17 It should be noted that it is the County's opinion that such measures cannot be implemented by the County, but can and should be implemented by the School Districts pursuant to Section 15091 of the State CEQA Guidelines. That section in part says: "(a) No public agency shall approve or carry out a project for which an EIR has been completed which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:. . .(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency."

c. Mello-Roos Facilities District

The School Districts could impose a special tax through implementation of the Mello-Roos Facilities District in order to generate the funding necessary to construct new school facilities. However, it should be noted that such a measure requires the voluntary participation from the land owners within the District. Also, some question exists as to whether or not a fee district can collect more fees per square foot than State law allows under Government Code Sections 65995 and 65996.

11. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Specific Plan Impacts

Based on the information presented above, impacts to schools created by the Specific Plan would be less than significant in the Newhall School District. Specific Plan impacts in the William S. Hart Union High School District (and Castaic Union School District, assuming that no District boundary reorganization occurs) would be significant, but mitigable if, as intended by the State funding structure, the Districts enact measures currently available to them to increase capacity and thereby qualify for State matching funds pursuant to the information presented in **Table 4.16-1, Priority of State School Construction Financing,** above, or if the State and/or other local sources provide funding to augment the fee set forth in the Valley-Wide Joint Fee Resolution. This is based on the fact that (1) the Specific Plan applicant has agreed to voluntarily continue paying the fee allocable to the Castaic Union (assuming no reorganization) and William S. Hart Union High School Districts that is required by the Valley-Wide Joint Fee Resolution; (2) the Specific Plan applicant has agreed to reserve seven school sites within the proposed Newhall Ranch Specific Plan area; and (3) the applicant will pay the State mandated fees for commercial and industrial uses at a rate of $0.30 per square foot of building area. Based on actual student generation rates and State permitted construction costs, adding together each of the above indicates that the Specific Plan applicant is contributing approximately 73.1 percent with District reorganization and 74.3 percent without reorganization of the funds required to provide educational facilities for the students generated by the Specific Plan, which is more than its fair share of funding pursuant to the original intent of the State legislature (see Legislative Bill file of Assemblyman Larry Stirling, author of AB 2926, August 27, 1986). Using local School District theoretical student generation rates and School District construction costs and capacity criteria rather than State construction and capacity criteria, the Specific Plan applicant is contributing approximately 45.7 percent with District reorganization and 47.3 percent without reorganization of the funds required to provide educational facilities for the students generated by the Specific Plan. However, in order to estimate the costs of housing and educating students, the Castaic Union and William S. Hart Union High School Districts use student generation rates and school construction costs that have been questioned by the Specific Plan applicant. Regarding student generation rates, the

School Districts use a theoretical model which adjusts the current rates by a forecasted County-wide future birth rate and a mobility factor which estimates an adjustment to the rate for drop-outs, moves in and out of the District, and impacts of private schools. The model used by the Districts is theoretical, has not been demonstrated to be an accurate reliable forecaster of enrollment, and uses assumptions of birth rates which may be totally inappropriate to the District and the Specific Plan. Using student generation rates calculated by separating the existing number of students by the type of home in which they live (single family, multi-family, and apartment) and dividing the number of students by the total number of homes in the District of each type is a more effective indicator of student generation rates. Regarding school construction costs, the School Districts estimate the cost of new construction by including items that are not listed as being permitted by the State for State matching funds. Examples of such items not listed by the State include sports facilities, central administration buildings, and the interim (temporary) housing and transport of students. School construction is a State responsibility; schools should be constructed to State standards. If a school district wishes to construct facilities that are in excess of State standards, then the school district should fund such facilities out of local sources, not State funds or developer mitigation.

Since the ability to augment the fee set forth in the Valley-Wide Joint Fee Resolution is in the domain of the State and the Castaic Union and William S. Hart Union High School Districts, and not in the domain of Los Angeles County, and given the fact that the Specific Plan would fund well over half of the costs required to provide educational facilities per State criteria (and nearly one half of the costs using local School District criteria) for the students the Specific Plan generates, Specific Plan impacts to the Castaic Union and William S. Hart Union High School Districts are not considered significant. However, the Castaic Union and William S. Hart Union High School Districts believe that State funding is uncertain and, therefore, believe the Specific Plan's impact to the Districts is unavoidably significant.

b. Cumulative Impact

The Specific Plan, in combination with other expected development, would result in a significant cumulative impact upon the Castaic Union (assuming no District reorganization) and William S. Hart Union High School Districts under both the DMS and SCV Cumulative Buildout scenarios. Other cumulative development would significantly impact all the Valley School Districts, under both cumulative development scenarios. However, as development provides its required share of school funding through the payment of State-mandated and Valley-Wide Joint Fee Resolution fees, cumulative impacts would be less than significant. However, the Castaic Union and William S. Hart Union High School Districts believe that State funding is uncertain and, therefore, believe the Specific Plan's cumulative impact to the Districts is unavoidably significant.

4.17 Police Services

4.17 POLICE SERVICES

1. SUMMARY

Primary police protection service for the Specific Plan site and the surrounding Santa Clarita Valley area is provided by the County of Los Angeles Sheriff's Department. Additionally, the Department of California Highway Patrol provides traffic regulation enforcement; emergency incident management; and service and assistance on Interstate (I-)5, State Route (SR-)126, SR-14, and other major roadways in the unincorporated portions of the Santa Clarita Valley area. The level of Sheriff's Department and California Highway Patrol (CHP) protection service for the Specific Plan site and other unincorporated areas within the Santa Clarita Valley at the time of this writing is considered adequate.

Implementation of the proposed Specific Plan would significantly increase the demand for police protection and traffic-related services on the Specific Plan site and the local vicinity in terms of personnel and equipment needed to adequately serve the Newhall Ranch site at buildout. The Specific Plan would require the services of an additional twenty sworn officers. As indicated in the Fiscal Impact Analysis prepared for this Specific Plan (Appendix 6.0), the projected per capita cost to provide Sheriff Department services to the Newhall Ranch Specific Plan is $55.39 per year (1995 dollars). This per capita cost would be covered through the substantial revenue accrued to the County of Los Angeles of $772,697,000 that Newhall Ranch would generate during its twenty-five-year development period through property taxes, sales taxes, users taxes, fees, and assessments. In fact, a major surplus ($20.3 million annually at buildout) for the County is projected after all governmental services are paid for, including Sheriff's services. Although the proposed Specific Plan would increase demands for Sheriff's services, these service demands can be met through the allocation of funding generated by the Specific Plan as it builds out; therefore, no significant impacts to the Sheriff's Department would be created by the Specific Plan.

The proposed Specific Plan would also increase demands for CHP services in the Specific Plan area. Through increased revenues generated by the Specific Plan as it builds out (via motor vehicle registration fees paid by new on-site residents and businesses), funding for additional staffing and equipment would be available to the CHP and could be allocated by the State CHP office to the Santa Clarita Valley station to meet future demands. Therefore, no significant Specific Plan-related impacts on the CHP are anticipated.

Construction of the proposed Newhall Ranch Specific Plan over its twenty-five year buildout would increase construction traffic on SR-126 and may delay emergency vehicles traveling through the area; however, such delays are not expected or would be rare because SR-126 west of the Los Angeles County line is programmed in the State Transportation Improvement Plan (STIP) for widening to four lanes. Furthermore, the Specific Plan anticipates that SR-126 will be upgraded further to eight lanes from I-5 west to Commerce Center Drive, and to six lanes from Commerce Center Drive west to just past San Martinez Grande Road. Considering these improvements, no significant construction-related impacts are expected to occur.

2. INTRODUCTION

The following analysis is based on information provided by the County of Los Angeles Sheriff's Department, the Department of California Highway Patrol (CHP), and the Fiscal Impact Analysis of Newhall Ranch prepared by The Levander Company, Inc. (July 1996). Service letters from the Sheriff's Department and the CHP are provided in **Appendix 4.17** of this EIR and the fiscal impact analysis is provided in **Appendix 6.0**. Specific Plan design and development recommendations from the Sheriff's Department and the CHP on the Newhall Ranch Specific Plan are still general at this programmatic specific plan level. As the site builds out subsequent to approval of the Newhall Ranch Specific Plan and this EIR certification, subdivision maps and site plans would be designed and engineered for Newhall Ranch. At that time, the County of Los Angeles Sheriff's Department (which maintains ultimate review and approval authority over aspects of development projects that relate to Sheriff's Department services) and the CHP may require specific measures for crime prevention purposes and for the security and safety of future residents and employees on the site.

At the time of this writing, the Santa Clarita Valley Sheriff's Station operates at a level of 0.88 officers to every 1,000 persons for the unincorporated portions of its service area and at a level of 0.91 officers to every 1,000 persons for the City of Santa Clarita. Sheriff's Department staff have indicated that an officer-to-population ratio of one officer to every 1,000 persons is a desired level of service for its service area. This ideal standard is typically initially applied in environmental impact reports for proposed development projects that are served by the Los Angeles County Sheriff's Department as a means to develop a rough assessment of the projects' impacts on Sheriff's services. Each development project, however, is different and a general application of this standard to each and every project may not apply in reality. For instance, upon review of the Newhall Ranch Specific Plan, Captain Michael Quinn of the Santa Clarita Station has prepared a detailed assessment of the personnel, equipment, and operational needs and costs of the Specific Plan (these are included in the Fiscal Impact Study provided in **Appendix 6.0**). Because of the self-contained nature of Newhall Ranch (similar to the

community of Valencia) and the lack of need for Sheriff deputies for traffic control for the site, which would be handled by the California Highway Patrol, Sheriff's Department staff have applied a standard to Newhall Ranch that is considerably lower than the standard of one officer for every 1,000 persons. Newhall Ranch is not unique in requiring fewer officers to meet its needs; other similar projects in the Santa Clarita Valley (and elsewhere Countywide) may also require officers at a ratio that is lower than the ideal stated by the Department. These projects will be identified upon their detailed review by the Sheriff's Department at the time of their application.

3. EXISTING CONDITIONS

a. Los Angeles County Sheriff's Department

The Santa Clarita Valley Station of the County of Los Angeles Sheriff's Department is responsible for providing general law enforcement to the Specific Plan area. This station is located near the intersection of Magic Mountain Parkway and Valencia Boulevard, at 23740 Magic Mountain Parkway, Valencia, California. The service area patrolled by this station is approximately 656 square miles in area, and is generally bound on the north by Gorman, on the east by the western edge of the Antelope Valley, on the south by the San Fernando Valley, and on the west by the Ventura County line (the vast majority of this service area is comprised of the largely unpopulated Angeles National Forest, which is patrolled by the U.S. Forest Service[1]). This station maintains a staff of 151 sworn officers, and serves a population of approximately 167,930 persons within its service area. Equipment and services provided to unincorporated Los Angeles County through this station include five regular patrol cars which patrol on a twenty-four hour basis,[2] helicopters, a search and rescue team, a mounted posse, a K-9 team, and emergency services through its emergency operation center. **Table 4.17-1, Santa Clarita Valley Substation 1995 Sworn Personnel** indicates the numbers of sworn personnel employed at the Santa Clarita Valley Sheriff substation broken down by jurisdiction served.

1 Interview with Deputy Gibson, Los Angeles County Sheriff's Department, Santa Clarita Valley Station, 28 November 1995.

2 Interview with Chuck Hart, Services Assistant, Los Angeles County Sheriff's Department, Santa Clarita Valley Station, 30 November 1995.

Table 4.17-1
Los Angeles County Sheriff's Department
Santa Clarita Valley Substation 1995 Sworn Personnel[1]

		Sworn Officers	Population[2]	Sworn Officers/ 1,000 population
Unincorporated County (excluding Angeles National Forest)			40,000	
• Sworn Patrol Officers		30		0.75
• Support Officers		5		0.13
	Subtotal	35		.88
City of Santa Clarita			127,930	
• Sworn Patrol Officers		74		0.58
• Support Officers		42		0.33
	Subtotal	116		.91
	Total	151	167,930	

[1]*Source: Lieutenant Robert Elson, Los Angeles County Sheriff's Department, Santa Clarita Valley Substation, (August 1995).*
[2]*Population figures are from the County Sheriff's Department and may not exactly reflect population figures provided in EIR Section 4.21, Population, Housing and Employment.*

At the time of this writing, the City of Santa Clarita contracts with the Los Angeles County Sheriff's Department to provide law enforcement services within its City limits. Of the existing 151 Sheriff's officers which staff the Santa Clarita Valley substation, seventy-four sworn patrol officers, forty-two support officers, nine traffic enforcement vehicles, and ten regular patrol cars serve the City.[3] The officer-to-population ratio for the City of Santa Clarita, as contracted for by the City for a population of 127,930 is 0.91 officers per 1,000 persons, and is considered adequate.[4]

Sheriff's Department staff have indicated that an officer-to-population ratio of one officer to every 1,000 persons is a desired level of service. At the time of this writing, the Santa Clarita Valley Sheriff's Station operates at a level of 0.88 officers to every 1,000 persons for the unincorporated portions of the service area. Department staff have indicated that, although this ratio is less than the desired level of service, it is functionally adequate to serve the Santa Clarita Valley.[5]

Although Sheriff's service demands for the Santa Clarita Valley area are being adequately met by the Santa Clarita Valley Sheriff's Station at the time of this writing and under present forms of funding, the Sheriff's Department feels its resources are becoming stretched.[6] Funding for the Sheriff's

3 Lieutenant Robert Elson, Los Angeles County Sheriff's Department, personal interview with The Levander Company, 22 September 1995, and interview with Chuck Hart, Services Assistant, Los Angeles County Sheriff's Department, Santa Clarita Valley Station, 30 November 1995.

4 Captain Michael I. Quinn, County of Los Angeles Sheriff's Department, Santa Clarita Valley Station, correspondence to Impact Sciences, Inc., 5 May 1994.

5 Captain Michael I. Quinn, May 5, 1994. According to Bill Miller of the Los Angeles County Regional Planning Department, the Sheriff's Department is not part of the Development Monitoring System (6 July 1995).

6 Lieutenant Robert Elson, Los Angeles County Sheriff's Department, personal interview with The Levander Company, 22 September 1995.

Department in the Santa Clarita Valley area and the rest of Los Angeles County is derived from various types of tax revenue (e.g., property taxes, sales taxes, user taxes, vehicle license fees, deed transfer taxes, etc.), which are deposited in the County's General Fund (see the fiscal impact analysis in **Appendix 6.0** for a more detailed discussion). The County Board of Supervisors then allocates the revenue for various public services that the County provides, including Sheriff's services.

The Sheriff's Department has established an optimal response time for services of ten minutes or less for emergency or immediate response incidents (a crime that is underway and/or an incident which is a life or death situation), and twenty minutes or less for routine responses (a crime that has already occurred and/or an incident which is not a life or death situation). These response times represent the range of time required to handle a service call, which is measured from the time a call is received until the time a patrol car arrives at the incident scene. Response time is variable, particularly because the nearest responding patrol car may be located anywhere within the station's patrol area and may not necessarily respond directly from the station itself. As of November 1994, the Sheriff's Department has a response time to the Specific Plan site for emergency calls of approximately five to fifteen minutes, and non-emergency calls take approximately fifteen to forty minutes.[7] Therefore, emergency and non-emergency response times to the Specific Plan site may exceed the optimal (as defined by the Sheriff's Department) response times of ten and twenty minutes, respectively. Existing land uses on the Specific Plan site primarily involve grazing cattle, limited agricultural uses, and oil and natural gas development. Demands for Sheriff's services related to these uses are rare, and calls typically involve incidents related to trespassing and vandalism.

The Sheriff's Department also conducts Search and Rescue operations through its Santa Clarita Valley station. Search and Rescue operations staff include one full-time deputy, nine reserve deputies, and five civilian volunteers. Their equipment includes two rescue trucks, one van, and one pick-up truck, all of which are fully equipped with medical and other necessary supplies (the Santa Clarita Station Search and Rescue team uses the Station's helicopter and has access to the Antelope Valley Station's helicopter). Mutual aid exists with other Search and Rescue teams located both within and outside of Los Angeles County, and is organized through the State's Office of Emergency Services. Search and Rescue operations are funded through the Reserve Forces Bureau, and funding is typically based upon the number of calls to which each station responds.[8]

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7 Captain Michael I. Quinn, County of Los Angeles Sheriff's Department, Santa Clarita Valley Station, correspondence to Impact Sciences, Inc., 17 November 1994.

8 Interview with Deputy Artie Thompson, Assistant Reserve Coordinator, County of Los Angeles Sheriff's Department, Santa Clarita Valley Station, 26 January 1996.

b. County Emergency Response/Evacuation Plans

Operated through the Sheriff's Department, the County's Emergency Operations Center (EOC) located in downtown Los Angeles, coordinates an emergency organizational network of city EOCs within the County, the County EOC, and the California Office of Emergency Services. The County Multi-Hazard Functional Plan details the coordination of County agencies during and after a catastrophic event and establishes the framework for the mutual aid agreements with the CHP, and Federal, State, and other local governments in the region. The Santa Clarita Valley Sheriff's Station serves as the EOC for the Santa Clarita Valley area and, along with the California Office of Emergency Services, is responsible for coordinating community action in the event of a disaster, such as fire suppression, search and rescue, evacuation, post-disaster safety inspections, and clean-up efforts in its service area. Funding for the Office of Emergency Services is primarily from the State General Fund, while other funding may come from the Federal Government and other sources. A portion of this funding is allocated to EOCs in local jurisdictions.[9]

Los Angeles County is, at the time of this writing, preparing an emergency management plan which will include emergency evacuation plans for the areas of operations of the County's Emergency Operations Centers. After the 1993 Oakland fire, the State of California passed legislation authorizing the State's Office of Emergency Services to prepare a Standard Emergency Management System (SEMS) program which sets forth measures by which a jurisdiction handles emergency disasters. By December 1996, each jurisdiction must show to the Office of Emergency Services that it is in compliance with SEMS through a number of measures, including having an up-to-date emergency management plan (which would include an emergency evacuation plan). Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.[10]

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9 Interview with Jerry Kopp, Senior Emergency Operations Planner, California Office of Emergency Services, 23 February 1996.

10 Interview with Jerry Kopp, Senior Emergency Operations Planner, California Office of Emergency Services, 26 January 1996.

c. California Highway Patrol

The CHP provides traffic regulation enforcement for unincorporated Santa Clarita Valley and surrounding areas from its station located at 28648 The Old Road, near the interchange of I-5 and SR-126. The CHP patrols a service area of approximately 700 square miles, which includes I-5, SR-126, State Route 14 (SR-14), and all unincorporated areas and roadways.[11] This service area, which includes the Specific Plan site, extends westerly to the Ventura County line, east to Agua Dulce, north to SR-138 (and along SR-138 to Avenue 22 East), and south to SR-118.

The primary responsibility of the CHP is to patrol State highways and County roadways in the previously identified service area, enforce traffic regulations, respond to traffic accidents, and to provide service and assistance for disabled vehicles. In the Santa Clarita Valley area, the CHP maintains a Mutual Aid Agreement with the Los Angeles County Sheriff's Department.

The CHP station in Valencia is staffed by forty-eight road patrol officers and five special duty officers. A patrol helicopter from the Burbank CHP facility also serves the Valencia station. In 1994, the CHP responded to approximately 30,000 calls in its service area, including calls for fifty accident investigations along SR-126, between the Ventura County line and I-5, and approximately 600 calls in the vicinity of the SR-126/I-5 interchange, which involved disabled/abandoned vehicles, emergency services, and non-criminal investigations.

The primary funding source for CHP facilities and staffing is State motor vehicle registration fees. The allocation of these fees to each service area is determined by CHP Headquarters in Sacramento, which bases its decision on an area's service needs (e.g., traffic levels, accident statistics, population, etc.), and not necessarily by the revenues that are generated in that area.[12] The CHP has indicated that, under this present form of funding, its facilities and staffing are adequate to meet current demands in this service area.[13]

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11 Sergeant R.J. Del Mese, Department of California Highway Patrol, Santa Clarita Valley Station, correspondence to Impact Sciences, Inc., 15 December 1994.

12 Interview with Steve Kohler, Information Officer, California Highway Patrol (Sacramento), 26 January 1996.

13 Interview with Sergeant Fritz, Department of California Highway Patrol, Santa Clarita Valley Station, 11 April 1995.

No long-range planning document or uniform staffing requirements exist that the CHP uses to project future needs within each service area.[14] Rather, each station determines its own staffing needs based on the service area's unique requirements and budget constraints.[15] Staff at the CHP station in Valencia have estimated that, based on current needs plus projected Department of Finance population increases and related traffic generation (without Newhall Ranch) it will require a proportionate 30 percent increase in personnel (sixteen officers) in the Santa Clarita Valley area within the next ten years[16] in order to maintain current levels of service.

4. SPECIFIC PLAN IMPACTS

a. Significance Threshold Criteria

The CEQA Guidelines do not identify specific criteria for determining a significance threshold for police protection services. However, the County of Los Angeles Environmental Document Reporting and Procedures Guidelines considers a project to have an adverse impact on sheriff's services when the proposed project creates:

- a potential for inadequate staffing of sheriff's substations,
- a substantial decline in response times to handle calls for services, or
- special law enforcement problems in the project or general area that would adversely affect service, including, but not limited to access or terrain.

b. Construction Impacts

Site development and construction would not normally require services from the Sheriff's Department, except in the cases of trespassing, theft, and vandalism. Such activities at a construction site are not unusual, but are only occasional and do not typically place undue demands on police protection services. Construction of the Specific Plan would increase traffic both on and adjacent to the Specific Plan site during working hours because commuting construction workers, trucks, and other large construction vehicles would be added to normal traffic during the entire twenty-five year buildout of the Specific Plan. It is not expected that construction-related traffic on the Specific Plan site would result in

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14 Interview with Pat Ryan, Information Officer, California Highway Patrol, Sacramento, California, 29 November 1995, and with Officer Wendy Moore, California Highway Patrol, Santa Clarita Valley Station, 29 November 1995.

15 Interview with Pat Ryan, Information Officer, California Highway Patrol, Sacramento, California, 29 November 1995.

16 Sergeant R.J. Del Mese, Department of California Highway Patrol, Santa Clarita Valley Station, correspondence to Impact Sciences, Inc., 15 December 1994.

impacts on the CHP (which regulates traffic in unincorporated areas of the Santa Clarita Valley), except in the event of an unforeseeable accident. Slow-moving construction-related traffic on SR-126 and adjacent roadways, however, may reduce optimal traffic flows on these roadways and may delay emergency vehicles traveling through the area; however, they would not cause a significant impact on traffic flows because the construction-related traffic would only occur during short periods of time and because Caltrans has programmed the expansion of SR-126 to four lanes. In addition, the Specific Plan anticipates that SR-126 will be upgraded over its development period to eight lanes from I-5 to Commerce Center Drive and to six lanes from Commerce Center Drive to just west of San Martinez Grande Road. These improvements should adequately accommodate both construction-related vehicles and other vehicles on SR-126, such that no significant impacts would occur.

c. Operational Impacts

Over the twenty-five-year buildout of the proposed Specific Plan, development of the site would involve the construction of 24,680 residences (single and multi-family, plus a maximum of 538 second units in the Estate Residential land use designation); 5,720,000 square feet of non-residential uses, including commercial, retail, office, and business park uses, two fire stations, one library, five elementary schools, one junior high school, and one high school; a water reclamation plant; and related parks and Open Areas. At the time of this writing, the Sheriff's Department serves its 656 square mile service area from its centrally-located headquarters in the City of Santa Clarita. A sheriff's facility is not proposed in the Specific Plan area. If an on-site facility is desirable in the future, the Newhall Ranch Specific Plan document would allow such uses under the Commercial, Business Park, and Mixed Use designations.

The proposed circulation system would provide access throughout those portions of the Specific Plan site proposed for development. Specific Plan roadways would be constructed to County-approved standards or to alternative standards included as part of the proposed Specific Plan which would require approval from the County of Los Angeles Department of Public Works. Access to the Specific Plan site would be accommodated via three major intersections on SR-126 (at Commerce Center Drive, Chiquito Canyon Road, and San Martinez Grande Road), and from the interchanges on I-5 at Magic Mountain Parkway and Valencia Boulevard.

(1) Los Angeles County Sheriff's Department

The County of Los Angeles Sheriff's Department would have the responsibility to provide general law enforcement for the Specific Plan site (the CHP would provide traffic control and enforcement). It is anticipated that demands for Sheriff's services in the Specific Plan area would increase substantially above current levels upon buildout of the proposed Specific Plan. At the time of this writing, the Sheriff's Department is operating in the unincorporated portions of Santa Clarita Valley at an acceptable level of service of 0.88 officers to every 1,000 persons. The proposed Specific Plan, upon buildout, would add 68,524 new residents to the Newhall Ranch site. Without additional Sheriff's Department staffing and facilities, this projected population increase would decrease the existing level of service of the Sheriff's Department and would result in a significant impact to Sheriff services to unincorporated areas of the Santa Clarita Valley.

During a recent preliminary assessment of the draft Newhall Ranch Specific Plan, the Los Angeles County Sheriff's Department staff estimated the Sheriff Department's staffing needs as a result of Specific Plan buildout to be the following:[17]

- 2.5 sergeants;
- eleven patrol deputies;
- one school resource deputy to work with the high school administration and students (non-patrol);
- one community relations deputy (non-patrol);
- one SANE (Substance Abuse Narcotics Education) deputy (non-patrol), the cost of which might be borne by the school district but is assumed to be borne by the County;
- 2.5 detectives;
- one community service officer;
- three station desk operations assistants (SDOA);
- 3.5 secretaries; and
- two telephone operators.

This staffing need, therefore, includes 13.5 sworn patrol deputies, 6.5 sworn non-patrol deputies, and 8.5 civilian support personnel.[18]

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17 Michael I. Quinn, Captain, County of Los Angeles Sheriff's Department, Santa Clarita Station, correspondence to Lee Stark of the Los Angeles County Department of Regional Planning, 3 July 1996.

18 Interview with Lieutenant Tim Peters, County of Los Angeles Sheriff's Department, Santa Clarita Station, 10 July 1996.

The Sheriff Department's equipment needs as a result of Specific Plan buildout include:[19]

- eleven patrol cars;
- twelve handheld radios;
- twelve batteries;
- two chargers;
- six shotguns;
- six beanbag shotguns; and
- one taser.

As summarized in the Fiscal Impact Analysis (EIR **Section 6.0**), the total cost of the Sheriff's Department's service demand created by the Specific Plan at buildout in 1995 dollars for staffing, equipment, and operations is projected to be $3,795,763 annually, which equates to a $55.39 per capita cost. These staffing, equipment, and operational costs are included in the Fiscal Impact Study in **Appendix 6.0**.

The above-estimated annual cost is based on the Sheriff's Department's current charges to contract cities, including the City of Santa Clarita. The cost covers all local and regional activities required to support sworn officers, including:

- both local and regional supervision and management,
- investigation, including internal investigation,
- fleet purchases and maintenance,
- additional equipment and supplies, and
- a 6 percent liability insurance funding.

At buildout, the Newhall Ranch would need twenty sworn patrol and non-patrol officers, which equates to 0.29 officers per 1,000 population for the Specific Plan. Sheriff's Department staff are aware that these projected service requirements are below current averages[20] in the City (0.91 officers/1,000) and unincorporated County (0.88 officers/1,000), and have indicated that the service difference

19 Captain Michael I. Quinn, County of Los Angeles Sheriff's Department, Santa Clarita Station, correspondence to Lee Stark of the Los Angeles County Department of Regional Planning, 3 July 1996.

20 This data was confirmed by the County Sheriff's Department in their letter dated January 29, 1996, from Lieutenant, Robert Elson to The Levander Company, Inc.

between Newhall Ranch and the City of Santa Clarita reflect two major factors: (1) the self-contained nature of Newhall Ranch (similar to the community of Valencia); and (2) the lack of need for Sheriff deputies for traffic control in Newhall Ranch, which would be handled by the California Highway Patrol.[21]

As indicated above, the total projected Sheriff Department cost of the Newhall Ranch Specific Plan is $3,795,763 per year (1995 dollars), assuming that the above-identified personnel and equipment would be needed to serve Newhall Ranch. As indicated in the fiscal impact study completed for the Specific Plan (Appendix 6.0), total revenues generated by the proposed Specific Plan which would be accrued by the County of Los Angeles over the estimated twenty-five-year buildout of the Specific Plan would total approximately $772,697,000. In year twenty-five and annually thereafter, revenues generated by the Specific Plan would total approximately $44,366,000. After fully funding all required governmental services, including Sheriff services, the Specific Plan would generate a surplus of revenue to the County of Los Angeles over the twenty-five year buildout period of $301,449,451. In year twenty-five the Specific Plan would generate a revenue surplus to the County of $17,737,149 million, and a surplus to the County of $20,299,000 annually thereafter. Given that total Specific Plan-generated revenues to the County would exceed total projected County costs for provision of all governmental services, the fiscal impact of the Specific Plan is considered beneficial.

Therefore, revenues generated by Newhall Ranch would more than cover the Sheriff's Department's costs to serve the Specific Plan site at buildout. While the Specific Plan would generate a major surplus for the County, it is the responsibility of the County Board of Supervisors to see that adequate funding is directed to the local Sheriff's Station so that the Santa Clarita Valley station can provide adequate Sheriff services to the Specific Plan site. Although the proposed Specific Plan would increase demands for Sheriff's services, these service demands can be met through the allocation of tax revenues provided by the Specific Plan; therefore, no significant impacts to the Sheriff's Department would be created by the Specific Plan.

Assuming that 13.5 sworn patrol officers would be added to the Sheriff's Department staff as the Specific Plan builds out, response times to the Specific Plan site for emergency and non-emergency calls would improve compared to November 1994 levels because more patrol officers would be patrolling the site and the area. It is expected that the number of Sheriff service calls from and the types of incidents at the Specific Plan site as it builds out would be similar in frequency and character to those experienced throughout the Santa Clarita Valley area.

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21 Captain Michael I. Quinn, County of Los Angeles Sheriff's Department, Santa Clarita Valley Station, correspondence to Impact Sciences, Inc., 18 November 1994.

The Newhall Ranch Specific Plan document does not provide for land uses which would create any new or unique types of law enforcement requirements at the Newhall Ranch site. Therefore, the Specific Plan would not have a significant impact relative to creating special law enforcement problems in the area. It is unknown at this time whether an additional on-site Sheriff's substation would be required to serve Newhall Ranch. In the event that Sheriff's Department staff determine that a substation would be required, land use designations within the Specific Plan can accommodate a substation.

Regarding the potential for Specific Plan-related impacts to the County Sheriff Department's ability to continue adequate police protection services to the City of Santa Clarita, given that the City receives such services under a contract between the City and the County and, given that the level of service provided and the fees for services provided must be mutually agreed upon by both parties, the Newhall Ranch Specific Plan would not have a significant impact on police protection services that are already provided to the City of Santa Clarita.

(2) County Emergency Response/Evacuation Plans

Upon buildout, the resident and daytime populations of Newhall Ranch would significantly increase above current levels. These populations would be subject to potential emergencies (e.g., earthquake, fire, flood, failure of Castaic Dam, etc.). Existing County Emergency Evacuation Plans do not include guidelines for evacuation of the Specific Plan site in the event of a natural disaster because it is largely undeveloped. However, because the County's Emergency Operations Center will be required, by December 1996, to demonstrate compliance with the State's Standard Emergency Management System through a variety of means, including a regular update of the County's Emergency Evacuation Plans, it is reasonable to expect that the Newhall Ranch site will be included in the evacuation plans prior to its development.

The proposed circulation plan for the Specific Plan includes five major access points which would provide alternative evacuation routes for each of the previously-described potential emergencies (earthquake, fire, flood, failure of Castaic Dam, etc.). Given these alternative evacuation routes, it is not anticipated that the design of the proposed Specific Plan would preclude implementation of an evacuation plan which would provide for the safe movement of future residents and employees. Consequently, no significant impacts are expected to occur with regard to emergency evacuation of the site or its surroundings.

Placement of development, such as the proposed Specific Plan development, adjacent to the Special Management Areas would result in increased use of these areas, particularly the High Country Special Management Area. In the event of an emergency, a lost and injured hiker for instance, the Search and Rescue team from the Santa Clarita Valley Station may be asked to assist in locating and retrieving the hiker. The coordinator for the Station's Search and Rescue operations was contacted and asked if placement of a community, such as the one proposed in the Newhall Ranch Specific Plan document, adjacent to the Special Management Areas would be of concern to the Sheriff's Department. According to the coordinator, the Search and Rescue team is adequately staffed and equipped to perform Search and Rescue operations and can, if necessary, obtain assistance from other equipped Search and Rescue teams located both in and outside of Los Angeles County through the Office of Emergency Services.[22] Because the Santa Clarita Valley Station's Search and Rescue team has resources at its disposal, both in terms of personnel and equipment, to carry out its operations, increased encroachment into the Special Management Areas as a result of the Newhall Ranch Specific Plan would not place undue requirements on the Santa Clarita Valley Station's Search and Rescue team in the event of an emergency and no significant impacts in this regard would occur.

(3) California Highway Patrol

Upon buildout, demands for CHP services on the area's highways would increase due to vehicular traffic generated by the proposed Specific Plan. Additionally, it is anticipated that the proposed Specific Plan would require CHP patrols for new roadways within the Specific Plan site. The purpose of these patrols would be to enforce traffic regulations and to respond to traffic accidents and disabled vehicles. Because the CHP station is centrally-located within the station's service area, it is not likely that a new CHP station would be needed as a result of the proposed Specific Plan. If another CHP station is determined to be needed in the future, one could be accommodated on the site within the Mixed-Use, Commercial, and Business Park land use designations. Through increased revenues generated by the proposed Specific Plan (via motor vehicle registration fees paid by new on-site residents and businesses), funding for additional staffing and equipment would be available to the CHP and could be allocated by the State CHP office to the Santa Clarita Valley Station to meet future demands. As the revenue base and method of funding allocation provides for adequate CHP service in the Santa Clarita Valley as of the time of this writing, it is anticipated that this same level of service could be provided for the proposed Specific Plan through these same funding sources and allocation methods. In light of this information, no significant Specific Plan-related impacts on CHP services are anticipated.

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[22] Interview with Deputy Artie Thompson, Assistant Reserve Coordinator, County of Los Angeles Sheriff's Department, Santa Clarita Valley Station, 26 January 1996.

5. SPECIFIC PLAN MITIGATION MEASURES

a. Mitigation Measures Already Incorporated into the Specific Plan

The Newhall Ranch Specific Plan does not contain any specific measures to mitigate impacts on police services.

b. Mitigation Measures Recommended by the EIR

New tax revenues that would be generated by the proposed Specific Plan would be deposited in the County's General Fund and the State Treasury. These funds could be allocated to increase staff and equipment to meet future security and safety demands of the proposed Specific Plan and cumulative development. Therefore, additional mitigation by the proposed Specific Plan to provide additional staff or equipment would not be required.

As the site builds out subsequent to approval of the Newhall Ranch Specific Plan and this EIR certification, subdivision maps and site plans would be designed and engineered for Newhall Ranch. At that time, the County of Los Angeles Sheriff's Department may require specific measures for crime prevention purposes and for the security and safety of future residents and employees on the site.

4.17-1. As subdivision maps are submitted to the County for approval in the future, the applicant shall incorporate County Sheriff's Department design requirements (such as those pertaining to site access, site security lighting, etc.) which will reduce demands for Sheriff's service to the subdivisions and which will help ensure adequate public safety features within the tract designs.

6. CUMULATIVE IMPACTS

a. Los Angeles County Sheriff's Department

The purpose of this subsection is to provide a cumulative impact analysis on Police Services that will meet the environmental review requirements of the General Plan Amendment associated with the approval of the Newhall Ranch Specific Plan.

In order to analyze the cumulative impacts of this Specific Plan in combination with other expected future growth, the amount and location of growth expected to occur in addition to that of the Specific Plan was predicted.

The cumulative development scenario [referred to as the "Santa Clarita Valley (SCV) Cumulative Buildout Scenario"] entails buildout of all lands under the current land use designations indicated in the Los Angeles County Santa Clarita Valley Area Plan and the City of Santa Clarita General Plan, plus the proposed Specific Plan, plus all known active pending General Plan Amendment requests for additional urban development in the unincorporated areas of Santa Clarita Valley and the City of Santa Clarita. In this report, the Planning Area is often referred to as the "Valley." A list of the future development activity (with and without the Newhall Ranch Specific Plan) expected in the Valley under the Santa Clarita Valley Cumulative Buildout Scenario is presented below in **Table 4.17-2, Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario.**

Table 4.17-2
Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario

Land Use Types	Cumulative Buildout w/o Specific Plan[1]	Newhall Ranch Specific Plan [2]	Cumulative Buildout w/ Specific Plan
Single Family	89,015 du[3]	11,025 du	100,040 du
Multi-Family	38,729 du	14,193 du[4]	52,922 du
Mobile Home	3,177 du		3,177 du
Commercial Retail	20,107,660 sf[3]	1,718,000 sf	21,825,660 sf
Hotel	336,420 sf		336,420 sf
School	3,049 sta[3]	400 sta	3,449 sta
College	1,152 sta		1,152 sta
Hospital	285,470 sf		285,470 sf
Library	226,000 sf	25,000 sf	251,000 sf
Church	399,170 sf		399,170 sf
Business Park	7,773,730 sf	1,513,000 sf	9,286,730 sf
Industrial/Manufact.	33,480,250 sf		33,480,250 sf
Utilities	1,421,160 sf	35,000 sf	1,456,160 sf
Commercial/Med. Office	8,653,790 sf	2,489,000 sf	11,142,790 sf
Golf Course/Park	1,314 ac[3]	313 ac	1,627 ac
Special Generator	53,600 sf	24,000 sf	77,600 sf

[1] *Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (June 1995). Includes existing development and active pending general plan amendment requests.*
[2] *Draft Newhall Ranch Specific Plan, July 1996.*
[3] *du = dwelling unit; sf = square feet; sta = staff; ac = acres*
[4] *Includes 538 Second Units.*

Excluding Newhall Ranch Specific Plan, total residential population within the Valley under this buildout scenario would be 381,771 persons. With the Specific Plan, this total resident population would be 450,295 persons.

Using the desired officer-to-population ratio of one officer per 1,000 population, Valley buildout (exclusive of Newhall Ranch Specific Plan) would require a total of 382 sworn officers, or 231 more sworn officers than currently work in the Valley. Newhall Ranch Specific Plan would increase this total by an additional twenty sworn patrol and non-patrol officers according to the Sheriff's Department. Like the Newhall Ranch Specific Plan, individual development projects may not need to meet the desired officer-to-population ratio, depending upon project location, project design, and review by the Office of the Sheriff. Actual level of service need for each development project will be determined by the Sheriff's Department as the Valley builds out. Meanwhile, it is assumed that, under a worst case scenario, the officer-to-population ratio would be at the desired ratio of one officer per 1,000 population, and that each development project would be responsible to ensure that adequate police service is available. Therefore, if no officers are hired to accommodate the needs of the Valley as it builds out, a significant cumulative impact would occur.

All new development projects in the Santa Clarita Valley would be responsible for funding increases in demand for Sheriff services attributable to them through the same funding mechanism as the Newhall Ranch Specific Plan. Therefore, with the continued allocation of General Fund revenues by the Board of Supervisors to maintain existing levels of service to the Santa Clarita Valley, no significant impacts to Sheriff services within the Santa Clarita Valley would occur as it builds out.

New resident and daytime populations in the Valley would be subject to the same potential hazards as existing Valley residents. It is expected that the County's Emergency Evacuation Plans will be amended periodically to provide for the safe evacuation of all Valley residents and employees, and that no significant cumulative impacts would occur relative to emergency evacuation in the event of a natural or man-made disaster.

b. California Highway Patrol

Demands for CHP services on the area's highways and unincorporated Santa Clarita Valley would increase under the Santa Clarita Valley Cumulative Buildout Scenario due to related increases in vehicular traffic generated by such development. It is anticipated that increases in CHP patrol officers would be required in the area to enforce traffic regulations in new developments and to respond to traffic accidents and disabled vehicles. The CHP has not indicated the level of additional staffing that would be required to accommodate cumulative development; however, it is not likely that a new CHP station would be needed because the existing CHP site and facilities in the Santa Clarita Valley contain room for expansion if and when it is determined that such expansion is necessary. Nonetheless, cumulative development would increase traffic on existing roadways, would increase the numbers and

lengths of roadways patrolled by the CHP, and would, therefore, increase demands for CHP services in the area. Through increased revenues generated by cumulative development (via motor vehicle registration fees paid by new residents and businesses), funding for additional staffing and equipment would be allocated by the State CHP office to the Santa Clarita Valley Station to meet future demands. As the revenue base and method of funding allocation that are in place as of this writing provide for adequate CHP service in the area, it is anticipated that the current level of service could be provided in the future through these same funding sources and allocation methods. In light of this information, no significant cumulative impacts on CHP services are anticipated.

7. CUMULATIVE MITIGATION MEASURES

No additional measures are recommended.

8. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Specific Plan Impacts

The Sheriff and CHP stations that serve the Specific Plan area are operating at acceptable levels and increased demand for Sheriff and CHP services by the Specific Plan would be met through increases in law enforcement staffing and equipment, which would be funded by increased taxes and fees paid by Specific Plan development. Therefore, no unavoidable significant impacts related to Sheriff's and CHP services would occur as a result of the Specific Plan.

b. Cumulative Impacts

The Sheriff and CHP stations that serve the Santa Clarita Valley are operating at acceptable levels. Increased cumulative development demands would be met by increases in law enforcement staffing and equipment, which would be funded by increased taxes and fees paid by new development; therefore, no unavoidable significant cumulative impacts related to Sheriff's and CHP services would occur as a result of cumulative development.

4.18 Fire Services and Hazards

4.18 FIRE SERVICES AND HAZARDS

1. SUMMARY

Fire protection and emergency medical response services for the Specific Plan site and the surrounding area are provided by the Los Angeles County Fire Department. At the time of this writing, eight fire stations and three fire camps provide fire protection services for the Santa Clarita Valley area. One additional station (Fire Station 126) is in the design stage of development, and will be located on Citrus Drive near the intersection of Valencia Boulevard~~at the intersection of McBean Boulevard and Magic Mountain Parkway~~. First alarm fire response to the Specific Plan site is provided by Stations 73, 76, 111, 124, and 149.[1] *Paramedic services are provided to the area by the Los Angeles County Fire Department and a private ambulance company. All of the above services are provided at a level that is considered to be adequate as of this writing.*

The majority of the Specific Plan site is located in an area that has been designated as Fire Zone 4 by the County of Los Angeles Fire Department, which denotes the County Forester's highest fire hazard potential. The remainder of the site, situated along the Santa Clara River, is designated as Fire Zone 3, which is considered less of a fire hazard area by the County Forester than Fire Zone 4 due to its relatively flat topography, the presence of the River, and better accessibility.

Two new fire stations will be located within the Specific Plan area, and an additional new fire station would be located at the Del Valle Fire Training Center on Chiquito Canyon Road. The Del Valle Station would serve the Specific Plan as well as surrounding areas. The applicant is required to pay fees for the construction of fire stations and provisions of certain equipment as required under the County Fire Department Developer Fee Program. As an alternative to the payment of fees, the Fire Department and the applicant could agree on a program, pursuant to the proposed Development Agreement, whereby the applicant would construct and equip some or all of the fire stations. The improvements would meet all applicable State and County fire codes and ordinances.

After fully funding all required governmental services, including fire protection services, the Specific Plan would generate a surplus of revenue to the County of Los Angeles over the twenty-five-year buildout period of $301,449,451. In year twenty-five, the Specific Plan would generate a revenue surplus to the County of $17,737,149 million, and a surplus to the County of $20,299,000 annually thereafter.

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1 Chief John Gee, County of Los Angeles Fire Department, Planning Division, correspondence to Impact Sciences, Inc., 19 July 1995.

Specific Plan impacts on fire protection services would be mitigated to below a level of significance and no significant impacts to the County Fire Department would be created by the Specific Plan.

Construction of the proposed Newhall Ranch Specific Plan over its twenty-five year buildout would increase construction traffic on State Route 126 (SR-126) and may delay emergency vehicles traveling through the area; however, such delays are not expected or would be rare.

2. INTRODUCTION

Information for the following analysis was provided through interviews with Fire Chiefs Gary Nelson, John Gee, and Mike Wilkinson, Assistant Fire Chief Herbert Spitzer, Deputy Forester Martin Gubrud, and Inspector Mitch Diehl, and related materials provided by the Los Angeles County Fire Department. The County Forestry Division's response to the Notice of Preparation is provided in **Appendix I(b)**.

3. EXISTING CONDITIONS

a. Fire Protection Services

Fire protection service is provided to the Santa Clarita Valley area by the County of Los Angeles Fire Department. The Fire Department provides services to the Santa Clarita Valley area from eight fire stations and three County fire camps. Fire Stations 73, 76, 111, 124, and 149, located within 5 miles of the Specific Plan boundaries, provide first alarm response to the Specific Plan site. Fire Stations 107 and 123 are available to provide back-up support to these five stations in the event of a major fire emergency situation on and in the vicinity of the Specific Plan site.[2] One additional station (Fire Station 126) is in design stages of development, and will be located on Citrus Drive near the intersection of Valencia Boulevard~~at the intersection of McBean Parkway and Magic Mountain Parkway~~. The location of each of the first alarm and back-up stations is illustrated on **Figure 4.18-1, Existing and Planned Fire Station Locations**. Also shown on **Figure 4.18-1** is the Del Valle Fire Training Center located adjacent to the Specific Plan boundary to the north.

A description of the operational characteristics of each existing facility which would provide first alarm fire protection service to the Specific Plan site is provided below.[3] Distances and response times for Fire Stations 73, 76, 111, 124, and 149 were provided by the County Fire Department, and were

2 Interview with Chief John Gee, County of Los Angeles Fire Department, Planning Division, 19 July 1995.

3 Chief Mike Wilkinson, County of Los Angeles Fire Department, correspondence to Impact Sciences, Inc., 16 December 1994.

NEWHALL RANCH™
Newhall Ranch Company

L E G E N D

73 EXISTING FIRE STATION

FUTURE FIRE STATION SITE

SAN FRANCISQUITO CANYON ROAD

BOUQUET CYN

SAND CANYON RD

SIERRA HWY

DAVENPORT

CANYON

AUGUA

HUGHES ROAD

LAKE 149

HASLEY CYN

SAN MARTINEZ

CHIQUITO CYN

DEL VALLE TRAINING CENTER

SR-126

76

GOLDEN STATE FWY

MAGIC MTN

SECO CYN

111

BOUQUET CYN

107

SOLEDAD CYN

VALENCIA

SAN FERNANDO

City of Santa Clarita

PROJECT SITE

MCBEAN PKWY

124

73

PICO CYN

LYONS

PLACERITA CYN

SIERRA HWY

SR-14

123

Los Angeles County
Ventura County

IMPACT SCIENCES INC

NORTH

English 0 2000' 4000'

Metric 0 225m 450m

660 ACRES 2600 ACRES

SOURCE: L.A. COUNTY FIRE DEPARTMENT

FIGURE 4.18-1

EXISTING AND PLANNED FIRE STATION LOCATIONS

calculated for both the eastern and western edges of the Specific Plan site as traveled along State Route 126 (see Appendix 4.18 for correspondence from the Fire Department relative to these distances and response times).[4] Fire Stations 107 and 123, located in Canyon Country, are located more than 5 miles from the Specific Plan site and would not be first alarm stations for the Specific Plan, although they would provide back-up support to Stations 73, 76, 111, 124, and 149.[5] The Fire Department does not procedurally provide response times for fire stations unless they are first alarm stations.[6]

(1) Los Angeles County Fire Station 76

Los Angeles County Fire Station 76, located at 27223 Henry Mayo Drive, is approximately 0.1 mile from the eastern edge and 5.7 miles from the western edge of the Specific Plan site. The station maintains one fire engine supported by four fire fighters, and a hazardous materials unit. The hazardous materials unit serves the entire Santa Clarita Valley and, at the time of this writing, responds to less than ten incidents per month. The response time to the eastern edge of the Specific Plan site from Station 76 is approximately 0.2 minute and approximately 9.8 minutes to the western edge.

(2) Los Angeles County Fire Station 149

Los Angeles County Fire Station 149 is located at 31770 Ridge Route and is approximately 4.2 miles from the eastern edge of the Specific Plan site and 9.8 miles from the western edge. The station maintains one fire engine, one patrol vehicle, and one water tender, and is supported by three fire fighters. The response time to the eastern edge of the Specific Plan site from this station is 7.2 minutes and to the western edge it is 16.8 minutes.

(3) Los Angeles County Fire Station 73

Los Angeles County Fire Station 73, located at 24875 San Fernando Road, is approximately 5.5 miles from the eastern edge of the Specific Plan site and 11.1 miles from the western edge. The station maintains two fire engines supported by six fire fighters, a four-man truck, a one-man water tender, and a patrol vehicle. As additional equipment, this station maintains a foam unit that is located on the water tender which requires tandem operation with an engine. The response time to the eastern edge of the Specific Plan site from Station 73 is approximately 9.5 minutes and to the western edge it is 19.0 minutes.

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4 Chief John Gee, County of Los Angeles Fire Department, Planning Division, correspondence to Impact Sciences, Inc., 19 July 1995.

5 Interview with Chief John Gee, County of Los Angeles Fire Department, Planning Division, 19 July 1995

6 Interview with Chief John Gee, County of Los Angeles Fire Department, Planning Division, 19 July 1995

(4) Los Angeles County Fire Station 111

Los Angeles County Fire Station 111 is located at 26829 Seco Canyon Road and is approximately 5.5 miles from the eastern edge of the Specific Plan site and 11.1 miles from the western edge. The station maintains one fire engine and one paramedic squad, and is supported by three fire fighters and two paramedics. The response time to the eastern edge of the Specific Plan site from this station is 9.5 minutes and to the western edge it is 19.0 minutes.

(5) Los Angeles County Fire Station 124

Los Angeles County Fire Station 124 is located at 25111 Pico Canyon Road and is approximately 6 miles from the eastern edge of the Specific Plan site and 11.5 miles from the western edge of the site. Access to the Specific Plan site would be via The Old Road to Valencia Boulevard. The station maintains one fire engine and one paramedic squad. These units are supported by four fire fighters and two paramedics. The response time to the eastern edge of the Specific Plan site from Station 124 is approximately 10.3 minutes and to the western edge it is 19.8 minutes.

(6) Los Angeles County Fire Station 107

Los Angeles County Fire Station 107 is located at 18239 West Soledad Canyon Road in Canyon Country and is approximately 7.5 miles from the eastern edge of the Specific Plan site and 13.1 miles from its western edge.[7] The station maintains two fire engines, one paramedic squad and a patrol vehicle, and is supported by seven fire fighters and two paramedics.

(7) Los Angeles County Fire Station 123

Los Angeles County Fire Station 123 is located at 26321 North Sand Canyon Road in Canyon Country and is approximately 11 miles from the eastern edge of the Specific Plan site and 16.6 miles from its western edge.[8] The station maintains one fire engine and one patrol vehicle, and is supported by three fire fighters.

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7 Mileage from the fire station to the Specific Plan site was calculated by Impact Sciences, Inc., July 1995.

8 Mileage from the fire station to the Specific Plan site was calculated by Impact Sciences, Inc., July 1995.

The Los Angeles County Fire Department also maintains three fire camps with three fire crews, which include County jail inmate teams of twelve to fifteen fire laborers. These camps are located in San Francisquito Canyon and Soledad Canyon, and at the Peter Pitchess Honor Rancho. An additional County non-inmate crew of eight to ten members provides wildland fire fighting protection for the Santa Clarita Valley area.

The County of Los Angeles Fire Department field operations are divided into eight field divisions. Each field division comprises two to three battalions. The Santa Clarita Valley area is within Battalion 6, which includes the Specific Plan site and other unincorporated lands, as well as the City of Santa Clarita. Fire services provided to the City of Santa Clarita by the County are implemented under a contract between both parties. The level of service provided for areas within Battalion 6 is determined by the County Fire Department. The County of Los Angeles Fire Department has indicated that fire service in the Santa Clarita Valley area, including the City of Santa Clarita, is considered adequate.[9]

The County of Los Angeles Fire Department annually updates its Five-Year Capital Plan. This plan projects needed facilities for a five-year planning horizon. Facilities identified for the Santa Clarita Valley area include Fire Station 126, which will be located on Citrus Drive near the intersection of Valencia Boulevard~~at the intersection of Magic Mountain Parkway and McBean Parkway~~. Funding used for land acquisitions, facility improvements, and partial funding of new equipment is generated through the Los Angeles County Fire Department's Developer Fee Program, and funding used for increases in staffing is generated from local property taxes. Effective August 1, 1995 through July 31, 1996, the fee collected by the Los Angeles County Fire Department's Developer Fee Program is $0.1820 per square foot of new development (includes all land uses) and is collected at the time building permits are issued.[10]

b. Wildland Fire Hazard Potential

The County of Los Angeles Fire Department has designated lands in the County with regard to their potential for wildland fire hazards. These designations, determined at the discretion of the County Forester, are based on an area's accessibility, amount and type of vegetative cover, water availability, and topography. The only two designations used by the County of Los Angeles Fire Department are Fire Zones 3 and 4. Areas within the County which are not designated as either Fire Zone 3 or 4 are not considered to be subject to wildland fire hazards.[11] As illustrated in **Figure 4.18-2, Fire Hazard Areas**, the Specific Plan site is within both Fire Zones 3 and 4. The differences between the Fire Hazard Zone

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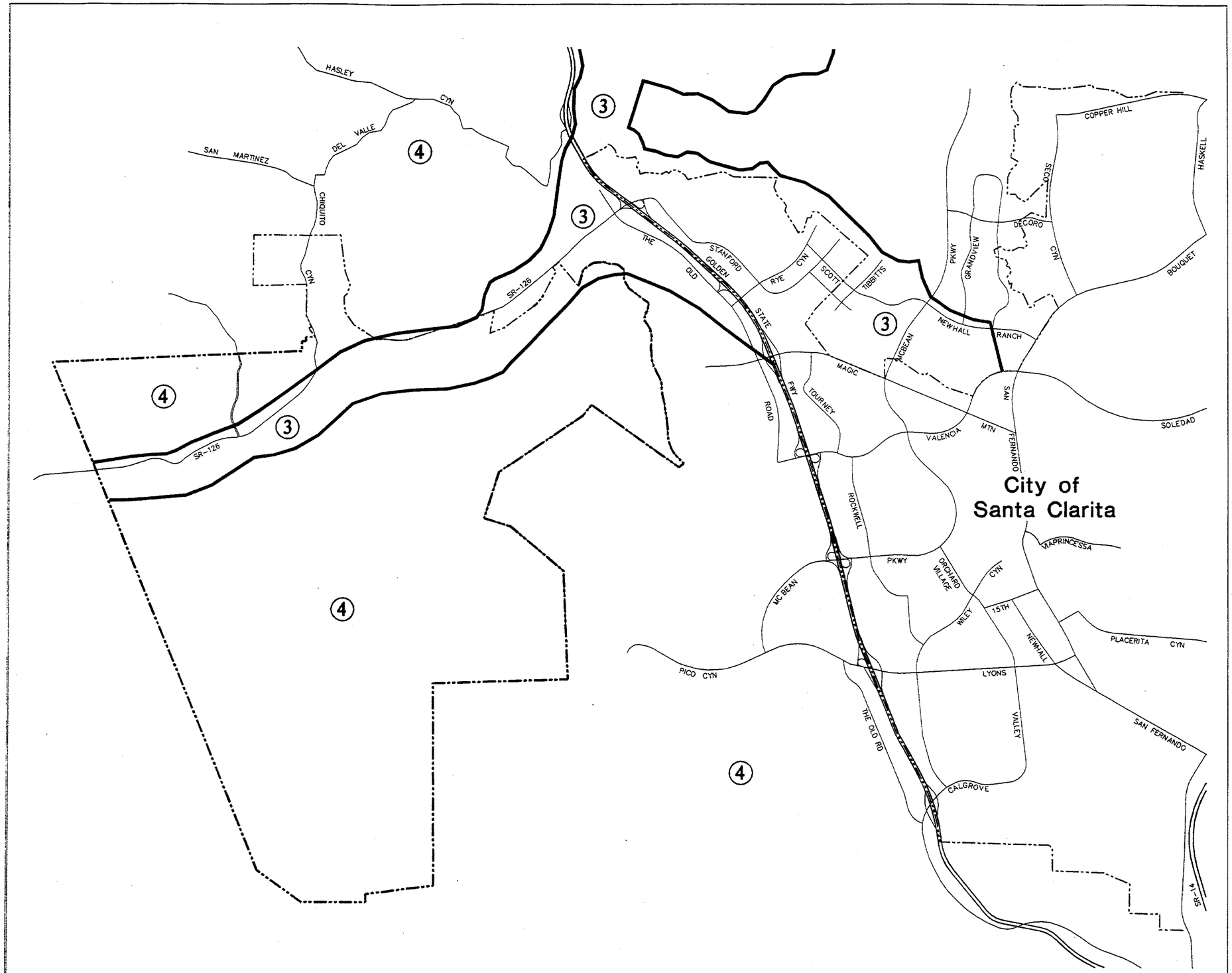
9 Interview with Chief Gary Nelson, County of Los Angeles Fire Department, 30 March 1995.

10 Paul H. Rippens, Chief, Forestry Division, Prevention Bureau, County of Los Angeles Fire Department, correspondence to the County of Los Angeles Department of Regional Planning, 22 September 1995.

11 Interview with Nina Johnson, Los Angeles County Fire Department, 29 March 1995.



SOURCE: L.A. COUNTY FIRE DEPARTMENT

NEWHALL RANCH
Newhall Ranch Company

L E G E N D

3 *FIRE HAZARD AREA 3*

4 *FIRE HAZARD AREA 4*

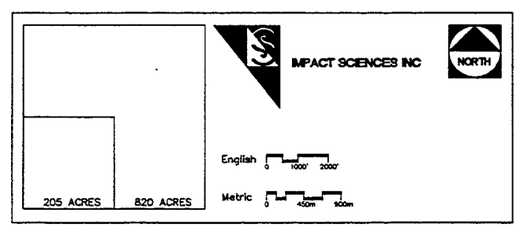


FIGURE 4.18-2

FIRE HAZARD AREAS

2/19/96

3 and 4 designations are relatively minor, in that one or more of the four criteria (access, topography, vegetation, and water) may pose less of a constraint in Fire Hazard Zone 3 than in Fire Hazard Zone 4. Fire Hazard Zone 4 has more restrictive building requirements than Fire Hazard Zone 3. Portions of Fire Zone 4 may, upon development, meet the criteria of Fire Zone 3, and may be redesignated as Fire Zone 3 at the discretion of the County Forester.

Portions of the Specific Plan site are situated in an area with diverse topographic features, and equally divergent vegetative communities. The Santa Clara River crosses the northern portion of the Specific Plan site on a broad and fairly flat flood plain. This corridor is dominated by fairly dense riparian vegetation fed by the perennial flows of the River. Due to the area's relatively low topographic relief, greater accessibility, more fire retardant vegetative communities, and the presence of the River, the County Forester has designated this area as Fire Zone 3, or of Moderate Fire Hazard.

The Fire Zone 3 designation extends along the State Route 126/Santa Clara River Corridor from the Ventura County line to Interstate 5 (I-5), and from the base of the hills north of SR-126 across the flood plain to the base of the hills south of the Santa Clara River (refer to **Figure 4.18-2, Fire Hazard Areas**).

Due to the presence of vegetation (which has a high level of combustibility), steep topography, limited access, and limited water sources on the remainder of the Specific Plan site, the County Forester has designated it as Fire Zone 4, or of High Fire Hazard.

Fire Hazard Zones 3 and 4 typically have the following vegetative types: chaparral, coastal sage, riparian, and oak woodlands vegetation communities. Wildland fires are relatively common occurrences in these plant communities which include, but are not limited, to ceanothus, chamise, sumac, sages, and wildland grasses, and are similar to the types found in Santa Clarita Valley and surrounding areas. These plant species have adapted to periodic wildland fire conditions, and maintain a healthy ecosystem in the regional vicinity. These plant communities pose the greatest threat to expanding urban development due to their high combustibility and their dense biomass. However, in the areas where these plant communities border urban development, the frequency of fire events may be diminished as a result of fire prevention and fire suppression activities. Fire prevention activities include prescribed burns, vegetation thinning/removal, and creation of fuel modification zones, whereas fire suppression involves measures which control fires once they have started (e.g., fuel breaks, use of fire fighting equipment, etc.).

During the spring months, vegetation typically begins to lose its moisture content and, by the summer and fall when Santa Ana wind conditions begin to occur, wildland fire conditions become extremely high. Historically, large fires tend to burn in Fire Zones 3 and 4 every twenty to twenty-five years. The County Forester has indicated that wildland fire events have occurred in the regional area. When chaparral and coastal sage growth is younger, it is more succulent, with little or no dead or dying branches; provides less horizontal fuel continuity; has a higher average fuel moisture content; and, as a result, is usually more fire retardant. As these plant species reach twenty plus years in age, their dead-to-live fuel ratio increases, creating more available fuel to carry fire with very high intensities and energy releases. Generally, fire prevention for urban development in wildland fire hazard areas generally focuses on restricting the types of building materials used, building design, and incorporating setbacks. An area designated as a Fire Zone 3 would have less severe fire hazard conditions than an area designated as Fire Zone 4, and, therefore, would have fewer restrictions involving building construction and site design. Development within Fire Zone 4 is required to meet the building construction requirements specified in the County Building and Safety Code, as well as the County Hillside Guidelines. Examples of fire code provisions which development in these areas must meet are presented below.

c. Fire Codes and Guidelines

The availability of sufficient on-site water pressure is a basic requirement of the County of Los Angeles Fire Department. The County of Los Angeles Fire Department requires sufficient capacity for fire flows of 1,250 gallons per minute (gpm) at 20 pounds per square inch (psi) residual pressure for a two hour duration for single family residential units, and 5,000 gpm at 20 psi residual pressure for a five-hour duration for multi-family residential units and commercial/retail uses.[12]

Due to the relatively higher fire hazard potential which exists in County-designated Fire Zones 3 and 4, it is important to note that development within these Fire Zones is subject to various governmental codes, guidelines, and programs which are aimed at reducing the hazard potential to acceptable levels. Related codes, guidelines, and programs for example include:

- California Public Resources Code 4291, which specifies standards for brush clearance around buildings or structures located in or adjoining mountainous areas of forest, brush, or grasslands.

12 Chief Mike Wilkinson, County of Los Angeles Fire Department, correspondence to Impact Sciences, Inc., 16 December 1994.

- County of Los Angeles codes related to development within areas designated as Fire Zone 3 or 4 as specified in the County Fire Code and County Building and Safety Code, including, but not limited to:

  - Remove and clear within 10 feet on each side of every roadway all flammable vegetation or combustible growth (Fire Code 27.327).

  - Clear all hazardous flammable vegetation to the ground for a distance of 30 feet from any structure, or flammable vegetation to a height of 18 inches for another 70 feet (Fire Code 27.301 & 302).

  - Remove that portion of any tree within 10 feet of the outlet of a chimney (Fire Code 27.30).

  - Maintain any tree adjacent to or overhanging any building free of dead wood (Fire Code 27.301).

  - Access roads shall be constructed with all-weather materials (Fire Code 10.207).

Such codes, guidelines, and programs are updated by the State and County from time to time. In all cases, development projects including the Newhall Ranch Specific Plan are required to incorporate the most current State and County Code requirements that are in effect at the time of building permit issuance.

4. SPECIFIC PLAN IMPACTS

a. Significance Threshold Criteria

The CEQA Guidelines do not specify criteria for determining a significance threshold for fire protection services. However, the County of Los Angeles Environmental Document Reporting Procedures and Guidelines considers a project to have an adverse impact on fire services when the proposed project creates:

1) a potential for inadequate staffing of fire stations,

2) a substantial decline in response times to handle calls for services, or

3) special fire protection problems associated with the proposed project or general area.

b. Proposed Improvements

As proposed, the Specific Plan would involve the development of 24,680 dwelling units (plus a maximum of 538 second units in the Estate Residential designation), 597.8 acres of Mixed-Use development, 90.7 acres of Commercial uses, 256.3 acres of Business Park uses, 5,851.7 acres of major open area consisting of 1,088.8 acres of land designated as Open Area (including 274 acres of Community Parks) and 4,762.9 acres of Special Management Areas (SMAs), 37 acres of Visitor-Serving uses, a 7.7 million gallon per day water reclamation plant, and other associated community facilities, such as a vehicular circulation system and a water delivery system. The Specific Plan proposal also includes the reservation of lands on the site for five elementary schools, one junior high school, and one high school.

In order to serve the Specific Plan, the applicant and the County Fire Department have agreed that two new fire stations will be located within the Specific Plan area, and a third new fire station would be located at the Del Valle Fire Training Center on Chiquito Canyon Road. The Del Valle fire station would serve both the Specific Plan and surrounding areas. Potential locations for the two reserved fire station sites within the Specific Plan are shown on Specific Plan Exhibit 2.3-1, Land Use Plan, as land use overlays. Precise locations for each station will be established at the time that subdivisions permitting construction are processed.

The applicant is required to pay fees for land and construction of fire stations and provision of certain equipment as required under the County Fire Department Developer Fee Program. As an alternative to the payment of fees, the Fire Department and the applicant could agree on a program, pursuant to the proposed Development Agreement, whereby the applicant would provide land and would construct and equip some or all of the fire stations. The improvements would meet all applicable State and County fire codes and ordinances.

The number of on-site fire stations and their general locations were determined by the County of Los Angeles Fire Department,[13] and were based upon the projected increase in population to be served, types of development proposed, geographic distribution of proposed land uses, circulation system, and projected response times to calls on the Specific Plan site. The new stations in combination with existing stations in the vicinity maintain the County Development Monitoring System (DMS) service radius of approximately 1.5 miles for each station. The types of units, staffing levels, and size and location of each fire station will be determined by the County Fire Department in the future.

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13 Interview with John Gee, County of Los Angeles Fire Department, Planning Division, 31 March 1995.

The Resource Management Plan of the Specific Plan requires that wildfire fuel modification plans be prepared in accordance with the County Fuel Modification Ordinance standards in effect at the time of subdivision. In order to enhance the habitat value of plant communities which require fuel modification, the RMP provides that fire retardant plant species containing habitat value my be planted within the fuel modification zone, and the RMP provides a list of plant species suitable for the fuel modification zones. The RMP further states that the wildfire fuel modification plan shall include the following construction period requirements: (a) a fire watch during welding operations; (b) spark arresters on all equipment or vehicles operating in a high fire hazard area; (c) designated smoking and non-smoking areas; and (d) water availability pursuant to County Fire Department requirements.

c. Construction Impacts

A large amount of wood framing would occur on the Specific Plan site during its twenty-five year buildout. In association with the framing operations, electrical, plumbing, communications, and ventilation systems would be installed in each structure. Although rare, fires do occur at construction sites, and it is expected that the electrical, plumbing, and mechanical systems for the development would be properly installed during framing operations (they would be subject to County codes and inspection by County personnel prior to drywalling). In addition, construction sites would also be subject to County requirements relative to water availability and accessibility to fire fighting equipment. Therefore, adherence to County codes and requirements during construction would reduce the potential for fire hazards at the Specific Plan site during construction to below the threshold of significance.

In addition, construction of the Specific Plan would increase traffic both on and adjacent to the Specific Plan site during working hours because commuting construction workers, trucks, and other large construction vehicles would be added to normal traffic during the entire twenty-five year buildout of the Specific Plan. Slow-moving construction-related traffic on SR-126 and adjacent roadways may temporarily reduce optimal traffic flows on local roadways and could conceivably delay emergency vehicles traveling through the area. However, such delays are not expected or would be rare because SR- 126 west of the Los Angeles County line is programmed in the State Transportation Improvement Plan (STIP) for widening to four lanes.

d. Operational Impacts

(1) Fire Protection Services

The Specific Plan includes no unique or especially hazardous uses (those uses which would use or generate large quantities of hazardous and/or toxic materials) which could have a greater potential to cause fires or result in serious accidents than other similar developments found elsewhere in the County and State. The proposed Residential, Commercial, Office, Mixed-Use, and Institutional uses are expected to create the typical range of fire service calls that other such uses create, including kitchen/house fires, garbage bin fires, car fires, electrical fires, etc. All such fires can be adequately suppressed with the types of fire equipment typically found at County Fire Stations.

Uses in the Business Parks would use substances and/or chemicals considered to be hazardous by the State of California. Such chemicals include, but are not limited to, chlorine, benzene, etc., and are expected to be typical of those commonly found in light industrial parks (such as the Valencia Industrial Center). Businesses which handle, use, and store these materials would be required to comply with Federal and State standards relative to their use and disposal, and would be subject to regular inspections by the County Fire Department's hazardous materials unit. Uses in the Business Parks are, therefore, not expected to present any unique fire protection requirements that could not be served by existing or proposed fire stations. See **Section 5.0, Water Reclamation Plant (WRP) Impacts, Mitigation Measures, and Unavoidable Significant WRP Impacts** for a detailed discussion of potential water reclamation plant impacts on fire protection services in the Santa Clarita Valley.

In response to increasing demands for new facilities, equipment, and staffing created by new development, the County of Los Angeles has implemented a Developer Fee Program to fund the purchase of station sites, the construction of new stations, and the partial funding for new equipment. The Developer Fees are adjusted annually by the County in order to maintain adequate levels of service and are collected at the time building permits are issued.[14] It is expected that fees collected from development of the Newhall Ranch would be used for the acquisition of the two sites reserved for County fire stations within the Specific Plan boundaries, and for the construction and equipping of the two on-site fire stations and the construction of a station at the Del Valle Fire Training Center.

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14 Personal communication, County of Los Angeles Fire Department, 7 June 1994.

The annual maintenance and operating costs for the fire stations, equipment and staffing required by the Newhall Ranch Specific Plan over its twenty-five year buildout period is estimated to be approximately $92.9 million (1995 dollars). By its twenty-fifth year, its maintenance and operating costs are projected to be $5.9 million annually. Funding sources for the Fire Department consist of property taxes and developer fees. Total revenues generated by the proposed Specific Plan which would be accrued by the County of Los Angeles over the estimated twenty-five year buildout of the Specific Plan would total approximately $772,697,000. In year twenty-five and annually thereafter, revenues generated by the Specific Plan would total approximately $44,366,000. After fully funding all required governmental services including fire protection services, the Specific Plan would generate a surplus of revenue to the County of Los Angeles over the twenty-five -year buildout period of $301,449,451. In year twenty-five the Specific Plan would generate a revenue surplus to the County of $17,737,149 million, and a surplus to the County of $20,299,000 annually thereafter. Given that total Specific Plan-generated revenues to the County would exceed total projected County costs for provision of all governmental services, the fiscal impact of the Specific Plan is considered beneficial. Therefore, the cost to operate and maintain the proposed fire protection facilities (including staffing) would be covered by established funding sources. All numbers presented above are in 1995 dollars (please reference Appendix 6.0 of this EIR for additional information).

Regarding the potential for Specific Plan-related impacts to the County Fire Department's ability to continue adequate fire protection services to the City of Santa Clarita, given that the City receives such services under a contract between the City and the County and, given that the level of service provided and the fees for services provided must be mutually agreed upon by both parties, the Newhall Ranch Specific Plan would not have a significant impact on fire protection services that are already provided to the City of Santa Clarita.

(2) Wildland Fire Hazards

Development of the proposed Specific Plan would result in the construction of Residential uses, Commercial uses, Office uses, Mixed-Uses, Business Parks, Institutional uses, and public facilities in areas that have been designated as either Fire Zone 3 or 4 (of moderate or high fire hazard, respectively). Characteristics of the Specific Plan site which contribute to these conditions include (a) limited access, (b) lack of adequate water supplies, (c) the types of vegetative cover, and (d) topography. An analysis of the site's fire hazard potential relative to these four factors is presented below.

(a) Access

The Specific Plan would include an extensive backbone vehicular circulation system which would provide five points of access to the site via a major State highway and a Federal freeway (SR-126 and I-5, respectively). The internal circulation system for the Specific Plan would be consistent with the approved Specific Plan standards and County standards, as applicable, regarding access (i.e., roadway widths, length of single access streets, cul-de-sac dimensions, and street parking restrictions, etc.) (see **Section 4.8, Traffic/Access** for more information). Consequently, no significant vehicular access-related impacts are expected to occur as a result of Specific Plan implementation.

(b) Water Supply

The Conceptual Backbone Water Plan for the Specific Plan proposes a dual water system which would provide water service for domestic and non-domestic uses (see **Section 4.11, Water Resources**, for further information). This system would also provide water supplies to support fire suppression activity in the event of wildland or structural fires. The proposed backbone water supply system would include water mains and fire hydrants, and the provision of fire flows to meet County standards. Given that a long-term source of water must exist for the Specific Plan prior to the issuance of building permits, and that a water supply system is proposed which would meet County fire flow requirements, no significant water-related fire hazards would occur.

(c) Vegetative Cover

The portions of the Specific Plan site which have been proposed for development include, and are adjacent to, areas with moderate to heavy vegetative cover. The plant communities which make up this cover are highly combustible and, without mitigation, would present a high fire hazard to development in these areas, which would be a significant impact because development in these areas would pose a special fire protection problem. As development of the Specific Plan site occurs, fire hazards associated with the natural vegetative cover will be eliminated due to its replacement with urban landscape vegetation, which is irrigated and less combustible than the existing vegetation. However, the potential for wildland fire hazards will still exist at the wildland/urban interface due to: 1) the presence of brush, 2) increased human activity, and 3) the potential for fires due to accidental and arson-related causes. The boundaries of this interface would change over time as the proposed Specific Plan reaches buildout. With the implementation of the proposed Wildfire Fuel Modification Plan as described in the Specific Plan, the fire hazard potential in this interface zone would be reduced to below the threshold of significance.

(d) Topography

Topography is an issue relative to wildland fire hazards because steep slopes are not only inaccessible to fire fighting vehicles, but steep canyons can create updraft conditions (much like a chimney) and a fire in a steep canyon can spread rapidly into adjacent areas. Steep canyons that are densely covered with combustible vegetation are especially hazardous. The Specific Plan proposes development within only the central and northern portions of the site where topographic relief is moderate, and proposes to leave those portions of the site with the greatest topographic relief, such as the High Country Special Management Area, largely undeveloped with limited human access. Because the High Country Special Management Area would be minimally developed (fifteen Estate Residential units with a maximum of fifteen Second Units), would be limited to human access, and would be accessible to fire fighting equipment from multiple locations from the proposed vehicular circulation system, the wildland fire hazard impact to Specific Plan development relative to the steep topography in the High Country Special Management Area would not be significant. Compliance with the Wildfire Fuel Modification Plan of the Resource Management Plan would also reduce the potential impacts to less than significant.

(3) Fire Codes and Guidelines

As indicated above under "Existing Conditions," many State and County Fire codes, standards, and guidelines exist to which all projects must adhere. It is the expectation that, as the Newhall Ranch Specific Plan builds out over the next twenty-five years, the fire codes, standards, and guidelines will be continually updated by the State and County agencies as the knowledge gained from past fires is increased.

(4) Conclusion

In conclusion, the Specific Plan would be served by two on-site and one off-site fire stations which would be funded through payment of Developer Fees or an alternative arrangement as part of a Development Agreement. Tax Revenues would provide for the operation and staffing of the fire stations. The Specific Plan would implement a Wildfire Fuel Modification Plan, and meet County codes and requirements relative to providing adequate fire protection services to the site during both the construction and operational stages of the Newhall Ranch Specific Plan. As a result, the Specific Plan would not diminish the staffing or the response times of existing fire stations in the Santa Clarita

Valley, nor would it create a special fire protection requirement on the site that would result in a decline in existing services levels in the Valley. Therefore, given the significance criteria presented in Subsection 4.a. of this section, the Newhall Ranch Specific Plan would not have an adverse or significant impact on fire protection services in the Santa Clarita Valley.

5. SPECIFIC PLAN MITIGATION MEASURES

a. Mitigation Measures Already Incorporated into the Specific Plan

4.18-1. At the time of final subdivision maps permitting construction in development areas that are adjacent to Open Area and the High Country SMA, a Wildfire Fuel Modification Plan shall be prepared and submitted for approval by the County Fire Department. The Wildfire Fuel Modification Plan shall include the following construction period requirements: (a) a fire watch during welding operations; (b) spark arresters on all equipment or vehicles operating in a high fire hazard area; (c) designated smoking and non-smoking areas; and (d) water availability pursuant to County Fire Department requirements. The wildfire fuel modification plan shall depict a fuel modification zone in conformance with the Fuel Modification Ordinance in effect at the time of subdivision. Within the zone, tree pruning, removal of dead plant material and weed and grass cutting shall take place as required by the County Forester. Fire resistant plant species containing habitat value may be planted in the fuel modification zone.

b. Mitigation Measures Recommended by the EIR

4.18-2. Each subdivision and site plan for the proposed Specific Plan shall provide sufficient capacity for fire flows of 1,250 gallons per minute (gpm) at 20 pounds per square inch (psi) residual pressure for a two hour duration for single family residential units, and 5,000 gpm at 20 psi residual pressure for a five-hour duration for multi-family residential units and commercial/retail uses, or whatever fire flow requirement is in effect at the time of subdivision and site plan approval.

4.18-3. Each subdivision map and site plan for the proposed Specific Plan shall comply with all applicable building and fire codes and hazard reduction programs for Fire Zones 3 and 4 that are in effect at the time of subdivision map and site plan approval.

4.18-4. The developer will provide funding for three fire stations to the Consolidated Fire Protection District of Los Angeles County (the "Fire District") in lieu of developer fees. The developer will dedicate two fire station sites for the two fire stations located in Newhall Ranch. The Fire District will dedicate the site for the fire station to be located at the Del Valle Training Facility. Each fire station site will have a building pad consisting of a net buildable area of one acre. If the cost of constructing the three fire stations, providing and dedicating the two fire station sites, and providing 3-engines, 1 paramedic squad and 63 percent of a truck company exceeds the developer's developer fee obligation for the Newhall Ranch development as determined by the Fire District, the Fire District will fund the costs in excess of the fee obligation.

Two of the three fire stations to be funded by the developer will not exceed 6,000 square feet; the third fire station to be funded by the developer will not exceed 8,500 square feet. The Fire District, will fund the cost of any space/square footage of improvement in excess of these amounts as well as the cost of the necessary fire apparatus for any such excess square footage of improvements. The cost of three fire engines, a proportionate share of a truck and one squad to be provided by the developer will be determined based upon the apparatus cost at the time the apparatus is placed in service.

The Fire District and the developer will mutually agree to the requirements of first-phase protection requirements based upon projected response/travel coverage. Such mutual agreement regarding first-phase fire protection requirements ("fire protection plan") and the criteria for timing the development of each of the three fire stations will be defined in a Memorandum of Understanding between the developer and the Fire District. Delivery of fire service for Newhall Ranch will be either from existing fire stations or one of the three fire stations to be provided by the developer pursuant to this section. Prior to the commencement of the operation of any of the three fire stations, fire service may be delivered to Newhall Ranch from existing fire stations or from temporary fire stations to be provided by the developer at mutually agreed-upon locations, to be replaced by the permanent stations which will be located within the Newhall Ranch development. The developer and the Fire District will annually review the fire protection plan to evaluate development and market conditions and modify the Memorandum of Understanding accordingly. ~~Prior to issuance of building permits, the applicant shall pay the fees in effect under the Fire Department's Developer Fee Program, or participate in the construction of fire protection facilities, to the satisfaction of the County of Los Angeles Fire Department.~~

6. CUMULATIVE IMPACTS

In order to analyze the cumulative impacts of this Specific Plan in combination with other expected future growth, the amount and location of growth that is expected to occur in addition to that of the Specific Plan was predicted.

The "Santa Clarita Valley (SCV) Cumulative Buildout Scenario" entails buildout of all lands under the current land use designations indicated in the Los Angeles County Santa Clarita Valley Area Plan and the City of Santa Clarita General Plan, plus the proposed Specific Plan, plus all known active pending General Plan Amendment requests for additional urban development in the unincorporated areas of Santa Clarita Valley and the City of Santa Clarita. In this report, the Planning Area is often referred to as the "Valley." A list of the future development activity (with and without the Newhall Ranch Specific Plan) expected in the Valley under the Santa Clarita Valley Cumulative Buildout Scenario is presented below in **Table 4.18-1, Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario.**

Table 4.18-1
Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario

Land Use Types	Cumulative Buildout w/o Specific Plan[1]	Newhall Ranch Specific Plan [2]	Cumulative Buildout w/ Specific Plan
Single Family	89,015 du[3]	11,025 du	100,040 du
Multi-Family	38,729 du	14,193 du[4]	52,922 du
Mobile Home	3,177 du		3,177 du
Commercial Retail	20,107,660 sf[3]	1,718,000 sf	21,825,660 sf
Hotel	336,420 sf		336,420 sf
School	3,049 sta[3]	400 sta	3,449 sta
College	1,152 sta		1,152 sta
Hospital	285,470 sf		285,470 sf
Library	226,000 sf	25,000 sf	251,000 sf
Church	399,170 sf		399,170 sf
Business Park	7,773,730 sf	1,513,000 sf	9,286,730 sf
Industrial/Manufact.	33,480,250 sf		33,480,250 sf
Utilities	1,421,160 sf	35,000 sf	1,456,160 sf
Commercial/Med. Office	8,653,790 sf	2,489,000 sf	11,142,790 sf
Golf Course/Park	1,314 ac[3]	313 ac	1,627 ac
Special Generator	53,600 sf	24,000 sf	77,600 sf

[1] *Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (June 1995). Includes existing development and active pending general plan amendment requests.*
[2] *Draft Newhall Ranch Specific Plan, July 1996.*
[3] *du = dwelling unit; sf = square feet; sta = staff; ac = acres*
[4] *Includes 538 Second Units.*

As under the previous scenario, if the Santa Clarita Valley Planning Area builds out consistently with the currently adopted area and general plans, a significant impact on the current level of fire protection services throughout Santa Clarita Valley would occur unless the equipment and personnel resources of the fire department were to increase proportionately. Development within the Santa Clarita Valley Planning Area would be required to participate in the Developer Fee Program, which is a County funding mechanism used to mitigate impacts to fire protection services. As the Santa Clarita Valley Planning Area builds out, the level of fire protection services would be increased to keep pace with increased demands; therefore, no significant cumulative fire-related impacts are expected as a result of Valley buildout.

7. CUMULATIVE MITIGATION MEASURES

Because cumulative development will be subject to the same required mitigation measures as the proposed Specific Plan, no additional mitigation measures are required.

8. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Specific Plan Impacts

With the reservation of two sites for County fire stations on the Specific Plan site and the upgrade of the Del Valle Fire Training Center to an operating fire station, in combination with the implementation of each of the mitigation measures identified above, no unavoidable significant impacts are expected to occur with respect to fire protection services.

b. Cumulative Impacts

Assuming the required mitigation measures are implemented by each cumulative project, unavoidable significant cumulative impacts are not expected to occur with respect to fire protection services.

1. SUMMARY

Library services for the Newhall Ranch Specific Plan and the Santa Clarita Valley area are provided by the County of Los Angeles Public Library system. The Santa Clarita Valley area is served by three County libraries (Valencia, Newhall, and Canyon Country) and a mobile library service. The Valencia Library operates seven days a week while the Newhall and Canyon Country branch libraries operate five days a week. The County Public Library indicates that the existing level of library service in the Specific Plan area is not adequate to meet existing demands.

Development of the proposed Newhall Ranch Specific Plan would result in increased demands on library facilities and would, according to County Library standards, create a demand for a 23,983 square foot facility with 137,048 items (books, magazines, periodicals, etc.). Recommended mitigation includes: a) payment of the proposed interim library impact fee of $336 per new residential dwelling unit which would eliminate or substantially lessen the project's impacts on the County's library facilities; or, b) ~~for new library construction and book purchases~~ contruction and provision of the needed facility and books which would fully mitigate ~~reduce~~ this impact. Either provision would satisfy the County's Development Monitoring System. In addition, revenues collected by the County of Los Angeles over the course of buildout of the Newhall Ranch Specific Plan would exceed the cost to provide all necessary governmental services, including library service. This revenue would reduce impacts to below a level of significance.

In order to analyze the cumulative impacts of this Specific Plan in combination with other expected future growth, the amount and location of growth expected to occur in addition to that of the Specific Plan was predicted. For this EIR, two separate cumulative development scenarios are compared with existing conditions to meet Los Angeles County and CEQA requirements. Buildout of the Development Monitoring System (DMS) Buildout Scenario without the proposed Specific Plan would result in an increased cumulative demand for 39,759 square feet of library space and for 227,190 items. With Newhall Ranch, these numbers would increase to 63,742 square feet and 364,238 items. Under the Santa Clarita Valley Cumulative Buildout Scenario, there will be a total cumulative demand for 157,630 square feet of library facilities and 900,590 items. It is the opinion of County Public Library staff that funding allocations from tax revenues would not be adequate to offset the full impact of cumulative development, under both scenarios, and would create a significant impact on the Library's ability to construct new libraries and purchase new items. New development payment of the interim library fee of $336 per residential unit would mitigate cumulative impacts on the County Public Library to less than significant.

2. INTRODUCTION

Information in this section was derived from the Los Angeles County Public Library system and interviews with representatives of the Los Angeles County Public Library system.

3. EXISTING CONDITIONS

a. Los Angeles County Public Library

The Los Angeles County Public Library operates facilities and services Countywide in both unincorporated and incorporated areas of the County.

(1) Santa Clarita Valley Public Libraries

The Los Angeles County Public Library serves the entire Santa Clarita Valley with three libraries and mobile library services. The three libraries include: the Valencia Library, Canyon Country Library, and Newhall Library.

(a) Valencia Library

The Valencia Library, located at 23743 West Valencia Boulevard, Santa Clarita, serves as the main library within the Santa Clarita Valley. This library is a government publications repository. The library is approximately 23,966 square feet in size[1] and contains approximately 155,313 items (books, magazines, periodicals, etc.) in its collection.[2] As of January 1996, the library is open Monday through Thursday 10:00 A.M. - 9:00 P.M., Friday 10:00 A.M. to 6:00 P.M., Saturday 10:00 A.M. to 5:00 P.M. and Sunday 1:00 P.M. to 5:00 P.M. Currently, the library maintains a staff of fourteen full-time employees and thirty-one part-time employees.[3]

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1 Interview with Fred Hungerford, Head of Staff Services, County of Los Angeles Public Library, 20 December 1994.

2 County of Los Angeles, Development Monitoring System, Inventory Information For Library Service, 6 June 1996.

3 Interview with Josie Reyes, Valencia Library Branch, County of Los Angeles Public Library, 9 January 1996.

(b) Newhall Library

The Newhall Library, located at 22704 West 9th Street, Santa Clarita, serves as a branch library. This library is approximately 4,842 square feet in size and contains approximately 52,407 items in its collection.[4] Currently, the library maintains a staff of twelve full-time employees. The library operating hours are Monday through Wednesday, 10:00 A.M. to 8:00 P.M. and Thursday and Friday, 10:00 A.M. to 6:00 P.M.[5]

(c) Canyon Country Library

The Canyon Country Library, located at 18536 Soledad Canyon Boulevard, Santa Clarita, also serves as a branch library to the Valencia Library. The Canyon Country Library is approximately 5,050 square feet in size and contains a total of 52,776 items in its collection.[6] Canyon Country Library maintains a staff of 3 full time employees and 8 part time employees. Currently, the library operating hours are Thursday and Friday, 10:00 A.M. to 6:00 P.M., and Saturday 10:00 A.M. to 5:00 P.M.[7]

(d) Mobile Library Services

The Santa Clarita Valley area is also serviced by a mobile library. This service is provided to the outlying areas of the Valley, such as Acton and Castaic. This mobile library, consisting of one vehicle, contains an estimated 6,420 items.[8]

(2) Funding and General Level of Service

The County Library District has indicated that library facilities are inadequate to keep pace with the growth that is occurring throughout the Santa Clarita Valley area. Consequently, the area is under-served with regards to library services and facilities. The library facilities and book items in the Santa Clarita Valley area are at 0.22 square feet per capita and 1.73 books per capita, respectively, based on a 1990 Valley-wide population of 151,052 persons from the 1990 Census (the ratios would be less at the time of this writing since Valley-wide population has increased by an unknown amount since

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4 County of Los Angeles, Development Monitoring System, Inventory For Library Service, 6 June 1996.

5 Interview with Library Manager, Judy Heist, Newhall Library Branch, County of Los Angeles Public Library, 9 January 1996.

6 County of Los Angeles, Development Monitoring System, Inventory For Library Service, 6 June 1996.

7 Interview with Andrea Kish, Canyon Country Library Branch, County of Los Angeles Public Library, 9 January 1996.

8 Interview with Fred Hungerford, Head of Staff Services, County of Los Angeles Public Library, 20 December 1994.

1990). Valley-wide library square footage totals 33,868 square feet and items total 266,916,[9] These levels are below the County's guidelines of 0.35 square feet per capita for facilities and 2.0 books per capita.[10] Therefore, the Santa Clarita Valley area does not meet the desired service levels established by the County of Los Angeles Public Library system.[11]

Funding for the County Public Library comes directly from the County general fund, with the source of revenue for the County general fund being those funds collected by the County from various forms of taxes (e.g., property taxes, its share of sales taxes, etc.). General fund dollars are allocated by the County Board of Supervisors annually to all County-funded public services, including the Public Library. In 1992, the State shifted property tax funds supporting library operations to help finance education. To augment lost revenue collected from property taxes, the County Board adopted in 1994 a community facilities district for extended library services and facilities in the unincorporated areas of the County and ten cities, including the unincorporated area of the Santa Clarita Valley. The County Board approved in September 1995 a levy for the 1995-96 fiscal year to be imposed on properties located within the district boundaries. As approved by the Board, the 1995-96 charge (known as a benefit charge) for extending library service will be no more than $22.00 per single family dwelling unit with a reduced rate charged for multi-family residential and mobile homes of $16.60 and $11.00, respectively, per dwelling unit. Non-residential parcels will be charged based on the area of land and the type of land use on the parcel relative to a single family home.

The Los Angeles County Public Library will commission a study to determine whether a permanent library impact fee is needed to fund new library construction and purchase of new books, whether such a fee should be assessed to new developments to mitigate their impacts to the Library, and to establish the amount of such a fee. Until the study is complete and the County Board of Supervisors acts on the issue of a permanent library fee, the County is considering imposing an interim fee of $336.00 per unit on all new residential development to mitigate impacts to the Library under its Development Monitoring System (DMS) rules. As shown in **Table 4.19-1, Library Mitigation Payment Methodology**, construction estimates including cost estimates and persons per square footage factors provided by the County Library, indicate that $336 per residential unit would be adequate to provide funding needed to construct additional library space and to purchase new items (books, magazines, periodicals, etc.). **Table 4.19-1** provides a step-by-step process to arrive at the total cost of $336 per unit.

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9 This includes all the items from Valencia, Newhall, and Canyon Country Libraries, plus the mobile library collection of 6,420 items.

10 This guideline is not an adopted County standard; it is used as an internal planning guide by the County Public Library.

11 Interview with Fred Hungerford, Head of Staff Services, County of Los Angeles Public Library, 20 December 1994.

Table 4.19-1
Library Mitigation Payment Methodology

	Lawndale	Hacienda Heights	Lancaster
Estimated Library Construction Cost			
Local funding required	$1,389,199	$4,933,676	$7,401,404
Square feet of library	6,143	35,000	43,582
Dollars per sq. ft. construction/land	$226.00	$141.00	$170.00
Weighted average construction cost (per sq. ft.) of all facilities	$162.00		
Calculation of Estimated Fee Required			
Sq. ft. per capita (County library standard)	0.35		
Construction cost per capita	$56.70		
Library items per capita (County library standard)	2		
Cost per library item (County library standard)	$30.00		
Library item cost per capita	$60.00		
Construction and item cost per capita	$116.70		
Persons per dwelling unit (County library standard)	2.88		
Total cost per dwelling unit (fee)	$336.00		

While demands for library services are met by the County library system, other library resources may be available to area residents, including those located at local colleges (e.g., College of the Canyons, Masters College, and California Institute of the Arts), high schools, and junior high schools. These services augment County facilities by providing some residents alternative sources for library materials. Some of these library facilities charge a fee to use their materials, and their use can be restricted.

4. SPECIFIC PLAN IMPACTS

a. Significance Threshold Criteria

Significance threshold criteria for library services are not specified in either the CEQA Guidelines (Appendix G) or the Los Angeles County Environmental Document Reporting Procedures and Guidelines. Requirements of the Development Monitoring System of Los Angeles County state that library infrastructure must be accounted for simultaneously with project development. In keeping with this requirement, the County of Los Angeles Public Library system does specify desired guidelines for library services as follows:

- 0.35 square feet of library facilities per capita, and
- 2.0 library books per capita.[12]

12 Interview with Fred Hungerford, Head of Staff Services, County of Los Angeles Public Library, 20 December 1994.

As proposed, the Newhall Ranch Specific Plan would increase demands on existing Los Angeles County Library services. The impact of the proposed Specific Plan on library services is provided below.

b. Proposed Improvements

The proposed Newhall Ranch Specific Plan would involve development of approximately 24,680 housing units (plus a maximum of 538 Second Units in the Estate Residential designation) with an estimated population of 68,524 residents. The Specific Plan provides an approximate location for a County library by showing it as a land use overlay and by showing libraries as a permitted use in certain zones.

c. Construction Impacts

Construction itself of the Newhall Ranch Specific Plan will not generate a resident population. Therefore, no library impact is expected due to Specific Plan construction.

d. Operational Impacts

As discussed previously, the Santa Clarita Valley area is under-served with regard to library facilities and services. The County Library staff have indicated that there are no current plans for facilities expansion due to a lack of available funding.

Development of the Newhall Ranch Specific Plan would increase the demand on library services provided in the Santa Clarita Valley, thereby increasing the existing need for additional facilities and books. Based on their condition at the time of this writing, the level of service provided by existing library facilities in the Santa Clarita Valley is not adequate to meet the demands of the Specific Plan. Consequently, without mitigation of any kind, Specific Plan impacts upon existing library services would be considered significant.

Based on County Library planning guidelines of 0.35 square feet of library facilities per capita and 2.0 library books per capita, it is anticipated that a community of the size proposed (population of 68,524) would require a total of 23,983 square feet of library facilities with 137,048 additional items (books, magazines, periodicals, etc.) for the library system's collection. According to the County Library, a

standard-sized County library facility is approximately 10,000 square feet requiring one acre of land, including parking facilities. A 23,983 square-foot facility would require an approximate 2-acre to accommodate the library and associated parking facilities, depending upon the design, number of stories, and floor plan of the building and parking requirements.[13]

With regard to the Specific Plan's impact on the County Library's ability to operate existing libraries, residents and businesses which will be located within the Newhall Ranch Specific Plan site will generate a substantial amount of new tax revenue for the County on an on-going annual basis. Such revenue would offset the impact of the proposed Specific Plan on County Library operations (as well as other County public services). Specific sources of revenue include property taxes, a benefit assessment, service fees, State assistance, and the General Fund contribution. As indicated in the Fiscal Impact Study prepared for the Newhall Ranch Specific Plan (Appendix 6.0), total revenues generated by the proposed Specific Plan which would be accrued by the County of Los Angeles over the estimated twenty-five year buildout of the Specific Plan would total approximately $772,697,000. In year twenty-five, and annually thereafter, revenues generated by the Specific Plan would total approximately $44,366,000. After fully funding all required governmental services including library service, the Specific Plan would generate a surplus of revenue to the County of Los Angeles over the twenty-five year buildout period of $301,449,451. In year twenty-five, the Specific Plan would generate a revenue surplus to the County of $17,737,149 million, and a surplus to the County of $20,299,000 annually thereafter. Given that total Specific Plan-generated revenues to the County would exceed total projected County costs for provision of all governmental services, the fiscal impact of the Specific Plan is considered beneficial.

In the opinion of the County Public Library staff, this level of increased funding addresses only library operations and, because of the uncertainty of the level of General Fund contribution, it is not adequate to offset the impact of the Specific Plan on the County Library's ability to construct new libraries and purchase new items (books, magazine, periodicals, etc.). Consequently, Library staff believe that the proposed Specific Plan would create a significant impact on the Library system if library facilities construction and items are not provided for.

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13 Interview with Fred Hungerford, Head of Staff Services, County of Los Angeles Public Library, 20 December 1994.

It is the opinion of County Public Library staff that either payment of the suggested interim library fee of $336.00 per unit of residential development, as previously described, or the construction of a 23,983 square foot library with 137,084 items (books, magazines, periodicals, etc.) on the Newhall Ranch Specific Plan site would satisfy the the Development Monitoring System (DMS) library standard and will eliminate or substantially lessen the project's ~~fully mitigate this Specific Plan's~~ impacts on the County Public Library.[14] Based on the interim library mitigation fee of $336 per unit, the estimated fees that could be collected in the Newhall Ranch Specific Plan to pay for new library construction and item purchases would be $8,292,480.

5. SPECIFIC PLAN MITIGATION MEASURES

a. Mitigation Measures Already Incorporated into the Specific Plan

The Specific Plan identifies a preliminary location for a County library as a land use overlay and shows libraries as a permitted use in certain zones. The Newhall Ranch Specific Plan includes no other specific measures that would directly mitigate library impacts.

b. Mitigation Measures Recommended by the EIR

The following is recommended to offset impacts to the County Library created by the proposed Specific Plan.[15]

4.19-1. The developer will provide funding for a maximum of two libraries (including the site(s), construction, furniture, fixtures, equipment and materials) to the County Librarian. The developer will dedicate a maximum of two library sites for a maximum of two libraries located in Newhall Ranch in lieu of the land component of the County's library facilities mitigation fee, in accordance with the provisions of Section 22.72.090 of Section 2 of Ordinance No. 98-0068. The actual net buildable library site area required and provided by the developer will be determined by the actual size of the library building(s), the Specific Plan parking requirements, the County Building Code, and other applicable rules.

The total library building square footage to be funded by the developer will not exceed 0.35 net square feet per person. The developer's funding of construction of the library(s) and furnishings,

14 Based on a letter from David Flint, Assistant Director, Finance and Planning, County of Los Angeles Public Library to Lee Stark, Los Angeles County Department of Regional Planning dated June 25, 1997. ~~Based on a letter dated 21 March 1995 from Fred Hungerford, Head of Staff Services, County of Los Angeles Public Library to Kerwin Chih, Los Angeles County Department of Regional Planning.~~

15 This proposed recommended mitigation measure was agreed upon between The Newhall Land and Farming Company and Los Angeles County Public Library for the Westridge development project in October 1994.

fixtures, equipment and materials for the library(s) will be determined based on the cost factors in the library facilities mitigation fee in effect at the time of commencement of construction of the library(s).

Prior to County's issuance of the first residential building permit of Newhall Ranch to the developer, the County Librarian and the developer will mutually agree upon the library construction requirements (location, size, funding and time of construction) based upon the projected development schedule and the population of Newhall Ranch based on the applicable number of average persons per household included in the library facilities mitigation fee in effect at the time. Such mutual agreement regarding the library construction requirements ("Library Construction Plan") and the criteria for timing the completion of the library(s) will be defined in a Memorandum of Understanding between the developer and the County Librarian. Such Memorandum of Understanding shall include an agreement by the developer to dedicate sufficient land and pay the agreed amount of fees on a schedule to allow completion of the library(s) as described below. The developer's funding for library facilities shall not exceed the developer's fee obligation at the time of construction under the developer fee schedule.

If two libraries are to be constructed, the first library will be completed and operational by the time of County's issuance of the 8,000th residential building permit of Newhall Ranch, and the second library will be completed and operational by the time of County's issuance of the 15,000th residential building permit of Newhall Ranch. If the County Librarian decides that only one library will be constructed, the library will be completed and operational by the time of County's issuance of the 10,000th residential building permit of Newhall Ranch.

No payment of any sort with respect to library facilities will be required under Section 2.5.3.d. of the Specific Plan in order for the developer to obtain building permits for nonresidential buildings. ~~The applicant shall pay the proposed interim fee (which is $336 per new residential unit at the time of this writing) to the County Library to offset the demand for the library items (books, magazines, periodicals, etc.) and building square footage generated by the Newhall Ranch Specific Plan. The library mitigation payment would be made on a building permit by building permit basis, and would be adjusted each year based on increases in the Consumer Price Index. If the Board of Supervisors adopts an ordinance creating a developer fee for library facilities pursuant to Government Code Section 66000 et seq., the applicant would pay that fee with respect to all building permits issued after the adoption of the fee. There would be no retroactive adjustment for any library mitigation payments made for building permits issued prior to the adoption of a developer fee ordinance; OR.~~

~~The applicant shall agree to construct a 23,983 square foot library and provide 137,048 items per the County Library standards 0.35 square feet of library facilities per capita and 2.0 library books per capita.~~

6. CUMULATIVE IMPACTS

In order to analyze the cumulative impacts of this Specific Plan in combination with other expected future growth, the amount and location of growth expected to occur in addition to that of the Specific Plan were predicted. For this EIR, two separate cumulative development scenarios are compared with existing conditions to meet Los Angeles County and CEQA requirements.

a. DMS Buildout Scenario

The first scenario (herein referred to as the "DMS Buildout Scenario") entails buildout of the more near term subdivision projects listed in the County's Development Monitoring System (DMS) plus the proposed Specific Plan. The County DMS lists all pending, recorded and approved projects involving land divisions located on unincorporated lands in the Santa Clarita Valley and within the City of Santa Clarita. A list of the future DMS subdivision activity (with and without the proposed Specific Plan) expected to occur within the service boundary of the County Library is presented below in **Table 4.19-2, Cumulative Development Activity - DMS Buildout Scenario- County Library System.**

Table 4.19-2
Cumulative Development Activity - DMS Buildout Scenario
- County Library System

Land Use Types	DMS Buildout w/o Specific Plan[1]	Newhall Ranch Specific Plan [2]	DMS Buildout w/ Specific Plan
Single Family	48,929 du[3]	11,025 du	59,954 du
Multi-Family	32,700 du	13,655 du	46,355 du
Mobile Home	2,628 du	0 du	2,628 du
Second Units		538 du	538 du
Commercial Retail	7,798,836 sf[3]	1,718,000 sf	9,396,836 sf
Hotel	69,000 sf		189,000 sf
School	809 sta[3]	400 sta	1,209 sta
College	1,152 sta		1,152 sta
Hospital	228,000 sf		228,000 sf
Library	226,000 sf	25,000 sf	251,000 sf
Church	366,000 sf		366,000 sf
Business Park	3,312,000 sf	1,513,000 sf	4,825,000 sf
Industrial/Manufact.	28,658,691 sf		28,658,691 sf
Utilities	1,321,000 sf	35,000 sf	1,356,000 sf
Commercial/Med. Office	3094836 sf	2,489,000 sf	5,583,836 sf
Golf Course/Park	281 ac[3]	313 ac	594 ac
Special Generator (Fire Stations)	33,200 sf	24,000 sf	57,200 sf

[1] *Los Angeles County Department of Regional Planning, 6 June 1996. Includes existing development as contained in the Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (June 1995).*
[2] *Draft Newhall Ranch Specific Plan, July 1996.*
[3] *du = dwelling unit; sf = square feet; sta = staff; ac = acres.*

Over the estimated twenty-five year buildout period for the Specific Plan, other development activity will occur throughout the Santa Clarita Valley. This growth will cumulatively impact the Los Angeles County Library system of the Santa Clarita Valley area. Library impact data on these projects, taken from a recent Inventory Information report prepared by the County's Department of Regional Planning for the three libraries located within the Santa Clarita Valley, are summarized in **Table 4.19-3, Cumulative Library Impacts, DMS Buildout Scenario.**

Table 4.19-3
Cumulative Library Impacts
DMS Buildout Scenario
(Space in Square footage)

Library		Existing Supply[1]	Existing Demand[2]	Cumulative Demand[3]	Total Demand[4]
Santa Clarita Valley					
	Space	33,868	53,768	39,759	93,527
	Items	260,496	307,248	227,190	534,438
Newhall Ranch					
	Space	0	0	23,983	23,983
	Items	0	0	137,048	137,048
Total	Space	33,868	53,768	63,742	117,510
	Items	260,496	307,248	364,238	671,486

Source: Los Angeles County Department of Regional Planning, Inventory Information for Library Service, (6 June 1996).
[1] Represents existing facilities and number of books at each library branch as of 6 June 1996. Does not include mobile library data.
[2] Represents the square footage and number of books required to serve the existing population.
[3] Represents additive requirement of square footage and number of books demanded by DMS plus Newhall Ranch Specific Plan.
[4] Represents existing demand plus cumulative demand (does not include existing supply).
Items = books, magazines, periodicals, etc.

As shown, buildout of this scenario without the Newhall Ranch Specific Plan would result in an additional demand for 39,759 square feet of library space and for 227,190 items (books, magazines, periodicals, etc.). With Newhall Ranch, these numbers would increase by 23,983 square feet and 137,048 items to a total additional demand at DMS Buildout of 63,742 square feet and 364,238 items.

Operation of these facilities could be financed by new development through new tax revenue generated in the County on an on-going annual basis, a portion of which could be allocated by the County Board of Supervisors to the County Public Library. It is the opinion of County Public Library staff, however, that funding allocations from tax revenues would not be adequate to offset the full impact of cumulative development on the library system and that cumulative development would create a significant impact on the Library's ability to construct new libraries and purchase new books. Therefore, Library staff suggest that new development either pay the suggested interim library fee of $336 per residential unit or construct library facilities in the Valley per County Public Library guidelines as ~~full~~ mitigation which will satisfy DMS and eliminate or substantially lessen ~~to~~ cumulative impacts on the County Public Library.

b. Santa Clarita Valley Cumulative Buildout Scenario

The second scenario [herein referred to as the "Santa Clarita Valley (SCV) Cumulative Buildout Scenario"] entails buildout of all lands under the current land use designations indicated in the Santa Clarita Valley Area Plan and the General Plan, plus the proposed Specific Plan, plus all known active pending General Plan Amendment requests for additional urban development in the unincorporated area of Santa Clarita Valley and the City of Santa Clarita. In this report, this area is often referred to as the "Valley." A list of the future development activity (with and without the Newhall Ranch Specific Plan) expected in the Valley under the Santa Clarita Valley Cumulative Buildout Scenario is presented below in **Table 4.19-4, Cumulative Library Impacts - DMS Buildout Scenario.**

Upon buildout of the SCV Cumulative Buildout Scenario, existing population plus new residential development (including the proposed Specific Plan) would total 450,295 and would create a total demand for 157,603 square feet of library facilities and 900,590 items, or 123,735 square feet more than the existing 33,868 square feet, and 640,094 items more than the existing 260,496 items (see **Appendix 4.19** for detailed calculations). As under the previous scenario, operation of these facilities could be financed by new development through the new tax revenue that new development would generate for the County on an on-going annual basis. However, because it is the opinion of County Public Library staff that funding allocations from tax revenues would not be adequate to offset the full impact of buildout on the Library's ability to construct new libraries and purchase new books, Library staff propose that new development either pay the suggested interim library fee of $336 per residential unit or pay a fee that is ultimately adopted by the County Board of Supervisors or construct library facilities in the Valley per County Public Library guidelines as ~~full~~ mitigation which will satisfy DMS and eliminate or substantially lessen ~~to~~ cumulative impacts on the County Public Library.

7. CUMULATIVE MITIGATION MEASURES

It is expected that all cumulative development which would result in increasing the resident population in the Santa Clarita Valley area (e.g., single and multi-family residential projects, mobile homes) would be subject to mitigation consistent with County guidelines on a project-by-project basis similar to that indicated above for the proposed Specific Plan. Therefore, no additional mitigation beyond that which is identified for the proposed Specific Plan is recommended for cumulative development projects.

Table 4.19-4
Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario

Land Use Types	Cumulative Buildout w/o Specific Plan[1]	Newhall Ranch Specific Plan [2]	Cumulative Buildout w/ Specific Plan
Single Family	89,015 du[3]	11,025 du	100,040 du
Multi-Family	38,729 du	14,193 du[4]	52,922 du
Mobile Home	3,177 du		3,177 du
Commercial Retail	20,107,660 sf[3]	1,718,000 sf	21,825,660 sf
Hotel	336,420 sf		336,420 sf
School	3,049 sta[3]	400 sta	3,449 sta
College	1,152 sta		1,152 sta
Hospital	285,470 sf		285,470 sf
Library	226,000 sf	25,000 sf	251,000 sf
Church	399,170 sf		399,170 sf
Business Park	7,773,730 sf	1,513,000 sf	9,286,730 sf
Industrial/Manufact.	33,480,250 sf		33,480,250 sf
Utilities	1,421,160 sf	35,000 sf	1,456,160 sf
Commercial/Med. Office	8,653,790 sf	2,489,000 sf	11,142,790 sf
Golf Course/Park	1,314 ac[3]	313 ac	1,627 ac
Special Generator	53,600 sf	24,000 sf	77,600 sf

[1] *Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (June 1995). Includes existing development and active pending general plan amendment requests.*
[2] *Draft Newhall Ranch Specific Plan, July 1996.*
[3] *du = dwelling unit; sf = square feet; sta = staff; ac = acres*
[4] *Includes 538 Second Units.*

8. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Specific Plan Impact

With the implementation of the recommended mitigation measure, no unavoidable significant impacts would occur.

b. Cumulative Impact

Mitigation measures are determined on a project by project basis. Therefore, no unavoidable significant impacts are anticipated. Implementation of the same measures as recommended for the Specific Plan would result in reducing the impact of cumulative development on the County Public Library to below a level of significance.

4.20 Parks, Recreation and Trails

4.20 PARKS, RECREATION AND TRAILS

1. SUMMARY

There are no existing public parks or trails within the Newhall Ranch Specific Plan site boundaries. However, the Los Angeles County Department of Parks and Recreation has proposed two regional trails that traverse the Newhall Ranch Specific Plan site: the Pico Canyon Trail (crossing through Potrero Canyon) and the Santa Clara River Trail (following the Santa Clara River Corridor).

There are several existing and proposed parks in the vicinity of the Newhall Ranch Specific Plan site. Such facilities include parks maintained by Los Angeles County, the City of Santa Clarita, Ventura County, the State of California, and the Federal government. There is an extensive existing and proposed trail system in the Santa Clarita Valley area, which includes three regional trails and two local trails. There is also a developed "paseo" system (pedestrian only walkways) which runs through the community of Valencia. The Los Angeles County Department of Parks and Recreation has determined that there is a County-wide shortage of local parkland. According to the Los Angeles County Department of Parks and Recreation, Park Planning Area #35 (which includes Newhall Ranch) is, as of January 1995, deficient by 246.6 acres of local parkland.

The proposed Newhall Ranch Specific Plan would include land for community and neighborhood parks for local residents, as well as 3,950 acres of High Country Special Management Area and 813 acres of River Corridor Special Management Area for open area use. Measured under the identified significance threshold, the Newhall Ranch Specific Plan is in compliance with County and Quimby Act parkland standards and would not result in unavoidable significant impacts to local parks and recreation facilities. The cost to maintain and operate the park and recreation facilities is covered by increased revenue accrued to the County Department of Parks and Recreation and the County general fund that would be generated by Newhall Ranch. In fact, Newhall Ranch is projected to generate a surplus to the County General Fund over its twenty-five year cumulative build out period after fully funding all services.

The Specific Plan for Newhall Ranch would include a hierarchy of community, local and other trails connecting to regional trails. No negative Specific Plan-related trail impacts would occur; thus, no unavoidable significant impacts are expected. In fact, implementation of the Specific Plan, with its proposed trail network, would beneficially impact the developing regional trail network.

Implementation of cumulative projects would incrementally increase demand for local park facilities in an area where such facilities are already below locally-adopted standards. However, the Newhall Ranch Specific Plan will meet the County and Quimby Act local parkland standards. Further, future development projects would be subject to the County and Quimby Act requirements, which would mitigate the demand associated with each future project. Given this, no significant, cumulative impacts are expected to occur. However, the existing parkland deficit of 246.6 acres would remain.

2. INTRODUCTION

Information in this section was derived from the Los Angeles County Department of Parks and Recreation, and local, State and Federal recreation facilities records.

a. County Park Standards

The County of Los Angeles Department of Parks and Recreation provides local parks and recreation facilities for northwestern Los Angeles County residents living in unincorporated areas, and provides regional parks for all area residents. The Los Angeles County Department of Parks and Recreation has identified the local parks in the vicinity as neighborhood, community or regional facilities.[1]

Neighborhood parks are usually 5.0 acres or more, and are often sited in residential neighborhoods adjacent to elementary schools. They may provide amenities, such as a recreation building, a multi-purpose field, hard court area, play apparatus, picnic passive area, and a service area. Community parks are usually 16 acres or more, unless located adjacent to a secondary school when 10 acres or more may be adequate. They may provide amenities, such as a community building, swimming pool, multi-purpose fields, hard court areas, parking service areas, and play apparatus.[2] Regional facilities include community regional parks, regional parks, recreation areas, nature preserves, trails and golf courses. Regional facilities are intended to provide recreational opportunities for a larger group of citizens than the aforementioned neighborhood or community parks.

The State of California passed legislation (Section 66477 of the Government Code) which allows a city or county to pass an ordinance to require, as a condition of approval of a subdivision, the dedication of land or the payment of a fee in lieu of dedication, or a combination of both, for park or recreational purposes. This legislation, commonly called the "Quimby Act," established a standard of 3.0 acres per 1,000 population as the amount of land necessary to meet the requirement for the provision of

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1 Frank Moreno, Jr., Los Angeles County Department of Parks and Recreation, correspondence to Impact Sciences, Inc., 25 January 1995.

2 Los Angeles County Department of Parks and Recreation, Park Facilities and Areas of Jurisdiction, (Los Angeles, California: September 1992), Forward.

neighborhood and community parkland. In order to obtain the additional parkland necessary to accommodate continuing growth within the Los Angeles area, the County of Los Angeles has adopted a specific ordinance which is consistent with guidelines identified in the Quimby Act. The County Ordinance requires that the subdivider of a residential subdivision "shall provide local park space to serve the subdivision, pay a fee in lieu of the provisions of such park land . . . provide local park space containing less than the required obligation but developed with amenities equal in value to the park fee, or do a combination of the above."[3] The Quimby and County park obligation is calculated, and the methods for park provision (land, fees, improvements) are determined, prior to tentative approval of each residential subdivision.[4]

At the time of this writing, the County of Los Angeles Department of Parks and Recreation has established an in-lieu fee of $122,000 per acre for Park Planning Area #35B, which includes the Specific Plan site. The County Quimby Ordinance requires 3.0 acres per 1,000 persons pursuant to the County Subdivision Ordinance.[5] The County Ordinance identifies several types of park and recreation facilities which may satisfy projected needs and are eligible for Quimby Credit. These facilities may include, but are not limited to: publicly or privately owned playgrounds, riding and hiking trails, tennis, basketball or other similar game court areas, swimming pools, putting greens, athletic fields, picnic areas, and other types of natural or scenic areas as recommended by the director of parks and recreation for passive or active recreation.[6]

3. EXISTING CONDITIONS

The Los Angeles County Department of Parks and Recreation has determined that there is a County-wide shortage of local parkland. According to Department staff, Park Planning Area #35 (which includes Newhall Ranch) is, as of January 1995, deficient by 246.6 acres of local (neighborhood and/or community) parkland.[7] This area encompasses the Newhall Ranch Specific Plan site and nearly the entire Santa Clarita Valley, from Sand Canyon on the east to the Los Angeles/Ventura County line on the west, and from the Angeles National Forest on the north to the crest of the Santa Susana Mountains on the south. The communities within this area include Castaic, Hasley Canyon, Val Verde, Valencia, Newhall, Saugus, and Canyon Country.

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3 Los Angeles County Ordinance 21.24.340, et seq.

4 Interview with James Barber, Departmental Facilities Planner 2, Los Angeles Department of Parks and Recreation, 7 July 1995.

5 Los Angeles County Ordinance 21.24.340, et seq.

6 Los Angeles County Ordinance 21.24.340, et seq.

7 Frank Moreno, Jr., Los Angeles County Department of Parks and Recreation, correspondence to Impact Sciences, Inc., 25 January 1995, and interview with Ron Gagnon, Departmental Facilities Planner, Los Angeles Department of Parks and Recreation, 11 January 1996.

There are no parks within the Specific Plan boundary; however, a variety of jurisdictions own and/or maintain park and recreation areas in the vicinity of the Newhall Ranch Specific Plan site (**Figure 4.20-1, Existing and Proposed County Parks**). These facilities include: eight County-owned and -operated parks; two County park sites, one County sports complex that has not been developed, and one State recreation area. The County parks total approximately 1,233 acres and the State recreational facility is approximately 8,700 acres.

a. Local and Regional Parks

(1) County Parks

The County of Los Angeles maintains eight parks totaling 1,233 acres within the vicinity of the Newhall Ranch Specific Plan site, in addition to the 8,700-acre Castaic Lake State and County Recreation Area. The majority of these facilities are developed and contain amenities, such as children's play areas, multi-purpose fields, recreation/activity buildings, sand volley ball courts, picnic tables, etc. Please refer to **Table 4.20-1, Existing and Proposed County Parks and Recreation Facilities in Portions of Park Planning Area #35 Near Newhall Ranch**, for information on County Parks within the vicinity of the Newhall Ranch Specific Plan site.

Specific County Parks of note include the 57.58 acre Val Verde Community Regional Park found in proximity to the Newhall Ranch Specific Plan site, the 8,700 acre Castaic Lake State and County Recreation Area, and the Castaic Lake Sports Complex. The Val Verde Community Regional County Park covers 57.58 acres and is located approximately a quarter of a mile north of the Newhall Ranch Specific Plan site, at 30300 West Arlington Street in the unincorporated community of Val Verde.

Existing park improvements include an all-purpose clubhouse building, bath house and swimming pool, ball diamond, parking with security lighting, and drinking fountains. The park also includes picnic areas with tables and barbecues. There is a children's play area, basketball and tennis courts, as well as horseshoe pits and shuffleboard. In addition, the park offers overnight and day camping for organized groups, including youth organizations.

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L E G E N D

CASTAIC LAKE STATE AND COUNTY RECREATION AREA

CASTAIC SPORTS COMPLEX (proposed)

HASLEY CANYON COUNTY PARK

VAL VERDE COMMUNITY REGIONAL PARK

NORTHBRIDGE PARK

BOUQUET CANYON COUNTY PARK

PLUM CANYON PARK

VASQUEZ ROCKS COUNTY PARK

PROJECT SITE

STEVENSON RANCH COMMUNITY PARK (proposed)

PLACERITA CANYON PARK

City of Santa Clarita

SAN FRANCISQUITO CANYON ROAD
HUGHES ROAD
LAKE
HASLEY CYN
SAN MARTINEZ
CHIQUITO CYN
SR-126
GOLDEN STATE FWY
SECO CYN
BOUQUET CYN
SAND CANYON RD
SIERRA HWY
DAVENPORT
AUGUA CANYON
MAGIC MTN PKWY
VALENCIA
SAN FERNANDO
SOLEDAD CYN
MCBEAN PKWY
PICO CYN
LYONS
PLACERITA CYN
SR-14
Los Angeles County
Ventura County

SOURCE: LOS ANGELES COUNTY DEPARTMENT OF PARKS AND RECREATION, 1995

IMPACT SCIENCES INC
NORTH
English 0 2000' 4000'
Metric 0 225m 450m
660 ACRES
2600 ACRES

FIGURE 4.20-1
EXISTING AND PROPOSED COUNTY PARKS

2/19/96

Table 4.20-1
Existing and Proposed County Parks and Recreation Facilities in Portions of Park Planning Area #35 Near Newhall Ranch

County Facilities	Acreage	Location	Condition
Hasley Canyon County Park	5.38	28700 West Quincy Street, Castaic	Developed
Bouquet Canyon County Park	9.00	28127 Wellston Drive, Saugus	Developed
Stevenson Ranch Community Park	16.00	1 mile west of I-5 and Pico Canyon Road.	Undeveloped
Castaic Sports Complex	50.00	31320 North Castaic Road, Castaic	Undeveloped
Val Verde Community Regional Park	57.58	30300 West Arlington Street, Val Verde	Developed
Placerita Canyon Park	341.12	19152 Placerita Canyon Road, Newhall	Developed
Vasquez Rocks County Park	745.00	10700 W. Escondido Canyon Road, Saugus	Developed
Northbridge Park	8.63[1]	Grandview Drive, east of McBean Parkway	Developed
Castaic Lake State and County Recreation Area[2]	8,700.00	32132 Ridge Route Road, Castaic	Developed

Source: Los Angeles County Department of Parks and Recreation, 1995.
[1]*Interview with Larry Hensley, Landscape Architect, Los Angeles County Department of Parks and Recreation, Los Angeles, California, 10 July 1995.*
[2]*State-owned park, maintained and operated by the County.*

The Castaic Lake State and County Recreation area is located approximately 4 miles northeast of the proposed Newhall Ranch Specific Plan site, at 22132 Ridge Route Road, in the unincorporated community of Castaic. This multi-use park covers 8,700 acres, including 2,600 surface acres of water contained in an upper and lower reservoir system.[8] Castaic Lake reservoir and surrounding land is owned by the State, and the County has a long-term lease on the land and operates both the upper lake, Castaic Lake reservoir, and the lower lake, Castaic Lagoon.[9] Facilities at the upper lake include major boat ramps and supporting facilities with fishing, boating, water and jet skiing, and parking for boats and trailers. Development around the 180-acre Castaic Lagoon includes major picnic areas for groups and families, swimming beaches, parking areas, non-motorized boat facilities, and general day-use recreation facilities, such as comfort stations.

8 Los Angeles County Department of Parks and Recreation, Park Facilities and Areas of Jurisdiction, (Los Angeles, California: September 1992), p. 25.

9 Frank Moreno, Jr., Los Angeles County Department of Parks and Recreation, correspondence to Impact Sciences, Inc., 7 February 1995.

The Castaic Sports Complex covers approximately 50 acres and is located approximately 3 miles north of the Newhall Ranch Specific Plan site at 31320 North Castaic Road in the unincorporated community of Castaic. The sports complex includes baseball fields and picnic facilities. Future development in the park will include tennis courts, swimming pool and bath house, children's play area, comfort stations and off-street parking.

(2) City of Santa Clarita Parks

The City of Santa Clarita has ten parks totaling 67.25 acres (eight developed and two undeveloped), as shown in **Table 4.20-2, Existing and Proposed City of Santa Clarita Parks.**[10] Also within the City of Santa Clarita are three golf courses: one public (Vista Valencia Golf Course) and two private (Valencia Country Club and Friendly Valley Country Club).

Table 4.20-2
Existing and Proposed City of Santa Clarita Parks

City of Santa Clarita Facilities	Acreage	Location	Condition
Calgrove Park	0.25	Calgrove Boulevard, east of I-5, Newhall	Undeveloped
North Oaks Park	2.30	24824 North Camp Plenty Road, Canyon Country	Developed
Almendra Park	4.30	Almendra Dr. at Alta Madera Road, Valencia	Developed
Valencia Meadows Park	4.80	25671 North Fedala Road Valencia	Developed
Pamplico Park	5.00	Pamplico Drive, east of North Seco Canyon Road, Saugus	Undeveloped
Old Orchard Park	5.40	25023 North Fedala Road, Valencia	Developed
Valencia Glen Park	5.50	Via Gavola, east of Avenue Jolita, Valencia	Developed
Santa Clarita Park	7.50	27285 North Seco Canyon Road, Saugus	Developed
H.M. Newhall Memorial Park	15.00	24923 Newhall Avenue, Newhall	Developed
Canyon Country Park	17.20	17615 Soledad Canyon Road, Canyon Country	Developed
Total Park Acreage	67.25		

Source: City of Santa Clarita General Plan, 1991.

10 "Public Services, Facilities, and Utilities Element" in City of Santa Clarita General Plan (Santa Clarita, California: 1991), p. PR-1.

b. State Facilities

(1) Towsley Canyon Park

This park is located just west of the Calgrove Boulevard/Interstate 5 (I-5) intersection in the Santa Susana Mountains, approximately 3 to 4 miles southeast of the Newhall Ranch Specific Plan site. The 145-acre park is owned by the State of California Mountains and Recreation Conservation Authority. The facilities at this park include hiking trails, mountain bike trails in designated areas, picnicking and barbecue areas, a visitor/nature center, and restroom facilities with a drinking fountain.

(2) Santa Monica Mountains Conservancy and Rim of the Valley Corridor/Trail

The Santa Monica Mountains Conservancy (Conservancy) Rim of the Valley Corridor (Corridor) includes land in the mountains that surround the San Fernando, Simi, Conejo and La Crescenta Valleys. The Conservancy is a State agency created in 1980 under the auspices of the Resources Agency. It was initially established to preserve land and provide opportunities for recreation in the Santa Monica Mountains and the Rim of the Valley Corridor. The Conservancy is primarily responsible for funding the acquisition of land with Statewide and regional significance.

The Rim of the Valley Corridor is actually an overlay on private property and the Corridor is a proposal envisioning a 200 mile plus trail. At the present time, only 10 miles have been acquired in the Santa Susana Mountains in addition to the 47-mile Backbone Trail located in the Santa Monica Mountains. The mountains within the Corridor include the San Rafael and Simi Hills and the Verdugo, San Gabriel, and Santa Susana Mountains. The portion of the proposed Newhall Ranch Specific Plan site generally south of Potrero Canyon is included in the Corridor Plan, but the proposed trail does not cross the Newhall Ranch Specific Plan site.

(3) Santa Clarita Woodlands State Park

This is a proposed park located west of the Antelope Valley Freeway (14)/Interstate 5 (I-5) interchange, approximately 3 to 4 miles southeast of the proposed Specific Plan site. As proposed, the 3,000 plus acre park will contain hiking and camping facilities. The creation of this park involved a land transaction that included Chevron and the Santa Monica Mountains Conservancy as the primary participants. The deal involved the donation of 851 acres of land historically owned by Chevron, with the Conservancy purchasing another 2,184 acres.

c. Federal Facilities

(1) Santa Monica Mountains National Recreation Area

The Santa Monica Mountains National Recreation Area (SMMNRA) is located approximately 12 miles southwest of the Newhall Ranch Specific Plan site, encompassing approximately 344 square miles, and is approximately 46 miles in east-west length and 8 to 10 miles in north-south length. The Santa Monica Mountains National Recreation Area is under the Federal jurisdiction of the National Park Service (NPS), U.S. Department of the Interior. Within the Santa Monica Mountains National Recreation Area, the National Park Service owns a total of 8,400 acres in fee and an additional 17 acres in easements.

(2) Angeles National Forest

The Angeles National Forest covers 693,000 acres of land area in the San Gabriel Mountains,[11] which constitutes approximately one-quarter of the land located within Los Angeles County. The National Forest is administered by the U.S. Forest Service, which is an agency of the U.S. Department of Agriculture. The Angeles National Forest is supervised in districts. The Newhall Ranch Specific Plan site is located near two districts: the Saugus District located approximately 8 miles to the north and the Tujunga District located 10 miles to the east.[12]

The National Forest offers a wide range of camping (with fees) and picnicking facilities. In addition, there are hundreds of miles of trails, some of which are located near the site area (see discussion on trails below). There are four reservoirs in the Forest, including Castaic and Pyramid Lakes (5 miles northeast and 18 miles north of the site, respectively) providing water skiing, fishing, sail boarding, canoeing, jetskiing, and swimming activities. The reservoirs charge entrance fees, as well as boat launching, boat rental, and overnight camping fees. In addition to providing recreational opportunities, the Forest provides a home for an array of wildlife.[13]

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11 U.S. Department of Agriculture, Forest Service, Pacific Southwest Region, Angeles National Forest, brochure, 1985.

12 U.S. Department of Agriculture, Forest Service, Pacific Southwest Region, Angeles National Forest, brochure, 1985.

13 U.S. Department of Agriculture, Forest Service, Pacific Southwest Region, Angeles National Forest, brochure, 1985.

(3) Los Padres National Forest

The Los Padres National Forest is located primarily in the northern section of Ventura County. However, a portion of the Los Padres National Forest crosses the Los Angeles/Ventura County line, 8 miles north of State Route (SR) 126 and the proposed Newhall Ranch Specific Plan site.

As part of the Forest Services Multiple Use Management Strategy, various recreation facilities are provided in the Los Padres National Forest, including hiking, equestrian and off-road vehicle trails, and camping areas (with fees) accessible by road and trail. There are fifty-seven dispersed trail camps, nineteen developed family campgrounds, and one developed group campground. There are many miles of recreation roads utilized by visitors as scenic drives and by off-highway-vehicles. The Forest has inventoried 373.7 miles of trails, including 17.7 miles of the Piedra Blanca National Recreation Trail which begins at Reyes Creek Campground and ends at Lion Campground.[14] Other special areas found in the Forest include the approximately 9,500-acre Dick Smith Wilderness and the 53,000 acre Sespe Condor Sanctuary[15] (both located in Ventura County).

d. Other Facilities

(1) Lake Piru

Lake Piru is located at 4708 Piru Canyon Road, which is just west of the Los Angeles/Ventura County line, approximately 5 miles north of the unincorporated Ventura County community of Piru, and approximately 5 miles northwest of the Newhall Ranch Specific Plan site. The lake is owned and operated by United Water Conservation District[16] and measures approximately 4 miles by one mile. The northern portion of this lake is located within the Los Padres National Forest. Water sports offered include water-skiing, fishing, and boating supported by a marina with boat rentals, snack bar, and mini-market. There are 238 campsites with comfort stations, laundry facilities and picnic areas. The payment of a fee is required to enter the park, as well as to launch and rent boats and to camp overnight. A small portion of the northern part of the lake is located in the Los Padres National Forest.[17]

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14 Ventura County General Plan, Public Facilities and Services Appendix, May 1988.
15 Interview with Robert Mesta, U.S. Fish and Wildlife Service, 7 March 1995.
16 Interview with Sandy Corneilus, Public Information Officer, Lake Piru, California, 25 October 1994.
17 Interview with Sandy Corneilus, Public Information Officer, Lake Piru, California, 25 October 1994.

e. Area Trails

As illustrated in **Figure 4.20-2, Proposed and Existing County Trails,** the region surrounding the Newhall Ranch Specific Plan site is served by an existing and proposed trail system, including both County and regional trails.

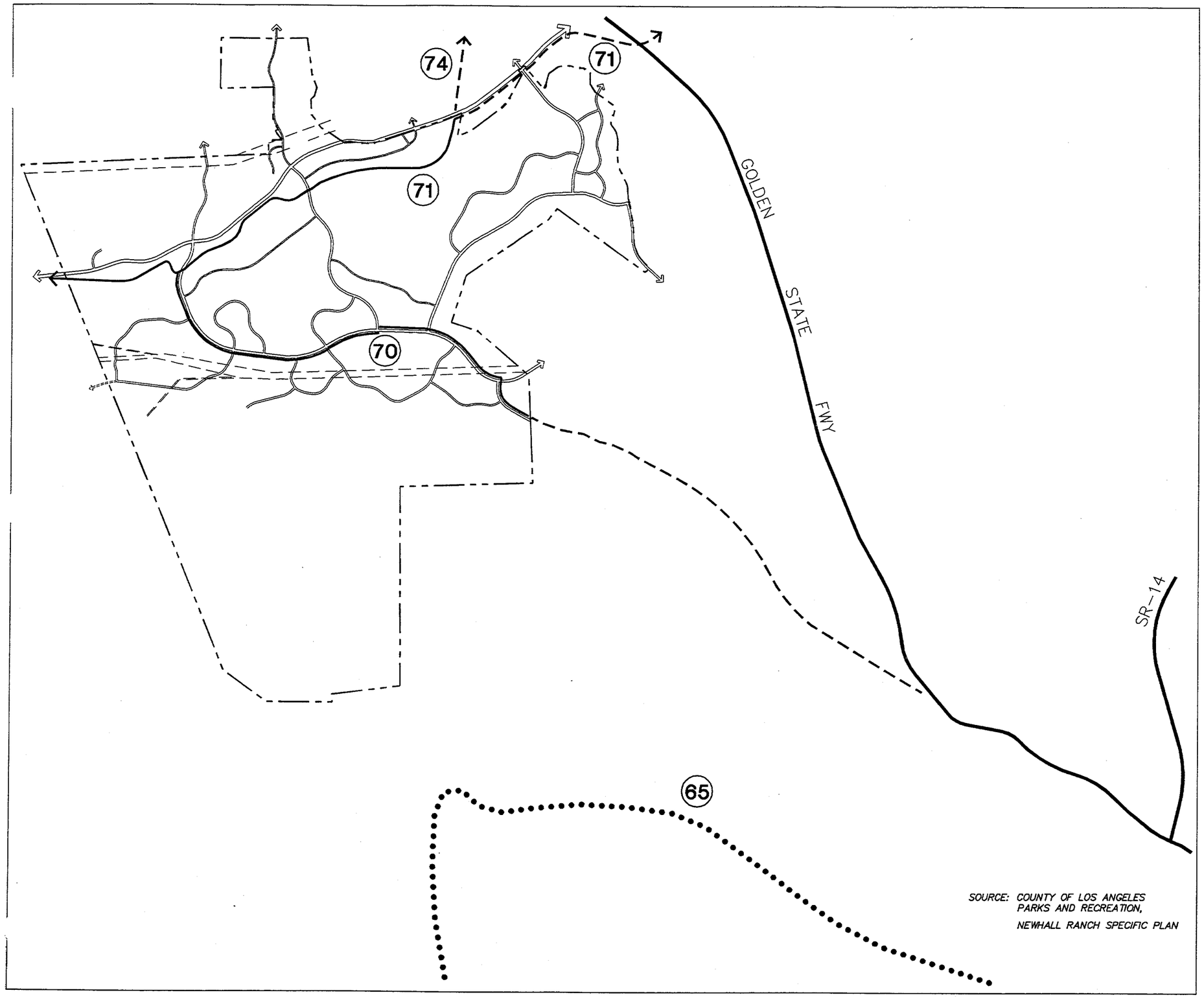
(1) Los Angeles County Trails

The County of Los Angeles Department of Parks and Recreation plans and maintains an extensive system of riding and hiking trails within the County. The following is a discussion of the elements of this system which are located in the general vicinity of the Santa Clarita Valley. Trails that are developed and in use are discussed in terms of location, trail length, difficulty (as rated by the County), and other characteristics. Trails that are planned, but not developed, are discussed in terms of general location or alignment, approximate length, anticipated difficulty, and proposed ancillary uses. Specific trails discussed in this section are shown below in **Figure 4.20-2, Proposed County Trails**, and are summarized in **Table 4.20-3, Existing and Proposed County Trails**. It should be noted that the illustrated alignments of proposed trails are general.

Table 4.20-3
Existing and Proposed County Trails

Trail Name	Length (miles)	Rating	Condition
Los Pinetos Trail	7.0	Difficult	Developed
Wilson Canyon Channel Trail	2.0	Moderately Difficult	Developed
William S. Hart Park Trail	2.5	Moderately Difficult	Developed
Santa Clara River Trail	30.0	Moderately Difficult	Partially Built
Pico Canyon Trail	9.0	Difficult	Proposed
Hasley Canyon Trail	3.4	Moderately Difficult	Partially Built
Castaic Creek Trail	5.0	Not Difficult	Proposed

Source: Los Angeles County Department of Parks and Recreation, 1995.



SOURCE: COUNTY OF LOS ANGELES PARKS AND RECREATION, NEWHALL RANCH SPECIFIC PLAN

NEWHALL RANCH
Newhall Ranch Company

L E G E N D

- (71) SANTA CLARA RIVER TRAIL
- (74) CASTAIC CREEK TRAIL
- (70) PICO CANYON TRAIL
- (65) RIM OF THE VALLEY TRAIL (EXISTING)
- ONSITE (PROPOSED PROJECT ALIGNMENT)
- OFFSITE (PROPOSED COUNTY ALIGNMENT)
- EXISTING TRAIL

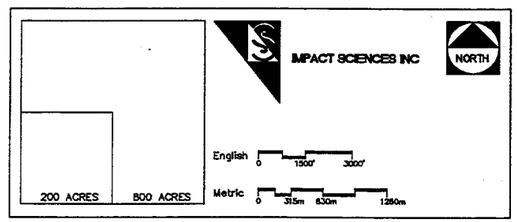


FIGURE 4.20-2
PROPOSED COUNTY TRAILS

2/19/96

(a) Los Pinetos Trail (Developed)

Los Pinetos Trail is an equestrian trail with camping facilities available by reservation. The trail follows a flood control channel through 7 miles of natural area, including Placerita Canyon State Park, and is rated as "difficult" by the Los Angeles County Department of Parks and Recreation. The trail is intended to link the City of Santa Clarita trail system to the proposed Rim of the Valley State Trail via the proposed Placerita Canyon Trail.

(b) Wilson Canyon Channel Trail

Wilson Canyon Channel Trail provides 2 miles of moderately difficult hiking in the Angeles National Forest and provides views of the San Fernando Valley and Placerita Canyon. This trail is a link to the proposed Rim of the Valley Trail via the Los Pinetos Trail. This trail is rated as "moderately difficult" by the County.

(c) William S. Hart Park Trail (Developed)

This 2.5 mile nature trail winds through the park past the William S. Hart Museum and designated points of interest, and provides views of the Santa Clarita Valley. Separate access is provided for equestrian use. This trail is rated as "moderately difficult" by the County.

(d) Santa Clara River Trail (Partially Built)

The Santa Clara River Trail is proposed along the Santa Clara River from the Los Angeles/Ventura County line on the west, linking to the Pacific Crest Trail in the eastern Santa Clarita Valley over a distance of 30 miles. The trail will traverse the Newhall Ranch Specific Plan site. The majority of this trail between I-5 and State Route (SR) 14 is located within the City of Santa Clarita. The trail is part of the Santa Clarita Valley Area Plan for integrated trails.[18] The Santa Clara River Trail would link the Pacific Crest Trail with the proposed trail network in the northwestern County area and would be open to hiking and equestrian use. The trail would be considered "moderately difficult" according to the Los Angeles County Department of Parks and Recreation.

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18 Los Angeles County Department of Regional Planning, Santa Clarita Valley Area Plan (Los Angeles, California: Comprehensively Updated 6 December 1990), p.62.

(e) Pico Canyon Trail (Proposed)

Pico Canyon Trail is proposed to be roughly 9 miles in length beginning at the intersection of Potrero Canyon and the Santa Clara River just east of the Los Angeles/Ventura County line on the Newhall Ranch Specific Plan site. Moving in an easterly direction, the trail is generally proposed to follow Potrero Canyon, and then connect to Pico Canyon ending at the mouth of the canyon just west of I-5. At this juncture, the trail will connect to another County proposed trail (Gavon Canyon Trail) that will connect to the proposed Rim of the Valley Trail. The Pico Canyon Trail has been rated "difficult" by the Los Angeles County Department of Parks and Recreation.

(f) Hasley Canyon Trail (Partially Built)

Hasley Canyon Trail is proposed to follow Hasley Canyon for 3.4 miles in a westerly direction from Castaic Creek. A portion of this trail runs through, and is adjacent to, the Valencia Commerce Center, and is partially built. This trail is rated by the Los Angeles County Parks and Department as "moderately difficult."

(g) Castaic Creek Trail (Proposed)

Castaic Creek Trail is proposed to link with the Santa Clara River Trail at the intersection of Castaic Creek and the Santa Clara River. The trail is proposed to follow Castaic Creek north for 5 miles to the Castaic Lake and County Recreation Area, ultimately intersecting with the other proposed County trails located further north. The Castaic Creek Trail has been rated by the Los Angeles County Department of Parks and Recreation as "not difficult."

(2) Pacific Crest National Trail (Developed)

A segment of the Pacific Crest National Trail extends for 160 miles through the Angeles National Forest, providing views of the Antelope Valley, varied terrain, vegetation, and wilderness, and the San Gabriel Mountains. Campgrounds, picnic areas, and staging areas are available along the trail. In all, the Pacific Crest National Trail traverses 2,600 miles from Canada to Mexico.[19] The trail was established under the National Trails System Act of 1968 and is part of the National System of Recreation and Scenic Trails. Only foot and equestrian travel is permitted on the trail; motorized

19 U.S. Department of Agriculture, Forest Service, Pacific Crest Trail, July 1988, p.1.

vehicles and mountain bicycles are prohibited. Other trails that connect to the Pacific Crest National Trail include Fish Canyon Trail, Bear Canyon Trail and Gillette Mine Trail. All of these trails are located within the Angeles National Forest land and are north of Castaic Lake. The proposed County Castaic Lake Trail would connect to these trails.

(3) Rim of the Valley Trail (Partially Built)

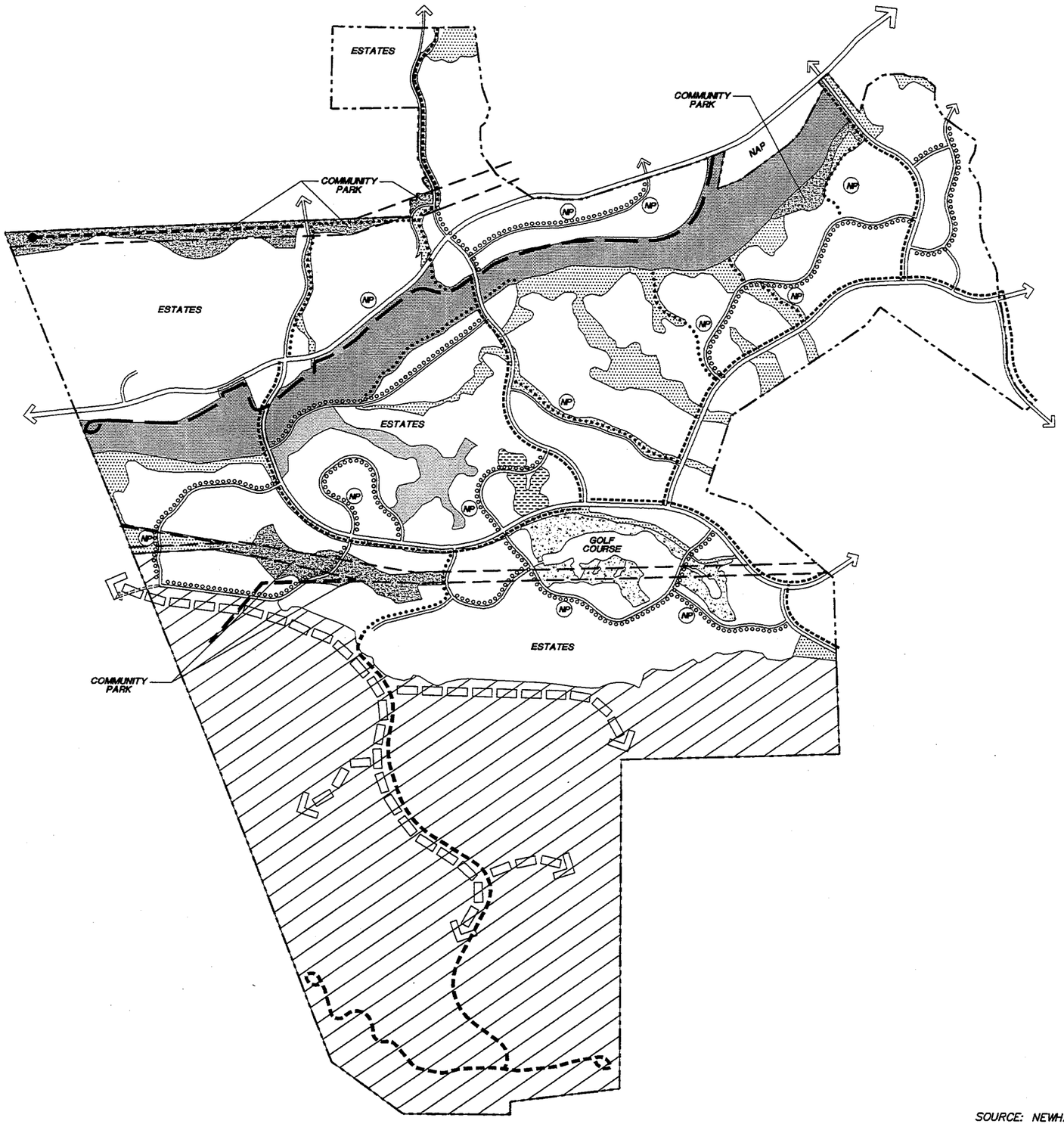
The Rim of the Valley Trail is proposed to be 200 miles in length and is located within the aforementioned Rim of the Valley Corridor. The trail, as proposed, is located on both public and private land. Much of the trail has not been constructed and remains as a proposed trail. At the time of this writing, only 10 miles have been acquired in the Santa Susana Mountains in addition to the 47-mile Backbone Trail located in the Santa Monica Mountains. The portion of the trail nearest the Newhall Ranch Specific Plan site is located approximately 2.5 miles to the southeast at the Oat Mountain lookout **(see Figure 4.20-2)**.

4. PROPOSED SPECIFIC PLAN IMPROVEMENTS

a. Parks and Recreation

Implementation of the proposed Newhall Ranch Specific Plan would result in the development of 24,680 dwelling units (plus up to 538 second units in the Estate Residential designation) with a total residential population of 68,524. Approximately 206 acres of parkland, or equivalent fees or improvements, would be required to meet standards identified by the County Park Dedication Ordinance. To accommodate the local neighborhood and community park needs of the proposed Newhall Ranch community, the Specific Plan incorporates a Park Program which is illustrated in **Figure 4.20-3, Proposed Recreation/Open Area Plan**. This park program includes the following:

- the reservation of approximately 349 acres of parkland space; including,
  - twelve Public Neighborhood Parks totaling 60 acres,
  - 274 acres of Public Community Parks,
  - a 15 acre Lake,
- an 18-hole Golf Course (approximately 180 acres);
- 1,088.8 acres of Open Area consisting of the 274 acres of Community Parks indicated above and an additional 814.8 acres of other Open Area throughout Newhall Ranch (i.e., undeveloped open areas, prominent ridges, bluffs, slopes, canyons, creekbeds and major utility easements);
- 3,949.9 acres of High Country Special Management Area;
- 813 acre Santa Clara River Corridor Special Management Area;



SOURCE: NEWHALL RANCH SPECIFIC PLAN

NEWHALL RANCH™
Newhall Ranch Company

L E G E N D

RECREATION AREAS

- NEIGHBORHOOD PARK (Conceptual locations)
- COMMUNITY PARKS
- GOLF COURSE (Conceptual location)
- COMMUNITY LAKE (Conceptual location)
- REGIONAL RIVER TRAIL
- COMMUNITY TRAIL
- LOCAL TRAIL
- PATHWAYS
- UNIMPROVED TRAILS

MAJOR OPEN AREAS

- OPEN AREA
- SPECIAL MANAGEMENT AREA - RIVER CORRIDOR
- SPECIAL MANAGEMENT AREA - HIGH COUNTRY
- WILDLIFE CORRIDOR

IMPACT SCIENCES INC

NORTH

English 0 1000' 2000'

Metric 0 225m 450m 900m

100 ACRES 400 ACRES

FIGURE 4.20-3
PROPOSED RECREATION/ OPEN AREA PLAN

2/19/96

- approximately 68 acres of trails including:
  - 16 acres of Regional River Trail,
  - 40 acres of Community Trails,
  - 12 acres of Local Trails.

Much of the High Country Special Management Area is located within the County-designated Significant Ecological Area (SEA) 20, and much of the River Corridor Special Management Area is located within SEA 23. The specific details involving the interface between the proposed Newhall Ranch Specific Plan and County SEAs 20 and 23 are provided in **Section 4.6 (Biota)** of this EIR.

(1) Description of Proposed Neighborhood Parks

The Newhall Ranch Specific Plan Land Use Plan contains a Neighborhood Park land use overlay. The overlay identifies the approximate location of the twelve Neighborhood Parks totaling 60 acres in size that are proposed within the Specific Plan. The use of an overlay allows for flexibility in park location as sites are adjusted during the course of the subdivision map process. The twelve neighborhood parks are subject to adjustment in terms of size, quantity, and location, based upon plan refinement and subdivision. Of the twelve public Neighborhood Parks, five are proposed adjacent to elementary schools and seven are stand-alone parks, as shown in **Figure 4.20-3, Proposed Recreation/Open Area Plan.** According to the Los Angeles County Park and Recreation Department, a neighborhood park is to be at least 5.0 acres in size unless located adjacent to a school, in which case it can then total less than 5.0 acres.[20] While the precise locations and size of individual parks would not be known until the future subdivision process, each public neighborhood park site is expected to be approximately 5.0 acres in size according to the Specific Plan.

Neighborhood parks are intended to serve local residents in adjacent neighborhoods. The recreational facilities contained within the parks would be determined by working with the Los Angeles County Department of Parks and Recreation.

(2) Description of Proposed Community Parks

As previously discussed, the Newhall Ranch Specific Plan has reserved three sites for public Community Parks, totaling 274 acres that are an overlay to the Open Area designation of 1,088.8 acres.

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20 Frank Moreno, Jr., Los Angeles County Department of Parks and Recreation, correspondence to Impact Sciences, Inc., 25 January 1995.

The public Community Parks are intended to provide expanded recreational opportunities for the residents of the Newhall Ranch community with some concurrent usage by the regional population for special events. The siting of the three reserved Community Park sites was determined by utilizing County acreage and location requirements consisting of a minimum of 16 acres of land serving an area of up to 1.5 miles in radius. These parks meet the location requirements as illustrated in **Figure 4.20-3.** Portions of the public Community Parks are encumbered by utility easements; however, these Open Areas allow for a wide variety of recreational and support uses, such as active play areas and parking lots. The public Community Park areas are typically located adjacent to other open areas in order to maximize their recreational use potential. Concepts for the Community Parks include the following:

(a) Riverwood Community Park

Riverwood Community Park would be the largest park in Newhall Ranch and would consist of approximately 128 acres of land on the northwestern Newhall Ranch Specific Plan boundary in the Village of Riverwood. This park would maximize use of a Southern California Edison Company utility easement and provide view points which offer panoramic views of both the Santa Clara River Valley Corridor and the High Country Special Management Area. Active uses may include ball fields, tennis courts, tot lots, and the trail system.

(b) Potrero Canyon Community Park

Potrero Canyon Community Park would be comprised of approximately 121 acres. Centrally located between the Villages of Oak Valley and Potrero Valley, the park would take advantage of the Southern California Edison Company easement to maximize the use of this open area. It would also feature the passive recreational opportunities of oak savannas and views of the Santa Clara River Valley Corridor, as well as active play area sites. Active uses may include ball fields, tennis courts, tot lots, and the trail system.

(c) The Mesas Community Park

The Mesas Community Park would consist of approximately 25 acres of land and is located adjacent to the River Corridor Special Management Area, within the Village of The Mesas at the base of the River bluff. The site is ideally suited to offer active recreational uses screened from proposed residential neighborhoods, and to provide passive view enjoyment of the River Corridor. Active uses may include ball fields, tennis courts, tot lots, and a local trail.

(3) The Community Lake

It is expected that the Community Lake would be approximately 15 acres in size. It would be an integral feature of the Mixed-Use Center within the Village of Potrero Valley. The man-made lake may feature a beach and promenade. Residential units may also be located along the lake perimeter.

(4) Description of Golf Course

An 18-hole golf course is proposed, encompassing approximately 180 acres. The golf course would be located in the Village of Potrero Valley. The golf course may include accessory features, such as a clubhouse and other recreational facilities, and would complement the public systems of parks, trails, and open area. The golf course would be a highly-visible, centralized amenity for Potrero Valley.

(5) Description of Open Areas

A system of other Open Areas, in addition to Community Parks, encompassing approximately 814.8 acres, weave through the central portion of the Newhall Ranch Specific Plan site. These Open Areas are a part of the Open Area designation that totals 1,088.8 acres (the 1,088.8 acres include 274 acres of Community Park overlay plus 814.8 acres as Open Areas). The Open Areas include prominent ridges, bluffs, slopes, canyons, creekbeds, and major utility easements, and function as a separation between development planning areas. These Open Areas are also designed to protect significant landforms and natural resources, as well as to provide passive recreational opportunities for the community through an extensive backbone trail system (e.g., landscaped parkways for pedestrians, multi-purpose bicycle and pedestrian trails, and pathways linking Villages). The trail system would be designed consistent with the design guidelines and sensitive to environmental concerns. The Specific Plan applicant proposes to improve these trails and receive Quimby park credit for these trail improvements pursuant to the County Ordinance.

(6) Description of High Country Special Management Area

The High Country Special Management Area incorporates 3,949.9 acres of Open Area and fifteen Estate lots within a single block located at the southern portion of the Newhall Ranch Specific Plan area. This area is characterized by steep hilly terrain rising to the crest of the Santa Susana Mountains. The area, while used primarily for cattle grazing, is dominated by coastal sage scrub and mixed chaparral, with oak woodlands and savannas. Patches of non-native grassland are also dispersed through this

area. The value of this area is enhanced substantially by its continuity with other large areas of undeveloped land found off site and within and adjacent to the Santa Susana mountains, providing an opportunity for future connections with a larger regional open area system. The High Country SMA is proposed as the new boundary of SEA 20 that occurs on site.

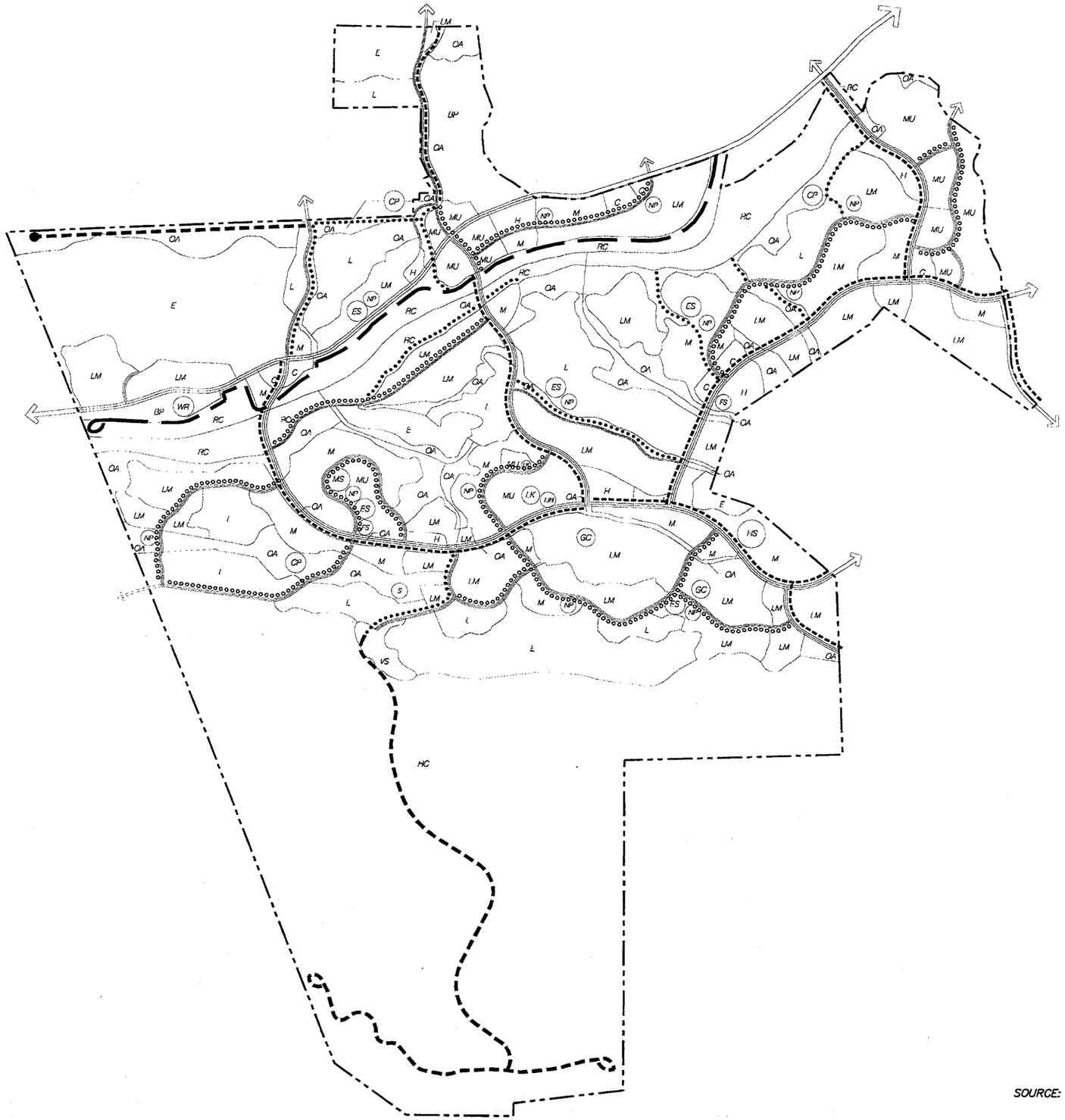
Except for the fifteen Estate lots, it is the intent of the Specific Plan that the balance of this Special Management Area be made available for public use. The Specific Plan includes design guidelines for the Estate lots, as allowed in the SEAs, that are sensitive to the natural setting these houses will be in. Public use of the High Country Special Management Area is limited to use of a proposed trail system. To facilitate public use of this land, the Specific Plan proposes to record a conservation easement over it and ultimately provide for its long-term ownership and maintenance by a responsible organization or public agency. Therefore, this conversion to SMA is considered a beneficial impact on the region's open area resources within both Los Angeles and Ventura Counties.

(7) Description of River Corridor Special Management Area

The River Corridor Special Management Area is approximately 813 acres of meandering Open Area along the Santa Clara River which transects the Newhall Ranch Specific Plan site. The reach of the Santa Clara River through the Newhall Ranch property has some of the highest quality riparian vegetation associations on the entire River, providing habitat for a great diversity of species. This Special Management Area would incorporate riparian wetland habitats along the River Corridor and serves as the new boundary for the portion of SEA 23 that occurs on site. **Section 4.6, Biota** discusses this Special Management Area in greater detail. The River Corridor Special Management Area includes a Regional River Trail along the north banks of the River for pedestrian and bicycle use.

(8) Description of Proposed Trails

The Newhall Ranch Master Trail Plan features the bicycle and pedestrian trail system illustrated in **Figure 4.20-4, Proposed Trail System**. This trail system is intended to provide on-site access to open areas and vital connections between living areas, shopping, work, entertainment, schools, and civic and recreational facilities. It is also designed to provide connections to the off-site regional trail network, which would extend the regional trail network into the community and provide additional recreational opportunities for both on-site and regional residents.



SOURCE: NEWHALL RANCH SPECIFIC PLAN

NEWHALL RANCH
Newhall Ranch Company

L E G E N D

- REGIONAL RIVER TRAIL
- COMMUNITY TRAIL
- LOCAL TRAIL
- PATHWAYS
- UNIMPROVED TRAILS

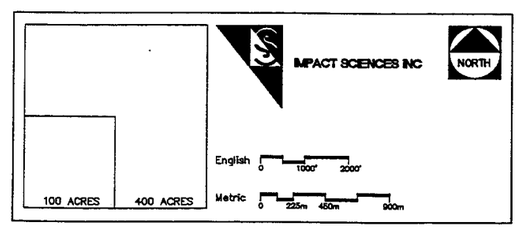


FIGURE 4.20-4
MASTER TRAILS PLAN

2/19/96

The Master Trail Plan includes the following hierarchy of trails:

- Regional River Trail,
- Community Trails,
- Pathways,
- Local Trails, and
- Unimproved Trails.

(a) Regional River Trail

The Regional River Trail is located on the northern side of the Santa Clara River and extends through the site from the eastern to western site boundaries. Pedestrians and bicycles would be accommodated on this trail. This trail represents an important recreational feature of the Newhall Ranch Specific Plan, allowing both active and passive enjoyment of the Santa Clara River Corridor. This trail would implement the portion of the Santa Clara River Trail which falls on the Newhall Ranch Specific Plan site, allowing for connections to the proposed Pico Canyon Trail, the Castaic Creek and Hasley Canyon Trails, and ultimately, the Pacific Crest Trail. The County Hiking and Trails Map indicates only the approximate trail alignment for the Santa Clara River Trail. It is expected that the County and the applicant would identify the exact location of the trail as part of future subdivision applications. The Regional River Trail would include approximately 16 acres.

(b) Community Trails

Community Trails are meandering pedestrian routes located adjacent to highways within the Newhall Ranch Specific Plan. These routes would have recognizable landscape features which identify these routes for inter-Village walking. It is expected that a Community Trail would be the on-site County proposed Pico Canyon Trail. The proposed Newhall Ranch Specific Plan realigns the Pico Canyon Trail from Pico Canyon Road to the future alignment of the proposed Valencia Boulevard/Potrero Valley Road. It is expected that the County and the applicant would identify the exact location of the trails as part of future subdivision applications. There would be approximately 40 acres of Community Trails.

(c) Pathways

Consisting of a multi-purpose bicycle and pedestrian trail, pathways are proposed adjacent to the local collector roadways. They provide access from the individual residential neighborhoods to the Community Trails.

(d) Local Trails

The Plan incorporates numerous Local Trails. A Local Trail is a joint pedestrian/bicycle route which may or may not follow a roadway. Local Trails provide access to Newhall Ranch Specific Plan amenities, the Community Trail Network, or serve to link Villages. Trees and other landscaping materials line Local Trails to make them an identifiable route in the Villages, but often they follow natural drainages or Open Areas, and require little additional landscaping. Local Trails would include approximately 12 acres.

(e) Unimproved Trails

There are numerous opportunities to enter natural or open areas of the community. These sensitive area trails would be constructed with low-impact materials and located to follow natural topography. The unimproved trails shown on the Plan are primarily those that would connect to major off-site networks or community facilities.

In summary, the Newhall Ranch Specific Plan provides a wide variety of recreational opportunities that would appeal to a range of people. In addition to the Neighborhood Parks associated with a standard subdivision, the Newhall Ranch Specific Plan also provides larger, Community Parks, a trail network, and 5,852 acres of Open Area and SMAs that will be available for hiking, picnicking, observation of wildlife in their natural setting, and many other forms of recreation.

5. SPECIFIC PLAN IMPACTS

a. Significance Threshold Criteria

Significance threshold criteria for Parks and Recreation are not specified in the State CEQA Guidelines or its Appendix G. The State of California [California Government Code, Section 66477 (Quimby Act)], and the County of Los Angeles, (Ordinance 21.24.320) have established a standard of 3.0 acres per 1,000 population as the proportionate amount of land necessary to satisfy the park requirement for new subdivisions. Fees in-lieu of the dedicated parkland, construction of amenities on dedicated parkland that totals less than the standard, but is of equal dollar value to the park fee, or a combination of the three are all considered to satisfy the requirement.

b. Impacts

Using generalized estimates of the Newhall Ranch Specific Plan population, Los Angeles County Department of Parks and Recreation staff performed a preliminary calculation that indicated that the Specific Plan, per County Ordinance and Quimby Act standards, should dedicate between 202 and 235 acres of parkland.[21] Based on more specific population estimates, the preliminary parkland dedication requirements for the Newhall Ranch Specific Plan have been calculated and are shown on **Table 4.20-4, Preliminary Parkland Dedication Requirements for the Newhall Ranch Specific Plan.** Applying the County of Los Angeles household size multipliers for individual residential land use categories to the number of dwelling units proposed results in an on-site population estimate of approximately 68,524 persons. Applying the County Quimby Ordinance requirement of 3.0 acres of neighborhood and community parkland per 1,000 persons of population, the parkland requirement for the Specific Plan would be approximately 206 acres.

The park requirement for the Newhall Ranch Specific Plan is proposed to be fulfilled through the dedication of, and in some cases, improvements to, the following categories of recreational area:

- Public Neighborhood Parks,
- Public Community Parks,
- Open Area,
- Special Management Areas, and
- Trails.

Table 4.20-4
Preliminary Parkland Dedication Requirements for the Newhall Ranch Specific Plan

Residential Land Use	Population[1]	Assessment Factor[2]	Obligation In Acres
Estate	2,781	.003	8.3
Low	6,077	.003	18.2
Low Medium	22,035	.003	66.1
Medium	20,155	.003	60.5
High	6,783	.003	20.3
Mixed Use	10,693	.003	32.1
Totals	68,524		205.5

Source: Draft Newhall Ranch Specific Plan, July 1996.
[1]Average household size for single family is 3.17, (Estate is 5.17 including the allowed Second units) and multi-family is 2.38. For population calculation, see Table 4.21-5 in Section 4.21, Population, Housing and Employment of this EIR.
[2]Acre per capita (equivalent to 3 acres per 1,000 population) per Quimby Act and County of Los Angeles standards.

21 Based on the County Parkland Obligation Worksheet.

As stated above, the County Quimby Ordinance requires 3.0 acres per 1,000 persons pursuant to the County Subdivision Ordinance.[22] The County Ordinance identifies several types of park and recreation facilities which may satisfy projected needs and are eligible for Quimby Credit. These facilities may include, but are not limited to: publicly or privately owned playgrounds, riding and hiking trails, tennis, basketball or other similar game court areas, swimming pools, putting greens, athletic fields, picnic areas, and other types of natural or scenic areas as recommended by the director of parks and recreation for passive or active recreation.[23]

Credits toward meeting County Ordinance park requirements are determined by the County of Los Angeles Department of Parks and Recreation, and are based upon several criteria (e.g., access, improvements, topography, etc.) and the Ordinance requirements. Credits would ultimately be determined at the subdivision stage of development of Newhall Ranch or through the Development Agreement at the time of Specific Plan approval. The County Ordinance was used to derive the Newhall Ranch park program and Quimby Credits. For purposes of this analysis, it is expected that all dedicated public parkland considered adequate for active play or for picnic areas would receive 100 percent credit toward the Newhall Ranch Specific Plan's park requirement, while natural and scenic areas would receive between 10 and 50 percent credit. Improvements to the dedicated public parkland, trails and to open space areas, including the Special Management Areas and trails, would also receive 100 percent credit toward the Newhall Ranch Specific Plan's park requirement. Specified improvements within Special Management Areas and in Open Areas would also receive credit toward the Newhall Ranch Specific Plan's park requirement. The Newhall Ranch Specific Plan's expected parkland dedication credits are shown in **Table 4.20-5, Newhall Ranch Estimated Quimby Act Parkland Dedication Credits.**

The first column of numbers in **Table 4.20-5** shows a total amount of recreational acreage of 6,175 acres proposed by the Newhall Ranch Specific Plan, the second column represents the estimated amount of credit calculated per the Quimby Act for land dedication, the third column estimates the expected improvement costs per square footage to be spent, the fourth column indicates the estimated dollar amount of the improvements, the fifth column represents the acreage equivalent of the improvements based on $122,000 per acre as identified by County staff, and the sixth column represents the totals of credit for each category of recreational use and overall totals. As shown, the County Ordinance would provide the Specific Plan up to 100 percent credit for the 60 acres of public Neighborhood Parks, 274 acres of public Community Parks, and the 15 acre Lake.

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22 Los Angeles County Ordinance 21.24.340, et seq.
23 Los Angeles County Ordinance 21.24.340, et seq.

Table 4.20-5
Newhall Ranch Estimated Quimby Act Parkland Dedication Credits

Parks		Land		Improvements			
		Acres	Quimby Acres	Imp. Cost PSF	Improv. Cost	Acre. Equiv.[3]	Total Acre.
Neighborhood Parks		60	60	--	--	0	60
Community Parks -				--	--		
Active Area		53	53	--	--		53
Passive Area		221	111				111
Lake		15	15	--	--	0	15
	Subtotal	349	239				239
Trails:							
Regional River Trail		16	16				16
Community Trails		39	39	2.50	4,247,100	35	74
Local Trails		13	NA[4]	1.00	566,280	5	5
Unimproved (High Country)[3]		NA[4]	NA[4]				
	Subtotal	68	55		4,813,380	40	95
Major Open Area:							
Golf Course[2]		180	0	NA	NA	0	0
High Country[1]		3,950	1,975	--	--	0	1,975
River Corridor[1]		813	81	--	--	0	81
Open Area (excl. Community Parks)[2]		815	82	--	--	0	82
	Subtotal	5,758	2,138				2,138
	Totals	**6,175**	**2,432**	**--**	**4,813,380**	**40**	**2,472**

Source: Newhall Ranch, Parks Program, June 1996

[1]*Pursuant to County Ordinance, greater credit (than 10 percent) may be granted to parkland that has exceptional visual, biotic, or other natural resources up to 100 percent.*

[2]*Improvement costs have not been included to portray a worst case scenario. County ordinance allows credit for improvements.*

[3]*The acreage equivalent column is calculated by dividing the improvement cost by the improvement fee (County in-lieu fee) of $122,000 per acre of parkland.*

[4]*This acreage is included in the Major Open Area category.*

Also, a 10 to 50 percent credit for the High Country Special Management Area, the River Corridor and other Open Areas can be received. The applicant proposes to dedicate the Regional River Trail, and dedicate and improve the Community Trails and local trails.

As discussed above, the applicant is required to provide approximately 206 acres of creditable parkland or their equivalent. As estimated in **Table 4.20-5**, park credit for a total of 2,472 acres could be generated, resulting in 2,266 acres over identified requirements. This parkland dedication is equivalent to approximately 30 acres per 1,000 persons, which is substantially greater than the Quimby and County requirement of 3.0 acres per 1,000 persons. It should be noted that there could be either a temporary excess or deficit of parkland acreage relative to the Quimby Act and County standards as

the Specific Plan is developed, because of the locations of proposed parks and trails and ultimate phasing of subdivisions. Given that the Specific Plan buildout would be driven by future market forces, it is speculative at this time to attempt to determine the actual occurrence of potential excesses or deficits in parkland acreage.

As demonstrated above, Newhall Ranch Specific Plan local park requirements are exceeded by the Specific Plan based on the County Ordinance and Quimby Act standards and, therefore, the proposed Newhall Ranch Specific Plan would not have a significant impact on parks, recreation, or trails. Since local park needs are substantially exceeded by the Newhall Ranch Specific Plan, it is not expected that Newhall Ranch residents would, in any appreciable manner, need to use local parks that are located off site, including those located in neighboring unincorporated Los Angeles County communities, in Ventura County, and in the City of Santa Clarita. This is not to say Newhall Ranch residents would not use off-site facilities, but that significant park facilities are being provided to fully serve Newhall Ranch Specific Plan needs. In fact, because the Specific Plan exceeds local parkland requirements, it would actually help alleviate the negative condition being created by the existing County-wide shortage of parkland. Consequently, impacts to local parks would be considered beneficial.

(1) Regional Parks

The Newhall Ranch Specific Plan also proposes 3,949.9 acres of land which would be characterized as regional parkland. This land consists of the High Country Special Management Area. Neither the Los Angeles County Subdivision Ordinance nor the State Quimby Act specify regional parkland standards. Regardless of the lack of regional plans and standards, the provision of regional park facilities would supplement the neighborhood and local parks that are also planned as part of the Specific Plan. These facilities would provide opportunities for hiking, picnicking, and viewing of wildlife to residents of the Specific Plan site, as well as to the Santa Clarita Valley as a whole.

While it is possible that Newhall Ranch residents would use other Los Angeles County Regional Facilities, such as Castaic Lake, Lake Piru in Ventura County, or City of Santa Clarita parks, no significant regional parkland impacts are expected because the Newhall Ranch Specific Plan provides a substantial amount of this resource on the site for its residents. Consequently, due to the substantial provision of regional parkland that would be provided by the Newhall Ranch Specific Plan, off-site residents from unincorporated Los Angeles and Ventura Counties and the City of Santa Clarita would likely use the parks proposed by the Newhall Ranch Specific Plan. Therefore, no significant regional or local off-site impacts would occur. Rather, the Newhall Ranch Specific Plan would provide beneficial regional parkland impacts to the area.

(2) State and Federal Recreation/Forests

It is anticipated that new residents of Newhall Ranch would use the local, State, and Federal recreation areas and forests. As such, increased usage would be considered a potentially adverse impact. However, the State and National park facilities charge user fees for water sports and overnight camping at the reservoirs and camping areas. Additionally, State and Federal taxes, which would be paid by residents and businesses located within the proposed Newhall Ranch Specific Plan site, would be available for maintenance of these facilities. Consequently, as with regional and local off-site facilities, no significant State or Federal parkland impacts would occur.

(3) Other Parks

Is anticipated that Newhall Ranch residents would use beaches in San Diego, Orange, Los Angeles, Ventura, and Santa Barbara Counties. It would be speculative to attempt to identify the potential impacts associated with such use or identify any mitigation measures.

b. Impact to Trails

As discussed above, the Master Trails Plan includes a hierarchy of trail systems providing access to the regional trail network, Open Areas and connections between living areas, shopping, work, entertainment, schools, and civic and recreational facilities.

New residents of the proposed Newhall Ranch community are expected to use the County's and City of Santa Clarita's existing and proposed trail systems in the Santa Clarita Valley area as they are constructed. Anticipated use of the surrounding trails would increase the density of users on such trails once they are constructed. However, most of the County trails are not currently in place. Once the Newhall Ranch Specific Plan is completed, the trails would theoretically connect to those County trails that would be in place at that time. The construction of the Specific Plan's Master Trails Plan would partially complete the proposed system of County trails on site (e.g., Santa Clara River Trail, Pico Canyon Trail). Because the proposed trail alignments would fulfill the objectives of the Santa Clarita Valley Area Plan for parks, recreation and trails, the proposed Newhall Ranch Specific Plan is considered to have a beneficial impact on the regional trail system.

The proposed Newhall Ranch Specific Plan would impact existing surrounding trails; however, the Specific Plan proposes to construct on-site trails with improvements that would connect to other County and regional trails, thereby mitigating this impact. Nearby existing trails include the completed portions of the Hasley Canyon Trail, the William S. Hart Park Trail, Los Pinetos Trail, and Wilson

Canyon Channel Trail. As part of the Newhall Ranch Specific Plan, the Specific Plan designates the High Country Special Management Area for permanent conservation and public use. The High Country Special Management Area would be contiguous to other open areas of the Santa Susana Mountains and would allow for access to the Rim of the Valley Trail. Therefore, the land use designation of this area in terms of regional trails would be considered a beneficial impact to the regional trails system.

c. Operation and Maintenance Costs

As discussed in Section 6.0, Fiscal Impacts of Specific Plan, the annual costs the County will incur in providing parks and recreational services to the site over the twenty-five year buildout of the Specific Plan are projected to total approximately $25.8 million. In year twenty-five and annually thereafter, such costs would total approximately $ 1.67 million.

Total revenues generated by the proposed Specific Plan which would be accrued by the County of Los Angeles over the estimated twenty-five year buildout of the Specific Plan would total approximately $772,697,000. In year twenty-five and annually thereafter, revenues generated by the Specific Plan would total approximately $44,366,000. After fully funding all required governmental services, including parks and recreation service, the Specific Plan would generate a surplus of revenue to the County of Los Angeles over the twenty-five year buildout period of $332,284,000. In year twenty-five, the Specific Plan would generate a revenue surplus to the County of $19,629,000 million, and a surplus to the County of $22,200,000 annually thereafter. Given that total Specific Plan-generated revenues to the County would exceed total projected County costs for provision of all governmental services, the fiscal impact of the Specific Plan is considered beneficial. Please refer to Appendix 6.0 for additional information on the fiscal impacts of the Specific Plan.

6. SPECIFIC PLAN MITIGATION MEASURES

a. Mitigation Measures Already Incorporated into the Specific Plan

The Los Angeles County ordinance (State of California's Quimby Act) mandates that, for each 1,000 residents in a new development project, 3.0 acres of parkland shall be dedicated, or the equivalent value of park improvements shall be constructed, or in-lieu fees shall be paid to the jurisdictional agency (in this case, the County of Los Angeles). A combination of the three actions may also be used to satisfy these requirements. The Specific Plan includes a Recreation/Open Area Plan (**Figure 1.0-13**)that is in compliance with and substantially exceeds the standards set forth by the Quimby Act and the County of Los Angeles. According to the Quimby Act, the applicant and the County would be

required to reach an agreement on the types and quality of improvements to the dedicated parkland prior to commencement of construction. As subdivision applications for the Specific Plan site are submitted for County approval in the future, the applicant would provide parks for each tract consistent with the Specific Plan which would meet State and County criteria.

4.20-1. Development of the Newhall Ranch Specific Plan will provide the following acreages of parks and Open Area:

- Ten ~~twelve~~ public Neighborhood Parks totaling 55 ~~60~~ acres,
- Open Areas totaling 1,106 ~~1,088.8~~ acres of which 186 ~~274~~ acres are Community Parks,
- High Country Special Management Area of 4,214 ~~3,949.9~~ acres,
- River Corridor Special Management Area of 819 ~~813~~ acres,
- a 15-acre Lake,
- an 18-hole Golf Course, and
- a trail system consisting of:
  - Regional River Trail,
  - Community Trails, and
  - Unimproved Trails.

b. Mitigation Measures Recommended by the EIR

The provision of parks and open areas for credit pursuant to the County Standards and the Quimby Act will occur as individual subdivision maps are processed in accordance with standard County practice and in accordance with the park program contained in the Specific Plan.

4.20-2. Prior to the construction of the proposed trail system, the Specific Plan applicant shall finalize the alignment of trails with the County Department of Parks and Recreation.

4.20-3. Trail Construction shall be in accordance with the County of Los Angeles Department of Parks and Recreation trail system standards.

7. CUMULATIVE IMPACTS

Development occurring within Los Angeles County will continue to increase the demand placed on State, County, and Federal agencies for parks and recreation facilities. As of January 1995, the Santa Clarita Valley area is deficient by 246.6 acres of local parkland.[24] In order to analyze the cumulative impacts of this Specific Plan in combination with other expected future growth, the amount and location of growth expected to occur, in addition to that of the Specific Plan, were predicted.

The "Santa Clarita Valley (SCV) Cumulative Buildout Scenario" entails buildout of all lands under the current land use designations indicated in the Santa Clarita Valley Area Plan and the City of Santa Clarita General Plan, plus the proposed Specific Plan, plus all known pending General Plan Amendment requests for additional urban development in the unincorporated area of Santa Clarita Valley and the City of Santa Clarita. In this report, this area is often referred to as the "Valley." A list of the future development activity (with and without the Newhall Ranch Specific Plan) expected in the Valley under the Santa Clarita Valley Cumulative Buildout Scenario is presented below in **Table 4.20-6, Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario.**

Table 4.20-6
Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario

Land Use Types	Cumulative Buildout w/o Specific Plan[1]	Newhall Ranch Specific Plan [2]	Cumulative Buildout w/ Specific Plan
Single Family	89,015 du[3]	11,025 du	100,040 du
Multi-Family	38,729 du	14,193 du[4]	52,922 du
Mobile Home	3,177 du		3,177 du
Commercial Retail	20,107,660 sf[3]	1,718,000 sf	21,825,660 sf
Hotel	336,420 sf		336,420 sf
School	3,049 sta[3]	400 sta	3,449 sta
College	1,152 sta		1,152 sta
Hospital	285,470 sf		285,470 sf
Library	226,000 sf	25,000 sf	251,000 sf
Church	399,170 sf		399,170 sf
Business Park	7,773,730 sf	1,513,000 sf	9,286,730 sf
Industrial/Manufact.	33,480,250 sf		33,480,250 sf
Utilities	1,421,160 sf	35,000 sf	1,456,160 sf
Commercial/Med. Office	8,653,790 sf	2,489,000 sf	11,142,790 sf
Golf Course/Park	1,314 ac[3]	313 ac	1,627 ac
Special Generator	53,600 sf	24,000 sf	77,600 sf

[1] *Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (June 1995). Includes existing development and active pending general plan amendment requests.*
[2] *Draft Newhall Ranch Specific Plan, July 1996.*
[3] *du = dwelling unit; sf = square feet; sta = staff; ac = acres*
[4] *Includes 538 Second Units.*

24 Frank Moreno, Jr., Los Angeles County Department of Parks and Recreation, correspondence to Impact Sciences, Inc., 25 January 1995, and Ron Gagnon, 11 January 1996.

Upon buildout of this scenario (without the proposed Specific Plan), there would be a total population of 381,771 persons, which generates a demand for 1,145 acres of parkland. When the additional demand for 206 acres of parkland created by Newhall Ranch is added to this figure, there is a cumulative demand of 1,351 acres. Cumulative impacts under this scenario would exacerbate the current shortage of local parks, and would be considered a cumulatively significant impact without mitigation.

8. CUMULATIVE MITIGATION MEASURES

- The Los Angeles County ordinance (State of California's Quimby Act) mandates that, for each 1,000 residents in a new development project, 3.0 acres of parkland shall be dedicated, or the equivalent value of park improvements shall be constructed, or in-lieu fees shall be paid to the jurisdictional agency (in this case, the County of Los Angeles). A combination of the three actions may also be used to satisfy these requirements. Each cumulative project shall meet its County (and Quimby Act) parkland requirement.

9. UNAVOIDABLE SIGNIFICANT SPECIFIC PLAN IMPACTS

a. Specific Plan Impact

The proposed Newhall Ranch Specific Plan would include a hierarchy of parkland for local residents; in addition, the Newhall Ranch Specific Plan would include 3.949.9 acres of High Country Special Management Area and 813 acres of River Corridor Special Management Area for recreational use. In light of the identified significance threshold, the Newhall Ranch Specific Plan is in compliance with County and Quimby Act parkland standards and would not result in unavoidable significant impacts to local parks and recreation facilities. In fact, the proposed Specific Plan substantially exceeds the County and Quimby Act parkland requirement of 206 acres by 2,266 acres by providing parkland credits of approximately 2,472 acres, resulting in substantial beneficial park impacts.

Implementation of the Specific Plan for Newhall Ranch would include a hierarchy of trails connecting to the regional trail system. No negative Newhall Ranch Specific Plan-related trail impacts would occur; thus, no unavoidable significant impacts are expected. In fact, implementation of the Specific Plan, with its proposed trail network, would substantially beneficially impact the developing regional trail network.

b. Cumulative Impact

Implementation of cumulative projects would incrementally increase demand for local park facilities in an area where such facilities are already below locally-adopted standards. Compliance with the mitigation outlined above would ensure that future projects meet the County and Quimby Act standards for local parks. This action would mitigate each future project's demand for local parks, so no significant cumulative impact is expected. However, the existing parkland deficit of 246.6 acres would remain.

4.21 Population, Housing and Employment

4.21 POPULATION, HOUSING AND EMPLOYMENT

1. SUMMARY

The proposed Newhall Ranch Specific Plan would add approximately 24,680 dwelling units to the County's housing stock (plus a maximum of 538 Second Units in the Estate Residential land use designation) and would create approximately 19,323 new jobs. The new homes would be occupied by approximately 68,524 residents. The Newhall Ranch Specific Plan, as proposed, is presently inconsistent with the adopted 1990 Santa Clarita Valley Area Plan population and housing projections and, therefore, is not consistent with the County of Los Angeles General Plan. As part of this Specific Plan, the land use designations and population and housing forecasts are proposed for amendment to reflect the additional housing units and population associated with the Specific Plan. If approved, the Specific Plan would increase the County Area Plan population projections from 270,000 persons to 338,524 persons, would increase the housing projection from 93,400 units to 118,618 units, and would increase the employment projection from 111,000 jobs to 130,323 jobs. The proposed Newhall Ranch Specific Plan is consistent with the Southern California Association of Governments' (SCAG) more recently adopted (1994) population, housing, and employment forecasts for the region, and the Santa Clarita Valley. Since the Specific Plan is consistent with SCAG forecasts, if the County growth forecasts are amended to include the Specific Plan within growth projections, the Specific Plan would not have a significant impact on either regional or local population, housing, or employment.

In order to analyze the cumulative impacts of this Specific Plan, in combination with other expected future growth, the amount and location of growth expected to occur in addition to that of the Specific Plan were predicted in the Santa Clarita Valley Cumulative Buildout Scenario and compared to existing conditions. This cumulative impact analysis meets Los Angeles County and CEQA requirements.

According to the 1990 Census data, the Santa Clarita Valley had a population of 151,052 residents, 48,883 dwelling units and 51,594 jobs.[1] The proposed Specific Plan would generate approximately 68,524 residents, 24,680 dwelling units (plus 538 Second Units in the Estate Residential land use designation) and 19,323 jobs. Under the Santa Clarita Valley Cumulative Development Scenario, total Cumulative Buildout (existing, plus Cumulative Buildout, plus Newhall Ranch Specific Plan) would result in 450,295 residents, 156,139 dwelling units and 202,315 jobs. The total Cumulative Buildout of population, housing and employment generated under this cumulative development scenario exceeds the adopted

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1 Existing residential units per the Census data (48,883 units) is greater that the 46,891 existing units identified in the County's Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (SCVCTM) because the Census Tracts include land that is outside the Santa Clarita Valley.

Los Angeles County Area Plan 2010 projections. The total Cumulative Buildout of population, housing and employment estimates are within the year 2015 SCAG population and housing projections, but exceed the employment estimate. With reference to the Santa Clarita Valley jobs/housing balance contained in the Regional Comprehensive Plan and Guide (RCPG) target ratio of 1.30 jobs per housing unit, the Santa Clarita Valley Cumulative Buildout Scenario (existing, plus Cumulative Buildout, plus Newhall Ranch) would represent a jobs/housing balance ratio of 1.30, which is identical to the RCPG target.

2. INTRODUCTION

This section of the EIR analyzes the potential population, housing, and employment impacts of the Specific Plan on the local and regional environment. This section is based on information derived from personal communications with Lee Stark of the County of Los Angeles, published documents prepared by Los Angeles County and Southern California Association of Governments (SCAG), and from telephone interviews with SCAG staff. The published documents used in this section include:

- the Santa Clarita Valley Area Plan of the County of Los Angeles General Plan,
- SCAG's Regional Comprehensive Plan and Guide (RCPG),
- the Growth Management Chapter of the RCPG (June 1994),
- the Regional Mobility Element (June 1994),
- SCAG's State of the Region Report, (23 December 1993),
- Regional Housing Needs Assessment (RHNA) (December 1988),
- Regional Growth Management Plan (February 1989), and
- the City of Santa Clarita General Plan.

In addition, telephone interviews were conducted from August 1994 to January 1996 with the following SCAG staff: Terry Bills, Maria Souza-Rountree, Dan Akins and Javier Minjares

CEQA Guidelines, § 15125, requires that a proposed project be compared to existing local and regional plans. For this population, housing, and employment analysis, such plans include the adopted (1990) Santa Clarita Valley Area Plan (Area Plan) and the adopted (1994) Southern California Association of Government (SCAG) Regional Comprehensive Plan and Guide (RCPG).

Adopted Los Angeles County growth projections extend to the year 2010 and the adopted RCPG growth projections until the year 2015. It is expected that buildout of Newhall Ranch would occur no sooner than 2023. It is anticipated that 48 percent of the total Specific Plan would be constructed by 2010 and 72 percent by 2015. The projected buildout scenario of the Specific Plan for 2010 and 2015 are compared in this section to the respective adopted growth projections for these years.

Also, for purposes of the following population, housing and employment analysis, it has been assumed that each of the 24,680 Estate, Low, Low-Medium, and High Residential units, as well as the 538 Second Units allowed would be built (the Specific Plan allows up to 538 Second Units to be constructed within the proposed Estate Residential land use designation). This represents a potential worst case total of 25,218 dwelling units. In addition, it is assumed that all proposed non-Residential land uses would be built, generating 19,323 jobs. It is these total that are analyzed within the following framework.

From a physical perspective, implementation of the Specific Plan would result in development of housing and non-residential development in an undeveloped portion of the Santa Clarita Valley. Housing development and employment-inducing land uses attributable to the Specific Plan would generate residential population and employment centers creating environmental impacts on site, as well as in the Santa Clarita Valley. These environmental impacts are addressed throughout **Section 4.0, Existing Conditions, Specific Plan Impacts and Mitigation Measures, Cumulative Impacts and Mitigation measures, and Unavoidable Significant Specific Plan Impacts** of this EIR. To summarize, while many of the impacts can be mitigated to less than significant levels, there will be unavoidable significant impacts created to biological resources, visual qualities, air quality, agricultural resources, and solid waste (landfill capacity).

3. EXISTING CONDITIONS

a. Population

(1) Los Angeles County

The Santa Clarita Valley Area Plan, in conjunction with the other Chapters and Elements of the County of Los Angeles General Plan, is adopted County policy regarding the future of the unincorporated portions of the Santa Clarita Valley. The Santa Clarita Valley Area Plan was adopted by the County Board of Supervisors in February of 1984. Demographic projections were

updated in 1987. The Area Plan was updated in December of 1990, but the 1987 demographic projections were not updated at that time. The adopted population and housing forecasts for the Santa Clarita Valley are presented below in **Table 4.21-1, Adopted Los Angeles County Population, Housing and Employment Projections for the Santa Clarita Valley.**

Table 4.21-1
Adopted Los Angeles County Population, Housing, and Employment Projections for the Santa Clarita Valley[1]

Year	Population	Housing	Employment
1980	79,000	26,400	24,000
1989	151,800	48,300	32,000
2010	270,000	93,400	111,000

Source: Los Angeles Department of Regional Planning, Santa Clarita Valley Area Plan (Los Angeles, California: Comprehensively Updated December 6, 1990).
[1] These figures represent 1987 demographic projections.

As shown, by the year 2010 the population of the Santa Clarita Valley is projected to increase by 191,000 persons, while housing units are projected to increase by approximately 67,000 units from 1980. As illustrated below, these projections are substantially less than the recently-adopted SCAG growth forecasts for the Valley.

(2) Southern California Association of Governments

The core chapters of the Regional Comprehensive Plan and Guide (RCPG) prepared by SCAG include the Growth Management, Regional Mobility, Water Quality, Air Quality, and Hazardous Waste Management chapters. These chapters respond to a variety of Federal and State requirements placed upon SCAG. For example, SCAG is designated by the Federal government as the Region's Metropolitan Planning Organization and is mandated to maintain a "continuous, comprehensive, and coordinated transportation planning process resulting in a Regional Transportation Plan and a Regional Transportation Improvement Program pursuant to 23 U.S.C. § 134(g)-(h), 49 U.S.C. § 1607(f)-(g) et seq., 23 C.F.R. § 450, and 49 C.F.R. § 613. SCAG is also the designated Regional Transportation Planning Agency and, as such, is responsible for both the preparation of the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) under California Government Code Section 65080."[2]

2 Southern California Association of Governments, Regional Comprehensive Plan and Guide, (Los Angeles, California: October, 1994).

The Growth Management Chapter of the RCPG includes population, housing, and employment forecasts that provide background for the development of the Regional Mobility Element. The Growth Management Chapter, in addition, provides guidelines for development in relation to growth and land development issues. Pursuant to California Health and Safety Code Section 40460(b)-(c), additional SCAG responsibilities include developing the demographic projections and integrated land use, housing, employment, and transportation programs, measures, and strategies for the 1994 South Coast Air Quality Management District Air Quality Management Plan. Furthermore, pursuant to 33 U.S.C. § 1288(a)(2) (Section 208 of the Federal Water Pollution Control Act), SCAG is the authorized Area Waste Treatment Planning Agency. Finally, SCAG is partially responsible for preparing the Southern California Hazardous Waste Management Plan pursuant to California Health and Safety Code Section 25135.3.[3]

The Growth Management Chapter of the RCPG was adopted in June 1994. The Growth Management Chapter forecasts the amount of population, housing and employment growth expected throughout southern California and establishes policies for guiding the distribution of growth throughout the region.

The 1989 SCAG Regional Growth Management Plan presented forecast distributions of growth to the year 2010 which incorporated a regional job/housing balance policy. The aim of this regional land-use policy was to relieve the pressures of population and job growth on the transportation system by achieving more balanced future developments and thereby reducing vehicle miles traveled. This policy was included in the 1989 Regional Mobility Plan (RMP) as part of a strategy to regain 1984 levels of mobility. It was also included as a Transportation Control Measure in the 1989 Air Quality Management Plan (AQMP). The job/housing ratio target for the Santa Clarita Valley was 1.3 jobs per housing unit.

However, SCAG found that the job/housing balance as a growth management and mobility strategy and transportation control measure was difficult to implement regionally.[4] In addition, the extent of its efficiency in reducing congestion and emissions of air pollutants was questioned. Consequently, the emphasis that SCAG has historically placed on jobs/housing balance has shifted from jobs/housing performance ratios towards land use practices which offer a similar reduction in Vehicle Miles Traveled (VMT). Thus, the goals and policies of VMT reduction found in the RCPG prepared by SCAG remain the same, although the means to achieve the reduction in VMT have been altered by the adopted RCPG.

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3 Southern California Association of Governments, Regional Comprehensive Plan and Guide, (Los Angeles, California: October, 1994).

4 Southern California Association of Governments, Technical Appendix to Regional Comprehensive Plan and Guide, June 1994.

To influence the future urban form of the SCAG region, the Growth Management Chapter includes an approach termed "Small-Scale/Localized Urban Form," which is based on local actions to affect site-specific development and does not include policy intervention at the regional level to achieve particular patterns of growth distribution. The intent of the Small Scale/Localized Urban Form approach is to foster land use practices and transportation systems which reduce VMT by encouraging people to abandon the single occupant vehicle as the primary means of transportation. By encouraging people to travel with others or to utilize alternative forms of transportation, traffic congestion would improve, as fewer vehicles are on the road and fewer miles are traveled. Consequently, a reduction in the volume of pollutants emitted by motor vehicles would also occur. The technical appendix to the Growth Management Chapter includes a variety of local optional actions to encourage a reduction in the number of lone travelers through the coordination of land use and transportation decisions. To help achieve a reduction in VMT, local jurisdictions can make changes to existing zoning, general plan amendments, and specific plans to encourage concentrated, mixed-use, transit- and pedestrian-oriented developments as tools that reduce VMT.

The policy also recognizes the importance of achieving balanced communities and endorses an aggressive educational strategy to promote the mobility, air quality and quality of life benefits of balanced growth and sustainable communities.

The Growth Management Plan also includes, specific policies designed to improve air quality by altering growth patterns in the SCAG region. These include:

- Support local plans to increase density of future development located at strategic points along regional commuter rail, transit systems and activity centers.
- Encourage developments in and around activity centers, transportation node corridors, underutilized infrastructure systems and areas needing recycling and redevelopment.
- Support and encourage settlement patterns which contain a range of urban densities.

This would improve the quality of life within the region by reducing traffic congestion, improving air quality, and by providing an environment in which one can live, work, and play in close proximity to one another.

According to the 1990 census, Los Angeles County had a population of 8.9 million residents. As shown in **Table 4.21-2, SCAG Projected Population**, SCAG population projections for Los Angeles County predict that the population within the County will increase by 35 percent from 8.9 million persons in 1990 to 11.9 million persons by the year 2015.

The rapid growth within the Santa Clarita Valley has been attributed to several factors that include expansion of the regional freeway system providing access to Los Angeles metropolitan employment centers; and new development opportunities for relatively affordable housing and industrial land. The Santa Clarita Valley grew from approximately 50,000 residents in 1970 to a 1990 population of 151,052; a growth of 202 percent.

Table 4.21-2
SCAG Projected Population

	1990	2000	2010	2015	Growth 1990-2015
Los Angeles County	8,860,000	9,950,000	11,286,000	11,943,000	3,083,000 (35%)
Santa Clarita Valley[1]	151,052	292,295	462,537	552,796	401,744 (266%)

Source: SCAG, Regional Comprehensive Plan and Guide, Growth Management Chapter, (June 1994).
[1]These figures constitute SCAG census tract data for the Santa Clarita Valley.

As shown in **Table 4.21-2**, the Santa Clarita Valley 1990 population of 151,052 represented only 1.7 percent of the total Los Angeles County area population of 8.9 million. According to SCAG projections, the Santa Clarita Valley population is expected to increase to approximately 462,537 persons by 2010 and 552,796 persons by 2015, increases of 206 and 266 percent, respectively. These growth projections are substantially greater than the adopted Los Angeles County forecasts for the Santa Clarita Valley which predict that a total of 270,000 persons will reside in the Valley by the year 2010 (see **Table 4.21-1**).

Presently, the population of the Santa Clarita Valley is concentrated in the center of the Valley; most of the population is located in the City of Santa Clarita. However, since the latter part of the 1980's, the unincorporated areas, such as the North River area of Valencia and Castaic to the north of the Specific Plan site, have experienced growth and development. Urban expansion also occurred west of I-5 in the Stevenson Ranch community and in Valencia Commerce Center.

b. Housing

(1) Los Angeles County

As shown in **Table 4.21-3, SCAG Housing Unit Growth Statistics**, there were approximately 3.2 million housing units in Los Angeles County according to the 1990 U.S. census data. There were 48,883 housing units in the Santa Clarita Valley Planning Area, representing 1.55 percent of the 3.2 million units in Los Angeles County. The adopted Los Angeles County projections predict that approximately 93,400 dwelling units will be in the Santa Clarita Valley by 2010 (see **Table 4.21-1**).[5]

Table 4.21-3
SCAG Housing Unit Growth Statistics

	1990	2000	2010	2015	Growth 1990-2015
Los Angeles County	3,161,000	3,472,000	3,872,000	4,098,000	937,000 (30%)
Santa Clarita Valley[1]	48,883[2]	85,848	135,415	162,530	113,647 (232%)

Source: SCAG, Regional Comprehensive Plan and Guide, Growth Management Chapter, (June 1994).

[1] *These figures constitute SCAG census tract data for the Santa Clarita Valley.*

[2] *Existing residential units per the Census data (48,883 units) is greater that the 46,891 existing units identified in the County's Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (SCVCTM). Census tracts which overlie the Santa Clarita Valley cover a broader geographic area than the County's SCVCTM and, therefore, encompass more housing units than the SCVCTM.*

(2) SCAG

As illustrated in **Table 4.21-3**, SCAG projects that the number of housing units in Los Angeles County will increase to nearly 4.1 million by 2015, resulting in a 30 percent increase from 1990 data. SCAG projects the number of housing units in the Santa Clarita Valley to increase to over 162,530 by 2015, representing a 232 percent increase from 1990 to 2015.

(3) Housing Stock Characteristics

Originally developed as a residential suburb of Los Angeles and San Fernando Valley employment centers, the Santa Clarita Valley experienced substantial residential growth beginning in the late 1950's and continuing into the 1990's. The Valley remained primarily a residential community until the beginning of the 1980's when significantly increased industrial demand was experienced. The increase in the number and diversity of jobs in the Santa Clarita Valley, and especially in Valencia, has

5 Los Angeles County Department of Regional Planning, Santa Clarita Valley Area Plan (Los Angeles, California: Comprehensively Updated December 6, 1990).

resulted in a broad range of housing types and prices that are affordable to a wide range of people. Data on current residential market conditions indicate that the average new home price in the Santa Clarita Valley for 1995 was $235,500, the average new condominium price was $137,500, and the average resale home price (as of November, 1994) was $189,588.[6] While the total number of apartment units within the Santa Clarita Valley is unknown, within Valencia alone there are over 1,100 apartments, making up about 10 percent of Valencia's housing stock. Units in Valencia range from subsidized Section 8 units to market rate units priced from under $800 per month to over $1,000 per month.

According to the 1989 Housing Element of the County of Los Angeles General Plan, during the 1980-89 decade, more than 73 percent of all units added in the County were multi-family. As a result, multi-family units comprised 44 percent of the total housing stock in the County in 1989. Renters resided in nearly 50 percent of the total occupied housing stock in 1987.[7] Mobile homes, typically located in mobile home parks, comprise an estimated 1.5 percent of housing units County-wide and 2.9 percent of the unincorporated County housing stock.

With respect to the Santa Clarita Valley Planning Area, in 1980 approximately 78 percent of all housing units were single family dwellings; multi-family units comprised 13 percent of the housing stock. The remaining 9 percent was mobile homes. During the decade of the 1980's, the construction of multi-family units doubled and, by the end of the 1980's, this type of dwelling represented approximately 26 percent of all housing units within the Planning Area. The percentage of single family dwellings decreased to approximately 62 percent of the total housing stock during this time with the remaining 12 percent being mobile homes.[8]

The majority of housing units in the Santa Clarita Valley is less than twenty years old and nearly half were constructed since 1980. As a result, the overall condition of the housing stock is very good. The housing stock that exists in the general area of the Specific Plan site encompasses Stevenson Ranch to the south, which is relatively new. The housing stock to the north includes Val Verde, which is an older area containing a significant number of lower priced homes.

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6 Santa Clarita Valley Chamber of Commerce, Economic Profile of the Santa Clarita Valley, Volume No. 2, May, 1995.

7 The 1989 Los Angeles County Housing Element is the most current available as of January 1996.

8 City of Santa Clarita, "Housing Element" in Santa Clarita General Plan (City of Santa Clarita, California: 1990), p. H-18.

c. Employment

As land for expansion of industries in the San Fernando Valley became scarce, companies looked north to the Santa Clarita Valley for relocation and expansion opportunities. During the 1980's, the Valencia Industrial Center, now the County's third largest business park as reported by the Los Angeles Business Journal, experienced an eight-fold expansion to include its current nine million square feet of buildings. The Center houses more than 500 companies employing more than 16,000 people. In 1990, Los Angeles County approved development plans for Valencia Commerce Center. The Valencia Commerce Center currently contains 955,000 square feet of buildings and six companies which employ more than 3,800 people. The largest employer in the Commerce Center is the U.S. Post Office regional mail handling facility, which currently employs 1,800 people.

By the early 1990s there had also been a significant expansion and broadening of the retail and office base in the Santa Clarita Valley. The opening of the 260,000 square feet River Oaks Shopping Center, with Target and Mervyns stores, in 1987 broadened the Valley's retail shopping opportunities and employed approximately 650. Other recent significant retail openings have included the Price Club and Home Depot stores in the City of Santa Clarita. The Valencia Auto Center (Auto World) currently contains ten dealerships marketing twenty-six different makes of cars. As of 1993, there was over 900,000 square feet of office space in the Santa Clarita Valley employing approximately 3,600 people, of which 80 percent was located in Valencia.

With construction of the first phase of the Valencia Town Center in 1992, the Santa Clarita Valley began to emerge as a diversified regional employment center. The 790,000 square foot Town Center retail development currently includes Robinsons-May, JC Penny, and Sears department stores, 110 mall shops, a food court, two restaurants and a 10-screen movie complex. Under construction in Valencia Town Center are a three story office building, a hotel and conference center, and a 52,000 square foot Spectrum Sports Center, which will collectively add approximately 700 jobs. Also under construction is Valencia Marketplace, a 700,000 square foot retail center whose tenants will include "value" merchandisers, such as Walmart and Circuit City, as well as community shopping facilities. Adjoining Valencia Marketplace is a community shopping center under construction in the Stevenson Ranch community.

The Santa Clarita Valley's employment base has become very diverse. Current employment opportunities include professional, technical, and managerial occupations, as well as jobs in manufacturing, wholesale/retail trade, services, construction, and mining. Consequently, there is a wide range of wages from as low as $5.93 per hour ($12,334 annually) for food and beverage preparation

to $57.63 per hour ($119,870 annually) for law and jurisprudence.[9] According to the Santa Clarita Valley Region Business Retention and Economic Advancement Report (1995), the median household income in the Santa Clarita Valley region for 1994 was $53,970.[10] In 1994, the average household income was $71,724, which is projected to increase to $76,811 by 1999, representing a 7 percent increase.[11]

Employment producing land uses will continue to expand in the Santa Clarita Valley in the future. Valencia Commerce Center and adjoining industrial subdivisions, for example, are approved for approximately 15 million square feet of industrial, office and retail development, and will employ over 30,000 people. In future years, the Valencia Town Center regional shopping complex may be expanded to include three additional department stores in a 1.4 million square foot center. Land surrounding the shopping complex is master planned for approximately an additional one million square feet of mixed-use development.

As shown in **Table 4.21-4, SCAG Employment Projection Statistics**, employment within Los Angeles County totaled 4.6 million in 1990. This figure is projected by SCAG to increase by 1.3 million over the twenty-five year period from 1990 to 2015. The growth rate over this time frame is 28 percent.

Table 4.21-4
SCAG Employment Projection Statistics

	1990	2000	2010	2015	Growth 1990-2015
Los Angeles County	4,610,000	5,084,000	5,670,000	5,912,000	1,302,000 (28%)
Santa Clarita Valley[1]	51,594	86,850	111,493	123,903	72,309 (140%)

Source: SCAG, Regional Comprehensive Plan and Guide, Growth Management Chapter, (June 1994).
[1]These figures constitute SCAG census tract data for the Santa Clarita Valley.

With regard to the Santa Clarita Valley, the Valley's economic base is still developing as the area adds commercial and industrial space and attracts more residents wishing to work in the area. A 1987 survey of firms doing business in all zip code areas in the City of Santa Clarita revealed a total of 28,948 jobs.[12] Wholesale and retail trade positions accounted for 31.5 percent of all jobs, while 25.2 percent were employed in manufacturing positions and 22.3 percent were in services. The construction

9 Santa Clarita Valley Chamber of Commerce, Economic Profile of the Santa Clarita Valley, Volume No. 2, May 1995.

10 Median is a statistical expression for the middle value (or number) of a particular set of values (or numbers).

11 Santa Clarita Valley Chamber of Commerce, Economic Profile of the Santa Clarita Valley, Volume No.2, May, 1995.

12 City of Santa Clarita, "Housing Element" in Santa Clarita General Plan (City of Santa Clarita, California: 1991), p. H-43

industry employment provided 11.7 percent of the City's jobs, while agriculture, mining, transportation, and finance/insurance accounted for the remaining 9.3 percent. The survey also showed that over half of all firms in the City employed less than five persons. An unknown number of jobs were located outside of City boundaries, including those in a portion of Valencia Industrial Center.

Total Santa Clarita Valley area employment was estimated at over 51,500 jobs in 1990 as shown in **Table 4.21-4**. Los Angeles County growth projections for the Valley estimate 111,000 jobs by 2010. This represents a 116 percent increase over existing conditions. According to SCAG employment projections, the Santa Clarita Valley can expect employment to increase to almost 124,000 jobs by 2015, representing a 140 percent increase in employment over existing conditions. A large number of new jobs in the Santa Clarita Valley can be attributed to growing employment centers that include the Valencia Commerce Center (northeast of the Specific Plan site), the Valencia Industrial Center (east of the Specific Plan site), and the Valencia Corporate Center (east of the Specific Plan site), as well as commercial developments (i.e., Valencia Town Center Mall). It is anticipated that Valencia Commerce Center will provide approximately 25,000 jobs by 2015 (30,500 jobs at buildout). The Valencia Industrial Center will provide approximately 23,000 jobs and the Valencia Corporate Center will provide 4,500 jobs. The Specific Plan site is in close proximity to the employment centers described above. Collectively, employment centers in Valencia are anticipated to provide approximately 60,000 jobs at completion.

4. SPECIFIC PLAN IMPACTS

a. Significance Threshold Criteria

According to Appendix G of the State CEQA Guidelines, as amended, a project is considered to have a significant effect on the environment if it will induce substantial growth or concentration of population, and cumulatively exceed official regional or local population forecasts.

b. Population

Development of the proposed Newhall Ranch Specific Plan will induce substantial growth and a concentration of people into the area, as it will add approximately 24,680 standard dwelling units to the area (plus a maximum potential 538 Second Units in the Estate Residential land use designation for a total of 25,218 units), resulting in a resident population of approximately 68,524 persons, as shown in **Table 4.21-5, Specific Plan Population and Housing Unit Statistical Summary.**

Table 4.21-5
Specific Plan Population and Housing Unit Statistical Summary

Land Use Designation	Dwelling Units	Average Household Size[1]	Population	Percent of Total
Estate[2]	538	3.17	1,705	2.5
[Second Units 538]		2.00	1,076	1.6
Low	1,917	3.17	6,077	8.9
Low-Medium	6,951	3.17	22,035	32.2
Medium	1,619	3.17	5,132	7.4
	6,312	2.38	15,023	21.9
High	2,850	2.38	6,783	9.9
Mixed-Use	4,493	2.38	10,693	15.6
Totals	24,680	without Second Units		
	25,218	with Second Units	68,524	100.00

Source: Draft Newhall Ranch Specific Plan (July 1996).

[1] *Source: 1990 U.S. Census data provided to Impact Sciences, Inc. by the Department of Regional Planning, Research Section. Single Family = 3.17; multi-family = 2.38; Second Units = 2.00.*

[2] *An additional 538 Second Units are allowed in this land use designation, raising the total potential units to 25,218.*

Adopted Los Angeles County projections for the Santa Clarita Valley indicate that, by the year 2010, the population of the Santa Clarita Valley will increase to 270,000 persons. This represents a 79 percent increase over the 1990 Census population of 151,052. These 1987 projections are low in comparison to adopted SCAG growth forecasts discussed below, which were more recently adopted in 1994. According to the Regional Comprehensive Plan and Guide, the Santa Clarita Valley is projected to increase by 401,744 persons (see **Table 4.21-2**).

According to current plans, Newhall Ranch will commence construction no earlier than 1998. The Specific Plan for Newhall Ranch is a twenty- to thirty-year master plan and has been proposed to be implemented incrementally over the lifespan of the Plan. For discussion purposes only, it is assumed that units constructed in Newhall Ranch would be evenly distributed over the course of twenty-five years; thus, approximately 1,009 units would be constructed annually. Therefore, based on this assumption, it is estimated that approximately 18,162 units would be constructed during the eighteen year period between 1998 and 2015.

In addition, it is assumed that the units constructed each year would be proportional to the total number of housing units in each residential land use designation, as shown in **Table 4.21-5** above. Therefore, based on the Specific Plan's proposed land use intensities as shown in **Table 4.21-5**, and using the methodology described above, it could be expected that approximately 2,741 residents would be added to the community on an annual basis. Using this methodology, in 2010, the proposed Newhall Ranch community would contain 35,633 persons and by 2015 could contain a population of approximately 49,338 residents. A total of approximately 68,524 persons would reside within the community at buildout.

The 1990 Santa Clarita Valley Area Plan, which is a component of the County of Los Angeles General Plan, indicates that, by the year 2010, population in the Valley will increase to 270,000 residents. This represents a 79 percent increase over the 1990 population of 151,052. The Santa Clarita Valley Area Plan does not include land use designations reflecting a 68,524 person residential development project for the Newhall Ranch Specific Plan site. Thus, the proposed Newhall Ranch Specific Plan is inconsistent with the Area Plan and, therefore, the County of Los Angeles General Plan. As part of the development proposal, the applicant has requested an amendment to the growth projections for the area to accommodate the Newhall Ranch Specific Plan. Approval of the Plan Amendment for the site and growth projection amendment for the Valley would change the Santa Clarita Valley Area Plan land use designations for the Specific Plan site, to reflect development of 24,680 dwelling units (plus a maximum of 538 Second Units in the Estate Residential land use designation) with an estimated population of 68,524 residents, increasing the County Area Plan population projection from 270,000 persons to 338,524 persons. Following Plan Amendment approval, the Specific Plan would then be consistent with the Area Plan and General Plan population projections.

With regard to SCAG planning projections, it is assumed that, by the year 2015, the proposed Specific Plan would be only 72 percent built out. However, the Specific Plan's entire contribution of population has been accounted for in SCAG's population forecast for the years 2000, 2010, and 2015.[13] By the time Newhall Ranch is built out in 2023, the community would total approximately 68,524 residents, constituting only 12 percent of the projected 2015 population of 552,796 in the Santa Clarita Valley. The additional population generated by the proposed Newhall Ranch Specific Plan for the Santa Clarita Valley is not only within the growth forecast for the area, but is only a small percentage of the total population growth projected for the Santa Clarita Valley. Therefore, the population generated by the proposed Newhall Ranch Specific Plan is consistent with SCAG population growth projections for the Santa Clarita Valley.

c. Housing

Newhall Ranch will provide a very wide range of home types, as discussed elsewhere in this section, comparable to those existing and planned in the larger Santa Clarita Valley. These will range from condominiums and apartments, generally located in or near Mixed-Use Village centers, to a wide array of single family attached and detached homes, and larger executive and estate homes. In addition, the

13 Interview with Terry Bills, Southern California Association of Governments, Los Angeles, California, 22 August 1994.

Newhall Ranch Specific Plan contains provisions allowing a smaller Second Unit to be constructed on each lot in the Estate and Low Residential land use designations. Second Units can be used to meet the household needs of the homeowner (e.g., as "granny flats"), or can be rented to provide additional income. In either instance, Second Units provide additional reasonably affordable housing opportunities.

The proposed Newhall Ranch Specific Plan would include approximately 24,680 dwelling units (plus a maximum of 538 Second Units in the Estate Residential land use designation) at Specific Plan buildout. The proposed land use plan includes a wide range of residential categories designed to allow for a variety of product types. The Specific Plan includes five Villages, each clustering development around a centralized core; as proposed, the Newhall Ranch Specific Plan would cluster approximately 59 percent of its dwelling units (14,763 of the 25,218 units proposed) within no more than one quarter of a mile from employment and retail commercial service core areas. By concentrating development in the core areas, the Plan would reduce the number of vehicle miles traveled compared to a non-clustered planning approach.

The Fiscal Impact Analysis (**Appendix 6.0**) estimates that housing unit prices within the Specific Plan in 1995 dollars would range from approximately $125,000 to approximately $750,000, with the average price being just over $205,000. This is comparable to the average price of $202,000 for new homes in Los Angeles County in 1993, as reported by SCAG in the Regional Comprehensive Plan and Guide, and is lower than the average new home price of $235,000 in the Santa Clarita Valley as of 1995. The average price of all homes (new and resale) in 1993 in Los Angeles County was reported at $234,000 by SCAG. The mix of housing in Newhall Ranch would include an unknown number of rental units, which would generally be within the High Residential, Mixed-Use and Second Unit land use designations.

The range of residential land use designations proposed include Estate Residential, Low Residential, Medium Residential and High Residential. Mixed-Use centers would also include residential uses. Each of these is discussed below.:

(1) Estate Residential

Provides for single-family detached Estate Residential development on lots that are a minimum of 20,000 square feet. There are 538 units proposed for this land use designation to be located in areas of steeper topography on Newhall Ranch. This includes fifteen units in the High Country Special Management Area.

Additionally, Chapter 3, Section 3.5 of the Specific Plan permits Second Units to be added to each lot within the Estate Residential land use designation. Up to 538 Second Units could be added to this land use designation. These Second Units may be rented, thereby providing the opportunity for additional market rate rental housing within the Specific Plan.

(2) Low Residential (L)

Provides for single-family detached residential development on lots that are a minimum 7,500 square feet. There are 1,917 dwelling units proposed in this land use designation to be located in various areas of Newhall Ranch.

Chapter 3, Section 3.5 of the Specific Plan permits Second Units within the Low Residential land use designation. However, these units are not additive to the total number of dwelling units allowed within this land use designation, but must be transferred from other areas within the Specific Plan area as provided in Chapter 3 of the Specific Plan. Therefore, the total number of dwelling units would not increase within this land use designation. These Second Units also may be rented, thereby providing the opportunity for additional market rate rental housing within the Newhall Ranch Specific Plan.

(3) Low-Medium Residential (LM)

These are single family lot and single family attached Residential units on lots that are a minimum of 2,500 square feet. There are a total of 6,951 such units proposed in this land use designation throughout Newhall Ranch.

(4) Medium Residential (M)

Small-lot single-family and single-family attached (with a minimum lot size of 2,500 square feet), and multi-family residential development. This includes a total of 7,931 dwelling units. This land use land use designation is intended to be located near commercial and Village centers within each Village of Newhall Ranch.

(5) High Residential (H)

Provides for multi-family residential development. There are a total of 2,850 dwelling units proposed for this land use designation. These uses are proposed to be located generally near the commercial and Mixed-Use centers of each Village of Newhall Ranch.

(6) Mixed-Use Centers

Mixed-Use is a land use designation which contains a combination of retail/commercial, office, recreation and/or residential uses for Village residents and visitors. There are 4,493 housing units proposed within this land use designation.

(7) Consistency with Housing Forecasts

Los Angeles County housing projections (updated in 1987) for the Santa Clarita Valley forecast that, by the year 2010, housing in the Santa Clarita Valley will increase to 93,400 units. This represents a 91 percent increase over the 1990 census count of housing of 48,883 units. As discussed above, the current Santa Clarita Valley Area Plan does not include land use designations reflecting a 24,680 unit residential development (plus a maximum of 538 Second Units in the Estate Residential land use designation) on the Newhall Ranch Specific Plan site. Thus, the proposed Newhall Ranch Specific Plan is inconsistent with the Area Plan and, accordingly, the County of Los Angeles General Plan housing unit projections. However, as part of the development proposal, the applicant has requested an amendment to the growth projections for the area to accommodate the Newhall Ranch Specific Plan. Approval of the Plan Amendment for the site and growth projection amendment for the Valley would change the Santa Clarita Valley Area Plan land use designations for the Specific Plan site to reflect a development of 24,680 dwelling units (plus a maximum of 538 Second Units in the Estate Residential land use designation) with an estimated population of 68,524 residents, increasing the County Area Plan housing projection from 93,400 units to 118,618 units. Assuming Plan Amendment approval were to occur, the Specific Plan then would be consistent with the Area Plan and General Plan housing unit projections.

According to SCAG forecasts adopted in 1994, growth is projected to occur throughout the region. Los Angeles County is projected to have a total of 4.1 million housing units by the year 2015 (see **Table 4.21-3**). This projection represents an increase of 30 percent, or 937,000 housing units, as compared to 1990. Further, the Santa Clarita Valley housing unit forecast for 2015 of 162,530 is an increase of 113,647 housing units from the 1990 census of 48,883 units.

Based upon the buildout assumptions discussed above, by the year 2015 it could be expected that Newhall Ranch would contain an estimated 18,162 dwelling units, constituting approximately 72 percent of the proposed total of 25,218 units (including Second Units).

As demonstrated above, the Specific Plan's proposed housing unit total is within the SCAG projected growth for the area. As such, the housing generated by the proposed Newhall Ranch Specific Plan is consistent with SCAG's housing unit growth projections for the Santa Clarita Valley.

d. Employment

It is anticipated that employment opportunities generated by Newhall Ranch non-residential uses will be similar to those found in Valencia and the Santa Clarita Valley area. Newhall Ranch provides two Business Parks which will contain uses, such as manufacturing, research and development, sales, services and other uses which are similar to those found in the nearby Valencia Commerce, Industrial, and Corporate Centers. In addition, the Specific Plan provides Mixed-Use land use designations which permit development of office and retail uses, as well as housing and recreation. The Commercial land use designation is also provided by the Specific Plan to facilitate the location of community serving retail (such as supermarkets, drug stores and the like) and office uses.

Employment opportunities will also be offered by institutional developments, such as schools, fire stations, and a library, as well as in recreational uses, such as golf. As indicated in **Table 4.21-6, Specific Plan Employment Generation,** Specific Plan land uses will provide approximately 19,323 jobs.

Table 4.21-6
Specific Plan Employment Generation Profile

Land Use Designation	Proposed Square Footage	Employment Generation Factor per 1,000 sq.ft.[1]	Number of Employees
Office	2,489,000	4.0	9,956
Commercial-Retail	1,718,000	2.5	4,295
Business Park	1,513,000	3.0	4,539
Schools[2]	--	--	400
Golf Course	180 acres	.40	72
Wastewater Reclamation Plant [3]	35,000	--	18
Library	25,000	1.0	25
Fire Station[4]	24,000	--	18
Totals	5,792,000		19,323

[1] *Generation factors for office and commercial uses were provided by SCAG, 22 February 1995, generation factor for library was provided by The Newhall Ranch Company, and generation factors for business park and golf course were provided in the Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (SCVCTM). The square footages for the water reclamation plant and fire stations are based on CSDLAC and County Fire Department estimates. The library square footage is from Section 4.19, Libraries (rounded upward to nearest 5,000).*

[2] *School employee generation was derived from the SCVCTM.*

[3] *Rich Wunderlich, Los Angeles County Sanitation District, memorandum, 3 November 1995.*

[4] *John Gee, Chief of Planning Division, Los Angeles County Fire Department, telephone communication, 29 January 1996. Staffing for each station would include three post positions which cover a twenty-four hour period. There would be a total of six post positions that are multiplied by three (shifts) for a total of eighteen positions.*

The primary non-residential land use designations of the Newhall Ranch Plan include Commercial, Mixed-Use, and Business Park, each of which is discussed below:

(1) Commercial (C)

Commercial centers would vary in size and configuration depending upon community character and needs. Commercial centers can include retail, food service, banking, entertainment and automobile-related uses. They would be located on arterial highways and linked to residential neighborhoods by pedestrian trails. A total of four community Commercial centers would be dispersed throughout the Specific Plan site.

(2) Mixed-Use (MU)

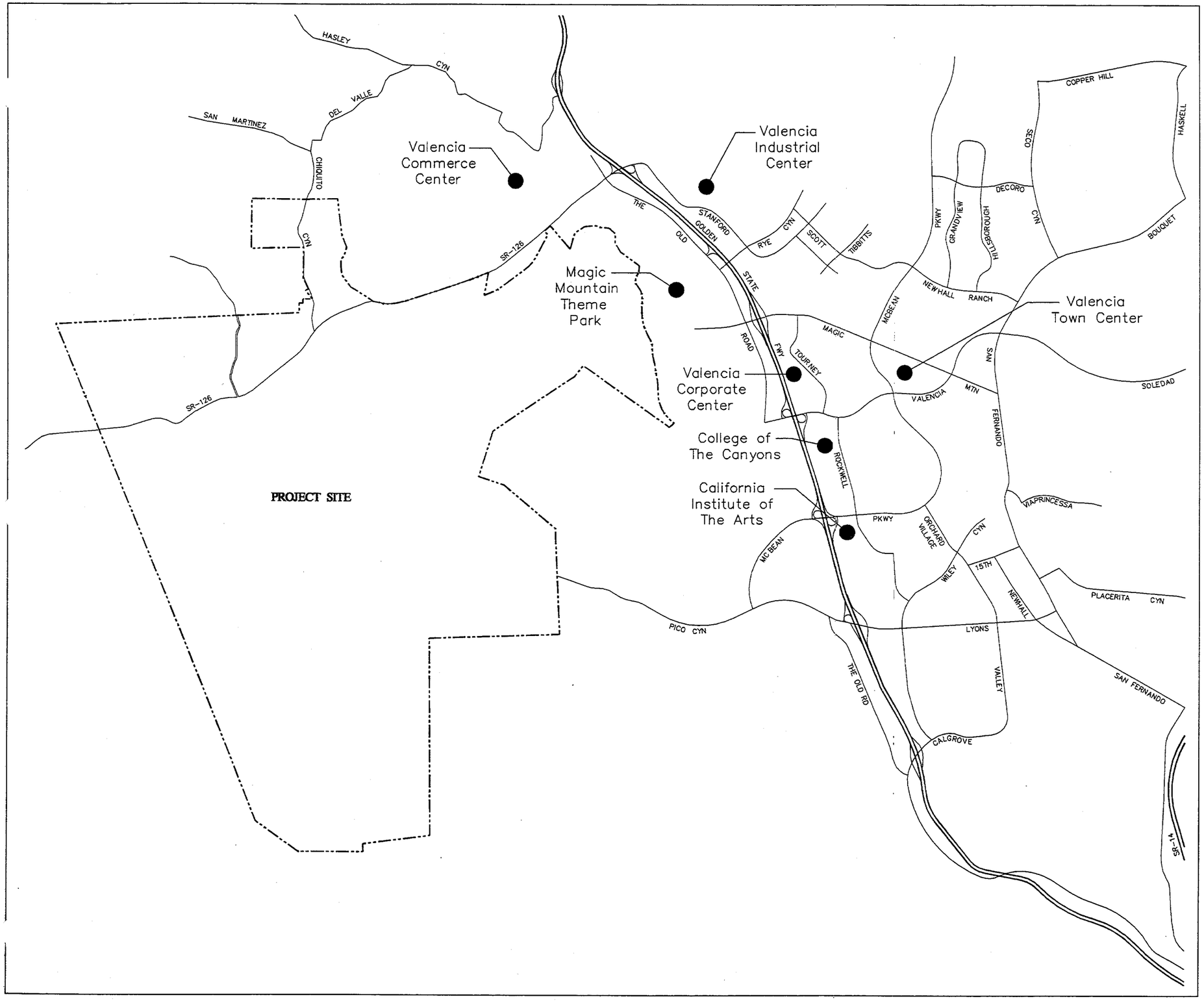
Mixed-Use is a land use designation which permits the coordinated development of commercial, office, Medium Residential, and High Residential uses. The Specific Plan permits the mixing of land uses, including the combining of residential uses with commercial and/or office uses on one building site or within a building. There are 4,493 housing units proposed within this land use designation. Mixed-Use centers are located within four of the five Villages of Newhall Ranch.

(3) Business Parks (BP)

The Business Park land use designation accommodates local and regional needs for employment. One Business Park is located northeast of the Chiquito Canyon Road and SR-126 intersection; the other is located on the south side of SR-126 near the Ventura County/Los Angeles County boundary. These Business Park sites would provide for a range of uses which would include research and development, light manufacturing, warehouse and distribution facilities, offices, and supporting retail and service uses.

Using the employment generation factors identified above in **Table 4.21-6**, it is anticipated that there would be approximately 19,323 jobs provided in the Specific Plan area through the proposed non-residential land uses of the Specific Plan.

Development of the Specific Plan as proposed would place future Newhall Ranch residents in proximity to a variety of employment opportunities located within and in the immediate vicinity of the Specific Plan site. These employment centers are illustrated in **Figure 4.21-1, Location of Employment Centers**. One such center is the Valencia Commerce Center, which is located on the northern boundary of Newhall Ranch. It is anticipated that the Valencia Commerce Center will provide approximately 30,500 jobs at completion, making the center a major source of employment for



NEWHALL RANCH

Prepared For: Newhall Ranch Company

L E G E N D

● *REGIONAL EMPLOYMENT CENTERS*

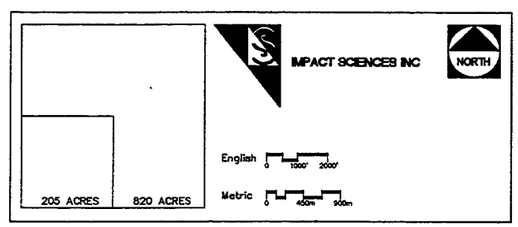


FIGURE 4.21-1

LOCATION OF EMPLOYMENT CENTERS

Newhall Ranch and other area residents. Also nearby is the Valencia Industrial Center located east of the I-5, which would provide an additional 23,000 jobs. Valencia Corporate Center, also located east of the Specific Plan site, will provide an estimated 4,500 jobs by the year 2015. The Magic Mountain Theme Park provides approximately 3,300 full- and part-time jobs.

These areas would be accessible to Newhall Ranch Specific Plan residents utilizing a variety of existing and future transportation methods and routes. An existing transportation route that may be used by Newhall Ranch residents would be SR-126. The Newhall Ranch Specific Plan includes provision for pedestrian walkways and bike trails that would link the residences to commercial retail and employment centers. In addition, the Specific Plan's Mobility Plan (see **Figure 1.0-5, Backbone Circulation Plan**) includes extensions of Valencia Boulevard and Magic Mountain Parkway and relocated Chiquito Canyon Road and San Martinez Grande Road to provide safer access to both adjacent proposed residential neighborhoods and SR-126. Therefore, the number of vehicle miles traveled by residents of the Newhall Ranch Specific Plan would be minimized because the arrangement of the proposed land uses and the site's proximity to existing and planned employment centers would provide a variety of shopping and employment opportunities that would be easily accessible by a variety of transportation methods (e.g., walking, biking, transit, etc.) and routes.

(4) Consistency with Employment Forecasts

Los Angeles County employment projections for the Santa Clarita Valley (updated in 1987) predict that, by the year 2010, employment in the Santa Clarita Valley will increase to 111,000 jobs (see **Table 4.21-1**). This represents a 115 percent increase over the 1990 employment level of 51,594 jobs (see **Table 4.21-4**). The non-residential land uses of the Specific Plan (Mixed-Use, Commercial, Business Park and Visitor Serving uses) would generate 19,323 jobs. Since the current Santa Clarita Valley Area Plan does not include this land use, the proposed Newhall Ranch Specific Plan would be inconsistent with the Area Plan and, consequently, the County of Los Angeles General Plan. However, as part of the development proposal, the applicant has requested an amendment to the growth projections for the area to accommodate the Newhall Ranch Specific Plan.

Approval of the Plan Amendment and growth projection amendment for the Valley would change the Santa Clarita Valley Area Plan land use designations for the Specific Plan site to reflect a development of 24,680 dwelling units (plus a maximum of 538 Second Units in the Estate Residential land use designation) with an estimated population of 68,524 residents and 19,323 jobs, increasing the County Area Plan employment projection from 111,000 jobs to 130,323 jobs. Following Plan Amendment approval, the Specific Plan then would be consistent with the Area Plan and General Plan population, housing and employment projections.

According to the 1990 Census, the Santa Clarita Valley employment level was 51,594 jobs. SCAG projects the employment of the Valley to increase by 72,309 jobs by 2015, which includes the existing and proposed employment centers previously mentioned, as well as the Specific Plan site employment estimates (see **Table 4.21-4**).[14] The proposed Specific Plan would contain 17,558 jobs by the year 2015. SCAG has projected the Santa Clarita Valley to contain 123,903 jobs by that year. Employment opportunities created by the Specific Plan would represent 14 percent of that projected employment.

(5) Jobs/Housing Balance

While the Santa Clarita Valley is short of the estimated need for employment, it is no longer a bedroom community as indicated by its job to housing balance. The ratio between jobs and housing in the Santa Clarita Valley as of the 1990 Census was 1.06 jobs for each housing unit. In comparison, the jobs to housing balance in the SCAG region in 1990, as measured by the Census, was 1.33 jobs for each housing unit, while the ratio in Los Angeles County was 1.46 jobs for each housing unit.

Adopted (1987) Los Angeles County projections forecast an improvement in jobs/housing balance in the Santa Clarita Valley by the General Plan horizon year of 2010. The County projection of 111,000 jobs and 93,400 housing units would result in a jobs/housing ratio of 1.19 jobs for each housing unit in 2010, compared to the 1990 ratio of 1.06 jobs per housing unit. The adopted SCAG projection, in contrast, forecasts a worsening of the ratio between jobs and housing in the Santa Clarita Valley by the horizon year of 2015. With 123,903 jobs and 170,657 housing units by that year, the Valley would have a jobs/housing balance of only 0.73 jobs per housing unit.[15]

There is evidence that the long-range buildout of the Santa Clarita Valley may result in a more balanced community than is anticipated by the SCAG projections. The cumulative analysis for this EIR includes all of the land uses contained in the County's Santa Clarita Valley Area Plan, the City of Santa Clarita General Plan, and General Plan Amendments in process that would add additional urban land. Buildout of the County Area Plan, City General Plan, the General Plan Amendments, and existing land uses would result in a total of 182,992 jobs and 130,921 housing units. The jobs/housing balance under this buildout scenario would be 1.40 jobs per household. If Newhall Ranch jobs and housing are

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14 Interview with Terry Bills, Southern California Association of Governments, Los Angeles, California, 22 August 1994.

15 SCAG household projection of 162,530 was converted to housing units for the purpose of consistency by assuming that there are 5 percent more housing units than households.[16] SCAG, Growth Management Chapter, Technical Appendix to the Regional Comprehensive Plan and Guide, 1994.

added to the anticipated buildout of the County Area Plan and City General Plan, General Plan Amendments, and existing housing, there would be a total of 202,315 jobs and 156,139 housing units in the Santa Clarita Valley (See Table 4.21-8). The jobs/housing ratio would in this instance be 1.30 jobs per household, which is identical to SCAG's target ratio contained in the RCPG.

(6) Jobs /Housing (Reduction in VMT)

As previously indicated, the emphasis that SCAG has historically placed on jobs/housing balance has shifted from jobs/housing performance ratios towards land use practices which offer a similar reduction in vehicle miles traveled (VMT). Thus, the goals of SCAG remain the same, although the means to achieve the reduction in VMT have been altered by the adopted Growth Management Plan. The Growth Management Plan has replaced the jobs/housing balance ratio performance standard of the 1989 Regional Growth Management Plan with a policy termed "Small-Scale/Localized Urban Form." This approach is designed to influence future urban form based on local actions affecting site-specific development and does not include policy intervention at the regional level to achieve a particular growth distribution. The following analysis provides a comparison between recommended local actions to be taken under SCAG's "Small-Scale/Localized Urban Form" approach and how the Newhall Ranch Specific Plan utilizes these planning concepts to reduce VMT.

SCAG Approach: Allow the combination of usually separated land uses within a single development.[16]

The proposed Land Use Plan of the Specific Plan (see **Figure 1.0-3**) provides for an extensive array of land uses which are intended to facilitate development of a relatively complete community which will provide a wide array of home types and prices; employment producing uses, shopping and services; public uses such as schools, library, and fire stations; and various types of recreation, including parks, a lake, golf course and an extensive trail system. In order to maximize the integration of employment, shopping, services and recreation, the Land Use Plan includes the division of the site into five distinct Villages (see **Figure 1.0-4**). Each Village is planned to have a wide array of residential home types as well as non-residential uses. Four of the five villages would contain a Mixed-Use center, which would differ in size and amenities based on the population it serves. The Mixed-Use land use designation permits the coordinated development of Commercial, office, Medium Residential and High Residential uses. Provisions are made in the Specific Plan to permit the combining of land uses, including the combining of residential uses with retail and/or office uses on one building site or within a building. The Specific Plan also provides for the sharing of parking where appropriate in order to facilitate the mixing of uses. In addition, four of the five villages would contain Commercial centers. The fifth Village, Long Canyon Village, is smaller and less diversified than the others due to its topography and resources. However, residents of Long Canyon Village will have excellent proximity to

Mixed-Use centers nearby in the Riverwood and Potrero Valley Villages. The Land Use Plan clusters Medium and High Residential land use designations within and around the Mixed-Use and Commercial centers in order to increase the number of homes within walking distance of non-residential uses. Lower intensity residential uses (typically single family detached homes) are located at greater distances from the Mixed-Use and Commercial Centers, generally where topography is greater. This clustering of residential land uses results in approximately 59 percent of all homes being located within one quarter of a mile of a Mixed-Use or Commercial center. In summary, the design of the Land Use Plan is consistent with the SCAG recommended local action in that it results in a very diversified mix of land uses within the Specific Plan, and the integration of residential and non-residential uses on a small Village scale.

SCAG Approach: Increasing development density along transit corridors and/or stations, increasing density and mixing land uses along the highway system, specifically where high occupancy vehicle lanes are planned.[17]

Regional access to Newhall Ranch is provided by SR-126, which is currently a two lane State highway within the Specific Plan boundaries, but which is programmed by Caltrans for widening to four lanes in the near future. The Specific Plan would result in the additional widening of SR-126 to eight lanes from Interstate-5 at Commerce Center Drive, and to six lanes from Commerce Center Drive west to a point west of San Martinez Grande Road. The Land Use Plan of the Specific Plan proposes the intensification of development along SR-126. The most intensive uses would be clustered in and around the Mixed-Use Center at Chiquito Canyon Road and SR-126, and the Commercial Centers located at Wolcott Way and SR-126 and at San Martinez Grande Road and SR-126. The Village design concept for the Specific Plan not only clusters higher intensity non-residential uses into centers, but clusters higher intensity housing in and around these centers. As noted elsewhere, approximately 59 percent of the homes within Newhall Ranch would be located within one-quarter mile of a Mixed-Use or Commercial center. The clustering of higher intensity uses permits access to the State Highway to be controlled, with major access points located at Commerce Center Drive, Wolcott Way, Chiquito Canyon Road and San Martinez Grande Road. At buildout, the Specific Plan traffic impact analysis projects that the three easterly access points would be grade separated. The control of access and grade separations would not reduce vehicle miles traveled (VMT), but would directly prevent congestion and, therefore, would reduce air pollution.

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17 SCAG, Growth Management Chapter Technical Appendix to the Regional Comprehensive Plan and Guide, 1994.

The roadway network of the Newhall Ranch Mobility Plan (see **Figure 1.0-5, Backbone Circulation Plan**) has been designed as an extension of the regional circulation system and the County Master Plan of Highways. In addition to the connections to SR-126 described above, the Specific Plan site would be linked to Interstate-5 by extensions of two major highways: Magic Mountain Parkway and Valencia Boulevard. As discussed above, the design of the Specific Plan facilitates transit by clustering the most intensive uses, including multifamily homes, in and around the Mixed-Use and Commercial Centers. These centers will all be located with direct access to the Specific Plan's arterial highway system, which consists of major and secondary highways. The highways would serve as the basic transit infrastructure. Bus pull-ins would be provided at the Mixed-Use Centers in order to facilitate transit. In addition, the extensive system of pedestrian and bicycle trails, described below, provides linkages for residents to shopping, employment, institutional uses such as schools, and recreation, as well as to transit points. In summary, the Newhall Ranch Specific Plan offers a variety of alternative transportation facilitating design features and infrastructure, including the provision of Village centers, intensification of population density in and around centers, provision of a highway system which is adequate to serve the Specific Plan and through traffic, a rail transit corridor, and a system of bicycle and pedestrian trails which provide alternatives to the automobile.

SCAG Approach: Achieving better jobs/housing balance at the local level, and a better match between the types of jobs and the price of housing.[18]

Commentators on SCAG's jobs/housing balance concept, including SCAG itself, note that it is theoretically possible that work commutes could be shortened if there were more of a balance between the wages offered by businesses within a geographic subarea and the home prices and rental rates of that area. However, establishing these relationships for any subarea, such as the Santa Clarita Valley and the Specific Plan site, presents formidable analytic problems. For example, households choose where to live, and workers choose jobs for a wide variety of reasons, only some of which are based on location. Thus, even if homes of a particular type in a particular price range are available close to a person's place of employment, the person may not choose to reside in that area. Similarly, the amounts households are willing to spend for housing costs varies widely between and within income brackets, and does not necessarily correspond to the percentages of income established by Federal agencies, lenders, and others (e.g., 30 percent of gross monthly income). Households may have financial resources, including equity in their existing homes, in addition to the wages they earn. This makes

18 SCAG, Growth Management Chapter Technical Appendix to the Regional Comprehensive Plan and Guide, 1994.

direct comparisons between housing prices or rents and wages highly problematic. Finally, even if these relationships could be estimated for a current point in time, projections of future types of jobs, incomes and housing prices/rents over the long term would require assumptions regarding changing economic conditions which cannot be predicted with any reasonable degree of certainty.

The proposed Newhall Ranch Specific Plan would include 5.7 million square feet of non-residential development which would provide a diverse mixture of jobs. Non-residential land uses include 1.7 million square feet of commercial-retail uses, 1.5 million square feet of Business Park uses, and 2.5 million square feet of office uses. In addition, residents of the Specific Plan will reside in proximity to major employment centers within Valencia and other areas of the Santa Clarita Valley which will offer diverse types of jobs and salaries.

No projections of future salary ranges for Santa Clarita Valley employment are available. However, average household annual income in the Santa Clarita Valley for 1994 was estimated at $71,724.[19] Using standard ratios, a household with this income could afford a home purchase price of $200,000.[20] The average for-sale home price, in 1995 dollars, in the Specific Plan would be $205,396, according to the Fiscal Impact Analysis (EIR **Appendix 6.0**). This comparison indicates that there would be an approximate conformity between local incomes and the currently-estimated home prices for the Specific Plan. Employment types and wages for jobs provided by the Specific Plan are expected to be similar to those currently offered in the Santa Clarita Valley.

In addition to for-sale homes, the Specific Plan will provide an unknown number of rental apartments, which will generally be located in the Medium Residential, High Residential, and Mixed-Use land use designations. The location of these land use designations within or near the Mixed-Use centers provides the opportunity for residents to walk to services and employment, thereby reducing auto-related costs. This is an important consideration in that households generally consider both direct housing costs and the costs of commuting to work in making choices where to reside (proximity to jobs actually increases income, e.g., gas, wear and tear on and insurance for automobiles, etc.). In addition, 538 Second units are permitted by right in the Estate Residential land use designation, and additional Second units can be built in the Estate and Low Residential land use designations through the unit transfer provisions of the Specific Plan. Second units provide additional more affordable rental homes, and may also be used as "granny" flats.

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19 Santa Clarita Valley Chamber of Commerce, Economic Profile of the Santa Clarita Valley, Volume No.2, May, 1995.

20 Assuming 10 percent down and 30 percent of gross monthly income ($1,793) applied to housing costs, which would include principal and interest at 8.75 percent ($1,416), PMI ($67), taxes ($208), insurance ($57), and homeowner's association ($35).

In order to determine whether a significant number of rental units would be available in reasonable proximity to Newhall Ranch, a commute time of 30 minutes was defined. At the time of the 1990 Census, 46 percent of the population in the Santa Clarita Valley drive 30 minutes or more to employment. According to Urban Decision Systems, at the time of the 1990 Census, there were 76,711 rental units within a thirty-minute commute of Newhall Ranch, as shown in **Table 4.21-7**. This includes housing units in the northern San Fernando Valley, as far west as Santa Paula, east to Agua Dulce, and north beyond Pyramid Lake. The Antelope Valley, which is 45 minutes or more away, is not included, but would provide significantly more housing units in lower price ranges.

Table 4.21-7
Distribution of Apartment by Rent
30-Minute Commute Distance from Newhall Ranch
1990 Census

Rental Range	Percent of Units	Number of Units
Under $500	27%	20,942
$500 - $599	20%	15,342
$600 - $699	18%	13,424
$700 - $749	7%	5,293
$750 - $999	20%	15,035
$1,000 and over	9%	6,674
Totals	100%	76,711

Source: Urban Decision Systems.

As indicated in **Table 4.21-7**, there were nearly 21,000 rental housing units within a thirty-minute commute time from Newhall Ranch which had rents affordable to households in the lowest income category in 1990. Considering the effects of the economic recession that the California housing market experienced over the past seven years, it is likely that current rents are close to or below the 1990 levels shown in the Census.

In summary, the Specific Plan was planned to accommodate a wide cross-section of housing types and prices to approximate the housing demand created by local and regional job growth. The Specific Plan will provide townhomes and clustered detached homes at approximately the same price as larger detached homes sold in more distant locations which have less costly land, fewer amenities, and fewer employment opportunities. Therefore, the Specific Plan provides the opportunity for households to choose a smaller home and, generally, a reduced commute time to work. In addition, the provisions of the Specific Plan provide flexibility to adjust housing types, sizes, styles, and prices to accommodate changes in demand over the long period in which development is expected to occur.

SCAG Approach: Recommends design standards to encourage alternative modes of transit to that of single occupancy vehicles.[21]

An east-west transit corridor has been incorporated into the Land Use Plan to facilitate a future Metrolink line between Ventura and Santa Clarita. This corridor runs along the south side of SR-126 through the Newhall Ranch site. A site for a potential future transit station has also been identified on the south side of SR-126 near Wolcott Way. The site, which would provide access to the adjacent Valencia Commerce Center, as well as to Newhall Ranch residents, could be used as a possible park-and-ride lot as an interim use, thereby encouraging ridesharing and providing and alternative to single occupancy travel.

The Master Trails Plan of the Newhall Ranch Specific Plan (see **Figure 1.0-7**) provides a comprehensive system of pedestrian and bicycle circulation throughout the Specific Plan area. The Master Trails Plan is also designed so that community and local trails can be connected to regional trails planned for the larger Santa Clarita Valley, and to the "Paseos" in adjoining areas of Valencia. This will ultimately provide a comprehensive trail system, encouraging interconnected alternative modes of travel.

A regional River trail is proposed through Newhall Ranch along the north side of the Santa Clara River. This trail would be an extension of the Santa Clarita Valley Regional River Trail planned by the County and City of Santa Clarita. Future extensions of this trail would connect Newhall Ranch to the Valley's major employment centers in the Valencia Commerce and Industrial Centers, as well as to other employment and regional shopping locations in Valencia. Community trails for pedestrians and bicyclists are proposed along each of the major and secondary highways in Newhall Ranch. Community trails along Potrero Valley Road, Long Canyon Road/ Chiquito Canyon Road, and Commerce Center Drive would each provide access to the Regional River Trail. Pathways would be constructed along residential and non-residential collector streets, while local trails would be used to provide connections between residential neighborhoods. Some local trails and a series of unimproved trails will be developed to provide access to the Special Management Areas and open areas of the Specific Plan.

Also, the Backbone Circulation Plan includes highway designs incorporating provisions for bus pull-ins. These locations would be positioned central to pedestrian activity centers in each Village. The precise locations of bus pull-ins will be determined during subdivision planning in consultation with a transit provider.

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21 SCAG, Growth Management Chapter Technical Appendix to the Regional Comprehensive Plan and Guide, 1994.

e. Population, Housing and Employment Conclusion

As discussed, the population, housing and employment in the Santa Clarita Valley has grown since the 1970s. The Valley has transitioned from a bedroom community with limited retail services and employment to a more self-contained community with a range of housing types and diversity of goods, services and industries. Such urbanization has an effect on the environmental conditions of the area. Population increases resulting from additional housing and jobs created by development projects, such as the Newhall Ranch Specific Plan, further alter the existing environment as discussed throughout **Section 4.0, Existing Conditions, Specific Plan Impacts and Mitigation Measures, Cumulative Impacts and Mitigation Measures, Unavoidable Significant Specific Plan Impacts.** The reader is directed to review Section 4.0 for detailed discussion on the anticipated physical environmental changes that would occur as a result of implementation of the Newhall Ranch Specific Plan.

5. SPECIFIC PLAN MITIGATION MEASURES

4.21-1 The Los Angeles County General Plan and the Santa Clarita Valley Area Plan ~~of the County of Los Angeles General Plan~~ shall be amended by Los Angeles County ~~Regional Planning Department~~ to accommodate the ~~Mixed-Use master planned community proposed by the~~ Newhall Ranch Specific Plan.

6. CUMULATIVE IMPACTS

In order to analyze the cumulative impacts of this Specific Plan in combination with other expected future growth, the amount and location of growth expected to occur in addition to that of the Specific Plan was predicted. For this section of the EIR, one cumulative development scenario is compared with existing conditions to meet Los Angeles County and CEQA requirements.

a. Santa Clarita Valley Cumulative Buildout Scenario

This scenario [herein referred to as the "Santa Clarita Valley (SCV) Cumulative Buildout Scenario"] entails buildout of all lands under the current land use designations indicated in the Los Angeles County Santa Clarita Valley Area Plan and the City of Santa Clarita General Plan, plus the proposed Specific Plan, plus all known active pending General Plan Amendment requests for additional urban development in the unincorporated area of Santa Clarita Valley and the City of Santa Clarita. In this report, this area is often referred to as the "Valley." A list of the future development activity (with and without the Newhall Ranch Specific Plan) expected in the Valley under the Santa Clarita Valley Cumulative Buildout Scenario is presented below in **Table 4.21-8, Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario.**

Table 4.21-8
Cumulative Development Activity - Santa Clarita Valley Cumulative Buildout Scenario

Land Use Types	Cumulative Buildout w/o Specific Plan[1]	Newhall Ranch Specific Plan [2]	Cumulative Buildout w/ Specific Plan
Single Family	89,015 du[3]	11,025 du	100,040 du
Multi-Family	38,729 du	14,193 du[4]	52,922 du
Mobile Home	3,177 du		3,177 du
Commercial Retail	20,107,660 sf[3]	1,718,000 sf	21,825,660 sf
Hotel	336,420 sf		336,420 sf
School	3,049 sta[3]	400 sta	3,449 sta
College	1,152 sta		1,152 sta
Hospital	285,470 sf		285,470 sf
Library	226,000 sf	25,000 sf	251,000 sf
Church	399,170 sf		399,170 sf
Business Park	7,773,730 sf	1,513,000 sf	9,286,730 sf
Industrial/Manufact.	33,480,250 sf		33,480,250 sf
Utilities	1,421,160 sf	35,000 sf	1,456,160 sf
Commercial/Med. Office	8,653,790 sf	2,489,000 sf	11,142,790 sf
Golf Course/Park	1,314 ac[3]	313 ac	1,627 ac
Special Generator	53,600 sf	24,000 sf	77,600 sf

[1] *Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (SCVCTM). Includes existing development and active pending general plan amendment requests.*
[2] *Draft Newhall Ranch Specific Plan, July 1996.*
[3] *du = dwelling unit; sf = square feet; sta = staff; ac = acres*
[4] *Includes 538 Second Units.*

According to the 1990 Census, the Santa Clarita Valley had a population of 151,052 persons, approximately 48,883 dwelling units and 51,594 jobs. Based on the Santa Clarita Valley Cumulative Buildout Scenario residential land use data provided above and using an average person per household figure of 3.17 for single family uses and 2.38 for multi-family uses,[22] there will be (with existing uses and without Newhall Ranch) a population total of 381,771 persons, 130,921 dwelling units, and 182,992 jobs in the Valley. Using the same average person per household figures listed above and an average household size of 2.00 for Second Units, it is estimated that the Newhall Ranch Specific Plan, at buildout, will total 68,524 residents, contain 25,218 dwelling units (including the 538 Second Units), and provide approximately 19,323 jobs. **Table 4.21-9, Santa Clarita Valley Cumulative Buildout Scenario - Population, Housing and Employment,** indicates that Santa Clarita Valley at buildout (existing + Cumulative Buildout + Newhall Ranch) will have a population of 450,295, approximately 156,139 dwelling units and an employment of 202,315. **Table 4.21-10, Employment Generation Profile (Santa Clarita Valley Cumulative Buildout Scenario),** provides a breakdown of total cumulative buildout employment by category. Refer to **Appendix 4.21** for the detailed breakdown of population and employment projections for this scenario.

22 1990 U.S. Census data provided to Impact Sciences, Inc. by the Department of Regional Planning, Research Section. Refer to the Draft Newhall Ranch Specific Plan, January 1996, for average person per household figures.

Table 4.21-9
Santa Clarita Valley Cumulative Buildout Scenario
Population, Housing and Employment

	Existing [1]	Cumulative Buildout w/o Newhall Ranch, w/o Existing	Newhall Ranch	Total Cumulative Buildout
Population	151,052	230,719	68,524	450,295
Housing	48,883	82,038	25,218	156,139
Employment	51,594	131,398	19,323	202,315

Source: 1990 US Census; Los Angeles County, Department of Regional Planning, Newhall Ranch Specific Plan.
[1] *Based on the 1990 US Census Tract data.*

Table 4.21-10
Employment Generation Profile
(Santa Clarita Valley Cumulative Buildout Scenario - Existing + Cumulative Development + Newhall Ranch)

Land Use	Estimated Square Footage[1]	Employment Generation Factor per 1,000 sq.ft.[2]	Number of Employees
Office	11,143 TSF	4.0	44,571
Commercial-Retail	21,826 TSF	2.5	54,264
Industrial/Manufact.	33,480 TSF	2.0	66,961
Hotel/Motel[3]	841 Rooms	0.9	1,027
Hospital	285 TSF	3.0	856
Library	251 TSF	1.0	251
Church	399 TSF	0.5	200
Business Park	9,287 TSF	3.0	27,860
Utilities	1,456 TSF	0.70	1,019
Golf Course/Park	1,090 Acres	0.40	651
College[4]	--	--	1,152
Schools[4]	--	--	3,449
Special Generator[5]	77.6 TSF	0.70	54
		Total	202,315

TSF = Thousand Square Feet

[1] *The buildout numbers were developed by Los Angeles County and are utilized in the Santa Clarita Valley Consolidated Traffic model, 1995 Update and Validation (SCVCTM). Square footages are based on an 18.75% floor-area-ratio for commercial uses and a 30% floor-area ratio for industrial uses (Los Angeles County, Department of Public Works).*

[2] *This information was provided by SCAG, 22 February 1995, and the SCVCTM, unless otherwise specified.*

[3] *Total 336,420 square feet is equivalent to 841 rooms, which is based on 400 gross square feet per room. Generation factor is based on 0.9 employees per room (SCAG, 1990).*

[4] *College and school employment is derived from the SCVCTM.*

[5] *Assumes same generation factor as Utilities and includes Fire Station use.*

As shown in **Table 4.21-11, Santa Clarita Valley Cumulative Buildout Scenario - Comparison with Adopted Local and Regional Plan Projections**, the population, housing and employment at buildout of Santa Clarita Valley will be greater than the population, housing and employment projections that were updated in 1987 and provided in the adopted Los Angeles County Santa Clarita Valley Area Plan. However, the numbers for Santa Clarita Valley at buildout will be within the 1994 SCAG projections for population and housing, but would exceed employment growth estimates.

Table 4.21-11
Santa Clarita Valley Cumulative Buildout Scenario
Comparison with Adopted Local and Regional Plan Projections

	Total Cumulative Buildout	Adopted County Area Plan (2010)	Difference (Area Plan minus Cumulative)	Adopted SCAG RCPG (2015)	Difference (RCPG minus Cumulative)
Population	450,295	270,000	(180,295)	552,796	+102,501
Housing	156,139	93,400	(62,739)	162,530	+6,391
Employment	202,315	111,000	(91,315)	123,903	(78,412)

Source: 1990 US Census; Los Angeles County, Department of Regional Planning, SCAG Regional Comprehensive Plan and Guide (1994).

(1) Santa Clarita Valley Jobs/Housing Balance

For this population, housing and employment cumulative development scenario, it is useful to present the predicted jobs/housing balance for buildout of the Valley (refer to **Appendix 3.0** for additional information on this subject). **Table 4.21-12, Jobs/Housing Balance - Santa Clarita Valley**, presents information regarding expectations for the Valley's jobs/housing balance. In 1990, Census data indicate that there was a total of 48,883 dwelling units and 51,594 persons employed in the Santa Clarita Valley, representing a jobs/housing ratio of 1.06, which was below the target of 1.30 previously identified by SCAG for this area in the revised 1989 Regional Growth Management Plan. From a physical perspective, the closer the Valley is to the goal, the more reductions in vehicle miles traveled would occur, thereby lessening the associated potential traffic and air quality impacts on the Valley. Under the Santa Clarita Valley Cumulative Buildout Scenario (without the Specific Plan), a total of 130,921 housing units and 182,992 jobs would occur. This represents a jobs/housing ratio of 1.40, which is greater than the 1.30 target figure. However, development of Newhall Ranch in concert with Cumulative Buildout would lower the ratio to 1.30, which is identical to the SCAG jobs/housing goal of 1.30. Thus, the proposed Specific Plan complements existing and projected future development within the Valley as it contributes to improving the jobs/housing balance ratio of the Valley, thereby meeting the identified RCPG jobs/housing balance goal of 1.30.

Table 4.21-12
Jobs/Housing Balance
Santa Clarita Valley

	Jobs	Housing Units	Jobs/Housing Ratio	Distance from SCAG Target of 1.30
Existing (1990)	51,594[1]	48,883[1]	1.06	(0.24)
Valley Buildout (without Specific Plan)	182,992	130,921[2]	1.40	0.10
Valley Buildout (with Specific Plan)	202,315	156,139	1.30	0.00

[1] *SCAG Census Tract data for Census Tracts 9108.01 to 9203.25 (constituting the Santa Clarita Valley).*
[2] *1995 Santa Clarita Valley Consolidated Traffic Model, 1995 Update and Validation (SCVCTM).*

(2) Cumulative Population, Housing and Employment Summary

From a physical perspective, buildout of the Santa Clarita Valley and the Newhall Ranch Specific Plan would result in additional population, housing and employment opportunities in undeveloped portions of the Santa Clarita Valley. Housing development and employment-inducing land uses attributable to the buildout of the Santa Clarita Valley and the Newhall Ranch Specific Plan would generate residential population and employment centers. Environmental impacts attributable to this development are addressed throughout Section 4.0, Existing Conditions, Specific Plan Impacts and Mitigation Measures, Cumulative Impacts and Mitigation Measures, and Unavoidable Significant Specific Plan Impacts of this EIR, and the reader is directed to review Section 4.0 for detailed discussion and analysis regarding such impacts. To summarize, there will be unavoidable significant cumulative impacts created to biological resources (Section 4.6), visual qualities (Section 4.7), air quality (Section 4.10), agricultural resources (Section 4.4), and solid waste disposal (Section 4.15) as a result of population and employment opportunities generated from buildout of the Santa Clarita Valley and the Newhall Ranch Specific Plan.

7. CUMULATIVE MITIGATION MEASURES

No significant cumulative population, housing, or employment impacts were identified; therefore no mitigation measures are required. Sections 4.1 through 4.20 present many mitigation measures which are intended to avoid or minimize the significant cumulative impacts associated with growth in population, housing and employment throughout Santa Clarita Valley. The reader is directed to these sections for detailed mitigation.

8. UNAVOIDABLE SIGNIFICANT IMPACTS

The Specific Plan is not consistent with 1987 County projections that are included in the Santa Clarita Valley Area Plan, but is consistent with SCAG projections, with the exception of employment for the Santa Clarita Valley. However, assuming that proposed Area Plan and General Plan Amendments are approved, the Specific Plan would be consistent with the County Area Plan and General Plan as County projections would be amended. If approved, the Specific Plan would increase the County Area Plan population projections from 270,000 persons to 338,524 persons, would increase the housing projection from 93,400 units to 118,618 units, and would increase the employment projection from 111,000 jobs to 130,323 jobs. There would be unavoidable significant impacts created on biological resources (Section 4.6), visual qualities (Section 4.7), air quality (Section 4.10), and agricultural resources (Section 4.4) as a result of population and employment opportunities generated by development of the Newhall Ranch Specific Plan.

5.0 WRP Impacts and Mitigation Measures

5.0 WATER RECLAMATION PLANT IMPACTS, MITIGATION MEASURES, AND UNAVOIDABLE SIGNIFICANT IMPACTS

1. SUMMARY

A water reclamation plant (WRP) is proposed as part of the Newhall Ranch Specific Plan to treat the wastewater generated. The WRP would be placed in one of the Business Parks, proposed near the western edge of the Specific Plan area, along the south side of SR-126. It would likely be built in stages, as the Specific Plan is developed, and would ultimately be sized to treat up to 7.7 million gallons per day (mgd) of wastewater when the Specific Plan is fully developed and occupied. The WRP would be designed and operated to provide a tertiary level of treatment, and would be a "near zero-discharge" system. Such a system is intended to reclaim all treated wastewater for re-use within the Specific Plan area for irrigation purposes, except for potentially wet winters when irrigation demands would be lower and some discharge of unused reclaimed water to the Santa Clara River would occur. The WRP would be built only if the Newhall Ranch Specific Plan is approved and implemented.

a. WRP Impacts Found Not to be Significant

No significant impacts have been identified with respect to the following topics:

- *Cultural/Paleontological Resources*
- *Daily Traffic Volumes*
- *Operational Noise*
- *Water Resources*
- *Natural Gas*
- *Electricity*
- *Education*
- *Police Services*
- *Fire Services and Hazards*
- *Libraries*
- *Parks, Recreation and Trails, and*
- *Population, Housing and Employment*

b. Significant WRP Impacts that can be Mitigated

Significant environmental impacts associated with the WRP that can be mitigated to a level less than significant include the following:

Geotechnical and Soils Considerations: *Surface and near surface soils throughout the site are poorly consolidated, commonly contain void space and are subject to hydroconsolidation, which causes settlement and can be potentially hazardous to overlying structures. Significant impacts can be avoided through preparation of a site-specific geotechnical study prior to grading, with specific recommendations to address site-specific geotechnical or soils constraints, to be implemented under the direction of a Project Engineer.*

Flood: *A portion of the WRP site is within the Los Angeles County 50-Year Capital Flood Plain and the Federal Insurance Administration 100-Year Flood Plain. Site preparation would include the placement of sufficient fill material across the site to provide a minimum of one foot of freeboard above the level of the 50-Year Capital Flood. During construction, uncovered soils could be blown or washed by rainwater into the Santa Clara River, with significant erosion and sedimentation impacts. This can be mitigated through compliance with the NPDES Construction Permit requirements, issued by the California Regional Water Quality Control Board, Los Angeles Region.*

Environmental Safety: *Operation of the plant would involve the storage, use and disposal of a variety of hazardous chemicals, primarily for application in the various stages of the waste treatment process. Treatment facilities would also generate various toxic air emissions, as well as biosolids that contain traces of chemical pollutants and pathogen-laden bacteria. Accidents or catastrophic natural events (such as an earthquake or flooding) could result in significant risks to the environment or human health from release of the various hazardous materials and emissions at the plant. Compliance with mandatory risk prevention and contingency planning regulations would minimize such risks to below a level of significance.*

Biota: *No rare, threatened or endangered species have been identified on the WRP site. Grading/site preparation would directly impact 9.8 acres along the edge of the River, which contain sensitive habitat, including cottonwood willow riparian forest (6.43 acres) and mule fat scrub (3.39 acres). Compliance with mandatory permit requirements established by Federal and State agencies would reduce this impact to below a level of significance.*

Visual Qualities: *Without proper screening, the WRP site would contrast sharply with the neighboring environment and with natural landscape features found in the background. This can be mitigated to below a level of significance through appropriate landscaping and fencing techniques. Uncontrolled outdoor lighting could significantly contrast with the surrounding rural environment. This effect can be reduced to below a level of significance through appropriate shielding, orientation, placement and intensity of lighting fixtures.*

Traffic/Access: *If the WRP is constructed while SR-126 is still a two-lane roadway, and construction equipment, vehicles and activities are not properly managed, some interference with normal traffic flow could occur. Implementation of routine construction traffic controls would ensure that adequate flow is maintained and that adequate access by emergency vehicles is maintained. Consequently, impacts would be less than significant.*

Construction Noise: *If any part of the WRP is constructed after planned residential development occurs in the western-most part of the Newhall Ranch, construction noise could be an issue for residents located near the plant site, on the opposite (north) side of SR-126. Compliance with the County's regulations that restrict hours and days of construction, and set limits for noise generated by construction equipment, would mitigate construction noise impacts to less than a level of significance.*

Air Quality: *Failure of odor control equipment or management programs could result in odor impacts to off-site sensitive receptors. Proper installation, maintenance and monitoring of odor controls, together with an active odor complaint response program, would mitigate this potential impact to below a level of significance.*

Wastewater Disposal: *In the unlikely event that improperly treated wastewater is discharged to the Santa Clara River , it could contribute to degradation of the water quality within the River to below the standards set by the Regional Water Quality Control Board, Los Angeles Region in its Basin Plan. Compliance with the standards that must be met to obtain an Industrial Discharge Permit, pursuant to the NPDES provisions of the Federal Clean Water Act, would ensure that water quality standards are satisfied through the plant treatment processes. Consequently, water quality impacts would be less than significant.*

c. Unavoidable Significant WRP Impacts

Significant impacts have been identified which cannot be feasibly mitigated to less than significant levels. These are identified below.

Agricultural Resources: *Development of the WRP would result in a conversion of prime agricultural land to an urban use.*

Air Quality: *Grading would generate quantities of dust that would exceed the SCAQMD's daily threshold of significance, even after application of all available dust controls that would reduce the amount of dust by roughly 61 percent.*

Visual Qualities: *The active WRP site would contrast sharply with the scenic qualities of the River Corridor and surrounding natural landscapes, and would result in an unavoidable significant impact on the scenic visual quality of that area, both during and following construction.*

Solid Waste: *Landfill disposal of the biosolids produced as a by-product of the wastewater treatment process would contribute to an unavoidable significant impact on landfill facilities, because such facilities are limited in number and have finite capacity, and because new facilities are expensive and difficult to develop.*

2. INTRODUCTION

This EIR is intended to provide the environmental information necessary to allow Los Angeles County to approve the WRP without further environmental review by the County.

This chapter describes the potential environmental impacts, mitigation measures, and unavoidable significant impacts which could occur as a result of constructing and operating the water reclamation plant (WRP) proposed as part of the Newhall Ranch Specific Plan. The WRP is intended to treat all wastewater generated by the land uses proposed as part of the Specific Plan. Since this plant would only be built if the Specific Plan is approved and developed, the cumulative impacts that the plant could contribute to are described throughout **Section 4.0, Existing Conditions, Specific Plan Impacts and Mitigation Measures, Cumulative Impacts and Mitigation Measures, and Unavoidable Significant Specific Plan Impacts**, of this EIR.

3. DESCRIPTION OF THE WATER RECLAMATION PLANT

The following description is derived from the reports entitled Water Resource and Wastewater Management for the Newhall Ranch Project (Revised June 1996) and Addendum to Water Resources and Wastewater Management for the Newhall Ranch Project (June 1996) prepared by CH2M HILL. These reports are presented in their entireties in **Appendix 4.11** of this EIR.

a. Overview

The water reclamation plant (WRP) is proposed to be located on the south side of SR-126, adjacent to the Santa Clara River, and near the Los Angeles/Ventura County boundary (see **Figure 5.0-1, Proposed Wastewater Treatment Facility and Service Area**). The proposed WRP would have a treatment capacity of 7.7 million gallons per day (mgd) and a maximum peak flow of 15.4 mgd.[1] It has been sized to exclusively serve the needs of the Newhall Ranch Specific Plan. A new sanitation district would also be formed; its boundary would coincide with that of the Specific Plan site. The new district is proposed because the Specific Plan site is located in unincorporated territory within the County of Los Angeles, and is downstream from the nearest existing County sanitation district [County Sanitation Districts of Los Angeles County (CSDLAC)] No. 32, which maintains and operates the Valencia WRP. The Specific Plan site will also be required to annex into the Consolidated Sewer Maintenance District if it's sewers are to be maintained by the County

There are currently twenty-six County sanitation districts. Under a Joint Powers Agreement among these districts, the Districts are served by a common administrative staff. It is proposed that the new County sanitation district enter into a joint powers agreement with the other existing County sanitation districts to enable it to utilize the currently available joint administrative staff. Based on the assumption that the new WRP would be operated and maintained by this joint administrative staff, the WRP would be constructed to meet CSDLAC specifications and requirements, as well as requirements of other governmental agencies including the Los Angeles County Department of Public Works sewer design standards.[2]

The Newhall Ranch Specific Plan is proposed with the concept of total water management. Therefore, water supply planning for the Specific Plan required development of a water budget (discussed fully in **Section 4.11, Water Resources**, of this EIR) that addresses both potable and nonpotable water demand. Using the Irvine Ranch Water District (IRWD) as a model, the goal of the water budget analysis was to develop a conservative estimate of water demands by type (i.e., potable and nonpotable) and of effluent available to be reclaimed for meeting nonpotable water demands.[3] It was determined that the Specific Plan would require 6,547 acre-feet (5.8 mgd)[4] of water per year for interior (potable) water use, all of which would be treated at the proposed WRP and, upon tertiary treatment, be reclaimed for landscape irrigation.

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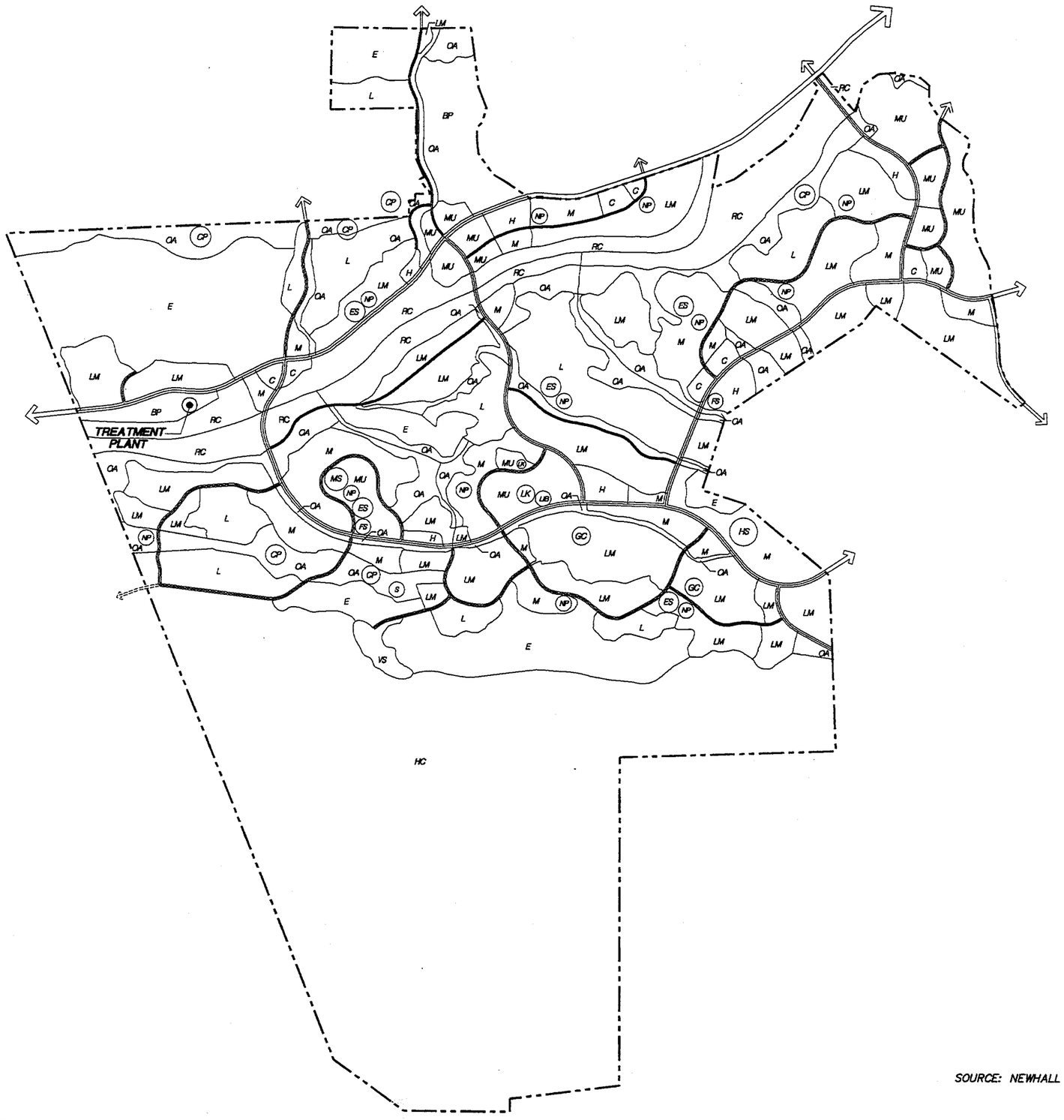
1 The average flow for the WRP is 7.7 mgd, and a peaking factor of 2.0 has been used to calculate a maximum flow of 15.4 mgd through the plant. The peaking factor is the ratio between the peak storm flow and the average dry weather flow. Based on an actual peak and average flow conditions at their various water reclamation plants, CSDLAC staff have suggested that a peaking factor of 2.0 be incorporated in this plant's design parameters. This represents a conservative estimate that will allow for higher than normal fluctuations in peak flows.

2 Prior to construction of the WRP, final plans would be prepared and all required permits would be obtained by the new County sanitation district.

3 The IRWD approach was used in projecting the water balance for the Specific Plan because it disaggregates interior versus irrigation water demands for a very wide range of land uses. The IRWD demand data are based on experience of IRWD in operating domestic and reclaimed water systems since the mid-1970's.

4 One acre-foot is equivalent to 325,851 gallons.



SOURCE: NEWHALL RANCH SPECIFIC PLAN

NEWHALL RANCH™
Newhall Ranch Company

L E G E N D

PROPOSED SEWAGE TREATMENT PLANT

PROPOSED SANITATION DISTRICT BOUNDARY (NEWHALL RANCH)

IMPACT SCIENCES INC

NORTH

English 0' 1000' 2000'

Metric 0 225m 450m 900m

100 ACRES 400 ACRES

FIGURE 5.0-1

PROPOSED WASTEWATER TREATMENT FACILITY AND SERVICE AREA

The proposed WRP, however, was not sized based on the total Specific Plan interior water demand of 6,547 (5.8 mgd); rather, it was sized using CSDLAC criteria. CSDLAC has two approaches to estimate sewage flow. Under the first approach, wastewater generation factors are disaggregated by land use; applying this approach to Newhall Ranch, Specific Plan wastewater generation would be 7.7 mgd (8,635 acre-feet per year). Under the second approach, which is used in the Valencia and Saugus WRP area, CSDLAC uses a sewage generation rate of 100 gallons per capita per day. Applying the second approach to Newhall Ranch, Specific Plan wastewater generation would be 7.52 mgd (8,422 acre-feet per year). Because the first approach provides the most conservative estimate of wastewater generation, it was used to size the proposed WRP.

A goal of the proposed WRP is to reclaim the maximum amount of wastewater generated by the Specific Plan in order to meet a portion of the non-potable water demand of the Specific Plan. As such, the WRP is proposed as a "near zero-discharge" system. The goal of this system is to reclaim all wastewater treated at the WRP, with no or only minor seasonal discharges to local water bodies. A total reclaimed water system with a near zero-discharge would both dispose of treated wastewater and add to the local water supplies. This system would require development of dual water distribution systems for the Specific Plan: one system to deliver potable water and one completely separate system to deliver non-potable reclaimed wastewater for use at the golf course and public landscape areas proposed as part of the Specific Plan site. As shown on **Table 5.0-1, Summary of Wastewater Generated**, it is estimated that, based on interior water demand estimates, the annual reclaimed water supply for the Specific Plan would average 6,547 acre-feet per year, which is equivalent to 5.8 mgd (this figure is consistent with the Specific Plan's water budget discussed in Section 4.11). A 7.7 mgd water reclamation plant operating at full capacity would provide a reclaimed water supply of 8,635 acre-feet per year. Therefore, the proposed WRP could generate a range of 6,547 to 8,635 acre-feet per year of reclaimed water.

Non-potable irrigation demands vary throughout the year based on seasonal weather characteristics. In contrast, wastewater generation is generally consistent throughout the year, as it is a function of indoor water uses. The monthly wastewater generation in acre-feet/month is expected to vary only slightly, partly because the number of days per month varies.

All of the reclaimed water generated at the proposed WRP is expected to be used directly for irrigation during an average year condition, except in the months of October though March. During those five months, excess reclaimed water could be discharged to the Santa Clara River, transported to other uses beyond the Specific Plan boundaries, or stored for later use. Of the 5.8 mgd (6,547 acre-feet per year) of wastewater generated by Specific Plan interior water use, 522 acre-feet per year (8.0 percent) of

tertiary treated effluent would be discharged to the River. The 7.7 mgd (8,635 acre-feet per year) plant operating at full capacity would discharge 1,372 acre-feet per year of treated effluent to the River (15.9 percent of its effluent). Therefore, the proposed WRP could discharge a range of 522 to 1,372 acre-feet per year of tertiary-treated effluent into the Santa Clara River.

Table 5.0-1
Summary of Wastewater Generated
Using Irvine Ranch Water District Approach

Land Use		Wastewater[1] (acre-feet/year)
Residential Development		
Estate[2]		331
Low		601
Low Medium		2,044
Medium		1,666
High[3]		447
Mixed-Use		740
	Subtotal	5,829
Nonresidential Development		
Mixed-Use Commercial		
Retail		9
Office		139
Commercial		160
Business Park		339
Visitor-Serving		2
Water Reclamation Plant		0
Electrical Substation		0
Fire Stations		9
Schools		
Elementary		11
Middle		6
High		12
	Subtotal	687
Open Area and Parks		
Recreation Areas		31
Arterial Highways		0
Major Open Areas		0
	Subtotal	31
Total Wastewater Generation		6,547 (5.8 mgd)

Source: CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), p. 2-7.
[1]Wastewater generation based on Irvine Ranch Water District water demand factors.
[2]Second Unit wastewater generation is factored into the Estate generation.

For the purposes of this analysis, it is assumed that no reclaimed water would be stored seasonally or transported elsewhere. Reclaimed water exceeding the Specific Plan's non-potable demands would be discharged into the Santa Clara River.

A wastewater collection and treatment system comprised of gravity sewers and force mains, pump stations, and a water reclamation plant (WRP) is proposed within the Conceptual Backbone Sewer Plan (**Figure 5.0-2, Conceptual Backbone Sewer Plan**). A description of the preliminary design and operational characteristics of the WRP facilities is presented in Subsection 3.b, Proposed Treatment Facilities.

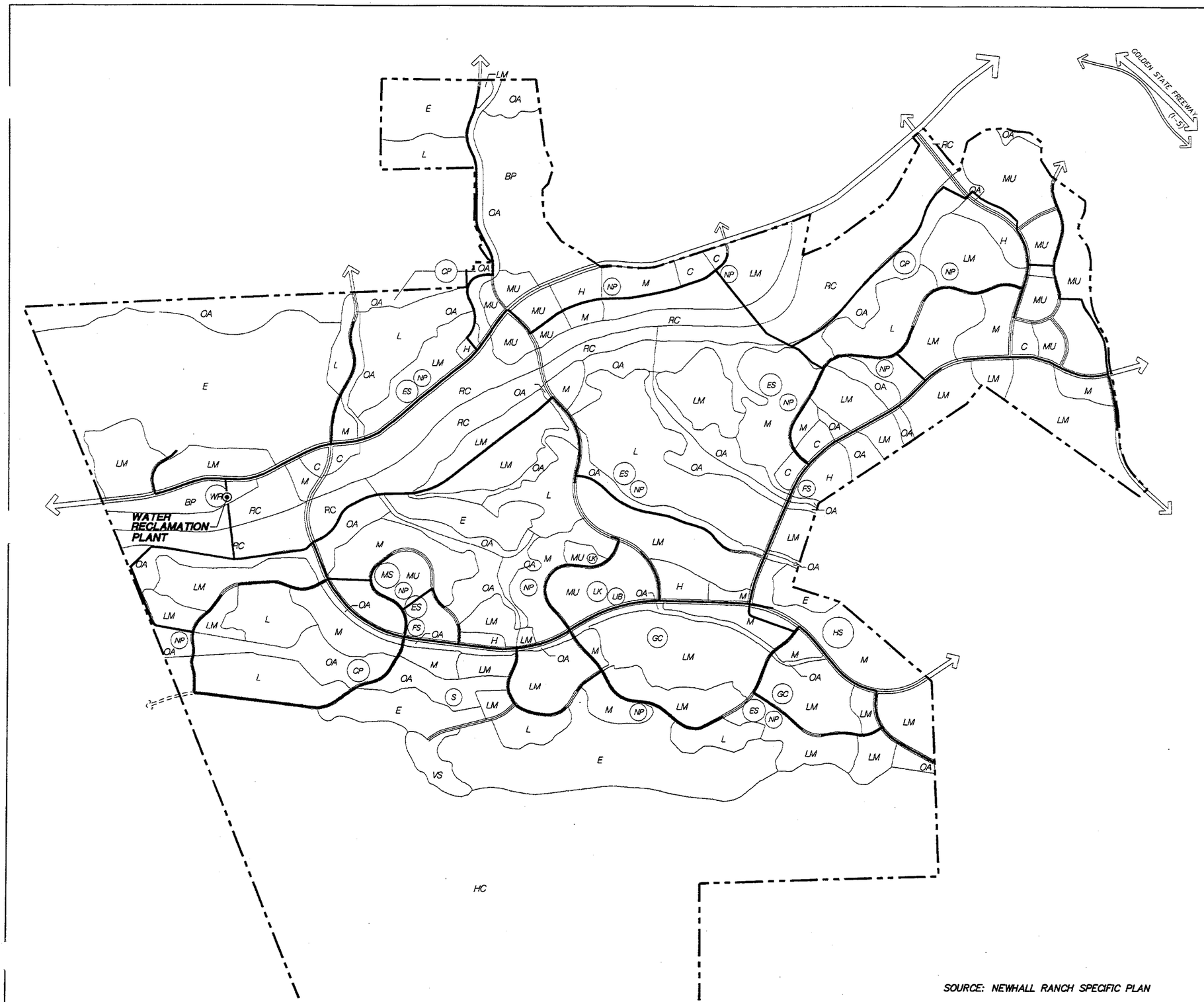
b. Water Quality Considerations

(The following information is also presented in **Sections 4.2, Flood, 4.11 Water Resources, and 4.12, Wastewater Disposal**, of this EIR).

Water quality controls, as established by Federal and State regulations, are determined by the end use of the treated wastewater. The Newhall Ranch WRP wastewater is intended for reclamation and reuse by proposed uses on the Newhall Ranch Specific Plan site; however, some discharge to the River is anticipated during winter months when the reclaimed water supply could exceed demand. Title 22 of the California Administrative Code (Title 22) regulates reclaimed water, and the California Regional Water Quality Control Board, Los Angeles Region (RWQCBLAR) sets the discharge limits for WRP wastewater discharges to the Santa Clara River.

Title 22 specifies California's Wastewater Reclamation Criteria (WRC) and all reclaimed water in California must meet or exceed these criteria. These criteria apply to the treatment processes; treatment performance standards, such as removal efficiencies and effluent water quality; process monitoring programs, including type and frequency of monitoring; facility operation plans; and necessary reliability features.

The water quality objectives for the proposed WRP are based upon discharge limits set by the RWQCBLAR, which has requirements that are more specific than those of Title 22. To discharge to the River, a National Pollutant Discharge Elimination System (NPDES) Permit must be obtained from the RWQCBLAR, in accordance with the Federal Clean Water Act. The proposed WRP has been designed conceptually to meet effluent discharge standards similar to the standards specified by the RWQCBLAR for the Valencia WRP as presented in **Table 5.0-2, Valencia WRP Discharge Limits**. The standards for the two plants and, therefore, the constituents in the treated effluent, are likely to be similar because the proposed WRP would have similar wastewater generation sources and end uses as the Valencia WRP.



NEWHALL RANCH™
Newhall Ranch Company

L E G E N D

SEWER LINE SYSTEM

PROPOSED WATER RECLAMATION PLANT

IMPACT SCIENCES INC

NORTH

10 ACRES 40 ACRES 160 ACRES

English 0 1000' 2000'

Metric 0 225m 450m 900m

FIGURE 5.0-2
CONCEPTUAL BACKBONE SEWER PLAN

Table 5.0-2
Valencia WRP Discharge Limits

Constituent	Units	Discharge Limit 30-day Average	7-day Average	Daily Maximum
Biochemical oxygen demand (BOD), 5-day, 20°C	mg/Lm	20	30	45
Suspended solids	g/L	15	40	45
Settleable solids	mg/L	0.1	--	0.3
Total dissolved solids (TDS)	mg/L	--	--	1,000
Sulfate	mg/L	--	--	400
Chloride	mg/L	--	--	100
Nitrate and nitrite (as nitrogen)	mg/L	--	--	10
Oil and grease	mg/L	10	--	15

Source: CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), p. 5-3.
mg/L: milligrams per liter.

c. Proposed Treatment Facilities

The conceptual layout of the 7.7 mgd WRP has been prepared based on the CSDLAC design criteria discussed above. A peaking factor of 2.0 has been applied to the 7.7 mgd to calculate a maximum flow of 15.4 mgd through the plant.[5] The WRP is proposed to consist of primary, secondary, and tertiary treatment facilities, as well as solids handling and disinfection facilities. Each of these is described below.

(1) Primary Treatment

Influent wastewater would enter the WRP through the influent pump station and comminutors (mechanical shredders that reduce the size of solids in the plant influent). From the pump station, flow would enter the two grit chambers where settleable material, such as egg shells, sand, and other heavy solid material is removed. The internal dimension of each grit chamber would be approximately 40 feet long and 10 feet wide. These facilities often generate odors; therefore, the facilities can be enclosed and odor scrubbers can be installed to minimize odors released to the atmosphere.

5 The peaking factor is the ratio between the peak sanitary flow and the average dry weather flow. The peaking factor provides a level of conservatism so that the WRP can accommodate daily flow variations. A peaking factor of 2 was obtained from the CSDLAC and is used in sizing their facilities.

From the grit chambers, the wastewater would enter the three primary sedimentation basins, where large settleable solids would be removed and sent to the solids handling facilities. The internal dimension of each basin would be approximately 20 feet wide by 200 feet long. The basins would be subgrade structures constructed of reinforced concrete. Sediment basins may generate odors, but are not normally covered structures.

Flow would be equalized between the primary sedimentation basins and the aeration basins using two flow equalization basins. These basins dampen the peak flows to the aeration basins, thereby reducing the flow fluctuations through many of the plant unit processes. The flow equalization basins have been sized to hold approximately 20 percent of the average plant flow (1.5 million gallons). Each basin's internal dimensions would be approximately 260 feet by 30 feet, and the basins would be subgrade structures constructed of reinforced concrete. Equalization basins do not normally generate odors.

(2) Secondary Treatment

Secondary treatment begins with the five aeration basins which biologically treat the incoming wastewater, removing most of the 5-day biochemical oxygen demand (BOD_5) and suspended solids. Biological treatment uses highly concentrated quantities of naturally-occurring bacteria to biodegrade the organic material in the wastewater. The biodegradation efficiency of bacteria is increased by pumping air or oxygen through the mixture of primary wastewater and bacteria, maintaining an aerobic condition that improves the bacterias' ability to consume organic material. The internal dimension of each aeration basin would be approximately 215 long by 22.5 feet wide.

The wastewater would next enter the six final sedimentation basins, which would have an internal dimension of approximately135 feet long by 16 feet wide.

Both the aeration basins and the final sedimentation basins would be sub-grade structures constructed from reinforced concrete. These structures are not normally covered; however, to reduce potential odor emissions, these structures would be covered and odor scrubbers would be installed.

(3) Tertiary Treatment

Tertiary treatment would consist of filtration and disinfection. Four filters have been sized for the WRP with each filter's dimensions approximately 32 feet long by 16 feet wide. The overall footprint for the filtration facilities would be approximately 91 feet by 35 feet, and the facilities would be contained in a below-grade structure. Waste filter backwash water may be equalized for return to the head of the plant. The footprint for the effluent filter waste backwash equalization basin will be approximately 38 feet by 35 feet and will be located below-grade.

The filtered effluent would proceed to the chlorine contact basins for disinfection using sodium hypochlorite. The chlorine contact basins have been sized to provide a 2.6-hour detention time at average flow. Each basin would have internal dimensions of approximately 190 feet by 20 feet and the basins would be buried. Filtration and chlorination facilities do not normally generate odors.

The disinfected water would be pumped to the reclaimed water distribution system using a pumping station with a footprint of approximately 75 feet by 75 feet. Dechlorination capability, utilizing sodium bisulfate, also would be provided to meet NPDES permit limitations when discharging to the Santa Clara River.

(4) Solids Handling Facilities

The solids handling facilities would reduce the volume of solids requiring disposal from the WRP. These facilities have been sized using the Valencia WRP's design criteria for solids loading. The waste activated sludge (WAS) from the final sedimentation basins would be thickened using two 18-foot-diameter dissolved air flotation thickeners. The thickeners concentrate the WAS prior to sending it to the digesters. This process increases the concentration of sludge that the digesters can store and digest.

The anaerobic digesters would be three 65-foot diameter structures that would biologically degrade the primary sludge and thickened waste activated sludge, reducing the final volume for further treatment and disposal. The digested sludge would then be stored further in one 65-foot-diameter sludge storage tank and dewatered following storage using plate and frame filter presses. The dewatered solids would be transported off site to a landfill and/or land application site that is permitted to accept such waste.

All of the solids handling facilities would be above-grade structures. The thickeners would be about 20 feet high. The digesters would be about 20 feet above grade and constructed of reinforced concrete. The dewatering building would be an approximate20-foot above-grade structure constructed using

architectural design criteria from CSDLAC and consistent with architectural features of the plant. The solids handling facilities typically generate odors, so they would require odor control measures, including enclosing the structures and installing odor scrubbers to minimize odors released to the atmosphere. The thickeners are typically uncovered, while the digesters and dewatering building are typically enclosed structures.

(5) Accessory Facilities

A variety of accessory facilities would be needed to support the water reclamation facilities. These include:

- chemical handling and storage facilities,
- various pump stations,
- electrical buildings and emergency power generation,
- control building and laboratory,
- air compressors, and
- a maintenance building.

These facilities would range in size from at grade to approximately one- to two-story structures. The plant site would be laid out "campus style," which provides easy accessibility for process equipment to supporting facilities. The chemical handling facilities would contain storage and metering facilities for the coagulant, disinfectant, and various polymers to be used at the WRP. The chemical handling would provide containment areas in the event of a leak or chemical spill. These areas are typically not enclosed; however, a cover or lean-to could be provided.

d. Site Layout

The 7.7 mgd capacity Newhall Ranch WRP is sized using CSDLAC criteria to exclusively serve the needs of the Newhall Ranch Specific Plan. No excess capacity is provided for in the WRP construction, nor is any additional capacity required to make the WRP economically feasible. As requested by the CSDLAC, the site for the proposed WRP has been sized to accommodate potential facilities which might be required by new Federal or State treatment requirements. The 7.7 mgd plant can be built in a number of possible staging sequences, ranging from all at once, to two distinct stages, to a series of three or more stages. Staging sequences will be determined in conjunction with the development staging of the Specific Plan itself.

The conceptual layout of the 7.7-mgd WRP illustrated in **Figure 5.0-3, Proposed WRP Site Layout**, was designed to permit gravity flow, as well as pumping, of wastewater through the plant and to give plant workers easy access to the treatment process. The headworks, chemical stations, and the dewatering building would require routine truck access and are located on the site to facilitate roadside access.

Grading is anticipated to involve clearing of the ground surface, overexcavation, and the placement and compaction of up to 15 feet of fill material across the WRP site. The fill is needed to avoid interruption of facility operations in the event of a storm-related flood and to keep sewage holding tanks above the levels of the projected Los Angeles County 50-year Capital Flood. Initial grading would also extend onto adjacent land within the narrow, Business Park-designated area in which the WRP would be located. This is needed to (1) provide a driveway linkage from the WRP site to SR-126 near the western edge of this area, where the grade difference next to the highway is least, and (2) to rough-grade the remaining land between the WRP site and SR-126 in preparation for future Business Park development. For a detailed discussion on WRP grading impacts, refer to Subsection 5.1, Geotechnical and Soil Resources, below.

Some facilities would generate noise from blowers and rotating machinery. Ventilation for enclosed structures and scrubbers for odor control will require blowers. Large pumps (such as those at the effluent pump station) also produce noise. In addition, some unit processes, such as the filters, periodically generate noise during operations. For more discussion on WRP noise impacts, refer to Subsection 5.9, Noise, below.

4. ENVIRONMENTAL SETTING

Please refer to **Section 2.0, Environmental and Regulatory Setting**, of this EIR for a detailed description of the existing environmental and regulatory setting of the entire Specific Plan site, including the proposed WRP site. Following is a brief summary of the immediate setting on and around the WRP site.

The roughly 15-acre proposed WRP site is located near the western edge of the Specific Plan area, along the south side of SR-126, within an approximately 39-acre area bound by the Santa Clara River on the south and SR-126 on the north. The site is nearly level and has been used for the production of row crops of various types over the years. Soils present consist of alluvial sediments of the River, and the site has been classified as "prime farmland" by the California Department of Conservation based on the physical and chemical characteristics of the soils, which are highly suitable for row crop farming, and on the recent agricultural production on the site. The WRP site is located within "Area 10" as it is described in the geotechnical and soils report prepared for the Specific Plan site (see **Section 4.1 and Appendix 4.1** of this EIR). The geological character of this area is summarized as follows.

1. COGENERATION & DIGESTER HEATING BUILDING
2. POTABLE WATER PUMP STATION
3. MAINTENANCE BUILDING
4. ANAEROBIC SLUDGE DIGESTERS, DIGESTED SLUDGE STORAGE TANK AND FILTRATE STORAGE TANK
5. WASTE ACTIVATED SLUDGE THICKENERS (DAF'S)
6. DAF AIR COMPRESSOR STATION
7. DAF ODOR CONTROL STATION
8. DIGESTER GAS CONDENSATE TRAP STRUCTURE
9. DIGESTER CLEANING TANK
10. DIGESTER GAS SULFIDE CONTROL STATION
11. WASTE GAS FLARING STATION
12. FERROUS CHLORIDE STATION
13. DAF POLYMER STATION
14. FILTER PRESS CHEMICAL STATION
15. FILTER PRESS BUILDING
16. SODIUM HYPOCHLORITE STATION
17. NOT USED
18. NOT USED
19. EFFLUENT FILTERS
20. FILTER EFFLUENT AND BACKWASH PUMP STATION AND WASTE BACKWASH EQUALIZATION SYSTEM
21. CHLORINE CONTACT TANKS
22. RETURN SLUDGE PUMP STATION
23. FINAL SEDIMENTATION TANKS
24. EFF. FILTER WASTE BACKWASH DECANT TANK(S)
25. ALUM STATION
26. FILTER POLYMER STATION
27. MIXED LIQUOR POLYMER STATION
28. SODIUM BISULFITE STATION
29. EFFLUENT DIVERSION STRUCTURE
30. AERATION TANKS
31. AERATION SYSTEM ODOR CONTROL STATION
32. EDISON POWER SERVICE CONNECTION
33. FLOW EQUALIZATION ELECTRICAL BUILDING
34. PROCESS AIR COMPRESSOR BUILDING
35. FLOW EQUALIZATION BASIN(S) & PUMP STATION
36. CONTROL BUILDING & LABORATORY
37. PRIMARY SEDIMENTATION TANKS
38. PRIMARY SKIMMINGS WETWELL
39. HEADWORKS / PRIMARY SEDIMENTATION TANKS ODOR CONTROL STATION
40. INFLUENT POLYMER STATION
41. FERRIC CHLORIDE STATION
42. GRIT CHAMBERS
43. INFLUENT PUMPS & COMMINUTORS
44. STOCKPILE
45. STANDBY GENERATOR
46. NOT USED
47. DIGESTER CLEANING DRYING PAD
48. FLOW EQUALIZATION ODOR CONTROL STATION
49. FLOW EQUALIZATION PUMP STATION
50. PUMP STATION (RECLAIMED WATER DISTRIBUTION)

126

SR

PROPOSED DRAINAGE STRUCTURE

15± ACRES

* DEVELOPED IN CONJUNCTION WITH THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

SOURCE: CH2M HHILL, WATER RESOURCES AND WASTEWATER MANAGEMENT FOR NEWHALL RANCH PROJECT, (THOUSAND OAKS, CALIFORNIA: JANUARY 1996).

NEWHALL RANCH™
Newhall Ranch Company

L E G E N D

IMPACT SCIENCES INC

NORTH

N.T.S. N.T.S.

FIGURE 5.0-3
PROPOSED WRP SITE LAYOUT

Area 10, Mayo Spur, is about 7,000 feet in length and about 150 to 2,000 feet wide, contains approximately 100 acres, and has a maximum difference in elevation of approximately 50 feet. Mayo Spur is located on a bench formed by a terrace of the Santa Clara River, and is part of the same bench on which the lower portion of Area No. 1, Homestead, is located. Generally, the soil encountered in the upper 5 to 15 feet of soil is silty to very silty, fine sand, which grades downwards into gravelly, fine to coarse sand. A few layers of silt, or very silty fine sand up to 3 feet thick were found to occur at random.

Ground water was encountered in a few of the borings within this area and ranged in depth from 7 to 31 feet. A review of the water well records in the area reveal that during the Northridge earthquake (January 1994), the ground water level was within a few feet of the twenty year high. Shortly after the Northridge earthquake, the area was examined for signs of liquefaction, such as sand boils, cracks, settlement or other visible signs of distress. No surface features were noted that would indicate that liquefaction had occurred in this area.

Natural soils in Area 10 are generally poorly consolidated to a depth that ranged between 5 to 16 feet below the existing ground surface. Samples of the soils within this depth range showed a moderate amount of compression when flooded with water while the sample was under load. The effect of saturation upon similarly loaded samples was generally insignificant below those depths. No evidence of earthquake-induced faults, ground rupture or other ground failure has been found on this site.

Given its proximity to the Santa Clara River, the limits of the Los Angeles County 50-year Capital Flood Plain and the Federal Insurance Administration 100-year flood plain encroach onto a portion of the WRP site.

Most of the 39-acre area that would be impacted by site grading activity associated with WRP construction has been disturbed by row crop farming activities; little natural vegetation remains and, given its disturbed character and proximity to a State highway, the biological value of this site is considered low. Of the 39 acres to be impacted, approximately 29.2 acres consist of non-sensitive habitat, including disturbed area (27.3 acres), and arrow weed scrub (1.91 acres). The remaining 9.8 acres, along the edge of the River, contain sensitive habitat, including cottonwood willow riparian forest (6.43 acres) and mule fat scrub (3.39 acres). The highly sensitive Santa Clara River Corridor, designated by the County of Los Angeles as a Significant Ecological Area (SEA 23), is adjacent to the southern boundary of the WRP site. The River Corridor supports riparian vegetation which provides habitat for the endangered unarmored three-spine stickleback, the southwestern willow flycatcher, and the least Bell's vireo, as well as other sensitive aquatic species. A detailed description of the biological character of this area and the entire River Corridor is presented in **Section 4.6, Biota** and **Appendix 4.6** of this EIR.

No known cultural or paleontological resources have been identified on this site as a result of the field surveys conducted for the Specific Plan (see EIR **Appendix 4.3**).

State Route (SR)-126 in this area is designated by the County of Los Angeles General Plan, Scenic Highways Element, as a "First Priority Scenic Route." No regulations have been adopted relative to this designation; however, the scenic qualities along SR-126, including the River Corridor and a variety of natural topographical and landscape features, are widely recognized and are considered important. The WRP site lies approximately 15 to 25 feet below the elevation of the highway, and is directly visible to motorists passing by the site in both directions. A view from SR-126 toward the WRP site is illustrated in **Figure 5.0-7, Viewshed 1, Before and After**, in **Subsection 5.7** of this EIR section.

Primary police protection service for the WRP site and the surrounding Santa Clarita Valley area is provided by the County of Los Angeles Sheriff's Department. Additionally, the California Highway Patrol (CHP) provides traffic regulation enforcement, emergency incident management, and service and assistance on Interstate 5 (I-5), SR-126, SR-14, and other major roadways present in unincorporated Los Angeles County, within the Santa Clarita Valley area. The level of Sheriff's Department and CHP protection service for the WRP site and other County areas within the Santa Clarita Valley at the time of this writing is considered adequate.

Fire protection and emergency medical response services for the Specific Plan site and the surrounding area are provided by the Los Angeles County Fire Department. At the time of this writing, eight fire stations and three fire camps provide fire protection services for the Santa Clarita Valley area. One additional station (Fire Station 126) is in the design stage of development, and will be located near the intersection of McBean Boulevard and Magic Mountain Parkway. First alarm fire response to the Specific Plan site is provided by Stations 73, 76, 111, 124, and 149.[6] Paramedic services are provided to the area by the Los Angeles County Fire Department and a private ambulance company. Los Angeles County Fire Station 76, located at 27223 Henry Mayo Drive, is approximately 0.1 mile from the eastern edge and 5.7 miles from the western edge of the Specific Plan site. The station maintains one fire engine supported by four fire fighters, and a hazardous materials unit. The hazardous materials unit serves the entire Santa Clarita Valley and, at the time of this writing, responds to less than ten incidents per month. The response time to the eastern edge of the Specific Plan site from Station 76 is approximately one minute and approximately 9.8 minutes to the western edge. All of the above services are provided at a level that is considered to be adequate as of this writing.

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6 Chief John Gee, County of Los Angeles Fire Department, Planning Division, correspondence to Impact Sciences, Inc., 19 July 1995.

Located in the Riverwood Village portion of the Specific Plan, the proposed WRP site is within an approximately 39 acre area designated for Business Park uses. This area, along with the other Business Park-designated areas within the Specific Plan site, is intended to accommodate local and regional employment needs and enhance housing/employment balance. Anticipated land uses that could be developed adjacent to the WRP include research and development, light manufacturing, warehouse and distribution facilities, offices and supporting uses. Chapter 3 of the Specific Plan contains a list of the permitted uses allowed in this land use designation, as well as specific development regulations governing setbacks, building heights, signs, parking, etc.

5.0 WATER RECLAMATION PLANT IMPACTS AND MITIGATION MEASURES

The following sections address the environmental impacts that could result from development and operation of the proposed WRP, as described above. Impacts are addressed in terms of a "worst case scenario," (e.g., if an impact of the WRP would be worse in a setting where surrounding lands have not yet been developed, the analysis addresses those conditions; if an impact would be worse if the plant or an incremental stage of the plant is constructed after nearby development occurs, then the analysis addresses those conditions). The emphasis in the analyses will be on the potential for significant impacts, defined on the basis of specific threshold criteria for each topic. Measures to mitigate impacts to below a level of significance are identified, and significant impacts that cannot be avoided, even with implementation of all reasonably available mitigation measures, are also identified.

5.1 GEOTECHNICAL AND SOIL RESOURCES

a. Significance Threshold Criteria

CEQA Guidelines, Appendix G (r) addresses geotechnical significance threshold criteria, where it indicates that impacts may be considered significant if they expose people or structures to major geologic hazards.

b. Water Reclamation Plant Impacts

The water reclamation plant improvements would be constructed on fill that would be elevated as much as 15 feet above existing elevations in order to provide one foot of freeboard above the level of the Los Angeles County 50-year Capital Flood Plain. During severe rainstorms or flood conditions, the native soils underlying the fill may become saturated from River flows that seep into the subsurface of the

WRP site. If the height of the fill exceeds the shear strength of such saturated soils, settlement and ground failure could occur, resulting in damage to structures and/or injury to people. This can be avoided if potentially consolidatible materials are properly removed and the fill material is properly compacted and protected against the erosive effects of storm and River flows.

Surface and near surface soils throughout the site are poorly consolidated, commonly contain void space and are subject to hydroconsolidation, which causes settlement and can be potentially hazardous to overlying structures. Development over these soils without mitigation would result in a significant geotechnical impact.

Expansive soils have not been identified on the proposed WRP site and this constraint, therefore, is not anticipated to affect the design and construction of the WRP facilities. Furthermore, because the WRP improvements would be constructed on properly compacted soils, pursuant to the requirements of the Uniform Building Code and the County (as listed in the mitigation measures for this section), they would not be subject to hazards associated with expansive soils should such conditions be identified by the project engineer during grading. However, there is potential for structural damage from construction of sewer lines within expansive soils. Because the plant and the sewer lines would be constructed according to Uniform Building Code standards, no significant impacts relative to expansive soils are expected to occur. Prior to construction of the reclamation plant and sewer lines, a detailed geotechnical report will be prepared which would outline the geotechnical requirements for placing and compacting the fill at the water reclamation plant site and along sewer line alignments to ensure that none of the wastewater collection or treatment improvements would be subject to expansive soil hazards.

Densification of the surface soils in areas where there will be cuts and fills or construction at grade is not required to prevent future liquefaction at the WRP site.

All water reclamation plant structures and facilities would be constructed according to Uniform Building Code standards for the appropriate Seismic Risk Zone (Zone 4) to minimize the potential for damage and injury caused by structural failure and secondary hazards during an earthquake. Seismic design can minimize the effects of compressional and longitudinal shock of waves generated by earthquakes, and reduce the effects of strong ground shaking. Compliance with the requirements of the Uniform Building Code would minimize exposure of people, structures, and property to seismic-related hazards to below a level considered to be significant.

c. Mitigation Measures

5.0-1. Prior to construction of the water reclamation plant, prepare a detailed geotechnical report that will outline the geotechnical performance requirements for placing and compacting the fill at the water reclamation plant site and along on-site sewer line alignments to ensure that none of the wastewater conveyance or treatment facilities would be subject to hazards caused by expansive soils. Construction of wastewater conveyance and treatment facilities shall comply with the requirements identified in the report.

5.0-2. Should any expansive soils be encountered during grading operations, they shall not be placed nearer the finished surface than 8 feet below the bottom of the subgrade elevation. If expansive materials are encountered at subgrade elevation in cut areas, the soils shall be removed to a depth of 8 feet below the subgrade surface and the excavated area backfilled with nonexpansive, properly compacted soils. These depths are subject to revision depending upon the expansive potential measured during grading.

5.0-3. Prior to ~~the issuance of~~ grading of ~~permits for~~ the WRP site and the associated sewer lines, a detailed geotechnical performance report is to be prepared and approved by the WRP Operator~~County~~, which will assess liquefaction potential along sewer line alignments, and which will identify design measures for potential liquefaction hazards. WRP collection and treatment facilities construction is to comply with the measures identified in the performance report.

5.0-4. All water reclamation plant structures and facilities are to be constructed according to Uniform Building Code standards for the appropriate Seismic Risk Zone (Zone 4).

5.0-5. If the height of the fill exceeds the shear strength of such saturated soils, settlement and ground failure could occur, resulting in damage to structures and/or injury to people, potentially consolidatible materials are to be properly removed and the fill material is to be properly compacted and protected against the erosive effects of storm and River flows.

5.0-6. All fills, unless otherwise specifically designed, are to be compacted to at least 90 percent of the maximum dry unit weight as determined by ASTM Designation D 1557-91 Method of Soil Compaction. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

5.0-7. No fill is to be placed until the area to receive the fill has been adequately prepared and approved by the Geotechnical Engineer. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

5.0-8. Fill soils are to be kept free of all debris and organic material. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

5.0-9. Rocks or hard fragments larger than 8 inches are not to be placed in the fill without approval of the Geotechnical Engineer, and in a manner specified for each occurrence. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

5.0-10. Rock fragments larger than 8 inches are not to be placed within 10 feet of finished pad grade or the subgrade of roadways or within 15 feet of a slope face. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

5.0-11. When moisture content of the fill material is too low to obtain adequate compaction, water is to be added and thoroughly dispersed until the soil is approximately 2 percent over optimum moisture content. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

5.0-12. When the moisture content of the fill material is too high to obtain adequate compaction, the fill material is to be aerated by blading or other satisfactory methods until the soil is approximately two percent over optimum moisture content. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

5.0-13. Surface runoff from the future graded areas is not to run over any natural, cut, or fill slopes. (Allan~~Allen~~ E. Seward Engineering Geology, 19 September 1994, Inc., p. 20)

5.0-14. Runoff from future pads and structures is to be collected and channeled to the street and/or natural drainage courses via non-erosive drainage devices. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)

5.0-15. Water is not to stand or pond anywhere on the graded pads. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)

5.2 FLOOD

a. Significance Threshold Criteria

According to the CEQA Guidelines, Appendix G, a project would have a significant impact on the environment if it causes substantial flooding, erosion, or siltation. In addition, the County of Los Angeles is concerned with any development subject to flood hazards and debris flows, including (1) flooding due to its location within a major drainage course, (2) flooding due to its location within a flood plain, and (3) high debris transport and deposition potential. Therefore, if any of the following events would occur as a result of project implementation, project-related drainage and flooding impacts would be considered significant:

- flooding (on- and off-site),
- increased erosion, and/or
- increased sedimentation and debris production.

b. Water Reclamation Plant Impacts

(1) Plant Construction Impacts

Up to 15 feet of fill are proposed at the WRP site to provide one foot of freeboard above the 50-Year Capital Flood level. Earth-moving operations could increase the potential for short-term erosion along the northern River bank and an increase in sedimentation rates in the Santa Clara River unless properly mitigated. However, the County requires the use of temporary erosion control measures during construction, such as minimization of existing vegetation removal; the use of temporary soil covers (such as hydroseeding, mulch/binder and erosion control blankets) to protect exposed soil from wind and rain; and the installation of silt fencing, berms, and dikes to protect storm drain inlets and drainage courses. Such measures would be employed, as appropriate, during construction of the WRP facilities to reduce potential post-construction erosion and downstream sedimentation impacts to below a level of significance.

Permanent erosion control measures are also proposed as part of the Specific Plan, such as the installation of drainage swales, subsurface drains, slope drains, storm drain inlet/outlet protection, and sediment traps; installation of check dams to reduce flow velocities; and the installation of permanent

desilting basins. Specific erosion controls for the WRP site would be determined as part of the WRP design/approval process, as approved by the County of Los Angeles, in coordination with other responsible agencies, such as the California Department of Fish and Game, U.S. Fish and Wildlife Service and the U.S. Army Corps of Engineers.

The Specific Plan also proposes River bank stabilization in various places where development would occur along the Santa Clara River, including the WRP site. This would consist of ungrouted rock in all areas, except at outlet structures, access ramps, bridge abutments and in areas where ungrouted rock is not feasible (i.e., where it is expected that grouted rock or reinforced concrete will be required to meet Los Angeles County Department of Public Works standards). Increased stabilization (e.g., concrete stabilizers within the channel bottom) in the River Corridor will not be necessary as velocities will not be materially increased as a result of the Specific Plan.

As future subdivision maps and other site specific development plans (such as the WRP) are prepared for portions of the proposed Specific Plan area that are within the Capital Floodway of the Santa Clara River, detailed grading and engineering plans would be prepared with exact specifications necessary to remove any flood and erosion hazards. These plans would follow the criteria established for the River Corridor by the Specific Plan. Final design may result in adjustments to the Floodway in order to contain storm flows during a 50-year Capital flood. Grading and engineering plans will meet the requirements of the Los Angeles County Department of Public Works, Flood Control Division with respect to protecting the development from Capital Flood hazards. Consequently, no significant erosion or sedimentation impacts associated with development of the WRP would occur.

(2) Plant Operation Impacts

The proposed Specific Plan would generate approximately 5.8 to 7.7 mgd of wastewater per year, all of which would be treated in the WRP. Once treated, the reclaimed water (approximately 6,457 to 8,635 acre feet per year) would be circulated through a reclaimed water system within the Specific Plan and used for irrigation purposes. All treated water from the WRP could be used directly for irrigation, except, possibly in the months of October through March, during which a total of about 522 to 1,372 acre-feet of the treated water would not be needed to meet the non-potable demands of the Specific Plan, and could be discharged into the Santa Clara River (see EIR **Section 4.11, Water Resources,** for a discussion of the use of reclaimed water on the Newhall Ranch Specific Plan).

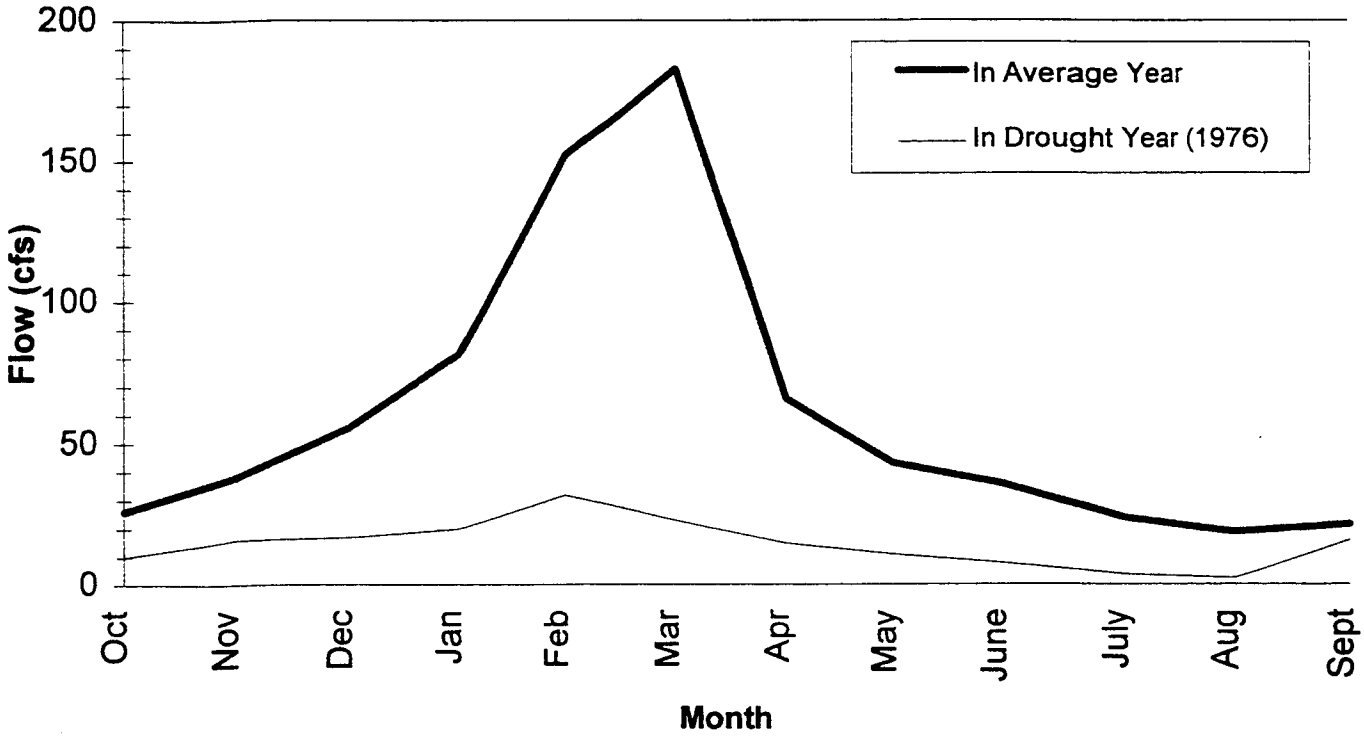
The Specific Plan's potential average annual discharge of 522 to 1,372 acre-feet per year during October through March to the River would result in a discharge of approximately 207 to 385 acre-feet per month in the highest discharge months of December and January. This translates to a flow rate of

approximately 3.5 to 6.3 cubic feet per second (cfs). **Figure 5.0-4, Average Monthly Flows of the Santa Clara River at the County Line (1972-1991),** plots the average monthly flows in the Santa Clara River (for the 1972 to 1991 period of record), as well as the monthly flows for a drought year (1976), as recorded at the U.S. Geological Survey (U.S.G.S.) stream flow gauge located near the Los Angeles-Ventura County line. This gauge is downstream of the proposed Newhall Ranch WRP. WRP discharges would be measured directly at the gauge, with little travel time or distance to reduce the peak.

The long-term average annual flow at the U.S.G.S. gauge is 34,852 acre-feet per year (for the 1952 to 1992 period of record). A WRP discharge of 522 to 1,372 acre-feet per year represents a 1.5 to 3.9 percent increase in the annual flow volume in the River at that location. **Figure 5.0-5, Average Monthly Flows of the Santa Clara River with WRP Discharges at the County Line,** shows the additional River flow resulting from the WRP's 522 to 1,372 acre-foot discharge during October through March. During an average year, the WRP discharge in December of3.5 to 6.3 cfs would increase the River flow of 56 cfs by about 6 to 11.3 percent, respectively. During a drought year (such as in 1976), a 3.5- to 6.3-cfs WRP discharge in December would increase the River flow of 17 cfs by about 21 to 37 percent, respectively. However, during a drought year, irrigation requirements of landscape plantings would increase and would continue throughout the winter months when there is little rain, and the amount of WRP discharge to the River would actually be reduced or possibly eliminated. Thus, the average annual and peak WRP discharges of recycled water do not significantly increase the River flow, either annually or monthly.

Consequently, the amount of discharge to the River would be significantly reduced during a drought year as the reclaimed water is distributed on site for irrigation purposes. Thus, the average annual and peak WRP discharges of reclaimed water would not significantly increase the River flow, either annually or monthly.

Another potential concern about reclaimed water discharge to the Santa Clara River is the increase in flow during storm events. The issue is whether WRP discharges might contribute to downstream flooding. The 100-year-storm discharge at the U.S.G.S. gauge location is estimated to be 60,000 cfs by the Los Angeles County and Ventura County Departments of Public Works, and the U.S. Army Corps of Engineers (for the Santa Clara River Enhancement and Management Plan). Los Angeles County has estimated the 50-Year Capital Flood flow at the Los Angeles/Ventura County line to be approximately 163,900 cfs. The WRP peak discharge of 3.5 to 6.3 cfs would increase the estimated 100-year storm flow by less than 0.01 percent and by an even smaller 0.002 percent during the Capital Flood storm. These percent increases are considered negligible and, therefore, not significant. Consequently, no significant flooding impacts would occur as a result of WRP operation. As discussed in **Section 4.2, Flood,** of this

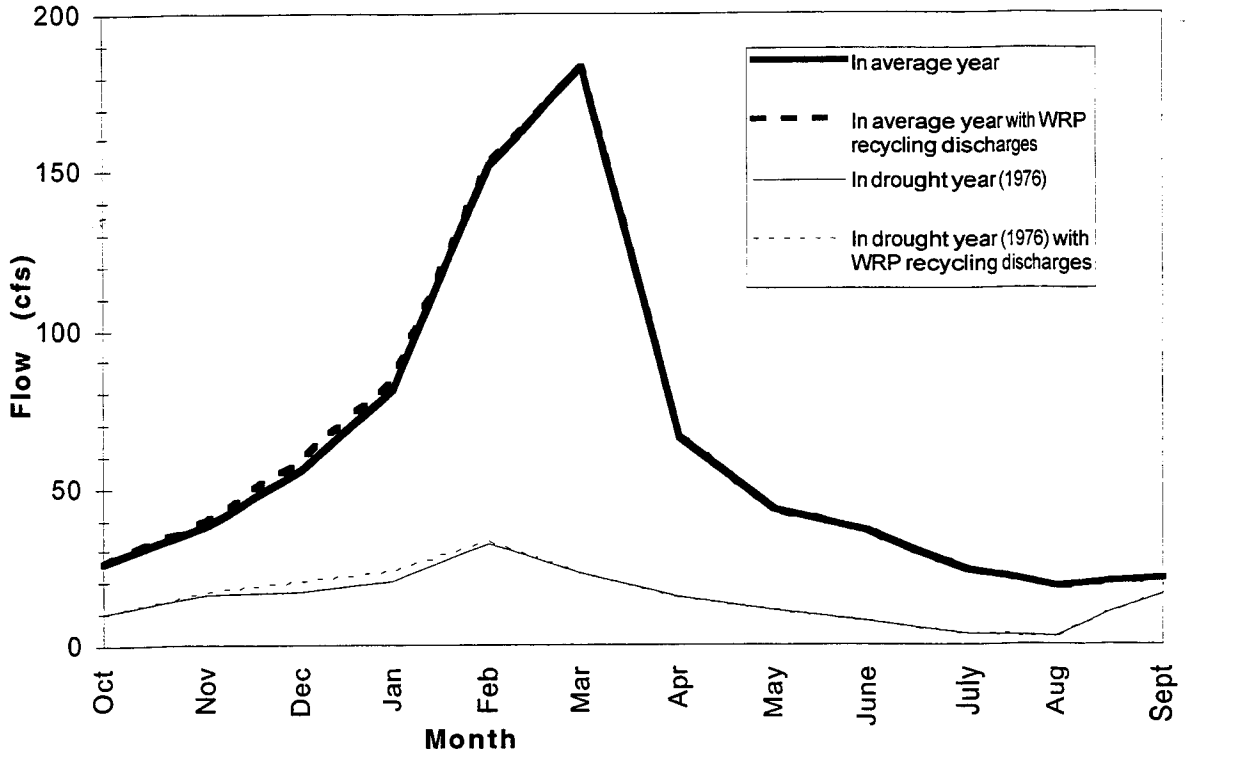


SOURCE: CH2M HILL, ADDENDUM TO WATER RESOURCES AND WASTEWATER MANAGEMENT FOR THE NEWHALL RANCH PROJECT, (THOUSAND OAKS, CALIFORNIA: JANUARY 1996, REV. JUNE 1996).

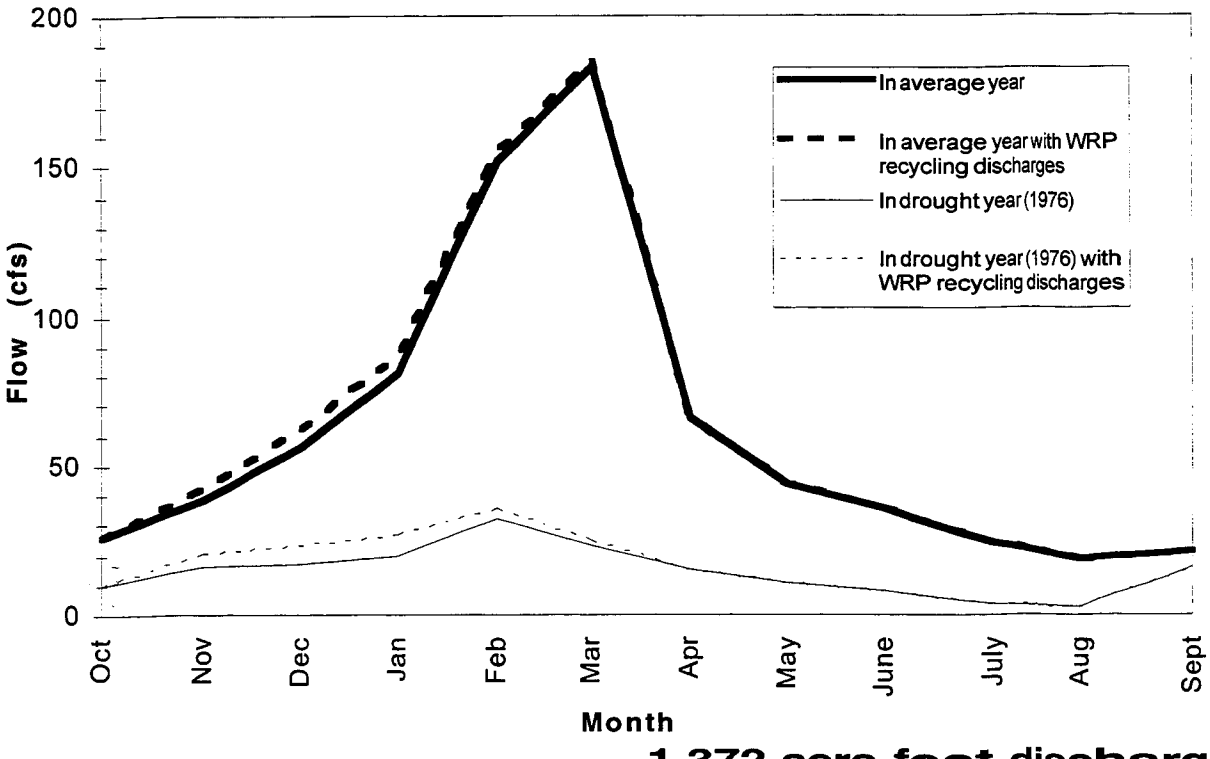
FIGURE 5.0-4

NEWHALL RANCH™
Newhall Ranch Company

AVERAGE MONTHLY FLOWS OF THE SANTA CLARA RIVER AT THE COUNTY LINE (1972-1991)



522 acre-foot discharge



1,372 acre-foot discharge

SOURCE: CH2M HILL, ADDENDUM TO WATER RESOURCES AND WASTEWATER MANAGEMENT FOR THE NEWHALL RANCH PROJECT, (THOUSAND OAKS, CALIFORNIA: JUNE 1996).

FIGURE 5.0-5

NEWHALL RANCH™
Newhall Ranch Company

AVERAGE MONTHLY FLOWS OF THE SANTA CLARA RIVER (1972-1991) WITH WRP DISCHARGES AT THE COUNTY LINE

EIR, implementation of the Conceptual Backbone Drainage Plan for the entire Specific Plan site would maintain post-development storm water flows from each Drainage Area at a level approximately equal to or less than storm flows under existing conditions during a Capital Flood event. Because development of the Specific Plan would not increase site runoff during a Capital storm, it could not result in upstream or downstream flooding, nor could it subject any on- or off-site improvements to flood hazards beyond the thresholds set forth by the County of Los Angeles. Therefore, the development of the proposed Specific Plan, including the WRP, would not have significant on- or off-site flooding impacts.

Additional potential impacts associated with the annual release of unused reclaimed water into the Santa Clara River are discussed later, in **Subsection 5.6, Biota, Subsection 5.11 Water Resources**, and **Subsection 5.12 Wastewater Disposal**, of this EIR Section.

Runoff from the developed WRP site would be controlled through a variety of on-site storm drainage facilities that would outlet to the Santa Clara River. The volume of this runoff would not have a significant impact on River flows since, as discussed in **Section 4.2** of this EIR, total developed site runoff throughout the Specific Plan area will be no more than under current conditions in each of the major Drainage Areas. This will be ensured through implementation of the Conceptual Backbone Drainage Plan.

Water quality of the developed site runoff would contain more urban runoff constituents than under the present farmland and riparian cover conditions. Developed runoff would contain materials typical of paved areas used for automobile parking, outdoor storage of equipment and containers, accumulated particles on rooftops and paved surfaces, and possibly trash and debris. The changed quality of the runoff is not expected to have a significant impact on River water quality, because runoff from the WRP facilities must be controlled to satisfy the standards of the Federal Clean Water Act, pursuant to the permitting authority of the Regional Water Quality Control Board, Los Angeles Region via issuance of a National Pollutant Discharge Elimination System (NPDES) Permit. NPDES permits will define various stormwater pollution control methods to be employed during both construction and subsequent operation of the WRP.

c. Mitigation Measures

5.0-16. Prepare and implement a County-approved erosion control plan to be implemented during the construction of the WRP.

5.0-17. All on- and off-site flood control improvements necessary to alleviate flood hazards and provide proper drainage controls are to be constructed to the satisfaction of the County of Los Angeles Department of Public Works, Flood Control Division.

5.0-18. All necessary permits or letters of exemption from the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and Game, and the Regional Water Quality Control Board for WRP-related development are to be obtained.

5.0-19. Conditional Letters of Map Revision (CLOMR) relative to adjustments to the 100-year FIA flood plain are to be obtained by the applicant after the proposed drainage facilities are constructed.

5.0-20. Prior to ~~issuance of a grading permit~~, a Final Hydrology Plan, a Final Drainage Plan, and a Final Grading Plan (including an Erosion Control Plan, as required) are to be prepared by the applicant and approved by the Department of Public Works, where applicable, to ensure that no significant erosion, sedimentation, or flooding impacts would occur during or after site development.

5.3 CULTURAL/PALEONTOLOGICAL RESOURCES

a. Significance Threshold Criteria

The proposed WRP would have a significant adverse effect on the site's archaeological and paleontological resources if grading were permitted to occur in areas containing known archaeological and paleontological sites or in areas with high potential for containing these sites, without proper surveillance during grading and without adequate mitigation as identified by CEQA and the Los Angeles County Environmental Document Reporting Procedures and Guidelines.

b. Water Reclamation Plant Impacts

No known cultural or paleontological resources were identified at the site of the proposed water reclamation plant during the field surveys conducted for the Specific Plan (see EIR **Appendix 4.3**). In addition, the alluvial sediments which comprise this site's near surface geological structure are not considered a potential source of paleontological (fossil-containing) materials. The preliminary grading

concept for the WRP involves excavation of the near surface soil layers, followed by the placement and compaction of fill on the ground surface. Given the absence of any known cultural or paleontological resources and the minimal excavation of the existing soil materials that is anticipated, no impacts to cultural or paleontological resources would occur as a result of plant construction and operation.

c. Mitigation Measures

5.0-21. No significant impact to cultural or paleontological resources are anticipated from construction of the WRP. However, should such resources be found during site grading, a professional archaeologist or paleontologist will be retained to evaluate the significance of the finding and to identify appropriate methods of preserving or cataloguing any significant resources.

5.4 AGRICULTURAL RESOURCES

a. Significance Threshold Criteria

According to the CEQA Guidelines [item (y) of Appendix G] and the County of Los Angeles (Appendix D of the County's Environmental Document Reporting Procedures and Guidelines), a project has a significant impact on the environment if it converts prime agricultural land to non-agricultural use, or impairs the agricultural productivity of prime agricultural land. Because CEQA does not define "prime agricultural land," for the purposes of this impact analysis, prime agricultural land is defined as "prime farmland," "farmland of statewide importance," "unique farmland," and "farmland of local importance" (as defined by the Department of Conservation). Land that generates "agricultural productivity" is defined as land that is under cultivation on prime farmland, farmland of statewide importance, unique farmland, and farmland of local importance.

b. Water Reclamation Plant Impacts

Development of the plant would result in the loss of approximately 15 acres of prime agricultural land, most of which has been used for row crop production for a number of years. It should be noted that the agricultural productivity of the site is economically impaired by its small size, its narrow, triangular configuration and distance from other, larger parcels under production. As such, cessation of agricultural production at this site would not affect other agricultural sites and would not significantly diminish the supply of productive prime agricultural land. Nevertheless, the conversion of prime agricultural land to urban uses is considered a significant impact.

c. Mitigation Measures

No mitigation measures are available that could reduce the impact of conversion of prime agricultural land to an urban use to less than significant.

5.5 ENVIRONMENTAL SAFETY

a. Significance Threshold Criteria

According to the CEQA Guidelines (Appendix G, item v.), "a project will normally have a significant effect on the environment if it will create a potential public health hazard or involve the use, production or disposal of materials which pose a hazard to people or animal or plant populations in the area affected."

In addition, and for the purpose of this analysis, a significant environmental safety risk would occur if a proposed activity involves an unusual or unique type of risk, which requires new emergency response capabilities not currently provided by the responsible governmental entity(ies).

b. Water Reclamation Plant Impacts

Construction and operation of the WRP would not represent a unique hazardous materials risk, as there are already a total of eleven WRPs operated throughout the CSDLAC service area. The existing Valencia WRP (District 32) and the Saugus WRP (District 26) are located just east of the Newhall Ranch Specific Plan site. Specifically, Valencia WRP is located on The Old Road, north of Magic Mountain Parkway and Saugus WRP is located just south of the junction of Bouquet Canyon Road and Soledad Canyon Road.

The North County Hazardous Materials Team operates from County Fire Station 76, which is located 5 miles east of the proposed WRP site, at 27223 Henry Mayo Drive. The Sheriff's Department, Santa Clarita Valley Substation, along with the California Highway Patrol, assists the Team in responding to hazardous material incidents, with respect to road closures and evacuation efforts. Responses to hazardous materials incidents at the proposed Newhall Ranch WRP by the Los Angeles County Fire and Sheriff Departments, therefore, would not require the establishment of a new service capability in this area.

Potential environmental safety impacts could occur relative to the use of hazardous chemicals at the proposed water reclamation plant (WRP), release of toxic air emissions, generation and handling of biosolids, and potential for inundation as a result of dam failure at the Castaic/Forebay Reservoirs. Each of these issues is discussed below.

(1) Chemical Use

Chemicals, some of which are hazardous, used at the Valencia WRP are considered representative of the range of such materials that would be used at the proposed WRP. These chemicals and their typical locations are listed in **Table 5.0-3, Representative WRP Hazardous Chemical Inventory**, below.[7]

Table 5.0-3
Representative WRP Hazardous Chemical Inventory

Chemical	Location
Hydrochloric Acid	Near Filter Press Building
Ferrous Chloride	Near Primary Tanks
Chlorine*	In Maintenance Building
Sulfur Dioxide*	In Maintenance Building
Dry Polymer	In Maintenance Building
Sodium Bisulfite	In Maintenance Building
HTH	In Maintenance Building
Oxygen	In Maintenance Building
Xylene	In Maintenance Building
Diesel Fuel	In underground storage tank, near power service enclosure
Alum	Between filters and maintenance building
Lube Oil	Near power service enclosure in flammable storage building
Polymer	In chemical storage building, near filter press building
Caustic	Near Primary Tanks
Ferric Chloride	Near primary tanks and filter press building
Lime	In chemical storage area, near filter press building
Phosphoric Acid	Near filter press building
Defoamant	Near chlorine contact tanks
Digester Gas	Digestion Tanks

Source: County Sanitation Districts of Los Angeles County, February 1996.
** Please note that, based on recent decisions by the CSDLAC, sodium hypochlorite may be substituted for chlorine and sodium bisulfite may be substituted for sulfur dioxide, because these aqueous compounds have a lower hazard potential.*

In the unlikely event of a rupture of a chemical storage facility, or an accidental spill during delivery, storage or use of one or more of these chemicals, there is the potential for the release of hazardous materials that could result in an environmental safety risk through release to the air, soils or possibly the Santa Clara River via storm drain facilities. If not properly responded to, such risks could affect on-site personnel and, possibly, other humans, plant and/or wildlife populations present in the surrounding area. In addition, in the unlikely event of a loss of power or mechanical equipment failure occur, overflow of untreated wastewater from holding tanks onto surrounding ground areas and possibly

7 County Sanitation Districts of Los Angeles County. Storm Water Monitoring and Reporting Program, Valencia Water Reclamation Plant Permit Identification Number: 4B19S007154. March 9, 1993.

into storm drainage facilities that outlet to the River could result. No significant safety risks are expected, however, because the WRP would be required to comply with various regulations pertaining to the management of hazardous materials, accident/spill prevention, emergency response procedures, worker safety training, etc. which are briefly summarized below.

(a) Cal-OSHA Requirements

These requirements pertain to worker safety with respect to hazardous materials handling, including appropriate emergency response, use of equipment, and how to stop leaks and shut down equipment, as defined by the Hazardous Waste Operations and Emergency Response regulations (8 CCR 5192).

(b) Preventive (Fail-Safe) and Contingency (Cleanup) Plans

To comply with the monitoring and reporting requirements of the CSDLAC's NPDES Permits for its various wastewater collection and treatment facilities, the CSDLAC has prepared preventive and contingency plans for controlling accidental discharges and for minimizing the effect of such events, as described below. (See **Appendix 5.0** for complete descriptions of the plans prepared for the Valencia WRP).

Preventive Measures: Overflow preventive measures currently utilized consist of:

- central alarm system for all remote facilities, staffed continuously,
- permanent on-site emergency generators at critical facilities,
- centrally dispatched portable emergency generators and engine driven pumps,
- staff cross trained for more than one facility,
- sewer maintenance and inspection program, and
- flow monitoring for advance planning and design of sewers and plant expansions.

District staff have aggressively implemented measures which have proven to be effective in preventing overflows, namely providing backup power along with the means for emergency bypass of pumping plants. Backup power for critical facilities (those handling high flows or remotely located facilities) is provided through the Southern California Edison's Preferred/Emergency Service and/or an on-site automatic start generator. Furthermore, the continuously staffed central alarm system provides immediate notification of loss of power, high water level, or loss of communication. Personnel

and, if needed, a portable emergency generator and portable pumps can be immediately dispatched. Reclamation plants that are not staffed 24 hours a day are remotely monitored at other, 24-hour staffed facilities. At such facilities, "chatterbox" systems are also installed that call alarms to a preset list of operations staff, who then respond.

All reclamation plants are provided with more than one means of backup power. This includes on-site diesel or gasoline powered generators which can power, at a minimum, influent pumps, primary treatment, disinfection and lighting systems. Reclamation plant design protects against overflows caused by power or mechanical failure or operator error. Redundancy is incorporated into the design for all plants. For example, the influent pump stations are equipped to pump peak flows, even if the largest pump fails.

The chemical handing facilities would contain storage and metering facilities for the coagulant, disinfectant, and various polymers proposed for use at the WRP. These facilities would also provide containment areas in the event of a leak or chemical spill. These areas are typically not enclosed; however, a cover or lean-to could be provided to provide greater security, if desired.

Every water reclamation plant must also have a Stormwater Pollution Prevention Plan (SWPPP) in accordance with the U.S. Environmental Protection Agency's Industrial Stormwater Permit. Typical elements of a SWPPP are listed below:

- A list of "significant materials" that are used and stored at the WRP. This is the same list that must be reported to the Los Angeles County Fire Department, pursuant to Chapter 6.95 of the California Health and Safety Code.

- Materials, equipment and vehicle management practices which employ "good housekeeping" procedures, and are described below. Hazardous chemical storage areas provide secondary containment. Used oil is stored in an indoor tank for pick-up and hauling away by a licensed transporter for recycling.

- Good housekeeping: These are practices and procedures to be observed by all WRP personnel at all times. They are provided in writing and updated by periodic memos. Good housekeeping procedures typically include:
  - prompt sweeping up and properly disposing of any spilled dry chemical, metal shavings, sandblasting agents, etc.;
  - prompt hose down of liquid chemical spills into drains which lead to sewers tributary to the wastewater treatment process;

- storage of chemicals only in approved, pre-designated locations with secondary containment; and
- inspection of chemical storage areas as part of routine maintenance activities.

- Material loading, unloading and access areas are sloped to provide immediate drainage. Where possible, fill points are located inside of the spill containment.

- Existing structural and non-structural control measures to reduce pollutants in storm water discharge. These usually consist of secondary containment for hazardous chemicals and training of personnel in good housekeeping techniques.

- Methods of on-site storage and disposal of "significant materials". As stated above, such materials must be stored indoors and/or provided with secondary containment. Disposal of hazardous wastes is provided by licensed haulers.

- Processes that may produce significant quantities of dust or particulates must be conducted indoors, with the exception of sandblasting of large equipment. A non-toxic sandblasting agent is used and precautions are taken to minimize the production of dust.

The District's preventive (fail-safe) plans and measures have been very successful, as evidenced by the absence of any overflow to the environment from any of the currently operating water reclamation plants and the absence of impacts to the environment or public health from operation of a wastewater system that conveys and treats over 500 million gallons of wastewater per day.

It should also be noted that, because the wastewater treated at the WRP would be from residential, institutional, commercial (office and retail) and "light" industrial uses permitted by the Specific Plan, wastewater influent is not expected to contain significant concentrations of hazardous pollutants. Any industrial wastewater that may be produced from manufacturing, commercial processing operations, acute care medical facilities and laboratories, etc. that would be allowed in the Commercial, Mixed-Use or Business Park land use designations, as regulated by the Specific Plan, would be subject to compliance with the Wastewater Ordinance of the County Sanitation Districts of Los Angeles County (April 1, 1972, as amended November 1, 1989). A permit from the CSDLAC would be required for any such facility to allow discharge into the Newhall Ranch sewer system. This would effectively prohibit the legal discharge of hazardous substances into the sewer system, and thus further reduce the chances of significant concentrations of pollutants in the wastewater influent stream.

Contingency Plans: To prepare for events that occur in a broad area and which could affect multiple facilities, such as earthquakes or heavy rains, the Districts have also developed a contingency plan. Integral to this plan is an "Activation Matrix," which defines the emergency conditions under which employees will report to work. This does not depend on employees being notified if the situation is severe or communications unreliable. Employees are trained to recognize the situations in which they need to report to assigned work locations immediately.

Each reclamation plant must also have an "Integrated Emergency Response Plan" (IERP). The IERP provides procedures for personnel medical emergencies, evacuation procedures and mitigation and abatement procedures for hazardous chemicals. The plan must conform to multiple regulatory requirements, including Title 8 §3220, Emergency Action Plan, §3221, Fire Prevention Plan, §5192 Emergency Response to Hazardous Substances Releases, and Title 22, §66265.50-66265.56, Contingency Plan and Emergency Procedures. The strength of the IERP is in the regional nature of the CSDLAC and the ability to stockpile equipment and supplies for use at multiple facilities. The locations of the equipment and supplies are included in the IERP at each facility. In addition, the Districts prepare and annually update an emergency telephone directory, which contains home and cellular telephone numbers for key personnel and a directory of emergency contractors and equipment suppliers.

In the event of a typical emergency response, such as when an overflow or potential overflow is detected, emergency crews are immediately dispatched. Portable pumps and emergency generators are set up, if needed, to route the wastewater around the damaged site. Sandbags are placed to contain the wastewater and it is pumped to the nearest manhole. Finally, the area is flushed with clean water, treated with dry chlorine, and the water used to flush the site is also pumped to the sewer. If any overflow reaches a stormwater channel, any water already in the channel is contained with sandbags at a downstream location and pumped to the sewer. Bacterial measurements are then taken at the site and a control location, and these are repeated on a daily basis until measurements return to background levels.

With proper development and implementation of preventive and contingency plans as discussed above, no significant environmental safety risks from storage, use or disposal of hazardous chemicals at the WRP is anticipated.

(2) Release of Toxic Air Emissions

In the normal operations of any modern wastewater reclamation plant, a variety of gases are produced in limited amounts during the various treatment processes by a number of different facilities and devices. Many of these gases are toxic, poisonous, or acutely hazardous to human health and, thus,

must be properly controlled to avoid release of significant concentrations that could harm plant site workers or other sensitive receptors off site. As stated earlier, the proposed WRP would be very similar to the Valencia WRP, in terms of its influent characteristics and treatment standards. Therefore, to provide a representation of the range of air toxics that would be generated at the Newhall Ranch WRP, a discussion of the toxic air emissions identified for the Valencia WRP, based on the CSDLAC's AB2588 Air Toxics Inventory Report for the year 1991, is presented below (see **Appendix 5.0** for a full copy of this report). It should be noted that the following discussion is based on data obtained for the Valencia WRP when it had a 7.86 mgd capacity; the Valencia WRP has recently been expanded to increase its permitted capacity to 12.6 mgd.

(a) Sources of Air Toxics Emissions

Devices and treatment processes that generate toxic air emissions at the Valencia WRP are listed below. Please note that all of the emissions sources identified below require a permit from the South Coast Air Quality Management District.

- Aerated Grit Chambers
- Aeration Tanks
- Secondary Clarifiers
- Weirs
- Sodium hypochloride Dosing Station
- Sodium hypochloride Contact Tanks
- Dechlorination
- Dissolved Air Flotation
- Anaerobic Digesters
- Boiler
- Co-generation unit
- Standby Flares
- Filter Presses
- Digester Cleaning Station
- Lab Fume Hood

(b) Type and Magnitude of Toxic Air Emissions

Total, facility-wide air toxic emissions from all of the above sources reported at the Valencia WRP in 1991 are summarized in **Table 5.0-4, Summary of Total Air Toxics Emissions (Valencia WRP, 1991)**, below. The emission totals are based on a flow of 7.86 million gallons per day, and a 24-hour, 365 day/year operating schedule.

Table 5.0-4
Summary of Total Air Toxics Emissions (Valencia WRP, 1991)

Type of Toxic Material	Max. Emissions-- Lbs/Hour	Average Emissions--Lbs/Year
acetaldehyde	0.000056	0.07
ammonia*	4.458	5,216*
benzene	0.000103	0.42
chlorine	0.00364	0.05
chloroform	0.04096	42.28
p-dichlorobenzene	0.01127	40.82
formaldehyde	0.01594	58.27
hydrogen sulfide	0.00119	10.42
methylene chloride	0.00444	13.02
styrene	0.00003	0.25
tetrachloroethylene	0.01631	59.05
toluene	0.00421	11.68
1,1,1-trichloroethane	0.02740	99.59
trichloroethylene	0.00057	2.05
vinyl chloride	0.00033	1.08
xylenes	0.00276	7.57

Source: County Sanitation Districts of Los Angeles County, February 1996
** During the 1991 reporting year, dewatering of sludge in the filter press was improved through the addition of lime. Lime increased the pH of the sludge which transformed dissolved ammonium ions into ammonia gas. Presently, the plant uses a polymer which does not affect the pH. Therefore, ammonia emissions should be negligible. Robert Ferrante, Project Engineer, Air Quality Engineering, CSDLAC,. correspondence to Impact Sciences, Inc., February 7, 1996 (see Appendix 5.0).*

Construction and operation of the Newhall Ranch WRP would be subject to the permitting authority of the South Coast Air Quality Management District (SCAQMD), with respect to criteria air pollutants (Regulation XIII), as well as toxic air emissions (Regulation XIV). Requirements relative to criteria pollutants are discussed in Subsection **5.10, Air Quality**. Regulation XIV sets forth the requirements for New Source Review for all new sources of toxic air emissions. This process is explained below.

To obtain a permit to construct any facility that would emit toxics, a detailed evaluation of the toxic emissions is completed. This involves an estimate of the types and amounts of emissions, a dispersion model of the air movement characteristic of those emissions, a determination of the ground level concentrations of the toxics at the nearest sensitive receptor locations, and a health risk assessment to determine whether the estimated concentrations would exceed the limits set to protect the public health. If the emissions evaluation indicates that concentrations at receptors would be below a one in a million cancer risk, a permit to construct is issued. If the concentrations are higher than one in a million

cancer risk, but below a risk of ten in a million, the application of TBACTs, (i.e., Best Available Control Technology for Toxics) is required. Performance testing of the TBACTs is often required to prove that they are achieving the required level of toxic emissions reduction. If implementation of the TBACTs results in reducing emissions below the SCAQMD limit, a permit to construct is issued. If emissions continue to exceed a cancer risk of ten in a million, the permit will not be issued. Regular monitoring of plant emissions and performance testing of control equipment are also required to ensure that the air emissions from a WRP do not exceed the limits established by the SCAQMD.

Some of the individual equipment used in the WRP would also be subject to individual permits, to ensure compliance with more specific emission standards established by the SCAQMD. For example, internal combustion co-generation engines must comply with the provisions of Rule 1110.2. Turbine co-generation engines must comply with the provisions of Rule 1134. Depending on their size and emissions, boiler units may be subject to compliance with Rule 1146.1

Based on the Valencia WRP emissions data for a 7.86 mgd plant, it is very unlikely that the proposed Newhall Ranch WRP would be a Title V source.[8]

Because all sources of toxic air emissions at the proposed WRP must comply with the health and safety standards enforced through the SCAQMD permit processes as described above, no significant health risk from the plant's air emissions is expected.

(3) Generation and Handling of Biosolids

"Biosolids" are produced as a by-product of the wastewater treatment processes. These consist of primary sludge and waste activated sludge, which contain the 'leftover' traces of pollutants that were not removed through the liquid treatment processes. Biosolids can generate airborne particles containing pathogens (disease carrying bacteria or virus) and also can be attractors of various vectors (i.e., organisms, such as insects and rodents) that could also carry pathogens off site. Reduction of pathogens (disease carrying bacteria or virus) and vector (i.e., organisms, such as insects and rodents) attractors would be addressed by the proposed anaerobic digesters that would act on the sludge materials after the sludge is thickened. The digesters accomplish this by biologically degrading the sludge, which also reduces the final volume for further treatment and disposal. The digester process is also the main method of reducing the amount of pathogens that may be present, as well as reducing the

8 County Sanitation Districts of Los Angeles County (CSDLAC) Comments [on the] Screencheck Draft EIR for the Newhall Ranch Specific Plan and Water Reclamation Plan, p. 7.

vector attraction properties. The digested sludge is then stored in an above-ground tank. Thereafter, it is dewatered prior to final transportation off site to a landfill that has been permitted to accept such materials. At the Valencia WRP, prior to dewatering the solids are mixed with ferric chloride and a polymer. The resulting "cake" is approximately 30 percent total solids.

California Title 22, Division 4.5, Chapter 11, Article 3 contains Toxicity Characteristic Leaching Procedure (TCLP) and Soluble Threshold Limit Concentration (STLC) limits, which must be met in order for a material being tested to be considered non-hazardous. Biosolids produced at the proposed WRP would have to meet these limits. Based on tests of biosolids produced at the Valencia WRP, the following general pollutants are expected to be present within the proposed WRP biosolids: Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, and Zinc (a complete list of various pollutants measured in the biosolids taken from the Valencia WRP is provided in **Appendix 5.0**). Past testing of the biosolids produced at the Valencia WRP has determined that the levels of contaminants present therein were below a level considered hazardous. Proper application of the wastewater and sludge treatment processes proposed for the Newhall Ranch WRP is also expected to achieve successful results with the biosolids produced by that facility.

As noted earlier, a permit from the CSDLAC would be required to allow any industrial discharge into the Newhall Ranch sewer system. This would effectively prohibit the illegal discharge of hazardous substances into the sewer system and, thus, further reduce the chances of significant concentrations of pollutants in the final biosolids.

(4) Dam Inundation Potential

The WRP would be located in the dam inundation area for the Castaic/Forebay Reservoirs and would be subject to flooding in the event of dam failure which could result in discharges of raw sewage into the Santa Clara River. Water reclamation plants are allowed by the State of California within the inundation area of a dam without restriction. Given the continued efforts of the Division of Safety of Dams of the Department of Water Resources to maintain the structural integrity of the State's dams, the likelihood of dam failure is remote, as would be inundation of the WRP. Therefore, risks to the WRP and public health associated with dam failure are not considered to be significant.

c. Mitigation Measures

5.0-22. Design and operate the WRP in accordance with an NPDES ~~Industrial Discharge~~ Permit that must be obtained from the California Regional Water Quality Control Board, Los Angeles Region.

5.0-23. Prepare and implement worker safety programs in accordance with Cal-OSHA requirements.

5.0-24. Prepare and implement preventive and contingency plans for controlling accidental discharges of wastewater or chemicals used and stored at the WRP, and for minimizing the effects of such events. Such plans shall be integrated into the CSDLAC's overall preventive (fail-safe) and contingency (emergency response) plans and programs.

5.0-25. A Stormwater Pollution Prevention Plan (SWPPP) shall be prepared and implemented, in accordance with the U.S. Environmental Protection Agency's Industrial Stormwater Permit.

5.0-26. Any industrial wastewater that may be produced from manufacturing, commercial processing operations, acute care medical facilities and laboratories, etc. that would be allowed in the Commercial, Mixed-Use or Business Park land use designations as regulated by the Specific Plan, shall comply with the Wastewater Ordinance of the County Sanitation Districts of Los Angeles County (April 1, 1972, as amended November 1, 1989). A permit from the CSDLAC would be required for any such facility to allow discharge into the Newhall Ranch sewer system.

5.0-27. Prepare and implement an "Integrated Emergency Response Plan" (IERP). The IERP provides procedures for personnel medical emergencies, evacuation procedures and mitigation and abatement procedures for hazardous chemicals. The plan must conform to multiple regulatory requirements, including Title 8 §3220, Emergency Action Plan, §3221, Fire Prevention Plan, §5192 Emergency Response to Hazardous Substances Releases, and Title 22, §66265.50-66265.56, Contingency Plan and Emergency Procedures.

5.0-28. Biosolids treatment and disposal methods shall meet California Title 22, Division 4.5, Chapter 11, Article 3, which contains Toxicity Characteristic Leaching Procedure (TCLP) and Soluble Threshold Limit Concentration (STLC) limits.

5.0-29. Obtain permits to construct and operate all new sources of air toxic emissions, at each stage of WRP - development, and whenever any new sources are added or replaced, pursuant to SCAQMD Regulation XIV.

~~5.0-30. Comply with California Title 22, Division 4.5, Chapter 11, Article 3, which contains Toxicity Characteristic Leaching Procedure (TCLP) and Soluble Threshold Limit Concentration (STLC) relative to the treatment and disposal of biosolids.~~

5.6 BIOTA

a. Significance Threshold Criteria

According to Appendix G of the CEQA Guidelines, a project will normally have a significant effect on the environment if it will: (1) substantially affect a rare or endangered species of animal or plant or the habitat of the species, or (2) interfere substantially with the movement of any resident or migratory fish or wildlife species.

b. Water Reclamation Plant Impacts

(1) Construction Impacts

As stated earlier in the description of the environmental setting of the WRP site, it is anticipated that the initial grading would involve the WRP site, as well as the entire approximately 39 acre area it lies within, between the Santa Clara River and SR-126. Grading/site preparation would, thus, directly impact approximately 29.2 acres consisting of non-sensitive habitat, including disturbed area (27.3 acres) and arrow weed scrub (1.91 acres). Grading/site preparation would also directly impact the remaining 9.8 acres which are along the edge of the River, and which contain sensitive habitat, including cottonwood willow riparian forest (6.43 acres) and mule fat scrub (3.39 acres). This would be a significant impact. No rare, threatened or endangered wildlife species have been identified within this 39 acre area; therefore, no impact to such species would result from site grading. The highly sensitive Santa Clara River Corridor, designated by the County of Los Angeles as a Significant Ecological Area (SEA 23), is adjacent to the southern boundary of the WRP site.

The River Corridor supports riparian vegetation which provides habitat for the endangered unarmored three-spine stickleback, southwestern willow flycatcher and least Bell's vireo, as well as other sensitive aquatic species (a detailed description of the biological character of this area and the entire River Corridor is presented in **Section 4.6, Biota**, and **Appendix 4.6** of this EIR). Grading and site preparation for the WRP facilities would include an embankment along the southern edge of the site, along the River bank. Without proper erosion and sedimentation controls, loose soils could be blown off by winds or runoff during rainstorms and reach the River area, resulting in potentially significant impacts to riparian vegetation and habitat of sensitive or possibly endangered animal species. Site grading and preparation activities in the riparian habitat along the River bank would have to comply with permit requirements established by the California Department of Fish and Game, the U.S. Army Corps of Engineers, and/or the U.S. Fish and Wildlife Service, which would set forth the mitigation

measures considered appropriate for this significant impact. In addition, those activities would comply with the requirements of a NPDES permit that must be obtained prior to commencement of grading; this would also ensure that proper site runoff, and erosion and sedimentation controls are provided to avoid significant impacts to River biota.

Site grading/preparation is not expected to interfere with the movement of wildlife along the River, since all construction activities would occur outside of the River banks. During active construction hours, wildlife movement along the River may be restricted because of the noise and human presence; however, at the end of the construction day and overnight, the dormant construction site is not expected to affect wildlife movement.

(2) Operational Impacts

The plant design is proposed to enable reclamation of most, if not all, of the treated wastewater through a reclaimed water distribution system, in order to supply various irrigation uses throughout the Specific Plan area, thus avoiding discharges to the River. In wet winter seasons, however, it is possible that approximately 522 to 1,372 acre-feet of tertiary-treated water that would not be reclaimed through the irrigation system due to lower demand could be discharged to the River from October through March. As discussed earlier (in Subsection **5.2, Flood,** above), this water volume would not represent a significant increase in the volume of flood waters or in the annual average River flow. The water quality of this discharge would have to comply with Federal Clean Water Act requirements, as specified in an Industrial Discharge Permit that must be obtained from the Regional California Water Quality Control Board, Los Angeles Region. In a drought year, plant discharges to the River are not anticipated because irrigation demands in the Specific Plan area would be higher than in wetter winters, and it is expected that all reclaimed water would be used for on-site irrigation purposes. Given these considerations, no significant impacts to the River's biological resources are expected from the WRP discharges.

c. Mitigation Measures

5.0-30~~1~~. Comply with permit requirements established by the California Department of Fish and Game, the U.S. Army Corps of Engineers, and/or the U.S. Fish and Wildlife Service, relative to removal and replacement of riparian habitat.

5.0-31~~2~~. Obtain and implement an NPDES construction permit to avoid significant erosion or sedimentation impacts.

5.0-323. Comply with permit requirements of Federal, State and regional agencies with jurisdiction over discharge of reclaimed water to the Santa Clara River relative to potential impacts on the River's biological values.

5.7 VISUAL QUALITIES

a. Significance Threshold Criteria

Significant visual impacts are generally defined, in Appendix G of the CEQA Guidelines, as effects which "[h]ave a substantial, demonstrable negative aesthetic effect."[9] This definition is open to interpretation and is difficult to apply in the absence of more specific and local criteria which define the types of changes that are considered to be "substantially, demonstrably negative." The County of Los Angeles Environmental Document Reporting Procedures and Guidelines provide the following, more detailed, criteria for determining whether a project's changes in the existing landscape could be considered adverse or significant. If a project affects one or more of the listed criteria to a substantial degree, it can be concluded that the project could result in a significant visual impact. The County criteria include:

1) Is the project adjacent to a visual corridor? [And would the project substantially affect a visual corridor?]

SR-126, while not an adopted County "Scenic Highway," is identified in the County Scenic Highway Element of the County General Plan as a "First Priority Scenic Route," which is proposed for further study, but carries no regulatory restrictions or significance. The County's General Plan Conservation and Open Space Element contains a policy directed at the protection of scenic resources found along officially designated and first priority proposed scenic highways. The policy is as follows: "Protect the visual quality of scenic views from public roads, trails and key vantage points."

2) Does the project obstruct unique views from other development or vantage points?

A viewshed analysis was performed to determine whether the WRP would result in partial or complete blockage of prominent features which contribute to the quality of the view.

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9 California Administrative Code, Title 15, Chapter 3, Guidelines for California Environmental Quality Act, amended January 1, 1995.

3) Is the project out of character in an area with unique aesthetic features?

Under this criterion, a determination was made as to whether the WRP would result in a substantial change in the existing view, particularly a change within a view corridor from non-urban to urban.

4) Does the scale (height, bulk) of the project exceed that existing in the surrounding area?

This criterion would only apply to the WRP site if it is developed after other nearby lands are developed.

5) Does the project result in sun/shadow effects on adjacent land uses?

This criterion would only apply to the WRP site if it is developed after other, adjacent land is developed.

b. Water Reclamation Plant Impacts

As discussed in the Environmental Setting portion of this section, the WRP is proposed within the Business Park designation near the western Specific Plan boundary, between the southern side of SR-126 and the Santa Clara River. Business park uses would extend to the County line, with the WRP occurring on the eastern portion of the Business Park area. A Low-Medium Residential designation is proposed opposite the WRP site, along the northern side of SR-126.

(1) Short-Term, Construction Impacts

Construction of new facilities would involve excavating areas within the proposed water reclamation plant site and along the southern side of SR-126; siting equipment and equipment storage and staging areas; storing excavated material and debris; siting temporary construction offices, fences, sanitary facilities, and possibly other appurtenant structures; constructing temporary access roads; and grading. Activities could result in increased dust and visible particulates in the air and increased light and glare from lighting for security and construction. Impacts of construction would be temporary and would terminate following completion of construction, removal of equipment and materials, and cleanup of storage and construction areas. If the plant is constructed in stages, views of the River Corridor in this immediate area would be incrementally lost until the ultimate plant is completed. This impact would affect the views that motorists along SR-126 would have of the WRP site for a brief period of time (less than 30 seconds).

This impact is considered significant whether construction of the plant occurs before or after any other development in this part of the Specific Plan site, because the construction equipment, vehicles, staging and storage areas and work zones would contrast sharply and negatively with the natural scenic qualities that are highly visible from the highway. There are no feasible means of mitigating this impact to below a level of significance, since the construction areas cannot be completely hidden from view and the contrast with the surrounding natural environment cannot be avoided.

(2) Long-Term Operational Impact

It is expected that the plant proposed for the Newhall Ranch Specific Plan would be similar in appearance to the existing Valencia WRP (District 32). To give the reader a reasonable representation of what the new plant would look like, photographs of Valencia WRP are provided on **Figure 5.0-6.**

As shown in **Figure 5.0-7, Viewshed 1, Before and After**, as viewed from the east, near the Ventura County/Los Angeles County line, the WRP site is part of a scenic corridor that includes River features, the Sawtooth Ridge, Potrero Mesa, and a generally scenic mix of natural upland and lowland landscape features, as well as tilled farmland in the left periphery of the view. This view would be significantly changed due to the introduction of a variety of urban forms proposed for development in this portion of the Specific Plan area (also illustrated on **Figure 5.0-7**), including the proposed WRP, Business Park development and Low-Medium Residential uses.

As noted earlier, the WRP site is within an area proposed for Business Park uses. Business Park uses would extend to the County line, with the WRP occurring on the eastern portion of the Business Park area. The plant would be briefly visible (less than 30 seconds) to motorists traveling eastbound and westbound along SR-126. While final pad elevations will not be known until a grading plan is completed for the plant, the preliminary grading concept indicates that the developed site would remain at a grade elevation below the elevation of SR-126, thereby reducing the site's visibility. As motorists approach the Specific Plan site from Ventura County (as seen in **Figure 5.0-7**), Business Park structures and associated landscape vegetation would partially block views of the WRP, thus reducing its visibility within the broader viewshed, in the Specific Plan buildout condition, to less than significant. Not until motorists are in Los Angeles County, closer to the plant, would more detailed views of the plant be available.

As discussed above, it is expected that the plant proposed for Newhall Ranch would be similar in appearance to the existing Valencia WRP, which is illustrated in **Figure 5.0-6.** Visible elements of a water reclamation plant include tanks, piping, buildings, vertical stacks, light poles, fencing and



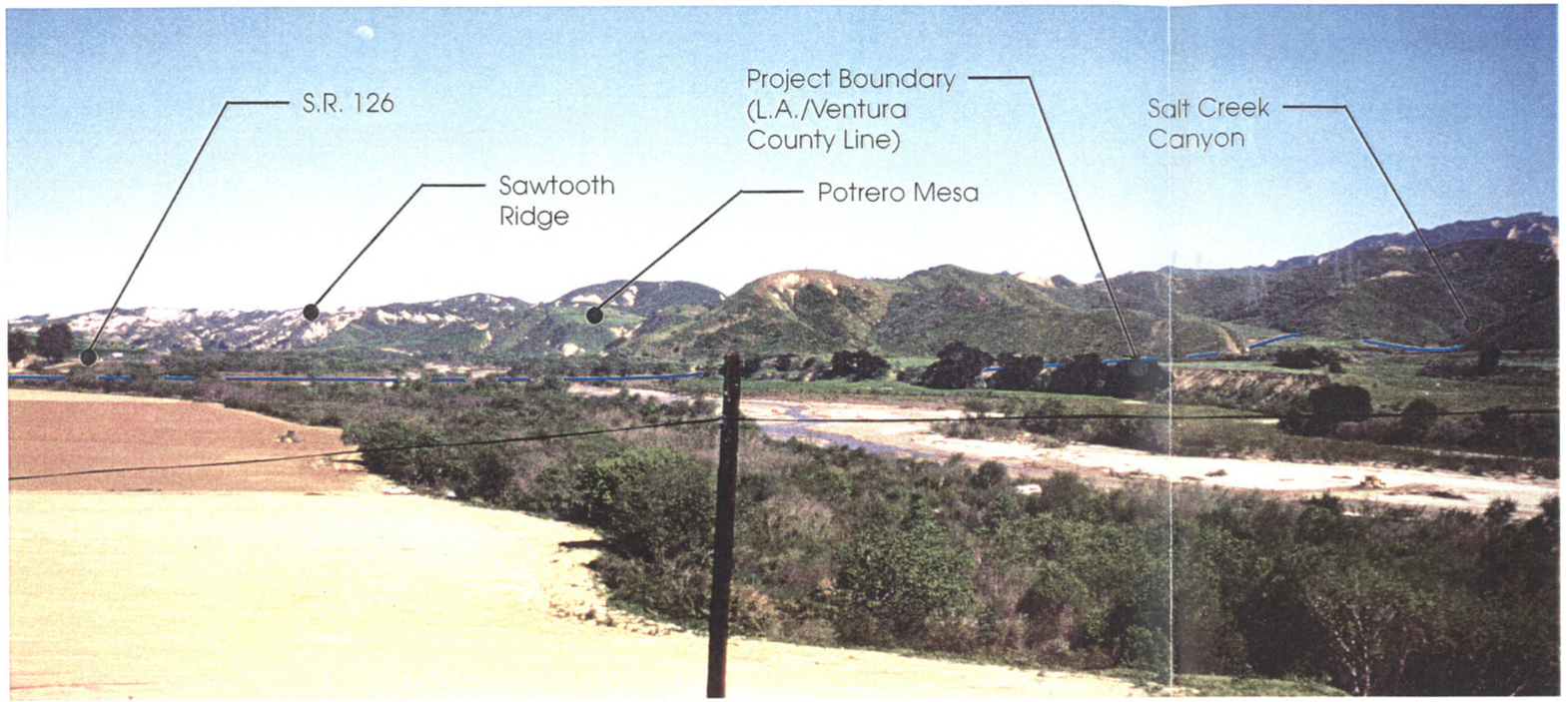


Views of Los Angeles County Sanitation District Water Reclamation Plant No. 32 Located in the Santa Clarita Valley.

NEWHALL RANCH™
Newhall Ranch Company

FIGURE 5.0-6
WRP VIEW ANALYSIS

East



North

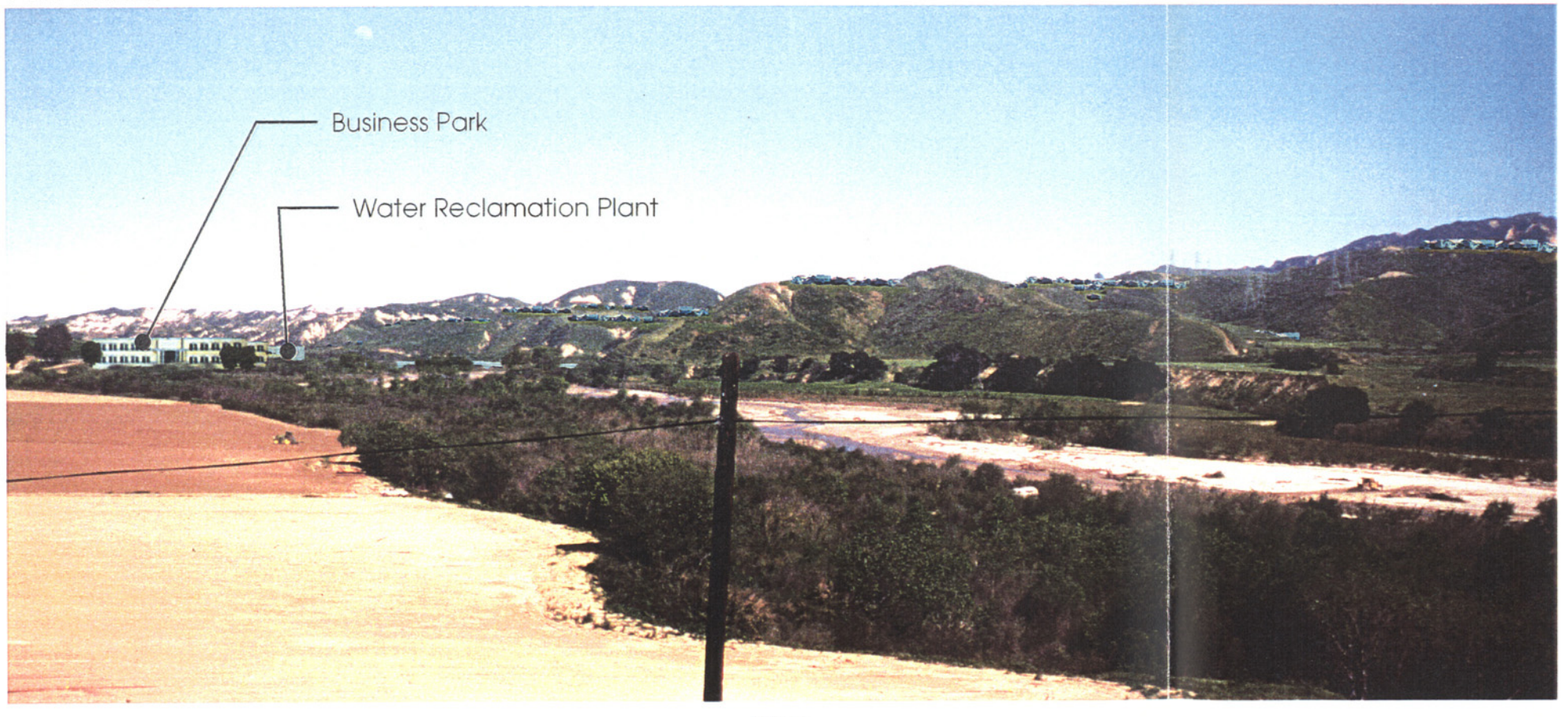
South

West

VIEW 1 BEFORE

East

VIEW 1 AFTER



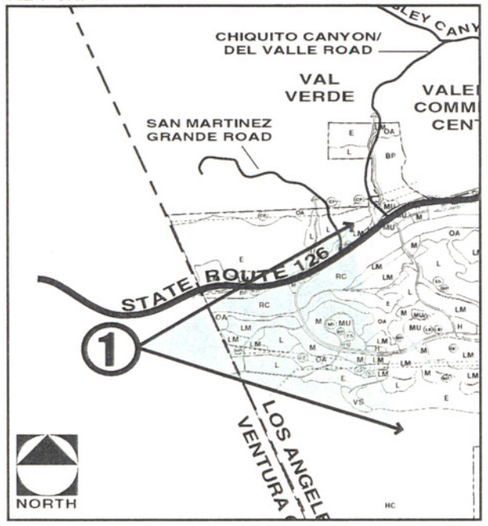
North

South

West

NEWHALL RANCH™
Newhall Ranch Company

KEY MAP



VIEW "1"

LOOKING SOUTHEAST TO THE PROJECT FROM VENTURA COUNTY AT STATE ROUTE 126 AND THE SANTA CLARA RIVER CORRIDOR

NOTE: Artist's interpretation based on computer generated model on preceding page.

FIGURE 5.0-7

POST-DEVELOPMENT VIEW 1

landscaping. Structures and buildings would vary in profile and bulk, with a maximum height of 20 feet. In the eastern portion of the plant site, the building closest to SR-126 would be set back approximately 100 feet from the southern edge of the highway. Most of the facilities would be placed in the western portion of the site, set back from the highway distances of roughly 250 to over 370 feet. Several of the larger structures would be either wholly or partially under ground, thus reducing their visibility to a level of non-significance. The overall appearance of the developed WRP site would be industrial in character.

Outdoor lighting anticipated with the WRP would consist primarily of pole-mounted lighting fixtures to illuminate walkways, parking areas, and generally to provide a safe level of lighting for plant operators. Some focused, higher intensity lighting may be required in certain areas, where high visibility is necessary (e.g., when backwashing filters during periods of heavier influent volumes). The combined effect of the plant's outdoor lighting would result in increased ambient lighting on and around the plant site, representing a significant change from the current rural and dark night conditions. This effect can be reduced to a level of less than significant through appropriate glare shields, lighting enclosures, screening vegetation, etc.

Given the visible features of the proposed WRP as described above, following is an analysis of the significance of the plant's visual impacts, with respect to the five criteria identified at the beginning of this subsection.

1) Is the project adjacent to a visual corridor?

As stated earlier, the WRP site is adjacent to SR-126, which is currently designated by the County of Los Angeles General Plan as a "First Priority Scenic Route." The County's General Plan Conservation and Open Space Element contains the following policy for such routes: "Protect the visual quality of scenic views from public roads, trails and key vantage points." This County planning policy signifies that SR-126 is recognized as a visual corridor and that the visual quality of this corridor is considered important. Development of the WRP within this corridor is thus of concern. The significance of the plant's visual impacts is addressed directly through the other significance criteria, as discussed below.

2) Does the project obstruct unique views from other development or vantage points?

The particular location of this site is within the overall visual corridor that follows the Santa Clara River through the Specific Plan area. The WRP site contains riparian River vegetation which is considered a unique visual feature. Development of the plant would preclude some views of such features and would, therefore, have a significant impact on unique views.

3) Is the project out of character in an area with unique aesthetic features?

If the WRP is constructed prior to other development in this area, it would be out of character with this visual corridor that is comprised primarily of natural features. This would be an unavoidable significant impact, even if screened by vegetation, because the plant site would contrast sharply with the natural surroundings.

It is not known whether future Business Park development would involve the placement of buildings and structures in the narrow area between the proposed WRP site and SR-126. If this occurs, the WRP facilities would at least be partially screened from view along this major mobile viewing corridor. If it does not occur, views of the plant would be more direct. If not screened by vegetation or other structures, the WRP would contrast significantly with the natural River and topographical features visible beyond the site. This would be a significant impact. If the WRP is constructed at the same time as adjacent Business Park uses, the WRP would contribute to the significant visual impact of the overall Specific Plan.

4) Does the scale (height, bulk) of the project exceed that existing in the surrounding area?

If the plant is constructed before other development occurs in this area, it will be the only developed site in an otherwise open area, and would contrast sharply with the scale and character of the surrounding area. This would be a significant impact. If surrounding Business Park development exists at the time the plant is constructed, the plant facilities, while very different in character from expected Business Park development, would not exceed the scale of the Business Park, because the WRP would be subject to the same development standards as the Business Park and because the WRP facilities would not exceed a height of 20 feet. Bulk characteristics would be different at the WRP, due to the differences in size and shape for the piping, tanks, stacks, storage buildings and other structures that would not be found in a Business Park. Assuming similar

facilities as those at the Valencia WRP (shown on **Figure 5.0-6**), the proposed WRP bulk would not exceed bulk characteristics in the adjacent planned Business Park, which would typically include large, box-shaped buildings, or a cluster of smaller, rectangular buildings. However, the WRP would contribute to the significant visual impacts created by the overall Specific Plan.

5) Does the project result in sun/shadow effects on adjacent land uses?

Business park development on adjacent land would not be dependent upon solar access for energy supplies; therefore, the WRP would not have any effect upon such solar access-dependent facilities. Several types of activities that do rely upon clear solar access are allowed in the Business Park designation land use regulations. These include: arboretums and horticultural gardens, athletic fields, golf courses, plant nurseries, and parks. The largest structures proposed closest to the adjacent Business Park-designated land would be the anaerobic digesters (reinforced concrete structures that would measure 65 feet in diameter and 20 feet high). These structures would be set back from the perimeter of the WRP site and would not have large awnings, roofs, or other overhangs that would extend shadows cast by these structures. No proposed plant facilities would be large enough to cast significant shadows onto adjacent Business Park-designated land. Development of the WRP would not, therefore, have any adverse sun/shadow impacts on adjacent Business Park uses.

No plant facilities would be placed directly adjacent to the southern perimeter of the WRP site, which would rest above an embankment created along the edge of the Santa Clara River. The buildings and structures that are proposed nearest to the southern perimeter are among the smallest in terms of bulk. Because of this and the relatively low profile of these structures (20 feet or less in height), no significant impacts to River vegetation relative to sun blockage would occur.

c. Mitigation Measures

5.0-334. To soften views of the reclamation plant from SR-126, provide vegetation, walls, fencing, and/or other appropriate techniques and combinations of techniques. Walls and fencing shall comply with the Specific Plan Design Guidelines.

5.0-345. Landscaping themes shall be consistent with the themes developed for adjacent Business Park development to provide visual continuity and minimize contrast between the WRP facilities and their surroundings.

5.0-356. Place, orient and shield light fixtures to illuminate only those areas where it is needed and to prevent stray light from spilling off site.

5.8 TRAFFIC AND CIRCULATION

a. Significance Threshold Criteria

Traffic impacts of the WRP would be considered significant if the traffic generated by the plant is responsible for one percent or more of the total traffic on that roadway, and the projected volume-to-capacity (V/C) ratio, including the plant traffic, would exceed 1.00.

b. Water Reclamation Plant Impacts

(1) Construction Impacts

State Route 126 west of the Los Angeles County line is programmed in the State Transportation Improvement Plan (STIP) for widening to four lanes and, in the Los Angeles County Master Plan of Highways, it is assumed that SR-126 will be upgraded to a limited access expressway through part of the Specific Plan area (the suggested upgrading for SR-126 is to a six-lane major arterial between a point just west of San Martinez Grande Road and Chiquita Canyon Road, and to an expressway from Chiquita Canyon Road to I-5).

Because the WRP may be constructed in stages, the significance of construction traffic impacts will depend, to a large extent, on when the plant construction occurs. For example, if it is constructed before other development in this area, the impact of construction traffic will be much less than if it is constructed during the same time as other developments, when the combined effects of several active construction sites would generate a higher amount of trucks and other construction traffic. The configuration of SR-126, the only roadway access that will be available to the WRP, could also be a factor in whether construction traffic is problematic. If the highway has been expanded to a four lane route by the time the WRP is under construction, there would be more traffic capacity and more lanes available to deal with the addition of construction-related trucks and other vehicles. If the highway is still a two lane facility, temporary blockages of travel lanes due to construction vehicles could occur.

Traffic associated with plant construction is not expected to result in a significant impact on SR-126, however, for the following reasons:

(a) It is estimated that daily construction traffic would generate roughly 150 trips per day along SR-126. This total represents an increase of just 0.8 percent over existing daily traffic (17,747 ADT west of The Old Road), less than the one percent threshold defined earlier. This traffic would, thus, have a less than significant impact on the current two-lane highway. Construction traffic volumes would represent approximately 0.39 percent of post-year 2020 ADT along the adjacent segment future SR-126 without traffic from the rest of the Specific Plan (150/38,000 ADT = 0.0039), and approximately 0.33 percent of ADT with traffic from the rest of the Specific Plan (150/45,000 ADT = 0.0033). In either scenario, the WRP traffic would be well under the one percent threshold of significance. Moreover, as discussed in **Section 4.8, Traffic/Access**, of this EIR, if future traffic volumes along SR-126 would exceed the capacity of that highway because of increased traffic from the Specific Plan, the applicant would construct the additional capacity needed for that additional traffic. Daily traffic volumes associated with construction of the WRP would, therefore, not have a significant impact on the capacity of SR-126.

(b) While construction is underway, it is expected that staging and storage areas will be available on the southern side of the highway. The placement of these areas would allow for complete heavy vehicle storage and transit on the WRP site, without the need to travel along or across the highway.

(c) It is expected that the majority of heavy truck traffic would occur during distinct phases of the construction program, such as during initial set-up and during removal of construction equipment, facilities, etc., at the end of the program. These phases typically require more truck traffic to transport heavy equipment, materials, and supplies than during the ongoing construction activities. During those periods, routine construction traffic controls would be employed to ensure that through traffic along SR-126 is maintained or that temporary interruptions are safely managed through appropriate signs, flagmen, etc.

(2) Operational Impacts

At full plant operating capacity, it is estimated that roughly 100 vehicle trips per day would arrive and depart the plant site. This total would represent approximately 0.56 percent of the current ADT volume of 17,747 along the adjacent segment of SR-126. This is less than the one percent threshold of significance defined earlier and, therefore, is not significant. Traffic volumes would represent approximately 0.26 percent of post-year 2020 ADT along the adjacent segment future SR-126 without traffic from the rest of the Specific Plan site (100/38,000 ADT = 0.0026), and approximately 0.22 percent of ADT with traffic from the rest of the Specific Plan site (100/45,000 ADT = 0.0022). In either

scenario, the WRP traffic would be well under the one percent threshold of significance. Moreover, as discussed in **Section 4.8, Traffic/Access**, of this EIR, if future traffic volumes along SR-126 would exceed the capacity of that highway because of increased traffic from the Specific Plan, the applicant would construct the additional capacity needed for that additional traffic. Daily traffic volumes associated with operation of the WRP would not, therefore, have a significant impact on the capacity of SR-126.

Biosolids would be hauled from the WRP to disposal and/or reuse sites at a rate of approximately eight trucks per week (assuming 22-ton capacity trucks would be used to haul 170 wet tons of sludge from the plant). This traffic is included within the total estimate of 100 vehicle trips/day for the 7.7 mgd plant. These trucks would represent a minimal increase in truck traffic on SR-126, which would not be significant.

The preliminary WRP grading concept includes a driveway connection to SR-126 near the western end of the Business Park area. This location would require less grading than other areas along the frontage, where the elevation difference between the highway and the Business Park area is greater. It could also provide for a shared access to the highway for the WRP, as well as for other businesses that are developed within this area. Access to SR-126 will be specified during final design. An encroachment permit from Caltrans would be required for any access to SR-126; this would ensure that the driveway location and design satisfies State safety standards for access to State highways. Evaluation of the need for a traffic signal or other appropriate traffic controls may be required as a part of the encroachment permit if traffic volumes and access conflicts become a significant concern at the time the permit is requested; however, no access conflicts are anticipated at this time.

c. Mitigation Measures

5.0-367. If SR-126 is still a two-lane highway at the time of WRP construction, a construction traffic management plan shall be prepared and implemented. This plan shall address site access, staging and storage areas, hours of construction, work crew parking, warning and traffic control signs and devices, flag men, temporary detouring, etc., as appropriate, to avoid a significant impact on SR-126.

5.0-378. An encroachment permit shall be obtained from Caltrans, for access to the plant site from SR-126.

5.9 NOISE

a. Significance Threshold Criteria

The proposed WRP would generate a negligible amount of vehicular traffic. Traffic from the WRP is included in the analysis of Specific Plan noise impacts related to increased traffic, in **Section 4.9, Noise**, of this EIR. For this reason, only point sources of noise are evaluated in this subsection for their potential to result in significant impacts. For the purposes of this analysis, it is assumed that a significant noise impact would occur if the WRP would increase noise on surrounding lands to levels that exceed the County's adopted Noise Ordinance limits (reference EIR **Section 4.9, Noise** for further discussion on these adopted limits).

b. Water Reclamation Plant Impacts

(1) Construction Noise Impacts

Construction of the proposed on-site water reclamation plant (WRP) would involve the use of a variety of heavy equipment and heavy trucks, miscellaneous gasoline- and electrically-powered machinery, and work crew vehicles, all of which would generate noise at different times and at different levels. (See **Section 4.9** for a detailed discussion of general construction noise issues and related standards).

If the WRP is constructed prior to any other planned development in the western portion of the Specific Plan area, noise from construction activities would not have an impact on any sensitive receptors, since this area is currently undeveloped.

This facility is proposed to be located within a Business Park land use designation. If this area is fully or partially developed before any stage of the WRP is constructed, any structure located adjacent to the WRP site with uninterrupted lines of sight to the construction noise sources could be exposed to noise levels estimated to range from the low 70's dB(A) to the mid-90's dB(A), based on typical noise levels from construction equipment. Higher peak noise levels are not anticipated because the 'soft' alluvial soils on the proposed WRP site will not require the use of noisy jack hammers or pile drivers to penetrate hard materials in preparation for foundations or other structural supports. The types of businesses that are typically found in a Business Park are not considered sensitive and noise levels up to

85 dB(A) can be considered acceptable by the County noise ordinance in these types of areas. The peak construction noise levels would not be continuous over an entire day, but would be sporadic and short-term, depending upon the type of activity underway. Therefore, noise impacts associated with these activities are not expected to significantly affect surrounding Business Park uses.

If any part of the WRP is constructed after planned residential development occurs in the western-most part of the Newhall Ranch site, construction noise could be an issue. The closest residential areas planned in Newhall Ranch would be roughly 300 feet or more to the north of the WRP site, across State Route 126; approximately 1,000 feet east of the WRP along the south side of SR-126 and next to planned commercial sites; and approximately 1,500 feet to the south of the WRP, above and behind hills on the south side of the Santa Clara River. Noise levels are ordinarily reduced by approximately 18 dB(A) over a distance of 300 feet, and by approximately 32 dB(A) over a distance of 1,000 feet. Given these distances, in general, construction noise at the WRP site is not expected to have a significant impact on the nearest residential areas, provided that construction is limited to normal, daylight work hours. Furthermore, noise levels would be attenuated by approximately 37 dB(A) by the soft, rolling terrain located between the WRP site and the more distant planned residential areas to the south. Night construction, especially during late night/early morning periods, could have a significant nuisance impact at the nearest residential neighborhoods. At this stage of planning, it cannot be determined whether late night or early morning construction would be necessary.

(2) Operational Noise Impacts

The potential operational noise levels of the proposed WRP are based on a noise survey of the Hill Canyon WRP in Thousand Oaks, California conducted by Impact Sciences, Inc. on June 2, 1995. This facility was selected because it is comparable in size to the proposed facility and because it is located in a remote and quiet location where the noise levels generated by the facility could be easily identified without influence from surrounding uses. The existing noise levels generated by the machinery at this facility average approximately 55 dB(A) at 60 feet from the perimeter fence and 46.5 dB(A) at 100 feet from the perimeter fence. These noise levels are low and would not exceed County noise ordinance standards for Business Park uses. Planned residential uses on the Newhall Ranch site would be at least 300 feet away from the WRP and may be separated from the WRP by other Business Park uses, and would, thus, be exposed to lower WRP noise levels than on adjacent portions of the Business Park designation. Such levels would not, therefore, exceed County standards at the nearest residential sites. Noise generated by the WRP would normally not be heard along SR-126 as distinct from traffic noise, nor would it be audible in the distant existing residential areas located to the north along San Martinez Grande and in the community of Val Verde. Consequently, operational noise impacts associated with the WRP would not be significant.

c. Mitigation Measures

(1) Construction

5.0-389. All construction activity occurring on the water reclamation plant site shall adhere to the requirements of the "County of Los Angeles Construction Equipment Noise Standards," County of Los Angeles Ordinance No. 11743.

5.0-3940. Limit all construction activities occurring near occupied residences to between the hours of 6:30 A.M. and 8:00 P.M., and exclude all Sundays and legal public holidays, pursuant to County Construction Section standards.

(2) Operation

5.0-401. All operational activity occurring on the water reclamation plant site shall adhere to the requirements of the "County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources," pursuant to §12.08.390 of County of Los Angeles Ordinance No. 11743.

5.10 AIR QUALITY

a. Significance Threshold Criteria

(1) Emission Significance Thresholds

The South Coast Air Quality Management District (SCAQMD) has established these thresholds, in part, based on Section 182(e) of the Federal Clean Air Act (CAA) which identifies 10 tons a year of volatile organic gases as the significance level for stationary sources of emissions in extreme non-attainment areas for ozone.[10] As discussed earlier, VOC and NO_x undergo photochemical reactions in sunlight to form ozone, and the Basin is the only extreme non-attainment area for ozone in the United States. This emission threshold has been converted to a pound per day threshold for the operational phase of a project. Thresholds for others have been identified based on their levels in the Basin in

10 South Coast Air Quality Management District, CEQA Air Quality Handbook, (Diamond Bar, California: April 1993), p. 6-1.

comparison with ozone levels. Because they are converted from a CAA threshold, the SCAQMD believes that these thresholds are based on scientific and factual data.[11] Therefore the District recommends that the following thresholds be used by lead agencies in making a determination of operation-related project significance:

- 550 pounds per day of CO
- 55 pounds per day of VOC
- 55 pounds per day of NO_x
- 150 pounds per day of SO_x
- 150 pounds per day of PM_{10}

(2) Additional Indicators of Potential Air Quality Impacts

The SCAQMD recommends that projects meeting any of the following criteria also be considered as having significant air quality impacts:

- Project could interfere with the attainment of the Federal or State ambient air quality standards by either violating or contributing to an existing or projected air quality violation;

- Project could result in population increases within an area which would be in excess of that projected by the Southern California Association of Governments (SCAG) in the Air Quality Management Plan (AQMP), or increase the population in an area where SCAG has not projected that growth for the project's build-out year;

- Project could generate vehicle trips that cause a CO hotspot or project could be occupied by sensitive receptors that are exposed to a CO hotspot;

- Project will have the potential to create, or be subjected to, an objectionable odor that could impact sensitive receptors;

- Project will have hazardous materials on site and could result in an accidental release of toxic air emissions or acutely hazardous materials posing a threat to public health and safety;

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11 South Coast Air Quality Management District, CEQA Air Quality Handbook, (Diamond Bar, California: April 1993), p. 6-1

- Project could emit a toxic air contaminant regulated by SCAQMD rules or that is on a Federal or State air toxic list;

- Project could be occupied by sensitive receptors within one quarter mile of an existing facility that emits air toxics identified in SCAQMD Rule 1401; or

- Project could emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of one in one million.

b. Water Reclamation Plant Impacts

(1) Construction Impacts

Development of the proposed water reclamation plant (WRP) would involve site preparation (i.e., grading) and construction of the proposed plant facilities. It was assumed that the WRP would be fully constructed within one year for the purpose of this analysis. This would represent a highly condensed construction schedule with considerable activity. Therefore, it represents a worst case scenario. If plant construction occurs in stages, construction air quality impacts would be lower and less significant than represented in the following analysis.

(a) Construction Exhaust Emissions

Table 5.0-5, Estimated Daily and Quarterly WRP Construction Emissions, identifies the average daily and quarterly equipment emissions that would be generated by construction equipment, worker travel exhaust, and truck and material transport exhaust based on the SCAQMD's generalized construction emissions calculation methodology. This generalized methodology, identified in Table A9-3-H of SCAQMD's CEQA Air Quality Handbook, calculates the total amount of emissions generated during a project's construction phase, based on the size of the facilities being constructed, and includes all typical emissions, such as stationary and mobile construction equipment, worker travel exhaust, and truck and material transport exhaust. Emission calculations are provided in **Table AQ-28 in Appendix 4.10** of this EIR. As shown, none of the recommended thresholds would be exceeded during the grading and construction phases due to the operation of construction equipment and employee vehicles. The WRP's construction equipment emissions were also included in the analysis of Newhall Ranch's construction emission impacts in **Section 4.10, Air Quality** of this EIR.

Table 5.0-5
Estimated Daily and Quarterly WRP Construction Emissions

Emission Source	Average Emissions CO	VOC	NO_x	SO_x	PM_{10}
Grading and Construction Equipment[1]					
Pounds Per Day:	123.7	7.3	47.9	3.1	1.7
Recommended Daily Thresholds:	550.0	75.0	100.0	150.0	150.0
Exceeds Threshold?	NO	NO	NO	NO	NO
Grading and Construction Equipment[1]					
Tons Per Quarter:	4.64	0.27	1.80	0.12	0.06
Recommended Quarterly Thresholds:	24.75	2.50	2.50	6.75	6.75
Exceeds Threshold?	NO	NO	NO	NO	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in Table AQ-28 in Appendix 4.10. Based on Table A9-3-H of the SCAQMD's CEQA Air Quality Handbook.

[1]*Includes all construction equipment, employee vehicles, truck and material transport exhaust emissions.*

(b) Fugitive Dust Emissions

Grading and excavation of the WRP site are expected to affect approximately 39 acres, involving the entire Business Park designation in which it is located. It is assumed that approximately ten pieces of earthmoving equipment would be used on a daily basis to conduct the grading and excavation. Using the generation rate of 21.8 pounds per earthmover per hour and eight hours of activity per day, the mass grading operations are predicted to generate approximately 1,744.0 pounds of PM_{10} per day without any dust control measures. These emissions would exceed the SCAQMD's recommended threshold of 150.0 pounds per day and would be considered significant. The WRP's fugitive dust emissions were also included in the analysis of Newhall Ranch Specific Plan's construction emission impacts in **Section 4.10, Air Quality**.

Construction of the proposed WRP would be subject to SCAQMD Rule 403, which prohibits emissions of fugitive dust from any active operation, open storage pile, or disturbed surface areas from remaining in the atmosphere beyond the property line of the emission source. The builder of the plant would be required to implement dust control measures for each fugitive dust source type, to prevent visible roadway dust from being deposited more than 50 feet from any property access road, and to remove all visible roadway dust deposited upon public paved roadways as a result of active operations at the conclusion of each work day. Successful implementation of this rule can reduce total dust emissions by as much as 60 percent; however, the total amount of dust would continue to exceed the SCAQMD's daily thresholds.

(c) Architectural Coatings and Building Materials

Emissions of ROC generated through the use of architectural coatings and building materials have been calculated to average 51.8 pounds per day (ppd), assuming 75 working days of application. These emissions would not exceed the SCAQMD's recommended thresholds. The WRP architectural coatings and building materials emissions were also included in the analysis of Newhall Ranch's emissions impacts identified in **Section 4.10, Air Quality**.

(2) Operational Impacts

Operational emissions would be generated by both the stationary water reclamation equipment and mobile vehicles during the normal day-to-day activity of the WRP upon completion. The stationary emissions expected to be generated by this use have been estimated based on emissions data for the Valencia WRP when it had a capacity of 7.86 million gallons per day (mgd).[12] County Sanitation Districts of Los Angeles County (CSDLAC) staff have reviewed preliminary plans for the Newhall Ranch Specific Plan and provided an annual emissions inventory report for the Valencia WRP. This report is provided in **Appendix 4.10** of this EIR. According to CSDLAC staff, the Valencia WRP is similar to the proposed Newhall Ranch Specific Plan WRP in plant configuration and influent quantities and, therefore, the emissions inventory values provided by the CSDLAC for the 7.86 mgd plant would provide an adequate emissions estimate for the proposed WRP.[13]

Section 4.8 of this EIR indicates that the WRP is expected to generate an average of 100 vehicle trips per day. These trips would include employee trips, truck delivery trips and waste removal trips. Therefore, the emissions associated with both the stationary and mobile sources have been calculated in **Tables AQ-7, AQ-8, AQ-9, and AQ-10 in Appendix 4.10**.

The total emissions expected to be generated by the WRP are presented in **Table 5.0-6, Estimated Operational Emissions for the Proposed WRP**. As shown, the total emissions generated by the proposed WRP would not exceed the SCAQMD's recommended thresholds. Thus, no significant impacts would occur with operation of the WRP. However, it is important to note that the WRP is part of the larger Newhall Ranch Specific Plan. As such, the emissions generated by the WRP are considered to be a part of the total emissions generated by the operation of the Specific Plan, which are discussed in **Section 4.10** of the EIR.

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12 The Valencia WRP has since been expanded to a permitted capacity of 12.1 mgd.

13 Robert Ferrante, County Sanitation Districts of Los Angeles County, Whittier, California, correspondence to Impact Sciences, Inc., February 7, 1996.

Table 5.0-6
Estimated Operational Emissions for the Proposed WRP

Emissions Source	Emissions in Pounds per Day CO	VOC	NO_X	SO_X	PM_{10}
Vehicular Sources	4.9	0.4	1.7	0.1	63.0
Electricity Demand	1.3	0.1	7.3	0.8	0.3
Natural Gas Consumption	0.0	0.0	0.0	0.0	0.0
WRP Stationary Sources	0.9	0.1	2.7	0.0	0.9
Totals	7.1	0.6	11.7	0.9	64.2
Recommended Threshold	550.0	55.0	55.0	150.0	150.0
Exceeds Threshold?	NO	NO	NO	NO	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in Tables AQ-7, AQ-8, AQ-9, and AQ-10 in Appendix 4.10.

(3) Additional Indicators of Potential Air Quality Impacts

(a) Project could interfere with the attainment of the Federal or State ambient air quality standards by either violating or contributing to an existing or projected air quality violation

The WRP is proposed to exclusively serve the wastewater treatment demands of the Newhall Ranch Specific Plan. As discussed in **Section 4.10, Air Quality**, of this EIR, the Newhall Ranch Specific Plan would be consistent with the 1994 AQMP and population and employment forecasts for the site and vicinity and, therefore, would not jeopardize attainment of the Federal and State air quality standards projected in the 1994 AQMP. Because the WRP would be sized and operated to serve only the proposed Newhall Ranch population and uses, the WRP's service of the Newhall Ranch Specific Plan would also be consistent with the AQMP.

As shown in **Table 5.0-6**, emissions would also be generated by on-site stationary sources at the WRP site. Under SCAQMD Regulation XIII, all point source emitters must obtain construction, as well as operating, permits from the SCAQMD. Furthermore, should any modifications in business operations occur subsequent to permit issuance, such modifications would also be subject to permit review and approval by the SCAQMD. Regulation XIII requires the Executive Officer of the SCAQMD to deny the permit to construct for any relocation or for any new or modified permit unit which results in a net increase of any non-attainment air contaminant, any halogenated hydrocarbons, or ammonia unless: 1)

Best Available Control Technology (BACT) is employed for the new or relocated permit unit or for the actual modification to an existing permit unit; 2) computer modeling indicates that the new facility or modification will not cause a significant increase in air pollutant concentration; 3) the emissions are offset by emissions reduction; and 4) the subject facility fully complies with all applicable SCAQMD rules and regulations. Compliance with this Regulation would ensure that the emissions generated by the WRP would not jeopardize attainment of the Federal or State ambient air quality standards identified in the 1994 AQMP. Methods of compliance will be determined when the plant's final design is known and the plant's applicant applies for a Regulation XIII permit from the SCAQMD.

(b) Project could result in population increases within an area which would be in excess of that projected by SCAG in the AQMP, or increase the population in an area where SCAG has not projected that growth for the project's buildout year

The area that encompasses the Newhall Ranch site is defined as the Santa Clarita Valley. As mandated by the Federal Clean Air Act, SCAG is the responsible agency for providing current population estimates for the AQMP. As indicated in **Section 4.21, Population, Housing and Employment**, of this EIR, the Specific Plan's entire contribution to the population of the Santa Clarita Valley has been accounted for in SCAG's population forecast for the years 2000, 2010, and 2015.[14] By the time Newhall Ranch is built out in 2023, the community would total approximately 68,524 residents, constituting 12 percent of the projected 2015 population total of 552,796 for the Santa Clarita Valley; therefore, the additional population generated by the proposed Newhall Ranch Specific Plan is within the growth forecast for the Santa Clarita Valley. Therefore, the population generated by the proposed Newhall Ranch Specific Plan is consistent with SCAG population growth projections for the Santa Clarita Valley and would be considered consistent with the AQMP forecasts for this area. The WRP would not contribute to a significant population increase.

(c) Project could generate vehicle trips that cause a CO hotspot or project could be occupied by sensitive receptors that are exposed to a CO hotspot

The CO hotspot analysis of the Newhall Ranch Specific Plan, discussed previously and presented in **Section 4.10, Air Quality** of this EIR, included the traffic generated by the WRP as part of the total traffic from the entire Specific Plan. That analysis concluded that no CO hotspots would occur in the vicinity of the Newhall Ranch site as a result of Specific Plan traffic. Traffic generated by the WRP would not, therefore, contribute to a CO hotspot.

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14 Interview with Terry Bills, Southern California Association of Governments, Los Angeles, California, 22 August 1994.

(d) Project will have the potential to create, or be subjected to, an objectionable odor that could impact sensitive receptors.

According to the SCAQMD, sensitive receptors are populations that are more susceptible to the effects of air pollution than is the population at large.[15] As such, the SCAQMD identifies the following as sensitive receptors: long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, child care centers, and athletic facilities.[16] Water reclamation plants and their employees are not considered sensitive receptors. Planned land uses surrounding the WRP site would include sensitive receptors. The closest residential areas would be located 300 feet to the north of the site across SR-126, approximately 1,000 feet east of the WRP, and approximately 1,500 feet to the south of the WRP across the Santa Clara River. Athletic facilities, health care facilities, or convalescent care centers, which are all allowed by the land use regulations of the Business Park designation, could be located on land adjacent to the WRP.

The dominant average daily wind pattern is from the west during the day and from the east during the evening.

Water reclamation plants are a potential source of odors; therefore, the proposed WRP could generate odors that would affect sensitive receptors on nearby lands. The primary source of odor at WRPs is hydrogen sulfide produced by the activity of anaerobic organisms in anaerobic treatment processes at the plant site. Another common odor is that of nonionized ammonia, which is prevalent and readily volatilized whenever the wastewater pH is elevated (becomes less acidic and more alkaline).[17] In addition, other organic compounds can contribute to odor production.

The portions of the treatment process which generate the majority of odors include:

- biofilters,
- influent junction and pumping structures,
- grit dewatering and storage facilities,
- sludge dewatering facilities, and
- primary sedimentation tank (to a lesser degree).

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15 South Coast Air Quality Management District, CEQA Air Quality Handbook, (Diamond Bar, California: April 1993), p. 5-1.

16 South Coast Air Quality Management District, CEQA Air Quality Handbook, (Diamond Bar, California: April 1993), p. 5-7.

17 Jones & Stokes Associates, Inc., Draft Program Environmental Impact Report for the Joint Outfall System 2010 Master Facilities Plan, (Sacramento, California: November 1994), p. 8-10.

Odors from WRPs can be adequately controlled through physical design of the facility and proper operations management. CSDLAC staff routinely provide odor control as an integral part of their facilities design.[18] Odor controls typically employed during wastewater and biosolids handling operations at CSDLAC facilities include process covers and seals, optimum ventilation rates, caustic scrubbers, activated carbon absorbers, and chemical treatment of wastewater. CSDLAC staff also conduct routine odor surveys at CSDLAC WRPs and surrounding areas. This program features frequent on-site equipment inspections to ensure that control devices and equipment are functioning properly and establishes procedures on receiving, investigating, and responding to odor complaints and implementing corrective action.[19]

The SCAQMD also controls the potential for odors through Regulation IX, Subpart O - Standards of Performance for Sewage Treatment Plants, which requires Best Available Control Technology (BACT) for new WRP sources. This regulation also requires that the primary treatment processes be covered and sealed, and that the exhaust gases from the primary treatment processes be vented to carbon absorbers (scrubbers). Specific odor controls that may be included in the Newhall Ranch WRP design concept are identified below. Odor control specifications will be finalized during the SCAQMD review of the application for a permit to construct the WRP, based on a quantified analysis of the plant's projected emissions and potential dispersion into surrounding areas.

The primary treatment facilities comprise the tanks where incoming wastewater is collected for primary treatment and includes bar screens, grit chamber facilities, influent pump stations, and the primary sedimentation tanks. If required by the SCAQMD, these areas would be completely covered and sealed and all off gases would be captured and either run through a scrubber prior to release into the atmosphere or vented through the aeration tanks. In addition, ferric chloride addition to the primary sedimentation tanks would limit the potential for the formation of hydrogen sulfide and odors.

In the secondary treatment areas, the biofiltration system would be controlled to provide an adequate flow of oxygen and hydraulic flushing action. These controls improve the aerobic conditions within the biofiltration system and, thereby, prevent the anaerobic conditions which are conductive to the formation of hydrogen sulfide gas. The anaerobic digesters would be enclosed with fixed covers in order to prevent sludge accumulation and the formation or escape of odorous gases. Dewatered sludge would either be trucked from the WRP every day or stored for short periods in enclosed structures with carbon absorbers.

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18 Jones & Stokes Associates, Inc., Draft Program Environmental Impact Report for the Joint Outfall System 2010 Master Facilities Plan, (Sacramento, California: November 1994), p. 8-10.

In addition to the physical design features described above, proper operations management also plays a substantial role in the reduction of odorous emissions. In some instances, odors are more effectively and efficiently reduced through operations management than through physical design. For example, proper wet well management serves to eliminate any odor potential from these sources. Wet wells are basically holding tanks for wastewater prior to its release into various stages of the treatment process. These wells are typically enclosed; however, some may need to remain uncovered for operational reasons. Proper operational management, such as periodic pumping and cleanout, along with the use of agitation devices which stir the wastewater and prevent the stratification of sewage scum, significantly reduce odor potential. CSDLAC also implements a regular odor monitoring program, in which CSDLAC staff conduct routine surveys at the plant site and in surrounding areas. This program features frequent on-site equipment inspections to ensure that control devices and equipment are functioning properly and establishes procedures on receiving, investigating, and responding to odor complaints and implementing corrective action.[20] Most odor complaints are responded to and investigated within thirty minutes.[21]

According to the CSDLAC, each of these physical and managerial strategies has proven to be effective in controlling odors when properly applied.[22]

In the unlikely event that odor control equipment fails and plant operators also fail to conduct odor and equipment monitoring to ensure odor controls are functioning properly, it is possible that objectionable odors could reach sensitive receptors at the adjacent Business Park uses. Objectionable odors could also possibly reach sensitive residential receptors to the east if strong westerly winds are present.

(e) *Project will have hazardous materials on site. There could be an accidental release of acutely hazardous materials posing a threat to public health and safety; Project could emit a toxic air contaminant regulated by SCAQMD rules; Project could be occupied by sensitive receptors within one quarter mile of an existing facility that emits air toxics identified in SCAQMD Rule 1401; or Project could emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of one in one million.*

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19 Jones & Stokes Associates, Inc., Draft Program Environmental Impact Report for the Joint Outfall System 2010 Master Facilities Plan, (Sacramento, California: November 1994), p. 8-11.

20 Jones & Stokes Associates, Inc., Draft Program Environmental Impact Report for the Joint Outfall System 2010 Master Facilities Plan, (Sacramento, California: November 1994), p. 8-11.

21 Jones & Stokes Associates, Inc., Draft Program Environmental Impact Report for the Joint Outfall System 2010 Master Facilities Plan, (Sacramento, California: November 1994), p. 8-11.

22 Jones & Stokes Associates, Inc., Draft Program Environmental Impact Report for the Joint Outfall System 2010 Master Facilities Plan, (Sacramento, California: November 1994), p. 8-10.

As discussed in **Subsection 5.5, Environmental Safety**, the WRP would generate a variety of toxic air emissions which would be controlled in accordance with the permit requirements of the SCAQMD, pursuant to its Regulation XIV. This process will ensure that the WRP emissions do not exceed the limits established to protect public health and safety; no permit to operate can be issued unless it is proven that emissions would not exceed the limits. No significant air toxics risks, therefore, are anticipated from the proposed WRP.

c. Mitigation Measures

(1) Construction Impacts

The proposed WRP would be subject to SCAQMD Rule 403 which prohibits emissions of fugitive dust from any active operation, open storage pile, or disturbed surface areas from remaining in the atmosphere beyond the property line of the emission source. The builder of the plant would be required to implement dust control measures for each fugitive dust source type, to prevent visible roadway dust from being deposited more than 50 feet from any property access road, and to remove all visible roadway dust deposited upon public paved roadways as a result of active operations at the conclusion of each work day. The following measure is recommended to implement this rule:

5.0-41~~2~~. Prepare and implement a fugitive dust emission control plan which conforms to the requirements of SCAQMD Rule 403. The plan shall include the following specific measures and be submitted to the SCAQMD for review and approval:

a. Apply approved non toxic chemical soil stabilizers according to manufacturer specifications to all inactive construction areas (previously graded areas inactive for four days or more).
b. Replace ground cover in disturbed areas as quickly as possible.
c. Enclose, cover, water twice daily, or apply approved soil binders to exposed piles (i.e., gravel, sand, dirt) according to manufacturer's specifications.
d. Water active grading sites at least twice daily.
e. Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph.
f. Provide temporary wind fencing with 50 percent or less porosity along the perimeter of sites that have been cleared or are being graded.

g. All trucks hauling dirt, sand, soil or other loose materials are to be covered or shall maintain at least 2 feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer), in accordance with Sections 23114 of the California Vehicle Code.

h. Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip.

i. Sweep streets at the end of the day if visible soil material is carried over to adjacent roads, (recommend water sweepers using reclaimed water if readily available).

j. Apply water three times daily or chemical soil stabilizers according to manufacturer's specifications to all unpaved parking or staging areas or unpaved road surfaces.

k. Enforce maximum traffic speed limits of 15 mph on all unpaved roads.

l. Where appropriate, pave all construction access roads at least 100 feet onto the site from the main road.

The proposed WRP would be subject to SCAQMD Rule 1113 which prohibits persons from supplying, selling, applying, or soliciting the application of architectural coatings which do not meet specific emissions thresholds. The following measures address this rule.

5.0-42~~3~~. Building materials, architectural coatings, and cleaning solvents used in developing the WRP shall comply with all applicable SCAQMD rules and regulations.

5.0-43~~4~~. The application of architectural coatings shall occur via hand application or spray equipment that emits volatile organic compound emissions at rates which are comparable to High Volume, Low Pressure (HVLP) spray equipment (i.e., equipment which is operated at an air pressure between 0.1 and 10 pounds per square inch).

5.0-44~~5~~. Building construction shall utilize low-polluting construction materials and coatings (i.e., bricks, stones, pre-coated or naturally colored materials, water-based paints or similar types of coating materials containing relatively low levels of volatile organic compounds) to the greatest extent feasible.

Emission reductions resulting from the imposition of the mitigation measures listed above have been quantified wherever possible pursuant to the methodology in the SCAQMD's CEQA Air Quality Handbook. The following discussion provides a quantification of emission reductions associated with

the grading of the WRP site. A quantification of emission reductions due to the remaining construction measures have not been completed since the information necessary to conduct such an analysis, per SCAQMD methodologies, is not available at this time. However, substantial emission reductions would also result from these non-quantified construction mitigation measures.

Grading activities associated with the WRP are predicted to generate approximately 1,744.0 pounds of PM_{10} per day. The application of non-toxic soil stabilizers, the replacement of ground cover, and the wetting down of graded areas, as identified above in Mitigation Measure 5.0-41 ~~43~~ would each reduce these emission by approximately 30 percent, 15 percent, and 34 percent, respectively. The combined percentage reduction for these measures is calculated by progressively applying the percentage reduction attributable to an individual mitigation measure to the net emissions resulting from the application of the preceding mitigation measure. When this occurs, the reduction that these three measures would provide is 60.7 percent, which equates to 1,058.6 pounds of dust per day. Net emissions of approximately 685.4 pounds per day would continue to exceed the SCAQMD's recommended threshold of 150.0 pounds per day.

(2) Operation Impacts

5.0-45~~6~~. Comply with SCAQMD Regulation IX, Subpart O, which establishes specific air quality performance standards for wastewater treatment plants.

5.0-46~~7~~. Provide odor control equipment, covers, seals, etc., at all locations where odorous gases could be released into the atmosphere; implement managerial controls, including routine monitoring of control equipment and regular field surveys of surrounding areas; and conduct a complaint response program that achieves resolution to odor complaints within thirty minutes of receiving a complaint.

5.0-47~~8~~. Obtain permits to construct and operate all new sources of criteria air pollutants, at each stage of WRP development, and whenever any new sources are added or replaced, pursuant to SCAQMD Regulation XIII.

5.0-48~~9~~. Obtain permits to construct and operate all new sources of air toxic emissions at each stage of WRP development, and whenever any new sources are added or replaced, pursuant to SCAQMD Regulation XIV.

5.0-49~~50~~. Comply with the provisions of Title V of the Federal Clean Air Act, relative to maximum, facility-side toxic air emissions.

5.11 WATER RESOURCES

a. Significance Threshold Criteria

Significance criteria for water availability for the proposed water reclamation plant are defined by the California Environmental Quality Act (CEQA) and the County of Los Angeles. According to the CEQA Guidelines,[23] a project would normally have a significant effect on the environment if it will use water in a wasteful manner. According to the County of Los Angeles Environmental Document Reporting and Procedures Guidelines,[24] County staff are concerned with adverse impacts on water availability when a project cannot be served by the existing area water system facilities due to inadequate water supplies to meet the domestic demands, and/or fire flows for fire protection.

b. Water Reclamation Plant Impacts

(1) Construction Impacts

Water consumption would occur during grading and construction of the WRP facilities. The water could be provided from a variety of sources (e.g., on-site wells, trucked-in water, and/or waterline extensions from existing Valencia Water Company facilities). This water demand would only occur if the WRP is built in conjunction with other development in the Newhall Ranch Specific Plan. If water demand is satisfied by on-site wells or by trucked in supplies, there would be no significant impact on water supplies, since the applicant has full water rights to on-site wells, and purchases of off-site water for trucking to the WRP construction site could only occur if an adequate supply source is available. As discussed in **Section 4.11** of this EIR, waterlines would only be extended to the WRP site by the Valencia Water Company if it has sufficient resources to provide water to the WRP, as well as the other development within the WRP's service area. Construction-related water demand for the WRP, therefore is not expected to have a significant impact on water availability.

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23 Guidelines for California Environmental Quality Act (Sections 15000-15387, California Administrative Code, Title 14, Chapter 3), (Sacramento, California: Amended 1 January 1995), Appendix G.

24 County of Los Angeles Department of Regional Planning, Environmental Document Reporting Procedures and Guidelines, (Los Angeles, California: Adopted by the County Board of Supervisors 17 November 1987), Appendix D.

(2) Operational Impacts

The water reclamation plant would require 11,606 gallons of water per day (approximately 13.0 acre-feet annually) for interior use, and 12.0 acre-feet of water annually for irrigation.[25] These totals are included in the calculations of total water demand for the entire Specific Plan, as discussed in Section 4.11 of this EIR. It is expected that reclaimed water would be used for the plant's exterior irrigation needs. As discussed in Section 4.11 of this EIR, the Valencia Water Company anticipates that an adequate supply of water will eventually be available to serve the entire Newhall Ranch Specific Plan, including the WRP. The WRP would only be constructed to serve other development within the Newhall Ranch Specific Plan, and would not result in an extension of water infrastructure just for its individual water needs. The WRP would not, therefore, have a significant impact on water resources. Prior to receiving water from the Valencia Water Company, however, the WRP site will have to be annexed to that water district.

c. Mitigation Measures

5.0-50~~1~~. The site of the proposed water reclamation plant shall be annexed to the Valencia Water Company prior to issuance of building permits for the WRP.

5.0-51~~2~~. Prior to construction of the proposed water reclamation plant, the WRP operator~~applicant~~ shall demonstrate water availability for both construction and operation demands.

5.12 WASTEWATER DISPOSAL

a. Significance Threshold Criteria

According to the County of Los Angeles Environmental Document Reporting Procedures and Guidelines for utilities/other services, Department staff are concerned with adverse impacts on utilities/other services (other than water) when: (1) the service to the project site is not presently available; (2) the service facility requires considerable extension to the project site; or (3) there exists an inadequate service supply.

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25 CH2M HILL, Water Resources and Wastewater Management for the Newhall Ranch Project, (Thousand Oaks, California: Revised June 1996), Appendix B, Table B-2.

In addition, the State CEQA Guidelines state that a project would normally have a significant effect on the environment if it will substantially degrade water quality, contaminate a public water supply, and/or substantially degrade or deplete ground water resources. These considerations would apply to the potential discharge of reclaimed water to the Santa Clara River. Los Angeles County Environmental Document Reporting Procedures and Guidelines do not have environmental significance criteria specifically for the development of a water reclamation plant.

b. Water Reclamation Plant Impacts

(1) Construction Impacts

A small, but unknown quantity of wastewater would be generated by work crews during the construction of the proposed water reclamation plant. Construction contractors would provide portable, on-site sanitation facilities that would be serviced at approved disposal facilities and/or reclamation plants. The amount of construction-related wastewater that would be generated is not expected to have a significant impact on these disposal/treatment facilities.

WRP construction would, by law, be required to implement the National Pollutant Discharge Elimination System permit requirements pertaining to control of runoff and sedimentation, which would mitigate downstream water quality impacts from construction. As a result, construction of the proposed WRP would not result in significant water quality impacts.

(2) Operational Impacts

(a) Water Reclamation Plant Capacity

Because the plant has been sized to accommodate all wastewater flows from the Newhall Ranch Specific Plan, including the plant itself, no significant wastewater disposal impacts would occur from waste generated by plant employees and their activities.

(b) Impacts of Discharge on Water Quality

Responsibility for protection of water quality in the Santa Clara River rests with the California State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board, Los Angeles Region (RWQCBLAR). The SWRCB sets Statewide water policy and develops regulations to implement the programs mandated by the State and Federal water quality regulations and laws. The RWQCBLAR develops and implements Water Quality Control Plans (referred to as Basin Plans) that

consider regional beneficial uses, water quality characteristics, and water quality problems. The Water Quality Control Plan (Basin Plan) [for the] Los Angeles Region, approved February 23, 1995, herein after referred to as the Basin Plan, includes the Newhall Ranch Specific Plan site. Beneficial uses specified in the Basin Plan for this reach of the Santa Clara River include: municipal and domestic supply; agricultural supply; industrial process; industrial service; ground water recharge; freshwater replenishment; water contact recreation; non-contact water recreation; warm freshwater habitat; wildlife habitat; preservation of biological habitat; rare, threatened, or endangered species; and wetland habitat.

The Basin Plan is designed to preserve and enhance water quality and to protect the beneficial uses of the regional waters, including the Santa Clara River Basin. The Basin Plan designates beneficial uses for surface water and ground waters, sets water quality limits that must be met or maintained to protect the beneficial uses and conform to the State's anti-degradation policy, and describes implementation programs to protect all waters in the region. The Basin Plan is a resource for the RWQCBLAR and others who use water and/or discharge wastewater throughout the region covered by the Basin Plan, which also includes portions of Ventura County.

Discharges of reclaimed water from the Newhall Ranch WRP to the Santa Clara River must conform to the limits specified in the Basin Plan (discharge limits were identified previously in **Table 5.0-2**). As previously discussed, the WRP would meet the design criteria of the CSDLAC for tertiary reclamation plants and (as do the CSDLAC facilities in Saugus and Valencia) would meet Basin Plan objectives and waste discharge requirements for the Santa Clara River. The proposed WRP would be designed to meet wastewater discharge standards similar to those specified by the RWQCBLAR for the Valencia WRP (District 32). The standards for the proposed WRP and, therefore, the constituents in the treated effluent, are likely to be similar to those generated at the Saugus and Valencia facilities because the proposed WRP would have similar wastewater generation sources and end uses, such as the water reclamation distribution system and River discharge. Monitoring of the quality of the water discharged at the Valencia WRP has verified that compliance has been achieved with respect to waste discharge requirements in NPDES Permit No. CA0054216 (Order No. 89-129) and water reclamation requirements in Order No. 87-48 prescribed by the Regional Water Quality Control Board.[26] Given this, the Newhall Ranch WRP discharges, by meeting Basin Plan requirements, would also meet State and Federal requirements for the water quality of discharges to a river.

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26 1994 Annual Monitoring Report, County Sanitation Districts of Los Angeles County.

Recently, the RWQCBLAR has determined that the water quality in certain portions of the Santa Clara River, within the Newhall Ranch site, do not meet the Basin Plan standards. To date, discharges of treated wastewater have not been identified as a factor in this problem. Nevertheless, future NPDES requirements for discharges by reclamation plants to the River may be different than under current standards if the RWQCBLAR determines that such actions are needed to achieve overall River water quality standards. The proposed WRP would comply with all standards in effect at the time it obtains a NPDES permit.

Reclaimed water is further subject to Water Reclamation Requirements, as specified by the applicable reclamation criteria in Title 22, California Code of Regulations, Division 4, Chapter 3. These Title 22 requirements incorporate the requirements of the California Department of Health Services. Under Title 22 health requirements, Newhall Ranch WRP reclaimed water would meet criteria allowing its use for the following purposes:

- landscape irrigation of golf courses, cemeteries, freeway landscapes, and open areas;
- irrigation of parks, playgrounds, school yards, and similar areas;
- non-restricted recreational impoundment (with no limitations on body-contact sports and activities); and
- surface and spray irrigation of food crops.

Based on required compliance with State and Federal water quality requirements, as discussed above, and the information contained in **Appendix 4.11** of this EIR, no significant wastewater-related impacts would occur as a result of the construction and operation of the proposed water reclamation plant or the formation of the proposed sanitation district.

c. Mitigation Measures

5.0-52~~3~~. A new County sanitation district shall be formed to administer operation of the Newhall Ranch water reclamation plant. The district shall encompass the entire Newhall Ranch Specific Plan site.

5.0-53~~4~~. The Newhall Ranch water reclamation plant shall be designed and operated to satisfy the requirements of Title 22 of the California Administrative Code, which regulates reuse of reclaimed water.

5.0-54~~5~~. The Newhall Ranch water reclamation plant shall be designed and operated to satisfy the California Regional Water Quality Control Board, Los Angeles Region discharge limits for reclaimed water discharged to the Santa Clara River and for the irrigation of landscaped areas.

5.0-55~~6~~. The Newhall Ranch water reclamation plant shall obtain a National Pollutant Discharge Elimination System permit from the California Regional Water Quality Control Board, Los Angeles Region for reclaimed water discharged to the Santa Clara River and for the irrigation of landscaped areas.

5.0-56~~a~~ All facilities of the sanitary sewer system will be designed and constructed for maintenance by the County of Los Angeles Department of Public Works and the County Sanitation Districts of Los Angeles County, and/or the new County sanitation district or similar entity in accordance with their manuals, criteria, and requirements.

5.13 NATURAL GAS

a. Significance Threshold Criteria

According to the CEQA Guidelines (Appendix G), a project has a significant impact on the environment if it encourages activities that consume large amounts of fuel or energy, or if it consumes fuel or energy in a wasteful manner. The Guidelines do not indicate what is meant by "large amounts of fuel or energy." For the purposes of this analysis, a project would consume a large amount of fuel or energy if its consumption could not be accommodated within the long-term natural gas source and distribution planning of SCGC. Furthermore, for the purposes of this analysis, a project would consume fuel or energy in a wasteful manner if it failed to comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the California Administrative Code).

In addition, the County of Los Angeles considers a project to have an adverse impact on utilities and other services when the utility or service is not available to serve the project as proposed; the service facility requires considerable extension to the project site; and/or there exists an inadequate service supply.

b. Water Reclamation Plant Impacts

(1) Construction Impacts

Construction of the 7.7-million gallon per day water reclamation plant is not expected to consume natural gas and would not result in an impact on this energy resource.

(2) Operational Impacts

Natural gas could be used for building heating and sludge processing; however, it is expected that on-site generated methane would be the primary energy source for the digester gas combustion turbines and that natural gas would only be used as a supplemental fuel; the blending of the two would be determined during the SCAQMD permit process.[27] Using the same natural gas consumption rate as the County Sanitation District's Joint Water Pollution Control Plant of 5 therms per million gallon capacity, the proposed WRP would consume 3,850 cubic feet of natural gas annually if operated at its full 7.7 mgd capacity.[28] Because natural gas is readily available from Southern California Gas Company (SCGC), and the WRP facilities would comply with the energy conservation standards of Title 24 of the California Administrative Code, the WRP would not have a significant impact on natural gas resources. A SCGC gas main is presently located along SR-126, in the immediate vicinity of the WRP site. No significant extension of natural gas infrastructure, therefore, would be required to serve the WRP.

c. Mitigation Measures

5.0-57. WRP design shall comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the California Administrative Code).

5.14 ELECTRICITY

a. Significance Threshold Criteria

According to the CEQA Guidelines (Appendix G), a project has a significant impact on the environment if it encourages activities that consume large amounts of fuel or energy, or if it consumes fuel or energy in a wasteful manner. The Guidelines do not indicate what is meant by "large amounts of fuel or energy"; therefore, for the purposes of this analysis, a project would consume a large amount of fuel or energy if its consumption could not be accommodated within the long-term electricity source and distribution planning of SCE. Furthermore, for the purposes of this analysis, a project would consume fuel or energy in a wasteful manner if it failed to comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the California Administrative Code).

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27 Interview with Kim Martin, CH2M HILL, Santa Ana, California, 26 Revised June 1996.

28 Jones & Stokes Associates, Inc., Draft Program Environmental Impact Report for the Joint Outfall System 2010 Master Facilities Plan, (Sacramento, California: November 1994), p. 6-3. One hundred cubic feet of natural gas generates approximately one therm.

In addition, the County of Los Angeles considers a project to have an adverse impact on utilities and other services when the utility or service is not available to serve the project as proposed, the service facility requires considerable extension to the project site, and/or there exists an inadequate service supply.

b. Water Reclamation Plant Impacts

(1) Construction Impacts

Construction of the water reclamation plant (WRP) would consume a negligible amount of electricity during construction for lighting, electrically-powered equipment and construction trailers, but it is not expected to consume significant amounts and would not result in a significant impact on this resource.

(2) Operational Impacts

The amount of electricity that would be consumed at the WRP would depend upon the method of wastewater and sludge treatment used.[29] Electricity would be used to power equipment, such as pumps, sludge collection equipment, centrifuges, compressors, aerators, and miscellaneous motor drives, as well as air conditioners, office equipment, and interior and exterior lighting. Using the average consumption rate of the County Sanitation District's plants of .31 GWh (billion watts) per million gallons of wastewater treated,[30] the 7.7 mgd WRP would consume 2.387 GWh of electricity, or 2,387,000 kilowatt hours of electricity annually if operated at its full 7.7 mgd capacity. An additional, but presently unquantifiable, amount of electricity would be consumed to pump reclaimed wastewater throughout the Specific Plan site; this amount is expected to be approximately the same as the amount that would be required to pump potable water for the same purposes.

As discussed in **Section 4.14** of this EIR, Southern California Edison is not expected to experience difficulty in meeting the electricity demand generated by the Newhall Ranch Specific Plan, including the proposed WRP operations. Furthermore, the plant facilities would comply with the energy conservation standards of Title 24 of the California Administrative Code, to ensure that no wasteful use of electrical power occurs due to plant design. Overhead electrical lines are currently found on various

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29 Mark J. Hammer, Water and Wastewater Technology, (Englewood Cliffs, New Jersey: Regents/Prentice Hall, 1986), p. 494.

30 Jones & Stokes Associates, Inc., Draft Program Environmental Impact Report for the Joint Outfall System 2010 Master Facilities Plan, (Sacramento, California: November 1994), p. 6-3.

parts of the Newhall Ranch, and a new substation is planned to be located in the central portion of the Specific Plan area. Therefore, no significant extension of electrical power infrastructure would be required to serve the WRP. Electricity demand of this plant would not result in a significant impact on electric power supplies and facilities.

c. Mitigation Measures

5.0-58. Plant design shall comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the California Administrative Code).

5.15 SOLID WASTE

a. Significance Threshold Criteria

Generation of a substantial volume of solid wastes that would preclude the County's ability to meet State requirements regarding waste separation and disposal would be considered a significant solid waste impact.

b. Water Reclamation Plant Impacts

(1) Site Preparation and Construction Wastes

During site preparation, approximately 135 tons of vegetative material would be removed from the water reclamation plant site and disposed of at a landfill, unless re-used elsewhere, for example as mulch or in compost. During construction, approximately 200 tons of various construction wastes would be generated which would require landfill disposal. These impacts on the landfills would not be significant because these wastes would only be generated during WRP construction and would not, therefore, substantially reduce landfill life.

(2) Plant Operation Wastes

During operation, the WRP would generate both office-related solid wastes and sludge (biosolids). Unrecycled office-related solid waste would be disposed of at any of the landfill facilities discussed in **Section 4.15** of the EIR, while the biosolids would be disposed of at landfills permitted to accept sludge.

(a) Office Wastes

Approximately 3,000 square feet of office space are assumed to be required to support the 7.7 mgd WRP. Using the waste generation factor for offices (0.0077 lbs/sq.ft./day[31]), the offices would generate 23 pounds of solid waste per day, or approximately 3 tons of solid waste annually (assuming a full capacity office for only five days per week). (Solid wastes from the WRP are included in the total waste generation estimates for the overall Specific Plan, in **Section 4.15** of the EIR.) Office wastes from the WRP, particularly paper, cardboard, glass and plastics, can be recycled. To the extent such efforts are made, the volume of solid wastes from the WRP offices that require landfill disposal would be reduced. The relatively small volume of solid wastes that would be generated by office activities in the WRP would not preclude the County from meeting its obligations for waste separation and disposal.

(b) Sludge Disposal

Sludge (biosolids) generated at the WRP could, if sent there, increase the volume of material sent to landfills, and would have to be disposed of only at landfills permitted to accept sludge. Using the rate at which the County Sanitation District's 400 mgd Joint Water Pollution Control Plant generates biosolids (3.2 wet tons per million gallons treated[32]), the proposed WRP would generate approximately 170 wet tons of biosolids weekly if the plant were operated at full 7.7 mgd capacity. As discussed in **Subsection 5.5, Environmental Safety**, biosolids contain concentrations of a variety of chemical pollutants, as well as bacteria that may include pathogens, and can also attract various disease-carrying organisms. Given these potential hazards, the number of landfills that are permitted to accept biosolids is limited and those that are available have a finite capacity. Disposal of the biosolids, as well as all other solid waste, would, therefore, contribute to a long-term significant impact on solid waste disposal facilities.

c. Mitigation Measures

5.0-59. The operators ~~constructors~~ of the water reclamation plant shall ensure that all solid waste diversion, storage, and disposal requirements that are in effect at the time the WRP is constructed, including AB 939 and all others, will be implemented so that the waste generated by the WRP will not impede the County's waste reduction and diversion requirements during construction and operation.

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31 Ventura County Solid Waste Management Department, Guidelines for Preparation of Environmental Assessments for Solid Waste Impacts, (Ventura, California), p. 23c-11.

32 Jones & Stokes Associates, Inc., Draft Program Environmental Impact Report for the Joint Outfall System 2010 Master Facilities Plan, (Sacramento, California: November 1994), p. 14.5.

5.16 EDUCATION

a. Significance Threshold Criteria

If a project would generate a new student population that would exceed the existing or planned capacities of the affected public school district(s), this would be considered a significant impact. Additionally, if a project that involves significant environmental impacts, such as regular, strong odors, continuous high noise levels, toxic air emissions, heavy traffic during peak school commuting periods, etc. is proposed in proximity to a school site, the project would have a significant impact on that school site.

b. Water Reclamation Plant Impacts

Because the proposed water reclamation plant would not provide housing which could be occupied by households with school age children, and would not be placed in close proximity to any proposed on-site school sites, the WRP would have no impact on school facilities.

c. Mitigation Measures

No impact on schools would result from construction or operation of the WRP; therefore, no mitigation measures are required or recommended.

5.17 POLICE SERVICES

a. Significance Threshold Criteria

The CEQA Guidelines do not identify specific criteria for determining a significance threshold for police protection services. However, the County of Los Angeles Environmental Document Reporting and Procedures Guidelines considers a project to have an adverse impact on sheriff's services when it creates:

- a potential for inadequate staffing of sheriff's substations,
- a substantial decline in response times to handle calls for services, or
- special law enforcement problems in the project or general area that would adversely affect service, including, but not limited to access or terrain.

b. Water Reclamation Plant Impacts

(1) Construction Impacts

Construction of the water reclamation plant (WRP) would increase traffic near the site during working hours because commuting construction workers, trucks, and other large construction vehicles would be added to normal traffic. As discussed previously in **Subsection 5.8**, construction traffic associated with the WRP is not expected to be of such a high magnitude to be considered significant. Construction of the proposed water reclamation plant would increase construction traffic on SR-126 and could delay emergency vehicles traveling through the area; however, it is expected that implementation of routine construction traffic controls will ensure that adequate access by emergency vehicles will be maintained throughout the plant construction period. The configuration of SR-126 could be a factor; access could be a problem if construction occurs while the highway is in its current two-lane configuration. When the highway is expanded to a four or six-lane route with more space for maneuverability through and around construction activity, access in and out of the WRP site would not be a problem.

(2) Operational Impacts

The office component of the WRP would place an incremental, but less-than-significant increase in demand upon Los Angeles County Sheriff services for non-traffic-related calls. Chemicals typically used at water reclamation plants include ammonia, anionic polymer, cationic polymer, chlorine, sulfur dioxide, ferrous chloride, and ferric chloride, each of which is considered to be hazardous, with ammonia, chlorine and sulfur dioxide considered to be acutely hazardous by the Federal government.[33] WRP operators would be required to prepare and implement a risk management prevention plan pursuant to AB 3777, which requires testing and maintaining equipment used to handle acutely hazardous materials and to detect, monitor, and minimize accidental releases. Although WRP personnel would be trained to contain minor spills or leaks of these substances, a major leak or spill would require a response from the California Highway Patrol and possibly back-up from the Sheriff's Department[34] if traffic on SR-126 or other local roadways would need to be curtailed, or if evacuation of an area would be necessary. As previously discussed in **Subsection 5.5**, the Valencia WRP (District 32) and Saugus WRP (District 26) already exist in this area and the proposed WRP would not, therefore, represent a new or unique type of hazardous materials risk in this area, but would represent an additional risk site. The North County Hazardous Materials Unit is located approximately 5 miles

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33 Jones & Stokes Associates, Inc., Draft Program Environmental Impact Report for the Joint Outfall System 2010 Master Facilities Plan, (Sacramento, California: November 1994), p. 6-2.

34 Interview with Steve Kohler, Information Officer, California Highway Patrol, Sacramento, California, 29 November 1995.

east of the WRP site, at County Fire Station 76; therefore, there is existing emergency response capability within a quick response distance to the WRP. Successful adherence to the risk management plan and the availability of a trained hazardous materials emergency response unit within a short distance of the WRP site would reduce potential impacts on the CHP and Sheriff's Department relative to accidental chemical releases to less than significant.

c. Mitigation Measures

5.0-60. If construction of the WRP occurs while SR-126 is still a two-lane highway, a construction traffic management plan shall be prepared and implemented. This plan shall address site access, staging and storage areas, hours of construction, work crew parking, warning and traffic control signs and devices, flag men, temporary detouring, etc., as appropriate.

5.0-61. Consult with the CHP and the Sheriff's Department to incorporate measures into the risk management and prevention plan to optimize their abilities to provide assistance in the event of a hazardous materials incident at the operating WRP site.

5.0-62. Prepare and implement worker safety programs in accordance with Cal-OSHA requirements.

5.0-63. Prepare and implement an "Integrated Emergency Response Plan" (IERP). The IERP provides procedures for personnel medical emergencies, evacuation procedures and mitigation and abatement procedures for hazardous chemicals. The plan must conform to multiple regulatory requirements, including Title 8 §3220, Emergency Action Plan, §3221, Fire Prevention Plan, §5192 Emergency Response to Hazardous Substances Releases, and Title 22, §66265.50-66265.56, Contingency Plan and Emergency Procedures.

5.18 FIRE SERVICES AND HAZARDS

a. Significance Threshold Criteria

The CEQA Guidelines do not specify criteria for determining a significance threshold for fire protection services. However, according to the County of Los Angeles Environmental Document Reporting and Procedures Guidelines, a project would have an adverse impact on fire services when it creates:

- a potential for inadequate staffing of fire stations,
- a substantial decline in response times to handle calls for services, or
- special fire protection problems associated with the proposed project or general area.

Subdivision and building code requirements for adequate fire protection identified by the County of Los Angeles Fire Department would need to be satisfied in order for project impacts to be maintained at less than significant levels. Such requirements include, but are not limited to adequate fire flows and adequate emergency access.

b. Water Reclamation Plant Impacts

The majority of the Specific Plan site is located in an area that has been designated as Fire Zone 4 by the County of Los Angeles Fire Department, which denotes the County Forester's highest fire hazard potential. The remainder of the site, situated along the Santa Clara River, (including the proposed WRP site) is designated as Fire Zone 3, which is considered less of a fire hazard area by the County Forester than Fire Zone 4 due to its relatively flat topography, the presence of the River, and better accessibility.

Two new fire stations within the Specific Plan boundaries and the upgrade of the Del Valle Fire Training Center to include an operating fire station would be implemented with the Newhall Ranch Specific Plan. The Specific Plan applicant also proposes to either 1) contribute financing to construct and equip these stations through contributions to the Developer Fee Program, or 2) build and equip the two stations on the site and upgrade the Del Valle Station pursuant to a development agreement which would be satisfactory to the Los Angeles County Fire Department, and would meet all applicable State and County fire codes, standards and guidelines. The new stations would be constructed in accordance with time frames required by the Fire Department to ensure adequate fire protection services are available within the Specific Plan site. The existing County Fire Station 76, located at the Castaic Junction, approximately 5 miles east of the WRP site, would provide first response service in the interim.

(1) Construction Impacts

Construction of the water reclamation plant (WRP) would increase traffic near the site during working hours because commuting construction workers, trucks, and other large construction vehicles would be added to normal traffic. As discussed previously in **Subsection 5.8**, construction of the proposed water reclamation plant would increase construction traffic on SR-126 and could delay emergency vehicles traveling through the area; however, it is expected that implementation of routine construction traffic

controls will ensure that adequate access by emergency vehicles will be maintained throughout the plant construction period. Consequently, construction impacts would not be significant. The configuration of SR-126 could be a factor; access could be a problem if construction occurs while the highway is in its current two-lane configuration. When the highway is expanded to a four or six-lane route with more space for maneuverability through and around construction activity, access in and out of the WRP site would not be a problem.

(2) Operational Impacts

Operation of the WRP is not expected to place a significant demand on fire protection services. The office component of the WRP would incrementally increase demand on Los Angeles County Fire Department services; however, the increase in demand would not be significant because, should a fire break out within an office, on-site WRP emergency response personnel and equipment could respond until the Fire Department could arrive. As discussed above, two new fire stations are proposed to be implemented on site as part of the Specific Plan. Existing County Fire Station 76, located about 5 miles east of the WRP site at Castaic Junction, could provide acceptable response to a fire incident in the interim, until one or both of the planned stations are completed and operational.

Chemicals typically used at water reclamation plants include ammonia, anionic polymer, cationic polymer, chlorine, sulfur dioxide, ferrous chloride, and ferric chloride, each of which is considered to be hazardous, with ammonia, chlorine and sulfur dioxide considered to be acutely hazardous by the Federal government.[35] None of these chemicals are flammable, although some are combustible. As previously discussed in Subsection 5.5, the Valencia WRP already exists in this area and the proposed WRP would not, therefore, represent a new or unique type of hazardous materials risk in this area, but would represent an additional risk site. The North County Hazardous Materials Unit is located approximately 5 miles east of the WRP site, at County Fire Station 76; therefore, there is existing emergency response capability within a quick response distance to the WRP. Successful adherence to the risk management plan and the availability of a trained hazardous materials emergency response unit within a short distance of the WRP site would reduce potential impacts on the CHP and Sheriff's Department relative to accidental chemical releases to less than significant.

35 Jones & Stokes Associates, Inc., Draft Program Environmental Impact Report for the Joint Outfall System 2010 Master Facilities Plan, (Sacramento, California: November 1994), p. 6-2.

c. Mitigation Measures

5.0-64. If construction of the WRP occurs while SR-126 is still a two-lane highway, a construction traffic management plan shall be prepared and implemented. This plan shall address site access, staging and storage areas, hours of construction, work crew parking, warning and traffic control signs and devices, flag men, temporary detouring, etc., as appropriate.

5.0-65. Consult with the Fire Department and its Hazardous Materials Unit to incorporate measures into the risk management and prevention plan, to optimize its abilities to respond to a hazardous materials incident at the operating WRP site.

5.0-66. Prepare and implement worker safety programs in accordance with Cal-OSHA requirements.

5.0-67. Prepare and implement an "Integrated Emergency Response Plan" (IERP). The IERP provides procedures for personnel medical emergencies, evacuation procedures and mitigation and abatement procedures for hazardous chemicals. The plan must conform to multiple regulatory requirements, including Title 8 §3220, Emergency Action Plan, §3221, Fire Prevention Plan, §5192 Emergency Response to Hazardous Substances Releases, and Title 22, §66265.50-66265.56, Contingency Plan and Emergency Procedures.

5.19 LIBRARIES

a. Significance Threshold Criteria

If a project would generate a new resident population that would increase the demand or exceed the existing or planned capacities of the affected public library(ies), this would be considered a significant impact. Additionally, if a project that involves significant environmental impacts, such as regular, strong odors, high noise levels, toxic air emissions, heavy traffic, etc. is proposed in proximity to a library, the project would have a significant impact on that library

b. Water Reclamation Plant Impacts

The proposed water reclamation plant would not generate a residential population; therefore, it will not have a direct impact on public library services within Los Angeles County. No library exists or is planned in proximity to the WRP site; therefore, plant operations would have no effect upon library services.

c. Mitigation Measures

No adverse library impacts have been identified; therefore no mitigation measures are required.

5.20 PARKS, RECREATION AND TRAILS

a. Significance Threshold Criteria

A project that generates a significant new population that increases the demand for parks and recreation facilities beyond the capacity of existing or planned parks and recreation resources, would have a significant impact with respect to parks and recreation. Furthermore, a project that would eliminate an existing or planned park or trail, without replacing it, would have a significant impact with respect to parks and recreation.

b. Water Reclamation Plant Impacts

The proposed water reclamation plant would have no impact on park and recreation facilities within Los Angeles County as it would not generate a resident population. Furthermore, the WRP site is not currently used for parks or recreation purposes and is not planned for such use. A portion of the planned Regional River Trail is proposed between the WRP and the northern bank of the River. Given the many controls to be employed at the WRP relative to odors, air emissions, hazardous materials incidents, wastewater discharges, etc., the quiet, low intensity character of the WRP operations and the erection of a fence between the WRP site and the River trail, no significant conflicts between the WRP and trail users are expected.

c. Mitigation Measures

5.0-68. A fence shall be constructed along the southern perimeter of the WRP site to prevent access to the WRP from the Regional River Trail.

5.21 POPULATION, HOUSING AND EMPLOYMENT

a. Significance Threshold Criteria

According to Appendix G of the State CEQA Guidelines, as amended, a project is considered to have a significant effect on the environment if it will induce substantial growth or concentration of population, and cumulatively exceed official regional or local population forecasts.

b. Water Reclamation Plant Impacts

(1) Construction Impacts

Development of the water reclamation plant would require site preparation (i.e., grading) and construction of the proposed use. Construction would generate short-term employment opportunities for contractors and tradesmen that would be hired through a competitive process. It is estimated that approximately 50 to 100 people could be employed at any given time.[36] It is expected that such a low number of construction employees for a short period of time would not impact the local housing market.

(2) Operational Impacts

The proposed water reclamation plant would be designed to serve the Newhall Ranch Specific Plan. A new sanitation district would be created which would encompass the entire Specific Plan site.

Because the plant would only be constructed to meet the wastewater disposal needs of the Newhall Ranch Specific Plan, the plant itself would not generate a residential population; therefore, it would not have a direct impact on population and housing within Los Angeles County. By meeting the wastewater disposal needs of the Newhall Ranch Specific Plan, the plant would enable the population increase associated with development of the proposed Specific Plan. As discussed in **Section 4.21** of this EIR, the population increase that would result from buildout of the Specific Plan would represent a substantial growth in concentration of population in the area which would exceed current growth projections by the County of Los Angeles, but which would be consistent with projections adopted by the Southern California Association of Governments. Overall, the Specific Plan would have a positive impact on jobs/housing balance in the Santa Clarita Valley.

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36 Interview with Bruce Mowry, Ph.D., P.E., Senior Project Manager, CH2M HILL, Santa Ana, California, 16 January 1995.

The water reclamation plant would generate an estimated eighteen jobs when fully operational. The type of positions at the plant would include technicians, mechanics, operators, supervisors and support staff positions. These jobs could be filled by future residents of the Newhall Ranch Specific Plan, or by residents of other places in the Santa Clarita Valley or elsewhere. The impact of this employment would be positive as it would provide additional employment opportunities in the Santa Clarita Valley.

c. Mitigation Measures

No significant population, housing, or employment impacts have been identified; therefore, no mitigation measures are required.

5.22 CUMULATIVE IMPACTS

The water reclamation plant is an integral component of the Newhall Ranch Specific Plan, and would not be constructed independent of the Specific Plan. In fact, the implementation of the Specific Plan is dependent upon the construction of the proposed WRP to provide the wastewater treatment facilities needed for the types and intensities of new development that is proposed by the Plan. The impacts of the WRP are, in this sense, coincident with the cumulative impacts of the Specific Plan. This is recognized in the environmental analyses of the overall Specific Plan, which includes the effects of the proposed WRP within each of the discussions presented in **Sections 4.1 to 4.21, 6.0, 7.0, 8.0, 9.0, 10.0 and 11.0** of this EIR.

5.23 UNAVOIDABLE SIGNIFICANT IMPACTS

The WRP site would contrast sharply with the scenic qualities of the River Corridor and surrounding natural landscapes and would result in an unavoidable significant impact to the visual quality of the area, both during and following construction.

Assuming a worst case scenario that the WRP site is constructed in one stage, with a single mass grading program for the entire 15 acre site, total emissions of PM_{10} would exceed SCAQMD recommended limits by a significant amount. Required dust controls to be employed during grading activities would reduce total PM_{10} emissions by roughly 61 percent. The net emissions would, however, continue to exceed the SCAQMD's recommended threshold of 150.0 pounds of PM_{10} per day, an unavoidable significant impact during the short-term period of grading activities.

Because landfills that are permitted to accept biosolids are limited in number and have a finite capacity, disposal of the biosolids generated by the WRP would contribute to a long-term significant impact on solid waste disposal facilities unless acceptable alternatives are developed to allow for diversion of the biosolids for other uses.

Lastly, the conversion of 15 acres of prime agricultural land to urbanized uses represents an unavoidably significant agricultural impact.

6.0 Fiscal Impacts of Specific Plan

6.0 FISCAL IMPACTS OF THE SPECIFIC PLAN

1. *PURPOSE*

Fiscal impact studies are not a required element of an EIR. Section 15131 of the CEQA Guidelines state, "Economic or social information may be included in an EIR or may be presented in whatever form the agency desires." Further, the Guidelines state, "economic or social effects of a project shall not be treated as significant effects on the environment."

2. SUMMARY

A fiscal impact study was prepared for the Newhall Ranch Specific Plan by The Levander Company, Inc. in January 1996, and was amended in July 1996. The purpose of the study was to assess the financial impacts upon the County of Los Angeles and the adjacent City of Santa Clarita from development of the Specific Plan and provision of governmental services to the residents of the Specific Plan area. A full copy of this study is provided in **Appendix 6.0** of this EIR.

Key measures of Newhall Ranch at buildout after a projected twenty-five year development period starting Year 2000 are as follows:

Residential Units	24,680
Second Units	538
Commercial/Business Park/Mixed Use Building Space	5.72 Million SF
Population	68,524
New Development Value	$5.6 Billion
Annual Taxable Sales To LA County	$321.2 Million
Annual Taxable Sales to City of Santa Clarita	$207.0 Million

All dollar measures are expressed in 1995 constant dollars.

Newhall Ranch will have a favorable fiscal impact on Los Angeles County and the City of Santa Clarita. After fully funding all essential local governmental services (General Fund, fire protection, library, street maintenance, street lighting, flood control maintenance, and transit), the following surpluses will be generated to the County of Los Angeles:

- $301 million during the estimated twenty-five year development period, and

- $20 million annually thereafter.

It is particularly noteworthy that 66 percent of the projected twenty-five year surplus ($200 million) and 67 percent of the surplus generated after year twenty-five ($13.6 million per year) will be in the County's General Fund, where the County is currently experiencing its principal financial difficulties. The other County operations are in large measure protected from fiscal deficits because of separate taxing and assessment capabilities. It is the General Fund which has to support County operations which are heavily impacted, particularly in the areas of public assistance and health care.

Table 6.0-1 summarizes the revenues and expenditures for each of the seven essential County services. The adjacent City of Santa Clarita will obtain an estimated 35 percent of taxable purchases to be made by Newhall Ranch residents. Sales taxes to be received by the City from these purchases are projected to be:

- $35.6 million during the twenty-five year development period, collected on taxable purchases of $3.2 billion at City stores.

- $2.3 million annually by year twenty-five, collected on taxable sales of $207 million annually at City stores.

The principal additional operating costs to be incurred by the City as a result of Newhall Ranch are street maintenance costs, conservatively estimated at $501,000 annually, equal to 22.3 percent of projected sales taxes. Consequently, an estimated $1.8 million annual surplus is expected to accrue to the benefit of the City upon the buildout of Newhall Ranch.

Table 6.0-1

SUMMARY REVENUE & EXPENDITURE PROJECTIONS
FOR OPERATONS & CAPITAL FACILITY ITEMS BY SERVICE CATEGORY
NEWHALL RANCH SPECIFIC PLAN
(IN 1995 CONSTANT DOLLARS)

Item	25-Year Total	5-Year Totals: Years 1-5	Years 6-10	Years 11-15	Years 16-20	Years 21-25	Illustrative Years: Year 5 2004	Year 10 2009	Year 15 2014	Year 20 2019	Year 25 2024
	$000's										
GENERAL FUND SERVICES											
Operations											
Revenues	481,976	33,862	75,049	108,295	129,699	135,071	8,760	17,629	23,385	26,636	27,029
Expenditures	281,365	26,620	50,207	64,560	71,989	67,989	6,369	11,012	13,661	13,966	13,383
Net Surplus/(Deficit)	200,611	7,241	24,842	43,736	57,710	67,082	2,392	6,617	9,724	12,670	13,646
---% to Expenditures	71.3	27.2	49.5	67.7	80.2	98.7	37.6	60.1	71.2	90.7	102.0
---Cumulative	200,611	7,241	32,084	75,819	133,529	200,611	7,241	32,084	75,819	133,529	200,611
Capital Facilities											
Revenues	15,076	4,397	3,612	3,341	2,654	1,072	797	626	684	342	143
Expenditures	15,076	4,397	3,612	3,341	2,654	1,072	797	626	684	342	143
Net Surplus/(Deficit)	(0)	0	0	0	0	0	0	0	0	0	0
---Cumulative	0	0	0	0	0	0	0	0	0	0	0
Operations & Cap Facil Combined											
Revenues	497,052	38,259	78,662	111,636	132,353	136,143	9,558	18,255	24,069	26,978	27,172
Expenditures	296,441	31,017	53,819	67,900	74,643	69,061	7,166	11,637	14,345	14,308	13,526
Net Surplus/(Deficit)	200,611	7,241	24,842	43,736	57,710	67,082	2,392	6,617	9,724	12,670	13,646
---Cumulative	200,611	7,241	32,084	75,819	133,529	200,611	7,241	32,084	75,819	133,529	200,611
FIRE PROTECTION SERVICES											
Operations											
Revenues	159,143	6,674	20,187	34,953	46,161	51,168	2,152	5,268	7,985	9,827	10,428
Expenditures	92,918	5,200	13,130	17,550	27,300	29,738	1,300	3,510	3,510	5,948	5,948
Net Surplus/(Deficit)	66,225	1,474	7,057	17,403	18,861	21,430	852	1,758	4,475	3,880	4,481
---% to Expenditures	71.3	28.3	53.7	99.2	69.1	72.1	65.5	50.1	127.5	65.2	75.3
---Cumulative	66,225	1,474	8,531	25,934	44,795	66,225	1,474	8,531	25,934	44,795	66,225
Capital Facilities											
Revenues	8,362	1,706	2,498	2,189	1,480	488	344	499	386	167	54
Expenditures	6,330	2,100	1,980	0	2,250	0	0	0	0	0	0
Net Surplus/(Deficit)	2,032	(394)	518	2,189	(770)	488	344	499	386	167	54
---Cumulative	2,032	(394)	124	2,313	1,544	2,032	(394)	124	2,313	1,544	2,032
Operations & Cap Facil Combined											
Revenues	167,504	8,380	22,685	37,142	47,642	51,656	2,495	5,767	8,370	9,994	10,483
Expenditures	99,248	7,300	15,110	17,550	29,550	29,738	1,300	3,510	3,510	5,948	5,948
Net Surplus/(Deficit)	68,257	1,080	7,575	19,592	18,092	21,918	1,195	2,257	4,860	4,047	4,535
---Cumulative	68,257	1,080	8,655	28,247	46,339	68,257	1,080	8,655	28,247	46,339	68,257

Continued on next page.....

Table 6.0-1 (Continued.....page 2)

SUMMARY REVENUE & EXPENDITURE PROJECTIONS
FOR OPERATONS & CAPITAL FACILITY ITEMS BY SERVICE CATEGORY
NEWHALL RANCH SPECIFIC PLAN
(IN 1995 CONSTANT DOLLARS)

Item	25-Year Total	5-Year Totals: Years 1-5	Years 6-10	Years 11-15	Years 16-20	Years 21-25	Illustrative Years: Year 5	Year 10	Year 15	Year 20	Year 25
	$000's										
LIBRARY SERVICES											
Operations											
Revenues	32,621	1,385	4,119	7,106	9,459	10,552	442	1,072	1,629	2,019	2,157
Expenditures	20,647	920	2,627	4,442	5,976	6,682	287	673	1,023	1,275	1,370
Net Surplus/(Deficit)	11,974	465	1,492	2,664	3,483	3,870	155	399	606	744	786
---% to Expenditures	58.0	50.5	56.8	60.0	58.3	57.9	54.0	59.4	59.3	58.3	57.4
---Cumulative	11,974	465	1,957	4,621	8,104	11,974	465	1,957	4,621	8,104	11,974
Capital Facilities											
Revenues	8,292	1,677	2,254	2,084	1,606	672	289	401	428	212	91
Expenditures	8,292	0	2,597	2,989	0	2,706	0	0	0	0	2,706
Net Surplus/(Deficit)	(0)	1,677	(343)	(906)	1,606	(2,035)	289	401	428	212	(2,615)
---Cumulative	(0)	1,677	1,334	428	2,035	(0)	1,677	1,334	428	2,035	(0)
Operations & Cap Facil Combined											
Revenues	40,914	3,062	6,372	9,190	11,065	11,224	731	1,473	2,057	2,231	2,248
Expenditures	28,939	920	5,223	7,432	5,976	9,388	287	673	1,023	1,275	4,077
Net Surplus/(Deficit)	11,974	2,142	1,149	1,759	5,090	1,835	444	800	1,035	956	(1,829)
---Cumulative	11,974	2,142	3,291	5,049	10,139	11,974	2,142	3,291	5,049	10,139	11,974
STREET MAINTENANCE SERVICES											
Operations											
Revenues	25,992	1,143	3,306	5,621	7,526	8,396	360	850	1,291	1,605	1,719
Expenditures	21,063	881	2,633	4,542	6,102	6,904	281	682	1,048	1,308	1,422
Net Surplus/(Deficit)	4,929	262	673	1,079	1,424	1,492	78	168	243	297	297
---% to Expenditures	23.4	29.7	25.5	23.7	23.3	21.6	27.9	24.7	23.2	22.7	20.9
---Cumulative	4,929	262	934	2,013	3,437	4,929	262	934	2,013	3,437	4,929
Capital Facilities											
None.....											
STREET LIGHTING SERVICES											
Operations											
Revenues	9,832	418	1,245	2,146	2,850	3,173	134	324	492	608	648
Expenditures	9,492	388	1,180	2,051	2,759	3,114	123	307	473	591	640
Net Surplus/(Deficit)	340	30	65	95	90	60	10	17	18	16	8
---% to Expenditures	3.6	7.8	5.5	4.6	3.3	1.9	8.3	5.4	3.8	2.8	1.2
---Cumulative	340	30	95	190	280	340	30	95	190	280	340
Capital Facilities											
None.....											

Continued on next page.....

Table 6.0-1 (Continued.....page 3)

SUMMARY REVENUE & EXPENDITURE PROJECTIONS
FOR OPERATONS & CAPITAL FACILITY ITEMS BY SERVICE CATEGORY
NEWHALL RANCH SPECIFIC PLAN
(IN 1995 CONSTANT DOLLARS)

Item	25-Year Total	5-Year Totals: Years 1-5	Years 6-10	Years 11-15	Years 16-20	Years 21-25	Illustrative Years: Year 5	Year 10	Year 15	Year 20	Year 25
FLOOD CONTROL MAINTENANCE SERVICES	$000's										
Operations											
Revenues	21,079	870	2,615	4,567	6,130	6,896	279	686	1,048	1,315	1,411
Expenditures	5,742	428	905	1,223	1,535	1,651	144	208	272	330	330
Net Surplus/(Deficit)	15,337	442	1,710	3,344	4,595	5,245	135	478	776	985	1,081
---% to Expenditures	267.1	103.3	188.9	273.3	299.4	317.8	93.9	229.6	284.9	298.4	327.4
---Cumulative	15,337	442	2,152	5,496	10,092	15,337	442	2,152	5,496	10,092	15,337
Capital Facilities											
None.....											
TRANSIT SERVICES											
Operations											
Revenues	10,323	460	1,313	2,221	2,988	3,341	144	336	511	638	685
Expenditures	10,323	460	1,313	2,221	2,988	3,341	144	336	511	638	685
Net Surplus/(Deficit)	0	0	0	0	0	0	0	0	0	0	0
---% to Expenditures	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
---Cumulative	0	0	0	0	0	0	0	0	0	0	0
Capital Facilities											
None.....											
TOTAL ALL SERVICES COMBINED											
Operations											
Revenues	740,967	44,812	107,835	164,910	204,813	218,597	12,270	26,165	36,340	42,648	44,077
Expenditures	441,551	34,898	71,996	96,590	118,649	119,418	8,648	16,728	20,498	24,056	23,779
Net Surplus/(Deficit)	299,417	9,914	35,839	68,320	86,164	99,179	3,622	9,437	15,842	18,592	20,299
---% to Expenditures	67.8	28.4	49.8	70.7	72.6	83.1	41.9	56.4	77.3	77.3	85.4
---Cumulative	299,417	9,914	45,753	114,073	200,238	299,417	9,914	45,753	114,073	200,238	299,417
Capital Facilities											
Revenues	31,730	7,780	8,364	7,613	5,741	2,232	1,429	1,526	1,499	721	288
Expenditures	29,699	6,497	8,189	6,330	4,904	3,779	797	626	684	342	2,849
Net Surplus/(Deficit)	2,032	1,283	175	1,283	837	(1,547)	632	900	814	379	(2,561)
---Cumulative	2,032	1,283	1,458	2,742	3,578	2,032	1,283	1,458	2,742	3,578	2,032
Operations & Cap Facil Combined											
Revenues	772,697	52,592	116,199	172,523	210,554	220,829	13,699	27,691	37,839	43,369	44,366
Expenditures	471,249	41,395	80,185	102,920	123,553	123,196	9,445	17,353	21,183	24,398	26,628
Net Surplus/(Deficit)	301,448	11,198	36,014	69,604	87,001	97,632	4,254	10,337	16,656	18,971	17,738
---Cumulative	301,448	11,198	47,211	116,815	203,816	301,448	11,198	47,211	116,815	203,816	301,448

Source: The Levander Company, Inc.

3. DISCUSSION

As indicated in **Table 6.0-1, Summary of Revenue and Expenditure Projections,** revenue and expenditure projections are provided for ongoing operations and capital facilities. Over the twenty-five year development period, ongoing operations will account for 96 percent of total revenues and 99 percent of the total surplus. These operations will yield a positive cash flow to the County from year one forward; that is, a positive cash flow is projected for the seven services combined (general fund, fire protection, library services, street maintenance, street lighting, flood control, and transit).

Financial projections presented in **Table 6.0-1** also demonstrate that the County will have a large margin-of-safety in its financial coverage of ongoing operations. To illustrate, operations cash surplus for all services combined is projected to be equal to 67.8 percent of projected expenditures for the twenty-five year development period and 85.4 percent annually thereafter. Further enhancing this safety factor, projected County revenues do not take into account any possible additional State or Federal grants which may be obtained and provide additional revenue for law enforcement, fire protection, library services, flood control services, or transit services.

Table 6.0-2, Summary of Revenue and Expenditure Projections - Operations Items Only, summarizes key revenue and expenditure items for year twenty-five operations and illustrates the major importance of property taxes to surplus generation. These taxes are projected to equal 59.4 percent of total revenues in year twenty-five. This high level of property taxes reflects:

- project values which, are high in relation to the County at large (as the projected new development value of $5.6 billion equates to $82,326 per capita, 49 percent higher than the existing County average of $55,238); and

- a 45.835 percent share of the $1.00 per $100 assessed value property tax rate to agencies covered by this analysis; 21.923 percent for the General Fund, 18.168 percent for fire protection services, and 5.744 percent divided among library, street maintenance, street lighting, and flood control services, as identified in **Appendix 6.0.**

As illustrated in **Table 6.0-3, Summary of Revenue and Expenditure Projections - Capital Facilities Only,** capital facility costs of $29.7 million are projected for the twenty-five year development period for park, fire protection, and library facilities. No capital facility costs are projected for street maintenance, street lighting, and flood control maintenance services, as these facilities will be provided through developer funding. Any transit facilities required will be funded by the County through its ongoing contract with the City of Santa Clarita.

Table 6.0-2
SUMMARY REVENUE & EXPENDITURE PROJECTIONS
OPERATIONS ITEMS ONLY FOR YEAR 25 (ANNUAL AT FULL BUILDOUT)
NEWHALL RANCH SPECIFIC PLAN
(IN 1995 CONSTANT DOLLARS)

Item	General Fund Services	Fire Protection Services	Library Services	Street Maint Services	Street Lighting Services	Fl Con Maint Services	Transit Services	Total
	$000's							
REVENUES								
Property Taxes	12,481	10,428	1,544	407	512	796	0	26,169
Sales Taxes--Basic	3,533	0	0	0	0	0	0	3,533
Sales Taxes--Propositions	1,493	0	0	548	0	0	685	2,727
Utility Users Tax	2,153	0	0	0	0	0	0	2,153
Vehicle License Fees	5,065	0	0	0	0	0	0	5,065
Highway Users Tax	0	0	0	765	0	0	0	765
Benefit Assessments	45	0	562	0	136	615	0	1,358
Library Contribution	0	0	0	0	0	0	0	0
All Other	2,257	0	50	0	0	0	0	2,307
Total	27,029	10,428	2,157	1,719	648	1,411	685	44,077
EXPENDITURES								
Police Protection Services (Sheriff)	3,796	0	0	0	0	0	0	3,796
Animal Care & Control Services	145	0	0	0	0	0	0	145
Parks & Recreation Services	1,806	0	0	0	0	0	0	1,806
County-Wide Services	6,565	0	0	0	0	0	0	6,565
General Administration	534	0	0	0	0	0	0	534
Library Contribution	0	0	0	0	0	0	0	0
Other Departmental Operations	0	5,948	1,370	1,422	640	330	685	10,396
All Other	537	0	0	0	0	0	0	537
Total	13,383	5,948	1,370	1,422	640	330	685	23,779
NET SURPLUS/(DEFICIT)	13,646	4,481	786	297	8	1,081	0	20,299

Note: See Appendix Tables A1 for interim-year summary projections. See Appendix Tables A2.1-A2.7 for detailed annual projections.

Source: The Levander Company, Inc.

Table 6.0 - 3
SUMMARY REVENUE & EXPENDITURE PROJECTIONS
CAPITAL FACILITY ITEMS ONLY FOR THE TOTAL 25–YEAR DEVELOPMENT PERIOD
NEWHALL RANCH SPECIFIC PLAN
(IN 1995 CONSTANT DOLLARS)

Item	General Fund Services	Fire Protection Services	Library Services	Street Maint Services	Street Lighting Services	Fl Con Maint Services	Transit Services	Total
	$000's							
REVENUES								
Mitigation Fees	0	8,362	8,292	0	0	0	0	16,654
Benefit Assessments	3,545	0	0	0	0	0	0	3,545
Developer Contribution	11,531	0	0	0	0	0	0	11,531
Vehicle License Fees	0	0	0	0	0	0	0	0
Benefit Assessments	0	0	0	0	0	0	0	0
All Other	0	0	0	0	0	0	0	0
Total	15,076	8,362	8,292	0	0	0	0	31,730
EXPENDITURES								
Police Facilities (Sheriff)	0	0	0	0	0	0	0	0
Animal Care & Control Facilities	0	0	0	0	0	0	0	0
Park Facilities	15,076	0	0	0	0	0	0	15,076
Other Departmental Facilities	0	6,330	8,292	0	0	0	0	14,622
Total	15,076	6,330	8,292	0	0	0	0	29,699
NET SURPLUS/(DEFICIT)	(0)	2,032	(0)	0	0	0	0	2,032

Note: See Appendix Tables A1 for interim–year summary projections. See Appendix Tables A2.1–A2.7 for detailed annual projections.

Source: The Levander Company, Inc.

Projected capital facility funding of $31.7 million during the twenty-five year development period will exceed capital facility costs of $29.7 million, yielding a net surplus of $2.0 million. This funding will be derived from a combination of benefit assessments, mitigation fees, and developer contributions. Park and library facilities are projected to be a break-even situation. Fire facilities are projected to yield the indicated $2.0 million surplus, a result of projected costs less than the present mitigation fee of 18.2 cents per square foot of building space.

The projected twenty-five year development period is the developer's best estimate of residential and commercial/business park facility absorption at this time. Actual construction of residential and commercial/business park facilities will be in response to market conditions over the development period, and needed infrastructure will be commensurate with implementation of the Newhall Ranch Specific Plan through subdivision maps.

Appendix 6.0 contains projections of property taxes for all agencies covered by this analysis, as identified in **Table 6.0-3**. In addition to detailed Auditor/Controller property tax rate allocations for these agencies, **Appendix 6.0** provides allocations for all other agencies receiving property tax shares which can be used to make additional property tax projections, as might be appropriate.

7.0 UNAVOIDABLE SIGNIFICANT IMPACTS

1. PURPOSE

Section 15126(b) of the CEQA Guidelines requires an EIR to describe any significant impacts which cannot be avoided if the proposal is implemented. The discussion is to include the identification of any significant impacts that can be mitigated, but not to less than significant levels.

There are several significant environmental impacts which cannot be avoided with the development of the Newhall Ranch Specific Plan and the proposed water reclamation plant (WRP). The following discussion identifies the significant impacts that could not be reduced to less than significant levels and are, thus, considered unavoidably significant.

2. NEWHALL RANCH SPECIFIC PLAN

a. Agricultural Resources

Of the 1,490 acres of cultivated land found on the Specific Plan site, 595 acres are considered prime agricultural land. The impact associated with the conversion of prime agricultural land to urban uses is considered unavoidably significant.

The cumulative conversion of prime agricultural land to urban uses constitutes a loss of an irreplaceable resource and is considered to be a significant cumulative impact. No feasible mitigation exists for this conversion and it would be an unavoidable significant impact.

b. Biota

Due to the conversion of approximately 5,132 acres of habitat that are in a largely natural condition to a suburban and urban condition, implementation of the Newhall Ranch Specific Plan would significantly diminish habitat for fish, wildlife and plants. Implementation of the Specific Plan would significantly impact sensitive wildlife species (including the sensitive wildlife associated with upland habitats on the site, such as San Diego horned lizard, California horned lizard, coastal western whiptail, southern California rufous-crowned sparrow, San Diego desert woodrat, San Diego black-tailed jackrabbit, and others) and significantly impact the ability of animals to move across portions of the site. Implementation of the Specific Plan would significantly impact several sensitive upland habitat types (including coastal sage scrub, oak woodlands, and others). All of these are considered unavoidable significant impacts that cannot be fully mitigated.

Several large development projects are proposed for the Los Angeles/Ventura County region including the Newhall Ranch Specific Plan. All of these proposed developments would remove natural habitat. The Newhall Ranch Specific Plan will convert approximately 5,132 acres of land from a largely natural, albeit partially disturbed, habitat condition, to that of a man-made, suburban/urban environment. That conversion, when added to all the other such conversions of open space that are proposed, has been and will continue to permanently lead to the shrinkage of the amount of land available for natural habitats and the flora and fauna that inhabit them. Neither implementation of the Newhall Ranch Specific Plan nor any other similar large scale project proposed on the edge of the existing urban environment can mitigate, from a biological perspective, the permanent conversion of large blocks of open area. It is for this reason that the cumulative impact is considered unavoidably significant.

c. Visual Qualities

Approximately 5,852 acres (or 49 percent) of the Newhall Ranch site would remain in major open area; nonetheless, development proposed adjacent to the Santa Clara River Corridor that parallels SR-126 would significantly alter the visual characteristics of the River Corridor. Views in Chiquito Canyon would also be significantly altered as a result of Specific Plan implementation. Development proposed near the River Corridor would be a significant change from the existing characteristics of the site and would introduce sources of outdoor illumination to an otherwise dark site. This would significantly impact the nighttime environment.

Each of the above impacts would combine with the impacts of other ongoing development activities to result in significantly unavoidable cumulative visual impacts to the area.

d. Air Quality

During construction of the Specific Plan, emissions of carbon monoxide (CO), volatile organic compounds (VOC), oxides of nitrogen (NO_x) and particulate matter - 10 micron (PM_{10}) would exceed thresholds of significance recommended by the South Coast Air Quality Management District (SCAQMD). Operational emissions generated by the Newhall Ranch Specific Plan would exceed SCAQMD thresholds of significance for CO, VOC, NO_x, oxides of sulfur (SO_x), and PM_{10}. No feasible mitigation exists which would reduce these emissions to below the SCAQMD's recommended thresholds of significance. Therefore, the proposed Specific Plan's construction-related and operation-related emissions would be considered unavoidably significant. In addition, the rate of growth of vehicle miles

traveled (and, hence, vehicular air emissions) generated by the proposed on-site employment centers (i.e., commercial, business park, commercial office, and WRP uses) would exceed the rate of growth in jobs provided by the uses and would cause a significant cumulative air quality impact.

e. Solid Waste Disposal

Assuming no recycling activities would occur within its boundaries, the Specific Plan would generate approximately 53,524 tons of solid waste annually upon buildout. Until the County can demonstrate that approved landfill space or other disposal alternatives will be adequate to serve existing and future uses for the foreseeable future, solid waste impacts within the County are considered unavoidably significant.

Sludge generated at the WRP (approximately 170 wet tons per week) would have to be either diverted for other uses or disposed of only at landfills permitted to accept biosolids. Because landfills that are permitted to accept biosolids are limited in number and have a finite capacity, the disposal of biosolids would have a long-term significant impact on solid waste disposal facilities unless they are diverted for other uses.

From a cumulative standpoint, until the County can demonstrate that approved landfill space or other disposal alternatives will be adequate to serve existing and future uses for the foreseeable future, cumulative solid waste impacts within the County are unavoidably significant.

3. WATER RECLAMATION PLANT

a. Agricultural Resources

Development of the WRP would result in the loss of 15 acres of prime agricultural land. This acreage is already economically impaired by its small size, its narrow, triangular configuration, and its location, and is more difficult and less economical to farm than larger parcels of land. Although this land has diminished agricultural productivity, the conversion of prime agricultural land is an unavoidable significant impact.

b. Visual Qualities

Visual impacts associated with the construction of the WRP would be temporary and could be considered significant if the plant is constructed before surrounding development occurs because the construction would be in sharp contrast with adjacent undeveloped sites.

The view of the WRP site from the west, characterized by River features, the Sawtooth Ridge, Potrero Mesa and a mix of natural upland and lowland features, would be significantly changed. WRP structures would be either set back from SR-126 or set either wholly or partially underground. Some structures would be visible, making the WRP contrast significantly with the natural River and topographical features visible beyond the site.

Outdoor lighting at the plant would represent a significant change from the current rural and dark night conditions.

c. Air Quality

Fugitive dust emissions generated during construction would exceed the SCAQMD's recommended threshold of 150.0 pounds per day, which would be unavoidably significant.

d. Solid Waste Disposal

Sludge generated at the WRP (approximately 170 wet tons per week) would have to be either diverted for other uses or disposed of only at landfills permitted to accept biosolids. Because landfills that are permitted to accept biosolids are limited in number and have a finite capacity, the disposal of biosolids would have a long-term unavoidable significant impact on solid waste disposal facilities unless they are diverted for other uses.

8.0 PROJECT ALTERNATIVES

1. *PURPOSE*

According to the CEQA Guidelines Section 15126 (d)(1), the purpose of the Project Alternatives section is to assess a range of reasonable alternatives to the Specific Plan, or to the location of the Specific Plan, which would feasibly attain most of the basic objectives of the Specific Plan, but which would avoid or substantially lessen any of the previously-identified significant effects of the Specific Plan. Specific Plan objectives are presented in ***Section 1.0, Project Description****, of this EIR.*

The purpose of this section is also to evaluate the comparative merits of the alternatives. According to the CEQA Guidelines, discussion of each alternative should be sufficient "to allow meaningful evaluation, analysis, and comparison with the proposed project." Therefore, the significant effects of each alternative will be discussed in less detail than those of the Specific Plan, but in enough detail to provide decision-makers perspective and a reasoned choice between alternatives.

2. BACKGROUND

In order to completely understand the framework under which Specific Plan alternatives were defined and analyzed, it is helpful to understand the conditions under which the Specific Plan has been designed. This is especially important because CEQA asks that proper site planning be done at the beginning of a project's design when a greater amount of flexibility is available rather than at the end of the environmental review process when an applicant may be committed to a certain design without fully understanding its consequences.

a. Relationship of the Project to the Region

Newhall Ranch lies within the fast growing North Los Angeles County region, which added nearly 70,000 people and 18,000 jobs between 1990 and 1994, despite the severe recession.[1] The Southern California Association of Governments (SCAG) projects that North Los Angeles County will grow by nearly one million people by the year 2020, necessitating annual construction of over 12,000 homes. The Newhall Ranch Specific Plan, with its planned 24,680 dwelling units plus an additional 538 Second units, would provide just under a two-year housing supply for the North Los Angeles County region.[2]

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1 Growth estimates are based on Department of Finance statistics for 1994 compared to 1990 Census.

2 Draft projections by SCAG for the North Los Angeles County region.

Among the potential alternative sites for a major new community, Newhall Ranch is geographically among the nearest to the Los Angeles Metropolitan area. The site is traversed by State Route 126 (SR-126) and has access to Interstate 5 (I-5), California's major north-south freeway. These routes provide connections to five metropolitan area freeways (I-210, SR-118, I-405, SR-14, and SR-170) within a ten to fifteen minute driving time, as well as to more distant coastal and desert locations. A route for a future Metrolink rail connection between Ventura and the Santa Clarita Valley is being preserved through the property, adding to the site's accessibility and ability to accommodate regional growth.

The site's location immediately adjacent to existing and planned development in the Santa Clarita Valley Planning Area permits more efficient extension of infrastructure, as well as easier access to existing regional shopping, and governmental and medical services, than "leapfrog" development. The site is also adjacent to the Santa Clarita Valley's major employment concentrations, including the Valencia Corporate, Industrial and Commerce Centers. Employment centers in Valencia will offer approximately 60,000 jobs when completed.

b. Suitability of the Newhall Ranch Site

At nearly 12,000 acres, the Newhall Ranch site is among the largest of the land holdings in the region which have a single owner or a small number of owners. The size and single ownership of the site provide opportunities to develop a comprehensive master-planned community in which land uses are properly sited, and infrastructure and service systems are planned in advance and coordinated with regional systems.

The Newhall Ranch site has diverse topography and natural resources. Major features, such as the Santa Susana Mountains, Santa Clara River and River bluffs, Sawtooth Ridge and Ayres Rock, are constraints to development, but provide rare opportunities to integrate an urban community into a natural setting. The Santa Clara River Valley, Potrero Canyon, the mesas along the River and, to a lesser extent, Long Canyon, provide large areas of more even topography which is suitable for development. In general, these portions of the property have historically been used for agriculture, grazing, and oil and natural gas operations and, therefore, have retained only limited biological significance.

A significant portion of the site is within County Significant Ecological Area Nos. 20 (Santa Susana Mountains) and 23 (Santa Clara River). These SEAs pose major constraints to development, but also provide biotic and scenic resources, the preservation of which add to the environmental, aesthetic, and recreational quality of the ultimate community.

c. Community Planning Process

The Specific Plan for Newhall Ranch was prepared in a series of iterations over an approximately two year period. Incorporated into the Specific Plan effort were extensive studies of the site and its environmental resources, as well as the constraints and opportunities briefly described above. A market analysis was conducted to determine the range of home types, commercial retail and office, and employment-generating land uses which would be warranted based on demographic and economic trends in southern California. Nationwide and local surveys were used to determine the community character and amenities that people would find desirable in a planned community. In addition, public input to the Plan was obtained through Community Task Force meetings and other public outreach efforts. Finally, the goals and policies of the County of Los Angeles General Plan and Santa Clarita Valley Area Plan were fundamental in shaping the community.

Early in the planning process, a comprehensive set of Specific Plan objectives was established. These are contained in Chapter 2 of the Specific Plan and Section 1.0 of this EIR.

d. Project Design Features

The Newhall Ranch Specific Plan has been refined over the course of its development in order to avoid environmental impacts or to minimize impacts where avoidance is not feasible. These improvements are now part of the Specific Plan and are termed project design features. They include the following:

1. Approximately 4,763 acres, or 40 percent of the site, are being retained as a regionally significant natural open area system composed of the Santa Clara River and High Country Special Management Areas, or SMAs. This system preserves the biological resources found in County SEAs 20 and 23 on the property, as well as Salt Canyon, a major wildlife habitat and movement corridor.

2. Total major open area within the Newhall Ranch Specific Plan site, including the SMAs and additional Open Area, is approximately 5,852 acres, or 49 percent of the site. This total does not include open area, which will be delineated in the future for uses, such as neighborhood parks, local trails, and recreation centers.

3. A River Corridor has been designed which retains the River's significant riparian vegetation and habitat while providing flood protection to Los Angeles County standards.

4. Highway crossings over the Santa Clara River have been restricted to three locations, significantly less than the number of agricultural crossings which already exist and which are permitted to continue under Federal law. Bridge crossings of the River are elevated, rather than at ground level, further lessening biological impacts.

5. The visually dominant River bluffs and steep, oak woodland-filled canyons along the southern side of the River are being preserved as Open Area.

6. The Specific Plan preserves oak woodlands and savannas both within the SEAs and in the development area of the community. While planning has emphasized conservation of oak resources rather than individual trees, of the estimated 16,314 oak trees within the property, approximately 648 (approximately 4 percent) would potentially be impacted by development.

7. Major drainages throughout the property will be soft bottom. The Specific Plan will meet the requirements of the National Pollutant Discharge Elimination System (NPDES) for protecting the quality of water entering the Santa Clara River.

8. Prominent physical features, such as Sawtooth Ridge and Ayers Rock, have been preserved within Open Area as landmarks for the community.

9. Cultural sites, including the Asistencia (the site of the historical annex to the San Fernando Mission) and archeological sites, are being preserved and are contained within Open Area.

The refinement of the Specific Plan through the project design features resulted in a reduction in site disturbance shown in the conceptual grading plan from its initial 7,500 acre impact size to approximately 5,132 acres, a reduction of 1,500 acres, or 20 percent. The Open Area within the Specific Plan was enlarged by the same amount.

The remainder of this EIR section is devoted to an analysis of on- and off-site alternatives to the Specific Plan which minimize or avoid the significant impacts generated by the Specific Plan.

3. ON-SITE SPECIFIC PLAN ALTERNATIVES

a. Methodology

In response to the significant impacts created by the Specific Plan, the comments received in response to the Notice of Preparation, discussions with County staff and its Significant Ecological Area Technical Advisory Committee, discussions at 26 Community Task Force meetings, and many discussions with members of the community and community groups, six on-site alternatives to the Specific Plan have been defined:

- Alternative 1, The No Project Alternative. This alternative is required by the CEQA Guidelines, and it compares the impacts which might occur if the site is left in its present condition with those that would be generated by the Specific Plan as proposed;

- Alternative 2, Site buildout under the Santa Clarita Valley Area Plan. The purpose of this alternative is to describe the impacts of developing the site as allowed by the Santa Clarita Valley Area Plan and to compare such impacts with those generated by the Specific Plan;

- Alternative 3, The Clustered Alternative (Same Amount of Development as Specific Plan, Smaller Footprint). The primary purpose of this alternative is to minimize or avoid potentially significant biological impacts by reducing the development footprint of the Specific Plan. In doing so, many other impacts which could occur as a result of land surface disturbance (e.g., impacts to cultural resources, geotechnical resources, fugitive dust impacts generated by grading, etc.) might also be reduced in magnitude by a reduction in the development footprint of the Specific Plan;

- Alternative 4, The 19,750 unit Alternative (20 Percent Reduction in Development, Same Footprint). The primary purpose of this alternative is to minimize or avoid potentially significant traffic, air quality, noise, indirect biological, utility (e.g., water demand, wastewater generation), and public service (e.g., fire department, sheriff department) impacts by generally decreasing the amount of development on the site;

- Alternative 5, The 15,000 unit Alternative (39 Percent Reduction in Development, Smaller Footprint). The primary purpose of this alternative is to avoid or minimize the potentially significant direct and indirect biological impacts created by the Specific Plan by reducing the amount of development and by reducing the footprint upon which such development would occur. In doing so, many other impacts which could occur as a result of site development might also be reduced in magnitude; and

- Alternative 6, The 8,000 unit Alternative (68 Percent Reduction in Development, Smaller Footprint). The primary purpose of this alternative is to avoid or minimize the potentially significant visual and biological impacts created by the Specific Plan. In doing so, many other impacts which could occur as a result of site development might also be reduced in magnitude

b. On-Site Alternative Analysis

(1) Alternative 1 - No Project Alternative

The No Project Alternative is required by the CEQA Guidelines, and it compares the impacts which might occur if the site is left in its present condition with those that would be generated by the Specific Plan as proposed. The Specific Plan site is partially in a disturbed state as a result of existing oil and natural gas operations, grazing, and farming activities (refer to **Section 2.0, Environmental and Regulatory Setting**, for a detailed discussion of existing site conditions). Under the No Project Alternative, the Specific Plan site would remain as vacant land with on-going oil and natural gas operations; agricultural activities would remain along the Santa Clara River Corridor, on the mesas overlooking the River, and in the wider canyon bottoms; and cattle grazing would remain in Potrero Canyon, along the River, and in other upland and mountainous portions of the site. In addition, Southern California Edison Company and Southern California Gas Company would retain their on-site facilities and the site would continue to be used for motion picture filming.

Although nothing would change within the Specific Plan boundaries under this scenario, the disturbance associated with retaining existing uses on the site would continue. For instance, grazing and farming activities on the site would continue to disturb the soil surface and on-site vegetation. While such disturbances would continue with the No Project Alternative, they would be of lesser magnitude in total than the Specific Plan, although some areas which would be protected under the Specific Plan would continue to be disturbed under the No Project Alternative. Consequently, and based solely on environmental criteria, the No Project Alternative would be considered the environmentally superior alternative to the Specific Plan because the potential Specific Plan-related impacts described in Section 4.0 of this EIR would not occur. However, by retaining the site under existing conditions, most of

the applicant's Specific Plan objectives would not be met and, if development does not occur on the Specific Plan site, the anticipated future demand for housing[3] and commercial services would likely stimulate development elsewhere in the Santa Clarita Valley, including development in less accessible areas of the Valley with environmental resources that may be comparable to or of greater value than those found on the Specific Plan site.

The applicant has also indicated that, if the Specific Plan is not implemented as proposed and this alternative is implemented instead, the following would result:

- neither the River Corridor (813 acres) nor the High Country (3,949.9 acres) would be preserved as Special Management Areas available for public use;
- cattle grazing would continue in both the River Corridor and High Country; no trails would be constructed on the Specific Plan site, including the County-proposed River trail and the trail network proposed by the applicant as part of the Specific Plan;
- no additional restrictions would be placed on the public use of the River Corridor; the County Master Plan of Highways alignment of Commerce Center Drive would not be extended south to link with Magic Mountain Parkway by the applicant;
- conservation of the Asistencia (San Fernando Mission Annex) site would not occur ;
- no Metrolink rail right-of-way would be reserved through the site;
- no park-and-ride lot/Metrolink station site along SR-126 would be available on the site;
- no fire station would be constructed off Chiquito Canyon Road near the community of Val Verde;
- no golf course would be available;
- no recreational lake would be available for public use; and
- no additional tax revenue would be generated from the site.

Because implementation of Alternative 1 would not meet the Applicant's objectives for the site and would likely just divert urban development from this site to another, Alternative 1 is not considered an acceptable alternative.

(2) Alternative 2 - Site Buildout Under the Santa Clarita Valley Area Plan and Zoning Code

The purpose of Alternative 2 is to describe the impacts of developing the site as allowed by the Santa Clarita Valley Area Plan and to compare such impacts with those generated by the Specific Plan. Under Alternative 2, the Specific Plan site would build out consistent with the Santa Clarita Valley Area Plan (adopted 12/6/90), which designates the site as Non-Urban 1 (0.5 and 0.05 dwelling

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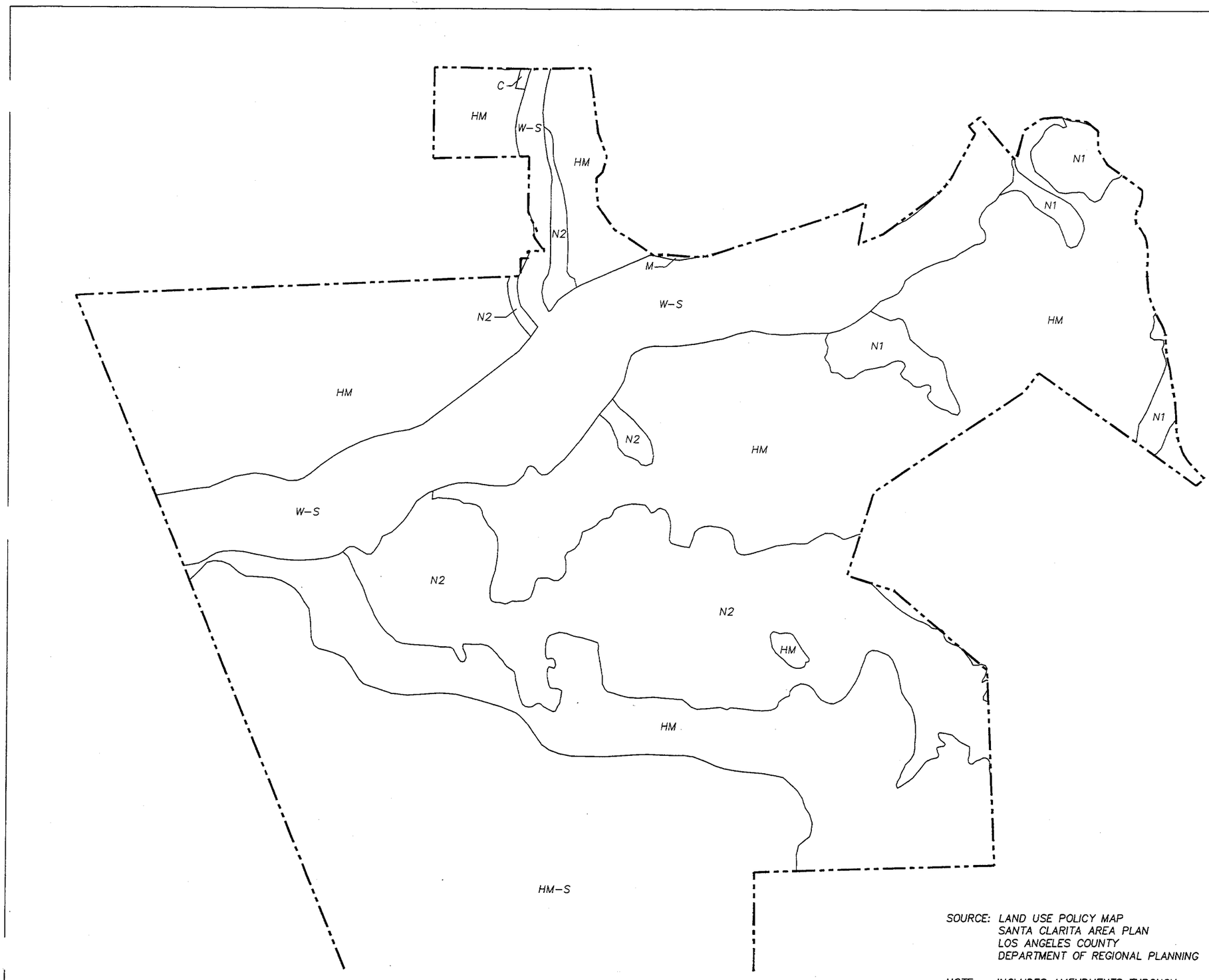
3 See Southern California Association of Government population projections for project census tracts, EIR Section 4.21, Population, Housing and Employment.



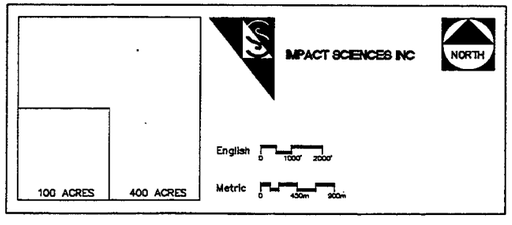
SOURCE: LAND USE POLICY MAP
SANTA CLARITA AREA PLAN
LOS ANGELES COUNTY
DEPARTMENT OF REGIONAL PLANNING

NOTE: INCLUDES AMENDMENTS THROUGH
MARCH 23, 1992

NEWHALL RANCH™
Newhall Ranch Company

L E G E N D

N1	NONURBAN 1 (0.5 AND 0.05 DU/AC)
N2	NONURBAN 2 (1.0 DU/AC)
C	COMMERCIAL
M	INDUSTRY
HM	HILLSIDE MANAGEMENT
S	SIGNIFICANT ECOLOGICAL AREAS
W	FLOODWAY/FLOODPLAIN



EXISTING AREA PLAN
LAND USE DESIGNATIONS

FIGURE 8.0-1

ALTERNATIVE 2

The applicant has indicated that, if the Specific Plan is not implemented as proposed and this alternative is implemented instead, the following would result:

- neither the River Corridor (813 acres) nor the High Country (3,949.9 acres) would be preserved as Special Management Areas available for public use;
- cattle grazing would continue in both the River Corridor and High Country;
- no trails would be constructed on the Specific Plan site, including the County-proposed River trail and the trail network proposed by the applicant as part of the Specific Plan;
- no additional restrictions would be placed on the public use of the River Corridor;
- the County Master Plan of Highways alignment of Commerce Center Drive would not be extended south to link with Magic Mountain Parkway by the applicant;
- conservation of the Asistencia (San Fernando Mission Annex) site would not occur;
- no Metrolink rail right-of-way would be reserved through the site;
- no park-and-ride lot/Metrolink station site along SR-126 would be available on the site;
- no Community Parks would be constructed (only local parks would be constructed);
- no fire station would be constructed off Chiquito Canyon Road near the community of Val Verde;
- no golf course would be available for public use;
- no recreational lake would be available for public use; and
- less tax revenue would be generated on the site than under the Specific Plan.

Under Alternative 2, the on-site population would be reduced from 68,524 to 6,562.

According to the Planning and Zoning Code: Title 22 of the Los Angeles County Code (1986 edition), the majority of the site is zoned for Heavy Agriculture (A-2), with a 2.0-acre minimum lot size north of SR-126 (A-2-2) and a minimum lot size of 5.0 acres south of SR-126 (A-2-5). A small portion of the site is zoned for Manufacturing (M-1.5). According to Chapter 22.24 of the Code, the uses identified in **Table 8.0-2, Permitted Uses in the Heavy Agricultural (A-2) Zone**, are permitted under the A-2 Heavy Agricultural zone (refer to **Appendix 8.0** for additional detail regarding permitted and accessory uses in the A-2 and M-1.5 zones). Consequently, each of the uses shown could be constructed and operated in this zone independent of the Specific Plan. According to Chapter 22.32 of the Code, uses permitted on the small portion of the site zoned M-1.5, Restricted Heavy Manufacturing Zone, include adult day care facilities, adult residential facilities, dwelling units, family day care homes, mobile homes, motels, schools, etc. (refer to **Appendix 8.0** for a complete list of permitted and accessory uses in this zone).

Table 8.0-2
Permitted Uses in the Heavy Agricultural (A-2) Zone

Single Family Residences	
Adult Residential Facilities	Crops
Foster Family Homes	Group Homes
Small Family Day Care Homes	Small Family Homes, Children
Animal Hospitals	Animal Shelters and Pounds
Aquaria	Dairies
Dog Kennels	Dog Training Schools
Feed Mills	Greenhouses
Hogs	Livestock Feed Yards
Livestock Sales Yards	Manure
Mushroom Farms	Raising of Horses, Cattle, Sheep, and Goats
Youth Hostels	Riding Academies and Stables
Riding and Hiking Trails	Veterinaries
Fairgrounds of a Public Character	Fruit and Vegetable Packing Plants
Linseed, Cottonseed, & Coconut Oil Processing Plants	Campgrounds, Picnic Areas, Trails
Youth Camps	Logging Operations
Oil Wells	Parks, Playgrounds, and Beaches

Raising of Poultry, Fowl, Birds, Rabbits, Chinchilla, Nutria, Mice, Frogs, Fish, Bees, Earthworms, and other similar animals, including hatching, fattening, marketing, sale, slaughtering, dressing, processing and packing, and including eggs, honey, or similar products

Source: Los Angeles County, Planning and Zoning Code; Title 22 of the Los Angeles County Code, (Los Angeles, California: 1986 Edition), Part 3 - Chapter 22.24.

As shown in this table, a wide range of activities are legally permitted on the Specific Plan site ranging from family homes to facilities for breeding, raising, and butchering livestock. The following discussion compares the potential environmental impact of Alternative 2 to those associated with implementation of the Specific Plan.

(a) Geotechnical and Soil Resources

Although development activity subjected to the forces of ground movement during seismic events could occur under Alternative 2, site development under Alternative 2 would require less grading in hilly areas than the Specific Plan, and would result in less earth movement. Consequently, from a geotechnical standpoint, Alternative 2 would be environmentally superior to the Specific Plan.

(b) Flood

Urban runoff generated under Alternative 2 would be conveyed and discharged into the Santa Clara River. The Flood section of this EIR (**Section 4.2**) indicates that the volume of water that runs off the Specific Plan site is greater in its undeveloped condition than it would be in a developed condition because, in the undeveloped condition, runoff contains debris (soil and materials, such as dead branches, leaves, etc.) while, in the developed condition, debris is removed from the water. Like the Specific

Plan, the amount of clear runoff from developed portions of the site in this Alternative would be greater than under current conditions due to an increase in the amount of impervious surfaces, while the amount of debris would be reduced as undeveloped areas are replaced with the more non-erosive urban landscape. However, because the Specific Plan would cover more of the site with non-erosive surfaces than Alternative 2, thereby reducing debris, the amount of runoff (water plus debris) from the site would be less with the Specific Plan than under Alternative 2. Therefore, the Specific Plan would be the environmentally superior alternative with respect to runoff quantities.

Stormwater runoff under Alternative 2 would be required to meet the same Regional Water Quality Control Board water quality standards as the Specific Plan, so storm runoff under either alternative would not significantly impact surface or ground waters. Therefore, neither Alternative 2 nor the Specific Plan is environmentally superior to the other with respect to runoff quality.

(c) Traffic/Access

Implementation of Alternative 2 would result in a decrease in Specific Plan-generated traffic. Specifically, average daily trip generation on the Specific Plan site would decrease from 387,000 trips to 24,800 trips (a 93.6 percent decrease). Because Alternative 2 would decrease traffic impacts on local roadways and would, therefore, require fewer roadway improvements off the Specific Plan site than the Specific Plan, it would be environmentally superior to the Specific Plan with respect to traffic and circulation impacts.

(d) Noise

With a reduction in amount of development on the site and associated trip reduction, there would be a reduction in noise impacts on and in the vicinity of the site. The analysis presented in this EIR determined that only one off-site location within the vicinity of the Specific Plan site - the Travel Village RV Park - would be significantly impacted by Specific Plan-generated noise. A reduction in Specific Plan traffic volumes of approximately 93.6 percent would substantially reduce the Specific Plan's noise level increases to the point that noise levels at the Travel Village RV Park would not exceed the off-site mobile source thresholds of significance. Therefore, Alternative 2 would be environmentally superior to the Specific Plan with respect to noise impacts.

(e) Air Quality

Because less on-site grading would occur under Alternative 2, the total amount of grading and construction-related air quality impacts would be less than those of the Specific Plan. In addition, Alternative 2 would include less developed uses and generate less traffic than the Specific Plan. The effect of this reduction in development and vehicle trips on air emissions is provided below.

Emissions Source	Emissions in Pounds per Day				
	CO	VOC	NO_x	SO_x	PM_{10}
Specific Plan	17,575.7	835.6	3,015.6	315.9	43,185.6
Santa Clarita Valley Area Plan Alternative	1,512.8	68.4	219.7	22.4	3,321.6
Recommended SCAQMD Thresholds	550.0	55.0	55.0	150.0	150.0

Source: Impact Sciences, Inc.

As shown, Alternative 2 would generate fewer air emissions than the Specific Plan. Therefore, it would be environmentally superior to the Specific Plan with respect to air quality. With the exception of SO_x emissions, the emissions generated by Alternative 2 would, however, exceed the thresholds recommended by the SCAQMD and, as with the Specific Plan, would also be considered significant. SO_x emissions would be in quantities that are less than significant under Alternative 2.

(f) Biota

Given that a substantially lesser amount of grading and its associated ground and habitat disturbance would occur with Alternative 2, and given that there would be a substantial reduction in site population with Alternative 2, the direct and indirect biological impact of Alternative 2 would be less than that of the Specific Plan. Development under Alternative 2 could occur within designated SEAs 20 and 23, but to a lesser degree and intensity than with the Specific Plan. However, grazing activities would continue with Alternative 2 in both SEAs. Also, the applicant has indicated that the Open Areas of the Specific Plan site, including the High Country and the River Corridor Special Management Areas, would not be dedicated to the public in perpetuity, but would remain in private ownership with no provision for public access. From a biological standpoint, the reduction in grading, on-site population, and overall habitat disturbance would be considered more beneficial than the loss to the public of the High Country and River Corridor Special Management Areas and continued cattle grazing therein. Consequently, Alternative 2 is biologically superior to the Specific Plan.

(g) Visual Qualities

Development of Alternative 2 would, like the Specific Plan, change the visual character of the Specific Plan site. Because less development would occur along the Santa Clara River and throughout the Specific Plan site under Alternative 2, there would be significantly less visual impact than would occur if the site were developed as proposed. The following visual impact analysis of Alternative 2 is based on the viewing location information provided in **Section 4.7, Visual Qualities**.

1. **Viewing Location 1 (west of the site in Ventura County, along SR-126 looking east)**

Non-Urban 2 development along the northern leg of Potrero Valley Road and on Potrero Mesa south of the Santa Clara River would be visible from Viewing Location 1, but at a great distance. Land between Viewing Location 1 and Potrero Valley Road would remain undeveloped under Alternative 2 because it is off the Specific Plan site.

2. **Viewing Location 2 (on site, along SR-126 west of San Martinez Grande looking south)**

Non-Urban 2 development along the northern leg of Potrero Valley Road and on Potrero Mesa south of the Santa Clara River would be visible across the River from this viewing location. No other development would occur elsewhere in this viewshed.

3. **Viewing Location 3 (on site, near the SR-126/Chiquito Canyon Road intersection looking south)**

Development across the River from this viewing location would be visible; intervening topography would preclude views of development along Potrero Valley Road. No other development would occur elsewhere within the viewshed of this viewing location.

4. **Viewing Location 4 (at the northern site boundary on Chiquito Canyon Road looking south)**

Non-Urban 2 development along Chiquito Canyon Road would be visible from Viewing Location 4. In addition, a small amount of Non-Urban 2 development would be visible in the distance at the mouth of Long Canyon south of the River. Intervening topography would preclude views of Non-Urban 2 development along Potrero Canyon from this viewing location.

5. **Viewing Location 5 (on site, along SR-126 on the west side of Castaic Creek looking south)**

Non-Urban 2 development on Exxon and Grapevine Mesas south of Santa Clara River and SR-126 would be visible from Viewing Location 5. No other development would occur within this viewshed.

6. **Viewing Locations 6, 7, 8, and 9 (off site, generally from Interstate 5 and points east, looking west and southwest toward site)**

Non-Urban 1 development in the northeastern corner of the Specific Plan site would be visible from Viewing Locations 6, 7, 8, and 9. No other development would occur within the viewsheds of Viewing Locations 6 and 7. No Non-Urban 1 development on the Airport Mesa would be visible from Viewing Locations 8 and 9.

7. **Viewing Location 10 (off site, from the Rim of the Valley Trail, looking north toward site)**

Because Non-Urban 1 development in the northeastern corner of the Specific Plan site would barely be visible from Viewing Location 10 given the distance between the Rim of the Valley trail and the very low intensity of Non-Urban 1 development, Alternative 2 would be less visible than the Specific Plan from this location. No other development would occur within the viewshed of Viewing Location 10 due to the view blocking effects of intervening topography.

In conclusion, development under Alternative 2 would result in substantially less physical alteration of the Specific Plan site than would occur if the site were to be developed as proposed. In addition, less development would be visible from each of the ten viewing locations. Therefore, with respect to visual qualities, Alternative 2 is environmentally superior to the Specific Plan.

(h) Cultural/Paleontological Resources

Because less ground disturbance would occur under Alternative 2, potential direct impacts to cultural and paleontological resources on the Specific Plan site would be less under Alternative 2 than if the Specific Plan were to develop as proposed. However, under Alternative 2 the conservation of the Asistencia (San Fernando Mission Annex) would not occur. Therefore, neither the Specific Plan or this Alternative is considered to be environmentally superior with regard to impacts on cultural and paleontological resources.

(i) Wastewater Disposal

Wastewater generated under Alternative 2 would be treated by individual septic systems, which would result in effluent being leached through the ground without the opportunity of reclaiming any of it for reuse. Wastewater generation for Alternative 2 would be 0.59 mgd compared to the 5.8 to 7.7 mgd that the Specific Plan would generate. Although 0.59 mgd of wastewater is substantially less than 5.8 to 7.7 mgd, the Specific Plan includes a water reclamation plant to treat all of its wastewater on site with the reclaimed water being used to irrigate Open Areas on the site rather than disposing of untreated wastewater into the ground, where it can come into contact with ground water supplies. Because the Specific Plan would have its own, on-site water reclamation plant to treat all Specific Plan wastewater rather than disposing of untreated wastewater into the ground, the Specific Plan is environmentally superior to Alternative 2.

(j) Water Resources

Water consumption for this alternative would be 1,414 acre-feet per year compared to 12,082 to 13,320 acre-feet per year of water that the proposed Specific Plan would require from potable water supplies (i.e., 19,345 acre-feet minus 6,025 to 7,263 acre-feet of reclaimed water). Because this alternative would consume less water from potable water resources than the Specific Plan, it would be environmentally superior to the Specific Plan with respect to impacts on water resources.

(k) Education

Alternative 2 would generate 1,277 students compared to the 10,074 students that would be generated by the Specific Plan. Therefore, Alternative 2 is environmentally superior to the Specific Plan with respect to school impacts.

(l) Natural Gas/Electricity

Implementation of both the Specific Plan and Alternative 2 would require the use and expenditure of nonrenewable petroleum resources. Alternative 2 would consume substantially less petroleum-based resources than the Specific Plan; a comparison of annual energy consumption between the Specific Plan and Alternative 2 is provided in **Table 8.0-3, Alternative 2 Electricity and Natural Gas Demand.**

Table 8.0-3
Alternative 2
Electricity and Natural Gas Demand

	Specific Plan Demand	Alternative Demand
Electricity Demand (kWh/year)	233.2 million	13.1 million
Natural Gas Demand (cubic feet/year)	1,747.3 million	169.5 million

Source: Impact Sciences, Inc. (November 1995).
See Appendix 8.0 for detailed energy consumption calculations for Alternative 2.

Although these energy resources are commercially available, Alternative 2 would consume substantially less petroleum-based energy resources than the Specific Plan and would be environmentally superior to the Specific Plan.

(m) Police Services

Because less development would occur on the site under Alternative 2 and a smaller on-site population would result, it is expected that Alternative 2 would have less of an impact on the Sheriff's Department than the Specific Plan. For the same reasons, Alternative 2 would also have smaller demands for CHP and emergency services in the area of the Specific Plan site. As a result, Alternative 2 would be environmentally superior to the Specific Plan with respect to police services.

(n) Fire Services and Hazards

Because, Alternative 2 would result in less development and a smaller population on the Specific Plan site than would occur under the Specific Plan, there would be fewer Fire Department calls to the site than under the Specific Plan. Therefore, with respect to providing fire services to the Specific Plan site, Alternative 2 is environmentally superior to the Specific Plan.

(o) Environmental Safety

As discussed in **Section 4.5, Environmental Safety**, potential impacts may result on the Specific Plan site if development occurs in the following locations:

- adjacent to historic and continuing oil and natural gas operations,
- in close proximity to the Southern California Edison electrical transmission lines,
- in close proximity to the Southern California Gas Company high pressure gas lines,
- adjacent to State Route 126, upon which hazardous wastes are transported,
- in close proximity to Chiquita Canyon Landfill,
- within the Castaic Lake dam inundation area, and
- adjacent to on-going agricultural operations.

The safety conditions under which Alternative 2 would be developed would be similar to those with development of the Specific Plan. The primary difference between development of the Specific Plan and Alternative 2 would be a substantial reduction in site population, which would result in substantially less exposure to potential hazards, as unlikely as their occurrence might be. For this reason, Alternative 2 is superior environmentally to the Specific Plan with respect to environmental safety.

(p) Libraries

Based on County Library planning standards of 0.35 square feet of library facilities per capita and 2.0 books per capita, the Specific Plan would require a total of 23,983 square feet of library facilities with 137,084 additional volumes for the library system's collection. In comparison, development under Alternative 2 would, according to County Library standards, require 2,297 square feet of library facilities and 13,124 volumes. Development under Alternative 2 would have less of an impact on County Library facilities than would the Specific Plan, and would be environmentally superior to the Specific Plan.

(q) Parks, Recreation and Trails

Under County (and Quimby Act) requirements, development of the Specific Plan would require the applicant to provide 206 dedicated acres of local parkland; the Specific Plan as proposed would exceed this requirement by providing a total of 6,175 acres for parks, recreation, and Open Area, including Neighborhood and Community Parks, a 15-acre lake, an 18-hole golf course, trails, the River Corridor and High Country SMAs, and other Open Area. (see **Section 4.20, Parks, Recreation and Trails** for a full

discussion on this topic). Per County requirements, development under Alternative 2 would require dedication of a total of 19.7 acres for parkland. The applicant has indicated that neither SMAs or Open Area would be dedicated to public use as part of Alternative 2. Consequently, because the Specific Plan would provide recreational land in excess of what would be required under the County requirement and Alternative 2 would not, the Specific Plan would be environmentally superior to Alternative 2.

(r) Population, Housing and Employment

1. Population

The Newhall Ranch Specific Plan would introduce a resident population of 68,524 onto the Specific Plan site at buildout. This population is within the Southern California Association of Government's (SCAG) 1994 growth projection for the area, but is not within the County's 1990 projection (see **Section 4.21, Population, Housing and Employment** for further discussion). Buildout of the site consistent with the 1990 Santa Clarita Valley Area Plan would result in 6,562 persons residing on the site (assuming 3.17 persons per household). This population is within both the County's 1990 and SCAG's 1994 growth projections for the region and an amendment to the County growth projections would not be required as it would with the Specific Plan.

2. Housing

The proposed Newhall Ranch community would include approximately 24,680 dwelling units plus an additional 538 second units, including a wide range of Residential designations designed to allow for a variety of product types. These housing units are consistent with SCAG's recently adopted (1994) projections for the region, but not the County's 1990 projections (see **Section 4.21** for further discussion).

Residential development under Alternative 2 would provide for 2,070 single family Residential units (no multi-family units would be permitted). This development is well within the County's 1990 and SCAG's 1994 growth projections for the area.

3. Employment

Development of the Newhall Ranch Specific Plan would result in an employment population of 19,323, which is almost 2,000 more employees than forecast by SCAG for 2015 in the census tracts that overlie the Specific Plan site. Development consistent with the Santa Clarita Valley Area Plan would generate 128 on-site employment opportunities on 3.4 Commercial acres and 1.5 industrial acres. The

Santa Clarita Valley has been identified by SCAG as an area in need of additional employment opportunities. Under Alternative 2, the jobs to housing ratio for the developed site would be reduced from 0.78 to 0.05, which is indicative of more homes and fewer jobs than the Specific Plan. Consequently, from an employment standpoint, the Specific Plan is superior to Alternative 2.

The population, housing and employment generated by Alternative 2 fall within the County's 1990 projections. However, SCAG's 1994 projections for growth in this area are greater than the County's 1990 projections. In fact, the Housing Chapter of the SCAG Regional Comprehensive Plan and Guide contains goals which call for additional housing opportunities along with employment in order to reduce vehicle miles traveled and the associated air impacts. Nevertheless, as Alternative 2 is consistent with the growth forecasts for the site, and would not require a General Plan Amendment, it is considered environmentally superior to the Specific Plan from a population and housing standpoint. From an employment standpoint, the Specific Plan is environmentally superior to Alternative 2.

(s) Solid Waste Disposal

At buildout, the Specific Plan would generate approximately 53,524 tons of solid waste per year. In comparison, Alternative 2 would generate 4,387 tons of solid waste annually. Given the substantially smaller solid waste generation totals associated with Alternative 2, it would be environmentally superior to the Specific Plan.

(t) Agricultural Resources

There are 547 acres of prime farmland and 48 acres of unique farmland on the Specific Plan site (see **Section 4.4, Agricultural Resources**, for a complete discussion of Farmlands of Importance). Development of the site consistent with the Specific Plan would result in the loss of this land to urban uses. Development of the site under Alternative 2 would also permit residential development in areas of the site that are designated as prime farmland and unique farmland (specifically, development would occur on prime farmland at the mouth of Potrero Canyon and on Exxon Mesa, and on unique farmland located east of the prime farmland at the mouth of Potrero Canyon); however, development would occur on fewer acres of farmlands of importance under Alternative 2 than the Specific Plan. Therefore, with respect to the loss of prime agricultural land, Alternative 2 is environmentally superior to the Specific Plan. In light of the continuing trend in the County of Los Angeles to convert cultivated lands to urban uses to accommodate growth, and in light of the fact that the prime agricultural land on the Specific Plan site is already impaired (i.e., relatively difficult and less

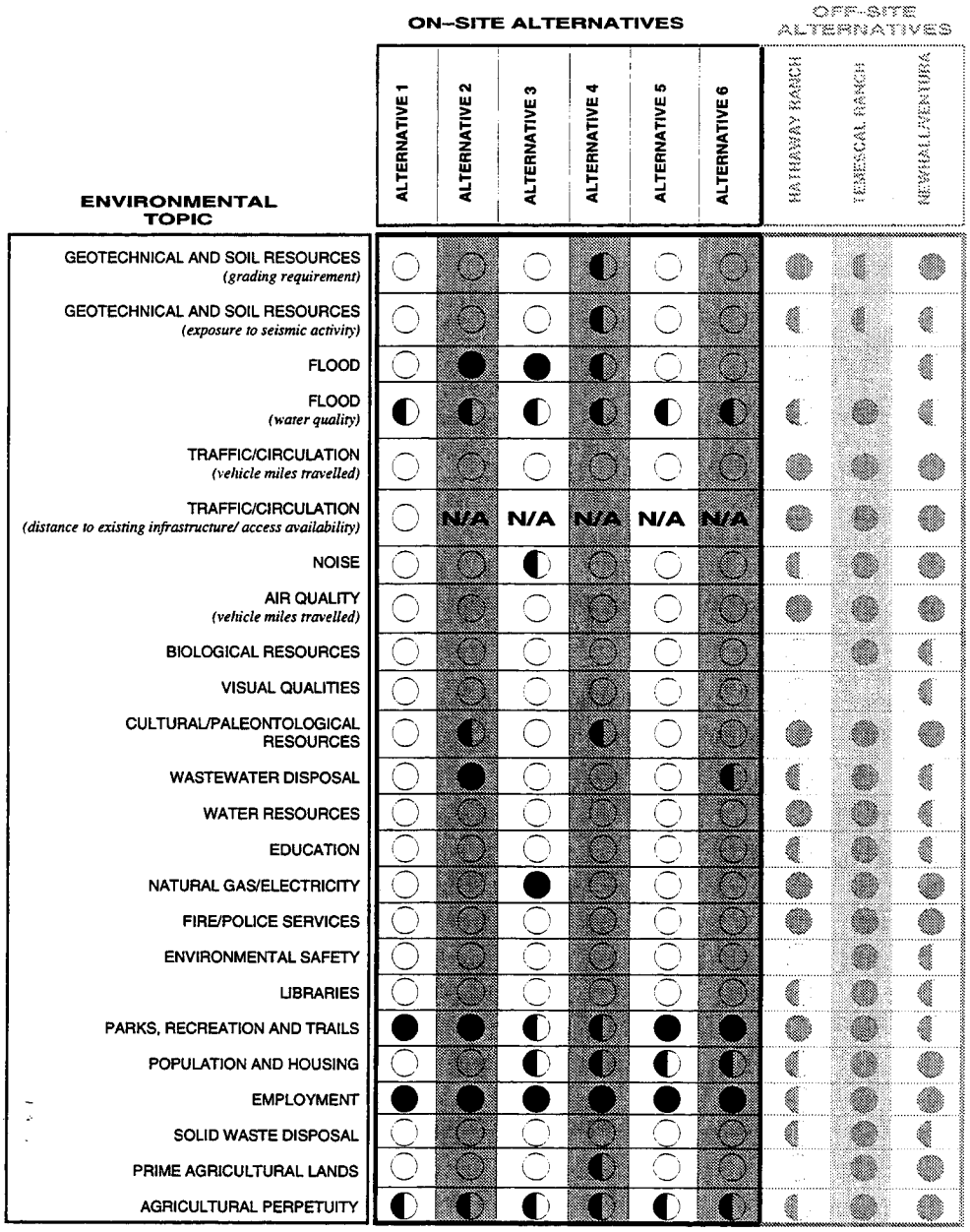
economical to farm) and is, therefore, generally of lower value than larger and better situated parcels found to the west, the loss of agricultural productivity on prime agricultural land on the Specific Plan site is not considered a significant impact. Therefore, with respect to loss of agricultural productivity on the Specific Plan site, there is no environmentally superior alternative.

c. Conclusion

Because many of the environmental impacts of the Specific Plan would be avoided or minimized with Alternative 2, it is environmentally superior to the Specific Plan (See **Table 8.0-4, On-Site Alternatives Impact Comparison Matrix**, for a presentation of an Alternative impact comparison matrix). However, Alternative 2 has been rejected in favor of the Specific Plan because the applicant believes that Alternative 2 too narrowly limits the range of housing opportunities provided and does not reflect the market conditions under which the Specific Plan would be developed, and because many of the objectives of the Specific Plan identified in the Project Description of this EIR (**Section 1.0**) would not be achieved. Specific objectives not fully met or impeded to some extent with Alternative 2 are listed below:

- Create a major new community with inter-related Villages that allows for residential, commercial and industrial development, while preserving significant natural resources, important land forms and open area.
- Provide a complementary and supportive array of land uses which will enable development of a community with homes, shopping, employment, schools, recreation, cultural and worship facilities, public services, and open space.
- Organize development into Villages to create a unique identity and sense of community for each.
- Design Villages in which a variety of higher intensity residential and non-residential land uses are located in proximity to each other and to major road corridors and transit stops.
- Establish land uses and development regulations which permit a wide range of housing densities, types, styles, prices, and tenancy (for sale and rental).
- Designate sites for needed public facilities such as schools, fire stations, library, water reclamation, and parks.
- Allow for the development of community services and amenities by the public and private sectors, such as medical facilities, child care, colleges, worship facilities, cultural facilities, and commercial recreation.
- Adopt development regulations which provide flexibility to respond to and adjust to changing economic and market conditions over a long period of time.
- Provide a tax base to support public services.
- Adopt development regulations and guidelines which allow site, parking, and facility sharing and other innovations which reduce the costs of providing public services.

Table 8.0-4 **On-Site Alternatives Impact Comparison Matrix**



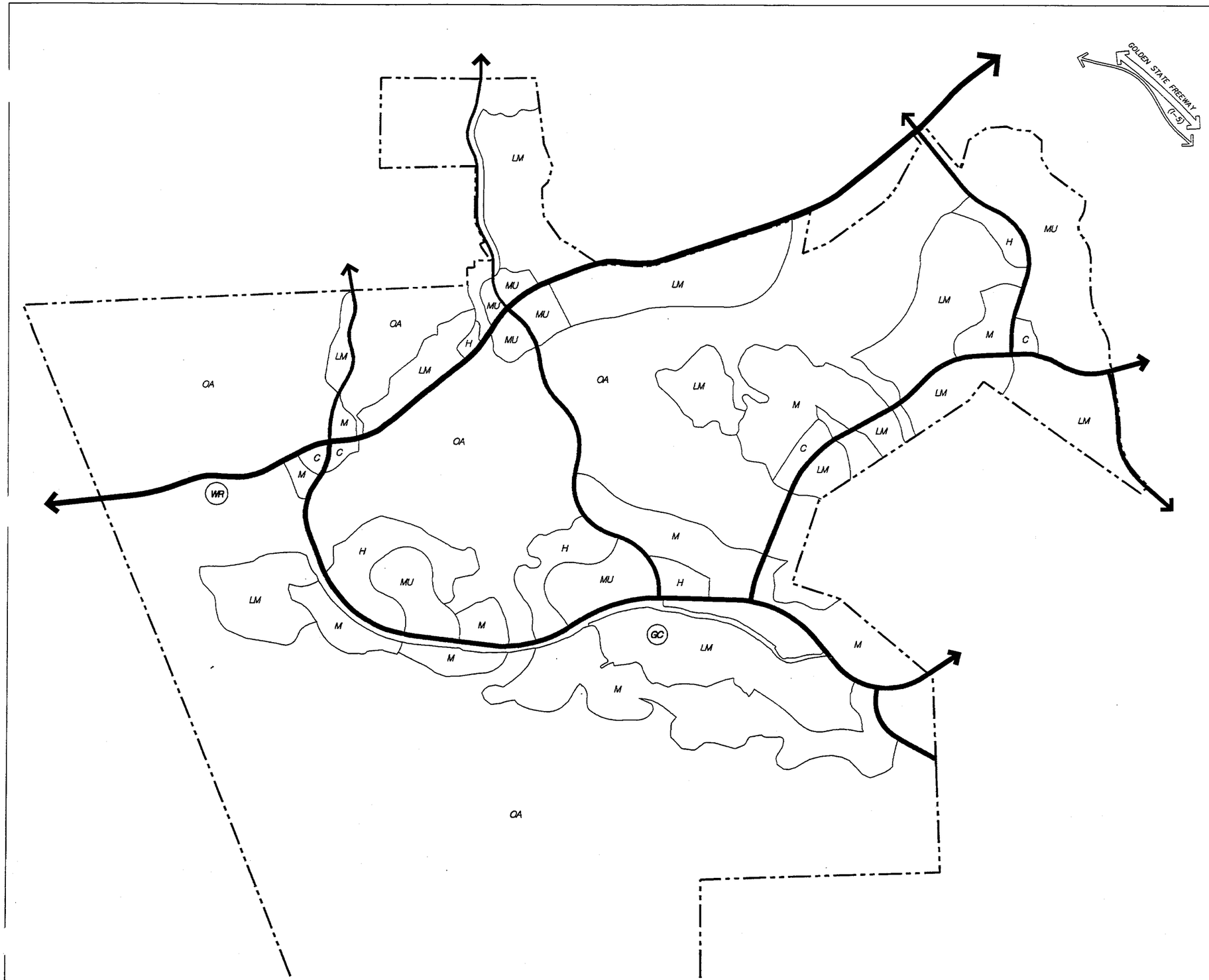
KEY (Level of Impact in Comparison to Project Site)

- ● Alternative Produces Greater Level of Impact
- ◐ Alternative Produces Equal Level of Impact
- ○ Alternative Produces Lesser Level of Impact
- **N/A** Not Applicable to Alternative

- Earn a reasonable return on investment.
- Design a mobility system which includes alternatives to automobile use.
- Facilitate public transit by reserving right-of-way for Metrolink line, space for a park and ride and/or Metrolink station, and by providing bus pull-ins along highways.
- Establish a diverse system of pedestrian and bicycle trails, segregated from vehicle traffic, to serve as an alternative to the automobile.
- Retain a major open space area which could act as a regional recreational park and an ecological preserve.
- Provide for the recreational use of open space that is compatible with protection of significant natural resources.
- Provide neighborhood and community parks and improvements which satisfy park dedication requirements and meet the recreational needs of local residents.
- Locate neighborhood parks adjacent to schools and establish joint-use agreements between park and school districts.
- Provide a range of recreational opportunities including passive and active parks, an 18-hole golf course, and a recreational lake.
- Provide an extensive system of pedestrian, bicycle, and hiking trails within the Villages and hiking trails in the High Country and other open areas.
- Preserve the Santa Clara River corridor and adjacent uplands containing significant natural resources for their resource value, open space, and recreational use.
- Retain a major open space area and its natural vegetation as a wildlife or ecological preserve.
- Preserve the site of the historical Asistencia (San Fernando Mission Annex).
- Provide a wastewater treatment plant and supplementary distribution systems to use reclaimed water.
- Promote water conservation through design guidelines that encourage use of drought-tolerant and native plants.

(3) Alternative 3 -- Clustered Alternative (Same Amount of Development, Smaller Footprint)

The primary purpose of Alternative 3 is to minimize or avoid potentially significant biological impacts by reducing the footprint of the Specific Plan. In doing so, many other impacts which could occur as a result of land surface disturbance (e.g., impacts to cultural resources, geotechnical resources, fugitive dust impacts generated by grading, etc.) might also be reduced in magnitude by a reduction in the footprint of the Specific Plan. Under Alternative 3, a clustered, mixed use development approach would result in 24,680 dwelling units and 4.4 million square feet of Commercial development clustered in six areas of the site (see **Figure 8.0-2, Alternative 3, Clustered Alternative**). Two development areas



NEWHALL RANCH™

Newhall Ranch Company

L E G E N D

LM	LOW-MEDIUM RESIDENTIAL
M	MEDIUM RESIDENTIAL
H	HIGH RESIDENTIAL
MU	MIXED-USE
C	COMMERCIAL
OA	OPEN AREA
	ROADS

LAND USE OVERLAYS (POTENTIAL LOCATIONS)

- WR — WATER RECLAMATION PLANT
- GC — GOLF COURSE

IMPACT SCIENCES INC

NORTH

100 ACRES 400 ACRES

English 0 1000' 2000'

Metric 0 400m 800m

THE CLUSTERED ALTERNATIVE

FIGURE 8.0-2

ALTERNATIVE 3

would occur along SR-126 at crossroads created by Chiquito Canyon Road and San Martinez Grande Canyon Road. Two additional areas of development would occur in Lower and Upper Potrero Canyon, south of the Santa Clara River along the extension of San Martinez Grande Canyon Road. The extension of Magic Mountain Parkway linking the I-5 corridor to the Potrero Canyon will create the last two development cluster areas: one in the center of the mesas and the other at the intersection of Magic Mountain Parkway and an extended Commerce Center Drive.

Alternative 3 clusters the 24,680 Residential units north of the Santa Clara River, on the mesas, and in Potrero Canyon. Residential development in this clustered scenario would necessarily be of higher intensity than that of the Specific Plan as less land would be developed. This results in land use designations ranging from Low-Medium to High Residential and would preclude the development of Estate and Low Residential land use designations. Alternative 3 also places mixed and Commercial uses along SR-126 at Chiquita Canyon Road and along Potrero Valley Road. A water reclamation plant is located along the Santa Clara River toward the western end of the site, and a golf course is located south of Potrero Valley Road (see **Figure 8.0-2, Alternative 3, Clustered Alternative**).

The most significant differences between Alternative 3 and the Specific Plan include:

- reduced development along the southern banks of the Santa Clara River,
- higher housing concentrations in the Low-Medium to High Residential land use designations,
- the exclusion of Estate and Low Residential housing,
- replacement of the Residential uses located west of Chiquito Canyon Road with Open Area,
- replacement of the Business Park site in Chiquito Canyon with Low-Medium Residential housing,
- replacement of the Estate and Low Residential uses along the northern boundary of the High Country with Open Areas,
- a reduction in development area from approximately 6,108 acres to 3,774 acres, with a resulting increase in Open Area from approximately 5,852 acres to 8,189 acres, and
- a reduction in on-site population from 68,524 to 63,261.

If the Specific Plan is not implemented as proposed and Alternative 3 is implemented instead, the following would also result:

- both the River Corridor and the High Country would be preserved as Special Management Areas available for public use;
- cattle grazing would no longer occur in both the River Corridor and High Country; trails would be constructed on the Specific Plan site, including the County-proposed River trail and the trail network proposed by the applicant as part of the Specific Plan;

- the County Master Plan of Highways alignment of Commerce Center Drive would be extended south to link with Magic Mountain Parkway;
- potential for the possible conservation of the Asistencia (San Fernando Mission Annex) site would exist;
- a Metrolink rail right-of-way would be reserved through the site;
- a park-and-ride lot/Metrolink station site along SR-126 would be available on the site;
- a fire station would likely be constructed off Chiquito Canyon Road near the community of Val Verde; and
- slightly less tax revenue would be generated on the site due to the reduction in tax-generating development.

A breakdown of the uses proposed in Alternative 3 are identified below in **Table 8.0-5, Alternative 3, Clustered Alternative Statistical Summary**. As shown, Alternative 3 reflects the same number of Residential units as the Specific Plan, but has a 16 percent reduction in non-residential (e.g., Commercial) uses compared to the Specific Plan.

Table 8.0-5
Alternative 3
Clustered Alternative Statistical Summary

Land Uses	Gross Acres	Dwelling Units	Square Footage
Residential:			
Estates	0	0	0
Low	0	0	0
Low-Medium/Golf Course	1,247	5,231	0
Low-Medium	295	494	0
Medium	1,170	10,542	0
High	381	4,929	0
Subtotal	3,090	21,196	0
Mixed-Use and Non-Residential:			
Mixed-Use[1]	602	3,484	3,714,000
Commercial	68	0	711,000
Business Park	0	0	0
Water Reclamation Plant	11	0	
Subtotal	681	3,484	4,425,000
Major Open Areas:	8,189	0	0
Totals	11,963	24,680	4,425,000

Source: FORMA (November 1995).
[1]*Mixed uses may include Commercial and Residential uses.*

It is assumed, for the sake of this impact analysis, that units under the Low-Medium Residential designation would be single family detached units, and that units under the Medium and High designations would be multi-family attached units. The following discussion compares the environmental impacts of Alternative 3 with those of the Specific Plan.

(a) Geotechnical and Soil Resources

Although development activity subject to the forces of ground movement during seismic events could occur under Alternative 3, site development under Alternative 3 would require less grading in hilly areas than the Specific Plan and would require slightly less earth movement. Consequently, from a geotechnical standpoint, Alternative 3 would be environmentally superior to the Specific Plan.

(b) Flood

Urban runoff generated under Alternative 3 would be conveyed and discharged into the Santa Clara River. The Flood section of this EIR (Section 4.2) indicates that the volume of water that runs off the Specific Plan site is greater in the undeveloped condition than in the developed condition because, in the undeveloped condition, the runoff also contains debris (soil and materials, such as dead branches, leaves, etc.), while, in the developed condition, debris is removed from the water. Like the Specific Plan, the amount of runoff from developed portions of the site would be greater than under current conditions due to an increase in the amount of impervious surfaces. At the same time the amount of debris found in the runoff would be reduced as undeveloped areas are replaced with the more non-erosive urban landscape. However, because the Specific Plan would cover more of the site with non-erosive surfaces than Alternative 3, the amount of runoff (water plus debris) from the Specific Plan site would be less with the Specific Plan than under Alternative 3. Therefore, the Specific Plan would be the environmentally superior alternative with respect to runoff quantities.

Stormwater runoff under Alternative 3 would be required to meet the same Regional Water Quality Control Board water quality standards as the Specific Plan, so storm runoff under either alternative would not significantly impact surface or ground waters. Therefore, neither Alternative 3 nor the Specific Plan is environmentally superior to the other with respect to runoff quality.

(c) Traffic/Access

Implementation of Alternative 3 would result in a decrease in trips. Specifically, average daily trip generation on the Specific Plan site would decrease from 387,000 trips to 338,100 trips (a 12.6 percent decrease). Based solely on the reduction in traffic trip generation and the impacts (and additional roadway capacity demands) which directly result from such trips, Alternative 3 would be superior to the Specific Plan.

(d) Noise

With a reduction in the amount of development on the site and associated trip reduction would be a reduction in noise impacts on and in the vicinity of the site. The analysis presented in this EIR determined that only one off-site location within the vicinity of the Specific Plan site - the Travel Village RV Park - would be significantly impacted by Specific Plan-generated noise. A reduction in Specific Plan traffic volumes of approximately 12.6 percent would reduce the Specific Plan's noise level increases. However, the increase in noise levels at the Travel Village RV Park would still exceed the off-site mobile source thresholds of significance. In summary, while Alternative 3 would reduce overall noise levels, the significant noise impact to the Travel Village RV Park would remain. Thus, neither the Specific Plan nor Alternative 3 is considered environmentally superior with respect to noise impacts.

(e) Air Quality

Because less on-site grading would occur under Alternative 3, the total amount of grading and construction-related air quality impacts would be less than those of the Specific Plan. In addition, Alternative 3 would generate fewer traffic trips than the Specific Plan. The relatively balanced proportion of Residential and non-residential land uses in the Specific Plan lead to an on-site internal trip percentage of 52 percent and an external trip percentage of 48 percent. Alternative 3 is less balanced in that regard and, hence, has higher proportions of external trips (70 percent) compared to the Specific Plan (48 percent), which leads to greater vehicle miles traveled than the Specific Plan. The combined effect of this reduction in vehicle trips and increase in vehicle miles traveled on air emissions is provided below.

	Emissions in Pounds per Day				
Emissions Source	CO	VOC	NO_x	SO_x	PM_{10}
Specific Plan	17,575.7	835.6	3,015.6	315.9	43,185.6
Clustered Alternative	18,034.1	841.1	2,980.9	312.9	42,285.7
Recommended SCAQMD Thresholds	550.0	55.0	55.0	150.0	150.0

Source: Impact Sciences, Inc.

As shown, Alternative 3 would generate more emissions of CO and VOC, and fewer air emissions of NO_x, SO_x, and PM_{10} than the Specific Plan. Therefore, Alternative 3 would not necessarily be environmentally superior to the Specific Plan with respect to air quality. The emissions generated by Alternative 3 would also exceed the thresholds recommended by the SCAQMD and, as with the Specific Plan, would be considered significant.

(f) Biota

Development under Alternative 3 would occur within the present boundaries of the Santa Clara River SEA 23, although to a lesser extent than with the Specific Plan, and would not occur within the Santa Susana Mountains SEA 20. **Table 8.0-6** compares the acreage of habitats impacted by Alternative 3 with that impacted by the Specific Plan for both SEAs. As shown, approximately 41.7 fewer acres of sensitive habitats are impacted by Alternative 3 in the Santa Clara River SEA 23 (which is 3.5 percent of the site's land area within SEA 23). Approximately 139.3 fewer acres of sensitive habitats are impacted by Alternative 3 in the Santa Susana Mountains SEA 20 (which is 3.5 percent of the site's land area within SEA 20). Given that a lesser amount of grading and its associated ground and habitat disturbance would occur, and given that there would be a reduction in site population with Alternative 3, the biological impact of Alternative 3 would be less than that of the Specific Plan.

Table 8.0-6
Comparison of Impact on Sensitive Habitats
- SEAs 20 and 23

	W/Specific Plan (acres)	W/Alternative 3 (acres)	Net Change (acres)
Grading in SEA 23			
• Sensitive Habitats	47.3	5.6	(41.7)
• Non-Sensitive Habitats	402.3	7.2	(395.1)
Subtotal	449.6	12.8	(436.8)
Grading in SEA 20			
• Sensitive Habitats	139.3	0.0	(139.3)
• Non-Sensitive Habitats	100.4	0.0	(100.4)
Subtotal	239.7	0.00	(239.7)
Total Sensitive Habitats Graded	186.6	5.6	(181.0)

Consequently, Alternative 3 is biologically superior to the Specific Plan. However, the biological impacts of Alternative 3 would still be significant.

(g) Visual Qualities

Alternative 3 was analyzed as follows based on the viewing location information provided in **Section 4.7, Visual Qualities:**

1. **Viewing Location 1 (west of the site in Ventura County, along SR-126 looking east)**

The proposed WRP and Low-Medium Residential housing south of the Santa Clara River would be visible from View Location 1, while development along the northern leg of Potrero Valley Road and on Potrero Mesa south of the Santa Clara River would only be visible in the distance. This is not a major change from the Specific Plan.

2. **Viewing Location 2 (on site, along SR-126 west of San Martinez Grande looking south)**

Low-Medium and Medium-Residential housing and Mixed-Uses along the northern leg of Potrero Valley Road and on Potrero Mesa south of the Santa Clara River would be visible from Viewing Location 2. Near and middle ground views of Alternative 3 would not be a major change from the Specific Plan. Residential development that is proposed by the Specific Plan south of the SCE easement located in Potrero Canyon would not occur under Alternative 3; therefore, distant views of the site from this viewing location would change when compared with the Specific Plan (i.e., the Specific Plan is more visible).

3. **Viewing Location 3 (on site, near the SR-126/Chiquito Canyon Road intersection looking south)**

Development would be visible from Viewing Location 3 as would the Low-Medium and Medium-Residential housing located immediately south of the River. Intervening topography would impede views of development south of Long Canyon from this location. No other development would occur elsewhere within the viewshed of this viewing location. From a visual perspective, less development would be visible with Alternative 3 when compared with the Specific Plan.

4. **Viewing Location 4 (at the northern site boundary on Chiquito Canyon Road looking south)**

Low-Medium Residential housing along Chiquito Canyon Road would be visible from Viewing Location 4. No Business Park uses would be visible in Chiquito Canyon because they have been removed under Alternative 3. In addition, a small amount of Residential development would be visible in the distance

at the mouth of Long Canyon south of the River. Intervening topography would preclude views of development along Potrero Canyon from this viewing location. While less development would be visible under Alternative 3, this reduction would be so minor that it would likely not be perceptible to viewers.

5. **Viewing Location 5 (on site, along SR-126 on the west side of Castaic Creek looking south)**

Residential development on Exxon and Grapevine Mesas south of Santa Clara River and SR-126 would be visible from Viewing Location 5. Alternative 3 would appear visually the same as the Specific Plan.

6. **Viewing Locations 6, 7, 8, and 9 (off site, generally from Interstate 5 and points east, looking west and southwest toward site)**

Views from Viewing Locations 6, 7, 8, and 9 would be visually the same under Alternative 3 as they would be under the Specific Plan, as any reductions in development would be so slight as to be visually imperceptible.

7. **Viewing Location 10 (off site, from the Rim of the Valley Trail, looking north toward site)**

Views from the Rim of the Valley trail would be visually the same under Alternative 3 as they would be under the Specific Plan, as any reductions in development would be so slight as to be visually imperceptible.

In conclusion, because less development would be visible in two of the nine viewsheds evaluated in the EIR, Alternative 3 is environmentally superior to the Specific Plan. However, such superiority would only be slight due to the fact that only minor changes would occur to the visual landscape when compared to the Specific Plan.

(h) Cultural/Paleontological Resources

Because less ground disturbance would occur under Alternative 3, potential impacts to cultural and paleontological resources on the Specific Plan site would be less under Alternative 3 than if the Specific Plan were to develop as proposed. Therefore, Alternative 3 is environmentally superior with respect to cultural resources.

(i) Wastewater Disposal

The Specific Plan would generate 5.8 to 7.7 mgd of wastewater, while wastewater generation for Alternative 3 would be 5.43 million gallons per day (mgd), all of which would be treated at an on-site water reclamation plant. Assuming that the on-site plant would be sized to treat all wastewater from Alternative 3, neither the Specific Plan nor Alternative 3 would have a significant impact relative to the treatment infrastructure. However, because Alternative 3 would result in less solid material being disposed of at approved landfills, Alternative 3 would be environmentally superior to the Specific Plan with respect to wastewater disposal.

The Specific Plan would reclaim 84 to 92 percent of its wastewater, resulting in an annual reclamation of 6,025 to 7,263 acre-feet of wastewater. Assuming that 84 to 92 percent of the wastewater generated under Alternative 3 would be reclaimed, 5,109 to 5,595 acre-feet of reclaimed water would be available for on-site irrigation.

(j) Water Resources

Water demand for Alternative 3 would be 13,845 acre-feet per year for both potable and irrigation uses. Since reclaimed water could be used to meet 5,109 to 5,595 acre-feet of Alternative 3's irrigation needs, 8,250 to 8,736 acre-feet (13,845 acre-feet minus 5,109 to 5,595 acre-feet) of water would be required from potable water supplies compared to the 12,082 to 13,320 acre-feet per of water (19,345 acre-feet minus 6,025 to 7,263 acre-feet of reclaimed water) that the Specific Plan would require from potable water supplies. Because this alternative would consume less water from potable water resources than the Specific Plan, it would be environmentally superior to the Specific Plan with respect to impacts on potable water resources.

(k) Education

Alternative 3 would generate 7,504 students as compared to the 10,074 students that would be generated by the Specific Plan (although there is the same number of housing units in Alternative 3 as the Specific Plan, the student generation rates for higher intensity housing are less than they are for low intensity housing, thereby yielding fewer students). Given this reduction in student generation, Alternative 3 is environmentally superior to the Specific Plan with respect to school impacts.

(l) Natural Gas/Electricity

Implementation of both the Specific Plan and Alternative 3 would require the use and expenditure of nonrenewable petroleum resources. Alternative 3 would consume more petroleum resources than the Specific Plan; a comparison of annual energy consumption between the Specific Plan and Alternative 3 is provided below in **Table 8.0-7, Alternative 3, Electricity and Natural Gas Demand** (see **Appendix 8.0** for detailed energy consumption calculations). Note that, due to the fact that non-residential square footage under Alternative 3 is allocated for Commercial uses rather than low-energy demand Business Park uses (e.g., distribution centers and warehouses), Alternative 3 has a higher natural gas and electricity demand than the Specific Plan.

Table 8.0-7
Alternative 3
Electricity and Natural Gas Demand

	Proposed Specific Plan Demand	Alternative Demand
Electricity Demand (kWh/year)	233.2 million	263.4 million
Natural Gas Demand (cubic feet/year)	1,747.3 million	1,834.5 million

Source: Impact Sciences, Inc. (November 1995).
See Appendix 8.0 for detailed energy consumption calculations for Alternative 3.

Overall, the Specific Plan would consume less energy than Alternative 3, and is, therefore, considered to be environmentally superior with respect to energy consumption.

(m) Police Services

Because less development would occur on the site under Alternative 3 and a smaller on-site population would result, it is expected that Alternative 3 would have less of an impact on the Sheriff's Department than the Specific Plan. For the same reasons, Alternative 3 would also have smaller demands for CHP and emergency services in the area of the Specific Plan site. As a result, Alternative 3 would be environmentally superior to the Specific Plan with respect to police services.

(n) Fire Services and Hazards

Because Alternative 3 would result in less development and a smaller population on the Specific Plan site than would occur under the Specific Plan, there would be fewer Fire Department calls to the site than under the Specific Plan. Therefore, with respect to providing fire services to the Specific Plan site, Alternative 3 is environmentally superior to the Specific Plan.

(o) Environmental Safety

As discussed in **Section 4.5, Environmental Safety**, potential impacts may result on the Specific Plan site if development occurs in the following locations:

- adjacent to historic and continuing oil and natural gas operations,
- in close proximity to the Southern California Edison electrical transmission lines,
- in close proximity to the Southern California Gas Company high pressure gas lines,
- adjacent to State Route 126, upon which hazardous wastes are transported,
- in close proximity to Chiquito Canyon Landfill,
- within the Castaic Lake dam inundation area, and
- adjacent to on-going agricultural operations.

The safety conditions under which Alternative 3 would be developed would be similar to those with development of the Specific Plan. The primary difference with development of Alternative 3 would be a slight reduction in site population, which results in slightly less exposure to potential hazards, as unlikely as their occurrence might be. For this reason, Alternative 3 is superior environmentally to the Specific Plan with respect to environmental safety.

(p) Libraries

Based on County Library planning standards of 0.35 square feet of library facilities per capita and 2.0 books per capita, the Specific Plan would require a total of 23,983 square feet of library facilities with 137,084 additional volumes for the library system's collection. In comparison, development under Alternative 3 would, according to County Library standards, require 22,141 square feet of library facilities and 126,522 volumes. Development under Alternative 3 would have only a slightly less impact on County Library facilities than would the Specific Plan and would be only marginally environmentally superior to the Specific Plan.

(q) Parks, Recreation and Trails

Under County (and Quimby Act) requirements, development of the Specific Plan would require the applicant to provide 206 dedicated acres of local parkland; the Specific Plan as proposed would exceed this requirement, by providing a total of 6,175 acres for parks, recreation, and Open Area, including Neighborhood and Community Parks, a 15-acre lake, an 18-hole golf course, trails, the River Corridor and High Country SMAs, and other Open Area.(see **Section 4.20, Parks, Recreation and Trails** for a full discussion on this topic).

Per County requirements, development under Alternative 3 would require dedication of a total of 189.8 acres for parkland. The applicant has indicated that both the River Corridor and the High Country SMAs would still be dedicated for public use under Alternative 3. Because both the Specific Plan and Alternative 3 would provide on-site recreational land in excess of what would be required under County requirements, no environmentally superior alternative has been identified.

(r) Population, Housing and Employment

1. Population

Development of the proposed Newhall Ranch Specific Plan would result in a resident population of 68,524 at buildout, which is within SCAG's 1994 projections for the area, but not the County's 1990 projections (see **Section 4.21, Population, Housing and Employment** for further discussion). Alternative 3 would introduce 63,261 persons on the Specific Plan site (see **Appendix 8.0** for population calculations for Alternative 3). This population is well within SCAG's 1994 projections for the region, but not the County's 1990 projections.

2. Housing

The proposed Newhall Ranch community would include 24,680 dwelling units, plus an additional 538 second units, including a wide range of Residential designations designed to allow for a variety of product types. These housing units are consistent with SCAG's recently adopted (1994) projections for the region, but not the County's 1990 projections (see **Section** 4.21 for further discussion). Therefore, the proposed units are part of SCAG's planned growth of the area, but not the County's. As previously mentioned, it is assumed that units under the Low-Medium Residential designation would be single-family detached units and that units under the Medium and High Residential designations would be multi-family attached units. Therefore, Residential development under Alternative 3 would provide for 5,725 detached/single family Residential units and 18,955 attached/multi-family units (also

totaling 24,680 dwelling units) with concentrations ranging from Low-Medium to High. Although these housing quantities are within SCAG's 1994 growth projections for the area, Alternative 3 would not provide for as wide a range of housing concentrations as the Specific. Nor is this amount of housing within the County's 1990 growth projections for the Valley. Also, by providing a greater amount of higher intensity housing, Alternative 3 would increase the affordability of housing on the site by virtue of the units' smaller sizes and prices. However, it is the opinion of the applicant that the provision of a higher number of high intensity units does not reflect the market forces under which the Newhall Ranch Specific Plan will be developed, nor would it meet the applicant's objectives to permit a wide range of housing densities and types.

3. Employment

Development of the proposed Newhall Ranch Specific Plan would result in an employment population of 19,323, or almost 2,000 more employees than forecast by SCAG for the census tracts that overlie the Specific Plan site. Development of Alternative 3 would result in 14,483 on-site employees (see Appendix 8.0 for employment calculations). The Santa Clarita Valley has been identified by SCAG as an area in need of additional employment opportunities. Under Alternative 3, the jobs to housing ratio would still be 0.78, but it would provide 4,840 fewer jobs than the Specific Plan. Consequently, from an employment standpoint, the Specific Plan is considered to be environmentally superior to Alternative 3.

As with the Specific Plan, the population, housing and employment generated by Alternative 3 do not fall within the County's 1990 projections. However, SCAG's 1994 projections show much more growth in this area than does the County in its 1990 projections. As would the Specific Plan, Alternative 3 would require a General Plan Amendment. Given the differences between County projections and SCAG projections, the dates of those projections, and the different implications on population and housing resulting from each, no environmental preference with respect to population and housing can necessarily be concluded.

(s) Solid Waste Disposal

At buildout, the Specific Plan would generate approximately 53,524 tons of solid waste per year. In comparison, Alternative 3 would generate 52,568 tons of solid waste annually, as shown in **Table 8.0-8, Alternative 3 Daily Solid Waste Generation (No Recycling)**. Given the smaller solid waste generation totals associated with Alternative 3, it would be environmentally superior to the Specific Plan with respect to impacts on solid waste disposal facilities.

Table 8.0-8
Alternative 3
Daily Solid Waste Generation (No Recycling)

Land Use	Units[1]	Generation Factor (pounds/day)[2]	Total Waste Generation (pounds/day)
Residential			
Single Family Detached	5,725 du's	11.18	63,995
Multi-Family/Attached	18,955 du's	6.41	121,520
General Retail[3]	642,000 sq.ft.	0.01	8,443
Eating & Drinking Establ.	385,200 sq.ft.	0.06	22,795
Food & Drug Stores	1,027,200 sq.ft.	0.04	40,525
Auto Dealer & Service Station	256,800 sq.ft.	0.03	7,176
Hotel & Motel	256,800 sq.ft.	0.03	7,458
Office	1,857,000 sq.ft.	0.01	14,245
Trans., Comm., Utilities[4]	35,000 sq.ft.	0.04	1,515
Golf Course[5]	150 acres	1.10	164
Developed Park[6]	189.78 acres	1.10	208
		Total	288,044 52,568 TPY

Source: Impact Sciences, Inc. (January 1996).
[1]du = dwelling unit; sq.ft. = square feet; TPY = tons per year.
[2]The solid waste generation rates are derived from the Ventura County Solid Waste Management Department's Guidelines for the Preparation of Environmental Assessments for Solid Waste Impacts. These factors do not reflect any recycling activities on the part of the generator.
[3]Assumes a 50/50 split of Mixed-Use between retail and office uses. Retail uses are assumed to be 25% general retail, 10% auto dealer and service stations, 10% hotel/motel, 15% eating and drinking establishments, and 40% food and drug stores. Industrial uses are assumed to be 50% Business Park and 50% manufacturing.
[4]Assumes a 150-acre golf course.
[5]Assumes 35,000 square feet of utilities facilities (same as Specific Plan).
[6]Assumes alternative will meet County requirements of 3 acres of parkland per 1,000 population.

(t) Agricultural Resources

There are 547 acres of prime farmland and 48 acres of unique farmland on the Specific Plan site. Development of the site consistent with the Specific Plan would result in the loss of this land to urban uses. Development of the site under Alternative 3 would permit development in areas of the site that are designated as prime farmland and unique farmland (specifically, development would occur on prime farmland and unique farmland located along SR-126, south of the River, and along Potrero Canyon). A small portion of the site designated as prime farmland and located north of SR-126 and east of Chiquito Canyon Road would not be developed under Alternative 3. Overall, development would occur on slightly fewer acres of farmlands of importance under Alternative 3 than would the Specific Plan. Therefore, with respect to the loss of prime agricultural land, Alternative 3 is environmentally superior to the Specific Plan.

In light of the continuing trend in the County of Los Angeles to convert cultivated lands to urban uses to accommodate growth, and the fact that the prime agricultural land on the Specific Plan site is already impaired (i.e., relatively difficult and less economical to farm) and is, therefore, generally of lower value than larger and better situated parcels found to the west, the loss of agricultural productivity on prime agricultural land under such circumstances is not considered a significant impact. Therefore, with respect to loss of agricultural productivity on the Specific Plan site, there is no environmentally superior alternative.

d. Conclusion

Because some of the environmental impacts of the Specific Plan would be avoided or minimized with Alternative 3, it is considered environmentally superior to the Specific Plan. However, Alternative 3 has been rejected in favor of the Specific Plan because the applicant believes that Alternative 3 too narrowly limits the range of housing opportunities provided and does not reflect the market conditions under which the Specific Plan would be developed, and because many of the objectives of the Specific Plan identified in the Project Description of this EIR (**Section 1.0**) would not be achieved. Specific objectives not fully met or impeded to some extent with Alternative 3 are listed below:

- Create a major new community with inter-related Villages that allows for residential, commercial and industrial development, while preserving significant natural resources, important land forms and open space.
- Provide a complementary and supportive array of land uses which will enable development of a community with homes, shopping, employment, schools, recreation, cultural and worship facilities, public services, and open space.
- Establish land uses and development regulations which permit a wide range of housing densities, types, styles, prices, and tenancy (for sale and rental).
- Adopt development regulations which provide flexibility to respond to and adjust to changing economic and market conditions over a long period of time.
- Earn a reasonable return on investment.

(4) Alternative 4 -- 19,750 Unit Alternative (20 Percent Reduction in Development, Same Footprint)

The primary purpose of Alternative 4 is to minimize or avoid potentially significant traffic, air quality, noise, indirect biological, utility (e.g., water demand, wastewater generation), and public service (e.g., fire department, sheriff department) impacts by generally decreasing the amount of development (e.g., the number of dwelling units) on the site. Alternative 4 is similar in design and character to the Specific Plan and has a development footprint the same as that of the Specific Plan. The major difference between Alternative 4 and the Specific Plan is that less intensive development would occur on the Specific Plan site under Alternative 4 than would occur under the Specific Plan. For example, the total number of residential dwelling units would decrease by 20 percent and the total non-residential square footage would also decrease by 20 percent, while at the same time the land area devoted to development would remain approximately the same. The overall effect of the reduction in development on generally the same development footprint is a decrease in on-site intensities within each land use designation - both numerically and visually. In addition to the Residential and Commercial development, Alternative 4 also includes a water reclamation plant; Community and neighborhood parks; a golf course with a lake; and four elementary schools, one junior high school, and one high school. The purpose of Alternative 4 is to evaluate a less intense project for the site that would result in a general reduction in on-site environmental impacts (see **Table 8.0-9, Alternative 4, 19,750 Unit Alternative Statistical Summary**).

Table 8.0-9
Alternative 4
19,750 Unit Alternative Statistical Summary

Land Uses	Gross Acres	Dwelling Units	Square Footage
Residential:			
Estates	1,229	430	0
Low	881	1,535	0
Low Medium	2,011	5,563	0
Medium	866	6,449	0
High	140	2,178	0
Subtotal	5,124	16,155	0
Mixed-Use and Non-Residential:			
Mixed Use[1]	595	3,595	2,689,600
Commercial	90	0	711,200
Business Park/	256	0	1,036,000
Water Reclamation Plant			
Visitor-Serving	37	0	139,200
Subtotal		3,595	
Major Open Areas:	5,858	0	0
Totals	11,963	19,750	4,576,000

Source: FORMA (November 1995).
[1]*Mixed uses may include Commercial and Residential uses.*

If the Specific Plan is not implemented as proposed and Alternative 4 is implemented instead, the following would also result:

- both the River Corridor and the High Country would be preserved as Special Management Areas available for public use;
- cattle grazing would no longer occur in both the River Corridor and High Country;
- trails would be constructed on the Specific Plan site, including the County-proposed River trail and the trail network proposed by the applicant as part of the Specific Plan;
- the County Master Plan of Highways alignment of Commerce Center Drive would be extended south to link with Magic Mountain Parkway;
- potential for the possible conservation of the Asistencia (San Fernando Mission Annex) site would exist;
- a Metrolink rail right-of-way would be reserved through the site;
- a park-and-ride lot/Metrolink station site along SR-126 would be available on the site;
- a fire station would likely be constructed off Chiquito Canyon Road near the community of Val Verde;
- less tax revenue would be generated on the site due to the reduction in tax-generating development; and
- the on-site population would be reduced from 68,524 to 55,492.

It is assumed, for the sake of this impact analysis, that units under the Estate, Low, and Low-Medium Residential designation would be single family detached units, and that units under the Mixed Use, Medium and High designations would be multi-family attached units. The following discussion compares the environmental impacts of Alternative 4 to those of the Specific Plan.

(a) Geotechnical and Soil Resources

Because the arrangement of land uses and the development footprint for Alternative 4 is the same as that for the Specific Plan, geotechnical impacts for Alternative 4 are the same as for the Specific Plan. Therefore, no environmentally superior alternative can be identified with respect to geotechnical and soil resources.

(b) Flood

Urban runoff that would be generated under Alternative 4 would be conveyed and discharged into the Santa Clara River. Because site grading for Alternative 4 is expected to be identical to that of the Specific Plan and because site coverage with impervious surfaces is expected to be approximately 20 percent less than the Specific Plan, it is also expected that Alternative 4 would reduce runoff quantities from the Specific Plan site in approximately the same quantities as the Specific Plan. As a result, no environmentally superior alternative relative to flood impacts is identifiable.

With respect to runoff quality, development under Alternative 4 would be required to comply with the same Regional Water Quality Control Board standards as the Specific Plan and no environmentally superior alternative with respect to runoff quality can be identified.

(c) Traffic/Circulation

Implementation of Alternative 4 would result in a decrease in trips. Specifically, average daily trip generation on the Specific Plan site would decrease from 387,000 trips to 288,550 trips (a 25.4 percent decrease). Alternative 4 would decrease traffic impacts on local roadways, would require fewer roadway improvements off the Specific Plan site than the Specific Plan, and would be environmentally superior to the Specific Plan with respect to traffic/access impacts.

(d) Noise

With a reduction in the amount of development on the site and associated trip reduction would be a reduction in noise impacts on and in the vicinity of the site. The analysis presented in this EIR determined that only one off-site location within the vicinity of the Specific Plan site - the Travel Village RV Park - would be significantly impacted by Specific Plan-generated noise. A reduction in Specific Plan traffic volumes of approximately 25.4 percent would reduce the Specific Plan's noise level increase to the point that noise levels at the Travel Village RV Park would not exceed the off-site mobile source thresholds of significance. Therefore, Alternative 4 would be environmentally superior to the Specific Plan with respect to noise impacts due to the overall reduction in noise levels generated by the Specific Plan.

(e) Air Quality

Because on-site grading would be identical to the Specific Plan under Alternative 4, the total amount of grading and construction-related air quality impacts would be the same as those of the Specific Plan. However, Alternative 4 would generate less traffic than the Specific Plan. The effect of this reduction in building space and vehicle trips on air emissions is provided below.

Emissions Source	Emissions in Pounds per Day				
	CO	VOC	NO_x	SO_x	PM_{10}
Proposed Specific Plan	17,575.7	835.6	3,015.6	315.9	43,185.6
19,750 Unit Alternative	14,880.5	694.9	2,554.8	271.2	35,159.9
Recommended SCAQMD Thresholds	550.0	55.0	55.0	150.0	150.0

Source: Impact Sciences, Inc.

As shown, Alternative 4 would generate fewer air emissions than the Specific Plan. Therefore, it would be environmentally superior to the Specific Plan with respect to air quality. The emissions generated by Alternative 4 would, however, exceed the thresholds recommended by the SCAQMD and, as with the Specific Plan, would be considered significant.

(f) Biota

Development under Alternative 4 would cover approximately the same footprint as the Specific Plan. The open areas of the Specific Plan site, including the High Country and the River Corridor Special Management Areas, would still be designated as Open Area. Consequently, the biological impacts of grading with Alternative 4 would be similar to that of the Specific Plan. However, due to the reduction in site population that would occur under Alternative 4, the possible indirect impacts (by people and domestic animals) to sensitive habitats (including those found in SEAs 20 and 23) would be incrementally less. Consequently, Alternative 4 is slightly environmentally superior to the Specific Plan. However, the biological impacts of Alternative 4 would still be significant.

(g) Visual Qualities

Because 20 percent less development would occur on the Specific Plan site under Alternative 4 than under the Specific Plan, there would fewer visual impacts than would occur if the site develops as proposed. For example, development would occur over the same geographic area under Alternative 4 as under the Specific Plan, but development intensities would be less. Therefore, site development would

still be as visible from each viewing location as would the Specific Plan (see **Section 4.7, Visual Qualities**), but it would be slightly be less intensive in appearance. As a result, Alternative 4 would have incrementally less of a visual impact than the Specific Plan (although still significant) and would, therefore, be environmentally superior.

(h) Cultural/Paleontological Resources

Because the development footprint for Alternative 4 would be the same as for the Specific Plan, Alternative 4 would have the same impacts on cultural/paleontological resources as the Specific Plan. Consequently, there is no identifiable environmentally superior alternative with respect to cultural/paleontological resources.

(i) Wastewater Disposal

The Specific Plan would generate 5.8 to 7.7 mgd of wastewater, while wastewater generation for Alternative 4 would be 4.83 million gallons per day (mgd), all of which would be treated at an on-site water reclamation plant. Assuming that the on-site plant would be sized to treat all wastewater from Alternative 4, neither the Specific Plan nor Alternative 4 would have a significant impact relative to the treatment infrastructure. However, because Alternative 4 would result in less solid material being disposed of at approved landfills, Alternative 4 would be environmentally superior to the Specific Plan with respect to wastewater disposal.

The Specific Plan would reclaim 84 to 92 percent of its wastewater, resulting in an annual reclamation of 6,025 to 7,263 acre-feet of wastewater. Assuming that 84 to 92 percent of the wastewater generated under Alternative 4 would be reclaimed, 4,544 to 4,977 acre-feet of reclaimed water would be available for irrigation.

(j) Water Resources

Water demand for Alternative 4 would be 14,634 acre-feet per year for both potable and irrigation uses. Since reclaimed water could be used to meet 4,544 to 4,977 acre-feet of Alternative 4's irrigation needs, 9,657 to 10,090 acre-feet (14,634 acre-feet minus 4,544 to 4,977 acre-feet) of water would be required from potable water supplies compared to the 12,082 to 13,320 acre-feet per of water (19,345 acre-feet minus 6,025 to 7,263 acre-feet of reclaimed water) that the Specific Plan would require from potable water supplies. Because this alternative would consume less water from potable water resources than the Specific Plan, it would be environmentally superior to the Specific Plan with respect to impacts on potable water resources.

(k) Education

Alternative 4 would generate 7,429 students as compared to the 10,074 students that would be generated by the Specific Plan. Therefore, Alternative 4 is environmentally superior to the Specific Plan with respect to school impacts.

(l) Natural Gas/Electricity

Implementation of both the Specific Plan and Alternative 4 would require the use and expenditure of nonrenewable petroleum resources. Alternative 4 would consume slightly less petroleum resources than the Specific Plan; a comparison of annual energy consumption between the Specific Plan and Alternative 4 is provided below in **Table 8.0-10, Alternative 4, Electricity and Natural Gas Demand:**

Table 8.0-10
Alternative 4
Electricity and Natural Gas Demand

	Proposed Specific Plan Demand	Alternative Demand
Electricity Demand (kWh/year)	233.2 million	255.3 million
Natural Gas Demand (cubic feet/year)	1,747.3 million	1,372.4 million

Source: Impact Sciences, Inc. (November 1995).
See Appendix 8.0 for detailed energy consumption calculations for Alternative 4.

Although these energy resources are commercially available, Alternative 4 would consume less natural gas and more electricity than the Specific Plan and it is not possible to identify an environmentally superior alternative.

(m) Police Services

Because less development would occur on the site under Alternative 4 and a smaller on-site population would result, it is expected that Alternative 4 would have less of an impact on the Sheriff's Department than the Specific Plan. For the same reasons, Alternative 4 would also have smaller demands for CHP and emergency services in the area of the Specific Plan site. As a result, Alternative 4 would be environmentally superior to the Specific Plan with respect to police services.

(n) Fire Services and Hazards

Because, Alternative 4 would result in less development and a smaller population on the Specific Plan site than would occur under the Specific Plan, there would be fewer Fire Department calls to the site than under the Specific Plan. Therefore, with respect to providing fire services to the Specific Plan site, Alternative 4 is environmentally superior to the Specific Plan.

(o) Environmental Safety

As discussed in **Section 4.5, Environmental Safety**, potential impacts may result on the Specific Plan site if development occurs in the following locations:

- adjacent to historic and continuing oil and natural gas operations,
- in close proximity to the Southern California Edison electrical transmission lines,
- in close proximity to the Southern California Gas Company high pressure gas lines,
- adjacent to State Route 126, upon which hazardous wastes are transported,
- in close proximity to Chiquito Canyon Landfill,
- within the Castaic Lake dam inundation area, and
- adjacent to on-going agricultural operations.

The safety conditions under which Alternative 4 would be developed would be similar to those with development of the Specific Plan. The primary difference between development of Alternative 4 would be a reduction in site population, which results in less exposure to potential hazards, as unlikely as their occurrence might be. For this reason, Alternative 4 is superior environmentally to the Specific Plan with respect to environmental safety.

(p) Libraries

Based on County Library planning standards of 0.35 square feet of library facilities per capita and 2.0 books per capita, the Specific Plan would require a total of 23,983 square feet of library facilities with 137,084 additional volumes for the library system's collection. In comparison, development under Alternative 4 would require 19,422 square feet of library facilities and 110,984 volumes. Development under Alternative 4 would have less of an impact on County Library facilities than would the Specific Plan and would be environmentally superior to the Specific Plan.

(q) Parks, Recreation and Trails

Under County (and Quimby Act) requirements, development of the Specific Plan would require the applicant to provide 206 dedicated acres of local parkland; the Specific Plan as proposed would exceed this requirement, by a total of 6,175 acres for parks, recreation, and Open Area, including Neighborhood and Community Parks, a 15-acre lake, an 18-hole golf course, trails, the River Corridor and High Country SMAs, and other Open Area (see **Section 4.20, Parks, Recreation and Trails** for a full discussion on this topic). Per County requirements, development under Alternative 4 would require dedication of a total of 166.5 acres for parkland. The applicant has indicated that both the River Corridor and the High Country would still be dedicated for public use under Alternative 4. Because both the Specific Plan and Alternative 4 would provide on-site recreational land in excess of what would be required under County requirements, no environmentally superior alternative has been identified.

(r) Population, Housing and Employment

1. Population

Development of the Newhall Ranch Specific Plan would result in a resident population of 68,524 at buildout, which is within SCAG's 1994 growth projections for the area, but not the County's 1990 projection. Alternative 4 would result in 55,492 residents on the Specific Plan site, which is also within SCAG's 1994 growth projection for the region, but not the County's 1990 projection.

2. Housing

The Newhall Ranch community would include approximately 24,680 dwelling units plus an additional 538 Second units, including a wide range of Residential designations designed to allow for a variety of product types to serve a broad array of socio-economic groups. These housing units are consistent with SCAG's recently adopted projections for the region, but not the County's 1990 projections (see **Section 4.21** for further discussion).

Residential development under Alternative 4 would provide for 19,750 Residential units, also in a broad range of product types. This housing is also well within SCAG's 1994 growth projections for the area, but not the County's 1990 projections.

3. Employment

Development of the Newhall Ranch Specific Plan would result in an employment population of 19,323. Development consistent with Alternative 4 would generate 14,547 on-site employment opportunities. SCAG forecasts 17,500 jobs for 2015 in the census tracts that overlie the Specific Plan site; the Specific Plan would exceed SCAG's forecast while this Alternative 4 would not. Both Alternative 4 and the Specific Plan would exceed County employment projections. The Santa Clarita Valley has been identified by SCAG as an area in need of additional employment opportunities. Under Alternative 4, the jobs to housing ratio would be reduced from 0.78 to 0.73, which is indicative of more housing than jobs. Consequently, from an employment standpoint, the Specific Plan is superior to Alternative 4.

As with the Specific Plan, the population, housing and employment generated by Alternative 4 do not fall within the County's 1990 projections. However, SCAG projects much more growth in this area than does the County in its 1990 projections. As would the Specific Plan, Alternative 4 would require a General Plan Amendment. Given the differences between County projections and SCAG projections, the dates of those projections (1990 and 1994, respectively), and the different population and housing implications resulting from each, no environmental preference with respect to population and housing can necessarily be concluded.

(s) Solid Waste Disposal

At buildout, the Specific Plan would generate approximately 53,524 tons of solid waste per year. In comparison, Alternative 4 would generate 48,920 tons of solid waste annually, as shown in **Table 8.0-11, Alternative 4, Daily Solid Waste Generation (No Recycling)**. Given the smaller solid waste generation totals associated with Alternative 4, implementation of Alternative 4 would be environmentally superior to the Specific Plan with respect to solid waste disposal.

(t) Agricultural Resources

There are 547 acres of prime farmland and 48 acres of unique farmland on the Specific Plan site. Development of the site consistent with the Specific Plan would result in the loss of this land to urban uses. The development footprint of Alternative 4 is the same as that for the Specific Plan and development would also occur in areas of the site that are designated as prime farmland and unique farmland. Therefore, with respect to the loss of prime agricultural land and the loss of agricultural productivity, there is no environmentally superior alternative.

Table 8.0-11
Alternative 4
Daily Solid Waste Generation (No Recycling)

Land Use	Units[1]	Generation Factor (pounds/day)[2]	Total Waste Generation (pounds/day)
Residential			
Single Family/Detached	10,752 DU	11.18	120,187
Multi-Family/Attached	8,995 DU	6.41	57,667
General Retail[3]	514,000 sq.ft.	0.01	6,759
Eating & Drinking Establ.	308,400 sq.ft.	0.06	18,251
Food & Drug Stores	822,400 sq.ft.	0.04	32,445
Auto Dealer & Service Stations	205,600 sq.ft.	0.03	5,746
Hotel & Motel	205,600 sq.ft.	0.03	5,971
Business Park[4]	1,036,000 sq.ft.	0.01	7,947
Office	1,344,800 sq.ft.	0.01	10,316
Trans., Comm., Utilities[5]	35,000 sq.ft.	0.04	1,515
Developed Park[6]	166.48 acres	1.10	182
Visitor-Serving[4]	139,200 sq.ft.	0.01	1,068
Schools[7]	529,128 sq.ft.	0.01	5,291
		Total	273,345 42,642 TPY

Source: Impact Sciences, Inc. (January 1996).

[1]DU = dwelling unit; sq.ft. - square feet; TPY = tons per year.

[2]The solid waste generation rates are derived from the Ventura County Solid Waste Management Department's Guidelines for the Preparation of Environmental Assessments for Solid Waste Impacts. These factors do not reflect any recycling activities on the part of the generator.

[3]Assumes a 50/50 split of Mixed Use between retail and office uses. Retail uses are assumed to be 25% general retail, 10% auto dealer and service stations, 10% hotel/motel, 15% eating and drinking establishments, and 40% food and drug stores. Industrial uses are assumed to be 50% Business Park and 50% manufacturing.

[4]Assumes the same daily generation rate as for commercial offices.

[5]Assumes 35,000 square feet of utilities facilities (same as Specific Plan).

[6]Assumes alternative will meet Quimby Act requirements of 3 acres of parkland per 1,000 population.

[7]Square footage for educational facilities is based upon the:- five elementary schools with 50 staff per school and 13.4 vehicle trips per staff (reference Section 4.8, Traffic) divided by 10.72 trips per thousand square feet;
- one junior high school with 50 staff and 13.4 vehicle trips per staff (reference Section 4.8, Traffic) divided by 10.72 trips per staff;
- one high school with 100 staff and 16.8 vehicle trips per staff (reference Section 4.8, Traffic) divided by 10.90 trips per staff.

e. Conclusion

Because some of the environmental impacts of the Specific Plan would be avoided or minimized with Alternative 4, it is environmentally superior to the Specific Plan. Alternative 4 meets most of the basic objectives of the Specific Plan identified in the Project Description of this EIR (**Section 1.0**), with lesser environmental impacts than those identified for the Specific Plan. However, Alternative 4 has been rejected in favor of the Specific Plan because the applicant believes that Alternative 4 too narrowly limits the range of housing opportunities provided and does not reflect the market conditions under which the Specific Plan would be developed.

Specific objectives not fully met or impeded to some extent include:

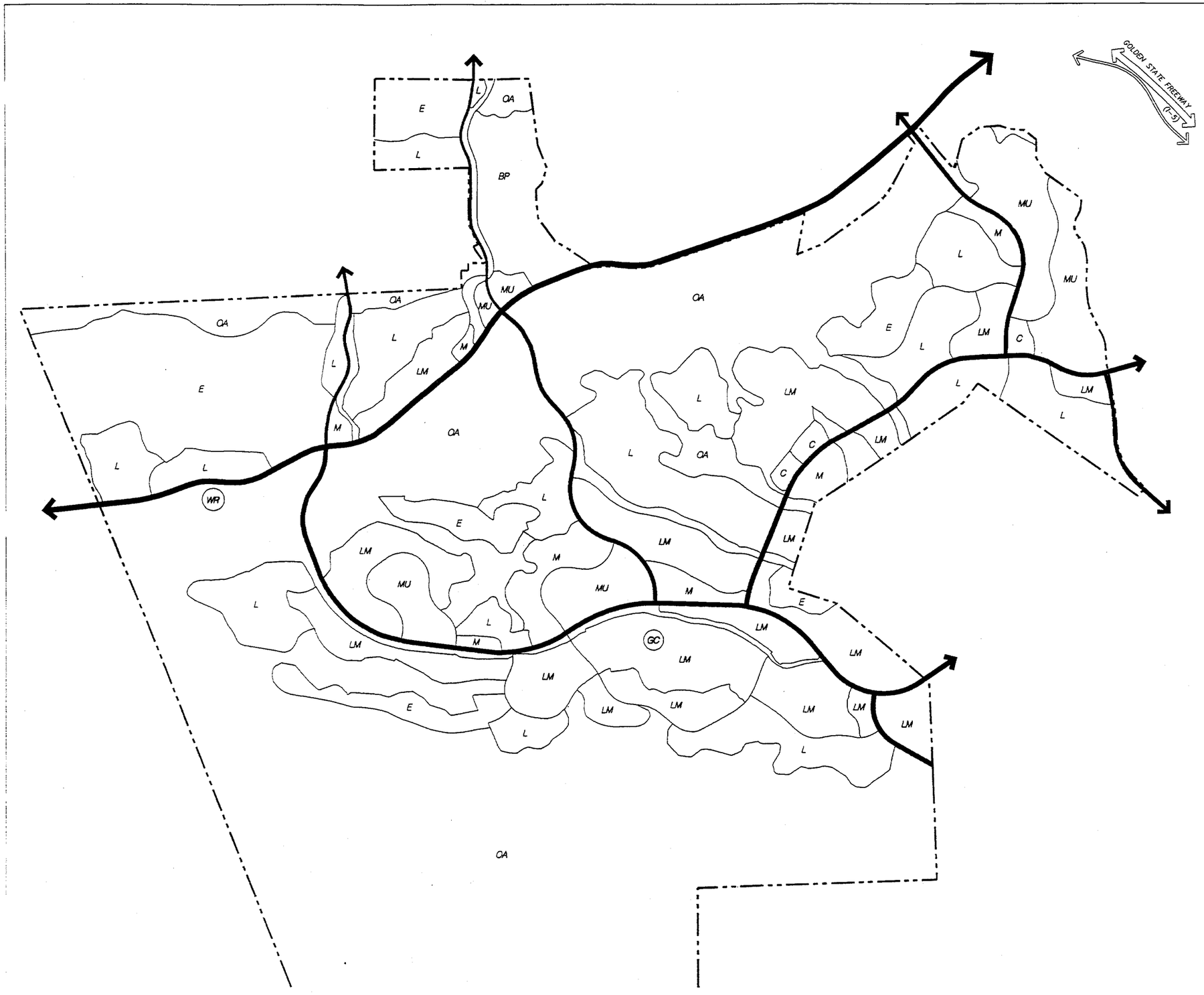
- Establish land uses and development regulations which permit a wide range of housing densities, types, styles, prices, and tenancy (for sale and rental).
- Adopt development regulations which provide flexibility to respond to and adjust to changing economic and market conditions over a long period of time.
- Earn a reasonable return on investment.

Most of the other objectives of the Specific Plan could be met by Alternative 4, but not to the same degree as the Specific Plan.

(5) Alternative 5 -- 15,000 Unit Alternative (39 Percent Reduction in Residential, 28 Percent Reduction in Non-Residential Development, Smaller Footprint)

The primary purpose of Alternative 5 is to avoid or minimize the potentially significant direct and indirect biological impacts created by the Specific Plan by reducing the amount of development and by reducing the footprint upon which such development would occur. In doing so, many other impacts which could occur as a result of site development might also be reduced in magnitude. Alternative 5 proposes 15,000 Residential units, 4,112,000 square feet of Commercial uses, a water reclamation plant, and a golf course (see **Figure 8.0-3, Alternative 5, 15,000 Unit Alternative**). The total number of Residential units under Alternative 5 is 39 percent less than under the Specific Plan and the total non-residential square footage is 28 percent less. Like Alternative 4, Alternative 5 is also similar in design and character to the Specific Plan with the following exceptions:

- with the exception of the water reclamation plant, development would not occur within either Santa Clara River SEA 23 (generally between SR-126 and the base of the bluffs south of the River), or in Santa Susana Mountains SEA 20 (generally the foothills of the Santa Susana Mountains south of Salt Canyon),
- development would be set back an additional 500 feet from the Salt Canyon wildlife corridor,
- a reduction in development area from approximately 6,112 acres to 5,083 acres, resulting in an increase of Open Area from approximately 5,852 acres to 6,880 acres, and
- on-site population would decrease from 68,524 to 44,216.



NEWHALL RANCH

Newhall Ranch Company

L E G E N D

- E — ESTATE RESIDENTIAL
- L — LOW RESIDENTIAL
- LM — LOW-MEDIUM RESIDENTIAL
- M — MEDIUM RESIDENTIAL
- H — HIGH RESIDENTIAL
- MU — MIXED-USE
- C — COMMERCIAL
- OA — OPEN AREA
- ROADS

LAND USE OVERLAYS (POTENTIAL LOCATIONS)

- (WR) WATER RECLAMATION PLANT
- (GC) GOLF COURSE

IMPACT SCIENCES INC

NORTH

100 ACRES 400 ACRES

English 0 1000' 2000'

Metric 0 500m 900m

15,000 UNIT ALTERNATIVE

FIGURE 8.0-3

ALTERNATIVE 5

The applicant has also indicated that, if the Specific Plan is not implemented as proposed and Alternative 5 is implemented instead, the following would result:

- the High Country (3,949.9 acres) would not be designated as a Special Management Area;
- the River Corridor (813 acres) would still be dedicated;
- cattle grazing would continue in the High Country;
- the only features relating to trails would be the provision of pedestrian and bicycle trails on major roadways only;
- no restrictions would be placed on the use of the River Corridor;
- no Metrolink rail right-of-way would be reserved through the site;
- no park-and-ride lot/Metrolink station site along SR-126 would be available on the site;
- no fire station would be constructed off Chiquito Canyon Road near the community of Val Verde; and
- no recreational lake would be available for public use; and less tax revenue would be generated on the site.

Table 8.0-12, Alternative 5, 15,000 Unit Alternative Statistical Summary provides a breakdown of the land uses and intensities proposed for Alternative 5.

Table 8.0-12
Alternative 5
15,000 Unit Alternative Statistical Summary

Land Uses	Gross Acres	Dwelling Units	Square Footage
Residential:			
Estates	985	448	0
Low	1,483	3,500	0
Low Medium/Golf Course	278	494	0
Low Medium	1,316	5,138	0
Medium	250	1,200	0
High	0	0	0
Subtotal	4,309	10,780	0
Mixed-Use and Non-Residential:			
Mixed Use[1]	518	4,220	2,634,000
Commercial	45	0	383,000
Business Park	197	0	1,095,000
Water Reclamation Plant	11	0	
Subtotal	771	4,220	4,112,000
Major Open Areas:	6,880	0	0
Totals	11,963	15,000	4,112,000

Source: FORMA (November 1995).
[1]Mixed uses may include Commercial and Residential uses.

It is assumed, for the sake of this impact analysis, that units under the Estate, Low, and Low-Medium Residential designation would be single family detached units, and that units under the Mixed Use and Medium designations would be multi-family attached units. The following discussion compares the environmental impacts of Alternative 5 to those of the Specific Plan.

(a) Geotechnical and Soil Resources

Alternative 5 would have a smaller development footprint than the Specific Plan; grading along the River, in the High Country, and near the Ventura County line that would have occurred under the Specific Plan would not occur under Alternative 5. Development activity subject to the effects of seismic events would occur under Alternative 5. However, because site development under Alternative 5 would require less ground disturbance than the Specific Plan and would require slightly less earth movement, from a geotechnical standpoint Alternative 5 would be environmentally superior to the Specific Plan.

(b) Flood

Urban runoff that would be generated under Alternative 5 would be conveyed and discharged into the Santa Clara River. Like the Specific Plan, it is expected that implementation of Alternative 5 would also reduce runoff quantities from the Specific Plan site from current runoff conditions by reducing the amount of debris in the runoff. However, because the Specific Plan would have more developed area than Alternative 5, the amount of debris in the runoff from the Specific Plan site would be more under Alternative 5 than under the Specific Plan and, therefore, so would total runoff quantities. The benefit of Alternative 5 over the Specific Plan, however, is that no grading and no development would occur within the 50-year Capital Flood Plain of the Santa Clara River. Because River hydraulics through the site would be minimally altered, the level of impact of Alternative 5 on the River would be less than under the Specific Plan. Consequently, Alternative 5 is superior to the Specific Plan.

With respect to runoff quality, development under Alternative 5 would be required to comply with the same Regional Water Quality Control Board standards as the Specific Plan and no environmentally superior alternative can be identified.

(c) Traffic/Access

Implementation of Alternative 5 would result in a decrease in trips. Specifically, average daily trip generation on the Specific Plan site would decrease from 387,000 trips to 227,129 trips (a 41.3 percent decrease). Alternative 5 would decrease traffic impacts on local roadways, would require fewer roadway improvements off the Specific Plan site than the Specific Plan, and would be environmentally superior to the Specific Plan with respect to traffic/access impacts.

(d) Noise

With a reduction in the amount of development on the site and associated trip reduction would be a reduction in noise impacts on and in the vicinity of the site. The analysis presented in this EIR determined that only one off-site location within the vicinity of the Specific Plan site - the Travel Village RV Park - would be significantly impacted by Specific Plan-generated noise. A reduction in the Newhall Ranch traffic volumes of approximately 41.3 percent would reduce the noise level increase to the point that noise levels at the Travel Village RV Park would not exceed the off-site mobile source thresholds of significance. Therefore, Alternative 5 would be environmentally superior to the Specific Plan with respect to noise impacts due to the overall reduction in noise levels generated by the Specific Plan.

(e) Air Quality

Because less on-site grading would occur under Alternative 5, the total amount of grading and construction-related air quality impacts would be less than those of the Specific Plan. In addition, Alternative 5 would generate less traffic than the Specific Plan. The effect of this reduction in building space and vehicle trips on air emissions is provided below.

Emissions Source	Emissions in Pounds per Day				
	CO	VOC	NO_x	SO_x	PM_{10}
Proposed Specific Plan	17,575.7	835.6	3,015.6	315.9	43,185.6
15,000 Unit Alternative	11,518.1	540.9	2,056.8	214.8	27,258.4
Recommended SCAQMD Thresholds	550.0	55.0	55.0	150.0	150.0

Source: Impact Sciences, Inc.

As shown, Alternative 5 would generate fewer air emissions than the Specific Plan. Therefore, it would be environmentally superior to the Specific Plan with respect to air quality. The emissions generated by Alternative 5 would, however, exceed the thresholds recommended by the SCAQMD and, as with the Specific Plan, would be considered significant.

(f) Biological Resources

With the exception of the water reclamation plant, development under Alternative 5 would not occur within designated SEAs 20 and 23. **Table 8.0-13** compares the acreage of habitats impacted by Alternative 5 with that impacted by the Specific Plan for both SEAs. As shown, approximately 41.3 fewer acres of sensitive habitats are impacted by Alternative 5 in the Santa Clara River SEA 23 (which is 3.2 percent of the site's land area within SEA 23). Approximately 139.3 fewer acres of sensitive habitats are impacted by Alternative 5 in the Santa Susana Mountains SEA 20 (which is 3.5 percent of the site's land area within SEA 20). Given that a lesser amount of grading and its associated ground and habitat disturbance would occur, and given that there would be a substantial reduction in site population with Alternative 5, the biological impact of Alternative 5 would be less than that of the Specific Plan.

Table 8.0-13
Comparison of Impact on Sensitive Habitats
- SEAs 20 and 23

	W/Specific Plan (acres)	W/Alternative 5 (acres)	Net Change (acres)
Grading in SEA 23			
• Sensitive Habitats	47.3	6.0	(41.3)
• Non-Sensitive Habitats	402.3	13.4	(388.9)
Subtotal	449.6	19.4	(430.2)
Grading in SEA 20			
• Sensitive Habitats	139.3	0.0	(139.3)
• Non-Sensitive Habitats	100.4	0.0	(100.4)
Subtotal	239.7	0.00	(239.7)
Total Sensitive Habitats Graded	186.6	6.0	(180.6)

However, grazing activities would continue with Alternative 5 in the High Country SMA. Also, the applicant has indicated that the Open Areas of the High Country Special Management Area would not be dedicated for public use, but would remain in private ownership with no provision for public access. From a biological standpoint, the reduction in grading and on-site population under Alternative 5 environmentally outweighs (is better than) the loss to the public of the High Country Special Management Area. Consequently, Alternative 5 is biologically superior to the Specific Plan. However, the biological impacts of Alternative 5 would still be significant.

(g) Visual Qualities

Development intensities in the northeastern corner of the Specific Plan site along SR-126 and Commerce Center Drive would remain comparable to that of the Specific Plan, and visual impacts of this part of the site would remain essentially unchanged from that of the Specific Plan. However, because development would be set back from the River Corridor to a greater extent than under the Specific Plan, less development would be visible to travelers along SR-126. Alternative 5 was analyzed as follows based on the viewing location information provided in **Section 4.7, Visual Qualities:**

1. Viewing Location 1 (west of the site in Ventura County, along SR-126 looking east)

Under Alternative 5, development would be set back further from the Ventura County line than under the Specific Plan and the natural land forms in the foreground and mid-ground of the viewshed for Viewing Location 1 would be left intact. In addition, the Medium Residential uses south of SR-126 in the western portion of the site that would occur under the Specific Plan would not occur under Alternative 5. A water reclamation plant would also be constructed under Alternative 5 in the same location as under the Specific Plan and would have a visual impact comparable to that of the proposed plant. Because less site development would be visible from this viewing location under Alternative 5 than under the Specific Plan, Alternative 5 would have fewer visual impacts than the Specific Plan, and would be the environmentally superior alternative with respect to visual impacts from Viewing Location 1.

2. Viewing Location 2 (on site, along SR-126 west of San Martinez Grande looking south)

Visual impacts from Viewing Location 2 would be less under Alternative 5 than under the Specific Plan. Although the visible development footprint under the Specific Plan and Alternative 5 would be the same from Viewing Location 2, less intensive development would occur within this viewshed under Alternative 5. For instance, Medium Residential development that is currently proposed along Potrero Valley Road would be Low-Medium Residential under Alternative 5. Therefore, Alternative 5 is incrementally environmentally superior to the Specific Plan with respect to visual impacts from Viewing Location 2.

3. Viewing Location 3 (on site, near the SR-126/Chiquito Canyon Road intersection looking south)

Under Alternative 5, Viewing Location 3 would be located in open area instead of the Mixed-Use development that is proposed in the Specific Plan. Under the Specific Plan, Low-Medium and Medium Residential development is proposed south of the River and at Long Canyon and would be visible in the foreground of this viewshed. However, this development is not present in this development alternative and would, therefore, not occur in the foreground of this viewshed. Mid-ground development under Alternative 5 would be visible to the same extent that it would be visible under the Specific Plan. Therefore, because no foreground development would occur under Alternative 5, it would have less of a visual impact than the Specific Plan and would be environmentally superior to the Specific Plan with respect to visual impacts from Viewing Location 3.

4. Viewing Location 4 (at the northern site boundary on Chiquito Canyon Road looking south)

Under the Specific Plan, the proposed Business Park, Medium Residential development along Chiquito Canyon Road, and Low-Medium and Low Residential development south of the River would be visible from Viewing Location 4. The Business Park, Residential development along Chiquito Canyon Road, and Low Residential development south of the River would also be visible from this viewing location under Alternative 5. The Low-Medium Residential development proposed south of the River at Long Canyon would not occur under this development scheme, and less Residential development south of the River would be visible in the distance under Alternative 5 than under the Specific Plan. Due to the extent of development still visible from this location, no noticeable visible change would occur under Alternative 5.

5. Viewing Location 5 (on site, along SR-126 on the west side of Castaic Creek looking south)

Although development would occur within this viewshed under Alternative 5, it would be less intensive than under the Specific Plan. For instance, the Low-Medium Residential development proposed in this viewshed would be Low Residential under Alternative 5, the Medium Residential would be Low-Medium Residential, and the Low Residential would be Estate Residential (see **Figure 8.0-3, Alternative 5, 15,000 Unit Alternative**). In addition, the Low-Medium Residential uses proposed

north of the River and which would be partially visible from this viewing location would not occur under this alternative. Because development intensities visible from Viewing Location 5 would be less under Alternative 5 than under the Specific Plan, visual impacts would be less, making Alternative 5 environmentally superior to the Specific Plan with respect to visual impacts from Viewing Location 5.

6. Viewing Location 6 (off site, generally from the SR-126/I-5 Interchange looking west and southwest toward site)

Mixed use development south of the Santa Clara River would be visible from Viewing Location 6 under the Specific Plan and under Alternative 5, with no difference in the level of impact between either the Specific Plan or Alternative 5. However, the Low-Medium Residential uses proposed to the west of this viewing location and north of the Santa Clara River that would be visible from Viewing Location 6 would not occur under Alternative 5. Therefore, the degree of visual impact under Alternative 5 would be slightly less than under the Specific Plan, making Alternative 5 marginally environmentally superior to the Specific Plan with respect to visual impacts from this viewing location.

7. Viewing Locations 7, 8, and 9 (off site, generally from Interstate 5 and points east, looking west and southwest toward site)

The Mixed-Use development footprint and intensity in the viewshed of Viewing Locations 7, 8, and 9 would be the same under Alternative 5 as the Specific Plan, and no environmental preference can be identified relative to visual impact from this viewing location.

8. Viewing Location 10 (Off Site, from the Rim of the Valley Trail, looking north toward site)

Views from the Rim of the Valley trail would be visually the same under Alternative 5 as they would be under the Specific Plan, because any reductions in development would be so slight in appearance (given the distance between the trail and the development area) as to be visually imperceptible.

(h) Cultural/Paleontological Resources

Because less ground disturbance would occur under Alternative 5, potential impacts to cultural and paleontological resources on the Specific Plan site would be less under Alternative 5 than if the Specific Plan were to develop as proposed. Therefore, Alternative 5 is environmentally superior with respect to cultural resources.

(i) Wastewater Disposal

The Specific Plan would generate 5.8 to 7.7 mgd of wastewater, while wastewater generation for Alternative 5 would be 4.15 million gallons per day (mgd), all of which would be treated at an on-site water reclamation plant. Assuming that the on-site plant would be sized to treat all wastewater from Alternative 5, neither the Specific Plan nor Alternative 5 would have a significant impact relative to the treatment infrastructure. However, because Alternative 5 would result in less solid material being disposed of at approved landfills, Alternative 5 would be environmentally superior to the Specific Plan with respect to wastewater disposal.

The Specific Plan would reclaim 84 to 92 percent of its wastewater, resulting in an annual reclamation of 6,025 to 7,263 acre-feet of wastewater. Assuming that 84 to 92 percent of the wastewater generated under Alternative 5 would be reclaimed, 3,904 to 4,276 acre-feet of reclaimed water would be available for irrigation.

(j) Water Resources

Water demand for Alternative 5 would be 13,285 acre-feet per year for both potable and irrigation uses. Since reclaimed water could be used to meet 3,904 to 4,276 acre-feet of Alternative 5's irrigation needs, 9,001 to 9,381 acre-feet (13,285 acre-feet minus 3,904 to 4,276 acre-feet) of water would be required from potable water supplies compared to the 12,082 to 13,320 acre-feet per of water (19,345 acre-feet minus 6,025 to 7,263 acre-feet of reclaimed water) that the Specific Plan would require from potable water supplies. Because this alternative would consume less water from potable water resources than the Specific Plan, it would be environmentally superior to the Specific Plan with respect to impacts on potable water resources.

(k) Education

Alternative 5 would generate 7,582 students as compared to the 10,074 students that would be generated by the Specific Plan. Therefore, Alternative 5 is environmentally superior to the Specific Plan with respect to school impacts.

(l) Natural Gas/Electricity

Implementation of both the Specific Plan and Alternative 5 would require the use and expenditure of nonrenewable petroleum resources. Alternative 5 would consume less petroleum resources than the Specific Plan; a comparison of annual energy consumption between the Specific Plan and Alternative 5 is provided below in **Table 8.0-14, Alternative 5 Electricity and Natural Gas**:

Table 8.0-14
Alternative 5
Electricity and Natural Gas Demand

	Proposed Specific Plan Demand	Alternative Demand
Electricity Demand (kWh/year)	233.2 million	211.4 million
Natural Gas Demand (cubic feet/year)	1,747.3 million	1,218.0 million

Source: Impact Sciences, Inc. (November 1995).
See Appendix 8.0 for detailed energy consumption calculations for Alternative 5.

Although these energy resources are commercially available, Alternative 5 would consume substantially less petroleum-based energy resources than the Specific Plan and would be environmentally superior to the Specific Plan.

(m) Police Services

Because less development would occur on the site under Alternative 5 and a smaller on-site population would result, it is expected that Alternative 5 would have less of an impact on the Sheriff's Department than the Specific Plan. For the same reasons, Alternative 5 would also have smaller demands for CHP and emergency services in the area of the Specific Plan site. As a result, Alternative 5 would be environmentally superior to the Specific Plan with respect to police services.

(n) Fire Services and Hazards

Because, Alternative 5 would result in less development and a smaller population on the Specific Plan site than would occur under the Specific Plan, there would be fewer Fire Department calls to the site than under the Specific Plan. Therefore, with respect to providing fire services to the Specific Plan site, Alternative 5 is environmentally superior to the Specific Plan.

(o) Environmental Safety

As discussed in **Section 4.5, Environmental Safety**, potential impacts may result on the Specific Plan site if development occurs in the following locations:

- adjacent to historic and continuing oil and natural gas operations,
- in close proximity to the Southern California Edison electrical transmission lines,
- in close proximity to the Southern California Gas Company high pressure gas lines,
- adjacent to State Route 126, upon which hazardous wastes are transported,
- in close proximity to Chiquito Canyon Landfill,
- within the Castaic Lake dam inundation area, and
- adjacent to on-going agricultural operations.

The safety conditions under which Alternative 5 would be developed would be similar to those with development of the Specific Plan. The primary difference between development of Alternative 5 would be a reduction in site population, which results in less exposure to potential hazards, as unlikely as their occurrence might be. For this reason, Alternative 5 is superior environmentally to the Specific Plan with respect to environmental safety.

(p) Libraries

Based on County Library planning standards of 0.35 square feet of library facilities per capita and 2.0 books per capita, the Specific Plan would require a total of 23,983 square feet of library facilities with 137,084 additional volumes for the library system's collection. In comparison, development under Alternative 5 would, according to County Library standards, require 15,476 square feet of library facilities and 88,432 volumes. Development under Alternative 5 would have less of an impact on County Library facilities than would the Specific Plan and would be environmentally superior to the Specific Plan.

(q) Parks, Recreation and Trails

Under County (and Quimby Act) requirements, development of the Specific Plan would require the applicant to provide 206 dedicated acres of local parkland; the Specific Plan as proposed would exceed this requirement, by a total of 6,175 acres for parks, recreation, and Open Area, including Neighborhood and Community Parks, a 15-acre lake, an 18-hole golf course, trails, the River Corridor and High Country SMAs, and other Open Area (see **Section 4.20, Parks, Recreation and Trails** for a full discussion on this topic). Per County requirements, development under Alternative 5 would require dedication of a

total of 132.6 acres for parkland. The applicant has indicated that just the River Corridor, and not the High Country, would be preserved for public use under Alternative 5. Because the Specific Plan would provide more on-site recreational land than would Alternative 5, the Specific Plan would be environmentally superior to Alternative 5.

(r) Population, Housing and Employment

1. Population

Development of the Newhall Ranch would result in a resident population of 68,524 at buildout. This population is within SCAG's 1994 growth projections for the area, but not the County's 1990 projections (see **Section 4.21, Population, Housing and Employment** for further discussion). Alternative 5 would result in 44,216 persons on the Newhall Ranch site (see **Appendix 8.0** for population calculations for Alternative 5). This population is well within SCAG's 1994 growth projections for the region, but not the County's 1990 projections.

2. Housing

Alternative 5 includes 15,000 dwelling units ranging in intensity from Estate to Medium Residential (Alternative 5 includes no High Residential development). This housing is consistent with SCAG's recently adopted forecasts for the region, but not the County's 1990 forecast (see **Section 4.21** for further discussion). Therefore, these units are part of SCAG's planned growth of the area, but not the existing County's projections.

However, because the Specific Plan would include High Residential units while Alternative 5 would not, it would provide a wider range of housing units that would serve a broader range of socioeconomic groups than Alternative 5.

3. Employment

Development of the Newhall Ranch would result in an employment population of 19,323. Development consistent with Alternative 5 would generate 13,185 on-site employment opportunities. SCAG forecasts 17,500 jobs for 2015 in the census tracts that overlie the Specific Plan site; therefore, the Specific Plan's estimated employment exceeds SCAG's forecast. The Santa Clarita Valley has been identified by

SCAG as an area in need of additional employment opportunities. Under Alternative 5, the jobs to housing ratio would be increased from 0.78 to 0.88, which is more jobs rich than the Specific Plan. However, the Specific Plan provides 6,138 more jobs than does Alternative 5. Consequently, from an employment standpoint, the Specific Plan is superior to Alternative 5.

As with the Specific Plan, the population, housing and employment generated by Alternative 5 do not fall within the County's 1990 projections. However, SCAG projects much more growth in this area than does the County. As would the Specific Plan, Alternative 5 would require a General Plan Amendment. Given the differences between County projections and SCAG projections, the dates of those projections (1990 and 1994, respectively), and the implications to population and housing forecasts resulting from each, no environmental preference with respect to population and housing can necessarily be concluded.

(s) Solid Waste Disposal

At buildout, the Specific Plan would generate approximately 53,524 tons of solid waste per year. In comparison, Alternative 5 would generate 41,076 tons of solid waste annually [see **Table 8.0-15, Alternative 5, Daily Solid Waste Generation (No Recycling)**]. Given the smaller solid waste generation totals associated with Alternative 5, implementation of Alternative 5 would be environmentally superior to the Specific Plan with respect to solid waste disposal.

(t) Agricultural Resources

There are 547 acres of prime farmland and 48 acres of unique farmland on the Specific Plan site. Development of the site consistent with the Specific Plan would result in the loss of this land to urban uses. Development of the site under Alternative 5 would permit development in areas of the site that are designated as prime farmland and unique farmland (specifically, development would occur on prime farmland north of SR-126 and west of Chiquito Canyon Road, north of Potrero Canyon just south of the River, and on the mesas, and would occur on unique farmlands of importance located north of Potrero Canyon just south of the River). No development is proposed on prime farmlands located within the 50 Year Capital Flood Plain of the Santa Clara River. As a result, development would occur on fewer acres of prime farmland under Alternative 5 than would the Specific Plan. Therefore, Alternative 5 is environmentally superior to the Specific Plan with respect to the loss of prime agricultural land.

In general, the conversion of prime agricultural land is irreversible and is, therefore, considered an unavoidable significant impact. However, in light of the continuing trend by the County of Los Angeles to convert cultivated lands to urban uses to accommodate growth, and the fact that the prime agricultural land on the Specific Plan site is already impaired (i.e., relatively difficult and less

economical to farm) and is, therefore, generally of lower value than larger and better situated parcels found to the west, the loss of agricultural productivity on prime agricultural land under such circumstances is not considered a significant impact. Thus, there is no environmentally superior alternative with respect to loss of agricultural productivity on the Specific Plan site.

Table 8.0-15
Alternative 5
Daily Solid Waste Generation (No Recycling)

Land Use	Units[1]	Generation Factor (pounds/day)[2]	Total Waste Generation (pounds/day)
Residential			
Single Family Detached	10,780 DU	11.18	120,500
Multi-Family/Attached	4,220 DU	6.41	27,054
General Retail[3]	425,000 sq.ft.	0.01	5,589
Eating & Drinking Establ.	255,000 sq.ft.	0.06	15,090
Food & Drug Stores	680,000 sq.ft.	0.04	26,827
Auto Dealer & Service Stations	170,000 sq.ft.	0.03	4,751
Hotel & Motel	170,000 sq.ft.	0.03	4,937
Business Park	1,095,000 sq.ft.	0.01	8,400
Office	1,317,000 sq.ft.	0.01	10,103
Trans., Comm., Utilities[4]	35,000 sq.ft.	0.04	1,515
Golf Course[5]	150 acres	1.10	164
Developed Park[6]	132.65 acres	1.10	145
		Total	225,076 41,076 TPY

Source: Impact Sciences, Inc. (January 1996).
[1]du = dwelling unit; sq.ft. = square feet; TPY = tons per year.
[2]The solid waste generation rates are derived from the Ventura County Solid Waste Management Department's Guidelines for the Preparation of Environmental Assessments for Solid Waste Impacts. These factors do not reflect any recycling activities on the part of the generator.
[3]Assumes a 50/50 split of Mixed Use between retail and office uses. Retail uses are assumed to be 25% general retail, 10% auto dealer and service stations, 10% hotel/motel, 15% eating and drinking establishments, and 40% food and drug stores.
[4]Assumes 35,000 square feet of utilities facilities (same as Specific Plan).
[5]Assumes a 150-acre golf course.
[6]Assumes alternative will meet County requirements of 3 acres of parkland per 1,000 population.

f. Conclusion

Because some of the environmental impacts of the Specific Plan would be avoided or minimized with Alternative 5, it is environmentally superior to the Specific Plan. However, Alternative 5 has been rejected in favor of the Specific Plan because the applicant believes that Alternative 5 too narrowly limits the range of housing opportunities provided and does not reflect the market conditions under which the Specific Plan would be developed, and because many of the basic objectives of the Specific Plan identified in the Project Description of this EIR (**Section 1.0**) would not be achieved.

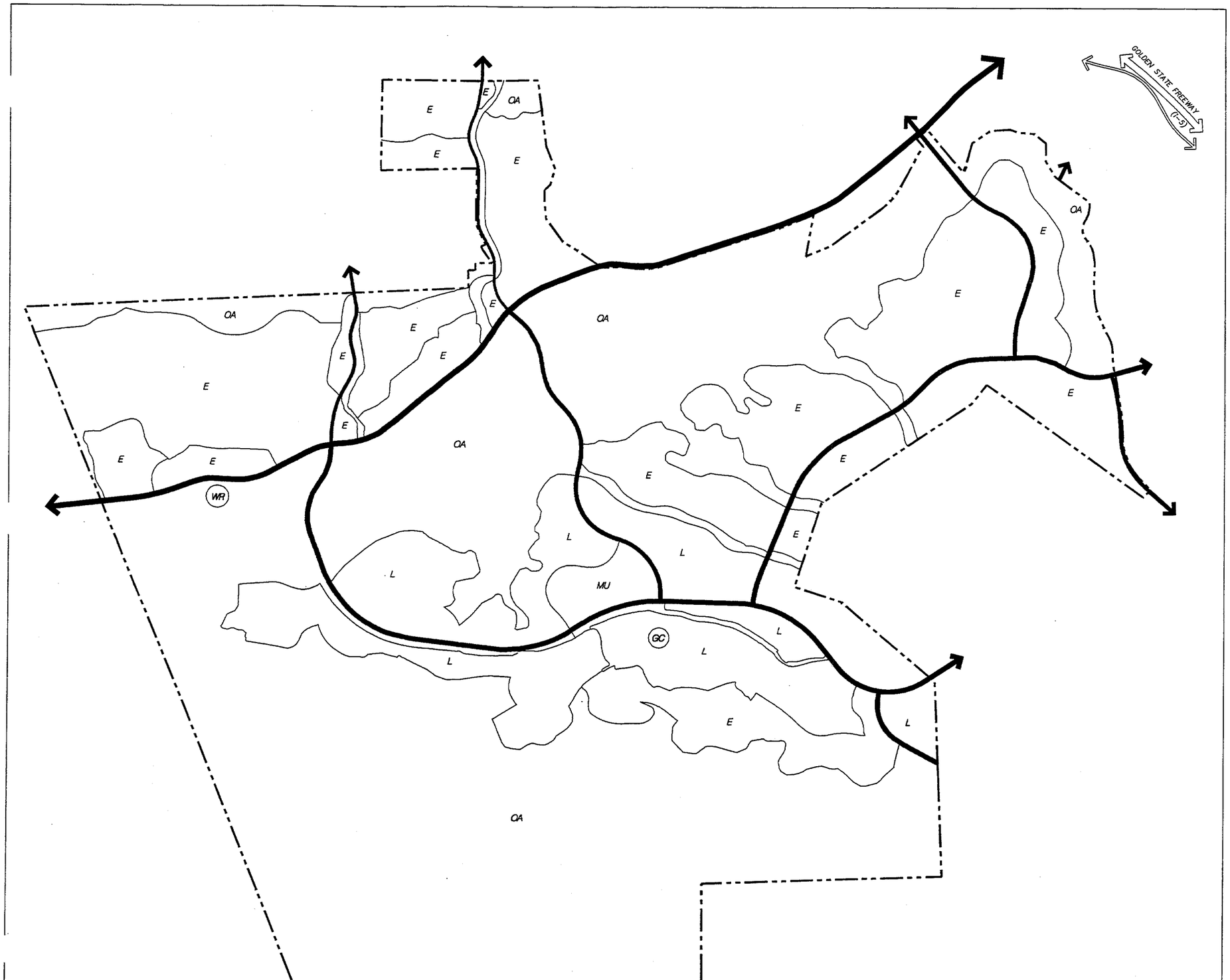
Specific objectives not met or impeded to some extent with Alternative 5 are listed below:

- Provide a complementary and supportive array of land uses which will enable development of a community with homes, shopping, employment, schools, recreation, cultural and worship facilities, public services, and open space.
- Establish land uses and development regulations which permit a wide range of housing densities, types, styles, prices, and tenancy (for sale and rental).
- Adopt development regulations which provide flexibility to respond to and adjust to changing economic and market conditions over a long period of time.
- Earn a reasonable return on investment.
- Retain a major open space area which could act as a regional recreational park and an ecological preserve.
- Provide an extensive system of pedestrian, bicycle, and hiking trails within the Villages s and hiking trails in the High Country and other open areas.
- Preserve the Santa Clara River corridor and adjacent uplands containing significant natural resources for their resource value, open space, and recreational use.
- Retain a major open space area and its natural vegetation as a wildlife or ecological preserve.

(6) Alternative 6 -- 8,000 unit Alternative (68 Percent Reduction in Development, Smaller Footprint)

The primary purpose of Alternative 6 is to avoid or minimize the potentially significant visual and biological impacts created by the Specific Plan. In doing so, many other impacts which could occur as a result of site development might also be reduced in magnitude. Alternative 6 is a visually and biologically sensitive alternative in which no development would occur between the Santa Clara River Corridor and SR-126, and the development areas south of the River would be limited to the Upper and Lower Potrero Canyon, Long Canyon, and reduced areas of the Grapevine and airport Mesa areas (see **Figure 8.0-4, Alternative 6, 8,000 Unit Alternative**). Significant changes in the development footprint on the site include the elimination of grading on the High Country ridge and within the 50-Year Capital Flood Plain of the Santa Clara River, and setback of development from River bluffs. Consequently, a reduction in development area from approximately 6,108 acres to 4,635 acres would occur, with a resulting increase in Open Area from approximately 5,852 acres to 7,328 acres.

In addition, Alternative 6 would reduce Residential intensities, limiting the Specific Plan to approximately 3,019 acres of Estate Residential and 1,505 acres of Low Residential housing (see **Table 8.0-16, Alternative 6, 8,000 unit Alternative Statistical Summary**).



NEWHALL RANCH

Newhall Ranch Company

L E G E N D

- E — ESTATE RESIDENTIAL
- L — LOW RESIDENTIAL
- MU — MIXED-USE
- OA — OPEN AREA
- ROADS

LAND USE OVERLAYS (POTENTIAL LOCATIONS):

- WR — WATER RECLAMATION PLANT
- GC — GOLF COURSE

IMPACT SCIENCES INC

NORTH

100 ACRES 400 ACRES

English 0 1000' 2000'

Metric 0 400m 800m

8,000 UNIT ALTERNATIVE

FIGURE 8.0-4

ALTERNATIVE 6

A Mixed-Use center in Potrero Canyon would allow for 600 dwelling units and approximately 0.5 million square feet of Commercial uses to serve the 8,000-unit community. A golf course in lower Potrero Canyon is also proposed as part of Alternative 6.

Table 8.0-16
Alternative 6
8,000 unit Alternative Statistical Summary

Land Uses		Gross Acres	Dwelling Units	Square Footage
Residential:				
Estates		3,019	2,714	0
Low/Golf Course		295	4,336	0
Low		1,210	350	0
Low Medium		0	0	0
Medium		0	0	0
High		0	0	0
	Subtotal	4,535	7,400	0
Mixed-Use and Non-Residential:				
Mixed Use[1]		100	600	540,000
Commercial		0	0	0
Business Park		0	0	0
Package wastewater Treatment Plant		11	0	0
Visitor-Serving		0	0	0
	Subtotal	100	600	540,000
Major Open Areas:		7,328	0	0
	Totals	11,963	8,000	540,000

Source: FORMA (November 1995).
[1]*Mixed uses may include Commercial and Residential uses.*

The applicant has indicated that, if the Specific Plan is not implemented as proposed and Alternative 6 is implemented instead, the following would result:

- neither the River Corridor (813 acres) nor the High Country (3,949.9 acres) would be preserved as Special Management Areas available for public use;
- cattle grazing would continue in both the River Corridor and High Country;
- no trails would be constructed on the Specific Plan site;
- no restrictions would be placed on the use of the River Corridor;
- the conservation of the Asistencia (San Fernando Mission Annex) site would occur;
- no Metrolink rail right-of-way would be reserved through the site;
- no park-and-ride lot/Metrolink station site along SR-126 would be available on the site;
- no fire station would be constructed off Chiquito Canyon Road near the community of Val Verde;
- no recreational lake would be available for public use; and
- much less tax revenue would be generated on the site.

Furthermore, a package water reclamation plant would be constructed on the site, but no use of reclaimed water would occur. Rather, treated wastewater would be disposed of in the Santa Clara River. As a result of this alternative, on-site population would be reduced from 68,524 to 24,886.

The following discussion compares the environmental impacts of Alternative 6 to those of the Specific Plan.

(a) Geotechnical and Soil Resources

The development footprint for Alternative 6 would be smaller than that of the Specific Plan, thereby requiring less site grading. In addition, because a proportionately lesser amount of development would spread out over the development footprint under Alternative 6, less grading relative to the preparation of individual parcels would be required. Consequently, from a geotechnical standpoint, Alternative 6 would be environmentally superior to the Specific Plan.

(b) Flood

Urban runoff that would be generated under Alternative 6 would be conveyed and discharged into the Santa Clara River. Like the Specific Plan, it is expected that implementation of Alternative 6 would slightly reduce runoff quantities from the Specific Plan site from current runoff conditions by reducing the amount of debris materials in the runoff. However, because the Specific Plan would have more developed area than Alternative 6, the amount of debris in the runoff from the Specific Plan site would be greater under Alternative 6 than under the Specific Plan and, therefore, so would total runoff quantities. The benefit of Alternative 6 over the Specific Plan, however, is that no grading and no development would occur within the 50-year Capital Flood Plain of the Santa Clara River. Because River hydraulics through the site would be minimally altered, the level of impact of Alternative 6 on the River would be less than under the Specific Plan. Consequently, Alternative 6 is superior to the Specific Plan.

With respect to runoff quality, development under Alternative 6 would be required to comply with the same Regional Water Quality Control Board standards as the Specific Plan and no environmentally superior alternative with respect to runoff quality can be identified.

(c) Traffic/Access

Implementation of Alternative 6 would result in a decrease in trips. Specifically, average daily trip generation on the Specific Plan site would decrease from 387,000 trips to 98,457 trips (a 74.6 percent decrease). Alternative 6 would decrease traffic impacts on local roadways, would require fewer roadway improvements off site than the Specific Plan, and would be environmentally superior to the Specific Plan with respect to traffic/access impacts.

(d) Noise

With a reduction in the amount of development on the site and associated trip reduction, there would be a reduction in noise impacts on and in the vicinity of the site. The analysis presented in this EIR determined that only one off-site location within the vicinity of the Specific Plan site - the Travel Village RV Park - would be significantly impacted by Specific Plan-generated noise. A reduction in Specific Plan traffic volumes of approximately 74.6 percent would reduce the Specific Plan's noise level increases to the point that the increase in noise levels at the Travel Village RV Park would not exceed the off-site mobile source thresholds of significance. Therefore, Alternative 6 would reduce all off-site noise impacts to less than significant levels and would be environmentally superior to the Specific Plan with respect to noise impacts.

(e) Air Quality

Because less on-site grading would occur under Alternative 6, the total amount of grading and construction-related air quality impacts would be less than those of the Specific Plan. In addition, Alternative 6 would generate less traffic than the Specific Plan. The effect of this reduction in building space and vehicle trips on air emissions is provided below.

Emissions Source	Emissions in Pounds per Day				
	CO	VOC	NO_x	SO_x	PM_{10}
Proposed Specific Plan	17,575.7	835.6	3,015.6	315.9	43,185.6
8,000 Unit Alternative	6,133.3	278.0	916.4	95.2	13,530.1
Recommended SCAQMD Thresholds	550.0	55.0	55.0	150.0	150.0

Source: Impact Sciences, Inc.

As shown, Alternative 6 would generate fewer air emissions than the Specific Plan. Therefore, it would be environmentally superior to the Specific Plan with respect to air quality. The emissions generated by Alternative 6 would, however, exceed the thresholds recommended by the SCAQMD for all pollutants except SO_x, and, as with the Specific Plan, would be considered significant.

(f) Biota

With the exception of the water reclamation plant, development under Alternative 6 would not occur within designated SEAs 20 and 23. Given that a substantially lesser amount of grading and its associated ground and habitat disturbance would occur, and given that there would be a substantial reduction in site population with Alternative 6, the biological impact of Alternative 6 would be less than that of the Specific Plan. However, grazing activities would continue with Alternative 6 both in the High Country and in the River Corridor. Also, the applicant has indicated that the Open Areas of the Specific Plan site, including the High Country and the River Corridor Special Management Areas, would not be dedicated to the public but would remain in private ownership with no provision for public access. From a biological standpoint, the reduction in grading and on-site population under Alternative 6 environmentally outweighs (is better than) the loss to the public of the High Country and River Corridor Special Management Areas. Consequently, Alternative 6 is biologically superior to the Specific Plan. However, the biological impacts of Alternative 6 would still be significant.

(g) Visual Qualities

Because the basis for Alternative 6 design is to be visually sensitive, no development would occur between the Santa Clara River Corridor and SR-126, and development areas south of the River would be limited to the Upper and Potrero Canyon Valley, Long Canyon, and reduced areas of the Grapevine and Airport Mesa areas (see **Figure 8.0-4, Alternative 6, 8,000 Unit Alternative**). As a result, there would be significantly fewer visual impacts associated with Alternative 6 than there would be if the site developed as proposed. Alternative 6 was analyzed as follows based on the viewing location information provided in **Section 4.7, Visual Qualities**:

1. Viewing Location 1 (west of the site in Ventura County, along SR-126 looking east)

A package water reclamation plant would be constructed under Alternative 6, and could, therefore, be visible under this alternative. Some Low Residential housing located along Upper Potrero Canyon may be visible in the mid-ground of this viewshed; however, due to the limited extent to which it may be visible, the housing may not even be noticed by eastbound travelers along SR-126.

2. Viewing Locations 2 and 3 (on site, along SR-126 looking south)

Due to intervening topography and because development would occur on higher elevations of the site than the viewing location, much less development would be visible from Viewing Locations 2 and 3 than under the Specific Plan. Development occurring north of SR-126 would be reduced to Estate Residential development, much more compatible with the visually rural character of the Santa Clara River Valley. South of the River, any development that might be visible would also be Estate Residential and would be well removed from a distance standpoint.

3. Viewing Location 4 (at the northern site boundary on Chiquito Canyon Road looking south)

Estate Residential housing along Chiquito Canyon Road would be visible from this viewing location compared to the Medium Residential housing and Business Park that would be visible under the Specific Plan. In addition, the Estate and Low Residential housing on the mesas south of the River would also be visible in the distance. The amount and intensity of development visible from this viewing location would be considerably less than under the Specific Plan.

4. Viewing Location 5 (on site, along SR-126 on the west side of Castaic Creek looking south)

Estate Residential development would occur on the Mesas under Alternative 6 compared to the Low, Low-Medium, and Medium Residential development that would occur under the Specific Plan. The Estate units would be visible in the distance from Viewing Location 5; however, because these units would be constructed on the mesas on approximately one-acre parcels, the visual effect of these units on the mesas from Viewing Location 5 would be significantly minimized.

5. Viewing Location 6 (off site, generally from the SR-126/I-5 Interchange looking southwest toward site)

Estate Residential development would occupy the northeasternmost corner of the Specific Plan site that is currently for Mixed-Uses. Unlike the Mixed-Use development, the Estate Residential units would be setback from the property boundary, making it unlikely that any of the units would be visible from Viewing Location 6. If any units are visible from this location, they would be seen at an intensity that would be substantially less than the Mixed-Use development would be seen under the Specific Plan.

6. **Viewing Locations 7, 8, and 9 (off site, generally from Interstate 5 and points east, looking west and southwest toward site)**

There is a greater possibility for the Estate units in the northeasternmost corner of the Specific Plan site to be seen from Viewing Locations 7, 8, and 9 simply because the viewing locations are either at the same or at higher elevations than the units would be, or because the locations offer a more panoramic view of the site, affording greater possibilities for observing development. However, the intensity of development that would be seen from Viewing Locations 7, 8, and 9 would be considerably less than what would be seen under the Specific Plan.

7. **Viewing Location 10 (off site, from the Rim of the Valley Trail, looking north toward the site)**

Views from the Rim of the Valley trail would be generally the same visually under Alternative 6 as they would be under the Specific Plan, because any reductions in development would be so slight in appearance (given the distance between the trail and the development area) as to be visually imperceptible.

In conclusion, development on the site under Alternative 6 would still be visible from most of the Viewing Locations, but due to the substantially less intensive nature of the development and the fact that it would be setback from the River bluffs, the visual impact of Alternative 6 would be substantially less than that of the Specific Plan, making Alternative 6 superior with respect to visual qualities.

(h) Cultural/Paleontological Resources

Because less ground disturbance would occur under Alternative 6, potential impacts to cultural and paleontological resources on the Specific Plan site would be less under Alternative 6 than if the Specific Plan were to develop as proposed. Therefore, Alternative 6 is environmentally superior with respect to cultural resources.

(i) Wastewater Disposal

Wastewater generated under Alternative 6 would likely be treated by a package water reclamation plant. Wastewater generation for Alternative 6 would be 2.25 million gallons per day (mgd), compared to the 5.8 to 7.7 mgd that the Specific Plan would generate. Although 2.25 mgd of wastewater is substantially less than 5.8 to 7.7 mgd, the Specific Plan includes a water reclamation plant to treat all

of its wastewater on site with the reclaimed water being used to irrigate Open Areas on the site. Conversely, the package water reclamation plant under Alternative 6 would dispose of the treated wastewater into the Santa Clara River. This precludes the use of the reclaimed wastewater for irrigation. Because both the Specific Plan and Alternative 6 would to treat all wastewater generated by the respective developments on site, the two are considered equal with respect to wastewater treatment.

(j) Water Resources

Water demand for Alternative 6 would be 5,637 acre-feet per year for both potable and irrigation uses. Since no reclaimed water would be available from on-site uses to meet Alternative 6's irrigation needs, all 5,637 acre-feet of this water would have to come from potable water supplies. However, compared to the 12,082 to 13,320 acre-feet per of water that the Specific Plan would require from potable water supplies (19,345 acre-feet minus 6,025 to 7,263 acre-feet of reclaimed water), water demand for these supplies under Alternative 6 would be substantially less. Because this alternative would consume less water from potable water resources than the Specific Plan, it would be environmentally superior to the Specific Plan with respect to impacts on potable water resources.

(k) Education

Alternative 6 would generate 4,773 students as compared to the 10,074 students that would be generated by the Specific Plan. Given this reduction in student generation, Alternative 6 is environmentally superior to the Specific Plan with respect to school impacts.

(l) Natural Gas/Electricity

Implementation of both the Specific Plan and Alternative 6 would require the use and expenditure of nonrenewable petroleum resources. Alternative 6 would consume substantially less petroleum resources than the Specific Plan; a comparison of annual energy consumption between the Specific Plan and Alternative 6 is provided below in **Table 8.0-17, Alternative 6, Electricity and Natural Gas Demand.**

Table 8.0-17
Alternative 6
Electricity and Natural Gas Demand

	Proposed Specific Plan Demand	Alternative Demand
Electricity Demand (kWh/year)	233.2 million	64.7 million
Natural Gas Demand (cubic feet/year)	1,747.3 million	635.9 million

Source: Impact Sciences, Inc. (November 1995).
See Appendix 8.0 for detailed energy consumption calculations for Alternative 6.

Although these energy resources are commercially available, Alternative 6 would consume substantially less petroleum-based energy resources than the Specific Plan and would be environmentally superior to the Specific Plan.

(m) Police Services

Because less development would occur on the site under Alternative 6 and a smaller on-site population would result, it is expected that Alternative 6 would have less of an impact on the Sheriff's Department than the Specific Plan. For the same reasons, Alternative 6 would also have smaller demands for CHP and emergency services in the area of the Specific Plan site. As a result, Alternative 6 would be environmentally superior to the Specific Plan with respect to police services.

(n) Fire Services and Hazards

Because, Alternative 6 would result in less development and a smaller population on the Specific Plan site than would occur under the Specific Plan, there would be fewer Fire Department calls to the site than under the Specific Plan. Therefore, with respect to providing fire services to the Specific Plan site, Alternative 6 is environmentally superior to the Specific Plan.

(o) Environmental Safety

As discussed in **Section 4.5, Environmental Safety**, potential impacts may result on the Specific Plan site if development occurs in the following locations:

- adjacent to historic and continuing oil and natural gas operations,
- in close proximity to the Southern California Edison electrical transmission lines,

- in close proximity to the Southern California Gas Company high pressure gas lines,
- adjacent to State Route 126, upon which hazardous wastes are transported,
- in close proximity to Chiquito Canyon Landfill,
- within the Castaic Lake dam inundation area, and
- adjacent to on-going agricultural operations.

The safety conditions under which Alternative 6 would be developed would be similar to those with development of the Specific Plan. The primary difference between development of Alternative 6 would be a substantial reduction in site population, which results in substantially less exposure to potential hazards, as unlikely as their occurrence might be. For this reason, Alternative 6 is superior environmentally to the Specific Plan with respect to environmental safety.

(p) Libraries

Based on County Library planning standards of 0.35 square feet of library facilities per capita and 2.0 books per capita, the Specific Plan would require a total of 23,983 square feet of library facilities with 137,084 additional volumes for the library system's collection. In comparison, development under Alternative 6 would require 8,710 square feet of library facilities and 49,772 volumes. Development under Alternative 6 would have less of an impact on County Library facilities than would the Specific Plan and would be environmentally superior to the Specific Plan.

(q) Parks, Recreation and Trails

Under County (and Quimby Act) requirements, development of the Specific Plan would require the applicant to provide 206 dedicated acres of local parkland; the Specific Plan as proposed would exceed this requirement, by a total of 6,175 acres for parks, recreation, and Open Area, including Neighborhood and Community Parks, a 15-acre lake, an 18-hole golf course, trails, the River Corridor and High Country SMAs, and other Open Area (see **Section 4.20, Parks, Recreation and Trails** for a full discussion on this topic). Per County requirements, development under Alternative 6 would require dedication of a total of 74.7 acres for parkland. The applicant has indicated that neither the River Corridor nor the High Country would be dedicated to public use as part of Alternative 6. Consequently, because the Specific Plan would provide recreational land in excess of what would be required under the County requirement and Alternative 6 would not, the Specific Plan would be environmentally superior to Alternative 6.

(r) Population, Housing and Employment

1. Population

Development of Newhall Ranch would result in a resident population of 68,542 at buildout. This population is within SCAG's 1994 growth projections for the area, but not the County's 1990 projections (see **Section 4.21, Population, Housing and Employment** for further discussion). Alternative 6 would result in 24,886 persons on the Specific Plan site (see **Appendix 8.0** for population calculations). This population is also well within SCAG's 1994 growth projections for the site's census tracts, but exceeds the County's 1990 projections for the site.

2. Housing

The Newhall Ranch community would include approximately 24,680 dwelling units plus an additional 538 second units, including a wide range of Residential designations designed to allow for a variety of product types. These housing units are consistent with SCAG's recently adopted (1994) projections for the region, but not the County's 1990 projections.

Residential development under Alternative 6 would provide for 7,400 single family Residential units and 600 multi-family units. This development is well within SCAG's growth forecast for the site's census tracts, but not the County's projections for the site. However, Alternative 6 would not provide the wide range of housing types that the Newhall Ranch Specific Plan would provide.

3. Employment

Development of Newhall Ranch would result in an employment population of 19,323. Development consistent with Alternative 6 would generate 1,824 on-site employment opportunities. The Specific Plan's estimated employment exceeds SCAG's employment forecast for 2015 for the two census tracts that overlie the Specific Plan site, as well as the County's projection for the site. The Santa Clarita Valley has been identified by SCAG as an area in need of additional employment opportunities. Under Alternative 6, the jobs to housing ratio would be reduced from 0.78 to 0.29, which is more housing rich and jobs poor than the Specific Plan. Furthermore, the Specific Plan provides 17,499 more jobs than Alternative 6. Consequently, from an employment standpoint, the Specific Plan is superior to Alternative 6.

As with the Specific Plan, the population, housing and employment generated by Alternative 6 do not fall within the County's 1990 projections. However, SCAG projects much more growth in this area than does the County. As does the Specific Plan, Alternative 6 requires a General Plan Amendment. Given the differences between County projections and SCAG projections, the dates of those projections (1990 and 1994, respectively), and the different population and housing implications resulting from each, an environmental preference with respect to population and housing can not necessarily be concluded.

(s) Solid Waste Disposal

At buildout, the Specific Plan would generate approximately 53,524 tons of solid waste per year. In comparison, Alternative 6 would generate 18,155 tons of solid waste annually **[see Table 8.0-18, Alternative 6, Daily Solid Waste Generation (No Recycling)]**. Given the smaller solid waste generation totals associated with Alternative 6, implementation of Alternative 6 would be environmentally superior to the Specific Plan with respect to solid waste disposal.

Table 8.0-18
Alternative 6
Daily Solid Waste Generation (No Recycling)

Land Use	Units[1]	Generation Factor (pounds/day)[2]	Total Waste Generation (pounds/day)
Residential			
Single Family Detached	7,400 DU	11,18	82,718
Multi-Family/Attached	600 DU	6.41	3,847
Commercial Retail[3]	67,500 sq.ft.	0.01	888
Eating & Drinking Establ.	40,500 sq.ft.	0.06	2,397
Food & Drug Stores	108,000 sq.ft.	0.04	4,261
Auto Dealer & Service Station	27,000 sq.ft.	0.03	755
Hotel & Motel	27,000 sq.ft.	0.03	784
Office	270,000 sq.ft.	0.01	2,071
Trans., Comm., Utilities[4]	35,000 sq.ft.	0.04	1,515
Golf Course[5]	150 acres	1.10	164
Developed Park[6]	74.66 acres	1.10	82
		Total	99,481 18,155 TPY

Source: Impact Sciences, Inc. (January 1996).

[1]*du = dwelling unit; sq.ft. = square feet; TPY = tons per year.*

[2]*The solid waste generation rates are derived from the Ventura County Solid Waste Management Department's Guidelines for the Preparation of Environmental Assessments for Solid Waste Impacts. These factors do not reflect any recycling activities on the part of the generator.*

[3]*Assumes a 50/50 split of Mixed Use between retail and office uses. Retail uses are assumed to be 25% general retail, 10% auto dealer and service stations, 10% hotel/motel, 15% eating and drinking establishments, and 40% food and drug stores. Industrial uses are assumed to be 50% Business Park and 50% manufacturing.*

[4]*Assumes 35,000 square feet of utilities facilities (same as Specific Plan).*

[5]*Assumes a 150-acre golf course.*

[6]*Assumes alternative will meet County requirements of 3 acres of parkland per 1,000 population.*

(t) Agricultural Resources

Development of the site under Alternative 6 would permit development in areas of the site that are designated as prime farmland and unique farmland (specifically, development would occur on prime farmland north of SR-126 and west of Chiquito Canyon Road, north of Potrero Canyon just south of the River, and in the Grapevine area, and on unique farmland located north of Potrero Canyon just south of the River). No development is proposed on prime farmlands located within the 50-Year Capital Flood Plain of the Santa Clara River. As a result, development would occur on fewer acres of farmlands of importance under Alternative 6 than would the Specific Plan.

In general, the conversion of prime agricultural land is irreversible and is, therefore, considered an unavoidable significant impact. However, in light of the continuing trend by the County of Los Angeles to convert cultivated lands to urban uses to accommodate growth, and the fact that the prime agricultural land on the Specific Plan site is already impaired (i.e., relatively difficult and less economical to farm) and is, therefore, generally of lower value than larger and better situated parcels found to the west, the loss of agricultural productivity on prime agricultural land under such circumstances is not considered a significant impact. Therefore, with respect to the loss of prime agricultural land, Alternative 6 is environmentally superior to the Specific Plan. With respect to loss of agricultural productivity on the Specific Plan site, there is no environmentally superior alternative.

g. Conclusion

Because some of the environmental impacts of the Specific Plan would be avoided or minimized with Alternative 6, it is environmentally superior to the Specific Plan. However, Alternative 6 has been rejected in favor of the Specific Plan because the applicant believes that Alternative 6 too narrowly limits the range of housing opportunities provided and does not reflect the market conditions under which the Specific Plan would be developed, and because many of the basic objectives of the Specific Plan identified in the Project Description of this EIR (**Section 1.0**) would not be achieved. Specific objectives not fully met or impeded to some extent with Alternative 6 are listed below:

- Create a major new community with inter-related Villages that allows for residential, commercial and industrial development, while preserving significant natural resources, important land forms and open space.
- Avoid leapfrog development and accommodate projected regional growth in a location which is adjacent to existing and planned infrastructure, urban services, transportation corridors, and major employment centers.
- Cluster development within the site to preserve regionally significant natural resource areas, sensitive habitat, and major land forms.

- Arrange land uses to reduce vehicle miles traveled and energy consumption.
- Provide a complementary and supportive array of land uses which will enable development of a community with homes, shopping, employment, schools, recreation, cultural and worship facilities, public services, and open space.
- Organize development into Villages to create a unique identity and sense of community for each.
- Design Villages in which a variety of higher intensity residential and non-residential land uses are located in proximity to each other and to major road corridors and transit stops.
- Establish land uses and development regulations which permit a wide range of housing densities, types, styles, prices, and tenancy (for sale and rental).
- Allow for the development of community services and amenities by the public and private sectors, such as medical facilities, child care, colleges, worship facilities, cultural facilities, and commercial recreation.
- Adopt development regulations which provide flexibility to respond to and adjust to changing economic and market conditions over a long period of time.
- Adopt development regulations and guidelines which allow site, parking, and facility sharing and other innovations which reduce the costs of providing public services.
- Design a mobility system which includes alternatives to automobile use.
- Facilitate public transit by reserving right-of-way for Metrolink line, space for a park and ride and/or Metrolink station, and by providing bus pull-ins along highways.
- Establish a diverse system of pedestrian and bicycle trails, segregated from vehicle traffic, to serve as an alternative to the automobile.
- Retain a major open space area which could act as a regional recreational park and an ecological preserve.
- Provide for the recreational use of open space that is compatible with protection of significant natural resources.
- Provide an extensive system of pedestrian, bicycle, and hiking trails within the Villages and hiking trails in the High Country and other open areas.
- Preserve the Santa Clara River corridor and adjacent uplands containing significant natural resources for their resource value, open space, and recreational use.
- Retain a major open space area and its natural vegetation as a wildlife or ecological preserve.
- Promote water conservation through design guidelines that encourage use of drought-tolerant and native plants.

4. OFF-SITE SPECIFIC PLAN ALTERNATIVES

a. Methodology

The Newhall Ranch Specific Plan is being proposed to meet the expected demands for increased housing and employment opportunities in northern Los Angeles County. While it is conceivable that large individual alternative sites to Newhall Ranch could be found and developed in order to meet expected demands for growth, it is just as conceivable that this demand could be met by developing many, much smaller parcels of land that are spread out over the area. Consequently, there could literally be hundreds, if not thousands, of land parcels that could be developed in place of Newhall Ranch. In fact, given the State-wide growth that is expected to occur as a result of internal population increases and as a result of immigration to southern California from other states and countries, it is possible that a need exists to develop all available parcels suitable for housing, including Newhall Ranch and all alternative sites. For this reason, alternative sites may actually not be "alternative" sites at all, rather, an argument can be made that there will be a need in the future to develop them all. However, the CEQA Guidelines[1] require that "[t]he range of alternatives required in an EIR is governed by 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice." Further, the CEQA Guidelines[2] require that ". . . (projects with a regionally significant impact should consider the regional context). . ." The Newhall Ranch Specific Plan certainly is a regionally significant project and, in light of the requirement of CEQA to present and analyze a "range of alternatives," it seems reasonable to include possible alternative sites, as remote and speculative as their replacing Newhall Ranch might be.

A recent court case (Citizens of Goleta Valley v. Board of Supervisors, 52 Cal.3d 553 (1990)) suggests that it is reasonable to compare the impacts of a project located on an alternative site(s) if an alternative site offers substantial environmental advantages over the project site, if developing on the alternative site may be feasibly accomplished in a successful manner, considering economic, environmental, social and technological factors, or if the size of the alternative site can accommodate the Specific Plan. It also suggests that it is not reasonable to compare the impacts that a project would have on an alternative site if that site is under multiple ownerships, if it is outside the Lead Agency's planning jurisdiction, if the site has land use designations which are inconsistent with the proposed development, or if it has poor access to urban services. In an effort to consider the regional context and to not too narrowly limit the area where alternative sites might be located, a region-wide search for alternative sites was undertaken as part of this EIR. While the criteria which are suggested by the

1 California Administrative Code, Title 15, Chapter 3, Guidelines for California Environmental Quality Act, amended January 1, 1995, Section 15126.
2 California Administrative Code, Title 15, Chapter 3, Guidelines for California Environmental Quality Act, amended January 1, 1995, Section 15126.

Goleta case for determining the use of another site for alternative analysis could have been used in this analysis, most of those criteria were not used in order to ensure that broad a list of possible sites were considered. For example, our analysis did not reject an alternative site because it happened to be in a planning jurisdiction other than Los Angeles County.

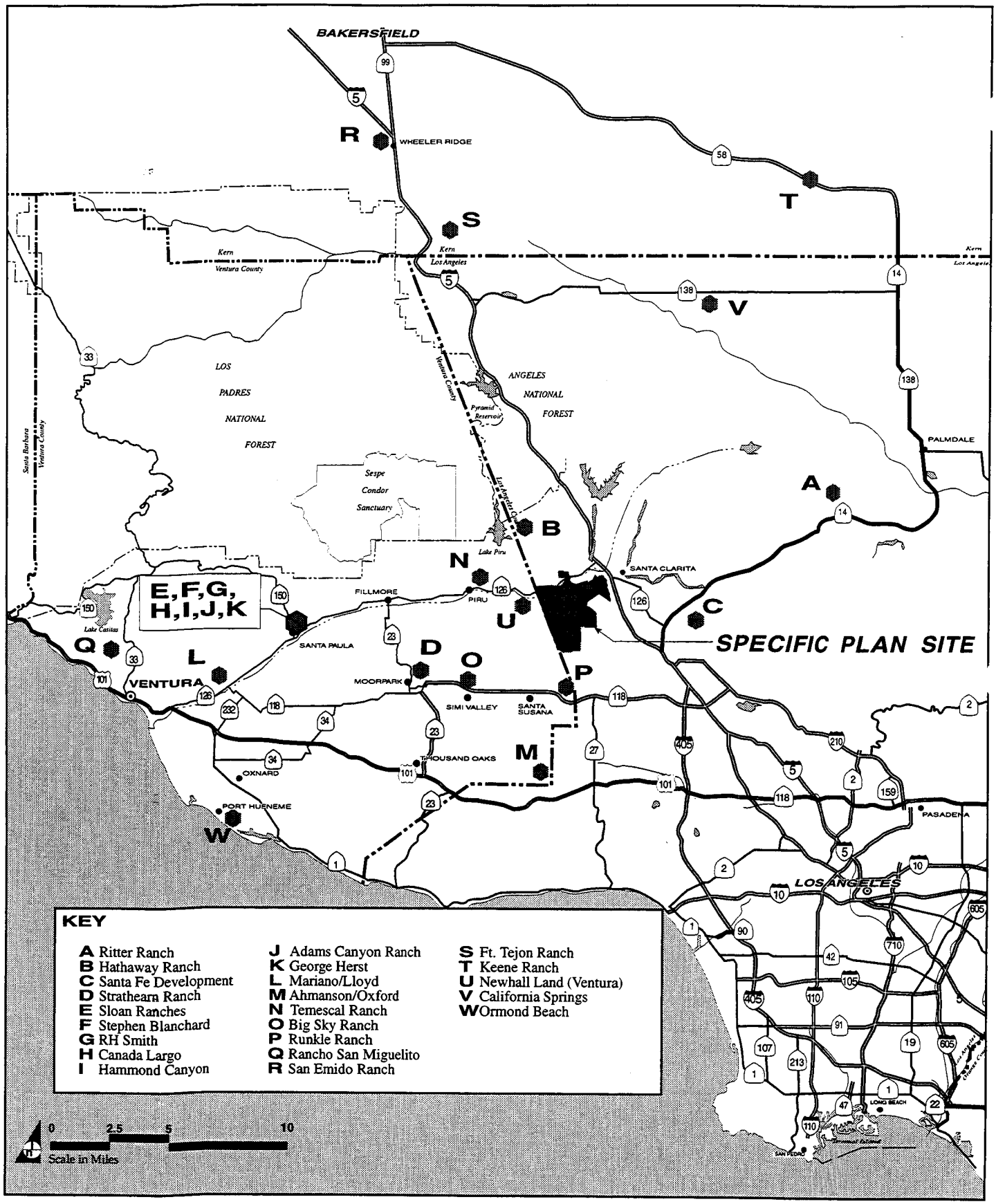
A land broker and title company[3] were used in order to identify potential sites with the only parameters being the following: the sites had to be reasonably available for purchase, and they had to be located within the very broad geographic region of Ventura, southern Kern, and central to northern Los Angeles Counties. This search identified a total of twenty-three sites, each of which are indicated in **Table 8.0-19** below and are illustrated on **Figure 8.0-5, Alternative Site Locations.**

Table 8.0-19
Alternative Sites

Site	Site Name	Size (acres)
A	Ritter Ranch	11,000
B	Hathaway Ranch	6,195
C	Santa Fe Development	1,296
D	Strathearn Ranch	3,165
E	Sloan Ranches	4,326
F	Stephen Blanchard	1,907
G	RH Smith	3,691
H	Canada Largo	5,374
I	Hammond Canyon	1,896
J	Adams Canyon Ranch	5,000
K	George Herst	1,520
	Subtotal (sites E through K)[1]	**23,714**
L	Mariano/Lloyd	5,419
M	Ahmanson/Oxford	5,495
N	Temescal Ranch	7,580
O	Big Sky Ranch	6,200
P	Runkle Ranch	3,580
Q	Rancho San Miguelito	8,030
R	San Emido Ranch	119,000
S	Ft. Tejon Ranch	250,000
T	Keene Ranch	6,000
U	Newhall Land (Ventura)	15,000
V	California Springs	8,000
W	Ormond Beach	1,200

[1] *Sites E through F are being considered together as one parcel due to their location and size. Individually, none of the sites are large enough to accommodate a project the size of the Newhall Ranch Specific Plan. However, because they are all very near to one another, it is conceivable that they could be developed in a coordinated fashion.*

3 Land Broker: Chaparral Land Company - Title Company: Chicago Title.



SOURCE: Impact Sciences, Inc., Feb. 1996.

NEWHALL RANCH™
Newhall Ranch Company

FIGURE 8.0-5

ALTERNATIVE SITE LOCATIONS

Not all of the twenty-three sites may be suitable for a comparative analysis. For example, it is reasonable to believe that some of the sites (1) may be too small to accommodate the amount of development proposed as part of the Newhall Ranch Specific Plan (i.e., a minimum of approximately 4,500 acres of flatter developable land would be required), (2) they might be outside the same market and planning area the Specific Plan is in, (3) they may be in a isolated location which could not be efficiently connected with existing urban infrastructure, or (4) they may already have been recently entitled for urban development and are being actively planned for development by the present owner or are under construction. The Specific Plan site's market and planning area is bound on the north by Pyramid Lake, on the west by eastern Ventura County (including areas generally east of the Cities of Fillmore, Moorpark, and Camarillo), on the south by the central and northern portions of the City of Los Angeles, and on the east by the southwestern Antelope Valley. The applicant considers this to be its competitive market area, which is under the economic influences of Los Angeles. In order to focus the list of sites to a reasonable set, consideration was then given to the aforementioned criteria (in no particular order). The information presented below explains why a site was or was not considered a reasonable site for comparative analysis.

(1) Site A - Ritter Ranch

Jurisdiction: City of Palmdale, Los Angeles County

Site Description: This site is located in the Antelope Valley approximately 26 miles east of the Newhall Ranch Specific Plan site, and is approximately 11,000 acres in size.

Why Selected or Rejected: This site was rejected from further consideration because it is already entitled for urban development and it is currently under development by the present owner.

(2) Site B - Hathaway Ranch

Jurisdiction: Los Angeles County

Site Description: This site is generally located between Lake Piru on the west and Interstate 5 on the east, approximately 4 miles north of the Newhall Ranch Specific Plan site, and is approximately 6,195 acres in size.

Why Selected or Rejected: This site is considered a reasonable alternative site because it is within the same market area as the Newhall Ranch Specific Plan.

(3) Site C - Santa Fe Development

Jurisdiction: City of Santa Clarita, Los Angeles County

Site Description: This site is located in the Santa Clarita Valley between Sand Canyon and Placerita Canyon, approximately 10 miles east of the Newhall Ranch Specific Plan site, and is approximately 1,296 acres in size.

Why Selected or Rejected: This site was rejected from further consideration because it is not large enough to accommodate a project the size of the Newhall Ranch Specific Plan.

(4) Site D - Strathearn Ranch

Jurisdiction: City of Moorpark, Ventura County

Site Description: This site is located in the City of Moorpark's sphere of influence approximately 10 miles southwest of the Newhall Ranch Specific Plan site, and is approximately 3,165 acres in size.

Why Selected or Rejected: This site was rejected from further consideration because approximately 1,500 acres of it is in terrain that is not developable due to steepness, leaving approximately 1,700 acres available for development. Furthermore, as part of an ongoing environmental review being conducted by the City of Moorpark, approximately 3,400 dwelling units are already being proposed for this site. Because the developable portions of this site cannot accommodate a project the size of the Newhall Ranch Specific Plan, and because this site is already proposed for urban development by its landowner, it was rejected from further consideration.

(5) Site E - Sloan Ranches
Site F - Stephen Blanchard
Site G - RH Smith
Site H - Canada Largo
Site I - Hammond Canyon
Site J - Adams Canyon Ranch
Site K - George Herst

Jurisdiction: City of Santa Paula, Ventura County

Site Description: These sites are located within and near the City of Santa Paula approximately 30 miles west of the Newhall Ranch Specific Plan site, and are approximately 23,714 acres in size when totaled together. These sites are being considered together due to their location and size. Individually, none of the sites are large enough to accommodate a project the size of the Newhall Ranch Specific Plan. However, because they are all very near to one another, it is conceivable that they could be developed in a coordinated fashion.

Why Selected or Rejected: This group of sites was rejected from further consideration for the following reasons. While large enough to accommodate a project the size of the Newhall Ranch Specific Plan, this group of sites is outside the Specific Plan's market and planning area. These sites are clearly within the planning jurisdiction of Ventura County or the City of Santa Paula.

(6) Site L - Mariano/Lloyd

Jurisdiction: Ventura County

Site Description: This site is located west of the City of Santa Paula approximately 35 miles west of the Newhall Ranch Specific Plan site, and is approximately 5,419 acres in size.

Why Selected or Rejected: This site was rejected from further consideration because it is outside the Specific Plan's market and planning area. This site is clearly within the planning jurisdiction of Ventura County.

(7) Site M - Ahmanson/Oxford

Jurisdiction: Ventura County

Site Description: This site is located north of the City of Calabasas approximately 10 miles south of the Newhall Ranch Specific Plan site, and is approximately 5,495 acres in size.

Why Selected or Rejected: This site was rejected from further consideration because it is already entitled for urban development; its owner is in the process of building out the site pursuant to the Ahmanson Specific Plan.

(8) Site N - Temescal Ranch

Jurisdiction: Ventura County

Site Description: This site is located north of the community of Piru approximately 4 miles northwest of the Newhall Ranch Specific Plan site, and is approximately 10,300 acres in size.

Why Selected or Rejected: This site is considered a reasonable alternative site because it is in the same market and planning area as the Newhall Ranch Specific Plan, and is large enough to accommodate a project the size of the Specific Plan.

(9) Site O - Big Sky Ranch

Jurisdiction: City of Simi Valley, Ventura County

Site Description: This site is located north of State Route 118 (the Ronald Reagan Freeway) in the City of Simi Valley approximately 6 miles southwest of the Newhall Ranch Specific Plan site, and is approximately 5,200 acres in size.

Why Selected or Rejected: This site was rejected from further consideration because it is already entitled for urban development and it is being actively planned for development by the present owner.

(10) Site P - Runkle Ranch

Jurisdiction: Ventura County

Site Description: This site is located east of the City of Simi Valley approximately 5 miles south of the Newhall Ranch Specific Plan site, and is approximately 3,580 acres in size.

Why Selected or Rejected: This site was rejected from further consideration because a portion of it is constrained by steep topography which renders that portion of the site undevelopable. Consequently, this site is not large enough to accommodate a project the size of the Newhall Ranch Specific Plan.

(11) Site Q - Rancho San Miguelito

Jurisdiction: Ventura County

Site Description: This site is located south of Lake Casitas and west of State Route 33, approximately 40 miles west of the Newhall Ranch Specific Plan site, and is approximately 8,030 acres in size.

Why Selected or Rejected: This site was rejected from further consideration because it is outside the Specific Plan's market and planning area. This site is clearly within the planning jurisdiction of Ventura County.

(12) Site R - San Emido Ranch

Jurisdiction: Kern County

Site Description: This site is located south of the City of Bakersfield near Wheeler Ridge, approximately 50 miles northwest of the Newhall Ranch Specific Plan site, and is approximately 119,000 acres in size.

Why Selected or Rejected: This site was rejected from further consideration because it is already entitled for urban development and is outside the Specific Plan's market and planning area. This site is clearly within the planning jurisdiction of Kern County.

(13) Site S - Ft. Tejon Ranch

Jurisdiction: Kern and Los Angeles Counties

Site Description: This site is located north of the community of Gorman, approximately 30 miles north of the Newhall Ranch Specific Plan site, and is approximately 250,000 acres in size.

Why Selected or Rejected: This site was rejected from further consideration because it is outside the Specific Plan site's market and planning area (it is located in an isolated area, which is at least 35 miles from the nearest urban land).

(14) Site T - Keene Ranch

Jurisdiction: Kern County

Site Description: This site is located in the Tehachepi Mountains, approximately 80 miles northeast of the Newhall Ranch Specific Plan site, and is approximately 6,000 acres in size.

Why Selected or Rejected: This site was rejected from further consideration because it is outside the Specific Plan site's market and planning area. This site is clearly within the planning jurisdiction of Kern County.

(15) Site U - Newhall Land and Farming Company (Ventura County site)

Jurisdiction: Ventura County

Site Description: This site is located directly adjacent to the western edge of the Newhall Ranch Specific Plan site, and is approximately 15,000 acres in size.

Why Selected or Rejected: This site is a reasonable alternative site and it is already owned by The Newhall Land and Farming Company.

(16) Site V - California Springs

Jurisdiction: Los Angeles County

Site Description: This site is located in northern Los Angeles County approximately 25 miles northeast of the Newhall Ranch Specific Plan site, and is approximately 8,000 acres in size.

Why Selected or Rejected: This site was rejected from further consideration because it is outside the Specific Plan site's market and planning area (it is located in an isolated area, which at least 25 miles from the nearest urban land).

(17) Site W - Ormond Beach

Jurisdiction: City of Oxnard, Ventura County

Site Description: This site is located in the City of Oxnard approximately 35 miles southwest of the Newhall Ranch Specific Plan site, and is approximately 1,200 acres in size.

Why Selected or Rejected: This site was rejected from further consideration because it is not large enough to accommodate a project the size of the Newhall Ranch Specific Plan and it is outside the Specific Plan site's market and planning area. This site is clearly within the planning jurisdiction of the City of Oxnard.

Of the twenty-three sites considered, three were found to be reasonably comparable to the Newhall Ranch Specific Plan site in terms of size, topography, and location in relation to the Los Angeles planning and market area. The three sites are the Hathaway Ranch, the Temescal Ranch, and The Newhall Land and Farming Company's Ventura County holdings, the locations of which are illustrated on **Figure 8.0-5, Alternative Site Locations**. Provided below is an evaluation of the environmental impacts of developing these alternative sites compared to developing the Newhall Ranch Specific Plan site. For each of the alternative sites, it is presumed that each is large enough to accommodate a project the size of the Newhall Ranch Specific Plan, and that it is physically possible to create the same Village concept in approximately the same spatial arrangement being proposed for the Newhall Ranch site.

b. Site 1 - Hathaway Ranch

Hathaway Ranch is approximately 6,195 acres in size, and is located in unincorporated Los Angeles County, generally between the Ventura County line on the west and Interstate 5 on the east, and Hasley Canyon on the south and the Angeles National Forest on the north. The Hathaway Ranch is approximately 5 miles north of Newhall Ranch. Topography on the site is highly variable, with elevations ranging from approximately 1,100 feet above mean sea level to in excess of 2,500 above mean sea level; very little flat land exists on this site. Historic uses of the site include cattle grazing, oil and natural gas operations and mineral resource mining. As the site is undeveloped, no vehicular access is available to this site via improved roadways and no water or wastewater lines serve the site. The eastern portion of the site is within the Castaic Lake Water Agency service area.

The impact of developing the land uses proposed by the Newhall Ranch Specific Plan on the Hathaway Ranch Alternative site versus the Newhall Ranch site is described below. **Table 8.0-20, Off-Site Alternative Site Impact Comparison Matrix**, provides a matrix which compares, from an impact standpoint, development on the Specific Plan site with a similar level of development on the three alternative sites.

(1) Geological Resources

From an exposure to seismic events standpoint, the impact of developing the Hathaway Ranch Alternative site would be similar to the Specific Plan site. Both sites are affected by faulting and both must mitigate potential landslide hazards. However, from a grading standpoint, impacts on the Hathaway Ranch Alternative site would be greater than on the Specific Plan site; more earthwork would be required to create land level enough to accommodate urban development. This is because the terrain on the Hathaway Ranch is steeper and more varied than on the portions of the Specific Plan site that are proposed for development. Thus, it is concluded that the Specific Plan is environmentally superior to the Hathaway Ranch Alternative with respect to geologic issues.

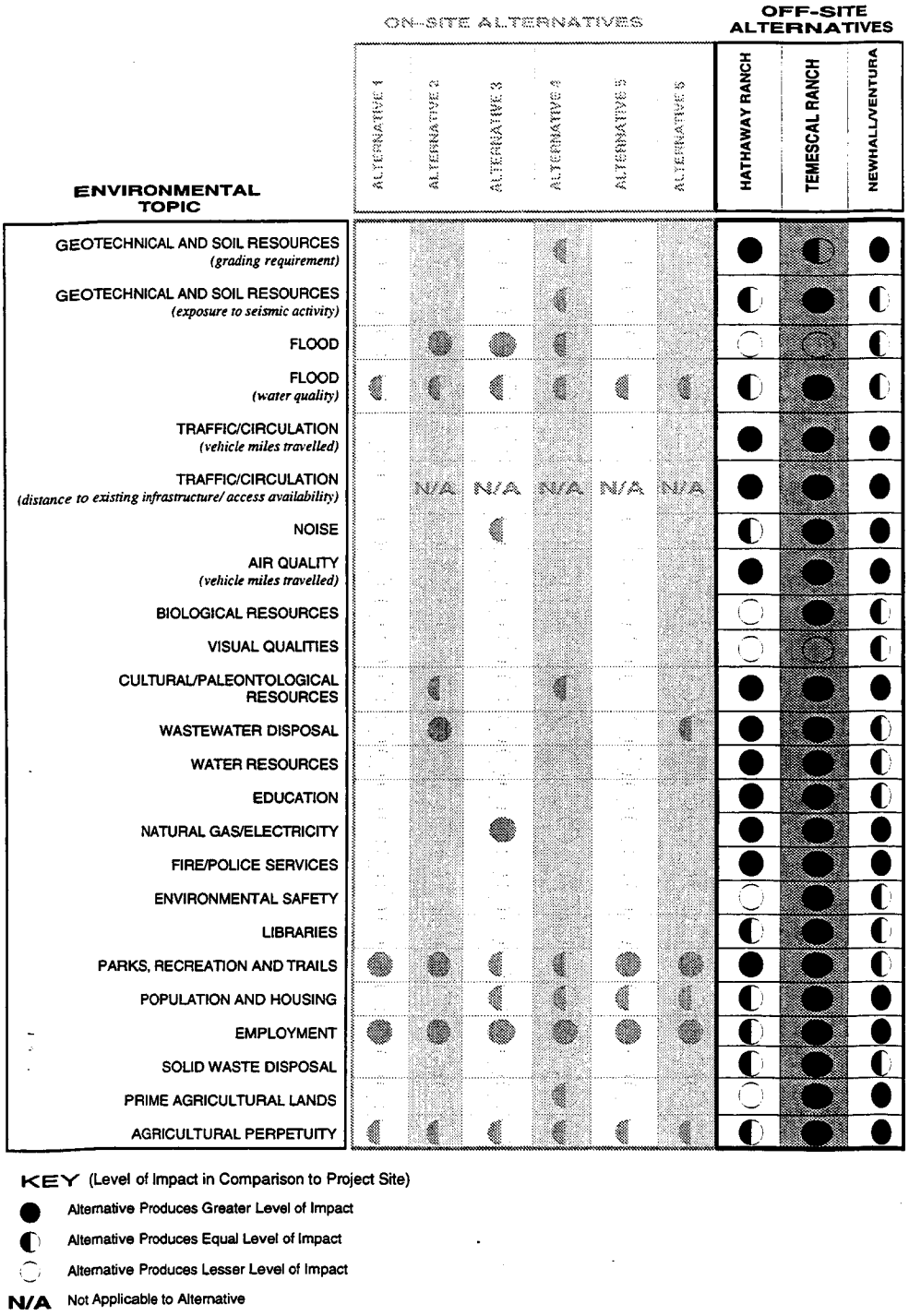
(2) Flood

The Hathaway Ranch Alternative site is not located on the Santa Clara River. Consequently, the same degree of River improvements needed as a result of the Specific Plan would not be needed if the Specific Plan were moved to the Hathaway Ranch Alternative site. However, both alternatives would convert open land to an urban condition with surfaces impervious to water. It is expected that development of the Hathaway Ranch Alternative site would necessitate similar types of drainage improvements in upland areas in order to preclude downstream impacts. Thus, it is concluded that the Hathaway Ranch Alternative is environmentally superior to the Specific Plan with respect to flood issues.

(3) Biota

Because the Hathaway Ranch Alternative site does contain habitat types considered sensitive, biological impacts related to development would be less than those associated with developing the Specific Plan site. This is due to the fact that the Hathaway Ranch Alternative site is not within a Significant Ecological Area (SEA), is not within the critical habitat of the endangered least Bell's vireo, and does not have habitat suitable for the unarmored threespine stickleback fish, which is also

Table 8.0 -20, Off-Site Alternative Impact Comparison Matrix



KEY (Level of Impact in Comparison to Project Site)

- ● Alternative Produces Greater Level of Impact
- ◐ Alternative Produces Equal Level of Impact
- ○ Alternative Produces Lesser Level of Impact

N/A Not Applicable to Alternative

an endangered species. Biological impacts related to the general loss of habitat would be similar to those associated with developing the Specific Plan site, but impacts to County-designated SEAs would be less with the Hathaway Ranch Alternative site. Given this, it is concluded that the Hathaway Ranch site is environmentally superior to the Specific Plan.

(4) Cultural/Paleontological Resources

The impact potential relating to cultural/paleontological resources would likely be greater on the Hathaway Ranch Alternative site than on the Specific Plan site. This site, and upland sites like it, have many middle period cultural resource sites (pre 500 AD). As discussed in Section 4.3, the Specific Plan site has relatively few identified cultural/paleontological sites due to its historically dry conditions. The Hathaway Ranch Alternative site also has the potential to yield paleontological resources to a similar extent as the Specific Plan site. Given this, the Specific Plan represents the environmentally superior alternative with respect to cultural resources.

(5) Agricultural Resources

Due mainly to its distance from the Santa Clara River Valley, agriculturally, the Hathaway Ranch Alternative site does not maintain the same quality of soil conditions as the Specific Plan site. Specifically, this site contains no prime farmlands, no farmland of statewide or local importance, and no unique farmlands (all soils are suited only to the grazing of livestock). Consequently, the impact on agricultural resources would not be as great as would occur with development on the Specific Plan site. Thus, this alternative is environmentally superior to the Specific Plan with respect to impacts upon agricultural resources.

(6) Environmental Safety

Past and present uses of the Hathaway Ranch Alternative site (namely oil production, grazing and some agriculture) are similar in nature to those of the Specific Plan site. Consequently, potential environmental safety impacts relating to these uses would be similar to those of the Specific Plan site. However, given its more remote location, it is expected that the Hathaway Ranch Alternative site would not be as impacted by natural gas lines and electrical transmission lines, nor is it within the inundation area of the Castaic Dam. For these reasons, environmental safety impacts would potentially be less on the Hathaway Ranch Alternative site than on the Specific Plan site.

(7) Traffic/Access

It is assumed that internal traffic patterns on the Hathaway Ranch Alternative site, and on each alternative site for that matter, would operate the same as on the Specific Plan site. This presumes that it is possible to create the same Village concept in approximately the same spatial arrangement being proposed for the Newhall Ranch site. Given this overall assumption, the primary difference between developing on the Hathaway Ranch Alternative site and developing on the Specific Plan site is how vehicular traffic would move off the sites. In the case of the Hathaway Ranch Alternative site, it is located at a greater distance from existing traffic infrastructure than is the Specific Plan site and, therefore, suffers from a lack of vehicular access; the Hathaway Ranch Alternative site is not served directly by a major State highway, and is much further removed from one of the State's major north-south freeway corridors (I-5) than the Specific Plan site. Consequently, the amount of transportation infrastructure required to serve the Hathaway Ranch Alternative site would be substantially greater than that needed to serve Newhall Ranch. If a connection with I-5 were to occur with the Hathaway Ranch Alternative, it would occur north of SR-126. Consequently, potential impacts to the I-5 interchanges at Magic Mountain Parkway and Valencia Boulevard could be avoided by being transferred to northern locations. Furthermore, the Hathaway Ranch Alternative site would not offer the future potential of direct commuter rail service that developing the Specific Plan site can offer. Travel distances and vehicle miles traveled (VMT) between the Hathaway Ranch Alternative site and the surrounding employment centers found in the Santa Clarita Valley would also be greater with development on the Hathaway Ranch Alternative site. In conclusion, significant traffic impacts would be of a greater magnitude when developing the Hathaway Ranch Alternative site.

(8) Air Quality

From an air quality impact perspective, because the amount of air emissions generated by a project is directly linked to the amount of VMT a project creates, this would mean that the amount of vehicular-related air emissions generated by developing the Hathaway Ranch Alternative site would be greater than would occur with developing the Specific Plan site. In the end, the significant air quality impacts generated by developing the Specific Plan site would be greater when developing the Hathaway Ranch Alternative site. In conclusion, significant air quality impacts would be of a greater magnitude when developing the Hathaway Ranch Alternative site. Based on the above, the Specific Plan represents the environmentally superior alternative with regard to air quality impacts.

(9) Noise

Vehicular noise emissions would be felt over a wider area at this alternative site due to the greater distances traveled. The significant noise impact generated at the Travel Village RV Park by developing on the Specific Plan site would likely, however, be avoided. This is due to the fact that traffic generated on the Hathaway Ranch would likely not travel past Travel Village RV Park (on SR-126 west of Commerce Center Drive) to nearly the same degree as it would should the Specific Plan site develop as proposed; it is expected that most of the traffic would travel more directly to I-5. As a result though, significant noise impacts could be created in other noise sensitive areas located to the north where connections to I-5 might occur with the Hathaway Ranch Alternative (e.g., in Hasley Canyon and in the residential areas located in Castaic). In conclusion, while the significant noise impact generated at Travel Village RV Park by developing the Specific Plan site would be avoided by the Hathaway Ranch Alternative, it is likely that other significant noise impacts would be created in the noise sensitive residential areas located to the north. Thus, there is no environmentally superior alternative with respect to noise impacts.

(10) Wastewater Disposal

For each alternative site, it is assumed that, if development were to occur on it, each would need to construct its own water reclamation plant. It is also assumed that each site would create a reclaimed water system, where reclaimed water would be used on the sites to reduce their potable water demands. Based on the above, the amount of wastewater generated by development on the alternative site would be the same as that generated by development on the Specific Plan site and, therefore, impacts would be the same. As such, neither the Specific Plan nor this alternative is considered to be environmentally superior.

(11) Water Availability

The potable water demands of developing the Hathaway Ranch Alternative site would be the same.

This site is only partially within the service area boundary of the Castaic Lake Water Agency (a water wholesaler) and is not served by a water retailer. Groundwater supplies are likely not of sufficient quantity or quality to serve a development the size of Newhall Ranch. Consequently, the Hathaway Ranch Alternative site would need to annex all of its land area into the Castaic Lake Water Agency (CLWA) service area, and would also have to either annex to the nearest water retailer service area (likely either Newhall County Water District or Los Angeles Water District 36) or create a new water retailing entity. CLWA has the present policy of allowing annexations into its service

area only if enough water is simultaneously brought into the district to serve the development proposed on the annexed land. It is not known whether or not the Hathaway Ranch has access to outside water sources, but it is likely that development on the Hathaway Ranch in any case would be much more heavily dependent on imported water than would development on Newhall Ranch. This would be compounded by the fact that Hathaway Ranch does not have the rights to Castaic Creek flows as does The Newhall Land and Farming Company. Due to the steeper topography, the Hathaway Ranch Alternative site would require an increased amount of water pumping infrastructure. Due to the problematic prospects of delivering enough potable water to the Hathaway Ranch, water impacts would likely be greater with the Hathaway Ranch Alternative than with the Specific Plan. Given the above, it is concluded that the Specific Plan is environmentally superior to the Hathaway Ranch Alternative with respect to impacts upon potable water sources and providers.

(12) Energy Use and Solid Waste Disposal

The same amount of energy (natural gas and electricity) would be required on the Hathaway Ranch Alternative site, and the same amount of solid waste generation would occur as on Newhall Ranch. Access to energy (electricity and natural gas) sources and to solid waste disposal sites is approximately the same with development on the Hathaway Ranch Alternative site as it would be with development on the Specific Plan site. Therefore, these impacts would also be similar. However, because the Hathaway Ranch Alternative would generate a larger amount of vehicle miles traveled, its demand for petroleum products would be greater than the Specific Plan. Consequently, the Specific Plan would be superior to the Hathaway Ranch Alternative with respect to the consumption of petroleum products.

(13) Education and Libraries

From an education and library standpoint, it is assumed that each of the alternative sites would need to meet similar requirements for funding in order to provide education and library services for the residents of the sites. Based on the above information, impacts to schools and libraries under the Hathaway Ranch Alternative would be similar to those under the Specific Plan. Thus, neither the Specific Plan nor this Alternative would be considered environmentally superior with respect to impacts upon schools and libraries.

(14) Parks and Recreation

Each site would be required to meet local Quimby Act requirements for the provision of park space. However, at only 6,195 acres, it would not be possible to develop a project the size of Newhall Ranch on this site and still preserve in perpetuity anywhere near the amount of land that would be dedicated to

Open Area and public use as part of the Newhall Ranch Specific Plan. Based on the above information, development of the Hathaway Ranch alternative site, rather than the Specific Plan site would not as beneficially impact parks and recreation as would the Specific Plan and, therefore, would be worse from a park and recreation standpoint. As such, the Specific Plan represents the environmentally superior alternative with respect to impacts upon parks and recreation.

(15) Fire and Police Services

It is assumed that each of the alternative sites would be required to fund an adequate level of service of both the Fire Department and Sheriff Department in order to ensure adequate on-site protection. However, this site is farther, from a response time standpoint, from existing fire and police stations found within the Santa Clarita Valley and, therefore, would not be as well served as the Specific Plan site in the event of a major emergency. Consequently, impacts relative to fire and police protection would be incrementally worse with development on the Hathaway Ranch Alternative site compared to development on the Specific Plan site. Thus, it is concluded that the Specific Plan represents the environmentally superior alternative with respect to impacts upon fire and police service.

(16) Visual Qualities

Due to intervening topography, the fact that a State highway (SR-126) does not run through this site, and the greater distance from potential viewers, development on the Hathaway Ranch would be less visible from either I-5 or SR-126 and the existing population center in the Santa Clarita Valley. Due to these factors, the significant visual impacts to the rural appearance of the Santa Clara River Valley and Chiquito Canyon that would occur on Newhall Ranch would not occur under the Hathaway Ranch Alternative. However, the Hathaway Ranch Alternative would still be converting an open area into urban uses which would be considered visually significant. For these reasons, impacts to visual resources would be less with this Alternative. Therefore, this Alternative is considered environmentally superior to the Specific Plan with respect to visual impacts.

(17) Population, Housing, and Employment

Los Angeles County population, housing and employment projections for the Hathaway Ranch site do not call for the urban level of development that would result if the Newhall Ranch Specific Plan were relocated to the Hathaway Ranch. Consequently, such development on this site would also not be consistent with the County's 1990 growth projections. This site is within Census Tract 9201.02. The Southern California Association of Governments (SCAG) in its 1994 Regional Comprehensive Plan and Guide projects that this census tract will, by the year 2015, have a population of 63,163 persons, which

is 52,460 more than was reported in the 1990 census. If the Newhall Ranch development were placed on the Hathaway Ranch site, approximately 16,040 of the 68,500 persons who would occupy this site would not be accounted for in SCAG's 1994 growth projection (68,500 persons projected - 52,460 persons accounted for = 16,040 persons). Because planning for some of the infrastructure requirements of the region is based on the SCAG projections, this census tract would have more people within it than is planned for, which is considered to be a significant population impact (if this same development were to occur on the Newhall Ranch site, the population would be accounted for in SCAG regional projections).

SCAG projects that this census tract will have 16,695 housing units by the year 2015, which is 13,171 more units than existed in 1990. Adding the 24,680 housing units added by the Specific Plan, this census tract would have 11,509 more units than accounted for by SCAG in its regional plans. By comparison, all of the units proposed on the Newhall Ranch site are accounted for in SCAG's regional plans.

Regarding employment, SCAG projects that this census tract will have 4,547 jobs by the year 2015, which is 4,473 more than existed in 1990. Adding the 19,323 jobs created by the Specific Plan, this census tract would have more jobs available than accounted for by SCAG in its regional plans.

From a population/housing/employment standpoint, developing the Hathaway Ranch Alternative site with the Specific Plan rather than Newhall Ranch would not be consistent with the regional population, housing, and employment condition that is planned for by SCAG in its 1994 Regional Comprehensive Plan and Guide, nor would it be consistent with the County's 1990 projections for the Valley. However, both the Specific Plan and the Hathaway Ranch Alternative would require General Plan Amendments. Consequently, neither the Specific Plan nor the Hathaway Ranch Alternative is environmentally superior with respect to population, housing, and employment issues.

(18) Meeting of Specific Plan Objectives

Many of the objectives of the Specific Plan identified in the Project Description of this EIR (**Section 1.0**) would not be achieved with implementation of this alternative. Specific objectives not fully met or impeded to some extent with the Hathaway Ranch Alternative are listed below:

- Avoid leapfrog development and accommodate projected regional growth in a location which is adjacent to existing and planned infrastructure, urban services, transportation corridors, and major employment centers.
- Arrange land uses to reduce vehicle miles traveled and energy consumption.
- Earn a reasonable return on investment.

- Provide a safe, efficient, and aesthetically attractive street system with convenient connections to adjoining regional transportation routes.
- Facilitate public transit by reserving right-of-way for future Metrolink line, space for a park and ride and/or Metrolink station, and by providing bus pull-ins along highways.
- Establish a diverse system of pedestrian and bicycle trails, segregated from vehicle traffic, to serve as an alternative to the automobile.
- Retain a major open area which could act as a regional recreational park and an ecological preserve.
- Preserve the site of the historical Asistencia (San Fernando Mission Annex).
- Preserve or minimally impact the most significant ridgelines and other major topographical land forms.

c. Site 2 - Temescal Ranch

Temescal Ranch is approximately 7,580 acres in size, and is located in unincorporated Ventura County, northeast of the community of Piru. Lake Piru, owned by the United Water Conservation District, extends through the northern third of the property. The Piru recreational area with lake access is located on the western side of the lake. The Santa Felicia Dam extends across the southern extent of the lake. Piru Canyon and Piru Creek traverse the central portion of the property, extending from the dam to the property's southern boundary. The valley floor predominantly consists of rangeland. The Temescal Ranch is approximately 2 miles northwest of Newhall Ranch. Topography on the site is highly variable, with elevations ranging from approximately 780 feet above mean sea level to approximately 3,000 above mean sea level. Lands along the eastern side of the canyon consist of steep, hilly terrain, while the western side offers gentler slopes and features plateaus overlooking the canyon. Historic uses of the site include cattle grazing, agriculture, and oil production. Other than Lake Piru, the site is undeveloped. Vehicular access is available to this site from SR-126, via Piru Canyon Road, and no water or wastewater lines serve the site. A portion of the site is within the United Water Conservation District service area.

The impact of developing the land uses proposed by the Newhall Ranch Specific Plan on the Temescal Ranch Alternative site versus the Newhall Ranch site is described below.

(1) Geological Resources

From both an exposure to seismic events standpoint and from a grading impact standpoint, the impact of developing the Temescal Ranch Alternative site would be similar to the Specific Plan site. Both sites are affected by faulting and both must mitigate potential landslide hazards. Also, given that the terrain found on the Temescal Ranch Alternative site is similar to that found in the proposed development area of the Specific Plan site, a similar amount of earthwork would be required to create land level enough to accommodate urban development.

(2) Flood

The Temescal Ranch Alternative site is not located on the Santa Clara River. Consequently, the same degree of River improvements needed as a result of the Specific Plan would not be needed if the Specific Plan were moved to the Temescal Ranch Alternative site. However, both alternatives would convert open land to an urban condition with surfaces impervious to water. It is expected that development of the Temescal Ranch Alternative site would necessitate similar types of drainage improvements in upland areas in order to preclude downstream impacts. Thus, it is concluded that the Temescal Ranch Alternative is environmentally superior to the Specific Plan with respect to flood issues.

(3) Biota

While the Temescal Ranch Alternative site does contain habitat types considered sensitive (including wetlands within and near such locations as Piru Creek), biological impacts related to development would be less than those associated with developing the Specific Plan site. This is due to the fact that the Temescal Ranch Alternative site is not within a Significant Ecological Area (SEA), is not within the critical habitat of the endangered least Bell's vireo, and does not have habitat suitable for the unarmored threespine stickleback fish, which is also an endangered species. Biological impacts related to the general loss of habitat would be similar to those associated with developing the Specific Plan site.

(4) Cultural/Paleontological Resources

The impact potential related to cultural/paleontological resources would likely be greater on the Temescal Ranch Alternative site than on the Specific Plan site. This site was historically wetter than the Specific Plan site and more attractive to Native Americans for this reason (the Specific Plan site has relatively few sites containing cultural resources due to its historically dry conditions). Also, the Temescal Ranch Alternative site has the potential to yield paleontological resources to a similar extent as the Specific Plan site.

(5) Agricultural Resources

Agriculturally, the Temescal Ranch Alternative site maintains similar types of soil conditions as the lowland portions of the Specific Plan site. Many portions of the Temescal Ranch Alternative site are in uplands, where the agricultural productivity is diminished due to poorer soil types. This is a condition shared by the Specific Plan site. Specifically, this site contains prime farmlands, unique farmland, and farmland of local importance. Consequently, the impact on agricultural resources would likely be similar on the Temescal Ranch Alternative site as that which would occur with development on the Specific Plan site. Thus, there is no environmentally superior alternative with respect to impacts upon biological resources.

(6) Environmental Safety

Past and present uses of the Temescal Ranch Alternative site (namely oil production, grazing and some agriculture) are similar in nature to those of the Specific Plan site. Given its location, it is expected that the Temescal Ranch Alternative site would not be as impacted by natural gas lines and electric transmission lines as the Specific Plan site. However, a portion of the Temescal Ranch Alternative site is within the inundation area of the Santa Felicia Dam. For these reasons, potential environmental safety impacts would be similar to those of the Specific Plan site. Given this, it can be concluded that neither the Specific Plan nor this Alternative are environmentally superior.

(7) Traffic/Access

It is assumed that internal traffic patterns on the Temescal Ranch Alternative site would operate the same as on the Specific Plan site. This presumes that it is possible to create the same Village concept in approximately the same spatial arrangement being proposed for the Newhall Ranch site. Given this overall assumption, the primary difference between developing on the Temescal Ranch Alternative site and developing on the Specific Plan site is how vehicular traffic would move off the

sites. In the case of the Temescal Ranch Alternative site, it is located at a greater distance from existing traffic infrastructure than is the Specific Plan site; the Temescal Ranch Alternative site is not served directly by a major State highway (SR-126), and is much further removed from one of the State's major north-south freeway corridors (I-5). Consequently, the amount of transportation infrastructure needed to reach the Temescal Ranch Alternative site would be substantially greater than that needed to reach Newhall Ranch.

Because SR-126 would serve as the primary means of connection between the Temescal Ranch Alternative site and the employment centers in the Santa Clarita Valley, SR-126 and its interchange at I-5 would be much more impacted with the Temescal Ranch Alternative. However, it would also be true that traffic generated on the Temescal Ranch Alternative site would only access I-5 at SR-126, potential impacts to the I-5 interchanges at Magic Mountain Parkway and Valencia Boulevard could be avoided. Furthermore, the Temescal Ranch Alternative site would not offer the future potential of direct commuter rail service that developing the Specific Plan site can offer. Travel distances and vehicle miles traveled (VMT) between the Temescal Ranch Alternative site and the surrounding employment centers found in the Santa Clarita Valley would be greater with development on the Temescal Ranch Alternative site. In conclusion, significant traffic impacts would be of a greater magnitude when developing the Temescal Ranch Alternative site. In conclusion, the Specific Plan is considered to be environmentally superior to this Alternative with regard to traffic/access impacts.

(8) Air Quality

From an air quality impact perspective, because the amount of air emissions generated by a project is directly linked to the amount of VMT a project creates, the amount of vehicular-related air emissions generated by developing the Temescal Ranch Alternative site would be greater than the amount that would occur with developing the Specific Plan site. In the end, the significant air quality impacts would be greater when developing the Temescal Ranch Alternative site. Consequently, the Specific Plan is considered to be environmentally superior to this Alternative with respect to impacts upon local and regional air quality.

(9) Noise

Vehicular noise emissions would be felt over a wider area due to the greater distances traveled. The significant noise impact generated at the Travel Village RV Park by developing the Specific Plan site would likely be worsened because more traffic would travel past this location. In conclusion, significant noise impacts would be of a greater magnitude when developing the Temescal Ranch Alternative site. Given this, it is concluded that the Specific Plan is environmentally superior to this Alternative with respect to noise.

(10) Wastewater Disposal

For each alternative site, it is assumed that, if development were to occur on it, each would need to construct its own water reclamation plant. It is also assumed that each site would create a reclaimed water system, where reclaimed water would be used on the sites to reduce their potable water demands. Based on the above, the amount of wastewater generated by development on the alternative site would be the same as that generated by development on the Specific Plan site and, therefore, impacts would be the same. Thus, neither the Specific Plan nor this Alternative is considered to be environmentally superior with respect to the treatment and disposal of wastewater.

(11) Water Availability

The potable water demands of developing the Temescal Ranch Alternative site would be the same as for the Specific Plan. This site is only partially within the service area boundary of the United Water Conservation District (a water wholesaler) and is not served by a water retailer. Also, ground water supplies are likely not of sufficient quantity or quality to serve a development the size of Newhall Ranch. Consequently, the Temescal Ranch Alternative site would need to annex all of its land area into the United Water Conservation District (UWCD) service area, and would also have to either annex to the nearest water retailer service area (in the community of Piru) or create a new water retailing entity. Like CLWA, UWCD has the present policy of allowing annexations into its service area only if enough water is concurrently brought into the district to serve the development proposed on the annexed land. It is not known whether or not the Temescal Ranch has access to outside water sources, but it is likely that development on the Temescal Ranch in any case would be much more heavily dependent imported water than is development on Newhall Ranch. Due to the problematic prospects of delivering enough potable water to the Temescal Ranch, water impacts would likely be greater with the Temescal Ranch Alternative than with the Specific Plan. As such, it is concluded that the Specific Plan is environmentally superior to this Alternative.

(12) Energy Use and Solid Waste Disposal

Regarding energy use and solid waste disposal, the same amount of energy (natural gas and electricity) would be required on the Temescal Ranch Alternative site, and the same amount of solid waste generation would occur. Access to energy (electricity and natural gas) sources and to solid waste disposal sites is approximately the same with development on the Temescal Ranch Alternative site as it would be with development on the Specific Plan site. Therefore, these impacts would also be similar. However, because the Temescal Ranch Alternative would generate a larger amount of vehicle miles traveled, its demand for petroleum products would be greater than the Specific Plan. Consequently, the Specific Plan would be superior to the Temescal Ranch Alternative with respect to the impact on petroleum products. Based on the above, it is concluded that the Specific Plan is environmentally superior to this Alternative with regards to the consumption of petroleum products, while neither is considered environmentally superior with respect to solid waste disposal issues.

(13) Education and Libraries

From an education and library standpoint, it is assumed that each of the alternative sites would need to meet similar requirements for funding in order to educate and provide library services for the residents of the sites. At the time of this writing, Ventura County is suffering from a decrease in the amount of funds available to operate its library system. Based on the above information, impacts to schools and libraries under the Temescal Ranch Alternative would be similar to those under the Specific Plan. Thus, neither the Specific Plan nor this alternative is considered to be environmentally superior with respect to impacts upon education or libraries.

(14) Parks and Recreation

Each site would be required to meet local Quimby Act requirements for the provision of park space. However, at only 7,580 acres, it would not be possible to develop a project the size of Newhall Ranch on this site and still preserve the amount of land that would be dedicated to public use as part of the Newhall Ranch Specific Plan. Furthermore, because this site is located within Ventura County, the residents of Los Angeles County (the jurisdiction of the Lead Agency) would not reap the full benefits of any land dedication. Based on the above information, development of the Temescal Ranch alternative site rather than the Specific Plan site would not as beneficially impact parks and recreation as would the Specific Plan and, therefore, would be worse from a park and recreation standpoint. Consequently, the Specific Plan is considered environmentally superior with regard to impacts to parks and recreation.

(15) Fire and Police Services

It is assumed that each of the alternative sites would be required to fund, to an adequate level of service, both the Fire Department and Sheriff Department in order to ensure adequate on-site protection. However, this site is located in eastern Ventura County, an area that is not urbanizing to any substantial degree. As a result, in the event of a major emergency, outside assistance from Ventura County agencies would need to travel much further distances to this site than would Los Angeles County agencies if development of the Specific Plan site were to occur. In the event of a major emergency, it is much more likely that Los Angeles County would need to assist Ventura County agencies if the Temescal Ranch Alternative site is developed instead of the Specific Plan site. The Specific Plan site is much closer to an existing urban area, which is much more able to handle large scale emergencies. Consequently, impacts relative to fire and police protection would be worse with development on the Temescal Ranch Alternative site versus development on the Specific Plan site. Consequently, the Specific Plan is considered environmentally superior with regard to impacts to fire and police service.

(16) Visual Qualities

Due to intervening topography, the fact that a major State highway (SR-126) does not run through this site, and the much greater distance from potential viewers, development on the Temescal Ranch would be less visible from either I-5 or SR-126 and the existing population center in the Santa Clarita Valley than the Specific Plan. Due to these factors, the significant visual impacts to the rural appearance of the Santa Clara River Valley and Chiquito Canyon caused by development on the Specific Plan site would be lessened, if not avoided with the Temescal Ranch Alternative. However, the Temescal Ranch Alternative would still be converting an open area into urban uses which would be considered visually significant. For these reasons, impacts to visual resources would be less with the Temescal Ranch Alternative. Consequently, this Alternative is considered environmentally superior with regard to visual impacts.

(17) Population, Housing, and Employment

The Temescal Ranch Alternative site is in a rural location, one that is not projected for urban development in any regional planning horizon. Therefore, because this area is not planned for this level of development, development of this site rather than the Newhall Ranch site would result in significant population, housing, and employment impacts. The Newhall Ranch Specific Plan is within SCAG's 1994 growth projections for the site and region, but is not within the County's 1990 projections for the site or region. Consequently, the Specific Plan would be superior to this alternative with respect to population, housing and employment.

(18) Meeting of Specific Plan Objectives

Many of the objectives of the Specific Plan identified in the Project Description of this EIR (**Section 1.0**) would not be achieved with implementation of this alternative. Specific objectives not fully met or impeded to some extent with the Temescal Ranch Alternative are listed below:

- Avoid leapfrog development and accommodate projected regional growth in a location which is adjacent to existing and planned infrastructure, urban services, transportation corridors, and major employment centers.
- Provide development and transitional land use patterns which do not conflict with surrounding communities and land uses.
- Arrange land uses to reduce vehicle miles traveled and energy consumption.
- Earn a reasonable return on investment.
- Provide a safe, efficient, and aesthetically attractive street system with convenient connections to adjoining regional transportation routes.
- Facilitate public transit by reserving right-of-way for future Metrolink line, space for a park and ride and/or Metrolink station, and by providing bus pull-ins along highways.
- Retain a major open area which could act as a regional recreational park and an ecological preserve.
- Preserve or minimally impact the most significant ridgelines and other major topographical land forms.

d. Site 3 - The Newhall Land and Farming Company, Ventura County

The Newhall-Ventura Alternative site is adjacent to the western boundary of the Newhall Ranch Specific Plan site, and is approximately 15,000 acres in size; as its title indicates, it is located in unincorporated Ventura County. This irregularly shaped site is generally bound by SR-126 on the north, the Santa Susana Mountains on the south, Los Angeles County on the east, and extends approximately 2 miles west of the community of Piru. Topography on the site is highly variable, with elevations ranging from approximately 630 feet above mean sea level in the Santa Clara River Valley to approximately of 3,000 above mean sea level in the Santa Susana Mountains. Lands in the River Valley are generally level, with elevations rising to the south in the mountains. Historic uses of the site include cattle grazing, agriculture and oil production. The site is heavily developed with

agricultural uses (row crops, citrus, etc.) and also maintains a number of rural-type residences and structures. Vehicular access is available to this site from SR-126, and no wastewater lines serve the site. The site is within both the United Water Conservation District and Castaic Lake Water Agency service areas.

The impact of developing the land uses proposed by the Newhall Ranch Specific Plan on the Newhall-Ventura Alternative site versus the Newhall Ranch site is described below.

(1) Geological Resources

From an exposure to seismic events standpoint, the impact of developing the Newhall-Ventura Alternative site would be similar to that on the Specific Plan site. Both sites are affected by faulting and both must mitigate potential landslide hazards. However, from a grading standpoint, impacts on the Newhall-Ventura Alternative site would be greater than those on the Specific Plan site; more earthwork would be required to create land level enough to accommodate the same amount of urban development. This is because the terrain on the Newhall-Ventura Alternative site is steeper and more varied than on the portions of the Specific Plan site that are proposed for development. Consequently, the Specific Plan is considered environmentally superior with regard to geologic resources.

(2) Flood

The potential impacts of flooding due to development on the Newhall-Ventura Alternative site would be similar to those on the Specific Plan site. The Santa Clara River runs through both sites and both would convert open land to an urban condition with surfaces impervious to water. It is expected that development of the Newhall-Ventura Alternative site would necessitate similar types of drainage improvements in order to preclude downstream impacts. Given this, it is concluded that neither this alternative nor the Specific Plan is considered to be environmentally superior with regard to flood issues.

(3) Biota

Biological impacts related to development would be similar to those associated with developing the Specific Plan site. This is due to the fact that the Newhall-Ventura Alternative site is within the critical habitat of the endangered least Bell's vireo, and does have habitat suitable for the unarmored

threespine stickleback fish, which is also an endangered species. Potential biological impacts related to the general loss of habitat would be similar to those associated with developing the Specific Plan site. Given the above, it is concluded that neither this Alternative nor the Specific Plan is considered environmentally superior with regard to impacts upon biological resources.

(4) Cultural/Paleontological Resources

The impact potential relating to cultural/paleontological resources would likely be greater on the Newhall-Ventura Alternative site than on the Specific Plan site. This site was historically wetter than the Specific Plan site and more attractive to Native Americans for this reason (the Specific Plan site has relatively few sites containing cultural resources due to its historically dryer conditions). Also, the Newhall-Ventura Alternative site has the potential to yield paleontological resources to an extent similar to the Specific Plan site. Consequently, the Specific Plan is considered environmentally superior with regard to impacts to cultural resources.

(5) Agricultural Resources

For agricultural purposes, the Newhall-Ventura Alternative site has better soil than the Specific Plan site. Not only is there a greater amount of prime agricultural soil on the alternative site, the blocks of agricultural land are greater in size and, therefore, more viably farmed than the land found on the Specific Plan site. Specifically, this site contains prime farmlands, farmland of statewide and local importance, and unique farmlands. The Newhall-Ventura Alternative Site has a greater amount of soils conducive to citrus production than does the Specific Plan site. Consequently, the impact on agricultural resources would be greater on the Newhall-Ventura Alternative site than with development on the Specific Plan site. Based on the above, it is concluded that the Specific Plan is environmentally superior with regard to impacts upon agricultural resources.

(6) Environmental Safety

Past and present uses of the Newhall-Ventura Alternative site (namely oil and natural gas operations, grazing and some agriculture) are similar in nature to those of the Specific Plan site. The Newhall-Ventura Alternative site also has some of the same natural gas and electrical transmission lines traversing it as are found on the Specific Plan site, and it is also within the inundation area of the Castaic Dam. Consequently, potential environmental safety impacts relating to these uses would be similar to those of the Specific Plan site. Given the above, neither the Specific Plan nor this alternative is considered environmentally superior with respect to environmental safety issues.

(7) Traffic/Access

It is assumed that internal traffic patterns on the Newhall-Ventura Alternative site would operate the same as on the Specific Plan site. This presumes that it is possible to create the same Village concept in approximately the same spatial arrangement being proposed for the Newhall Ranch site. Given this overall assumption, the primary difference between developing on the Newhall-Ventura Alternative site and developing on the Specific Plan site is how vehicular traffic would move off the sites. In the case of the Newhall-Ventura Alternative site, it is located at a greater distance from existing traffic infrastructure than is the Specific Plan site; the Newhall-Ventura Alternative site is much further removed from one of the State's major north-south freeway corridors (I-5). Consequently, the amount of transportation infrastructure required to serve the Newhall-Ventura Alternative site would be substantially greater than that needed to serve Newhall Ranch. No secondary connection with I-5 would be possible with the Newhall-Ventura Alternative; consequently SR-126 would serve as the primary means of connection with the employment centers in the Santa Clarita Valley. Under this condition, SR-126 and its interchange at I-5 would be much more impacted with the Newhall-Ventura Alternative. However, it would also be true that, because no connection with I-5 at Magic Mountain Parkway and Valencia Boulevard would occur, potential impacts to the I-5 interchanges at Magic Mountain Parkway and Valencia Boulevard could be reduced. Travel distances and vehicle miles traveled (VMT) between the Newhall-Ventura Alternative site and the surrounding employment centers found in the Santa Clarita Valley would be greater with development on the Newhall-Ventura Alternative site. In conclusion, significant traffic impacts would be of a greater magnitude when developing the Newhall-Ventura Alternative site. Consequently, the Specific Plan is considered environmentally superior with regard to traffic and circulation impacts.

(8) Air Quality

From an air quality impact perspective, because the amount of air emissions generated by a project is directly linked to the amount of VMT a project creates, this would mean that the amount of vehicular-related air emissions generated by developing the Newhall-Ventura Alternative site would be greater than would occur with developing the Specific Plan site. In the end, the significant air quality impacts generated by developing the Specific Plan site would be greater when developing the Newhall-Ventura Alternative site. Consequently, the Specific Plan is considered environmentally superior with regard to air quality impacts.

(9) Noise

Vehicular noise emissions would be felt over a wider area due to the greater distances traveled. Also, the significant noise impact generated at the Travel Village RV Park by developing on the Specific Plan site would likely be worsened because more traffic would travel past this location. In conclusion, significant noise impacts would be of a greater magnitude when developing the Newhall-Ventura Alternative site. Consequently, the Specific Plan is considered environmentally superior with regard to impacts associated with noise.

(10) Wastewater Disposal

For each alternative site, it is assumed that, if development were to occur on it, each would need to construct its own water reclamation plant. It is also assumed that each site would create a reclaimed water system, where reclaimed water would be used on the sites to reduce their potable water demands. Based on the above, the amount of wastewater generated by development on the alternative site would be the same as that generated by development on the Specific Plan site and, therefore, impacts would be the same. Given this, neither the Specific Plan nor this Alternative is considered environmentally superior with regard to wastewater disposal.

(11) Water Availability

The potable water demands of developing the Newhall-Ventura Alternative site would be the same. This site is partially within the service area boundaries of the CLWA and UWCD (water wholesalers) and is not served by a water retailer. By virtue of this site's location within the Santa Clara River Valley, ground water supplies on the site are likely comparable to those on the Specific Plan site. The Newhall-Ventura Alternative site would not need to annex any additional land area into CLWA's or UWCD's service area, but would have to either annex to an existing water retailer service area or create a new water retailing entity. Aside from the political issues of water district annexations or creations (which are by no means assured), and because The Newhall Land and Farming Company also owns the Newhall-Ventura Alternative site, it is likely that the conditions of water availability are similar for this site as they are for the Specific Plan site. Therefore, the impacts on water supply are similar. Given this, neither the Specific Plan nor this Alternative is considered environmentally superior with regard to water availability.

(12) Energy Use and Solid Waste Disposal

Regarding energy use and solid waste disposal, the same amount of energy (natural gas and electricity) would be required on the Newhall-Ventura Alternative site, and the same amount of solid waste generation would occur. Access to energy (electricity and natural gas) sources and to solid waste disposal sites is approximately the same with development on the Newhall-Ventura Alternative site as it is with development on the Specific Plan site. Therefore, these impacts would also be similar. However, because the Newhall-Ventura Alternative would generate a larger amount of vehicle miles traveled, its demand for petroleum products would be greater than the Specific Plan. Consequently, the Specific Plan would be superior to the Newhall-Ventura Alternative with respect to the impact on petroleum products.

(13) Education and Libraries

From an education and library standpoint, it is assumed that each of the alternative sites would need to meet similar requirements for funding in order to educate and provide library services for the residents of the sites. Based on the above information, impacts to schools and libraries would be similar to the Specific Plan. Consequently, neither the Specific Plan nor this Alternative is considered environmentally superior with regard to impacts upon education and libraries.

(14) Parks and Recreation

Each site would be required to meet local Quimby Act requirements for the provision of park space. Also, at 15,000 acres, it is likely possible to develop a project the size of Newhall Ranch on this site and still preserve in perpetuity a similar amount of land that would be dedicated to the public as part of the Newhall Ranch Specific Plan. However, because this site in located within Ventura County, the residents of Los Angeles County (the jurisdiction of the Lead Agency for the Newhall Ranch Specific Plan site in Los Angeles County) would not reap the full benefits of any land dedication. Based on the above information, impacts to parks and recreation would be similar to the Specific Plan. Given this, neither the Specific Plan nor this Alternative is considered environmentally superior with regard to impacts upon parks and recreation.

(15) Fire and Police Services

It is assumed that each of the alternative sites would be required to fund, to an adequate level of service, both the Fire Department and Sheriff Department in order to ensure adequate on-site protection. However, this site is located in eastern Ventura County, an area that is not urbanizing to

any substantive degree. As a result, in the event that a major emergency occurs on the site, outside assistance from Ventura County agencies would need to travel much further distances to this site than would Los Angeles County agencies if development of the Specific Plan site were to occur. In the event of a major emergency, it is much more likely that Los Angeles County would need to assist Ventura County agencies if the Newhall-Ventura Alternative site is developed instead of the Specific Plan site. The Specific Plan site is much closer to an existing urban area which is much more able to handle large scale emergencies. Consequently, impacts relative to fire and police protection would be worse with development on the Newhall-Ventura Alternative site versus development on the Specific Plan site. Thus, it is concluded that the Specific Plan is environmentally superior to this Alternative with regard to impacts on fire and police services.

(16) Visual Resources

A major State highway (SR-126) runs through the Newhall-Ventura Alternative site; therefore, the site is visible to a large mobile viewing audience. With the Newhall-Ventura Alternative, the rural appearance of the site would be converted to urban. Portions of the Specific Plan site are hidden from view due to intervening topography. The Newhall-Ventura Alternative site is not nearly as hidden from view. Topographic conditions indicate that most, if not all, development on the Newhall-Ventura Alternative site would be visible to travelers on SR-126 and would significantly impact the visually rural character of the Santa Clara River Valley (probably more so than the Specific Plan due to its greater visibility). Therefore, the significant impact that the Specific Plan would have on this same Valley would be transferred to the west out of Los Angeles County into Ventura County, and would be intensified. It is also true that the Newhall-Ventura Alternative site is not visible to existing residents in Chiquito Canyon. Consequently, the significant impact created by the Specific Plan at this location would be avoided. Due to this environmental trade-off of impact (i.e., greater impact in Ventura County but less impact in Chiquito Canyon), the visual impact of developing the Newhall-Ventura Alternative site is more or less similar to the impact created by developing the Specific Plan site. Given this, neither the Specific Plan nor this Alternative is considered environmentally superior with regard to visual impacts.

(17) Population, Housing, and Employment

The Newhall-Ventura Alternative site is in a rural location, one that is not projected for urban development in any regional planning horizon. Therefore, because this area is not planned for this level of development, development of this site rather than the Newhall Ranch site would result in significant population, housing, and employment impacts. Development of the Specific Plan site would not. As such, the Specific Plan is considered to be environmentally superior to the Specific Plan with regard to population, housing, and employment impacts.

(18) Meeting of Specific Plan Objectives

Many of the objectives of the Specific Plan identified in the Project Description of this EIR **(Section 1.0)** would not be achieved with implementation of this alternative. Specific objectives not fully met or impeded to some extent with the Hathaway Ranch Alternative are listed below:

- Avoid leapfrog development and accommodate projected regional growth in a location which is adjacent to existing and planned infrastructure, urban services, transportation corridors, and major employment centers.
- Arrange land uses to reduce vehicle miles traveled and energy consumption.
- Provide a safe, efficient, and aesthetically attractive street system with convenient connections to adjoining regional transportation routes.
- Preserve the site of the historical Asistencia (San Fernando Mission Annex).
- Preserve or minimally impact the most significant ridgelines and other major topographical land forms.

e. Conclusion

As illustrated and described in **Table 8.0 -20, Alternative Site Impact Comparison Matrix**, development on the Hathaway Ranch site (Site 1) would create greater impacts in nine environmental categories and less impact created in four categories when compared with the Specific Plan site. In eight environmental categories, impacts would be approximately the same. With the Temescal Ranch site (Site 2), greater impacts would be created in nine environmental categories and less impact created in two categories when compared with the Specific Plan site. In ten environmental categories, impacts would be approximately the same. With The Newhall Land and Farming Company - Ventura County site (Site 3), greater impacts would be created in nine environmental categories and less impact created in none of the categories when compared with the Specific Plan site. In twelve environmental categories, impacts would be approximately the same. Based on the above analysis, none of the alternative sites are clearly superior from an environmental standpoint over the Newhall Ranch site.

5. ENVIRONMENTALLY SUPERIOR SPECIFIC PLAN ALTERNATIVE

Section 15326(d)(2) of the CEQA Guidelines indicates that, if the no project alternative is the "environmentally superior" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. In this case, Alternative 6, the 8,000 Unit Alternative, would be superior, from an environmental perspective, to the Newhall Ranch Specific Plan.

6. WATER RECLAMATION PLANT ALTERNATIVES

a. Introduction

It is most efficient if wastewater is allowed to flow under gravity from its source directly to the facility that will treat it. Pumps are required to force the wastewater uphill at those locations where the wastewater cannot gravity flow. Whenever pumps are required, the cost of the treatment system increases and the efficiency of the system decreases. The Newhall Ranch water reclamation plant (WRP) is proposed very near the lowest point on the Specific Plan site in terms of ground elevation. Consequently, this location allows the maximum amount of gravity flow to the site and the fewest number of pumps, and is, therefore, considered the most efficient on-site location for the WRP from an engineering and cost standpoint. Alternatives to the location of the WRP and to the type of treatment system are presented below.

b. On-Site WRP Alternatives

(1) No WRP Alternative

The proposed WRP would only be constructed if the Newhall Ranch Specific Plan is approved. The No WRP Alternative for the Specific Plan is addressed above in Subsection 6.b.(1). Under the No WRP Alternative for the WRP, the Newhall Ranch Specific Plan would be approved and generating wastewater, but the WRP would not be constructed on the Specific Plan site and, presumably, wastewater generated would be discharged to the Santa Clara River untreated. Under Federal Clean Water Act and State and County Health standards, this alternative scenario could not occur by law due to the substantial water quality and biological impacts that would occur. Consequently, the No WRP Alternative for the WRP under this scenario would not be environmentally superior to the proposed WRP. It is likely that waste generated under this Alternative would need to go the nearest WRP, which is the Valencia WRP (District No. 32). Such an alternative is addressed below under "Off-Site WRP Alternatives."

(2) Upstream Location Alternative

The WRP could be constructed at another location on the Specific Plan site, upstream of its present location. However, to do so would require wastewater generated downstream of the plant to be pumped uphill to the plant, thereby increasing the construction, operation and maintenance costs of the system and the amount of energy needed to operate the system. In addition, an alternative on-site location would require slightly more land since land will be required for both the plant, connecting lines, and the pumps. Excess wastewater not used for on-site irrigation purposes would still be discharged to the River. All other environmental impacts associated with this alternative (such as traffic, solid waste disposal, air quality, etc.) are considered similar to those created by the proposed WRP and would merely be relocated to another site as a result of this alternative. Based on the above information, an alternative on-site upstream location for the WRP would not be environmentally superior to the proposed WRP site and would be more costly to construct, operate and maintain, and would use more energy.

(3) Non-River Location Alternative

This alternative would entail constructing the WRP at a location more removed from the Santa Clara River than the proposed location. It is expected that the same amount of land would be required for the plant, but that excess wastewater not used for on-site irrigation purposes would still be discharged to the River, and additional pipelines would be needed to carry the treated wastewater to the River for discharge. This WRP would be at a slightly higher elevation, and therefore, would require some pumping resulting in higher costs for construction, operation and maintenance, and higher energy costs. All other environmental impacts associated with this alternative (such as traffic, air quality, etc.) are considered similar to those created by the proposed WRP and would merely be relocated to another site as a result of this alternative. While this alternative would not necessarily be dramatically more costly, it would not result in a superior environmental condition compared to the proposed WRP site and would not be as efficient from an engineering standpoint.

(4) Septic System Alternative

Disposing of wastewater generated by the proposed Specific Plan in a series of septic systems would not be feasible from a treatment quality standpoint. State and County health regulations would preclude this alternative, as too much wastewater would be generated on the site to allow for wastewater disposal in a way that would address health and safety considerations. Consequently, the septic system alternative would not be environmentally superior to the proposed WRP.

c. Off-Site WRP Alternatives

(1) Expand an Existing WRP (Valencia WRP)

Under this alternative, the existing Valencia WRP site would be expanded from its existing permitted capacity of 12.6 mgd to meet the needs of the Newhall Ranch Specific Plan rather than constructing a WRP on the Newhall Ranch Specific Plan site. This alternative assumes that the additional land needed to expand this plant to meet the needs of the Newhall Ranch Specific Plan beyond that already needed to serve other cumulative development could be purchased by the County Sanitation Districts of Los Angeles County (CSDLAC).

As is the case for the upstream on-site alternative discussed above, implementation of the expanded Valencia WRP would require wastewater generated downstream of the existing plant to be pumped uphill to the plant over great distances, thereby dramatically increasing the construction, operation and maintenance costs of the system in comparison to the proposed WRP, and the amount of energy needed to run the system. In addition, an expanded Valencia WRP would require slightly more land since there are additional land requirements for the plant, the pumps, and the pipes needed to connect the Newhall Ranch Specific Plan area to the Valencia WRP. Excess reclaimed water not used for on-site irrigation purposes would still be discharged to the River. Distribution of reclaimed water would require additional off-site pipelines from the Valencia WRP to the Specific Plan site. Most other environmental impacts associated with this alternative (such as traffic, solid waste, air quality, etc.) are considered similar to those created by the proposed WRP and would merely be relocated to another site as a result of this alternative. From a visual perspective, it would be less impacting to add on to the existing plant than to construct the proposed WRP; however, implementation of this Alternative would not preclude the overall significant visual impact of the Specific Plan. Based on the above information and after considering both the negative and positive impact implications of the alternative, an alternative off-site upstream location for the WRP would not be environmentally superior overall to the proposed WRP site and would be more costly to construct, operate and maintain.

(2) New WRP Site Upstream of Specific Plan Site

The WRP could be constructed at another location off the Specific Plan site, upstream of its present location. However, to do so would require wastewater generated downstream on the Newhall Ranch Specific Plan site to be pumped uphill to the off-site plant over great distances, thereby dramatically increasing the construction, operation and maintenance costs of the system in comparison to the WRP as proposed, and the amount of energy needed to run the system. In addition, a new plant would require slightly more land due to the land requirements of the plant, the pumps, and the lines needed to connect

the Newhall Ranch Specific Plan area to a new off-site WRP. This alternative assumes that the additional land needed to expand this plant to meet the needs of the Newhall Ranch Specific Plan beyond that already needed to serve other cumulative development could be purchased by the County Sanitation Districts of Los Angeles County (CSDLAC). Excess reclaimed water not used for on-site irrigation purposes would still be discharged to the River or one of its tributaries. All other environmental impacts associated with this alternative (such as traffic, solid waste, air quality, etc.) are considered similar to those created by the proposed WRP and would merely be relocated to another site as a result of this alternative. Consequently, an alternative off-site upstream location for the WRP would not be environmentally superior to the proposed WRP site and would be more costly to construct, operate and maintain.

(3) New WRP Site Downstream of Specific Plan Site in Ventura County

The proposed WRP would be operated and maintained by the CSDLAC. Because the alternative Ventura County WRP would not be in Los Angeles County and, therefore, could not be operated by the CSDLAC, this alternative is not feasible from an operations standpoint. However, overlooking this fact, and assuming the WRP is constructed downstream of the Newhall Ranch Specific Plan site in Ventura County, it would require a greater amount of wastewater infrastructure in terms of the piping needed to extend the Newhall Ranch Specific Plan system into Ventura County. Furthermore, a greater amount of infrastructure would be required in order to pump the treated wastewater upstream for irrigation uses to the Newhall Ranch Specific Plan site. Such an alternative would also be more growth inducing than the proposed WRP site because wastewater infrastructure would be extended from the Specific Plan site to the Ventura County WRP site through an existing undeveloped area, thereby removing an impediment to growth in that intervening area of undeveloped land. Environmental impacts would also be greater in that additional undeveloped land would be used for the WRP, while the proposed WRP would be part of the Business Park uses under the Specific Plan. All other environmental impacts associated with this alternative (such as traffic, air quality, etc.) are considered similar to those created by the proposed WRP and would merely be relocated to another site as a result of this alternative. For the reasons indicated above, this alternative would not be environmentally superior to the proposed WRP.

d. Environmentally Superior WRP Alternative

None of the alternatives analyzed, including the No Project WRP Alternative, are environmentally superior to the proposed WRP.

9.0 Short-Term Uses vs. Long-Term Productivity

9.0 THE RELATIONSHIP BETWEEN SHORT-TERM USES OF MAN'S ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

1. *PURPOSE*

Pursuant to Section 15126(e) of the CEQA Guidelines, projects are required to be evaluated with respect to their cumulative and long-term adverse environmental effects. This analysis focuses on impacts that narrow the range of beneficial environmental uses of the Newhall Ranch Specific Plan and proposed water reclamation plant sites and/or impacts that pose long-term risks to public health and safety. Reasons for proceeding with Specific Plan and water reclamation plant implementation at this time, rather than reserving an option for other alternatives, are also discussed.

2. INTRODUCTION

a. Newhall Ranch Specific Plan

The primary effect of the proposed Newhall Ranch Specific Plan is the conversion of presently undeveloped land to more intensive, economically productive land uses. The development of the property as outlined in the Specific Plan would increase the site's economic and social productivity by providing for housing, commercial and recreational uses, and employment opportunities for residents of the area, while preserving in perpetuity much of the sensitive natural habitats found on the property. The Specific Plan would also generate revenue in the form of sales taxes, property taxes, fees, etc. to the County of Los Angeles and State of California, while allowing for a reasonable return on the landowner's investment. The substantial investment required to construct the infrastructure and develop the property as proposed in the Specific Plan would represent a long-term commitment of the site to a planned, mixed-use community.

b. Water Reclamation Plant

The primary effect of the proposed water reclamation plant (WRP) would be the conversion of mostly cultivated land to accommodate a 7.7 mgd water reclamation plant to serve Newhall Ranch. As discussed in Subsection 6. of Section 8.0, Alternatives, there is no other economically or functionally efficient alternative to the proposed WRP site. The investment required to construct the infrastructure and develop the WRP site as proposed would represent a long-term commitment of the site for water reclamation uses.

3. CUMULATIVE AND LONG-TERM EFFECTS

a. Newhall Ranch Specific Plan

Given the scope of the Newhall Ranch Specific Plan, it is expected that the site would remain in a developed condition into the distant future. Any significant, long-term effects of this Specific Plan, as identified in Sections 4.0 through 7.0 of this EIR, would occur over its lifetime. Specific Plan and cumulative effects include a contribution to the deterioration of air quality, increased noise levels, creation of visual impacts, generation of solid waste, and the loss of prime agricultural land, among others.

b. Water Reclamation Plant

It is expected that the proposed WRP site would remain in a developed condition for this purpose as long as necessary to serve the Newhall Ranch Specific Plan. Any significant, long-term effects of the WRP, as identified in Sections 5.0 and 7.0 of this EIR, would occur over its lifetime. Water reclamation plant and cumulative effects include a contribution to the deterioration of air quality, increased noise levels, creation of visual impacts, generation of solid waste, and the loss of prime agricultural land, among others.

4. LIMITATIONS ON BENEFICIAL USES

a. Newhall Ranch Specific Plan

The Newhall Ranch Specific Plan site is presently used for a variety of productive purposes, including oil and natural gas development, agriculture, cattle grazing, and movie filming. All such uses would be eventually replaced with development of the uses planned within the Specific Plan. In addition, while prime agricultural soils do exist on the Specific Plan site, agricultural uses throughout much of the site are constrained as the cultivated farmland is not one continuous piece of property. Rather, productive land is found on many small, sometimes isolated parcels which are, in some cases, not level and not irrigated due to their distances from existing water sources. Increased vehicular traffic volumes along SR-126 and the existence of the Santa Clara River, which act to segregate the active fields from one another, also make it difficult to move farm equipment between fields. In addition, winter storms frequently wash out the temporary bridge crossings over the River, making access to parcels south of the River difficult and making them more costly to maintain. Finally, if open area is considered to be a "beneficial use," the amount of open area on the site will be reduced.

However, regardless of the constraints on productive uses and open area currently found on the site, the uses proposed as part of the Specific Plan would ultimately be considered of equal or greater benefit. The Specific Plan would provide a long-term plan for needed housing, commercial services and recreational uses, and would expand the number of employment opportunities for residents of the area. All such benefits would occur while preserving, in perpetuity, much of the sensitive natural habitats found on the property. Under other potential development scenarios, these areas might not be as fully preserved. As part of the Specific Plan, a total of 49 percent of the site would be preserved in open area or in special management areas, including, but not limited to, 813 acres of the Santa Clara River Corridor Special Management Area (SMA) and the 3,949.9 acres of the High Country SMA. The two SMAs represent a regionally significant addition to open area that preserves regional wildlife corridors. In addition to the preservation of land, but no less beneficial, is the removal of cattle grazing from the site, which will improve the quality of the habitat areas preserved. Other beneficial effects attributable to development of the Newhall Ranch Specific Plan include an increase in the property value upon which tax revenues are based. Development of the Specific Plan would also increase other revenues for the County and State. According to the fiscal impact study conducted for the Newhall Ranch Specific Plan (provided in Appendix 6.0), development of the site as proposed will generate a cumulative cash surplus to the County of $301 million ($200 million to its General Fund) during its twenty-five year development period and a $20 million cash surplus annually ($13.6 million to the General Fund) beginning in year twenty-five (in 1995 constant dollars).

b. Water Reclamation Plant

The proposed water reclamation plant site is mostly used for crop production; this agricultural activity would cease upon construction of the plant. While prime agricultural soils do exist on the WRP site, their productivity is constrained as the site is small; has a narrow, triangular configuration; and is distant from other, larger parcels under production, making it difficult to move farm equipment between fields.

The WRP is proposed to serve Newhall Ranch. If the proposed Specific Plan is not approved, the WRP would not be constructed and the site could remain in agricultural production indefinitely. As discussed above, regardless of the constraints on productive uses and open area currently found on the entire Specific Plan site, the uses proposed as part of the Specific Plan would ultimately be considered of equal or greater benefit.

5. LONG-TERM RISKS TO PUBLIC HEALTH AND SAFETY

a. Newhall Ranch Specific Plan

No unique hazards are found on the Newhall Ranch Specific Plan site. The Newhall Ranch Specific Plan site is located in the seismically active region of southern California, and would be subject to ground shaking associated with seismic activity over the course of buildout. All structures in Newhall Ranch must be constructed in compliance with the Uniform Building Code, and site-specific geotechnical investigations will provide remedial measures, as necessary, to preclude secondary seismic hazards (liquefaction, etc.) at the subdivision map stage. This will act to reduce adverse impact to less than significant levels.

The site also contains active oil and natural gas production facilities, as well as easements for electrical transmission lines. A portion of the site is also located in the dam inundation area of the Castaic/Forebay Reservoirs, and high pressure gas mains are also located on the site. However, none of the existing on-site uses or uses proposed as part of the Specific Plan would represent a significant public health and safety risk. A number of regulatory requirements are applicable to the property and future uses planned as part of the Specific Plan. As indicated in **Section 4.5, Environmental Safety**, of this EIR, compliance with all applicable requirements would mitigate potential health and safety impacts to a less than significant level.

b. Water Reclamation Plant

Construction and operation of the WRP would not represent a unique hazardous materials risk to the area, as there are already a total of eleven WRPs that are operating safely throughout the County Sanitation Districts of Los Angeles County service area. As discussed in Subsection 5.12 of EIR Section 5.0, operation of the plant would involve the storage, use and disposal of a variety of hazardous chemicals, primarily for application in the various stages of the waste treatment process. Treatment facilities would also generate various toxic air emissions, as well as biosolids that contain traces of chemical pollutants and pathogen-laden bacteria. While only remotely possible, accidents or catastrophic natural events could result in risks to the environment or human health from release of the various hazardous materials and emissions at the plant. However, compliance with mandatory risk prevention and contingency planning regulations would minimize such risks to below a level of significance.

6. WHY THE PROJECT IS PROPOSED AT THIS TIME RATHER THAN RESERVING AN OPTION FOR FUTURE USES

a. Newhall Ranch Specific Plan

The California Department of Finance predicts that southern California will undergo substantial demographic growth well into the next century. Based on the most recent projections, the Department of Finance indicates that the population of southern California will increase 62 percent over the thirty year period between 1990 and the year 2020. On a local level, the Santa Clarita Valley has undergone substantial population, housing, and employment growth during the past twenty years. This growth is projected to continue into the next century according to regional growth forecasts prepared by the Southern California Association of Governments (see Section **4.21, Population, Housing and Employment** for these forecasts).

In addition, economic conditions are improving within southern California as evidenced by a variety of indicators, including growth in the entertainment industry and the rebound in new orders for commercial aircraft, among many others. Based upon the projected demographic and economic growth throughout southern California, the Specific Plan applicant is positioning Newhall Ranch to satisfy a predicted future demand for housing and employment in a location which is adjacent to existing and planned infrastructure, urban services, transportation corridors, and major employment centers. The Specific Plan applicant is proposing the development of the Newhall Ranch Specific Plan now, rather than reserving an option for future uses, to take advantage of the demand for housing associated with future population increases in the Santa Clarita Valley region as well as southern California.

b. Water Reclamation Plant

The WRP is proposed at this time in order serve the proposed Specific Plan. If the Specific Plan is not approved, the WRP would not be constructed.

10.0 Significant Irreversible Environmental Changes

10.0 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD RESULT FROM THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

1. *PURPOSE*

Uses of nonrenewable resources during the initial and continued phases of a proposed project may be irreversible if a large commitment of these resources makes their removal or non-use thereafter unlikely. According to Section 15126(f) of the CEQA Guidelines, the irretrievable commitment of such resources are to be evaluated to assure that their current consumption by a proposed project is justified. In addition, this section must also identify any irreversible damage that can result from environmental accidents associated with the project.

2. IRREVERSIBLE COMMITMENT OF NON-RENEWABLE RESOURCES

Approval of the proposed discretionary actions for the Newhall Ranch Specific Plan and water reclamation plant (WRP) would allow for their development on the Newhall Ranch site. The primary effect of these actions would be to commit presently undeveloped lands to urbanized uses. The substantial investment required to construct the infrastructure and develop the properties as proposed in the Specific Plan would represent a long-term commitment of Newhall Ranch to a planned, mixed use community and a long-term commitment of the entire 15-acre WRP site to water reclamation uses. The Specific Plan includes a substantial amount of open area and natural areas that would be dedicated for preservation in perpetuity. As part of the Specific Plan, 49 percent of the 11,963 acre site would be preserved as Open Area or Special Management Areas, including a total of 813 acres of the Santa Clara River Corridor, 3,949.9 acres of the High Country, and 1,088.8 acres of Open Area. Nevertheless, the commitment of currently vacant land to urbanized uses is, essentially, an irreversible environmental change.

In addition, construction and operation/habitation of the land uses proposed in the Specific Plan (including the water reclamation plant) would contribute to the incremental depletion of resources, including renewable as well as slowly- or non-renewable resources. Resources, such as lumber and other forest products, as well as water, are generally considered renewable resources. Such resources would be replenished over the lifetime of the Newhall Ranch Specific Plan. For example, lumber supplies are increased as seedlings mature into trees, while water supplies are replenished as water is redistributed through the action of the hydrologic cycle. Given this, the development of the Specific Plan and water reclamation plant would not result in the irreversible commitment of renewable resources, although there would be an incremental increase in the demand for them over its lifetime.

On the other hand, slowly- and non-renewable resources, such as natural gas, petroleum products, asphalt, petrochemical construction materials, steel, copper and other metals, and sand and gravel are considered to be commodities which are in limited supply. The actions or processes which created these products occur over a long period of time and cannot replace those supplies consumed in the development and habitation of the Newhall Ranch Specific Plan site within its lifespan. To varying degrees the aforementioned materials are all readily available and some materials, such as asphalt or sand and gravel, are abundant. In fact, mineral resources exist on the site which could be dedicated to the development of the site or covered by urban uses (See EIR Section 2.0). Other commodities, such as metals, natural gas, and petroleum products, are also readily available, but are finite in supply given the length of time required by the natural process to create them.

The demand for all such resources is expected to increase regardless of whether or not the Specific Plan and water reclamation plant are built out, as the Department of Finance indicates that the population of southern California will increase 62 percent over the thirty year period between 1990 and the year 2020. The resources consumed by the Newhall Ranch Specific Plan and water reclamation plant would be used to provide housing, jobs, services, and utilities to meet anticipated demand created by the projected demographic growth. These resources would likely be committed to other projects in the region intended to meet this demand if the Specific Plan and water reclamation plant are not constructed. Further, the investment of resources in the Specific Plan and water reclamation plant would be typical of the level of investment normally required for a mixed use community of this scale. Provided that all standard building codes, including energy conservation standards, are followed, no wasteful use of energy or construction resources is anticipated.

3. IRREVERSIBLE ENVIRONMENTAL CHANGES

Irreversible long-term environmental changes associated with the Specific Plan (including the water reclamation plant) and roadway extensions would include a change in the visual and biological character of the site as a result of the conversion of undeveloped land to a mixed use, master planned community. Additional irreversible environmental changes are associated with the increase in local and regional vehicular traffic, and the resultant increase in air pollutants and noise emissions generated by this traffic, among other impacts. As discussed above, the restoration of Newhall Ranch and the WRP site to pre-developed conditions after their development would not be feasible given the level of capital investment and degree of disturbance needed to develop the properties in the first place. However, features have been incorporated into the Specific Plan and mitigation measures are proposed in this EIR that would minimize or avoid the significant effects of the environmental changes associated with Specific Plan and WRP implementation to the maximum degree feasible.

4. POTENTIAL ENVIRONMENTAL DAMAGE FROM ACCIDENTS

The CEQA Guidelines also require a discussion of the potential for environmental damage caused by an accident associated with the project. The following discussion identifies the characteristics of Newhall Ranch and the WRP site and proposed future uses which could be sources of potential accidents.

No unique hazards are found on either Newhall Ranch or the WRP site, and neither site contains any uniquely hazardous uses. Both sites are located within a seismically active region and would be exposed to ground shaking in the event of a seismic event. Conformance with the regulatory provisions of the County of Los Angeles and the Uniform Building Code pertaining to construction standards would minimize, to the extent feasible, damage and injuries in the event of such an occurrence. The Specific Plan site also contains geotechnical hazards, including steep slopes and existing landslides. Surface and near surface soils throughout the WRP site are poorly consolidated, commonly contain void space and are subject to hydroconsolidation, which causes settlement and can be potentially hazardous to overlying structures. Geotechnical hazards can be mitigated by stabilization, removal, or redesign, and no significant impacts on either site are expected.

In addition, a series of electrical transmission lines traverse portions of the Newhall Ranch Specific Plan site (no such transmission lines cross the WRP site). At present, there is no scientific consensus as to whether electromagnetic fields (EMFs) related to transmission/distribution lines pose a health threat; therefore, neither the State of California nor the County of Los Angeles has adopted a threshold of significance for EMFs. Only recreation, open area, utilities, drainage structures, parking and roadway uses are proposed within the power line easements.

A portion of the Newhall Ranch site and the entire WRP site also lie in the dam inundation area of the Castaic/Forebay Reservoirs. Although the California Department of Water Resources Division of Safety of Dams regularly inspects and maintains dams under State jurisdiction, and although dam failure is a rare occurrence in the State, flooding as a result of dam inundation is remotely possible.

Uses proposed by the Newhall Ranch Specific Plan (such as light manufacturing) and the WRP facilities would be expected to use and store chemicals and/or substances which are typically found in such urban settings and at WRPs. Given the multitude of Federal, State, and local regulations governing the use of such substances, the Newhall Ranch Specific Plan is not expected to involve activities that would damage the environment or pose a risk to public health. In addition, a portion of the Newhall Ranch Specific Plan site is presently used for crude oil and natural gas production.

Because crude oil is not considered to be a hazardous material, residential and non-residential development in areas currently occupied by the oil production facilities would not, when remediated, result in environmental safety hazards to Specific Plan residents, employees, and/or visitors (no crude oil or natural gas production occurs on the WRP site). Permanent development near abandoned wells, and development in proximity to remaining oil wells and flaring operations, which is typical of similar oil/natural gas field operations throughout California, would be subject to the requirements of the Division of Oil and Gas of the California Department of Conservation. Compliance with these requirements would allow safe development of these areas to occur.

Development is proposed in close proximity to high pressure natural gas mains that are owned and operated by Southern California Gas Company (no such lines traverse the WRP site); such development is common within California. California Public Utility Commission-mandated safety requirements for regular inspection and maintenance of these mains reduces fire and explosion hazards associated with them to below a level of significance.

Within the Specific Plan boundaries, no Proposition 65 pesticides (insecticides, herbicides, and fungicides) would be used in the common and public areas, or in areas that are currently farmed and which would be phased out as development occurs. Within the boundaries of the proposed WRP site, no Proposition 65 pesticides would be used on landscaping (farming on the WRP site is expected to cease upon construction of the WRP). Humans would not be subject to either acute overexposure or chronic exposure to these substances if used and handled according to State and Federal regulations.

11.0 Growth Inducing Impacts

11.0 GROWTH INDUCING IMPACTS

1. PURPOSE

Section 15126 (g) of the California Environmental Quality Act (CEQA) Guidelines, as amended, requires the discussion of the ways in which a project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Such a discussion should also include projects which would remove obstacles to population growth, and the characteristics of a project which may encourage and/or facilitate other activities that, either individually or cumulatively, could significantly affect the environment. CEQA emphasizes that growth in an area should not be considered beneficial, detrimental or of little significance. The purpose of this discussion is to evaluate the growth-inducing potential and impact of this Specific Plan. This section also addresses the growth inducing potential and impact of the proposed water reclamation plant.

2. GROWTH INDUCEMENT POTENTIAL

In general terms, a project may foster spatial, economic, or population growth in a geographic area if it meets any one of the criteria that are identified below.

- The project removes an impediment to growth (e.g., the establishment of an essential public service, the provision of new access to an area, or a change in zoning or general plan designation).
- The project results in the urbanization of land in a remote location (Leap Frog Development).
- Economic expansion or growth occurs in an area in response to the project (e.g., changes in revenue base, employment expansion, etc.).

Should a project meet any one of these criteria, it can be considered growth-inducing. An evaluation of this Specific Plan vis-à-vis these growth-inducing criteria are provided below.

a. Removal of an Impediment to Growth

Growth in an area may result from the removal of physical impediments or restrictions to growth, as well as the removal of planning impediments resulting from land use plans and policies. In this context, physical growth impediments may include nonexistent or inadequate access to an area or the lack of

essential public services (e.g., water service), while planning impediments may include a restrictive zoning and/or general plan designation. As described below, approval of the proposed Specific Plan would remove impediments to growth and, therefore, it would be growth-inducing with respect to this criterion.

An established transportation network presently exists in the area which affords the property access from both Ventura and Los Angeles Counties. East-west access to the property is provided via SR-126, which traverses the property. A portion of this roadway is planned for widening to a four lane highway independent of the Newhall Ranch Specific Plan. As part of the Specific Plan, a portion of SR-126 is planned for further widening to six lanes. Widening of this roadway could remove a physical impediment to growth within Ventura County, as well as the Santa Clara River Valley and Santa Clarita Valley. The proposed extension of Valencia Boulevard through Stevenson Ranch Phase V would also facilitate growth as construction of this roadway would provide improved access to properties along the roadway. It should be noted that the proposed Stevenson Ranch Phase V was not induced by Newhall Ranch; rather, entitlement requests for Stevenson Ranch Phase V were submitted to the County prior to the initiation of the Newhall Ranch Specific Plan.

The expansion and construction of transportation links beyond those currently planned would allow for a greater volume of vehicular traffic traveling within and between the Santa Clarita Valley and Ventura County. Similarly, the reservation of a rail right-of-way, which could facilitate the potential extension of the Metrolink rail line through the Specific Plan site, also represents a potentially growth-inducing consequence of the Specific Plan. This extension also facilitates the movement of people to and from the area. The effect of these actions would be to remove or lessen physical impediments caused by a lack of access to outlying areas, thereby making it easier to develop such areas with urban uses.

Construction of water and energy (electricity and natural gas) infrastructure is also required to support buildout of the Specific Plan. In the case of water, development of Newhall Ranch requires the construction of a system designed to convey and distribute potable water to uses contained in the Newhall Ranch Specific Plan. The Specific Plan site is located within the service area of the Castaic Lake Water Agency (CLWA). In contrast, a portion of the community of Val Verde and areas further north of the Newhall Ranch Specific Plan, as well as the proposed Stevenson Ranch Phase V to the east of the site, are outside the service area of the CLWA. Therefore, the CLWA is not responsible for providing potable water to these areas. Further, there are no plans to stub water mains at the boundaries of the Newhall Ranch Specific Plan site to accommodate potential future connection to these facilities. As such, these areas would not benefit from the construction of water infrastructure as part of the Newhall Ranch Specific Plan, and it is doubtful the construction of this water infrastructure

would induce growth in these areas. However, a large portion of land within Ventura County is located within the CLWA District Sphere. The construction of water infrastructure sized for urban uses could be accessed by potential future projects located within Ventura County that are also within the sphere of the CLWA. This would be considered a potentially growth-inducing condition.

Electricity and natural gas transmission infrastructure presently exists on and in the vicinity of the Specific Plan site. Development of the Newhall Ranch Specific Plan would necessitate the construction of a distribution system to convey this energy to uses on the site. This system would be designed to accommodate the uses proposed within the Specific Plan, and would not extend beyond the requirements or boundary of the Specific Plan. Given the existence of established energy transmission lines in the area, no growth-inducing impacts are expected with regard to this type of infrastructure.

In summary, the construction of infrastructure needed to accommodate buildout of the Newhall Ranch Specific Plan could potentially induce growth within Ventura County, the Santa Clara River Valley, and the Santa Clarita Valley. The decision to allow development in the Santa Clara River Valley within Los Angeles and Ventura Counties is at the sole discretion of the decision-making bodies in these areas (i.e., the Ventura County Board of Supervisors, Los Angeles County Board of Supervisors, and the Santa Clarita City Council). If the Newhall Ranch Specific Plan were to be approved, its approval would not necessarily mean that other development approvals in the area would follow. Prior to the approval of any development proposal inside or outside of Los Angeles County, substantial political and economic barriers must be overcome. For example, Ventura County has traditionally been cautious and deliberate in its approach to development of agricultural areas within its jurisdiction. Ventura County has adopted the "Guidelines for Orderly Development," which state that development should occur within incorporated cities whenever and wherever possible in order to ensure an adequate and full range of municipal services in addition to providing a comprehensive approach to planning. Because the unincorporated land west of Newhall Ranch is under Ventura County jurisdiction, attempts to develop this land would be confronted by opposition that is based on the County's planning objectives. The policy and regulatory orientation of Ventura County would have to be overcome prior to approval of any adjacent development proposal located within that jurisdiction.

Moreover, the potential conversion of agricultural land within Ventura County would represent another barrier to any development pressure created by the Newhall Ranch Specific Plan. Historically, the conversion of active agricultural land located within Ventura County has been controversial and subject to opposition and debate. Agricultural production within Ventura County is a strong economic force due to climactic and soil conditions which are ideal for such uses. Ventura County has recognized the importance of agriculture within the County's economy as evidenced by the multitude of greenbelt agreements that preserve large areas of land in perpetuity for agricultural production. Although no

such greenbelts are located in proximity to the Newhall Ranch Specific Plan, it is reasonable to conclude that the Ventura County Board of Supervisors would be hesitant to approve the conversion of agricultural land to urban uses in unincorporated areas of the County given its policy orientation towards the preservation of agricultural land as outlined above.

In addition to the physical and political impediments discussed above, development impediments and regulatory legislation, such as land use plans and policies, may also restrict or deter localized growth and can be considered an impediment to growth. Approval of this Specific Plan would require a general plan amendment, zone change, and adoption of the Newhall Ranch Specific Plan. Implementation of the Specific Plan is also expected to require a variety of permits, including Section 404 permit(s), Section 1601/1603 permit(s), and Section 7 and/or Section 10 consultations, as necessary. Amending the existing Santa Clarita Valley Area Plan land use designations from non-urban and agricultural uses to urban uses represents the removal of an impediment to growth which could foster similar amendment requests on property located in proximity to the Specific Plan site. It must be emphasized that this action is discretionary in nature and there is no guarantee that future requests for similar amendments on adjacent or nearby properties would be approved as a result of the this Specific Plan. Finally, the various permits required to implement the Specific Plan are procedural requirements for actions that are necessary to develop Newhall Ranch, and have also been requested regularly by other parties within the Santa Clarita Valley and the region.

b. Urbanization of Land in Isolated Localities (Leap-Frog Development)

Development can be considered growth-inducing when it requires the extension of urban infrastructure into isolated localities which are presently void of such facilities. The Newhall Ranch Specific Plan site is situated in an area that is proximal to an urbanizing area which contains established infrastructure. For example, the Specific Plan site is located near the Magic Mountain Theme Park, the developing Valencia Commerce Center, and the Valencia Industrial Center, among other uses. It is also located in the vicinity of established roadways, including Interstate 5 and State Route 126. Given this, the Specific Plan would not induce growth under this criterion as it would not result in the urbanization of land in an isolated locality.

c. Economic Growth

The final criterion by which growth inducement can be measured involves economic considerations. The proposed Specific Plan envisions the development of a planned, mixed-use community complete with employment and commercial centers. As the Specific Plan site is developed, property proximal to Newhall Ranch can be expected to experience increased economic pressure to develop. This pressure

would be generated by the availability of supporting public services, employment opportunities, and additional commercial/retail establishments on the Newhall Ranch Specific Plan site. All of the above can increase land values and make development of adjacent properties financially attractive.

In addition, development of the Newhall Ranch Specific Plan is also expected to generate increased demand for goods and services on a regional level. Development of the Specific Plan site will substantially increase the population of the area. It is expected that the inhabitants of the Specific Plan site would demand a variety of goods and services, including specialty items, some of which may not be provided by the future commercial uses established within the Specific Plan site (e.g., regional commercial services). In response to this potentially unsatisfied demand, it is conceivable that additional commercial uses could be constructed in the Santa Clarita Valley to meet this foreseeable demand.

The future residents of the Specific Plan site also represent a labor force that cannot be accommodated exclusively by the employment generating uses proposed in the Specific Plan. As a result, development of the Newhall Ranch Specific Plan could create the need for additional jobs on a regional level. This labor force could be seen by potential employers as a resource that influences the location of their businesses. Given the relative size of the proposed Specific Plan, it is conceivable that the Specific Plan could induce growth in commercial, industrial, and office development on presently undeveloped land due to the attractive nature of this labor force. It is important to note that the Newhall Ranch Specific Plan was planned to complement the projected jobs/housing balance in the Santa Clarita Valley Planning Area. Given this, the Newhall Ranch Specific Plan contains less employment generators than necessary to achieve an internal balance so that it would result in an overall balance of jobs in relation to housing within the entire Santa Clarita Valley.

d. Water Reclamation Plant

The water reclamation plant is an integral component of the Newhall Ranch Specific Plan and would only be built if the Specific Plan is approved. The plant is not expected to induce economic growth as the facility would, by itself, offer only a nominal number of employment opportunities which could be readily filled by the existing labor force. Further, the construction of a water reclamation plant and the formation of a new sanitation district is not considered leap frog development; the existing Valencia water reclamation plant (District #32) is located within 6 miles of the proposed new facility.

The water reclamation plant and associated collection facilities would, however, reduce an impediment to growth within the area tributary to the newly formed sanitation district. The wastewater collection system and water reclamation plant is sized to serve only buildout of the Newhall Ranch Specific Plan and no capacity would be available to reclaim wastewater generated by other sources. Nevertheless, the newly formed sanitation district's tributary area would extend beyond the boundaries of the Newhall Ranch Specific Plan area. The new district would be the most likely district to treat wastewater generated by land uses that are in its tributary area. The presence of collection and conveyance infrastructure extending to the boundary of the Specific Plan area will allow for the efficient and cost effective expansion of this infrastructure at a later date should it be requested by development proponents outside the Newhall Ranch Specific Plan area. Thus, it can be concluded that the water reclamation plant would remove an impediment to growth. However, it would be speculative to identify the timing and form of any future development within the proposed district's tributary area. Moreover, each future development proposal would be subject to environmental review at the time it is made.

3. IMPACTS CREATED BY GROWTH

Attempting to determine the environmental impacts created by growth is speculative in that the size, type, and location of specific, future projects which may be induced by the Newhall Ranch Specific Plan are unknown at the present time. Furthermore, it is presumptuous to state conclusively that implementation of the Newhall Ranch Specific Plan would induce growth in the surrounding area, as there are many variables that must be considered when examining the mechanics of urban growth (e.g., market forces, demographic trends, etc.). Impacts associated with any future development project that could be influenced by development of the Newhall Ranch Specific Plan would be examined in depth during the environmental review conducted for the project as part of its review and approval process.

Impacts of growth associated with buildout of the Santa Clarita Valley can be found in the cumulative analyses for each topic that were conducted in **Section 4.0, Existing Conditions, Specific Plan Impacts and Mitigation Measures, Cumulative Impacts and Mitigation Measures, and Unavoidable Significant Specific Plan Impacts** and in **Section 5.0, Water Reclamation Plant (WRP) Impacts, Mitigation Measures, and Unavoidable Significant WRP Impacts**. The cumulative analyses identify all known planned, approved, and active pending projects (including General Plan Amendments), and also assume Santa Clarita Valley buildout according to the County of Los Angeles Santa Clarita Valley Area Plan and the City of Santa Clarita General Plan for vacant land not currently proposed for development. Impacts identified in the cumulative analyses include, but are not limited to, increased vehicle traffic and vehicle exhaust emissions, increased noise levels, loss of natural habitat, and growth in the demand for County services and utilities.

12.0 EFFECTS NOT FOUND TO BE SIGNIFICANT

1. *PURPOSE*

Section 15128 of the CEQA Guidelines requires an EIR to briefly describe any potential environmental effects that were determined not to be significant during the Initial Study scoping process and were, therefore, not discussed in detail in the EIR.

The County Initial Study for the Newhall Ranch Specific Plan and water reclamation plant did not eliminate any potential environmental effects from consideration during the Initial Study scoping process. All potential environmental effects considered on the County Initial Study form are discussed in detail throughout this EIR.

13.0 Mitigation Monitoring Plan

13.0 MITIGATION MONITORING PLAN (Newhall Ranch Specific Plan)

INTRODUCTION The Mitigation Monitoring Program describes the procedures the applicant and others will use to implement the mitigation measures adopted in connection with the approval of the Specific Plan and Water Reclamation Plant and the methods of monitoring such actions. A Monitoring Program is necessary only for impacts which would be significant if not mitigated. The following consists of a monitoring program table noting the responsible agency for mitigation monitoring, the schedule and a list of all Specific Plan-related mitigation measures.

PURPOSE *The Mitigation Monitoring Program (MMP) has been prepared in conformance with Section 21081.6 of the California Environmental Quality Act. It is the intent of this program to (1) verify satisfaction of the required mitigation measures of the EIR; (2) provide a methodology to document implementation of the required mitigation; (3) provide a record of the Monitoring Program; (4) identify monitoring responsibility; (5) establish administrative procedures for the clearance of mitigation measures; (6) establish the frequency and duration of monitoring; and (7) utilize existing review processes wherever feasible.*

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.1 GEOTECHNICAL AND SOIL RESOURCES			
4.1-1. The standard building setbacks from ascending and descending man-made slopes are to be followed in accordance with Section 1806.~~42907 (d)~~ of the Los Angeles County Building Code, unless superseded by specific geologic and/or soils engineering evaluations. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 44)	Applicant (Civil~~Project~~ Engineer, Geotechnical Engineer, Engineering Geologist)	Building and Grading Plan Check ~~Field Verification~~	1. LACDPW, Geology/ Soils Section, and Building and Safety 2. LACDPW, Building and Safety and Geology/Soils Section 3. Prior to Issuance of Building Permits

ACOE - U.S. Army Corps of Engineers
CIWMB - California Integrated Waste Management Board
CSDLAC - County Sanitation Districts of Los Angeles County
FCD - Flood Control Division
LACDRP - Los Angeles County Department of Regional Planning
LACDPW - Los Angeles County Department of Public Works
LACFPD - Los Angeles County Fire Protection District
CPUC - California Public Utilities Commission
CNLM - Center for Natural Lands Management
RWQCBLAR - Regional Water Quality Control Board, Los Angeles Region
SCAQMD - South Coast Air Quality Management District
USFWS - U.S. Fish and Wildlife Service
WSHUHSD - William S. Hart Union High School District

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.1 GEOTECHNICAL AND SOIL RESOURCES (cont.)			
4.1-2. The existing Grading Ordinance for planting and irrigation of cut-slopes and fill slopes is to be adhered to for grading operations within the project site. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 44)	Applicant (Civil ~~Geotechnical~~ Engineer)	Field Verification	1. LACDPW, Building and Safety~~Geology/ Soils Section~~ 2. LACDPW, Building and Safety~~Geology/ Soils Section~~ 3. Prior to Issuance of Occupancy Permits
4.1-3. In order to safeguard against major seismic-related structural failures, all buildings within the project boundaries are to be constructed in conformance with the Los Angeles County Uniform Building Code, as applicable.	Applicant (Project Structural Engineer)	Building Plan Check ~~Field Verification~~	1. LACDPW, Building and Safety 2. LACDPW, Building and Safety 3. Prior to Issuance of Building~~Occupancy~~ Permits
MITIGATION FOR GEOLOGIC HAZARDS:			
4.1-4. The location and dimensions of the exploratory trenches and borings undertaken by Allan E. Seward Engineering Geology, Inc. and R.T. Frankian & Associates are to be noted on all grading plans relative to future building plans, unless the trenches and/or borings are removed by future grading operations. If future foundations traverse the trenches or borings, they are to be reviewed and approved by the project Geotechnical Engineer. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 45)	Applicant (Geotechnical Engineer)	Grading Plan Check Field Verification	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. Prior to Approval of Final Grading Plans; grading
4.1-5. Wherever the Pacoima Formation is exposed, it may be potentially expansive; therefore, it is to be tested by the project Soils Engineer at the grading plan stage to determine its engineering characteristics and mitigation requirements, as necessary.	Applicant (Geotechnical ~~Project Soils~~ Engineer)	~~Receipt of Field Testing Information and Mitigation with~~ Grading Plan Checks	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. Prior to Approval of Final Grading Plans
4.1-6. Should any expansive soils be encountered during grading operations, they are not to be placed nearer the finished surface than 8 feet below the bottom of the subgrade elevation. This depth is subject to revision depending upon the expansive potential measured during grading. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer)~~Soils Engineer~~ Grading Contractor	Field Investigation	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. During Grading

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.1 GEOTECHNICAL AND SOIL RESOURCES (cont.)			
4.1-7. If expansive materials are encountered at subgrade elevation in cut areas, the soils are to be removed to a depth of 8 feet below the "finished" or "subgrade" surface and the excavated area backfilled with nonexpansive, properly compacted soils. This depth is subject to revision depending upon the expansive potential measured during grading. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer)~~Soils Engineer~~ ~~Grading Contractor~~	Field Investigation	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. During Grading
4.1-8. At the time of subdivision, which allows construction, areas subject to liquefaction are to be mitigated to the satisfaction of the project Geotechnical Engineer prior to site development. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer)	Grading Plan Check Field Verification	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. Prior to Issuance of Grading~~Building~~ Permit(s)
4.1-9. Subdrains are to be placed in areas of high ground water conditions (Potrero Canyon, in particular) or wherever extensive irrigation is planned. The systems are to be designed to the specifications of the Newhall Ranch Specific Plan Geotechnical Engineer.	Applicant (Geotechnical Engineer and Engineering Geologist)	Grading Plan Check Field Verification	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. Prior to Issuance of Grading Permit and Verify During Grading
4.1-10. Subdrains are to be placed in the major and minor canyon fills, behind stabilization blankets, buttress fills, and retaining walls, and as required by the Geotechnical Engineer during grading operations. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer and Engineering Geologist)~~Geotechnical Engineer~~	Grading Plan Check Field Verification	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. Prior to Issuance of Grading Permit and Verify During Grading

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.1 GEOTECHNICAL AND SOIL RESOURCES (cont.)			
4.1-11. Canyon subdrains may be installed in "V"-ditches or in a rectangular trench excavated to expose competent material or bedrock as approved by the Geotechnical Engineer.	Applicant (Geotechnical Engineer and Engineering Geologist)~~Geotechnical Engineer~~	Grading Plan Check Field Verification	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. Prior to Issuance of Grading Permit and Verify During Grading
4.1-12. The vertical spacing of subdrains behind buttress fills, stabilization blankets, etc., are to be a maximum of 15 feet. The gradient is to be at least 2 percent to the discharge end. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer)	Grading Plan Check Field Verification	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. Prior to Issuance of Grading Permit and Verify During Grading
4.1-13. Geological materials subject to hydroconsolidation (containing significant void space) are to be removed prior to the placement of fill. Specific recommendations relative to hydroconsolidation are to be provided by the project Geotechnical Engineer at the subdivision stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 44)	Applicant (Geotechnical Engineer and Engineering Geologist)~~Geotechnical Engineer~~	Receipt of Specific Hydro-consolidation Recommend-ations Field Verification	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. Prior to Approval of Final Grading Plans and Verify During Grading
4.1-14. Proposed structures on ridgelines will have a minimum 20-foot horizontal setback from the margin of the bedrocks to prevent perched or ground water levels where relatively impermeable materials can block downward migration.	Applicant (Geotechnical Engineer and Engineering Geologist)~~Project Engineer~~	Grading Plan Check Field Verification	1. LACDPW, Geology/ Soils Section, and Building and Safety 2. LACDPW, Building and Safety 3. Prior to Issuance of Grading ~~Building~~ Permits and Verify during Grading

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.1 GEOTECHNICAL AND SOIL RESOURCES (cont.)			
4.1-15. Subsurface exploration is required to delineate the depth and lateral extent of the landslides shown on the geologic map. This work shall ~~is to~~ be undertaken at the subdivision ~~map~~ stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 15) Landslides must~~are to~~ be mitigated through stabilization, removal, and/or building setbacks as determined by the Newhall Ranch Specific Plan Geotechnical Engineer, and to the satisfaction of the Los Angeles County Department of Public Works.	Applicant (Geotechnical Engineer and Engineering Geologist)~~Geotechnical Engineer~~	Receipt of Exploratory Data and Mitigation Field Verification	1. LACDPW, Geology/ Soils Section~~, and Building and Safety~~ 2. LACDPW, Geology/ Soils Section ~~Building and Safety~~ 3. Prior to Approval of Final Grading Plan and Verify During Grading
4.1-16. At the subdivision stage, the existence of landslides designated with "3" on **Figure 4.1-2, Existing Landslide Areas**, and within or adjacent to the development area is to be confirmed. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994,p. 15) If landslides are confirmed in these areas, they are to be mitigated through stabilization, removal, and/or building setbacks as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.	Applicant (Geotechnical Engineer)	~~Receipt of Confirmation~~ Data and Mitigation Grading Plan Check Field Verification	1. LACDPW, Geology/ Soils Section~~, and Building and Safety~~ 2. LACDPW, Geology/ Soils Section ~~Building and Safety~~ 3. Prior to Approval of Final Grading Plan and Verify During Grading
4.1-17. The existence, or lack thereof, of landslides on or adjacent to the roadway alignments for the extension of Magic Mountain Parkway and Valencia Boulevard will be evaluated by subsurface investigations at the subdivision stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 13 December 1995, p. 11) If landslides are confirmed in these areas, they are to be mitigated through stabilization, removal, and/or building setbacks as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.	Applicant (Geotechnical Engineer and Engineering Geologist)~~Geotechnical Engineer~~	Grading Plan Check~~Receipt of Exploratory Data and Mitigation~~ Field Verification	1. LACDPW, Geology/ Soils Section~~, and Building and Safety~~ 2. LACDPW, Geology/ Soils Section ~~Building and Safety~~ 3. Prior to Approval of Final Grading Plan and Verify During Grading
4.1-18. The potential hazards associated with debris flow scars and other possible surficial failures located in proximity to the roadway alignments for the extension of Magic Mountain Parkway and Valencia Boulevard will be evaluated at the subdivision stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 13 December 1995, p. 11) These areas are to be mitigated as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.	Applicant (Geotechnical Engineer and Engineering Geologist)~~Geotechnical Engineer~~	Grading Plan Check~~Receipt of Exploratory Data and Mitigation by LACDPW~~	1. LACDPW, Geology/ Soils Section~~, and Building and Safety~~ 2. LACDPW, Geology/ Soils Section ~~Building and Safety~~ 3. Prior to Approval of Final Grading Plan and Verify During Grading

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.1 GEOTECHNICAL AND SOIL RESOURCES (cont.)			
4.1-19. Remove debris from surficial failures during grading operations prior to the placement of fill. (AllanAllen E. Seward Engineering Geology, Inc., 19 September 1994, p. 16)	Applicant (Geotechnical Engineer)	Field Verification	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. During Grading Operations
4.1-20. All soils and/or unconsolidated slopewash and landslide debris is to be removed prior to the placement of compacted fills. (AllanAllen E. Seward Engineering Geology, Inc., 19 September 1994, p. 45)	Applicant (Geotechnical Engineer and Engineering Geologist)Geotechnical Engineer	Grading Plan Check Field Verification	1. LACDPW, Geology/ Soils Section, and Building and Safety 2. LACDPW, Geology/ Soils Section Building and Safety 3. Prior to approval of Final During Grading Plan and During Grading
4.1-21. Cut-slopes which will expose landslide material are to undergo geologic and geotechnical evaluation at the subdivision stage to determine their stability and degree of consolidation. (AllanAllen E. Seward Engineering Geology, Inc., 19 September 1994, p. 15) Several options are available to mitigate potential landslide failure in the proposed cut-slopes. Landslides may be stabilized with buttress fills or shear keys designed by the Newhall Ranch Specific Plan Geotechnical Engineer; landslide material can be entirely removed and replaced with a stability fill; or the slope can be redesigned to avoid the landslide. Landslides underlying cut pad or road areas may be removed or partially removed if the Newhall Ranch Specific Plan Geologist and Geotechnical Engineer conclude that the landslide is stable and sufficiently consolidated to build on. Landslides located on ascending natural slopes above proposed graded areas will also require evaluation for stability. Unstable landslides on natural slopes above graded areas will either require stabilization, removal or building setbacks to mitigate potential hazards.	Applicant (Geotechnical Engineer and Engineering Geologist)Geotechnical Engineer	Grading Plan CheckReceipt of Exploratory Data and Mitigation Field Verification	1. LACDPW, Geology/ Soils Section, and Building and Safety 2. LACDPW, Geology/ Soils Section Building and Safety 3. Prior to Approval of Final Grading Plan and During Grading

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.1 GEOTECHNICAL AND SOIL RESOURCES (cont.)			
4.1-22. Additional geologic investigations are required prior to approval of future tentative maps which allow construction, or grading plans to determine the geologic and geotechnical feasibility of the fifteen (15) lots proposed in the High Country SMA.	Applicant (Geotechnical Engineer)	Grading Plan Check~~Receipt of Exploratory Data and Mitigation~~	1. LACDPW, Geology/ Soils Section~~, and Building and Safety~~ 2. LACDPW, Geology/ Soils Section ~~Building and Safety~~ 3. Prior to Approval of Tentative Maps for the 15 Estate Residential Lots
4.1-23. Prior to construction of the road embankment located within landslide Qls II, a compacted fill shear key will be constructed at the property boundary. (R.T. Frankian & Associates, 19 September 1994, p. 6)	Applicant (Geotechnical Engineer and Engineering Geologist)~~Geotechnical Engineer~~	Grading Plan Check Field Verification	1. LACDPW, Geology/ Soils Section, and Building and Safety 2. LACDPW, Building and Safety 3. Prior to Construction of the Road Embankment and Verify During Grading
4.1-24. Landslides which will not affect the proposed grading concept are to be placed in Restricted Use Areas on the Final Maps. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 43)	Applicant (Geotechnical Engineer and Engineering Geologist)~~Geotechnical Engineer~~	Grading Plan Check	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. Prior to Approval of Final Maps
4.1-25. Surficial stability of cut-slopes designated with a "G" are to be fully evaluated at the subdivision stage, due to the possibility of wedge failures or surficial material in the slope. Corrective grading measures are to be presented in detail as mitigation at both the subdivision and Grading Plan stages of development. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, pp. 17, 43)	Applicant (Geotechnical Engineer and Engineering Geologist)~~Geotechnical Engineer~~	Grading Plan Check Field Verification~~Receipt of Exploratory Data and Mitigation~~	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. Prior to Approval of Final Grading Plans and During Grading

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.1 GEOTECHNICAL AND SOIL RESOURCES (cont.)			
4.1-26. Cut slopes designated as "P" are potentially unstable and are to be fully evaluated at the subdivision stage to ascertain whether they are stable as designed. Corrective grading measures are to be presented in detail as mitigation at both the subdivision and Grading Plan stages of development. (AllanAllen E. Seward Engineering Geology, Inc., 19 September 1994, pp. 17, 43)	Applicant (Geotechnical Engineer and Engineering Geologist)Geotechnical Engineer	Grading Plan Check Field VerificationReceipt of Exploratory Data and Mitigation	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. Prior to Approval of Final Grading Plans and During Grading
4.1-27. Cut-slopes designated with a "U" are to be further investigated at the subdivision stage to confirm underlying geologic conditions and slope stability. Corrective grading measures are to be presented in detail as mitigation at both the subdivision and Grading Plan stages of development. (AllanAllen E. Seward Engineering Geology, Inc., 19 September 1994, pp. 17, 43)	Applicant (Geotechnical Engineer and Engineering Geologist)Geotechnical Engineer	Grading Plan Check Field VerificationReceipt of Exploratory Data and Mitigation	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. Prior to Approval of Final Grading Plans and During Grading
4.1-28. Cut-slopes associated with the construction of the proposed extensions of Magic Mountain Parkway and Valencia Boulevard are to be further investigated at the subdivision stage to confirm the underlying geologic conditions and slope stability. Corrective measures are to be required if it is determined that the cut-slopes will not be stable. (AllanAllen E. Seward Engineering Geology, Inc., 13 December 1995, pp. 11 & 12) According to Allan E. Seward Engineering Geology, Inc., unstable cut-slopes can either be redesigned or stabilized using various corrective grading techniques. Redesign options for unstable cut-slopes include reorientation, relocation and reducing the proposed slope gradient. Options for corrective grading include the construction of buttress fills, stability fills, shear keys, and complete removal of the landslide material.	Applicant (Geotechnical Engineer and Engineering Geologist)Geotechnical Engineer	Grading Plan Check Field VerificationReceipt of Exploratory Data and Mitigation	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. Prior to Approval of Final Grading Plans and During Grading

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.1 GEOTECHNICAL AND SOIL RESOURCES (cont.)			
4.1-29. Orientations of the bedrock attitudes are to be evaluated by the Newhall Ranch Specific Plan Engineering Geologist to identify locations of required buttress fills. Buttress fill design and recommendations, if necessary, are to be presented as mitigation during the grading plan stage. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer and Engineering Geologist)~~Engineering Geologist~~	Grading Plan Check Field Verification~~Receipt of Exploratory Data and Mitigation~~	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. Prior to Approval of Final Grading Plans
4.1-30. All fills, unless otherwise specifically designed, are to be compacted to at least 90 percent of the maximum dry unit weight as determined by ASTM Designation D 1557-91 Method of Soil Compaction. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer)	Field Verification	1. LACDPW, Geology/ Soils Section 2. LACDPW, Geology/ Soils Section 3. During Grading
4.1-31. No fill is to be placed until the area to receive the fill has been adequately prepared and approved by the Geotechnical Engineer. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer)	Field Verification	1. LACDPW, Geology/ Soils Section, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. During Grading
4.1-32. Fill soils are to be kept free of all debris and organic material. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer)	Field Verification	1. LACDPW, Geology/ Soils Section, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. During Grading
4.1-33. Rocks or hard fragments larger than 8 inches are not to be placed in the fill without approval of the Geotechnical Engineer, and in a manner specified for each occurrence. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer)	Field Verification	1. LACDPW, Geology/ Soils Section, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. During Grading

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.1 GEOTECHNICAL AND SOIL RESOURCES (cont.)			
4.1-34. Rock fragments larger than 8 inches are not to be placed within 10 feet of finished pad grade or the subgrade of roadways or within 15 feet of a slope face. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer)	Field Verification	1. LACDPW, Geology/ Soils Section, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. During Grading
4.1-35. Rock fragments larger than 8 inches may be placed in windrows, below the limits given above, provided the windrows are spaced at least 5 feet vertically and 15 feet horizontally. Granular soil must be flooded around windrows to fill voids between the rock fragments. The granular soil is to be wheel rolled to assure compaction. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer)	Field Verification	1. LACDPW, Geology/ Soils Section, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. During Grading
4.1-36. The fill material is to be placed in layers which, when compacted, is not to exceed 8 inches per layer. Each layer is to be spread evenly and is to be thoroughly mixed during the spreading to insure uniformity of material and moisture. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer)	Field Verification	1. LACDPW, Geology/ Soils Section, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. During Grading
4.1-37. When moisture content of the fill material is too low to obtain adequate compaction, water is to be added and thoroughly dispersed until the soil is approximately 2 percent over optimum moisture content. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer)	Field Verification	1. LACDPW, Geology/ Soils Section, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. During Grading
4.1-38. When the moisture content of the fill material is too high to obtain adequate compaction, the fill material is to be aerated by blading or other satisfactory methods until the soil is approximately two percent over optimum moisture content. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer)	Field Verification	1. LACDPW, Geology/ Soils Section, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. During Grading
4.1-39. Where fills toe out on a natural slope or surface, a keyway, with a minimum width of 16 feet and extending at least 3 feet into firm, natural soil, is to be cut at the toe of the fill. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer)	Field Verification	1. LACDPW, Geology/ Soils Section, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. During Grading

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.1 GEOTECHNICAL AND SOIL RESOURCES (cont.)			
4.1-40. Where the fills toe out on a natural or cut slope and the natural or cut slope is steeper than 5 horizontal to 1 vertical, a drainage bench with a width of at least 8 feet is to be established at the toe of the fill. Fills may be placed over cut slopes if the visible contact between the fill and cut is steeper than 45 degrees. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer)	Field Verification	1. LACDPW, Geology/ Soils Section, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. During Grading
4.1-41. When placing fills over slopes, sidewall benching is to extend into competent material, approved by the Geotechnical Engineer, with vertical benches not less than 4 feet. (R.T. Frankian & Associates, 19 September 1994, Appendix I) Competent material is defined as being free of loose soil, heavy fracturing or compressive soils.	Applicant (Geotechnical Engineer and Engineering Geologist)~~Geotechnical Engineer~~	Field Verification	1. LACDPW, Geology/ Soils Section, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. During Grading
4.1-42. When constructing fill slopes, the grading contractor is to avoid spillage of loose material down the face of the slope during the dumping and compacting operations. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer)	Field Verification	1. LACDPW, Geology/ Soils Section, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. During Grading
4.1-43. The outer faces of fill slopes are to be compacted by backing a sheepsfoot compactor over the top of the slope, and thoroughly covering all of the slope surface with overlapping passes of the compactor. Compaction of the slope is to be repeated after each 4 feet of fill has been placed. The required compaction must be obtained prior to placement of additional fill. As an alternate, the slope can be overbuilt and cut back to expose a compacted core. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	Applicant (Geotechnical Engineer)	Field Verification	1. LACDPW, Geology/ Soils Section, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. During Grading
4.1-44. All artificial fill associated with past petroleum activities as well as other existing artificial fill, are to be evaluated by the Newhall Ranch Specific Plan Geotechnical Engineer at the subdivision and/or Grading Plan Stage. (AllanAllen E. Seward Engineering Geology, 19 September 1994, Inc., p. 45) Unstable fills are to be mitigated through removal, stabilization, or other means as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.	Applicant (Geotechnical Engineer and Engineering Geologist)~~Geotechnical Engineer~~	Receipt of Geotechnical Evaluation Field Verification	1. LACDPW, Geology/ Soils Section, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. Prior to Approval of Final Subdivision Maps or Grading Plans, and Verify During Grading

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.1 GEOTECHNICAL AND SOIL RESOURCES (cont.)			
4.1-45. Surface runoff from the future graded areas is not to run over any natural, cut, or fill slopes. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)	Applicant (Civil Engineer and Construction Superintendent)	Include this Measure in Specifications Field Verification	1. LACDPW, Geology/ Soils Section, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. During Grading
4.1-46. Runoff from future pads and structures is to be collected and channeled to the street and/or natural drainage courses via non-erosive drainage devices. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)	Applicant (Civil Engineer and Construction Superintendent)	Include this Measure in Specifications Field Verification	1. LACDPW, Geology/ Soils Section, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. During Grading
4.1-47. Water is not to stand or pond anywhere on the graded pads. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)	Applicant (Civil Engineer and Construction Superintendent)	Include this Measure in Specifications Field Verification	1. LACDPW, Geology/ Soils Section, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. During Grading
4.1-48. Oil and water wells that might occur on site are to be abandoned in accordance with State and local regulations. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 45)	Applicant (Well abandonment Specialist)	Receipt of Confirmation of Abandonment	1. California Department of Conservation, Division of Oil and Gas, Building and Safety 2. LACDPW, Geology/ Soils Section, Building and Safety 3. Prior to Issuance of Grading Permits
4.1-49. If any leaking or undocumented oil wells are encountered during grading operations, their locations are to be surveyed and the current well conditions evaluated immediately. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 21) Measures are to be taken to document the wells, abandonment, and remediate the well sites (if necessary) in accordance with State and local regulations.)	Applicant (Civil Engineer and Well Abandonment Specialist)~~Construction Superintendent~~	Include Measure in Specifications Field Documentation	1. California Department of Conservation, Division of Oil and Gas, Building and Safety 2. California Department of Conservation, Division of Oil and Gas, Building and Safety 3. During Grading

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.1 GEOTECHNICAL AND SOIL RESOURCES (cont.)			
4.1-50. The exact status and location of the Exxon (Newhall Land & Farming) oil well #31 will be evaluated at the subdivision stage. If necessary, the well will be abandoned in accordance with State and local regulations. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 13 December 1995, p. 12)	Applicant (Civil Engineer and Well Abandonment Specialist)	Locate Well #31 on Tract Map Documentation of Abandonment, if applicable	1. California Department of Conservation, Division of Oil and Gas, Building and Safety 2. California Department of Conservation, Division of Oil and Gas, Building and Safety 3. Prior to Issuance of Grading Permit
MITIGATION FOR SEISMIC HAZARDS			
4.1-51. Survey control will be required to precisely locate the Salt Creek and Del Valle Faults at the subdivision stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 33)	Applicant (Civil ~~Geotechnical~~ Engineer and Engineering Geologist)	Receipt of Geotechnical Documentation	1. LACDPW, Geology Section~~and Soils~~ 2. LACDPW, Geology Section~~and Soils~~ 3. Prior to Tract Map/Site Plan Approvals as Applicable
4.1-52. Additional subsurface trenching will be performed within the Holser Structural Zone on Newhall Ranch during the subdivision stage to evaluate its existence. Within Potrero Canyon, additional subsurface evaluation will be performed during the subdivision stage to confirm that nontectonic alluvial movement was the cause of surface ground cracking during the January 17, 1994 earthquake, and to evaluate the potential for shallow-depth faults. (Allan E. Seward Engineering Geology, Inc. 19 September 1994, p. 42, as revised above.)~~Additional subsurface trenching is to be performed within the Holser Structural Zone on Newhall Ranch during the subdivision stage to evaluate its existence. (Allan Allen E. Seward Engineering Geology, Inc., 19 September 1994, p. 42)~~	Applicant (Engineering Geologist)~~Geotechnical Engineer~~	Receipt of Geotechnical Documentation	1. LACDPW, Geology Section~~and Soils~~ 2. LACDPW, Geology Section~~and Soils~~ 3. Prior to Tract Map/Site Plan Approvals as Applicable

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.1 GEOTECHNICAL AND SOIL RESOURCES (cont.)			
No distinct evidence for Holocene activity on any of the faults traversing the Newhall Ranch Specific Plan site was observed during Allan E. Seward Engineering Geology, Inc.'s investigation; however, based on the distinct nature of faulting, the possible association of minor seismic activity, and compatible orientation of the faulting in relation to the current stress regime of the Transverse Ranges, preliminary Building Setback Zones have been designated around the mapped fault zones (see **Figure 4.1-4**).			
4.1-53. Precise Building Setback Zones for the Newhall Ranch Specific Plan site are to be defined at the subdivision stage.	Applicant (Civil Engineer and Engineering Geologist)~~Geotechnical Engineer~~	Setback Zones Identified on Tract Maps/Site Plans	1. LACDPW, Geology~~/Soils~~ Section, and Building and Safety 2. LACDPW, Geology~~/Soils~~ Section, and Building and Safety 3. Prior to Tract Map and Site Plan and Final Map Approvals, as Applicable
4.1-54. Due to the potential activity of the Salt Creek and Del Valle Faults, site development is to remain outside of Building Setback Zones around fault traces, and the possible fault zone connecting them (see **Figure 4.1-4**). (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 42)	Applicant (Civil Engineer and Engineering Geologist)~~Project Engineer~~	Setback Zones Identified on Tract Maps/Site Plans	1. LACDPW, Geology~~/Soils~~ Section, and Building and Safety 2. LACDPW, Geology~~/Soils~~ Section, and Building and Safety 3. Prior to Tract Map/Site Plan/Final Map Approvals, as Applicable
The zone shown around the possible fault connecting the Del Valle and Salt Creek Faults may be deleted if future work shows that this fault segment does not exist.			

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.1 GEOTECHNICAL AND SOIL RESOURCES (cont.)			
4.1-55. To minimize potential hazards from shattered ridge effects, structures and storage tanks proposed on ridgelines are to have a minimum 20 foot setback from the margins of the bedrock. Designation of specific building setbacks will require evaluation at the subdivision stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 40) Building setback zones are to be identified on all site plans and tract maps for the site.	Applicant (Engineering Geologist)~~Geotechnical Engineer~~	Setback Zones Identified on Tract Maps/Site Plans	1. LACDPW, Geology~~/Soils~~ Section, and Building and Safety 2. LACDPW, Geology~~/Soils~~ Section, and Building and Safety 3. Prior to Tract Map/Site Plan Approvals, as Applicable
4.1-56. The potential for ground motion and ground failure associated with a seismic event in proximity to the planned roadway alignments of Magic Mountain Parkway and Valencia Boulevard will be evaluated at the subdivision stage. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 13 December 1995, p. 11) Mitigation to reduce associated significant impacts will also be identified at that time.	Applicant (Engineering Geologist)~~Geotechnical Engineer~~	Receipt of Geotechnical Report and Mitigation	1. LACDPW, Geology/Soils Section, and Building and Safety 2. LACDPW, Geology/Soils Section, and Building and Safety 3. Prior to Final Map Approval
4.2 FLOOD			
4.2-1. All on- and off-site flood control improvements necessary to serve the Newhall Ranch Specific Plan are to be constructed to the satisfaction of the County of Los Angeles Department of Public Works Flood Control Division.	Applicant (Civil Engineer)~~Project Engineer~~	Approval of Drainage Plans Field Verification	1. LACDPW, FCD 2. LACDPW, FCD 3. Prior to Issuance of Occupancy Permit(s)

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.2 FLOOD (cont.)			
4.2-2. All necessary permits or letters of exemption from the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and Game, and the Regional Water Quality Control Board for Specific Plan-related development are to be obtained prior to construction of drainage improvements. The performance criteria to be used in conjunction with 1603 agreements and/or 404 permits are described in Section 4.6, Biological Resources, M~~m~~itigation M~~m~~easures 4.6-1 through 4.6-10 (restoration) and 4.6-11 through 4.6-16 (enhancement).	Applicant	Receipt of all Necessary Permit(s)	1. ACOE, USFWS, CDFG, RWQCBLAR 2. ACOE, USFWS, CDFG, RWQCBLAR 3. Prior to ~~Issuance of~~ Grading ~~Permit(s)~~
4.2-3. All necessary streambed agreement(s) are to be obtained from the California Department of Fish and Game wherever grading activities alter the flow of streams under CDFG jurisdiction. The performance criteria to be used in conjunction with 1603 agreements and/or 404 permits are described in Section 4.6, Biological Resources, ~~m~~Mitigation M~~m~~easures 4.6-1 through 4.6-10 (restoration) and 4.6-11 through 4.6-16 (enhancement).	Applicant	Receipt of Streambed Agreements	1. CDFG 2. LACDPW, FCD 3. Prior to ~~Issuance of~~ Grading ~~Permit(s)~~
4.2-4. Conditional Letters of Map Revision (CLOMR) relative to adjustments to the 100-year FIA flood plain are to be obtained by the applicant after the proposed drainage facilities are constructed.	Applicant (Civil Engineer)~~Project Engineer~~	Receipt of CLOMR(s)	1. Federal Insurance Administration 2. LACDPW 3. Upon Completion of Facilities~~At the Time of Submittal of As Built Plans for Drainage Improvements~~
4.2-5. Prior to the approval and recordation~~recording~~ of each subdivision map, a ~~Final~~ Hydrology Plan, ~~a Final~~ Drainage Plan, and ~~a Final~~ Grading Plan (including an Erosion Control Plan if required) for each subdivision must~~are to~~ be prepared by the applicant of the subdivision map to ensure that no significant erosion, sedimentation, or flooding impacts would occur during or after site development. These plans shall be prepared to the satisfaction of the County of Los Angeles Department of Public Works.	Applicant (Project Engineer)	Approval of Final Hydrology Plan, Final Drainage Plan, and Final Grading Plan	1. LACDPW, FCD and Geology/Soils Section 2. LACDPW, FCD and Geology/Soils Section 3. Prior to Recording of Each Subdivision Map

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.2 FLOOD (cont.)			
4.2-6. Install permanent erosion control measures, such as desilting and debris basins, drainage swales, slope drains, storm drain inlet/outlet protection, and sediment traps in order to prevent sediment and debris from the upper reaches of the drainage areas which occur on the Newhall Ranch site from entering storm drainage improvements. These erosion control measures shall be installed to the satisfaction of the County of Los Angeles Department of Public Works.	Applicant (Project Engineer)	Field Verification	1. LACDPW, FCD 2. LACDPW, FCD 3. Prior to Issuance of Occupancy Permits
4.2-7. The applicant for any subdivision map permitting construction shall satisfy all applicable requirements of the NPDES Program in effect in Los Angeles County to the satisfaction of the County of Los Angeles Department of Public Works. These requirements currently include preparation of an Urban Storm Water Mitigation Plan (USWMP) containing design features and Best Management Practices (BMPs) appropriate and applicable to the subdivision. In addition, the requirements currently include preparation of a Storm Water Management Pollution Prevention Plan (SWPPP) containing design features and BMPs appropriate and applicable to the subdivision. The County of Los Angeles Department of Public Works shall monitor compliance with those NPDES requirements.~~The Newhall Ranch Specific Plan is to adopt a Storm Water Management Program in accordance with NPDES regulations, which is to be incorporated into the development design of drainage facilities as part of each future subdivision map approval. The Storm Water Management Program is to also include BMPs which would inhibit trespassing, illegal dumping and filling, and other acts of encroachment into open channels that would traverse development areas of the site.~~	Applicant (Construction Superintendent~~Project Engineer~~)	Submittal of ~~Adoption of a~~ USWMP and SWPPPMP to RWQCBLAR Field Verification	1. RWQCBLAR 2. LACDPW, Building and Safety ~~RWQCBLAR~~ 3. Prior to Grading and During Grading Operations~~Approval of Each Subdivision Map~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.3 CULTURAL/PALEONTOLOGICAL RESOURCES			
The following mitigation measures are derived from the Los Angeles County Environmental Document Reporting Procedures and Guidelines for paleontological resources and Appendix K of the CEQA Guidelines for the protection of cultural resources. Both documents require that reasonable efforts be made to reduce significant impacts on cultural resources to levels below identified thresholds of significance:			
4.3-1. Any adverse impacts to California-LAN-2133, -2235, and the northern portion of -2233 are to be mitigated by avoidance and preservation. Should preservation of these sites be infeasible, a Phase III data recovery (salvage excavation) operation is to be completed on the sites so affected, with archaeological monitoring of grading to occur during subsequent soils removals on the site. This will serve to collect and preserve the scientific information contained therein, thereby mitigating all significant impacts to the affected cultural resource.	Applicant (Archaeologist)	Qualified Archaeologist Present During Grading Activities of Sites	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. Prior to and During Grading Activities, as appropriate
4.3-2. Any significant effects to California-LAN-2241 are to be mitigated through site avoidance and preservation. Should this prove infeasible, an effort is to be made to relocate, analyze and re-inter the disturbed burial at some more appropriate and environmentally secure locale within the region.	Applicant (Archaeologist)	Qualified Archaeologist Present During Grading Activities of site if not located before	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. Prior to and During Grading Activities, as appropriate
4.3-3. In the unlikely event that additional artifacts are found during grading within the development area or future roadway extensions, an archaeologist will be notified to stabilize, recover and evaluate such finds.	Applicant (Archaeologist)	Include this Measure in Subdivision Map Conditions if appropriate~~Contract with Grading Contractor(s)~~	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. During Tentative Map Processing~~Grading Activities~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.3 CULTURAL/PALEONTOLOGICAL RESOURCES (cont.)			
4.3-4. As part of an inspection testing program, a Los Angeles County Natural History Museum-approved inspector is to be on site during an appropriate number of excavations into the Pico Formation, Saugus Formation, Quaternary Terrace Deposits, and Quaternary Older Alluvium. Should the excavations yield significant paleontological resources, excavation is to be stopped or redirected until the extent of the find is established and the resources are salvaged.	Applicant (Archaeologist)	LA County Natural History Museum-Approved Inspector Present During Grading Activities	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. During Grading Activities in the Pico Formation, Saugus Formation, Quaternary Terrace Deposits, and Quaternary Older Alluvium.
4.4 AGRICULTURAL RESOURCES			
4.4-1. Purchasers of homes located within 1,500 feet of an agricultural field or grazing area are to be informed of the location and potential effects of farming uses prior to the close of escrow.	Applicant	Include this Information in CC&Rs	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. At Home Sales~~Prior to Issuance of Occupancy Permits~~
4.4-2. New homes within 1,500 feet of farming uses within Ventura County, if any, are to be informed that agricultural activities within Ventura County are protected under the County's right-to-farm ordinance, and are to be provided with copies of the County's Amended Ordinance 3730-5/7/85.	Applicant	Include this Information in CC&Rs	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. At Home Sales~~Prior to Issuance of Occupancy Permits~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.5 ENVIRONMENTAL SAFETY			
4.5-13. All final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100-110 kV lines; 150 feet from 220-230 kV lines; and 250 feet from 345 kV lines.	Applicant	Tentative Tract Map Review	1. State Board of Education 2. LA County Department of Regional Planning 3. Prior to Approval of Tract Maps
4.5-24. Only non-habitable structures shall be located within SCE easements.	Applicant	Tentative Tract Map Review	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. Prior to Approval of Tract Maps
4.5-31. Prior to issuance of grading permits, all abandoned oil and natural gas-related sites must be remediated to the satisfaction of the California Department of Oil and Gas, the Los Angeles County Hazardous Materials Control Program, the South Coast Air Quality Management District, and/or the Regional Water Quality Control Board (Los Angeles region).	Applicant/On-Site Oil and Natural Gas Producers	Confirmation that Oil- and Natural Gas-Related Sites are Satisfactorily Remediated	1. California Department of Conservation, Division of Oil and Gas; LA County Hazardous Materials Control Program; SCAQMD; and RWQCBLAR 2. California Department of Conservation, Division of Oil and Gas; LA County Hazardous Materials Control Program; SCAQMD; and RWQCBLAR 3. Prior to Issuance of Grading Permits
4.5-42. All on-going oil and natural gas operational sites adjacent to or in close proximity to residential, mixed-use, commercial, business park, schools, and local and Community Parks shall be secured by fencing and emergency access to these locations shall be provided.	Applicant/On-Site Oil and Natural Gas Producers	Field Verification	1. California Department of Conservation, Division of Oil and Gas 2. LACDPW, Building and Safety Department 3. Prior to Issuance of Building Permits
4.5-5. The Specific Plan is to meet the requirements of SCGC in terms of pipeline relocation, grading in the vicinity of gas mains, and development within Southern California Gas Company easements. These requirements would be explicitly defined by SCGC at the future tentative map stage.	Applicant (Civil Engineer)~~Project Engineer~~	Grading Plan Check	1. SCGC 2. LACDPW 3. Prior to Approval of Grading Plan

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.5 ENVIRONMENTAL SAFETY (cont.)			
4.5-6. All potential buyers or tenants of property in the vicinity of Southern California Gas Company transmission lines are to be made aware of the line's presence in order to assure that no permanent construction or grading occurs over and within the vicinity of the high-pressure gas mains.	Applicant	Include this Information in CC&Rs	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. At Home Sales~~Prior to Issuance of Occupancy Permits~~
4.5-7. In accordance with the provisions of the Los Angeles County Building Code, Section 308(d), all buildings and enclosed structures that would be constructed within the Specific Plan located within 25 feet of oil or gas wells shall be provided with methane gas protection systems. Buildings located between 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current rules and regulations of the State of California Division of Oil and Gas.	Applicant (Building Contractors)	Include this Requirement in Building Specifications Field Verification	1. California Department of Conservation, Division of Oil and Gas and LACDPW, Building and Safety 2. LACDPW, Building and Safety 3. ~~Prior to Issuance of Building Permits and Verify~~ Prior to Issuance of Occupancy Permits
4.5-8. In accordance with the provisions of the Los Angeles County Building Code, Section 308(c), all buildings and structures located within 1,000 feet of a landfill containing decomposable material (in this case the Chiquito Canyon Landfill) shall be provided with a landfill gas migration protection and/or control system.	Applicant (Building Contractors)	Include this Requirement in Building Specifications Field Verification	1. LACDPW, Building and Safety 2. LACDPW, Building and Safety 3. ~~Prior to Issuance of Building Permits and Verify~~ Prior to Issuance of Occupancy Permits
4.5-9 In accordance with the provisions of the Los Angeles County Code, Title 11, Division 4, Underground Storage of Hazardous Materials regulations, the County of Los Angeles Department of Public Works shall review, prior to the issuance of building permits by the County of Los Angeles, any plans for underground hazardous materials storage facilities (*e.g.*, gasoline) that may be constructed or installed within the Specific Plan.	Applicant (Building Contractors)	Include this Requirement in Building Specifications Field Verification	1. LACDPW, Building and Safety 2. LACDPW, Building and Safety 3. ~~Prior to Issuance of Building Permits and Verify~~ Prior to Issuance of Occupancy Permits

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase

4.6 BIOTA

Development of the Newhall Ranch Specific Plan will result in impacts to biological resources, some of which are considered to be significant. However, the Specific Plan generally avoids areas of highest biological value, and concentrates development in lower quality areas. The mitigation measures presented below, if successfully implemented, would reduce the degree of many of these impacts to a level that is considered not significant.

Mitigation measures are separated into three categories. The first includes an overview of those design features that are incorporated as part of the Specific Plan to reduce the biological impact potential. The second category includes specific mitigation measures incorporated as part of the Resource Management Plan. The last category includes additional mitigation measures recommended as part of this Draft EIR. The specific mitigation measures in each of these categories are defined below.

SPECIFIC PLAN DESIGN MEASURES

The Specific Plan was designed to partially mitigate potential impacts to sensitive biological resources through avoidance in order to maximize the conservation of important biological features of the site. Specific elements of Specific Plan design that are intended to reduce impacts to plants, animals and habitat would be implemented through adoption and approval of the Specific Plan.

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase

4.6 BIOTA (cont.)

The habitat types and associated plant and wildlife species which occur on the property have become an integral part of the overall Specific Plan design, through the formulation of a conservation strategy that allows for the development of the site in a way that minimizes the effects to sensitive biological resources. In addition, this conservation strategy incorporates the design and management of important open areas in a way that conserves biological values. An important aspect of this approach was an analysis of the conservation value of habitats on the property, which used conservation principles and a GIS mapping methodology. An additional component of the conservation strategy was the consideration of the larger regional context in the conservation design of biological resources on the site. The Ranch, which extends from the ridgeline of the Santa Susana Mountains across the Santa Clara River to the uplands on the north, offers the potential for significant habitat contributions to a Santa Susana Mountains open area and a key segment of the Santa Clara River system, as well as regionally important connections between these habitat areas and across the River.

The biological resource conservation strategy developed for the Newhall Ranch property addresses the sequencing recommended by the resource agencies: avoidance, minimization, and mitigation for unavoidable impacts to key sensitive resources. The proposed large, open areas on the Newhall Ranch property avoid impacts to many of the highly sensitive species present or potentially occurring on the site, and their habitats. Further design with respect to potential unavoidable impacts to biological resources has minimized encroachments into key areas of the property, decreasing the overall impacts. Indirect impacts to biological resources are minimized through the dedication of large blocks of habitat that decreases the edge-area ratio, and thus, buffers the habitat from noise, lighting, and encroachment by domestic pets, non-native plants, and humans. The result of these design efforts has produced a biological resource conservation strategy that has focused conservation and mitigation efforts on the Newhall Ranch property into two Special Management Areas and their connection:

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase

4.6 BIOTA (cont.)

- the Santa Clara River Corridor (River Corridor SMA);

- the large block of relatively undisturbed habitats on higher elevations into the Santa Susana Mountains (High Country SMA); and

- the connection between these two areas along the Salt Creek drainage.

In this design, the Conceptual Grading Plan (Draft EIR, **Figure 1.0-14**) has been developed to allow for preservation of significantly large areas of sensitive native habitats associated with the natural drainage areas of the site, and major landforms have been maintained. Large contiguous blocks of valuable habitat have been avoided and provided with direct linkage. The Specific Plan has focused on putting the two key habitat resource areas into consolidated blocks (connected by the Salt Creek drainage), resulting in minimal boundaries with developed areas. The assembly of these three elements will facilitate their management as a single special management area system within the Specific Plan area, as well as allowing coordination and interface with other programs outside the boundary of Newhall Ranch. The transitions between development and the special management areas will be the focus of special design treatments to protect the integrity of the conserved areas. As indicated above, the "edges" of urban development areas have been minimized to reduce the indirect impact potential of the Specific Plan, and native and compatible species will be used for landscaping in these areas.

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase

4.6 BIOTA (cont.)

The open area system for Newhall Ranch includes the most important habitat areas of the Santa Clara River (River Corridor SMA) and the areas which have been least impacted by agricultural, and oil and natural gas production activities (High Country SMA). It also includes the largest, least fragmented patches of each habitat type that remain on Newhall Ranch. In addition to consolidating the habitat on the Ranch into two major interconnected blocks, the open areas include the largest remaining individual blocks of each of the important habitat types. Substantial proportions of each of the habitat types and vegetation associations that occur on the Ranch will be conserved within the open area system. The incorporation of the River, the mountains, and connection provides for conservation of substantially the entire range of terrain and vegetation types on Newhall Ranch.

By connecting the open areas into two major blocks with a major linkage, the land use plan for the Ranch provides for a minimum edge-to-area ratio within the Specific Plan area. The least accessible portion of the property, in terms of topography and presence of roads, is the High Country SMA. In addition, there is limited existing access to the River and to the Salt Creek corridor area. The topography along the High Country and River provide the opportunity to focus management activities to effectively limit access to the habitat in these key resource areas. Additional management practices are intended to restrict future access as the Specific Plan is implemented.

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase

4.6 BIOTA (cont.)

A critical component of the open area system within the Newhall Ranch property and in the region is the connection between the High Country and the River Corridor along Salt Creek. The corridor will provide continuity between the habitats and the wildlife populations within the property, as well as forming a permanent regional linkage between the Santa Clara River and the Santa Susana Mountains. Salt Creek is the most appropriate location for such a wildlife corridor connection because of several distinguishing characteristics. These include provision of a direct link between the two major open areas; less disturbance than any of the other potential connections; it is bound through most of its length by open area on the north side and, therefore, will not be surrounded by development in the future; it is the only drainage that would provide more than a discontinuous, narrow connection; it includes both upland and riparian vegetation through most of the corridor; and it is topographically isolated from areas of development on Newhall Ranch. Currently, a portion of the wildlife corridor is situated in Ventura County. Future land use decisions will be required to define the corridor's final configuration in areas that occur outside the County of Los Angeles.

RESOURCE MANAGEMENT PLAN MITIGATION

Approval of the Specific Plan and its associated RMP would involve an amendment to the Los Angeles County zoning ordinance such that the provisions of the Specific Plan and RMP are binding. Specific measures to mitigate impacts to biological resources are incorporated as part of the Resource Management Plan (RMP) that is part of the Newhall Ranch Specific Plan. These measures are identified below:

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase

4.6 BIOTA (cont.)

SANTA CLARA RIVER (RIVER CORRIDOR) SMA

MITIGATION REQUIREMENTS

Mitigation for impacts for the Specific Plan on riparian resources will include restoration of riparian habitat and may include enhancement activities as well. In addition, a mitigation bank may be established as discussed in this section. The general areas in which riparian mitigation activities may take place are shown on Exhibit 2.6-3, Candidate Riparian Restoration/Enhancement Areas, of the Specific Plan.

The mitigation of Specific Plan impacts through restoration of habitat and enhancement of existing habitat quality shall conform to the requirements set forth below:

MITIGATION THROUGH RESTORATION

Habitat restoration as referred to in the Specific Plan means the revegetation of native plant communities on sites that have had the habitat removed due to past activities, such as agricultural or oil and natural gas operations.

Riparian resources along the Santa Clara River that are impacted by the Newhall Ranch Specific Plan will require restoration of similar habitat and values. Avoidance of impacts to riparian resources shall be the primary goal during the design of the individual stages of the Specific Plan. Unavoidable impacts to riparian resources shall be minimized through Specific Plan design, and then mitigated by the implementation of a revegetation plan. The revegetation plan may be prepared as part of a California Department of Fish and Game 1603 Streambed Alteration Agreement or U.S. Army Corps of Engineers Section 404 Permit and shall include the following:

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
4.6-1. The restoration mitigation areas located within the River Corridor SMA shall be in areas that have been disturbed by previous uses or activities. Mitigation shall be conducted only on sites where soils, hydrology, and microclimate conditions are suitable for riparian habitat. First priority will be given to those restorable areas that occur adjacent to existing patches (areas) of native habitat that support sensitive species, particularly endangered or threatened species. The goal is to increase habitat patch size and connectivity with other existing habitat patches while restoring habitat values that will benefit sensitive species.	Applicant (Project Biologist)	Field Verification	1. ~~U.S. Fish and Wildlife Service,~~ ACOE, CDFG 2. ~~LA County Department of Regional Planning, U.S. Fish and Wildlife Service,~~ ACOE, CDFG 3. Prior to Approval of Revegetation Plans~~Issuance of Grading Permits~~
4.6-2. A qualified biologist shall prepare or review revegetation plans. The biologist shall also monitor the restoration effort from its inception through the establishment phase.	Applicant (Project Biologist)	Revegetation Plan Comments and Documentation of Restoration Monitoring from Qualified Biologist Field Verification	1. ~~U.S. Fish and Wildlife Service,~~ ACOE, CDFG 2. ~~LA County Department of Regional Planning, U.S. Fish and Wildlife Service,~~ ACOE, CDFG 3. Prior to Approval of Revegetation Plans and Monitor During ~~Life of~~ Restoration Effort
4.6-3. Revegetation Plans may be prepared as part of a California Department of Fish and Game 1603 Streambed Alteration Agreement and/or an U.S. Army Corps of Engineers Section 404 Permit, and shall include: • Input from both the Project ~~Specific Plan~~ proponent and resource agencies to assure that the Project ~~Specific Plan~~ objectives applicable to the River Corridor SMA and the criteria of this RMP are met. • The identification of restoration/mitigation sites to be used. This effort shall involve an analysis of the suitability of potential sites to support the desired habitat, including a description of the existing conditions at the site(s) and such base line data information deemed necessary by the permitting agency.	Applicant (Project Biologist)	Revegetation Plan Review	1. ACOE, CDFG 2. ~~LA County Department of Regional Planning,~~ ACOE, CDFG 3. Prior to Approval of Revegetation Plan
4.6-4. The revegetation effort shall involve an analysis of the site conditions such as soils and hydrology so that site preparation needs can be evaluated. The revegetation plan shall include the details and procedures required to prepare the restoration site for planting (i.e., grading, soil preparation, soil stockpiling, soil amendments, etc.), including the need for a supplemental irrigation system, if any.	Applicant (Project Biologist)	Revegetation Plan Review	1. ACOE, CDFG 2. ~~LA County Department of Regional Planning,~~ ACOE, CDFG 3. Prior to Approval of Revegetation Plan

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
4.6-5. Restoration of riparian habitats within the River Corridor SMA shall use plant species native to the Santa Clara River. ~~whenever and to the extent possible. When possible,~~ Cuttings or seeds of native plants shall be gathered within the River Corridor SMA or purchased from nurseries with local supplies to provide good genetic stock for the replacement habitats. Plant species used in the restoration of riparian habitat shall be listed on the approved project plant palette (Specific Plan Table 2.6-1, Recommended Plant Species for Habitat Restoration in the River Corridor SMA) or as approved by the permitting State and Federal agencies.	Applicant (Project Biologist)	Revegetation Plan Review Field Verification	1. ACOE, CDFG 2. ~~LA County Department of Regional Planning,~~ ACOE, CDFG 3. Prior to Approval of Revegetation Plan and Monitor During ~~Verify Through Completion of~~ Restoration Effort~~Work~~
4.6-6. The final revegetation plans shall include notes that outline the methods and procedures for the installation of the plant materials. Plant protection measures identified by the project biologist shall be incorporated into the planting design/layout.	Applicant (Project Biologist)	Revegetation Plan Review	1. ACOE, CDFG 2. ~~LA County Department of Regional Planning,~~ ACOE, CDFG 3. Prior to Approval of Revegetation Plan
4.6-7. The revegetation plan shall include guidelines for the maintenance of the mitigation site during the establishment phase of the plantings. The maintenance program shall contain guidelines for the control of non-native plant species, the maintenance of the irrigation system, and the replacement of plant species.	Applicant (Project Biologist)	Revegetation Plan Review	1. ACOE, CDFG 2. ~~LA County Department of Regional Planning,~~ ACOE, CDFG 3. Prior to Approval of Revegetation Plan
4.6-8. The revegetation plan shall provide for monitoring to evaluate the growth of the developing habitat. Specific performance goals for the restored habitat shall be defined by qualitative and quantitative characteristics of similar habitats on the River (e.g., density, cover, species composition, structural development). The monitoring effort shall include an evaluation of not only the plant material installed, but the use of the site by wildlife. The length of the monitoring period shall be determined by the permitting state and/or federal agency.~~The revegetation plan shall provide for monitoring to evaluate the growth of the developing habitat. Specific goals for the restored habitat shall be defined by qualitative and quantitative characteristics of similar habitats on the River (e.g., density, cover, species composition, structural development). The monitoring effort shall include an evaluation of not only the plant material installed, but the use of the site by wildlife.~~	Applicant (Project Biologist)	Revegetation Plan Review	1. ACOE, CDFG 2. ~~LA County Department of Regional Planning,~~ ACOE, CDFG 3. Prior to Approval of Revegetation Plan

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
4.6-9. Monitoring reports for the mitigation site shall be reviewed by the permitting State and/or Federal agency.	Applicant (Project Biologist)	Review of Monitoring Reports	1. ~~USFWS,~~ ACOE and~~/or~~ CDFG 2. ~~USFWS,~~ ACOE and~~/or~~ CDFG 3. During Revegetation Activities
4.6-10. Contingency plans and appropriate remedial measures shall also be outlined in the revegetation plan.	Applicant (Project Biologist)	Revegetation Plan Review	1. ACOE, CDFG 2. ~~LA County Department of Regional Planning,~~ ACOE, CDFG 3. Prior to Approval of Revegetation Plan
MITIGATION THROUGH ENHANCEMENT			
4.6-11. Habitat enhancement as referred to in this document means the rehabilitation of areas of native habitat that have been moderately disturbed by past activities (e.g., ~~cattle~~ grazing, roads, oil and natural gas operations, etc.) or have been invaded by non-native plant species such as giant cane (*Arundo donax*) and tamarisk (*Tamarix* sp.).	Applicant (Project Biologist)	Revegetation Plan Review	1. ACOE, CDFG 2. ACOE, CDFG 3. Prior to Approval of Revegetation Plan
4.6-12. Removal of ~~cattle~~ grazing is an important means of enhancement of habitat values. Without ongoing disturbance from cattle, many riparian areas will recover naturally. Grazing except as permitted as a long-term resource management activity will be removed from the River Corridor SMA pursuant to the Long-Term Management Plan set forth in (b) 4. in Section 4.6 of the Specific Plan EIR.	Land Owner/SMA Manager~~Conservator~~	Mitigation Monitoring Reports~~Field Verification~~	1. LACDRP~~ACOE, CDFG~~ 2. LACDRP~~LA County Department of Regional Planning, ACOE, CDFG~~ 3. Mitigation Monitoring Reports under CUP Condition No. 8~~During Life of Conservatorship~~
4.6-13. To provide guidelines for the installation of supplemental plantings of native species within enhancement areas, a revegetation plan shall be prepared prior to implementation of mitigation (see guidelines for revegetation plans above). These supplemental plantings will be composed of plant species similar to those growing in the existing habitat patch (see Specific Plan Table 2.6-1).	Applicant (Project Biologist)	Revegetation Plan Review	1. ACOE, CDFG 2. ~~LA County Department of Regional Planning,~~ ACOE, CDFG 3. Prior to Approval of Revegetation Plan

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
4.6-14. Not all enhancement areas will necessarily require supplemental plantings of native species. Some areas may support conditions conducive for rapid "natural" re-establishment of native species. The revegetation plan may incorporate means of enhancement to areas of compacted soils, poor soil fertility, trash or flood debris, and roads as a way of enhancing riparian habitat values.	Applicant (Project Biologist)	Revegetation Plan Review	1. ACOE, CDFG 2. ~~LA County Department of Regional Planning,~~ ACOE, CDFG 3. Prior to Approval of Revegetation Plan
4.6-15. Removal of non-native species such as giant cane (*Arundo donax*), salt cedar or tamarisk (*Tamarix* sp.), tree tobacco (*Nicotiana glauca*), castor bean (*Ricans communis*), if included in a revegetation plan to mitigate impacts, shall be subject to the following standards: • First priority shall be given to those habitat patches that support or have a high potential for supporting sensitive species, particularly endangered or threatened species. • All non-native species removals shall be conducted according to a resource agency approved exotics removal program. • Removal of non-native species in patches of native habitat shall be conducted in such a way as to minimize impacts to the existing native riparian plant species.	Applicant (Project Biologist)	Revegetation Plan Review	1. ACOE, CDFG 2. ~~LA County Department of Regional Planning,~~ ACOE, CDFG 3. Prior to Approval of Revegetation Plan
MITIGATION BANKING			
4.6-16. Mitigation banking activities for riparian habitats will be subject to State and Federal regulations and permits. Mitigation banking for oak resources shall be conducted pursuant to the Oak Resources Replacement Program. Mitigation banking for elderberry scrub shall be subject to approval of plans by the County Forester.	Applicant (Project Biologist)	State and Federal Permits; Submittal of Permits	1. ACOE, CDFG 2. ACOE, CDFG, ~~LA County Forester~~ 3. Prior to Approval of Mitigation Banking Program
		Oak Resources; Review of Oak Tree Permit	1. LACDRP 2. LACDRP 3. Approval of Oak Tree Permit
		Elderberry Scrub; Review of Initial Study ~~Review of Mitigation Banking Program~~	1. LACDRP 2. LACDRP 3. Prior to Grading

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
MANAGEMENT REQUIREMENTS			
RECREATION AND ACCESS			
The quality of the habitat values that are conserved in the River Corridor SMA will benefit from the control of access to riparian areas. Guidelines for the control of access to the River Corridor SMA include the following:			
4.6-17. Access to the River Corridor SMA for hiking and biking shall be limited to the River trail system (including the Regional River Trail and various Local Trails) as set forth in this Specific Plan. • The River trail system shall be designed to avoid impacts to existing native riparian habitat, especially habitat areas known to support sensitive species. Where impacts to riparian habitat are unavoidable, disturbance shall be minimized and mitigated as outlined above under Mitigation Measures 4.6-1 through 4.6-8~~habitat restoration~~.	Applicant (Design)	Review of Trails Plans, Tract Maps, and/or Site Plans (Design)	1. LA County Department of Parks and Recreation ~~ACOE, CDFG~~ 2. ~~ACOE; CDFG; LACDPW, FCD; and~~ LA County Department of Parks and Recreation 3. Prior to Approval of Trails Plans, Tract Maps, and/or Site Plans, as applicable.
• Access to the River Corridor SMA will be limited to day time use of the designated trail system. • Signs indicating that no pets of any kind will be allowed within the River Corridor SMA, with the exception that equestrian use is permitted on established trails, shall be posted along the River Corridor SMA. • No hunting, fishing, or motor or off-trail bike riding shall be permitted. • The trail system shall be designed and constructed to minimize impacts on native habitats.	SMA Manager (Access)	Field Verification (Access)	1. LACDRP 2. LACDRP 3. Upon Complaint
TRANSITION AREAS			
4.6-18. Where development lies adjacent to the boundary of the River Corridor SMA a transition area shall be designed to lessen the impact of the development on the conserved area. Transition areas may be comprised of Open Area, natural or revegetated manufactured slopes, other planted areas, bank areas, and trails. Exhibits 2.6-4, 2.6-5, and 2.6-6 indicate the relationship between the River Corridor SMA and the development (disturbed) areas of the Specific Plan. The SMAs and the Open Area as well as the undisturbed portions of the development areas are shown in green. As indicated on the exhibits, on the south side of the River the River Corridor SMA is separated from development by the River bluffs, except in one location. The Regional River Trail will serve as transition area on the north side of the River where development areas adjoin the River Corridor SMA (excluding Travel Village).	Applicant	Review of Trails Plans, Tract Maps, and/or Site Plans	1. LACDRP~~ACOE, CDFG~~ 2. LACDRP~~ACOE; CDFG; LACDPW, FCD; and LA County Department of Parks and Recreation~~ 3. Prior to Approval of Trails Plans, Tract Maps, and/or Site Plans, as applicable.

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
4.6-19. The following are the standards for design of transition areas: • In all locations where there is no steep grade separation between the River Corridor and development, a trail shall be provided along this edge. • Native riparian plants shall be incorporated into the landscaping of the transition areas between the River Corridor SMA and adjacent development areas where feasible for their long-term survival. Plants used in these areas shall be those listed on the approved plant palette (Specific Plan Table 2.6-2 of the Resource Management Plan [Recommended Plants for Transition Areas Adjacent to the River Corridor SMA]). • Roads and bridges that cross the River Corridor SMA shall have adequate barriers at their perimeters to discourage access to the River Corridor SMA adjacent to the structures. • Where bank stabilization is required to protect development areas, it shall be composed of ungrouted rock, or buried bank stabilization as described in Section 2.5.2.a, except at bridge crossings and other locations where public health and safety requirements necessitate concrete or other bank protection. ~~Where bank stabilization is required to protect development areas, it shall be composed of ungrouted rock except at bridge crossings and other locations where public health and safety requirements necessitate concrete or other bank protection.~~ • A minimum 100 foot wide buffer adjacent to the Santa Clara River should be required between the top river-side of bank stabilization and development within the Land Use Designations Residential Low Medium, Residential Medium, Mixed-Use and Business Park unless, through Planning Director review in consultation with the staff biologist, it is determined that a lesser buffer would adequately protect the riparian resources within the River Corridor or that a 100 foot wide buffer is infeasible for physical infrastructure planning. The buffer area may be used for public infrastructure, such as: flood control access; sewer, water and utility easements; abutments; trails and parks, subject to findings of consistency with the Specific Plan and applicable County policies.	Applicant	Review of Trails Plans, Tract Maps, and/or Site Plans	1. LACDRP and LACDPW for Bank Stabilization ~~ACOE, CDFG~~ 2. LACDRP and LACDPW for Bank Stabilization ~~ACOE; CDFG; LACDPW, FCD; and LA County Department of Parks and Recreation~~ 3. Prior to Approval of Trails Plans, Tract Maps, and/or Site Plans, as applicable

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
GRADING ACTIVITIES			
4.6-20. The following guidelines shall be followed during any grading activities that take place within the River Corridor SMA: • Grading perimeters shall be clearly marked and inspected by the project biologist prior to grading occurring within or immediately adjacent to the River Corridor SMA. • The project biologist shall work with the grading contractor to avoid inadvertent impacts to riparian resources.	Applicant (Project Biologist)	Field Verification~~Documentation from Project Biologist~~	1. LACDPW~~ACOE, CDFG~~ 2. ~~ACOE, CDFG,~~ LACDPW, ~~FCD~~ 3. Prior to and During Grading Activities
LONG-TERM MANAGEMENT PLAN			
4.6-21. Upon final approval of the Newhall Ranch Specific Plan, the Special Management Area designation for the River Corridor SMA shall become effective. The permitted uses and development standards for the SMA are governed by the Development Regulations, Chapter 3 of the Specific Plan.	Los Angeles County ~~Not Applicable~~	None Required	1. Los Angeles County ~~Not Applicable~~ 2. Los Angeles County 3. Upon Effective Date of Zoning Ordinance
4.6-22. Upon completion of development of all land uses, utilities, roads, flood control improvements, bridges, trails, and other improvements necessary for implementation of the *Specific Plan* within the River Corridor in each subdivision allowing construction within or adjacent to the River Corridor, a permanent, non-revocable *conservation and public access easement* shall be offered to the County of Los Angeles pursuant to Mitigation Measure 4.6-23 below over the portion of the *River Corridor SMA* within that subdivision.~~Upon completion of development of all land uses, utilities, roads, flood control improvements, bridges, trails, and other improvements necessary for the implementation of the Specific Plan within the River Corridor in each subdivision allowing construction within or adjacent to the River Corridor, a permanent, non-revocable conservation and public access easement shall be recorded over the portion of the River Corridor SMA immediately adjacent to or wihtin that subdivision.~~	Land Owner	Offer of Dedication of Easement~~Recordation of Deed~~	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. Submittal of Monitoring Report(s) Under CUP Condition No. 8~~Upon Receipt of As-Built Plans for All Improvements within the River Corridor, as listed~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
4.6-23. The *River Corridor SMA conservation and public access easement* shall be offered to the County of Los Angeles prior to the transfer of the *River Corridor SMA* ownership, or portion thereof to the management entity described in Mitigation Measure 4.6-26 below.~~The River Corridor SMA conservation and public access easement shall be granted to the County of Los Angeles or to such other public or private entity, with the expertise to perform long-term conservation management, on which the County and the land owner agree.~~	Land Owner	Offer of Dedication of Easement~~Receipt of Grant Deed by LA County Department of Regional Planning~~	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. Prior to Transfer of River Corridor Ownership Under 4.6-26~~Upon Final Approval of Newhall Ranch Specific Plan~~
4.6-24. The *River Corridor SMA conservation and public access easement* shall prohibit grazing, except as a long-term resource management activity, and agriculture within the River Corridor and shall restrict recreation use to the established trail system. Agricultural land uses and grazing for purposes other than long-term resource management activities within the River Corridor shall be extended in the event of the filing of any legal action against Los Angeles County challenging final approval of the Newhall Ranch Specific Plan and any related project approvals or certification of the Final EIR for Newhall Ranch. Agricultural land uses and grazing for purposes other than long-term resource management activities within the River Corridor shall be extended by the time period between the filing of any such legal action and the entry of a final judgment by a court with appropriate jurisdiction, after exhausting all rights of appeal, or execution of a final settlement agreement between all parties to the legal action, whichever occurs first. ~~The River Corridor SMA conservation and public access easement shall prohibit grazing (except as a long-term resource management activity) and agriculture within the River Corridor, and shall restrict recreation use to the established trail system. Grazing for purposes other than long-term resource management activities within the River Corridor shall be removed upon final approval of the Specific Plan.~~	Land Owner~~Conservator of River Corridor SMA~~	Review of Easement Document~~Field Verification~~	1. LACDRP~~Conservator of River Corridor SMA~~ 2. LACDRP~~Conservator of River Corridor SMA~~ 3. Prior to Acceptance of Easement by County~~During Life of Conservatorship~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
4.6-25. The River Corridor SMA conservation and public access easement shall be consistent in its provisions with any other conservation easements to State or Federal resource agencies which may have been granted as part of mitigation or mitigation banking activities.	Land Owner	Review of Conservation Easement /and Resource Permits~~Grant Deed Documentation~~	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. Prior to Recordation of River Corridor SMA Conservation Easement
4.6-26. Prior to the recordation of the *River Corridor SMA conservation and public access easement* as specified in Mitigation Measure 4.6-23 above, the land owner shall provide a plan to the County for the permanent ownership and management of the *River Corridor SMA*, including any necessary financing. This plan shall include the transfer of ownership of the *River Corridor SMA* to the Center for Natural Lands Management, or if the Center for Natural Lands Management is declared bankrupt or dissolved, ownership will transfer or revert to a *joint powers authority* consisting of Los Angeles County (4 members), the City of Santa Clarita (2 members), and the Santa Monica Mountains Conservancy (2 members).~~Prior to the recordation of the River Corridor SMA conservation and public access easement as specified in the measures defined above, the land owner shall provide a plan to the County for the permanent ownership and management of the River Corridor SMA, including any necessary financing. This plan may include the transfer of ownership of the River Corridor SMA to an entity agreeable to the County and the land owner. This entity may include the County, a public or private organization or agency, or a Newhall Ranch owner's association.~~	Land Owner	Approval of Management ~~Such~~ Plan by County ~~Board of Supervisors~~	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. Prior to Recordation of River Corridor SMA Conservation Easement
HIGH COUNTRY SPECIAL MANAGEMENT AREA (SMA)			
4.6-26a Two types of habitat restoration may occur in the *High Country SMA*: 1) riparian revegetation activities principally in Salt Creek Canyon; and 2) oak tree replacement in, or adjacent to, existing oak woodlands and savannahs. • Mitigation requirements for riparian revegetation activities within the *High Country SMA* are the same as those for the *River Corridor SMA* and are set forth in Mitigation Measures 4.6-1 through 4.6-11 and 4.6-13 through 4.6-16 above. • Mitigation requirements for oak tree replacement are set forth in Mitigation Measure 4.6-48 below.	Land Owner (Project Biologist)	Field Verification	1. ACOE, CDFG (Riparian) 2. ACOE, CDFG (Riparian) 3. Approval of Revegetation Plans

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
MITIGATION REQUIREMENTS			
Mitigation activities which may occur in the High Country SMA, either for impacts associated with the construction of Estate lots, trails or access roads, or for impacts identified during the subdivision process in other portions of the Specific Plan Area, include restoration of habitat and enhancement to existing habitat (see discussion below). Mitigation banking may be established as provided below. In addition, Salt Creek Canyon is a high priority area for riparian mitigation.			
MITIGATION THROUGH RESTORATION			
Two types of habitat restoration may occur in the High Country SMA: 1) riparian revegetation activities principally in Salt Creek Canyon; and 2) oak resource replacement in, or adjacent to, existing oak woodlands and savannas.			
Mitigation requirements for riparian revegetation activities within the High Country SMA are the same as those for the River Corridor SMA and are set forth above.			
Mitigation requirements for oak resource replacement are set forth in Specific Plan Section 2.6, paragraph 3b of the Oak Tree Replacement Program of the Resource Management Program.			
ENHANCEMENT OF HABITAT			
4.6-27. Removal of grazing from the High Country SMA except for those grazing activities associated with long-term resource management programs, is a principal means of enhancing habitat values in the creeks, brushland and woodland areas of the SMA. The removal of grazing in the High Country SMA is discussed below under (b) 4. Long Term Management. All enhancement activities for riparian habitat within the High Country SMA shall be governed by the same provisions as set forth for enhancement in the River Corridor SMA. Specific Plan Table 2.6-3 of the Resource Management Plan provides a list of appropriate plant species for use in enhancement areas in the High Country SMA.	Land Owner/CNLMC~~o nservator of High Country SMA~~	Enhancement Plans and Field Verification	1. LACDRP~~USFWS, CDFG~~ 2. CNLMC~~Conservator of High Country SMA~~ 3. During Enhancement Activities~~Life of Conservatorship~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
MITIGATION BANKING			
4.6-28. Mitigation banking activities for riparian habitats will be subject to State and Federal regulations and permits. Mitigation banking for oak resources, shall be conducted pursuant to the Oak Resource Replacement Program. Mitigation banking for elderberry scrub shall be subject to approval of plans by the County Forester.	Applicant (Project Biologist)	State and Federal Permits; Submittal of Permits	1. ~~USFWS,~~ ACOE, and CDFG 2. ACOE, CDFG~~, LA County Forester~~ 3. Prior to Approval of Mitigation Banking Program
		Oak Resources; Review of Oak Tree Permit	1. LACDRP 2. LACDRP 3. Approval of Oak Tree Permit
		Elderberry Scrub; Review of Initial Study~~Review of Mitigation Banking Program~~	1. LACDRP 2. LACDRP 3. Prior to Grading
MANAGEMENT REQUIREMENTS			
RECREATION AND ACCESS			
The recreation opportunities presented by the High Country SMA are a major benefit of the SMA. However, recreational needs must be balanced with the preservation of the habitat values, which are conserved in the SMA. Recreation and access will be governed by the following standards:			
4.6-29. Access to the High Country SMA will be limited to day time use of the designated trail system.	Manager~~Conservator~~ of High Country SMA	Field Verification	1. JPA as described in 4.6-4 1~~Conservator of High Country SMA~~ 2. JPA~~Conservator of High Country SMA~~ 3. In Perpetuity~~During Lifetime of Conservatorship~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
4.6-30. No pets of any kind will be allowed within the High Country SMA, with the exception that equestrian use is permitted on established trails.	Manager of High Country SMA	Field Verification	1. JPA~~Conservator of High Country SMA~~ 2. JPA~~Conservator of High Country SMA~~ 3. In Perpetuity~~During Lifetime of Conservatorship~~
4.6-31. No hunting, fishing, or motor or trail bike riding shall be permitted.	Manager of High Country SMA	Field Verification	1. JPA~~Conservator of High Country SMA~~ 2. JPA~~Conservator of High Country SMA~~ 3. In Perpetuity ~~During Lifetime of Conservatorship~~
4.6-32. The trail system shall be designed and constructed to minimize impacts on native habitats.	Applicant (Project Biologist)	Review of Trails Plan	1. JPA~~USFWS and CDFG~~ 2. JPA~~USFWS and CDFG~~ 3. Prior to Approval of Trails Plan
TRANSITION/FUEL MODIFICATION AREAS Development areas are generally separated from the High Country SMA by steep slopes. Specific Plan Exhibit 2.6-7 of the Resource Management Program, Salt Creek Wildlife Corridor Land Use Perspective, illustrates that development adjacent to the Salt Creek Wildlife Corridor is significantly separated vertically from the corridor.			

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
4.6-33. Construction of buildings and other structures (such as patios, decks, etc.) shall only be permitted upon developed pads within Planning Areas OV-04, OV-10, PV-02, and PV-28 and shall not be permitted on southerly slopes facing the High Country SMA (Planning Area HC-01) or in the area between the original SEA 20 boundary and the High Country boundary. If disturbed by grading, all southerly facing slopes which adjoin the High Country SMA within those Planning Areas shall have the disturbed areas revegetated with compatible trees, shrubs and herbs from the list of plant species for south and west facing slopes as shown in Table 2.6-3, Recommended Plant Species For Use In Enhancement Areas In The High Country.	Applicant	Field Verification	1. LACDRP/LA County Forester 2. LACDRP/LA County Forester 3. Prior to the Issuance of Building Permits~~During Lifetime of Conservatorship~~
Transition from the development edge to the natural area shall also be controlled by the standards of wildfire fuel modification zones as set forth in Mitigation Measure 4.6-49. Within fuel modification areas, trees and herbs from Table 2.6-3 of the Resource Management Plan should be planted toward the top of slopes; and trees at lesser densities and shrubs planted on lower slopes.~~Transition from the development edge to the natural area shall be controlled by the standards of wildfire fuel modification zones as set forth in Specific Plan Section 2.6, paragraph 4 of the Resource Management Plan.~~	Project Landscape Architect	Receipt of Wildfire Fuel Modification Plan	1. Los Angeles County Forester 2. Los Angeles County Forester 3. Prior to Recordation of Subdivision Maps
GRADING ACTIVITIES			
4.6-34. Grading perimeters shall be clearly marked and inspected by the project biologist prior to impacts occurring within or adjacent to the High Country SMA.	Applicant (Project Biologist)	Field Verification	1. LACDPW~~USFWS and CDFG~~ 2. LACDPW~~USFWS and CDFG~~ 3. Prior To and During Grading
4.6-35. The project biologist shall work with the grading contractor to avoid inadvertent impacts to biological resources outside of the grading area.	Applicant (Project Biologist)	Field Verification	1. LACDPW~~Conservator of High Country SMA~~ 2. LACDPW~~Conservator of High Country SMA~~ 3. During Grading~~Lifetime of Conservatorship~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
LONG-TERM MANAGEMENT			
4.6-36. Upon final approval of the Newhall Ranch Specific Plan, the Special Management Area designation for the High Country SMA shall become effective. The permitted uses and development standards for the SMA are governed by the Development Regulations, Chapter 3.	Los Angeles County ~~Not Applicable~~	None Required	~~Not Applicable~~1. Los Angeles County 2. Los Angeles County 3. Upon Effective Date of Zoning Ordinance
4.6-37. The *High Country SMA* shall be offered for dedication in three approximately equal phases of approximately 1,400 acres each proceeding from north to south, as follows: 1) The first offer of dedication will take place with the issuance of the 2,000th residential building permit of Newhall Ranch; 2) The second offer of dedication will take place with the issuance of the 6,000th residential building permit of Newhall Ranch; and 3) The remaining offer of dedication will be completed by the 11,000th residential building permit of Newhall Ranch. 4) The Specific Plan applicant shall provide a quarterly report to the Departments of Public Works and Regional Planning which indicates the number of residential building permits issued in the Specific Plan area by subdivision map number.~~Prior to the issuance of the 15,000th residential building permit within the Specific Plan area, or the 4,000th residential building permit within the Potrero Valley Village, which ever occurs earlier~~Upon completion of development of all land uses, utilities, roads, flood control improvements, trails, and other improvements necessary for Planning Area PV-01 (the Visitor Center area), a permanent, non-revocable conservation and public access easement shall be recorded over the High Country SMA. The conservation and public access easement shall allow the permitted uses pursuant to Chapter 3, Development Regulations of the Specific Plan.	Land Owner	Offer of Dedication~~Recordation of Deed~~	1. LA County Department of Regional Planning 2. LA County Department of Building and Safety ~~of Regional Planning~~ 3. Upon Issuance of Building Permits~~Receipt of As-Built Plans for All Improvements within the High Country SMA, as listed~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
4.6-38. Prior to dedication of the High Country SMA a *conservation and public access easement* shall be offered to the County of Los Angeles and a conservation and management easement offered to the Center for Natural Lands Management. The *High Country SMA conservation and public access easement* shall be consistent in its provisions with any other *conservation easements* to State or federal resource agencies which may have been granted as part of mitigation or mitigation banking activities. ~~The High Country SMA conservation and public access easement shall be granted to the County of Los Angeles, or to such other public or private entity with the expertise to perform long-term conservation management, on which the County and the land owner agree.~~	Land Owner	Review of Easement Document~~Receipt of Grant Deed by LA County Department of Regional Planning~~	1. LA County Department of Regional Planning 2. LA County Department of Building and Safety ~~Regional Planning~~ 3. Upon Issuance of Building Permits~~Final Approval of Newhall Ranch Specific Plan~~
4.6-39. The High Country SMA conservation and public access easement shall prohibit grazing within the High Country, except for those grazing activities associated with the long-term resource management programs, and shall restrict recreation to the established trail system.	Land Owner~~Conservator of River Corridor SMA~~	Review of Easement Document~~Field Verification~~	1. LACDRP~~Conservator of High Country SMA~~ 2. LACDRP~~Conservator of High Country SMA~~ 3. Prior to Acceptance of Easement by Los Angeles County~~During Life of Conservatorship~~
4.6-40. The High Country SMA conservation and public access easement shall be consistent in its provisions with any other conservation easements to State or Federal resource agencies which may have been granted as part of mitigation or mitigation banking activities.	Land Owner	Review of Conservation Easement ~~/~~and Resource Permits~~Grant Deed Documentation~~	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. Prior to Recordation of High Country SMA Conservation Easement

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
4.6-41. The *High Country SMA* shall be offered for dedication in fee to a *joint powers authority* consisting of Los Angeles County (4 members), the City of Santa Clarita (2 members), and the Santa Monica Mountains Conservancy (2 members). The *joint powers authority* will have overall responsibility for recreation within and conservation of the High Country. ~~Prior to the recordation of the High Country SMA conservation and public access easement as specified in the measures identified above, the land owner shall provide a plan to the County for the permanent ownership and management of the High Country SMA. This plan may include the transfer of ownership of the High Country SMA to an entity agreeable to the County and the land owner. This entity may be the County, a public or private organization, or a Newhall Ranch owner's association.~~	Land Owner	Offer of Dedication ~~Approval of Such Plan by County Board of Supervisors~~	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. Prior to Issuance of Building Permits ~~Recordation of River Corridor SMA Conservation Easement~~
4.6-42 An appropriate type of service or assessment district shall be formed under the authority of the Los Angeles County Board of Supervisors for the collection of up to $24 per single family detached dwelling unit per year and $15 per single family attached dwelling unit per year, excluding any units designated as Low and Very Low affordable housing units pursuant to Section 3.10, Affordable Housing Program of the *Specific Plan*. This revenue would be assessed to the homeowner beginning with the occupancy of each dwelling unit and distributed to the *joint powers authority* for the purposes of recreation, maintenance, construction, conservation and related activities within the *High Country Special Management Area*.	Land Owner	Approval of Assessment District Report by County	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. Prior to Issuance of First Residential Occupancy Permit

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
OPEN AREA			
MITIGATION REQUIREMENTS			
4.6-432. Suitable portions of *Open Area* may be used for mitigation of riparian, *oak resources*, or elderberry scrub. Mitigation activities within *Open Area* shall be subject to the following requirements, as applicable. • *River Corridor SMA* Mitigation Requirements, including: Mitigation Measures 4.6-1 through 4.6-11 and 4.6-13 through 4.6-16; and • *High Country SMA* Mitigation Requirements, including: and Mitigation Measures 4.6-27, 4.6-29 through 4.6-42, and • *Mitigation Banking* — Mitigation Measure 4.6-16.~~Suitable portions of Open Area may be used for mitigation of riparian, oak resources or elderberry scrub. Mitigation Requirements applicable to Open Area include:~~ ~~• River Corridor SMA Mitigation Requirement [paragraph 2a (2)(a) of the Resource Management Plan]~~ ~~Mitigation Through Restoration [2a (2)(a) of the Resource Management Plan]~~ ~~Mitigation Banking [2a (2)(c) of the Resource Management Plan]~~ ~~• High Country SMA Mitigation Requirement [2b (2) of the Resource Management Plan]~~ ~~Mitigation Requirements [2b (2)(a) of the Resource Management Plan]~~ ~~Enhancement of Habitat [2b (2)(b) of the Resource Management Plan]~~ ~~Mitigation Banking [2b (2)(c) of the Resource Management Plan]~~	Manager of Open Area	Review of Mitigation Plans/Field Verification	1. ACOE; CDFG or Los Angeles County as applicable 2. ACOE; CDFG or Los Angeles County as applicable 3. During Mitigation
~~4.6-43. Mitigation Banking activities are permitted within Open Area. Mitigation banking activities for riparian habitats will be subject to State and Federal regulations. Mitigation banking for oak resources shall be conducted pursuant to the Oak Resources Replacement Program. Plans for elderberry scrub mitigation banking shall be subject to approval by the County Forester.~~	~~Project Biologist~~	~~Review of Mitigation Banking Program~~	~~1. ACOE, CDFG 2. ACOE, CDFG, LA County Forester 3. Prior to Approval of Mitigation Banking Program~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
MANAGEMENT REQUIREMENTS			
4.6-44. Drainages with flows greater than 2,000 cfs will have soft bottoms. Bank protection will be of ungrouted rock, or buried bank stabilization as described in Section 2.5.2.a, except at bridge crossings and other areas where public health and safety considerations require concrete or other stabilization. ~~Drainages with flows greater than 2,000 cfs will have soft bottoms. Bank protection will be of ungrouted rock except at bridge crossings and other areas where public health and safety considerations require concrete or other stabilization.~~	Applicant (Civil ~~Project~~ Engineer)	Review Drainage Plans ~~Field Verification~~	1. LACDPW FCD 2. LACDPW FCD 3. Prior to Approval of Final Drainage Plans~~, and Verify During Grading and Construction Activities~~
4.6-45. The precise alignments and widths of major drainages will be established through the preparation of drainage studies to be approved by the County at the time of subdivision maps which permit construction.	Applicant (Civil Engineer)~~Project Engineer~~	Review Drainage Plans	1. LACDPW FCD 2. LACDPW FCD 3. Prior to Approval of Tract Maps
4.6-46. While Open Area is generally intended to remain in a natural state, some grading may take place, especially for parks, major drainages, trails, and roadways. Trails are also planned to be within Open Area.	Applicant (Civil Engineer)	Review of Tentative Map	1. LACDRP 2. LACDRP 3. Prior to Tentative Map Approval
4.6-47. At the time that final subdivision maps permitting construction are recorded, the *Open Area* within the map will be offered for dedication to the Center for Natural Lands Management. Community Parks within *Open Area* are intended to be public parks. Prior to the offer of dedication of *Open Area* to the Center for Natural Lands Management, all necessary *conservation and public access easements,* as well as easements for infrastructure shall be offered to the County. ~~At the time that final subdivision maps permitting construction are recorded, Open Area within that subdivision being recorded will be offered for dedication to the County. (Community Parks are intended to be public parks.)~~	Land Owner	Review of Final Map~~Recordation of Deeds~~	1. LACDRP~~LA County Department of Regional Planning~~ 2. LACDRP~~LA County Department of Regional Planning~~ 3. Prior to Recordation of Final Subdivision Maps

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
MITIGATION BANKING			
4.6-47a Mitigation Banking will be permitted within the *River Corridor SMA*, the *High Country SMA*, and the *Open Area land use designations*, subject to the following requirements: • Mitigation banking activities for riparian habitats will be subject to State and federal regulations, and shall be conducted pursuant to the mitigation requirements set forth in Mitigation Measure 4.6-1 through 4.6-15 above. • Mitigation banking for *oak resources* shall be conducted pursuant to 4.6-48 below. • Mitigation banking for elderberry scrub shall be subject to approval of plans by the County Forester.	Applicant (Project Biologist)	State and Federal Permits; Submittal of Permits	1. ACOE, CDFG 2. ACOE, CDFG 3. Prior to Approval of Mitigation Banking Program
		Oak Resources; Review of Oak Tree Permit	1. LACDRP 2. LACDRP 3. Approval of Oak Tree Permit
		Elderberry Scrub; Review of Initial Study	1. LACDRP 2. LACDRP 3. Prior to Grading
OAK RESOURCES REPLACEMENT~~MANAGEMENT~~ PROGRAM			
4.6-48. Standards for the restoration and enhancement of oak resources within the High Country SMA and the Open Area include the following (oak resources include oak trees of the sizes regulated under the County Oak Tree Ordinance, southern California black walnut trees, Mainland cherry trees, and Mainland cherry shrubs): • To mitigate the impacts to oak resources which may be removed as development occurs in the Specific Plan Area, replacement trees shall be planted in conformance with the oak tree ordinance in effect at that time. • Oak resource species obtained from the local gene pool, ~~if economically feasible,~~ shall be used in restoration or enhancement. • Prior to recordation of construction-level final subdivision maps, an oak resource replacement plan shall be prepared that provides the guidelines for the oak tree planting and/or replanting. The Plan shall be reviewed by the Los Angeles Department of Regional Planning and the County Forester and shall include the following: site selection and preparation, selection of proper species including sizes and planting densities, protection from herbivores, site maintenance, performance standards, remedial actions, and a monitoring program. • All plans and specifications shall follow County oak tree guidelines, as specified in the County Oak Tree Ordinance.	Applicant (Project Biologist)	Oak Tree Permit(s)~~Approval of Oak Resource Replacement Plan~~ ~~Field Verification~~	1. LA County Forester 2. LA County Forester 3. Prior to Final Subdivision Map Recordation~~During Grading and Construction Activities - All Project Phases~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase

4.6 BIOTA (cont.)

WILDFIRE FUEL MODIFICATION

The Specific Plan Area is within the extreme and moderate fire hazard zones as identified in the County of Los Angeles General Plan. The moderate fire hazard zone extends to those areas of Newhall Ranch where native brush can be found growing in its natural state. This is most common in the hillside areas. The extreme fire hazard zone includes high brush and woodlands, and all steep slopes regardless of vegetation (refer to Section 4.18, Fire Services and Hazards, for a detailed description of on-site fire zones).

Development of Newhall Ranch will reduce the amount of native flammable vegetation present within the Specific Plan Area. Fire fighting capabilities will be provided by two fire stations on the Specific Plan site (see Figure 1.0-3, Land Use Plan), other nearby stations, and a system of improved roads and an urban water system with fire flows as required by the County Fire Department. Existing and proposed off-site fire facilities will also serve the Specific Plan Area.

Property damage and public safety risks associated with wildfire are greatest where homes and other structures will be located adjacent to large open areas dominated by native vegetation. This condition will occur primarily in the southern portion of the Specific Plan site and where portions of the development area in the northwest section of Riverwood Village abut large natural open areas.

Access is currently provided to the Los Angeles County Fire Department for fire prevention control of the Specific Plan Area. Access will continue to be provided as the Specific Plan is implemented.

Fuel modification mitigation includes:

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
4.6-49. To minimize the potential exposure of the development areas, Open Area, and the SMAs to fire hazards, the Specific Plan is subject to the requirements of the Los Angeles County Fire Protection District (LACFPD), which provides fire protection for the area. At the time of final subdivision maps permitting construction in development areas that are adjacent to Open Area and the High Country SMA, a wildfire fuel modification plan shall be prepared in accordance with the fuel modification ordinance standards in effect at that time and shall be submitted for approval to the County Fire Department.	Applicant ~~Project Biologist~~	Review ~~Receipt~~ of Wildfire Fuel Modification Plan	1. LA County Forester~~LACFPD~~ 2. LA County Forester~~LACFPD~~ 3. Prior to Recordation ~~Approval~~ of Final Subdivision Maps
4.6-50. The wildfire fuel modification plan shall depict a fuel modification zone the size of which shall be consistent with the County fuel modification ordinance requirements. Within the zone, tree pruning, removal of dead plant material and weed and grass cutting shall take place as required by the fuel modification ordinance.	Applicant (Project Biologist)	Review of Wildfire Fuel Modification Plan	1. LA County Forester~~LACFPD~~ 2. LA County Forester~~LACFPD~~ 3. Prior to Recordation ~~Approval~~ of Final Subdivision Maps
4.6-51. In order to enhance the habitat value of plant communities which require fuel modification, fire retardant plant species containing habitat value may be planted within the fuel modification zone. Typical plant species suitable for Fuel Modification Zones are indicated in Specific Plan Table 2. 6-5 of the Resource Management Plan. Fuel modification zones adjacent to SMA's and Open Areas containing habitat of high value such as oak woodland and savannas shall utilize a more restrictive plant list which shall be reviewed by the County Forester.	Applicant (Project Biologist)	Review of Wildfire Fuel Modification Plan	1. LA County Forester 2. LA County Forester 3. Prior to Recordation ~~Approval~~ of Final Subdivision Maps
4.6-52. The wildfire fuel modification plan shall include the following construction period requirements: (a) a fire watch during welding operations; (b) spark arresters on all equipment or vehicles operating in a high fire hazard area; (c) designated smoking and non-smoking areas; and (d) water availability pursuant to the County Fire Department requirements.	Applicant (Project Biologist)	Review of Wildfire Fuel Modification Plan	1. LA County Forester 2. LA County Forester 3. Prior to Recordation ~~Approval~~ of Final Subdivision Maps

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
EIR MITIGATION MEASURES			
To further reduce impacts to biological resources that would result from Specific Plan implementation the following mitigation measures are proposed:			
4.6-53. If at the time subdivisions permitting construction are processed, the County determines through an Initial Study that there may be rare threatened or endangered species on the property being subdivided, then a site specific survey shall be conducted to define the presence or absence of such species and any necessary mitigation measures shall be determined and applied.	Applicant (Project Biologist)	Review of Initial Study~~Biota Report for Subdivision Application~~	1. LACDRP~~USFWS and CDFG~~ 2. LACDRP~~USFWS and CDFG~~ 3. Prior to Approval of Subdivision Maps~~Approval of Final Subdivision Maps~~
4.6-54. Prior to development within or disturbance to occupied unarmored threespine stickleback habitat, a formal consultation with the USFWS ~~and a Section 2081 Agreement with the CDFG~~ shall occur.	Applicant (Project Biologist)	Section 7 Consultation	1. USFWS ~~and CDFG~~ 2. USFWS ~~and CDFG~~ 3. Prior to Grading~~Approval of Final Subdivision Maps~~
4.6-55. Prior to development or disturbance within wetlands or other sensitive habitats, permits shall be obtained from pertinent Federal and State agencies and the Specific Plan shall conform with the specific provisions of said permits. Performance criteria shall include that described in M~~m~~itigation M~~m~~easures 4.6-1 through 4.6-16 and 4.6-42 through 4.6-47 for wetlands, and ~~m~~Mitigation ~~m~~Measures 4.6-27, 4.6-28, and 4.6-42 through 4.6-48 for other sensitive habitats.	Applicant (Project Biologist)	Receipt of Appropriate Permit applicationss	1. ~~USFWS,~~ ACOE, ~~and/or~~ CDFG 2. ~~USFWS,~~ ACOE, ~~and/or~~ CDFG 3. Prior to ~~Issuance of~~ Grading ~~Permits~~
4.6-56. All lighting along the perimeter of natural areas shall be downcast luminaries with light patterns directed away from natural areas.	Applicant	Building Permit Plot Plan Review~~Field Verification~~	1. LACDRP~~USFWS, ACOE, and/or CDFG~~ 2. LACDRP~~USFWS, ACOE, and/or CDFG~~ 3. Prior to Issuance of Building ~~Occupancy~~ Permits

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
4.6-57. Where bridge construction is proposed and water flow would be diverted, blocking nets and seines shall be used to control and remove fish from the area of activity. All fish captured during this operation would be stored in tubs and returned unharmed back to the River after construction activities were complete.	Applicant (Project Biologist)	Field Verification	1. ~~USFWS,~~ ACOE, ~~and/or~~ CDFG 2. ~~USFWS,~~ ACOE, ~~and/or~~ CDFG 3. Prior to Construction~~Issuance of Occupancy Permits~~
4.6-58. To limit impacts to water quality the Specific Plan shall conform with all provisions of required NPDES permits and water quality permits that would be required by the State of California Regional Water Quality Control Board.	Project Engineer	Approval ~~Adoption of~~ a SWMP	1. LACDPW~~RWQCB~~LAR 2. LACDPW~~RWQCB~~LAR 3. Prior to Issuance of Grading Permit(s)
4.6-59. Prior to development within or disturbance to habitat occupied by species listed as endangered, a formal consultation with the USFWS and a Section 2081 Permit~~Agreement~~ with the CDFG shall occur.	Applicant (Project Biologist)	~~Documentation of Formal Consultation and~~ Section 2081 Permit~~Agreement~~	1. USFWS and CDFG 2. USFWS and CDFG 3. Prior to ~~Issuance of~~ Grading ~~Permit(s)~~
4.6-60. If at the time subdivisions permitting construction are processed, the County determines through an Initial Study that there may be elderberry scrub vegetation on the property being subdivided, then a site specific survey shall be conducted to define the presence or absence of such habitat and any necessary mitigation measures shall be determined and applied.	Applicant (Project Biologist)	Review of Initial Study~~Receipt of Survey by LA County Department of Regional Planning~~	1. LACDRP~~USFWS and CDFG~~ 2. LACDRP~~USFWS and CDFG~~ 3. Prior to Approval of Subdivision ~~Final~~ Maps
4.6-61. If at the time subdivisions permitting construction are processed, the County determines through and Initial Study that there may be mainland cherry trees and/or mainland cherry shrubs on the property being subdivided, then a site specific survey shall be conducted to define the presence or absence of such habitat and any necessary mitigation measures shall be determined and applied.	Applicant (Project Biologist)	Review of Initial Study~~Receipt of Survey by LA County Department of Regional Planning~~	1. LACDRP~~USFWS and CDFG~~ 2. LACDRP~~USFWS and CDFG~~ 3. Prior to Approval of Subdivision ~~Final~~ Maps

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.6 BIOTA (cont.)			
4.6-62. When a map revision or Substantial Conformance determination on any subdivision map or Conditional Use Permit would result in changes to an approved oak tree permit, then the oak tree report for that oak tree permit must be amended for the area of change, and the addendum must be approved by the County Forester prior to issuance of grading permits for the area of the map or CUP being changed.	Applicant (Project Biologist)	Approval of Addendum to Oak Tree Report	1. LA County Forester 2. LA County Forester 3. Prior to Issuance of Grading Permits
4.6-63. Riparian resources that are impacted by buildout of the Newhall Ranch Specific Plan shall be restored with similar habitat at the rate of one acre replaced for each acre lost.	Applicant (Project Biologist)	ACOE 404 Permit~~Field Verification~~	1. ACOE, ~~USFWS and~~ CDFG 2. ACOE, ~~USFWS and~~ CDFG 3. Prior to ~~During~~ Grading ~~and Construction Activities~~
4.6-64. The operator of the golf course shall prepare a Golf Course Maintenance Plan which shall include procedures to control storm water quality and ground water quality as a result of golf course maintenance practices, including irrigation, fertilizer, pesticide and herbicide use. This Plan shall be prepared in coordination with the County biologist and approved by the County Planning Director prior to the issuance of a Certificate of Occupancy~~completion of golf course construction~~.	Applicant (Golf Course Operator)	Golf Course Maintenance Plan~~Plan Check~~	1. LACDRP~~LA County Department of Regional Planning~~ 2. LACDRP~~LA County Department of Regional Planning~~ 3. Issuance of Golf Course Occupancy Permit~~Prior to Approval of Final Maps~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase

4.7 VISUAL QUALITIES

Key mitigation measures incorporated into the Specific Plan include, but are not limited to:

- the preservation of natural Santa Clara River vegetation and River bluffs,
- the preservation of canyons tributary to the Santa Clara River and other Open Area,
- the placement of the regional River Trail in between SR-126 and the River,
- the regulation and limitation of urban uses between SR-126 and the River which create large windows for viewing the River Corridor, the River bluffs and Santa Susana Mountains from SR-126,
- the preservation of the High Country SMA,
- the preservation of significant topographic features, such as Sawtooth Ridge and Ayers Rock,
- the installation of landscaping, and
- the preservation of significant oak tree stands (less than 4 percent of the estimated 16,000+ oak trees would be impacted).

Chapters 3 and 4 of the Specific Plan contain proposed Development Regulations and Design Guidelines, respectively. The reader is referred to those Chapters of the Specific Plan for the complete list. The Development Regulations and Design Guidelines are intended to provide a comprehensive set of regulations governing the use and development of land which is intended to achieve a development image that blends into adjoining natural landscapes and reduces the alteration of natural landforms and scenic natural features found on the Specific Plan site. The Specific Plan also includes landscape standards directing the use of drought-tolerant and native plants (including the replacement of removed oak trees) that would further highlight the surrounding natural environment. Development Regulations and Design Guidelines are proposed that address:

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.7 VISUAL QUALITIES (cont.)			
• setbacks (Development Regulations, Specific Plan Chapter 3.4, Table 3.4-1),			
• building heights (Development Regulations, Specific Plan Chapter 3.4, Table 3.4-1),			
• signage (Development Regulations, Specific Plan Chapter 3.6),			
• parking (Development Regulations, Specific Plan Chapter 3.7),			
• site planning (Design Guidelines, Specific Plan Chapter 4.3),			
• architecture (Design Guidelines, Specific Plan Chapter 4.4),			
• fencing (Design Guidelines, Specific Plan Chapter 4.5),			
• landscape design (Design Guidelines, Specific Plan Chapter 4.6),			
• lighting (Design Guidelines, Specific Plan Chapter 4.7), and			
• grading (Design Guidelines, Specific Plan Chapter 4.8).			
4.7-1. In conjunction with the development review process set forth in Chapter 5 of the Specific Plan, all future subdivision maps and other discretionary permits which allow construction shall incorporate the Development Guidelines (Specific Plan Chapter 3) and Design Guidelines (Specific Plan Chapter 4), and the design themes and view considerations listed in the Specific Plan.	Applicant	Plan Check	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. Prior to Approval of Final Maps

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.7 VISUAL QUALITIES (cont.)			
4.7-2 In design of residential tentative tract maps and site planning of multifamily areas and Commercial and Mixed -Use *land use designations* along SR-126, the following Design Guidelines shall be utilized. • Where the elevations of buildings will obstruct the views from SR-126 to the south, the location and configuration of individual buildings, driveways, parking, streets, signs and pathways shall be designed to provide view corridors of the River, bluffs and the ridge lines south of the River. Those view corridors may be perpendicular to SR-126 or oblique to it in order to provide for views of passengers within moving vehicles on SR-126. • The Community Park between SR 126 and the Santa Clara River shall be designed to promote views from SR-126 of the River, bluffs and ridge lines to the south of the River. • Residential site planning guidelines set forth in Section 4.3.1 Residential and Architectural Guidelines set forth Section 4.4.1 Residential shall be employed to ensure that the views from SR-126 are aesthetically pleasing and that views of the River, bluffs and ridge lines south of the River are preserved to the extent practicable. • Mixed-Use and the Commercial site planning guidelines set forth in Section 4.3.2 and Architectural Guidelines set forth Section 4.4.2 shall be incorporated to the extent practicable in the design of the Riverwood Village Mixed-Use and Commercial land use designations to ensure that the views from SR-126 are aesthetically pleasing and to preserve views of the River, bluffs and ridge lines south of the River. • Landscape improvements along SR 126 shall incorporate the Landscape Design guidelines, set forth in Section 4.6 in order to ensure that the views from SR-126 are aesthetically pleasing and to preserve views of the River, bluffs and ridge lines south of the River. No further mitigation is recommended beyond that already incorporated into the Specific Plan. While the measures contained in the Specific Plan minimize the Specific Plan's visual impact, they cannot reduce the magnitude of the impact to less than significant levels.	Applicant	Plan Check	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. Prior to Approval of Final Subdivision Maps or Site Plans as applicable

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.8 TRAFFIC/ACCESS			
ON-SITE (EXCEPT SR-126 - SEE BELOW) The following mitigation is required relative to all on-site roadways and intersections except SR-126, which is discussed separately below:			
4.8-1. The applicants for future subdivision maps which permit construction shall be responsible for funding and constructing all on-site traffic improvements except as otherwise provided below. The obligation to construct improvements shall not preclude the applicants' ability to seek local, State or Federal funding for these facilities.	Applicant(s)	Bonding of and/or Receipt of Funding and/or Field Verification of Construction	1. LACDPW 2. LACDPW 3. Prior to Issuance of Building Permit
4.8-2. Prior to the approval of each subdivision map which permits construction, the applicant for that map shall prepare a transportation performance evaluation which shall indicate the specific improvements for all on-site roadways which are necessary to provide adequate roadway and intersection capacity as well as adequate right-of-way for the subdivision and other expected traffic. Transportation performance evaluations shall be approved by Los Angeles County Department of Public Works according to standards and policies in effect at that time. The transportation performance evaluation shall form the basis for specific conditions of approval for the subdivision.	Applicant (~~Project~~ Traffic Engineer)	Receipt and Review of Transportation Performance Evaluation	1. LACDPW 2. LACDPW. 3. Prior to Approval of Subdivision Maps
4.8-3. The applicants for future subdivisions shall provide the traffic signals at the 15 locations labeled "B" through "P" in **Figure 4.8-17** as well as any additional signals warranted by future subdivision design. Signal warrants shall be prepared as part of the transportation performance evaluations noted in **Mitigation 4.8-2.**	Applicant (~~Project~~ Traffic Engineer)	Installation of Traffic Signals or funding of or bonding of project's share	1. LACDPW 2. LACDPW 3. Prior to Issuance of Occupancy Permits
4.8-4. All development within the Specific Plan shall conform to the requirements of the Los Angeles County Transportation Demand Management (TDM) Ordinance.	Applicant (~~Project~~ Traffic Engineer)	Subdivision ~~Plan~~ Review ~~Field Verification~~	1. LACDPW 2. LACDPW 3. Prior to Final Map Approval and/or approval of improvement plans~~and Verify During Life of Project~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.8 TRAFFIC/ACCESS (cont.)			
4.8-5. The applicants for all future subdivision maps which permit construction shall consult with the local transit provider regarding the need for, and locations of, bus pull-ins on highways within the Specific Plan area. All bus pull-in locations shall be approved by the Department of Public Works, and approved bus pull-ins shall be constructed by the applicant.	Applicant (~~Project~~ Traffic Engineer)	Verification of Consultation with Transit Providers Review of bus pull-in locations	1. LACDPW 2. LACDPW 3. Prior to Final Map Approval and/or approval of improvement plans
OFF-SITE ARTERIALS			
4.8-6. Prior to the recordation of the first subdivision map which permits construction, the applicant for that map shall prepare a transportation performance evaluation which shall determine the specific improvements needed to each off-site arterial and related costs in order to provide adequate roadway and intersection capacity for the expected Specific Plan and General Plan buildout traffic trips. The transportation performance evaluation shall be based on the Master Plan of Highways in effect at that time and shall be approved by the Los Angeles County Department of Public Works. The applicant shall be required to fund its fair share of improvements to these arterials, as stated on **Table 4.8-18**. The applicants total funding obligation shall be equitably distributed over the housing units and non-residential building square footage (i.e., Business Park, Visitor-Serving, Mixed-Use, and Commercial) in the Specific Plan, and shall be a fee to be paid to the County and/or the City at each building permit. For off-site areas within the County unincorporated area, the applicant may construct improvements for credit against or in lieu of paying the fee.	Applicant(s)~~Project Traffic Engineer~~	Payment of Fee~~Receipt of Transportation Performance Evaluation~~ Determination of fair share funding obligation and fee structure for off-site improvements~~Applicant Funding of Fair Share of Improvements~~	1. LACDPW 2. LACDPW 3. Prior to Recordation of the First Subdivision Map

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.8 TRAFFIC/ACCESS (cont.)			
FREEWAYS AND STATE HIGHWAYS (I-5 AND SR-126 IN LOS ANGELES COUNTY)			
4.8-7. Each future performance evaluation which shows that a future subdivision map will create significant impacts on SR-126 shall analyze the need for additional travel lanes on SR-126. If adequate lane capacity is not available at the time of subdivision, the applicant of the subdivision shall fund or construct the improvements necessary to serve the proposed increment of development. Construction or funding of any required facilities shall not preclude the applicant's ability to seek State, federal or local funding for these facilities.	Applicant(s)~~Project Traffic Engineer~~	Receipt and Review of Transportation Performance Evaluation Applicant Funding of or bonding of Fair Share of Improvements	1. LACDPW 2. LACDPW 3. Prior to Recordation of ~~the~~ Final Tract Map
CONGESTION MANAGEMENT			
4.8-8. Project-specific environmental analysis for future subdivision maps which allow construction shall comply with the requirements of the Congestion Management Program in effect at the time that subdivision map is filed.	Applicant~~Project Traffic Engineer~~	~~Plan~~ Review of future environmental analysis	1. LACDPW 2. LACDPW 3. Prior to certification of future environmental documents~~Recordation of the Final Tract Map~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.8 TRAFFIC/ACCESS (cont.)			
SR-126 IN VENTURA COUNTY			
4.8-9. Prior to the recordation of the first subdivision map which permits construction, the applicant for that map shall prepare a transportation evaluation including all of the Specific Plan land uses which shall determine the specific improvements needed to the following intersections with SR-126 in the City of Fillmore and community of Piru in Ventura County: ~~those listed on Table 4.8-18 and at~~ "A", "B", "C", "D" and "E" Streets, Old Telegraph, Olive, Central, Santa Clara, Mountain View, ~~and~~ El Dorado Road, and Pole Creek ~~Mobile Home Park~~(Fillmore), and Main/Torrey and Center (Piru). The related costs of those intersection improvements and the project's fair share shall be estimated based upon the expected Specific Plan traffic volumes. The transportation performance evaluation shall be based on the Los Angeles County Master Plan of Highways in effect at that time and shall be approved by the Los Angeles County Department of Public Works. The applicant's total funding obligation shall be equitably distributed over the housing units and non-residential building square footage (i.e., Business Park, Visitor Center, Mixed Use, and Commercial) in the Specific Plan, and shall be a fee to be paid to the City of Fillmore and the County of Ventura at each building permit.~~Prior to the recordation of the first subdivision map which permits construction, the applicant for that map shall prepare a transportation performance evaluation which shall determine the specific improvements needed to intersections with SR-126 in Fillmore and Piru listed on Table 4.8-18 and related costs in order to provide adequate intersection capacity for the expected Specific Plan traffic volumes. The transportation performance evaluation shall be based on the Master Plan of Highways in effect at that time and shall be approved by the Los Angeles County Department of Public Works. The applicant's total funding obligation shall be equitably distributed over the housing units and non-residential building square footage (i.e. Business Park, Visitor-Serving, Mixed-Use, and Commercial) in the Specific Plan, and shall be a fee to be paid to the City of Fillmore and the County of Ventura at each building permit.~~	Applicant (Traffic Engineer)	Receipt and Review of Transportation Performance Evaluation Payment of Fee to City of Fillmore or County of Ventura	1. LACDPW 2. LACDPW 3. Prior to Recordation of the First Subdivision Map; Payment of Fee Prior to Issuance of Building Permits

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.8 TRAFFIC/ACCESS (cont.)			
FREEWAY/HIGHWAY INTERSECTIONS AND INTERCHANGES			
4.8-10. The Specific Plan is responsible to construct or fund its fair-share of the intersections and interchange improvements indicated on Table 4.8-18. Each future transportation performance evaluation required by Mitigation 4.8-2 which identifies a significant impact at these locations due to subdivision map-generated traffic shall address the need for additional capacity at each of these locations. If adequate capacity is not available at the time of subdivision map recordation, the performance evaluation shall determine the improvements necessary to carry Specific Plan generated traffic, as well as the fair share cost to construct such improvements. If the future subdivision is conditioned to construct a phase of improvements which results in an overpayment of the fair-share cost of the improvement, then an appropriate adjustment (offset) to the fees paid to Los Angeles County and/or City of Santa Clarita pursuant to ~~m~~**Mitigation ~~m~~Measure 4.8-6** above shall be made.	Applicant	Field Verification of Construction or Receipt of Fair Share Funding or Bonding	1. LACDPW 2. LACDPW 3. Prior to Issuance of Occupancy Permits
4.8-11 The applicant of the Newhall Ranch Specific Plan shall participate in an Interstate 5 developer fee program, if adopted by the Board of Supervisors for the Santa Clarita Valley.	Applicant	Field Verification of Construction or Receipt of Fair Share Funding or Bonding	1. LACDPW 2. LACDPW 3. Prior to Issuance of Occupancy Permits
4.8-12 The applicant of the Newhall Ranch Specific Plan shall participate in a transit fee program, if adopted for the entire Santa Clarita Valley by Los Angeles County and City of Santa Clarita.	Applicant	Field Verification of Construction or Receipt of Fair Share Funding or Bonding	1. LACDPW 2. LACDPW 3. Prior to Issuance of Occupancy Permits

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.8 TRAFFIC/ACCESS (cont.)			
4.8-13 Prior to the approval of each subdivision map which permits construction, the applicant for that map shall prepare a traffic analysis approved by the Los Angeles County Department of Public Works. The analysis will assess project and cumulative development (including an existing plus cumulative development scenario under the County's Traffic Impact Analysis Report Guidelines (TIA) ~~Guidelines~~ and its Development Monitoring System (DMS)). In response to the traffic analysis, the applicant may construct off-site ~~traffic~~infrastructure improvements for credit against, or in lieu of paying, the mitigation fees described in Mitigation Measures 4.8-6 ~~and 4.8-9~~ above. If future subdivision maps are developed in phases, a traffic study for each phase of the subdivision map may be submitted to determine the improvements needed to be constructed with that phase of development.	Applicant(s) (Project Traffic Engineer)	Receipt and Review of TIA and DMS Traffic Analysis Applicant Funding of or bonding of Fair Share of Improvements	1. LACDPW 2. LACDPW 3. Prior to Recordation of the Final Tract Map

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.9 NOISE			
CONSTRUCTION			
4.9-1. All construction activity occurring on the Newhall Ranch Specific Plan site shall adhere to the requirements of the "County of Los Angeles Construction Equipment Noise Standards," County of Los Angeles Ordinance No. 11743, §12.08.440 as identified in **Table 4.9-3**.	Applicant (Construction Contractor)	Include Measure in Specifications Field Verification With Noise Monitor	1. LA County Department of Health Services~~and Safety~~ 2. LACDPW, Building and Safety~~Construction Division~~ 3. During Grading and Construction Activities
4.9-2. Limit all construction activities near occupied residences to between the hours of 6:30 A.M. and 8:00 P.M., and exclude all Sundays and legal holidays pursuant to County Department of Public Works, Construction Division standards.	Applicant (Construction Contractor)	Include Measure in Specifications Field Verification	1. LA County Department of Health Services~~and Safety~~ 2. LACDPW, Building and Safety ~~Construction Division~~ 3. During Grading and Construction Activities
4.9-3. When construction operations occur adjacent to occupied residential areas, implement appropriate additional noise reduction measures that include changing the location of stationary construction equipment, shutting off idling equipment, notifying adjacent residences in advance of construction work, and installing temporary acoustic barriers around stationary construction noise sources.	Applicant (Construction Contractor)	Include Measure in Specifications Field Verification and Verification that Adjacent Residents Were Notified	1. LA County Department of Health Services~~and Safety~~ 2. LACDPW, Building and Safety ~~Construction Division~~ 3. During Grading and Construction Activities
4.9-4. Locate construction staging areas on-site to maximize the distance between staging areas and occupied residential areas.	Applicant (Construction Contractor)	Include Measure in Specifications Field Verification	1. LA County Department of Health Services~~and Safety~~ 2. LACDPW, Building and Safety ~~Construction Division~~ 3. During Grading and Construction Activities

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.9 NOISE (cont.)			
OPERATION			
4.9-5. Where new single family residential buildings are to be constructed within an exterior noise contour of 60 dB(A) CNEL or greater, or where any multi-family buildings are to be constructed within an exterior noise contour of 65 dB(A) CNEL or greater, an acoustic analysis shall be completed prior to approval of building permits. The acoustical analysis shall show that the building is designed so that interior noise levels resulting from outside sources will be no greater than 45 dB(A) CNEL.	Applicant	Receipt and Review of Acoustical Analysis	1. LA County Department of Health Services~~and Safety~~ 2. LACDPW, Building and Safety 3. Prior to the Issuance of Building Permits
4.9-6. For single family residential lots located within the 60 dB(A) CNEL or greater noise contour, an acoustic analysis shall be submitted prior to tentative approval of the subdivision. The acoustic analysis shall show that exterior noise in outdoor living areas (e.g., back yards, patios, etc.) will be reduced to 60 dB(A) CNEL or less.	Applicant	Receipt and Review of Acoustical Analysis	1. LA County Department of Health Services~~and Safety~~ 2. LACDPW, Building and Safety 3. Prior to Tentative Approval of Subdivision
4.9-7. For multi-family residential lots located within the 65 dB(A) CNEL or greater noise contour, an acoustic analysis shall be submitted prior to tentative approval of the subdivision. The acoustic analysis shall show that exterior noise in outdoor living areas (e.g., back yards, patios, etc.) will be reduced to 65 dB(A) CNEL or less.	Applicant	Receipt and Review of Acoustical Analysis	1. LA County Department of Health Services~~and Safety~~ 2. LACDPW, Building and Safety 3. Prior to Tentative Approval of Subdivision
4.9-8. For school sites located within the 70 dB(A) CNEL or greater noise contour, an acoustic analysis shall be submitted prior to tentative approval of the subdivision. The acoustic analysis shall show that noise at exterior play areas will be reduced to 70 dB(A) CNEL or less.	Applicant	Receipt and Review of Acoustical Analysis	1. LA County Department of Health Services~~and Safety~~ 2. LACDPW, Building and Safety 3. Prior to Tentative Approval of Subdivision
4.9-9. All residential air conditioning equipment installed within the Newhall Ranch Specific Plan site shall adhere to the requirements of the "County of Los Angeles Residential Air Conditioning and Refrigeration Noise Standards," County of Los Angeles Ordinance No. 11743, §12.08.530.	Building Contractor	Field Verification	1. LA County Department of Health Services~~and Safety~~ 2. LACDPW, Building and Safety 3. Prior to the Issuance of Occupancy Permits

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.9 NOISE (cont.)			
4.9-10. All stationary and point sources of noise occurring on the Newhall Ranch Specific Plan site shall adhere to the requirements of the County of Los Angeles Ordinance No. 11743, §12.08.390 as identified in Table 4.9-2, County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources.	Future Owners/ Operators within project~~Applicant~~	Field Verification	1. LA County Department of Health Services~~and Safety~~ 2. LA County Department of Building and Safety 3. During Life of Project
4.9-11. Loading, unloading, opening, closing, or other handling of boxes, crates, containers, building materials, garbage cans or similar objects between the hours of 10:00 P.M. and 6:00 A.M. in such a manner as to cause a noise disturbance is prohibited in accordance with the County of Los Angeles Ordinance No. 11743, §12.08.460.	Future Owners/ Operators within project~~Applicant~~	~~Include Measure in Tenant Leases~~ Field Verification	1. LA County Department of Health Services~~and Safety~~ 2. LACDPW, Building and Safety 3. ~~Prior to the Issuance of Occupancy Permits and Verify~~ During Life of Project
4.9-12. Loading zones and trash receptacles in commercial and Business Park areas shall be located away from adjacent residential areas, or provide attenuation so that noise levels at residential uses do not exceed the standards identified in §12.08.460 of the Ordinance No. 11743.	Applicant	Plan Check Field Verification	1. LA County Department of Health Services~~and Safety~~ 2. LACDPW, Building and Safety 3. Prior to Approval of Final Maps or improvement/building plans and Verify Prior to Issuance of Occupancy Permits
4.9-13. Where residential lots are located with direct lines of sight to the Magic Mountain Theme Park, an acoustic analysis shall be submitted to show that exterior noise on the residential lots generated by activities at the park do not exceed the standards identified in §12.08.390 of the Ordinance No. 11743 as identified in Table 4.9-2, County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources.	Applicant	Receipt and Review of Acoustical Analysis	1. LA County Department of Health Services~~and Safety~~ 2. LACDPW, Building and Safety 3. Prior to the Issuance of Building Permits
4.9-14. After the time that occupancy of uses on the Newhall Ranch Specific Plan site occurs, AND when noise levels at the Travel Village RV Park reach 70 dB(A) CNEL at locations where recreational vehicles are inhabited, the applicant shall construct a noise abatement barrier to reduce noise levels at the RV Park to 70 dB(A) CNEL or less.	Applicant	Receipt and Review of Acoustical Analysis Field Verification	1. LA County Department of Health Services~~and Safety~~ 2. LACDPW, Building and Safety 3. Upon Occupancy of Uses on Newhall Ranch and if/when noise levels in Travel Village reach 70 dB(A) CNEL

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.9 NOISE (cont.)			
4.9-15. Despite the absence of a significant impact, a~~Applicants for all building~~ permits of Residential, Mixed-Use, Commercial, and Business Park land uses (Project) shall pay to the Santa Clara Elementary School District, prior to issuance of building permits, the project's pro rata share of the cost of a sound wall to be located between SR-126 and the Little Red School House. The project's pro rata share shall be determined by multiplying the estimated cost of the sound wall by the ratio of the project's estimated contribution of average daily trips on SR-126 (ADT) at the Little Red School House (numerator) to the total projected cumulative ADT increase at that location (denominator).[1] The total projected cumulative ADT increase shall be determined by subtracting the existing trips on SR-126[2] from the projected cumulative trips as shown in Table 1 of Topical Response 5 - Traffic Impacts to State and Local Roads in Ventura County after adding the total Newhall Ranch ADT traveling west of the City of Fillmore.	Applicants for all Building Permits	~~Receipt of~~ Payment to ~~from~~ Santa Clara Elementary School District	1. LACDRP~~LA County Department of Regional Planning~~ 2. LACDPW, Building and Safety ~~LA County Department of Regional Planning~~ 3. Upon Issuance of Building Permits

1 Cost of Sound Wall X (Project ADT on SR-126 @ LRSH*/Total Projected Cumulative ADT Increase on SR-126 @ LRSH*) * LRSH = Little Red School House.

2 25,165 ADT using linear extrapolation from Table 1 of Topical Response 5 - Traffic Impacts to State and Local Roads in Ventura County.

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.9 NOISE (cont.)			
4.9-16 Despite the absence of a significant impact, the applicant for all building permits of Residential, Mixed-Use, Commercial and Business Park land uses (Project) shall participate on a fair-share basis in noise attenuation programs developed and implemented by the City of Moorpark to attenuate vehicular noise on SR-23 just north of Casey Road for the existing single-family homes which front SR-23. The mitigation criteria shall be to reduce noise levels to satisfy State noise compatibility standards. The project's pro rata share shall be determined by multiplying the estimated cost of attenuation by the ratio of the project's estimated contribution of average daily trips on SR-23 (ADT) north of the intersection of SR-23 and Casey Road (numerator) to the total projected cumulative ADT increase at that location (denominator).[3] The total projected cumulative ADT increase shall be determined by subtracting the existing trips on SR-23 north of Casey Road[4] from the projected cumulative trips as shown in **Topical Response 5** - Traffic Impacts to State and Local Roads in Ventura County after adding the total Newhall Ranch ADT traveling south of the City of Fillmore.	Applicants for all Building Permits	~~Receipt of~~ Payment to ~~from~~ City of Moorpark	1. LACDRP~~LA County Department of Regional Planning~~ 2. LACDPW, Building and Safety ~~LA County Department of Regional Planning~~ 3. Upon Issuance of Building Permits

3 Cost of mitigation x (Project ADT on SR-23 north of Casey Road/Total Projected cumulative ADT Increase on SR-23 north of Casey Road).

4 ADT using linear extrapolation from Table 1 of **Topical Response 5** - Traffic Impacts to State and Local Roads in Ventura County.

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.9 NOISE (cont.)			
4.9-17 Prior to the approval of any subdivision map which permits construction within the Specific Plan area, the applicant for that map shall prepare an acoustical analysis assessing project and cumulative development (including an existing plus project analysis, and an existing plus cumulative development analysis including the project). The acoustical analysis shall be based upon State noise land use compatibility criteria and shall be approved by the Los Angeles County Department of Health Services. In order to mitigate any future impacts resulting from the project's contribution to significant cumulative noise impacts to development in existence as of the adoption of the Newhall Ranch Specific Plan and caused by vehicular traffic on off-site roadways, the applicant for building permits of Residential, Mixed-Use, Commercial, Visitor Serving and Business Park land uses shall, prior to issuance of building permits, pay a fee to Los Angeles County, Ventura County, the City of Fillmore or the City of Santa Clarita. The amount of the fee shall be the project's fair-share under any jurisdiction-wide or Santa Clarita Valley-wide noise programs adopted by any of the above jurisdictions ~~to mitigate any future significant cumulative noise impacts as described above~~.	Applicants for all Building Permits	Payment of Fee to Los Angeles County, Ventura County, City of Fillmore or the City of Santa Clarita	1. LACDRP 2. Los Angeles Co. Department of Health Services 3. Upon Issuance of Building Permits

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase

4.10 AIR QUALITY

As discussed in Draft EIR, the proposed Specific Plan includes an on-site mobility system with alternatives to automobile use. Bus transit service within the Santa Clarita Valley currently provides linkages to the MetroLink rail station located on Soledad Canyon Road in the City of Santa Clarita, as well as to major commercial and other high activity centers within the Santa Clarita Valley. As set forth in Specific Plan, bus pull-ins will be provided throughout the Newhall Ranch Specific Plan site. Transit service is expected to serve the site when the demand for service justifies the extension of service to the area. The bus transit system will serve to implement SCAQMD mitigation measures pertaining to the establishment of shuttles from the Specific Plan site to commercial core areas and to major rail transit centers.

In addition, the Specific Plan incorporates a variety of design concepts, which will reduce total vehicle miles traveled and encourage alternative modes of transportation. These features include Mixed-Use areas, the location of employment centers in proximity to residential areas, and trails, which will accommodate bicycles and pedestrians, which link employment centers and commercial areas. The Specific Plan also reserves land for a future rail right-of-way and an area has been identified for a future transit station within the Specific Plan area. The Specific Plan is designed to reduce vehicle miles traveled through encouraging alternative modes of travel and allowing for residents to work, shop, and recreate in close proximity to their homes.

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.10 AIR QUALITY (cont.)			
The Specific Plan would be built out over an estimated 25-year period. It is unknown at this time what technological developments may take place that may affect the identification and implementation of mitigation measures; however, preliminary information is available on the direction that these developments appear to be taking. Projects planned today should be able to integrate improvements, which facilitate use of new technologies as they become commercially available. For example, several alternatives to gasoline-powered vehicles are being developed today. Fuel cells which generate little, if any, pollutant emissions are being designed and tested as means to supply energy, heat, and cooling for structures. The potential application of measures such as these to reduce emissions should be studied as they become readily available and economically viable. However, with regard to "a fuel cell program for the commercial and industrial buildings," there is no supportable evidence that such a mitigation measure is economically achievable and therefore feasible. Nor is any data available to demonstrate that such a measure would have a measurable or significant effect on reducing air emissions. In addition, Los Angeles County is not aware of any objective data demonstrating that such a measure, if implemented, would measurably reduce air emissions. SCAQMD's *CEQA Air Quality Handbook* does not recommend this measure for non-residential land uses. For all these reasons, Los Angeles County rejects this measure as infeasible.			
However, the following features have been incorporated as part of the Specific Plan to reduce motor vehicle trips:			
4.10-1. The Specific Plan will provide Commercial and Service uses in close proximity to residential subdivisions.	Applicant	~~Plan Check~~ Approval of Tentative Maps	1. LACDRP~~SCAQMD~~ 2. LACDRP~~SCAQMD~~ 3. Prior to Tentative Subdivision ~~Final~~ Map Approvals

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.10 AIR QUALITY (cont.)			
4.10-2. The Specific Plan will locate residential uses in close proximity to Commercial uses, Mixed-Uses, and Business Parks.	Applicant	Approval of Tentative Maps ~~Plan Check~~	1. LACDRP~~SCAQMD~~ 2. LACDRP~~SCAQMD~~ 3. Prior to Tentative Subdivision ~~Final~~ Map Approvals
4.10-3. Bus pull-ins will be constructed throughout the Specific Plan site.	Applicant	Final Highway Plan Check	1. LACDPW~~SCAQMD~~ 2. LACDPW~~SCAQMD~~ 3. Prior to Tentative Subdivision ~~Final~~ Map Approvals
4.10-4. Pedestrian facilities, such as sidewalks, and community regional, and local trails, will be provided throughout the Specific Plan site.	Applicant	Submittal of Tentative Maps~~Plan Check~~	1. LACDRP~~SCAQMD~~ 2. LACDRP~~SCAQMD~~ 3. Prior to Tentative Subdivision ~~Final~~ Map Approvals
4.10-5. Roads with adjacent trails for pedestrian and bicycle use will be provided throughout the Specific Plan site connecting the individual Villages and community.	Applicant	Submittal of Tentative Maps~~Plan Check~~	1. LACDRP~~SCAQMD~~ 2. LACDRP~~SCAQMD~~ 3. Prior to Tentative Subdivision ~~Final~~ Map Approvals

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.10 AIR QUALITY (cont.)			
CONSTRUCTION IMPACTS			
4.10-6. The applicant of future subdivisions shall implement all rules and regulations adopted by the Governing Board of the SCAQMD which are applicable to the development of the subdivision (such as Rule 402 - Nuisance, Rule 403 - Fugitive Dust, Rule 1113 - Architectural Coatings) and which are in effect at the time of development. The purpose of Rule 403 is to reduce the amount of particulate matter entrained in the ambient air as a result of man-made fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 applies to any activity or man-made condition capable of generating fugitive dust such as the mass and remedial grading associated with the project as well as weed abatement and stockpiling of construction materials (i.e., rock, earth, gravel). Rule 403 requires that grading operations either (1) take actions specified in Tables 1 and 2 of the Rule for each applicable source of fugitive dust and take certain notification and record keeping actions; or (2) obtain an approved Fugitive Dust Control Plan. A complete copy of the SCAQMD's Rule 403 Implementation Handbook, which has been included in **Appendix 4.10**, provides guideline tables to demonstrate the typical mitigation program and record keeping required for grading operations (Tables 1 and 2 and sample record keeping chart). The record keeping is accomplished by on-site construction personnel, typically the construction superintendent.	Applicant	Plan Check -Review and apply applicable rules as part of environmental document~~Field Verification~~	1. LACDRP~~SCAQMD~~ 2. LACDRP~~SCAQMD~~ 3. Prior to Tentative Subdivision ~~Final~~ Map Approvals
Each future subdivision proposed in association with the Newhall Ranch Specific Plan shall implement the following if found applicable and feasible for that subdivision:			
GRADING			
a. Apply non-toxic soil stabilizers according to manufacturers' specification to all inactive construction areas (previously graded areas inactive for ten days or more).			
b. Replace groundcover in disturbed areas as quickly as possible.			

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase

4.10 AIR QUALITY (cont.)

4.10-6. (cont.)

c. Enclose, cover, water twice daily, or apply non-toxic soil binders according to manufacturers' specifications, to exposed piles (i.e., gravel, sand, dirt) with 5 percent or greater silt content.

d. Water active sites at least twice daily.

e. Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph.

f. Monitor for particulate emissions according to District-specified procedures.

g. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer) in accordance with the requirements of CVC Section 23114.

PAVED ROADS

h. Sweep streets at the end of the day if visible soil material is carried onto adjacent public paved roads (recommend water sweepers with reclaimed water).

i. Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip.

UNPAVED ROADS

j. Apply water three times daily, or non-toxic soil stabilizers according to manufacturers' specifications, to all unpaved parking or staging areas or unpaved road surfaces.

k. Reduce traffic speeds on all unpaved roads to 15 mph or less.

l. Pave construction roads that have a traffic volume of more than 50 daily trips by construction equipment, 150 total daily trips for all vehicles.

m. Pave all construction access roads at least 100 feet on to the site from the main road.

n. Pave construction roads that have a daily traffic volume of less than 50 vehicular trips.

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.10 AIR QUALITY (cont.)			
4.10-7. Prior to the approval of each future subdivision proposed in association with the Newhall Ranch Specific Plan, each of the construction emission reduction measures indicated below (and in Tables 11-2 and 11-3 of the SCAQMD's *CEQA Air Quality Handbook*, as amended~~amended~~) shall be implemented if found applicable and feasible for that subdivision.~~The applicant of future subdivisions shall implement all applicable and feasible construction measures that are identified in Tables 11-2 and 11-4 of the SCAQMD's CEQA Air Quality Handbook, or which are in effect at that time.~~ Tables of currently applicable measures are provided for reference in EIR **Appendix 4.10**.	Applicant	Field Verification and review and include applicable and feasible rules as part of environmental document	1. LACDRP~~SCAQMD~~ 2. LACDRP~~SCAQMD~~ 3. Prior to Tentative Subdivision Map Approvals~~During Grading and Construction~~
ON-ROAD MOBILE SOURCE CONSTRUCTION EMISSIONS:			
a. Configure construction parking to minimize traffic interference.			
b. Provide temporary traffic controls when construction activities have the potential to disrupt traffic to maintain traffic flow (e.g., signage, flag person, detours).			
c. Schedule construction activities that affect traffic flow to off-peak hours (e.g., between 7:00 P.M. and 6:00 A.M. and between 10:00 A.M. and 3:00 P.M.).			
d. Develop a trip reduction plan to achieve a 1.5 average vehicle ridership (AVR) for construction employees.			
e. Implement a shuttle service to and from retail services and food establishments during lunch hours.			
f. Develop a construction traffic management plan that includes the following measures to address construction traffic that has the potential to affect traffic on public streets: - Rerouting construction traffic off congested streets; - Consolidating truck deliveries; and - Providing temporary dedicated turn lanes for movement of construction trucks and equipment on and off of the site.			
g Prohibit truck idling in excess of two minutes.			

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.10 AIR QUALITY (cont.)			
4.10-7. (cont.) OFF-ROAD MOBILE SOURCE CONSTRUCTION EMISSIONS: h. Use methanol-fueled pile drivers. i. Suspend use of all construction equipment operations during second stage smog alerts. j. Prevent trucks from idling longer than two minutes. k. Use electricity from power poles rather than temporary diesel-powered generators. l. Use electricity from power poles rather than temporary gasoline-powered generators. m Use methanol- or natural gas-powered mobile equipment instead of diesel. n. Use propane- or butane-powered on-site mobile equipment instead of gasoline. OPERATION IMPACTS The following measures based on current technology and feasibility will be implemented to reduce the operational emissions of the Specific Plan.			
4.10-8. The applicant of future subdivisions shall implement all rules and regulations adopted by the Governing Board of the SCAQMD which are applicable to the development of the subdivision (such as Rule 402 - Nuisance, Rule 1102 - Petroleum Solvent Dry Cleaners, Rule 1111 - NOx Emissions from Natural Gas-Fired, Fan-Type Central Furnaces, Rule 1146 - Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters) and which are in effect at the time of occupancy permit issuance.	Applicant	Field Verification and review and include applicable and feasible rules as part of environmental document ~~Field Verification~~	1. LACDRP~~SCAQMD~~ 2. LACDRP~~SCAQMD~~ 3. Prior to Tentative Subdivision Map Approvals~~Prior to Issuance of Occupancy Permits~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.10 AIR QUALITY (cont.)			
4.10-9. Prior to the approval of each future subdivision proposed in association with the Newhall Ranch Specific Plan, each of the operational emission reduction measures indicated below (and ~~The applicant of future subdivisions shall implement all applicable and feasible operational measures that are identified~~ in Tables 11-6 and 11-7 of the SCAQMD's CEQA Air Quality Handbook, as amended) shall be implemented if found applicable and feasible for that subdivision~~or which are in affect at that time~~. Tables of currently applicable measures are provided for reference in **Appendix 4.10**.	Applicant	Field Verification and review and include applicable and feasible rules as part of environmental document ~~Field Verification~~	1. LACDRP 2. LACDRP~~SCAQMD~~ 3. Prior to Tentative Subdivision Map Approvals~~Prior to Issuance of Occupancy Permits and Verify During Project Operation~~
ON-ROAD MOBILE SOURCE OPERATIONAL EMISSIONS:			
RESIDENTIAL USES			
a. Include satellite telecommunications centers in residential subdivisions.			
b. Establish a shuttle service from residential subdivisions to commercial core areas.			
c. Construct on-site or off-site bus stops (e.g., bus turnouts, passenger benches, and shelters).			
d. Construct off-site pedestrian facility improvements, such as overpasses and wider sidewalks.			
e. Include retail services within or adjacent to residential subdivisions.			
f. Provide shuttles to major rail transit centers or multi-modal stations.			
g. Contribute to regional transit systems (e.g., right-of-way, capital improvements, etc.).			
h. Synchronize traffic lights on streets impacted by development.			
i. Construct, contribute, or dedicate land for the provision of off-site bicycle trails linking the facility to designated bicycle commuting routes.			

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.10 AIR QUALITY (cont.)			
4.10-9. (cont.)			
COMMERCIAL USES	Applicant	Field Verification and review and include applicable and feasible rules as part of environmental document~~Field Verification~~	1. LACDRP~~SCAQMD~~ 2. LACDRP~~SCAQMD~~ 3. Prior to Tentative Subdivision Map Approvals~~Prior to Issuance of Occupancy Permits and Verify During Project Operation~~
j. Provide preferential parking spaces for carpools and vanpools and provide 7'2" minimum vertical clearance in parking facilities for vanpool access.			
k. Implement on-site circulation plans in parking lots to reduce vehicle queuing.			
l. Improve traffic flow at drive-throughs by designing separate windows for different functions and by providing temporary parking for orders not immediately available for pickup.			
m Provide video-conference facilities.			
n. Set up resident worker training programs to improve job/housing balance.			
o. Implement home dispatching system where employees receive routing schedule by phone instead of driving to work.			
p. Develop a program to minimize the use of fleet vehicles during smog alerts (for business not subject to Regulation XV (now Rule 2202) or XII).			
q. Use low-emissions fleet vehicles: - TLEV - ULEV - LEV - ZEV			
r. Reduce employee parking spaces for those businesses subject to Regulation XV (now Rule 2202).			
s. Implement a lunch shuttle service from a worksite(s) to food establishments.			

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.10 AIR QUALITY (cont.)			
4.10-9. (cont.)			
t. Implement compressed work-week schedules where weekly work hours are compressed into fewer than five days. - 9/80 - 4/40 - 3/36	Applicant	Field Verification and review and include applicable and feasible rules as part of environmental document~~Field Verification~~	1. LACDRP~~SCAQMD~~ 2. LACDRP~~SCAQMD~~ 3. Prior to Tentative Subdivision Map Approvals~~Prior to Issuance of Occupancy Permits and Verify During Project Operation~~
u. Develop a trip reduction plan to achieve 1.5 AVR for businesses with less than 100 employees or multi-tenant worksites.			
v. Utilize satellite offices rather than regular worksite to reduce VMT.			
w. Establish a home-based telecommuting program.			
x. Provide on-site child care and after-school facilities or contribute to off-site development within walking distance.			
y. Require retail facilities or special event centers to offer travel incentives such as discounts on purchases for transit riders.			
z. Provide on-site employee services such as cafeterias, banks, etc.			
aa. Establish a shuttle service from residential core areas to the worksite.			
ab. Construct on-site or off-site bus stops (e.g., bus turnouts, passenger benches, and shelters).			
ac. Implement a pricing structure for single-occupancy employee parking and/or provide discounts to ridesharers.			
ad. Include residential units within a commercial project.			
ae. Utilize parking in excess of code requirements as on-site park-n-ride lots or contribute to construction of off-site lots.			
af. Any two of the following: - Construct off-site bicycle facility improvements, such as bicycle trails linking the facility to designated bicycle commuting routes, or on-site improvements, such as bicycle paths. - Include bicycle parking facilities, such as bicycle lockers and racks. - Include showers for bicycling employees' use.			

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.10 AIR QUALITY (cont.)			
4.10-9. (cont.)			
ag. Any two of the following: - Construct off-site pedestrian facility improvements, such as overpasses, wider sidewalks. - Construct on-site pedestrian facility improvements, such as building access which is physically separated from street and parking lot traffic and walk paths. - Include showers for pedestrian employees' use. ah. Provide shuttles to major rail transit stations and multi-modal centers. ai. Contribute to regional transit systems (e.g., right-of-way, capital improvements, etc.). aj. Charge visitors to park. ak. Synchronize traffic lights on streets impacted by development. al. Reschedule truck deliveries and pickups to off-peak hours. am. Set up paid parking systems where drivers pay at walkup kiosk and exit via a stamped ticket to reduce emissions from queuing vehicles. an. Require on-site truck loading zones. ao. Implement or contribute to public outreach programs. ap. Require employers not subject to Regulation XV (now Rule 2202) to provide commuter information area. **BUSINESS PARK USES** aq. Provide preferential parking spaces for carpools and vanpools and provide 7'2" minimum vertical clearance in parking facilities for vanpool access. ar. Implement on-site circulation plans in parking lots to reduce vehicle queuing. as. Set up resident worker training programs to improve job/housing balance. at. Implement home dispatching system where employees receive routing schedule by phone instead of driving to work.	Applicant	Field Verification and review and include applicable and feasible rules as part of environmental document~~Field Verification~~	1. LACDRP~~SCAQMD~~ 2. LACDRP~~SCAQMD~~ 3. Prior to Tentative Subdivision Map Approvals~~Prior to Issuance of Occupancy Permits and Verify During Project Operation~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.10 AIR QUALITY (cont.)			
4.10-9. (cont.) au. Develop a program to minimize the use of fleet vehicles during smog alerts (for business not subject to Regulation XV (now Rule 2202) or XII). av. Use low-emissions fleet vehicles: - TLEV - ULEV - LEV - ZEV aw. Require employers not subject to Regulation XV (now Rule 2202) to provide commuter information area. ax. Reduce employee parking spaces for those businesses subject to Regulation XV (now Rule 2202). ay. Implement compressed work-week schedules where weekly work hours are compressed into fewer than five days. - 9/80 - 4/40 - 3/36 az. Offer first right of refusal, low interest loans, or other incentives to employees who purchase or rent local residences. ba. Develop a trip reduction plan to achieve 1.5 AVR for businesses with less than 100 employees or multi-tenant worksites. bb. Provide on-site child care and after-school facilities or contribute to off-site development within walking distance. bc. Provide on-site employee services such as cafeterias, banks, etc. bd. Establish a shuttle service from residential core areas to the worksite. be. Construct on-site or off-site bus stops (e.g., bus turnouts, passenger benches, and shelters) bf. Implement a pricing structure for single-occupancy employee parking and/or provide discounts to ridesharers. bg. Utilize parking in excess of code requirements as on-site park-n-ride lots or contribute to construction of off-site lots.	Applicant	Field Verification and review and include applicable and feasible rules as part of environmental document~~Field Verification~~	1. LACDRP~~SCAQMD~~ 2. LACDRP~~SCAQMD~~ 3. Prior to Tentative Subdivision Map Approvals~~Prior to Issuance of Occupancy Permits and Verify During Project Operation~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.10 AIR QUALITY (cont.)			
4.10-9. (cont.)			
bh. Any two of the following: - Construct off-site bicycle facility improvements, such as bicycle trails linking the facility to designated bicycle commuting routes, or on-site improvements, such as bicycle paths. - Include bicycle parking facilities, such as bicycle lockers and racks. - Include showers for bicycling employees' use. bi. Any two of the following: - Construct off-site pedestrian facility improvements, such as overpasses, wider sidewalks. - Construct on-site pedestrian facility improvements, such as building access which is physically separated from street and parking lot traffic and walk paths. - Include showers for pedestrian employees' use. bj. Provide shuttles to major rail transit stations and multi-modal centers. bk. Contribute to regional transit systems (e.g., right-of-way, capital improvements, etc.). bl. Synchronize traffic lights on streets impacted by development. bm. Reschedule truck deliveries and pickups to off-peak hours. bn. Implement a lunch shuttle service from a worksite(s) to food establishments. bo. Require on-site truck loading zones. bp. Install aerodynamic add-on devices to heavy-duty trucks. bq. Implement or contribute to public outreach programs.	Applicant	Field Verification and review and include applicable and feasible rules as part of environmental document~~Field Verification~~	1. LACDRP~~SCAQMD~~ 2. LACDRP~~SCAQMD~~ 3. Prior to Tentative Subdivision Map Approvals~~Prior to Issuance of Occupancy Permits and Verify During Project Operation~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.10 AIR QUALITY (cont.)			
4.10-9. (cont.) STATIONARY SOURCE OPERATIONAL EMISSIONS	Applicant	Field Verification and review and include applicable and feasible rules as part of environmental document~~Field Verification~~	1. LACDRP~~SCAQMD~~ 2. LACDRP~~SCAQMD~~ 3. Prior to Tentative Subdivision Map Approvals~~Prior to Issuance of Occupancy Permits and Verify During Project Operation~~
RESIDENTIAL USES			
br. Use solar or low emission water heaters.			
bs. Use central water heating systems.			
bt. Use built-in energy-efficient appliances.			
bu. Provide shade trees to reduce building heating/cooling needs.			
bv. Use energy-efficient and automated controls for air conditioners.			
bw. Use double-paned windows.			
bx. Use energy-efficient low-sodium parking lot lights.			
by. Use lighting controls and energy-efficient lighting.			
bz. Use fuel cells in residential subdivisions to produce heat and electricity.			
ca. Orient buildings to the north for natural cooling and include passive solar design (e.g., daylighting).			
cb. Use light-colored roofing materials to reflect heat.			
cc. Increase walls and attic insulation beyond Title 24 requirements.			
COMMERCIAL USES			
cd. Use solar or low emission water heaters.			
ce. Use central water heating systems.			
cf. Provide shade trees to reduce building heating/cooling needs.			
cg. Use energy-efficient and automated controls for air conditioners.			
ch. Use double-paned windows.			
ci. Use energy-efficient low-sodium parking lot lights.			
cj. Use lighting controls and energy-efficient lighting.			
ck. Use light-colored roofing materials to reflect heat.			
cl. Increase walls and attic insulation beyond Title 24 requirements.			
cm. Orient buildings to the north for natural cooling and include passive solar design (e.g., daylighting).			

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.10 AIR QUALITY (cont.)			
4.10-9. (cont.)			
BUSINESS PARK USES	Applicant	Field Verification and review and include applicable and feasible rules as part of environmental document~~Field Verification~~	1. LACDRP~~SCAQMD~~ 2. LACDRP~~SCAQMD~~ 3. Prior to Tentative Subdivision Map Approvals~~Prior to Issuance of Occupancy Permits and Verify During Project Operation~~
cn. Provide shade trees to reduce building heating/cooling needs. co. Use energy-efficient and automated controls for air conditioning. cp. Use double-paned windows. cq. Use energy-efficient low-sodium parking lot lights. cr. Use lighting controls and energy-efficient lighting. cs. Use light-colored roofing materials to reflect heat. ct. Orient buildings to the north for natural cooling and include passive solar design (e.g., daylighting). cu. Increase walls and attic insulation beyond Title 24 requirements. cv. Improved storage and handling or source materials. cw. Materials substitution (e.g., use water-based paints, life-cycle analysis). cx. Modify manufacturing processes (e.g., reduce process stages, closed-loop systems, materials recycling). cy. Resource recovery systems that redirect chemicals to new production processes.			
4.10-10. All non-residential development of 25,000 gross square feet or more shall comply with the County's Transportation Demand Management (TDM) Ordinance (Ordinance No. 93-0028M) in effect at the time of subdivision. The sizes and configurations of the Specific Plan's non-residential uses are not known at this time and the Ordinance specifies different requirements based on the size of the project under review. All current provisions of the ordinance are summarized in **Appendix 4.10**.	Applicant	Include Requirement in Future environmental documents and/or check at Building Permit~~Field Verification~~	1. LACDPW~~SCAQMD~~ 2. LACDRP~~SCAQMD~~ 3. Tentative Map Approval or Building Permit, as applicable~~Prior to Issuance of Occupancy Permits and Verify During Project Operation~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.10 AIR QUALITY (cont.)			
4.10-11. Subdivisions and buildings shall comply with Title 24 of the California Code of Regulations which are current at the time of development.	Applicant	Include Requirement in Future environmental documents and/or check at Building Permit ~~Plan Check~~ ~~Field Verification~~	1. LACDPW, Building and Safety ~~California Department of Conservation~~ 2. LACDPW, Building and Safety 3. Tentative Map Approval or Building Permit, as applicable~~Prior to Issuance of Occupancy Permits~~
4.10-12. Lighting for public streets, parking areas, and recreation areas shall utilize energy efficient light and mechanical, computerized or photo cell switching devices to reduce unnecessary energy usage.	Applicant	Include Requirement in Future environmental documents and/or check at Building Permit ~~Plan Check~~ ~~Field Verification~~	1. LACDPW~~California Department of Conservation~~ 2. LACDPW~~, Building and Safety~~ 3. Tentative Map Approval or Building Permit, as applicable~~Prior to Issuance of Occupancy Permits~~
4.10-13. Any on-site subterranean parking structures shall provide adequate ventilation systems to disperse pollutants and preclude the potential for a pollutant concentration to occur.	Applicant	Include Requirement in Future environmental documents and/or check at Building Permit ~~Plan Check~~ ~~Field Verification~~	1. LACDPW~~SCAQMD~~ 2. LACDPW~~SCAQMD~~ 3. Tentative Map Approval or Building Permit, as applicable~~Prior to Issuance of Occupancy Permits~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.10 AIR QUALITY (cont.)			
4.10-14. The sellers of new residential units shall be required to distribute brochures and other relevant information published by the SCAQMD or similar organization to new homeowners regarding the importance of reducing vehicle miles traveled and related air quality impacts, as well as on local opportunities for public transit and ridesharing.	Applicant	LACDRP Review of information package and distribution records~~Include this Information in CC&Rs~~	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. Prior to Issuance of Building Permit (Package) and Occupancy Permits (Records)
4.11 WATER RESOURCES			
4.11-1. The proposed Specific Plan shall implement a water reclamation system in order to reduce the Specific Plan's demand for imported potable water. The Specific Plan shall install a distribution system to deliver non-potable reclaimed water to irrigate land uses suitable to accept reclaimed water, pursuant to Los Angeles County Department of Health Standards.	Applicant	Subdivision Map Improvement Plan Check	1. LACDRP~~RWQCBLAR~~ 2. LACDPW~~RWQCBLAR~~ 3. Prior to Issuance of Building Permit(s)
4.11-2. Landscape concept plans shall include a palette rich in drought-tolerant and native plants.	Applicant	~~Field Verification~~ Preliminary Landscape Plan Review ~~Field Verification~~	1. LACDPW~~LA County Department of Regional Planning~~ 2. LA County Fire Department or Parks and Recreation~~of Regional Planning~~ 3. Prior to Recordation ~~Issuance~~ of Final Map~~Occupancy Permit(s) for the Subdivision~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.11 WATER RESOURCES			
4.11-3. Major manufactured slopes shall be landscaped with materials that will eventually naturalize, requiring minimal irrigation.	Applicant	Preliminary Landscape Plan Review ~~Field Verification~~	1. LACDPW~~LA County Department of Regional Planning~~ 2. LA County Fire Department or Parks and Recreation~~of Regional Planning~~ 3. Prior to Recordation of Final Map~~Issuance of Occupancy Permit(s) for the Subdivision~~
4.11-4. Water conservation measures as required by the State of California shall be incorporated into all irrigation systems.	Applicant	Architectural Plans~~Landscape Plan Review~~ ~~Field Verification~~	1. California Department of Conservation 2. LACDPW, Building and Safety 3. Prior to Issuance of Building ~~Occupancy~~ Permit(s)
4.11-5. The area within each future subdivision within Newhall Ranch shall be annexed to the Valencia Water Company prior to issuance of building permits.	Applicant	CPUC Annexation Approval	1. CPUC~~LAFCo~~ 2. LACDPW, Building and Safety ~~LAFCo~~ 3. Prior to Issuance of Building Permit(s)
4.11-6. Prior to recordation of any final subdivision map that allows construction, and in accordance with the requirements of the Los Angeles County Development Monitoring System (DMS), as amended, Los Angeles County shall require the applicant of the subdivision to obtain written confirmation from the retail water agency that a water source is available to supply the subdivision concurrent with need. If the applicant of the subdivision cannot obtain confirmation that a water source is available for buildout of the subdivision, the subdivision shall be phased with the timing of an available water source.~~Prior to recordation of final subdivision maps which allow construction, the applicant of that subdivision will demonstrate water availability.~~	Applicant	Written Confirmation ~~Demonstration~~ of Water Availability	1. LACDPW 2. LACDPW 3. Prior to Recordation of Final Subdivision Maps

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.11 WATER RESOURCES (cont.)			
4.11-7 Prior to commencement of use, all uses of recycled water shall be reviewed and approved by the State of California Health and Welfare Agency, Department of Health Services.	Applicant	Plan Check ~~Field Verification~~	1. County Department of Health Services~~RWQCBLAR~~ 2. LACDPW, Building and Safety ~~RWQCBLAR~~ 3. Prior to Issuance of Grading ~~Building~~ or Occupancy Permit~~Permit~~(s) as applicable
4.11-~~8~~7. Prior to the issuance of building permits~~recordation of any final subdivision map~~ that allows construction, the applicant of the subdivision shall finance the expansion costs of water service extension to the subdivision through the payment of connection fees to the appropriate water agency(ies).	Applicant	~~Receipt of~~ Payment of Connection Fees	1. CLWA/VWC 2. LACDPW, Building and Safety ~~CLWA/VWC~~ 3. Prior to Issuance of Building Permits ~~Recordation of Final Subdivision Maps~~
4.11-9 Pursuant to Public Resources Code §21081(a)(2), the County shall recommend that the Upper Santa Clara Water Committee, made up of the Castaic Lake Water Agency, Los Angeles County Waterworks District No. 36, Newhall County Water District, Santa Clarita Water Company and the Valencia Water Company, prepare an annual water report that will discuss the status of groundwater levels within the Alluvial and Saugus Aquifers, and State Water Project water supplies as they relate to the Santa Clarita Valley. In those years when the Committee does not prepare such a report, the applicant at his expense shall cause the preparation of such a report that is acceptable to the County to address these issues. This annual report should be provided to Los Angeles County who may use the report as part of the local land use decision-making process.	Applicant	Receipt of Annual Report	1. Board of Supervisors 2. LACDRP 3. Prior to Recordation of Final Subdivision Maps

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.11 WATER RESOURCES (cont.)			
4.11-10 In conjunction with the submittal of applications for and prior to approval of tentative tract and parcel maps which permit construction, a letter from the retail water provider will be submitted to the County identifying the source(s) of supply of water for the land uses within that tentative tract or parcel map. The source(s) of water identified shall not result in the net use of groundwater over that which is planned for the Santa Clarita water basin, which is identified as the annual safe perennial yield of the Alluvial Aquifer and the annual recharge rate of the Saugus Aquifer in the Final EIR for the Newhall Ranch Specific Plan or subsequent environmental documentation.	Applicant	Receipt of written identification of water service from retailer	1. LACDRP 2. LACDRP 3. Concurrent with Submittal of Application for Tentative Tract Maps which permit construction.
4.12 WASTEWATER DISPOSAL			
4.12-1. The Specific Plan shall reserve a site of sufficient size to accommodate a water reclamation plant to serve the Newhall Ranch Specific Plan.	Applicant	Specific Plan Review	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. Prior to Final Approval of Specific Plan
4.12-2. A 5.8 to 6.9~~7.7~~ mgd water reclamation plant shall be constructed on the Specific Plan site, pursuant to County, State and Federal design standards, to serve the Newhall Ranch Specific Plan.	WRP Applicant	Review of WRP Construction Plans~~Plan Check~~ ~~Field Verification~~	1. ~~U.S. EPA, Cal-EPA,~~ ~~RWQCBLAR,~~ CSDLAC 2. ~~RWQCBLAR,~~ CSDLAC 3. Prior to Demand for First Phase or WRP Capacity~~Approval of First On-Site Occupancy Permits~~
4.12-3. The Conceptual Backbone Sewer Plan shall be implemented pursuant to County, State and Federal design standards.	Applicant (Project Engineer)	Review of Tentative Map~~Plan Check~~ ~~Field Verification~~	1. ~~CSDLAC,~~ LACDPW 2. ~~CSDLAC,~~ LACDPW 3. Prior to Approval of Tentative Maps~~First On-Site Occupancy Permits and During Specific Plan Buildout~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.12 WASTEWATER DISPOSAL cont.)			
4.12-4. Prior to recordation of each subdivision permitting construction, the applicant of each subdivision shall obtain a letter from the new County sanitation district stating that treatment capacity will be adequate for that subdivision.	Applicant	Review Final Subdivision Map~~Letter Verifying Treatment Capacity~~	1. CSDLAC~~LA County Department of Regional Planning~~ 2. LACDPW~~LA County Department of Regional Planning~~ 3. Prior to Recordation of Each Final Subdivision Map
4.12-5. All facilities of the sanitary sewer system will be designed and constructed for maintenance by the County of Los Angeles Department of Public Works and the County Sanitation Districts of Los Angeles County, and/or the new County sanitation district or similar entity in accordance with their manuals, criteria, and requirements.	Applicant (Project Engineer)	Review Final Subdivision Plans~~Plan Check~~ ~~Field Verification~~	1. CSDLAC, LACDPW 2. CSDLAC, LACDPW 3. Prior to Recordation of Each Final Subdivision Map
4.12-6. Pursuant to Los Angeles County Code, Title 20, Division 2, all industrial waste pretreatment facilities shall, prior to the issuance of building permits, be reviewed by the County of Los Angeles Department of Public Works, Industrial Waste Planning and Control Section and/or the new County sanitation district, to determine if they would be subject to an Industrial Wastewater Disposal Permit.	Applicants for Such Industrial Facilities	Plan Check Review ~~Field Verification~~	1. ~~RWQCBLAR,~~ LACDPW, ~~Industrial Waste Planning and Control Section~~ 2. LACDPW~~, Industrial Waste Planning and Control Section~~ 3. Prior to Issuance of Building Permits
4.12-7. ~~Prior to recordation of e~~Each subdivision permitting construction~~, the applicant of each subdivision~~ shall be required to be annexed ~~the subdivision~~ into the Los Angeles County Consolidated Sewer Maintenance District.	LACDPW~~Applicants for Each Subdivision~~	Review of Final Sewer Plans~~Verification of Annexation From the Los Angeles County Consolidated~~ Sewer ~~Maintenance District~~	1. ~~RWQCBLAR,~~ LACDPW, ~~Industrial Waste Planning and Control Section~~ 2. LACDPW~~, Industrial Waste Planning and Control Section~~ 3. After County Acceptance of Sewer Improvements~~Prior to Issuance of Building Permits~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.13 NATURAL GAS			
4.13-1. All development within the Specific Plan area shall comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the California Administrative Code), as applicable.	Applicant/Future Owners and Operators within project	Plan Check Field Verification	1. LACDPW, Building and Safety ~~California Department of Conservation~~ 2. LACDPW, ~~LA County Department of~~ Building and Safety 3. Prior to Issuance of Occupancy Permit(s)
4.13-2. A letter from Southern California Gas Company or other gas provider is to be obtained prior to recordation of all future subdivisions stating that service can be provided to the subdivision under recordation.	Applicant	Receipt of Letter from Gas Provider~~SCGC~~	1. LACDRP~~LA County Department of Regional Planning~~ 2. LACDRP~~LA County Department of Regional Planning~~ 3. Prior to Recordation of Final Maps~~Issuance of Building Permit(s)~~
4.13-3. The Specific Plan is to meet the requirements of SCGC in terms of pipeline relocation, grading in the vicinity of gas mains, and development within Southern California Gas Company easements. These requirements would be explicitly defined by SCGC at the future tentative map stage.	Applicant (Construction Contractor)	Receipt and implementation of Such Requirements from SCGC	1. LACDPW, Building and Safety 2. LACDPW, Building and Safety 3. ~~Prior to Issuance of~~ Grading and Construction Operations ~~Permit(s)~~
4.13-4. All potential buyers or tenants of property in the vicinity of Southern California Gas Company transmission lines are to be made aware of the line's presence in order to assure that no permanent construction or grading occurs over and within the vicinity of the high-pressure gas mains.	Applicant	Include in Sale/Lease Disclosure ~~Documentsthis Information in CC&Rs~~	1. LACDRP~~LA County Department of Regional Planning~~ 2. LACDRP~~LA County Department of Regional Planning~~ 3. Prior to Issuance of Occupancy Permits

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.14 ELECTRICITY			
4.14-1. All development within the Specific Plan area shall comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the California Administrative Code), as applicable.	Applicant	Plan Check Field Verification	1. LACDPW, Building and Safety ~~California Department of Conservation~~ 2. LACDPW, Building and Safety 3. Prior to Issuance of Occupancy Permit(s)
4.14-2. Southern California Edison or other energy provider is to be notified of the nature and extent of future development on the Specific Plan site prior to recordation of all future subdivisions.	Applicant	Receipt of Notification to Energy Provider~~SCE~~	1. LACDRP~~LA County Department of Regional Planning~~ 2. LACDRP~~LA County Department of Regional Planning~~ 3. Prior to Recordation of All Subdivisions
4.14-3. All future tract maps are to comply with Southern California Edison or other energy provider guidelines for grading, construction, and development within SCE easements.	Applicant (Construction Contractor)	Plan Check Field Verification	1. LACDPW, Building and Safety 2. LACDPW, Building and Safety 3. Prior to Final Tract Map Approvals and Verify Prior to Issuance of Occupancy Permits
4.14-4. Electrical infrastructure removals and relocations are to be coordinated between the Specific Plan engineer and Southern California Edison or other energy provider as each tract is designed and constructed.	Applicant (Specific Plan Engineer)	Receipt of Verification of Such Consultations	1. LACDPW 2. LACDPW 3. Prior to Final Tract Map Approval and During Construction
4.14-5. All future tract maps are to be reviewed by Los Angeles County to ensure adequate accessibility to Edison or other energy provider facilities as a condition of their approvals.	Applicant	Plan Check	1. LACDPW 2. LACDPW 3. Prior to Final Tract Map Approval
4.14-6. Upon transfer of the High Country Special Management Area to another entity for long-term maintenance, continued and adequate access to all Southern California Edison facilities in the High Country Special Management Area is to be ensured within the transfer agreement.	Applicant ~~Land Owner~~	Review of Transfer Agreement	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. Upon Transfer of High Country SMA

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.15 SOLID WASTE DISPOSAL			
4.15-1. Each future subdivision which allows construction within the Newhall Ranch Specific Plan shall meet the requirements of all applicable solid waste diversion, storage, and disposal regulations that are in effect at the time of subdivision review. Current applicable regulations include recycling areas that are: • compatible with nearby structures; • secured and protected against adverse environmental conditions; • clearly marked, and adequate in capacity, number and distribution; • in conformance with local building code requirements for garbage collection access and clearance; • designed, placed and maintained to protect adjacent developments and transportation corridors from adverse impacts, such as noise, odors, vectors, or glare; • in compliance with Federal, State, or local laws relating to fire, building, access, transportation, circulation, or safety; and • convenient for persons who deposit, collect, and load the materials.	Applicant	Include in Future Subdivision Design and/or environmental documents for Tentative Maps~~Plan Check~~ ~~Field Verification~~	1. LACDPW, Waste Management Division 2. LACDPW, Waste Management Division 3. Prior to Tentative ~~Final~~ Map Approval~~ and Verify Prior to Issuance of Occupancy Permit(s)~~
4.15-2. Future multi-family, commercial, and industrial projects within the Specific Plan shall provide accessible and convenient areas for collecting and loading recyclable materials. These areas are to be clearly marked and adequate in capacity, number, and distribution to serve the development.	Applicant	Include in Future Subdivision Design and/or environmental documents for Tentative Maps ~~Plan Check~~ ~~Field Verification~~	1. LACDPW, Waste Management Division 2. LACDPW, Waste Management Division 3. Prior to Tentative ~~Final~~ Map Approval~~ and Verify Prior to Issuance of Occupancy Permit(s)~~
4.15-3. The first purchaser of each residential unit within the Specific Plan shall be given educational or instructional materials which will describe what constitutes recyclable and hazardous materials, how to separate recyclable and hazardous materials, how to avoid the use of hazardous materials, and what procedures exist to collect such materials.	Applicant	Review of Information Package and Distribution Records~~Include this Information in CC&Rs~~	1. LACDRP~~LA County Department of Regional Planning~~ 2. LACDRP~~LA County Department of Regional Planning~~ 3. Prior to Issuance of Building Permit (Package) and Occupancy Permits (Records)

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.15 SOLID WASTE DISPOSAL (cont.)			
4.15-4. The applicant of all subdivision maps which allow construction within the Specific Plan shall comply with all applicable future State and Los Angeles County regulations and procedures for the use, collection and disposal of solid and hazardous wastes.	Applicant	Include in Future Subdivision Design and/or environmental documents for Tentative Maps ~~Plan Check~~ ~~Field Verification~~	1. LACDPW, Waste Management Division 2. LACDPW, Waste Management Division 3. Prior to Tentative ~~Final~~ Map Approval ~~and Verify Prior to Issuance of Occupancy Permit(s)~~
4.16 EDUCATION			
4.16-1. The Specific Plan developer shall reserve five elementary schools sites, one junior high school site and one high school site, of 7 to 10, 20 to 25, and 40 to 45 acres in size, respectively, depending upon adjacency to local public parks and joint use agreements.	Applicant	Tentative Tract Map Subdivision ~~Specific Plan~~ Review	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. Prior to Final Approval of Tentative Tract Maps ~~Specific Plan~~
4.16-2. The developer of future subdivisions which allow construction will comply with the terms and conditions of the School Facilities Funding Agreement between The Newhall Land and Farming Company and the Newhall School District.	Applicant ~~Developers of Future Subdivisions~~	Verification of Compliance from School District	1. Newhall School District 2. LACDPW, Building and Safety ~~Newhall School District~~ 3. Prior to Issuance of Residential Building Permits ~~Recordation of All Subdivision Maps~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.16 EDUCATION (cont.)			
4.16-3. The developer of future subdivisions which allow construction will comply with the terms and conditions of the School Facilities Funding Agreement between The Newhall Land and Farming Company and the William S. Hart Union High School District. ~~The builder of future residential dwelling units for which building permits are issued ("the Project") is required to mitigate the impacts to the William S. Hart Union High School District ("Hart") through the payment of fees for the Project's pro rata share of all grades 7-12 school facility construction required by the Project. Such mitigation fee shall be provided consistent with, and only to the extent of, the laws, rules, and regulations for eligibility for State school facility construction funds, classroom loading standards, "Priority one" funding eligibility standards, construction cost guidelines and allowances and overall accounting principles approved by the State Allocation Board for funding school facility construction pursuant to the Leroy F. Green State School Building Lease-Purchase Law of 1976, (Education Code §17700 *et seq.*).~~ ~~Prior to recordation of all subdivision maps which allow construction, the developer of future subdivisions which allow construction is to provide to the County of Los Angeles and the William S. Hart Union High School District an executed agreement to provide for payment for junior and senior high school educational facilities, in either the form set forth in the Valley-Wide Joint Fee Resolution, Exhibit A, or a separate agreement which achieves the equivalent mitigation.~~	Applicant ~~Developers of Future Subdivisions~~	Verification of Compliance from School District ~~Receipt of Executed Agreement~~	1. WSHUHSD~~, LA County Department of Regional Planning~~ 2. LACDPW, Building and Safety ~~WSHUHSD, LA County Department of Regional Planning~~ 3. Prior to Issuance of Residential Building Permits ~~Recordation of All Subdivision Maps~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase

4.16 EDUCATION (cont.)

~~Prior to receiving individual building permits for one or more units in the Project, the builder shall pay to Hart 50 percent of the pro rata share of costs of grades 7-12 school facility construction attributable to those units, except those units within the overlapping Castaic Union School District in which case it shall be for costs of grades 9-12 school facilities. For these purposes, the Project's pro rata share of school facility construction costs shall be determined by dividing the number of Project students estimated to attend the facility in the mitigation fee calculation by the total student capacity of the facility. The builder shall, at the same time, make a deposit into an escrow, or provide a bond or such other form of guarantee of payment agreed to by the builder, in an amount equal to 50 percent of the mitigation fee for such school facility construction costs attributable to the Project. The escrow or form of guarantee shall provide as follows:~~

1. ~~Hart shall apply for and comply with State rules, laws, regulations and procedures necessary to qualify as "Priority one" eligibility for state 50 percent matching funds for such school facility construction projects;~~

2. ~~If, prior to construction of any school facility for which the fees are being collected, Hart qualifies for and receives State matching funds sufficient to pay 50 percent of such school facility construction costs, the escrow shall be canceled or the guarantee shall be released as to such construction, the funds returned to the builder, and the builder shall have no obligation to pay any additional amounts to Hart toward such school facility construction. If Hart receives State matching funds but in some lesser amount, the amount of the escrow deposit or guarantee shall be reduced by the amount of the Project's pro rata share of matching funds which are received by Hart from the State;~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase

4.16 EDUCATION (cont.)

3. If Hart applies for and complies with State rules, regulations, and procedures necessary to qualify as "Priority one" for state 50 percent matching funds for such school facility construction projects, but does not receive the full 50 percent matching funds prior to construction, the escrow or guarantee amount, or such portion of it equal to the amount of the Project's pro rata share of costs not covered by state matching funds or previous payments by the builder, shall be transferred to Hart (in some form of transfer agreeable to the builder and Hart) and Hart will provide assurance that such amount will be repaid to the builder, if appropriate. This transfer shall be conditioned on the following: (i) Hart shall apply for "Priority one" eligibility for all future years, if any, in which State matching funds for the specific school facility construction projects for which mitigation fees have been collected may still be obtained; and (ii) Hart shall agree, in a form acceptable to the builder, to pay the builder on the transfer of the Project's pro rata share of such State matching funds if and when such State matching funds are obtained by Hart;

4. If Hart obtains a determination from the State that it may no longer obtain State matching funds for such specific school facility construction projects, then the transfer or such portion of it which remains unpaid after transfer to the builder of any matching funds which were received, shall be released and Hart shall have no further obligation with respect to the repayment of such amounts;

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.16 EDUCATION (cont.)			
~~5. If Hart fails to apply for and comply with State rules, laws, regulations, and procedures necessary to qualify as "Priority one" for state 50 percent matching funds for such school facility construction projects, the escrow shall be canceled or the guarantee shall be released. The builder shall have no further obligation with respect to payment of school mitigation fees, and the school fees which are required by the County for the Project shall be limited to the 50 percent of the pro rata share of costs of school facility construction paid initially the builder. In such a case, the County finds that, with respect to the significant impacts of the Project on school facility construction not mitigated by such initial payment, there are changes or alterations within the responsibility and jurisdiction of Hart that can and should be adopted by Hart which would fully mitigate such significant impacts.~~			
~~6. If the builder and Hart reach an overall agreement concerning school fees before all building permits are issued, the builder shall include the units for which building permits have not been issued as part of that agreement and that agreement shall constitute the full mitigation required for school facilities construction impacts.~~			
~~4.16-4 The developer of future subdivisions which allow construction is to pay to the William S. Hart Union High School District the statutory school fee for commercial/industiral square footage pursuant to Government Code Sections 65995 and 65996, unless a separate agreement to the contrary is reached with the District.~~	~~Developers of Future~~ Subdivisions	~~Payment of Fees~~	~~1. WSHUHSD 2. WSHUHSD 3. Prior to Issuance of Building Permits~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.16 EDUCATION (cont.)			
4.16-~~4~~5. The developer of future subdivisions which allow construction will comply with the terms and conditions of the School Facilities Funding Agreement between The Newhall Land & Farming Company and the Castaic Union School District.~~In the event that School District boundaries on the Specific Plan site remain unchanged, prior to recordation of all subdivision maps which allow construction, the developer of future subdivisions which allow construction is to provide to the County of Los Angeles and the Castaic Union School District an executed agreement to provide for payment for elementary and middle school educational facilities, in either the form set forth in the Valley-Wide Joint Fee Resolution, Exhibit A, or a separate agreement which achieves the equivalent mitigation.~~	Applicant ~~Developers of Future Subdivisions~~	Verification of Compliance from School District~~Receipt of Executed Agreement~~	1. Castaic Union School District~~, LA County Department of Regional Planning~~ 2. LACDPW, Building and Safety ~~Castaic Union School District, LA County Department of Regional Planning~~ 3. Prior to Issuance of Residential Building Permits~~Recordation of All Subdivision Maps~~
4.16-~~5~~6. In the event that School District boundaries on the Specific Plan site remain unchanged, prior to recordation of all subdivision maps which allow construction, the developer of future subdivisions which allow construction is to pay to the Castaic Union School District the statutory school fee for commercial/industrial square footage pursuant to Government Code Sections 65995 and 65996, unless a separate agreement to the contrary is reached with the District.	Applicant ~~Developers of Future Subdivisions~~	Payment of Fees	1. Castaic Union School District 2. LACDPW, Building and Safety ~~Castaic Union School District~~ 3. Prior to Issuance of Building Permits

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.17 POLICE SERVICES			
4.17-1. As subdivision maps are submitted to the County for approval in the future, the applicant shall incorporate County Sheriff's Department design requirements (such as those pertaining to site access, site security lighting, etc.) which will reduce demands for Sheriff's service to the subdivisions and which will help ensure adequate public safety features within the tract designs.	Applicant	Plan Check Field Verification	1. LA County Sheriff's Department 2. LA County Sheriff's Department 3. Prior to Final Map Approvals and Verify Prior to Issuance of Occupancy Permits
4.18 FIRE SERVICES AND HAZARDS			
4.18-1. At the time of final subdivision maps permitting construction in development areas that are adjacent to Open Area and the High Country SMA, a Wildfire Fuel Modification Plan shall be prepared and submitted for approval by the County Fire Department. The Wildfire Fuel Modification Plan shall include the following construction period requirements: (a) a fire watch during welding operations; (b) spark arresters on all equipment or vehicles operating in a high fire hazard area; (c) designated smoking and non-smoking areas; and (d) water availability pursuant to County Fire Department requirements. The wildfire fuel modification plan shall depict a fuel modification zone in conformance with the Fuel Modification Ordinance in effect at the time of subdivision. Within the zone, tree pruning, removal of dead plant material and weed and grass cutting shall take place as required by the County Forester. Fire resistant plant species containing habitat value may be planted in the fuel modification zone.	Applicant	Receipt and Review of Wildfire Fuel Modification Plan	1. LA County Fire Department 2. LA County Fire Department 3. Prior to Approval of Final Maps
4.18-2. Each subdivision and site plan for the proposed Specific Plan shall provide sufficient capacity for fire flows of 1,250 gallons per minute (gpm) at 20 pounds per square inch (psi) residual pressure for a two hour duration for single family residential units, and 5,000 gpm at 20 psi residual pressure for a five-hour duration for multi-family residential units and commercial/retail uses, or whatever fire flow requirement is in effect at the time of subdivision and site plan approval.	Applicant	Field Verification of Required Fire Flows	1. LA County Fire Department 2. LA County Fire Department 3. Prior to Issuance of Occupancy Permits
4.18-3. Each subdivision map and site plan for the proposed Specific Plan shall comply with all applicable building and fire codes and hazard reduction programs for Fire Zones 3 and 4 that are in effect at the time of subdivision map and site plan approval.	Applicant	Field Verification	1. LA County Fire Department 2. LA County Fire Department 3. Prior to Issuance of Occupancy Permits

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.18 FIRE SERVICES AND HAZARDS (cont.)			
4.18-4. The developer will provide funding for three fire stations to the Consolidated Fire Protection District of Los Angeles County (the "Fire District") in lieu of developer fees. The developer will dedicate two fire station sites for the two fire stations located in Newhall Ranch. The Fire District will dedicate the site for the fire station to be located at the Del Valle Training Facility. Each fire station site will have a building pad consisting of a net buildable area of one acre. If the cost of constructing the three fire stations, providing and dedicating the two fire station sites, and providing 3-engines, 1 paramedic squad and 63 percent of a truck company exceeds the developer's developer fee obligation for the Newhall Ranch development as determined by the Fire District, the Fire District will fund the costs in excess of the fee obligation. Two of the three fire stations to be funded by the developer will not exceed 6,000 square feet; the third fire station to be funded by the developer will not exceed 8,500 square feet. The Fire District, will fund the cost of any space/square footage of improvement in excess of these amounts as well as the cost of the necessary fire apparatus for any such excess square footage of improvements. The cost of three fire engines, a proportionate share of a truck and one squad to be provided by the developer will be determined based upon the apparatus cost at the time the apparatus is placed in service.	Applicant	Execute "Fire Protection Plan" Agreement Monitor Adequacy of Fire Prevention Services ~~Payment of Fees or Participate in Construction of Facilities~~	1. LA County Fire Department 2. LA County Fire Department 3. Prior to Approval of First Final Subdivision Map~~Issuance of Building Permits~~ Subdivision Map Review Process

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase

4.18 FIRE SERVICES AND HAZARDS (cont.)

The Fire District and the developer will mutually agree to the requirements of first-phase protection requirements based upon projected response/travel coverage. Such mutual agreement regarding first-phase fire protection requirements ("fire protection plan") and the criteria for timing the development of each of the three fire stations will be defined in a Memorandum of Understanding between the developer and the Fire District. Delivery of fire service for Newhall Ranch will be either from existing fire stations or one of the three fire stations to be provided by the developer pursuant to this section. Prior to the commencement of the operation of any of the three fire stations, fire service may be delivered to Newhall Ranch from existing fire stations or from temporary fire stations to be provided by the developer at mutually agreed-upon locations, to be replaced by the permanent stations which will be located within the Newhall Ranch development. The developer and the Fire District will annually review the fire protection plan to evaluate development and market conditions and modify the Memorandum of Understanding accordingly. ~~Prior to issuance of building permits, the applicant shall pay the fees in effect under the Fire Department's Developer Fee Program, or participate in the construction of fire protection facilities, to the satisfaction of the County of Los Angeles Fire Department.~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.19 LIBRARIES			
4.19-1. The developer will provide funding for a maximum of two libraries (including the site(s), construction, furniture, fixtures, equipment and materials) to the County Librarian. The developer will dedicate a maximum of two library sites for a maximum of two libraries located in Newhall Ranch in lieu of the land component of the County's library facilities mitigation fee, in accordance with the provisions of Section 22.72.090 of Section 2 of Ordinance No. 98-0068. The actual net buildable library site area required and provided by the developer will be determined by the actual size of the library building(s), the Specific Plan parking requirements, the County Building Code, and other applicable rules. The total library building square footage to be funded by the developer will not exceed 0.35 net square feet per person. The developer's funding of construction of the library(s) and furnishings, fixtures, equipment and materials for the library(s) will be determined based on the cost factors in the library facilities mitigation fee in effect at the time of commencement of construction of the library(s).	Applicant	Review of Memorandum of Understanding and Library Construction Plan~~Payment of Interim Fees or Library Facilities Agreement~~	1. LA County Library 2. LACDPW~~LA County Library~~ 3. Prior to Issuance of First Residential Building Permits

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase

4.19 LIBRARIES

Prior to County's issuance of the first residential building permit of Newhall Ranch to the developer, the County Librarian and the developer will mutually agree upon the library construction requirements (location, size, funding and time of construction) based upon the projected development schedule and the population of Newhall Ranch based on the applicable number of average persons per household included in the library facilities mitigation fee in effect at the time. Such mutual agreement regarding the library construction requirements ("Library Construction Plan") and the criteria for timing the completion of the library(s) will be defined in a Memorandum of Understanding between the developer and the County Librarian. Such Memorandum of Understanding shall include an agreement by the developer to dedicate sufficient land and pay the agreed amount of fees on a schedule to allow completion of the library(s) as described below. The developer's funding for library facilities shall not exceed the developer's fee obligation at the time of construction under the developer fee schedule.

If two libraries are to be constructed, the first library will be completed and operational by the time of County's issuance of the 8,000th residential building permit of Newhall Ranch, and the second library will be completed and operational by the time of County's issuance of the 15,000th residential building permit of Newhall Ranch. If the County Librarian decides that only one library will be constructed, the library will be completed and operational by the time of County's issuance of the 10,000th residential building permit of Newhall Ranch.

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase

4.19 LIBRARIES (cont.)

No payment of any sort with respect to library facilities will be required under Section 2.5.3.d. of the Specific Plan in order for the developer to obtain building permits for nonresidential buildings. ~~The applicant shall pay the proposed interim fee (which is $336 per new residential unit at the time of this writing) to the County Library to offset the demand for the library items (books, magazines, periodicals, etc.) and building square footage generated by the Newhall Ranch Specific Plan. The library mitigation payment would be made on a building permit by building permit basis, and would be adjusted each year based on increases in the Consumer Price Index. If the Board of Supervisors adopts an ordinance creating a developer fee for library facilities pursuant to Government Code Section 66000 et seq., the applicant would pay that fee with respect to all building permits issued after the adoption of the fee. There would be no retroactive adjustment for any library mitigation payments made for building permits issued prior to the adoption of a developer fee ordinance.~~

~~OR:~~

~~The applicant shall agree to construct a 23,983 square foot library and provide 137,048 items per the County Library standards 0.35 square feet of library facilities per capita and 2.0 library books per capita.~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
4.20 PARKS, RECREATION AND TRAILS			
4.20-1. Development of the Newhall Ranch Specific Plan will provide the following acreages of parks and Open Area: • Tentwelve public Neighborhood Parks totaling 5560 acres; • Open Areas totaling 1,1061,088.8 acres of which 186274 acres are Community Parks, • High Country Special Management Area of 4,2143,949.9 acres, • River Corridor Special Management Area of 819813 acres, • a 15-acre Lake, • an 18-hole Golf Course, and • a trail system consisting of: - Regional River Trail, - Community Trails, and - Unimproved Trails.	Specific Plan Applicant	Specific Plan Subdivision Review for Compliance with Specific Plan	1. LA County Department of Regional Planning 2. LA County Department of Regional Planning 3. Processing of Tentative Subdivision MapsPrior to Final Specific Plan Approval
4.20-2. Prior to the construction of the proposed trail system, the project applicant shall finalize the alignment of trails with the County Department of Parks and Recreation.	Applicant	Verification of Consultation of Department of Parks and Recreation	1. LACDRPLA County Department of Parks and Recreation 2. LA County Department of Parks and Recreation 3. Prior to Issuance of Grading Permit for Trails
4.20-3. Trail construction shall be in accordance with the County of Los Angeles Department of Parks and Recreation trail system standards.	Applicant	Trails Plan Review Field Verification	1. LA County Department of Parks and Recreation 2. LA County Department of Parks and Recreation 3. Prior to Approval of Trails Plans and Verify Upon Construction Completion
4.21 POPULATION, HOUSING AND EMPLOYMENT			
4.21-1. The Los Angeles County General Plan and the Santa Clarita Valley Area Plan of the County of Los Angeles General Plan shall be amended by Los Angeles County Regional Planning Department to accommodate the Mixed-Use master-planned community proposed by the Newhall Ranch Specific Plan.	Applicant Los Angeles County Regional Planning Department	General Plan Amendment	1. Board of Supervisors LA County Department of Regional Planning 2. LACDRPLA County Department of Regional Planning 3. Prior to Final Specific Plan Approval

13.0 MITIGATION MONITORING PLAN (Water Reclamation Plant)

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.1 GEOTECHNICAL AND SOILS RESOURCES			
5.0-1. Prior to construction of the water reclamation plant, prepare a detailed geotechnical report that will outline the geotechnical performance requirements for placing and compacting the fill at the water reclamation plant site and along on-site sewer line alignments to ensure that none of the wastewater conveyance or treatment facilities would be subject to hazards caused by expansive soils. Construction of wastewater conveyance and treatment facilities shall comply with the requirements identified in the report.	WRP Operator~~Applicant~~ (Geotechnical Engineer)	Grading Plan Check~~Approval of Geotechnical Report~~ Field Verification	1. WRP Operator ~~LACDPW, Geology/ Soils Section, and Building and Safety~~ 2. WRP Operator ~~LACDPW Geology/Soils Section, and Building and Safety~~ 3. Prior to ~~Issuance of~~ Building ~~Permits~~ and Verify During WRP Construction
5.0-2. Should any expansive soils be encountered during grading operations, they shall not be placed nearer the finished surface than 8 feet below the bottom of the subgrade elevation. If expansive materials are encountered at subgrade elevation in cut areas, the soils shall be removed to a depth of 8 feet below the subgrade surface and the excavated area backfilled with nonexpansive, properly compacted soils. These depths are subject to revision depending upon the expansive potential measured during grading.	WRP Operator (Geotechnical Engineer)	Field Verification	1. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 2. WRP Operator ~~LACDPW Geology/Soils Section~~ 3. During Grading Operations
5.0-3. Prior to ~~the issuance of~~ grading ~~permits of~~ ~~for~~ the WRP site and the associated sewer lines, a detailed geotechnical performance report is to be prepared and approved by the WRP Operator~~County~~, which will assess liquefaction potential along sewer line alignments, and which will identify design measures for potential liquefaction hazards. WRP collection and treatment facilities construction is to comply with the measures identified in the performance report.	WRP Operator ~~Project~~ (Geotechnical Engineer)	Approval of Detailed Geotechnical Performance Report Field Verification	1. WRP Operator ~~LACDPW, Geology/ Soils Section, and Building and Safety~~ 2. WRP Operator ~~LACDPW Geology/Soils Section, and Building and Safety~~ 3. Prior to ~~Issuance of~~ Grading ~~Permits~~ and Verify During WRP Construction

ACOE - U.S. Army Corps of Engineers
CIWMB - California Integrated Waste Management Board
CSDLAC - County Sanitation Districts of Los Angeles County
FCD - Flood Control Division
LACFPD - Los Angeles County Fire Protection District
LACDPW - Los Angeles County Department of Public Works
RWQCBLAR - Regional Water Quality Control Board, Los Angeles Region
SCAQMD - South Coast Air Quality Management District
USFWS - U.S. Fish and Wildlife Service

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.1 GEOTECHNICAL AND SOILS RESOURCES (cont.)			
5.0-4. All water reclamation plant structures and facilities are to be constructed according to Uniform Building Code standards for the appropriate Seismic Risk Zone (Zone 4).	WRP Operator (Structural Engineer)	Plan Check Field Verification	1. WRP Operator ~~LACDPW, Building and Safety~~ 2. WRP Operator ~~LACDPW, Building and Safety~~ 3. Prior to Initial Operation~~Issuance of Occupancy Permits~~
5.0-5. If the height of the fill exceeds the shear strength of such saturated soils, settlement and ground failure could occur, resulting in damage to structures and/or injury to people. Potentially consolidatible materials are to be properly removed and the fill material is to be properly compacted and protected against the erosive effects of storm and River flows.	WRP Operator (Geotechnical Engineer)	Grading Plan Check Field Verification	1. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 2. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 3. During Grading Operations
5.0-6. All fills, unless otherwise specifically designed, are to be compacted to at least 90 percent of the maximum dry unit weight as determined by ASTM Designation D 1557-91 Method of Soil Compaction. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	WRP Operator (Geotechnical Engineer)	Field Verification	1. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 2. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 3. During Grading Operations
5.0-7. No fill is to be placed until the area to receive the fill has been adequately prepared and approved by the Geotechnical Engineer. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	WRP Operator (Geotechnical Engineer)	Field Verification	1. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 2. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 3. During Grading Operations
5.0-8. Fill soils are to be kept free of all debris and organic material. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	WRP Operator (Geotechnical Engineer)	Field Verification	1. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 2. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 3. During Grading Operations

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.1 GEOTECHNICAL AND SOILS RESOURCES (cont.)			
5.0-9. Rocks or hard fragments larger than 8 inches are not to be placed in the fill without approval of the Geotechnical Engineer, and in a manner specified for each occurrence. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	WRP Operator (Geotechnical Engineer)	Field Verification	1. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 2. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 3. During Grading Operations
5.0-10. Rock fragments larger than 8 inches are not to be placed within 10 feet of finished pad grade or the subgrade of roadways or within 15 feet of a slope face. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	WRP Operator (Geotechnical Engineer)	Field Verification	1. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 2. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 3. During Grading Operations
5.0-11. When moisture content of the fill material is too low to obtain adequate compaction, water is to be added and thoroughly dispersed until the soil is approximately 2 percent over optimum moisture content. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	WRP Operator (Geotechnical Engineer)	Field Verification	1. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 2. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 3. During Grading Operations
5.0-12. When the moisture content of the fill material is too high to obtain adequate compaction, the fill material is to be aerated by blading or other satisfactory methods until the soil is approximately two percent over optimum moisture content. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	WRP Operator (Geotechnical Engineer)	Field Verification	1. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 2. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 3. During Grading Operations
5.0-13. Surface runoff from the future graded areas is not to run over any natural, cut, or fill slopes. (Allan~~Allen~~ E. Seward Engineering Geology, 19 September 1994, Inc., p. 20)	WRP Operator (Civil ~~Geotechnical~~ Engineer and Construction Superintendent)	Field Verification	1. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 2. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 3. During Grading Operations

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.2 FLOOD			
5.0-14. Runoff from future pads and structures is to be collected and channeled to the street and/or natural drainage courses via non-erosive drainage devices. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)	WRP Operator (Civil Engineer and Construction Superintendent~~Geotechnical Engineer~~)	Field Verification	1. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 2. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 3. During Grading Operations
5.0-15. Water is not to stand or pond anywhere on the graded pads. (Allan~~Allen~~ E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)	WRP Operator (Civil Engineer and Construction Superintendent~~Geotechnical Engineer~~)	Field Verification	1. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 2. WRP Operator ~~LACDPW, Geology/ Soils Section~~ 3. During Grading Operations
5.0-16. Prepare and implement a County-approved erosion control plan to be implemented during the construction of the WRP.	WRP Operator (Civil Engineer)	Approval of Erosion Control Plan Field Verification	1. WRP Operator ~~LACDPW, FCD~~ 2. WRP Operator ~~LACDPW, FCD~~ 3. Prior to ~~Issuance of~~ Grading ~~Permit~~ and Verify During Grading Operations
5.0-17. All on- and off-site flood control improvements necessary to alleviate flood hazards and provide proper drainage controls are to be constructed to the satisfaction of the County of Los Angeles Department of Public Works, FCD.	WRP Operator (Civil Engineer)	Field Verification	1. LACDPW, FCD 2. WRP Operator ~~LACDPW, FCD~~ 3. Prior to Issuance of Occupancy Permits
5.0-18. All necessary permits or letters of exemption from the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and Game, and the Regional Water Quality Control Board for WRP-related development are to be obtained.	WRP Applicant	Receipt of Permits	1. ACOE, ~~USFWS,~~ CDFG, and RWQCBLAR 2. WRP Applicant ~~ACOE, USFWS, CDFG, and RWQCBLAR~~ 3. Prior to ~~Issuance of~~ Grading ~~Permits~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.2 FLOOD			
5.0-19. Conditional Letters of Map Revision (CLOMR) relative to adjustments to the 100-year FIA flood plain are to be obtained by the applicant after the proposed drainage facilities are constructed.	WRP Operator (Civil Engineer)	Receipt of CLOMR	1. LACDPW, FCD 2. WRP Operator ~~LACDPW, FCD~~ 3. Upon Completion of Facilities~~Prior to Issuance of Grading Permits~~
5.0-20. Prior to ~~issuance of a grading permit~~, a Final Hydrology Plan, a Final Drainage Plan, and a Final Grading Plan (including an Erosion Control Plan, as required) are to be prepared by the applicant and approved by the Department of Public Works, where applicable, to ensure that no significant erosion, sedimentation, or flooding impacts would occur during or after site development.	WRP Applicant (Civil Engineer)	Approval of Final Hydrology Plan, Final Drainage Plan, Final Grading Plan	1. LACDPW, ~~Geology/ Soils Section and FCD~~ 2. ~~LACDPW, Geology/ Soils Section and~~ FCD 3. Prior to ~~Issuance of~~ Grading ~~Permits~~
5.3 CULTURAL/PALEONTOLOGICAL RESOURCES			
5.0-21. No significant impact to cultural or paleontological resources are anticipated from construction of the WRP. However, should such resources be found during site grading, a professional archaeologist or paleontologist will be retained to evaluate the significance of the finding and to identify appropriate methods of preserving or cataloguing any significant resources.	WRP Operator (Archaeologist and/or Paleontologist)~~Construction Superintendent~~	Include Measure in WRP Specifications Field Verification	1. LA County Department of Regional Planning 2. WRP Operator ~~LA County Department of Regional Planning~~ 3. ~~Prior to Issuance of Grading Permit and~~ Verify During Grading Operations

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.4 AGRICULTURAL RESOURCES			
No mitigation measures are available that could reduce the impact of conversion of prime agricultural land to an urban use to less than significant.			
5.5 ENVIRONMENTAL SAFETY			
5.0-22. Design and operate the WRP in accordance with an NPDES ~~Industrial Discharge~~ Permit that must be obtained from the California Regional Water Quality Control Board, Los Angeles Region.	~~WRP Engineer~~ WRP Operator	Approval of WRP Design and Operation Plans by RWQCBLAR Field Verification	1. RWQCBLAR 2. WRP Operator ~~RWQCBLAR~~ 3. Prior to Issuance of Construction Permits and Verify During WRP Operation
5.0-23. Prepare and implement worker safety programs in accordance with Cal-OSHA requirements.	WRP Operator	Review ~~Approval~~ of Worker Safety Program Field Verification	1. Cal-OSHA 2. WRP Operator ~~Cal-OSHA~~ 3. Prior to ~~Issuance of Occupancy Permits~~ and ~~Verify~~ During WRP Operation
5.0-24. Prepare and implement preventive and contingency plans for controlling accidental discharges of wastewater or chemicals used and stored at the WRP, and for minimizing the effects of such events. Such plans shall be integrated into the CSDLAC's overall preventive (fail-safe) and contingency (emergency response) plans and programs.	WRP Operator	Approval of Plans Field Verification	1. Los Angeles Co. Fire Department~~Cal-EPA~~ 2. WRP Operator ~~Cal-EPA~~ 3. Prior to ~~Issuance of Occupancy Permits~~ and ~~Verify~~ During WRP Operation
5.0-25. A Stormwater Pollution Prevention Plan (SWPPP) shall be prepared and implemented, in accordance with the U.S. Environmental Protection Agency's Industrial Stormwater Permit.	WRP Operator	Review ~~Approval~~ of SWPPP Field Verification	1. RWQCBLAR~~Cal-EPA~~ 2. WRP Operator ~~Cal-EPA~~ 3. Prior to ~~Issuance of Grading Permits~~ and ~~Verify~~ During WRP Operation

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.5 ENVIRONMENTAL SAFETY (cont.)			
5.0-26. Any industrial wastewater that may be produced from manufacturing, commercial processing operations, acute care medical facilities and laboratories, etc., that would be allowed in the Commercial, Mixed-Use or Business Park land use designations as regulated by the Specific Plan, shall comply with the Wastewater Ordinance of the County Sanitation Districts of Los Angeles County (April 1, 1972, as amended November 1, 1989). A permit from the CSDLAC would be required for any such facility to allow discharge into the Newhall Ranch sewer system.	Business Owners ~~Lessors of Space~~ in Commercial, Mixed Use, or Business Park Land Use Designations	Review of Building Plans~~Include Measure in CC&Rs for These Land Uses~~	1. WRP Operator ~~CSDLAC, LA County Department of Regional Planning (for CC&Rs)~~ 2. WRP Operator ~~CSDLAC, LA County Department of Regional Planning (for CC&Rs)~~ 3. Prior to Issuance of Building ~~Discharge~~ Permit
5.0-27. Prepare and implement an "Integrated Emergency Response Plan" (IERP). The IERP provides procedures for personnel medical emergencies, evacuation procedures and mitigation and abatement procedures for hazardous chemicals. The plan must conform to multiple regulatory requirements, including Title 8 §3220, Emergency Action Plan, §3221, Fire Prevention Plan, §5192 Emergency Response to Hazardous Substances Releases, and Title 22, §66265.50-66265.56, Contingency Plan and Emergency Procedures.	WRP Operator	Review ~~Approval~~ of IERP Field Verification	1. Los Angeles Co. Fire Department~~Cal-EPA~~ 2. WRP Operator ~~Cal-EPA~~ 3. Prior to ~~Issuance of Occupancy Permits~~ and ~~Verify~~ During WRP Operation
5.0-28. Biosolids treatment and disposal methods shall meet California Title 22, Division 4.5, Chapter 11, Article 3, which contains Toxicity Characteristic Leaching Procedure (TCLP) and Soluble Threshold Limit Concentration (STLC) limits.	WRP Operator	Review of Construction Plans Laboratory Testing	1. RWQCBLAR 2. WRP Operator ~~RWQCBLAR~~ 3. Prior to and During WRP Operation
5.0-29. Obtain permits to construct and operate all new sources of air toxic emissions, at each stage of WRP development, and whenever any new sources are added or replaced, pursuant to SCAQMD Regulation XIV.	WRP Operator	Review ~~Receipt~~ of SCAQMD Permits	1. SCAQMD 2. WRP Operator ~~SCAQMD~~ 3. Prior to Issuance of Construction Permits and During ~~Prior to Subsequent Changes in~~ WRP Operation
~~5.0-30 Comply with California Title 22, Division 4.5, Chapter 11, Article 3, which contains Toxicity Characteristic Leaching Procedure (TCLP) and Soluble Threshold Limit Concentration (STLC) relative to the treatment and disposal of biosolids.~~	~~WRP Operator~~ WRP Operator	~~Laboratory~~ Testing	~~1. RWQCBLAR~~ ~~2. RWQCBLAR~~ ~~3. During WRP Operation~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.6 BIOTA			
5.0-30. Comply with permit requirements established by the California Department of Fish and Game, the U.S. Army Corps of Engineers, and/or the U.S. Fish and Wildlife Service, relative to removal and replacement of riparian habitat.	WRP Applicant~~Biologis t~~	Obtain Required Permits Field Verification	1. CDFG, ACOE~~, and/or USFWS~~ 2. WRP Operator ~~CDFG, ACOE, and/or USFWS~~ 3. During Monitoring Period Specified in Permits~~Life of Work~~
5.0-31. Obtain and implement an NPDES construction permit to avoid significant erosion or sedimentation impacts.	WRP Operator~~Engineer~~	Receipt of NPDES Permit(s) ~~from~~ RWQCBLAR Field Verification	1. RWQCBLAR 2. WRP Operator ~~RWQCBLAR~~ 3. Prior to ~~Issuance of Grading Permit(s)~~ and ~~Verify~~ During Grading and Construction
5.0-32. Comply with permit requirements of Federal, State and regional agencies with jurisdiction over discharge of reclaimed water to the Santa Clara River relative to potential impacts on the River's biological values.	WRP Operator ~~Biologist~~	Field Verification Laboratory Testing	1. ~~USFWS, ACOE, CDFG, and~~ RWQCBLAR 2. WRP Operator ~~USFWS, ACOE, CDFG, and RWQCBLAR~~ 3. During WRP Operation

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.7 VISUAL QUALITIES			
5.0-33. To soften views of the reclamation plant from SR-126, provide vegetation, walls, fencing, and/or other appropriate techniques and combinations of techniques. Walls and fencing shall comply with the Specific Plan Design Guidelines.	WRP Operator ~~Applicant~~	Field Verification	1. LA County Department of Regional Planning 2. WRP Operator ~~LA County Department of Regional Planning~~ 3. Prior to Operation~~Issuance of Occupancy Permit(s)~~
5.0-34. Landscaping themes shall be consistent with the themes developed for adjacent Business Park development to provide visual continuity and minimize contrast between the WRP facilities and their surroundings.	WRP Operator ~~Applicant~~	Field Verification	1. LA County Department of Regional Planning 2. WRP Operator ~~LA County Department of Regional Planning~~ 3. Prior to Operation~~Issuance of Occupancy Permit(s)~~
5.0-35. Place, orient and shield light fixtures to illuminate only those areas where it is needed and to prevent stray light from spilling off site.	WRP Operator ~~Applicant~~	Field Verification	1. LA County Department of Regional Planning 2. WRP Operator ~~LA County Department of Regional Planning~~ 3. Prior to Operation~~Issuance of Occupancy Permit(s)~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.8 TRAFFIC/ACCESS			
5.0-36. If SR-126 is still a two-lane highway at the time of WRP construction, a construction traffic management plan shall be prepared and implemented. This plan shall address site access, staging and storage areas, hours of construction, work crew parking, warning and traffic control signs and devices, flag men, temporary detouring, etc., as appropriate, to avoid a significant impact on SR-126.	WRP Operator ~~Applicant~~ (Construction Superintendent)	Approval of Construction Traffic Management Plan Field Verification	1. WRP Operator ~~LACDPW, Caltrans~~ 2. WRP Operator ~~LACDPW, Caltrans~~ 3. Prior to ~~Issuance of Grading Permit(s)~~ and ~~Verify~~ During Grading and Construction Activities
5.0-37. An encroachment permit shall be obtained from Caltrans, for access to the plant site from SR-126.	WRP Applicant~~Enginee r~~	Receipt of Encroachment Permit(s)	1. Caltrans 2. WRP Applicant ~~Caltrans~~ 3. Prior to ~~Issuance of~~ Grading ~~Permit(s)~~
5.9 NOISE			
5.0-38. All construction activity occurring on the water reclamation plant site shall adhere to the requirements of the "County of Los Angeles Construction Equipment Noise Standards," County of Los Angeles Ordinance No. 11743.	WRP Operator~~Applica nt~~ ~~Construction Superintendent~~	Field Verification Using Noise Monitor	1. LA County Dept. of Health Services~~and Safety~~ 2. WRP Operator ~~LA County Dept. Health and Safety~~ 3. During Grading and Construction
5.0-39. Limit all construction activities occurring near occupied residences to between the hours of 6:30 A.M. and 8:00 P.M., and exclude all Sundays and legal public holidays, pursuant to County Construction Section standards.	WRP Operator~~Applica nt~~ ~~Construction Superintendent~~	Field Verification	1. LA County Dept. of Health Services~~and Safety~~ 2. WRP Operator ~~LA County Dept. Health and Safety~~ 3. During Grading and Construction
5.0-40. All operational activity occurring on the water reclamation plant site shall adhere to the requirements of the "County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources," pursuant to §12.08.390 of County of Los Angeles Ordinance No. 11743.	WRP Operator	Periodic Field Verification Using Noise Monitor	1. LA County Dept. of Health Services~~and Safety~~ 2. WRP Operator ~~LA County Dept. Health and Safety~~ 3. During WRP Operation

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.10 AIR QUALITY			
CONSTRUCTION IMPACTS The proposed WRP would be subject to SCAQMD Rule 403, which prohibits emissions of fugitive dust from any active operation, open storage pile, or disturbed surface areas from remaining in the atmosphere beyond the property line of the emission source. The builder of the plant would be required to implement dust control measures for each fugitive dust source type, to prevent visible roadway dust from being deposited more than 50 feet from any property access road, and to remove all visible roadway dust deposited upon public paved roadways as a result of active operations at the conclusion of each work day. The following measure is recommended to implement this rule:			
5.0-41. Prepare and implement a fugitive dust emission control plan which conforms to the requirements of SCAQMD Rule 403. The plan shall include the following specific measures and be submitted to the SCAQMD for review and approval: a. Apply approved non toxic chemical soil stabilizers according to manufacturer specifications to all inactive construction areas (previously graded areas inactive for four days or more). b. Replace ground cover in disturbed areas as quickly as possible c. Enclose, cover, water twice daily, or apply approved soil binders to exposed piles (i.e., gravel, sand, dirt) according to manufacturer's specifications. d. Water active grading sites at least twice daily. e. Suspend all excavating and grading operations when wind speeds (as instantaneous gusts exceed 25 mph). f. Provide temporary wind fencing with 50 percent or less porosity along the perimeter of sites that have been cleared or are being graded. g. All trucks hauling dirt, sand, soil or other loose materials are to be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer), in accordance with Sections 23114 of the California Vehicle Code.	WRP Operator ~~Applicant~~ ~~Construction Superintendent~~	Approval of Fugitive Dust Emission Control Plan Field Verification	1. SCAQMD 2. WRP Operator ~~SCAQMD~~ 3. Prior to ~~Issuance of~~ Grading ~~Permit(s)~~ and ~~Verify~~ During ~~Grading and~~ Construction

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.10 AIR QUALITY (cont.)			
h. Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip. i. Sweep streets at the end of the day if visible soil material is carried over to adjacent roads, (recommend water sweepers using reclaimed water if readily available). j. Apply water three times daily or chemical soil stabilizers according to manufacturer's specifications to all unpaved parking or staging areas or unpaved road surfaces k. Enforce maximum traffic speed limits of 15 mph on all unpaved roads. l. Where appropriate, pave all construction access roads at least 100 feet onto the site from the main road. The proposed WRP would be subject to SCAQMD Rule 1113 which prohibits persons from supplying, selling, applying, or soliciting the application of architectural coatings which do not meet specific emissions thresholds. The following measures address this rule.			
5.0-42. Building materials, architectural coatings, and cleaning solvents used in developing the WRP shall comply with all applicable SCAQMD rules and regulations.	WRP Operator ~~Designer/ Engineer~~	Provide List of Materials, Coating, Solvents That Comply with SCAQMD Rules and Regulations Field Verification	1. SCAQMD 2. WRP Operator ~~SCAQMD~~ 3. Prior to Issuance of Permit to Construct and Verify During Construction
5.0-43. The application of architectural coatings shall occur via hand application or spray equipment that emits volatile organic compound emissions at rates which are comparable to High Volume, Low Pressure (HVLP) spray equipment (i.e., equipment which is operated at an air pressure between 0.1 and 10 pounds per square inch).	WRP Operator ~~Construction Superintendent~~	Field Verification	1. SCAQMD 2. WRP Operator ~~SCAQMD~~ 3. During Construction

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.10 AIR QUALITY (cont.)			
5.0-44. Building construction shall utilize low-polluting construction materials and coatings (i.e., bricks, stones, pre-coated or naturally colored materials, water-based paints or similar types of coating materials containing relatively low levels of volatile organic compounds) to the greatest extent feasible.	WRP Operator ~~Designer/ Engineer~~	Provide List of Construction Materials and Coatings with VOC Ratings Field Verification	1. SCAQMD 2. WRP Operator ~~SCAQMD~~ 3. Prior to Permit to Construct ~~Issuance of Building Permit(s)~~ and Verify During Construction
Emission reductions resulting from the imposition of the mitigation measures listed above have been quantified wherever possible pursuant to the methodology in the SCAQMD's *CEQA Air Quality Handbook*. The following discussion provides a quantification of emission reductions associated with the grading of the WRP site. A quantification of emission reductions due to the remaining construction measures have not been completed since the information necessary to conduct such an analysis, per SCAQMD methodologies, is not available at this time. However, substantial emission reductions would also result from these non-quantified construction mitigation measures.			
Grading activities associated with the WRP are predicted to generate approximately 1,744.0 pounds of PM_{10} per day. The application of non-toxic soil stabilizers, the replacement of ground cover, and the wetting down of graded areas, as identified above in Mitigation Measure 5.0-41 would each reduce these emission by approximately 30 percent, 15 percent, and 34 percent, respectively. The combined percentage reduction for these measures is calculated by progressively applying the percentage reduction attributable to an individual mitigation measure to the net emissions resulting from the application of the preceding mitigation measure. When this occurs, the reduction that these three measures would provide is 60.7 percent, which equates to 1,058.6 pounds of dust per day. Net emissions of approximately 685.4 pounds per day would continue to exceed the SCAQMD's recommended threshold of 150.0 pounds per day.			

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.10 AIR QUALITY (cont.)			
OPERATION IMPACTS			
5.0-45. Comply with SCAQMD Regulation IX, Subpart O, which establishes specific air quality performance standards for wastewater treatment plants.	WRP Operator	Periodic Field Verification	1. SCAQMD 2. WRP Operator ~~SCAQMD~~ 3. During WRP Operation
5.0-46. Provide odor control equipment, covers, seals, etc., at all locations where odorous gases could be released into the atmosphere; implement managerial controls, including routine monitoring of control equipment and regular field surveys of surrounding areas; and conduct a complaint response program that achieves resolution to odor complaints within thirty minutes of receiving a complaint.	WRP Operator ~~Designer/ Engineer~~ WRP Operator	Plan Check Approval of Complaint Response Program Field Verification	1. SCAQMD 2. WRP Operator ~~SCAQMD~~ 3. During WRP Design and Operation
5.0-47. Obtain permits to construct and operate all new sources of criteria air pollutants, at each stage of WRP development, and whenever any new sources are added or replaced, pursuant to SCAQMD Regulation XIII.	~~WRP Applicant~~ WRP Operator	Receipt of SCAQMD Permits	1. SCAQMD 2. WRP Operator ~~SCAQMD~~ 3. Prior to Issuance of Building Permits and Whenever New Sources are Added or Replaced
5.0-48. Obtain permits to construct and operate all new sources of air toxic emissions at each stage of WRP development, and whenever any new sources are added or replaced, pursuant to SCAQMD Regulation XIV.	~~WRP Applicant~~ WRP Operator	Receipt of SCAQMD Permits	1. SCAQMD 2. WRP Operator ~~SCAQMD~~ 3. Prior to Issuance of Permit to Construct~~Building Permits~~ and Whenever New Sources are Added or Replaced
5.0-49. Comply with the provisions of Title V of the Federal Clean Air Act, relative to maximum, facility-side toxic air emissions.	WRP Operator	Field Verification	1. SCAQMD 2. WRP Operator ~~SCAQMD~~ 3. During WRP Operation

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.11 WATER RESOURCES			
5.0-50. The site of the proposed water reclamation plant shall be annexed to the Valencia Water Company prior to issuance of building permits for the WRP.	WRP Operator ~~Applicant~~	~~Approval of~~ Annexation ~~Request~~	1. CPUC~~LA County Department of Regional Planning~~ 2. WRP Operator ~~LA County Department of Regional Planning~~ 3. Prior to Water Reclamation Plant Construction~~Issuance of Grading Permit(s)~~
5.0-51. Prior to construction of the proposed water reclamation plant, the WRP operator ~~applicant~~ shall demonstrate water availability for both construction and operation demands.	WRP Operator ~~Applicant~~	Receipt of VWC Will-Serve Letter	1. LA County Department of Regional Planning 2. WRP Operator ~~LA County Department of Regional Planning~~ 3. Prior to ~~Issuance of~~ Grading ~~Permit(s)~~
5.12 WASTEWATER DISPOSAL			
5.0-52. A new County sanitation district shall be formed to administer operation of the Newhall Ranch water reclamation plant. The district shall encompass the entire Newhall Ranch Specific Plan site.	WRP Operator ~~Applicant~~	Approval of District Formation	1. Los Angeles County Board of Supervisors ~~RWQCBLAR~~ 2. WRP Operator ~~RWQCBLAR~~ 3. Prior to Issuance of WRP Grading Permit
5.0-53. The Newhall Ranch water reclamation plant shall be designed and operated to satisfy the requirements of Title 22 of the California Administrative Code, which regulates reuse of reclaimed water.	~~WRP Designer/ Engineer~~ WRP Operator	Plan Check Field Verification	1. RWQCBLAR 2. WRP Operator ~~RWQCBLAR~~ 3. Prior to Issuance of Construction ~~Building~~ Permits and Verify During WRP Operation

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.12 WASTEWATER DISPOSAL (cont.)			
5.0-54. The Newhall Ranch water reclamation plant shall be designed and operated to satisfy the California Regional Water Quality Control Board, Los Angeles Region discharge limits for reclaimed water discharged to the Santa Clara River and for the irrigation of landscaped areas.	~~WRP Designer/ Engineer~~ WRP Operator	Plan Check Field Verification	1. RWQCBLAR 2. WRP Operator ~~RWQCBLAR~~ 3. Prior to Issuance of Construction ~~Building~~ Permits and Verify During WRP Operation
5.0-55. The Newhall Ranch water reclamation plant shall obtain a National Pollutant Discharge Elimination System permit from the California Regional Water Quality Control Board, Los Angeles Region for reclaimed water discharged to the Santa Clara River and for the irrigation of landscaped areas.	WRP Operator~~Applica nt~~	Receipt of NPDES Permit(s)	1. RWQCBLAR 2. WRP Operator ~~RWQCBLAR~~ 3. Prior to Issuance of Construction ~~Occupancy~~ Permits
5.0-56 All facilities of the sanitary sewer system will be designed and constructed for maintenance by the County of Los Angeles Department of Public Works and County Sanitation Districts of Los Angeles County, and/or the new County sanitation district or similar entity in accordance with their manuals, criteria, and requirements.	~~WRP~~ Applicant (Civil Engineer)	Review of Final Sewer Plans ~~Check~~ Field Verification	1. LACDPW and WRP Operator ~~LA County Sanitation District~~ 2. LACDPW and WRP Operator ~~LA County Sanitation District~~ 3. Prior to Acceptance for Maintenance~~Issuance of Building Permits~~

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.13 NATURAL GAS			
5.0-576. WRP design shall comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the California Administrative Code).	WRP Operator ~~Designer/ Engineer~~	Plan Check	1. WRP Operator ~~LACDPW~~ 2. WRP Operator ~~LACDPW~~ 3. Prior to Water Reclamation Plant Construction~~Issuance of Occupancy Permits~~
5.14 ELECTRICITY			
5.0-587. Plant design shall comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the California Administrative Code).	WRP Operator ~~Designer/ Engineer~~	Plan Check	1. WRP Operator ~~LACDPW~~ 2. WRP Operator ~~LACDPW~~ 3. Prior to Water Reclamation Plant Construction~~Issuance of Occupancy Permits~~
5.15 SOLID WASTE DISPOSAL			
5.0-598. The operators ~~constructors~~ of the water reclamation plant shall ensure that all solid waste diversion, storage, and disposal requirements that are in effect at the time the WRP is constructed, including AB 939 and all others, will be implemented so that the waste generated by the WRP will not impede the County's waste reduction and diversion requirements during construction and operation.	WRP Operator ~~Applicant~~	Field Verification	1. WRP Operator ~~CIWMB~~ 2. WRP Operator ~~LACDPW, Waste Management. Division~~ 3. During WRP Construction and Operation
5.16 EDUCATION			
No impact on schools would result from construction or operation of the WRP; therefore, no mitigation measures are required or recommended.			

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.17 POLICE SERVICES			
5.0-6059. If construction of the WRP occurs while SR-126 is still a two-lane highway, a construction traffic management plan shall be prepared and implemented. This plan shall address site access, staging and storage areas, hours of construction, work crew parking, warning and traffic control signs and devices, flag men, temporary detouring, etc., as appropriate.	WRP Applicant~~Enginee r~~ (Construction Superintendent)	Approval of Construction Traffic Management Plan Field Verification	1. WRP Operator ~~LACDPW, Office of the Sheriff, Caltrans~~ 2. WRP Operator ~~LACDPW~~ 3. Prior to and During ~~Issuance of~~ Grading ~~Permit(s) and Verify During~~ and Construction Activities
5.0-610. Consult with the CHP and the Sheriff's Department to incorporate measures into the risk management and prevention plan to optimize their abilities to provide assistance in the event of a hazardous materials incident at the operating WRP site.	WRP Operator~~Site Designer/ Engineer~~	Incorporate CHP and Sheriff's Department Comments in RMPP	1. Cal-EPA 2. WRP Operator ~~Cal-EPA~~ 3. Prior to Water Reclamation Plant Operation~~Issuance of Occupancy Permit(s)~~
5.0-621. Prepare and implement worker safety programs in accordance with Cal-OSHA requirements.	WRP Operator	Review ~~Approval of~~ Worker Safety Program Field Verification	1. Cal-OSHA 2. WRP Operator ~~Cal-OSHA~~ 3. Prior to ~~Issuance of Occupancy Permit(s)~~ and ~~Verify~~ During WRP Operation
5.0-632. Prepare and implement an "Integrated Emergency Response Plan" (IERP). The IERP provides procedures for personnel medical emergencies, evacuation procedures and mitigation and abatement procedures for hazardous chemicals. The plan must conform to multiple regulatory requirements, including Title 8 §3220, Emergency Action Plan, §3221, Fire Prevention Plan, §5192 Emergency Response to Hazardous Substances Releases, and Title 22, §66265.50-66265.56, Contingency Plan and Emergency Procedures.	WRP Operator	Review ~~Approval~~ of IERP Field Verification	1. Los Angeles Co. Fire Department~~Cal-EPA~~ 2. WRP Operator ~~Cal-EPA~~ 3. Prior to ~~Issuance of Occupancy Permits~~ and ~~Verify~~ During WRP Operation

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.18 FIRE SERVICES AND HAZARDS			
5.0-643. If construction of the WRP occurs while SR-126 is still a two-lane highway, a construction traffic management plan shall be prepared and implemented. This plan shall address site access, staging and storage areas, hours of construction, work crew parking, warning and traffic control signs and devices, flag men, temporary detouring, etc., as appropriate.	WRP Applicant~~Enginee r~~ (Construction Superintendent)	Approval of Construction Traffic Management Plan Field Verification	1. WRP Operator ~~LACDPW, Caltrans~~ 2. WRP Operator ~~LACDPW, Caltrans~~ 3. Prior to and During ~~Issuance of~~ Grading ~~Permit(s) and Verify During Grading~~ and Construction Activities
5.0-654. Consult with the Fire Department and its Hazardous Materials Unit to incorporate measures into the risk management and prevention plan, to optimize its abilities to respond to a hazardous materials incident at the operating WRP site.	WRP Site Designer/ Engineer	Incorporate Fire ~~CHP and Sheriff's~~ Department Comments in RMPP	1. Cal-EPA 2. WRP Operator ~~Cal-EPA~~ 3. Prior to Water Reclamation Plant Operation~~Issuance of Occupancy Permit(s)~~
5.0-665. Prepare and implement worker safety programs in accordance with Cal-OSHA requirements.	WRP Operator	Review ~~Approval~~ of Worker Safety Program Field Verification	1. Cal-OSHA 2. WRP Operator ~~Cal-OSHA~~ 3. Prior to and ~~Issuance of Occupancy Permit(s) and Verify~~ During WRP Operation
5.0-676. Prepare and implement an "Integrated Emergency Response Plan" (IERP). The IERP provides procedures for personnel medical emergencies, evacuation procedures and mitigation and abatement procedures for hazardous chemicals. The plan must conform to multiple regulatory requirements, including Title 8 §3220, Emergency Action Plan, §3221, Fire Prevention Plan, §5192 Emergency Response to Hazardous Substances Releases, and Title 22, §66265.50-66265.56, Contingency Plan and Emergency Procedures.	WRP Operator	Review ~~Approval~~ of IERP Field Verification	1. Los Angeles Co. Fire Department~~Cal-EPA~~ 2. WRP Operator ~~Cal-EPA~~ 3. Prior to ~~Issuance of Occupancy Permits and Verify~~ and During WRP Operation

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
5.19 LIBRARIES			
No adverse library impacts have been identified; therefore no mitigation measures are required.			
5.20 PARKS, RECREATION AND TRAILS			
5.0-687. A fence shall be constructed along the southern perimeter of the WRP site to prevent access to the WRP from the Regional River Trail.	WRP Operator~~Applicant~~	Field Verification	1. Los Angeles Co. Department of Regional Planning~~Cal-OSHA~~ 2. WRP Operator ~~Cal-OSHA and LA County Department of Parks and Recreation~~ 3. Prior to Water Reclamation Plant Operation~~Issuance of Occupancy Permits~~
5.21 POPULATION, HOUSING AND EMPLOYMENT			
No significant population, housing, or employment impacts have been identified; therefore, no mitigation measures are required.			

14.0 EIR Preparers, Org./Persons Consulted

14.0 ORGANIZATIONS/PERSONS CONSULTED

The following firms and individuals were responsible for the contents of this environmental impact report:

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- California Department of Education
  Karen Steentoft, Special Consultant to the Department of Education

- California Department of Water Resources, Division of Safety of Dams
  Vernon Persson, Chief

- California Highway Patrol
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  Sergeant Fritz
  Steve Kohler, Information Officer
  Officer Wendy Moore, Public Affairs
  Pat Ryan, Information Officer

- California Office of the Governor, Office of Emergency Services
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- Castaic Lake Water Agency
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- Chaparral Land Company
  Duane Levy

- Chiquita Canyon Landfill
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  Jim Fullmer, Deputy Agricultural Commissioner

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  Rod Collins, Environmental Specialist

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- United Water Conservation District
  Frank Royer, Assistant General Manager

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2) LOS ANGELES COUNTY PUBLIC LIBRARY
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3) LOS ANGELES COUNTY
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Los Angeles, California

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267 West Hillcrest Drive
Thousand Oaks, California

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24523 Chesnut Street
Newhall, California

8) R. T. FRANKIAN & ASSOCIATES
234 So. Buena Vista
Burbank, California

9) BROBECK, PHLEGER & HARRISON
550 South Hope Street
Los Angeles, California

10) RECON
4241 Jutland Drive, Suite 201
San Diego, California

11) SIKAND ENGINEERING
15230 Burbank Boulevard
Van Nuys, California

12) CH2M HILL, IRVINE
2510 Red Hill, Suite A
Santa Ana, California

13) CH2M HILL THOUSAND OAKS
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San Martinez Grande
Water Tank
CHIQUITA LANDFILL
MAGIC MOUNTAIN
NOT A PART
POTRERO CANYON
EXHIBIT 3A
GEOLOGIC MAP
See Plate II for Legend
ALLAN E. SEWARD
ENGINEERING GEOLOGY, INC.
Date: 9/19/94
Job No. 94-1155-1
Scale: 1" = 500'
Drawn by: B.R.
Checked by: B.R.
ALLAN E. SEWARD
ENGINEERING GEOLOGY
JOB NUMBER 93-1155-4
DATE 7/21/93
SCALE 1" = 500'
DRAWN BY B.R.