DEPARTMENT OF REGIONAL PLANNING
320 W. TEMPLE STREET, ROOM 1390
HALL OF RECORDS
LOS ANGELES, CALIFORNIA 90012

IMPACT ANALYSIS

EIR

1 OF 4

DRAFT

ENVIRONMENTAL IMPACT REPORT

DEIR

FOR

TESORO DEL VALLE PROJECT

LOS ANGELES COUNTY PROJECT NO. 92074
TRACT NO. 51644
GENERAL PLAN AMENDMENT
ZONE CHANGE
CONDITIONAL USE PERMIT
OAK TREE PERMIT
SCH. NO. 93021007

COUNTY OF LOS ANGELES
DEPARTMENT OF REGIONAL PLANNING

OCTOBER 1995

Los Angeles County
Department of Regional Planning

Director of Planning. James E. Hartl. AICP

October 18, 1995

TO: All Interested Agencies, Organizations and Individuals

FROM: Frank Meneses, SRP II FM.
Impact Analysis

SUBJECT: NOTICE OF COMPLETION
DRAFT ENVIRONMENTAL IMPACT REPORT
TESORO DEL VALLE
PROJECT NO. 92-074-(5)
(COUNTYWIDE GENERAL PLAN AMENDMENT, ZONE CHANGE, CONDITIONAL USE PERMIT AND OAK TREE PERMIT)
TENTATIVE TRACT MAP 51644 SCH NO. 93021007

The staff of the Department of Regional Planning has completed the preparation of a Draft Environmental Impact Report (DEIR) for the above project.

The proposed project includes 3,000 dwelling units of various sized single and multiple family homes, a 5-acre commercial site (not to exceed 40,000 square feet of floor area), two elementary school sites, fire station site, tennis club, 40 acres of active parks, interior streets and infrastructure as well as off-site improvements. Approximately 672 acres of the 1,795 acre site will be left in substantially undeveloped natural open space.

The project would require the following discretionary actions: a General Plan amendment to allow for approximately 2,000 more units than are currently allowed under the site's General Plan designations, a rezone from heavy agriculture to urban uses consistent with the requested General Plan designations, issuance of an oak tree permit to remove eight oak trees, approval of a tentative tract map, and issuance of a conditional use permit for development in hillside areas and within a Significant Ecological Area (SEA).

The public review period is set from October 24, 1995 to January 24, 1996 (90 days). A public hearing will be held by the Los Angeles County Regional Planning Commission on January 24, 1996. The public hearing will in Room 150 at the below address commencing at 9:00 a.m.. The public hearing will be subsequently noticed.

320 West Temple Street Los Angeles. CA 90012 213 974 6411 FAX 213 626 0434

Written comments will be considered at this hearing and we request that you submit them by the due date for distribution to the Commission. Written comments will be addressed in any Final EIR.

The proposed project is fully described in the attached Draft EIR. A distribution list of agencies and organizations receiving this document is attached. Any suggestions for additional mitigation measures should be included in your reply.

If you have any questions regarding this matter, please contact me at (213) 974-6461. Our office hours are Monday through Thursday, between 7:30 a.m. and 6:00 p.m. Our offices are closed on Fridays.

FM:lh

Attachments

Mailing List
TESORO DEL VALLE EIR
SCH No. 93021007

FEDERAL

U.S.Fish & Wildlife Service
2730 Loker Avenue West
Carlsbad, CA 92008
ATTN: Jeffrey D. Opdycke

Angeles National Forest
701 N. Santa Anita Ave.
Arcadia, CA 91006
ATTN: Charles McDonald

U.S. Army Corps of Engineers
Los Angeles District
Regulatory Branch
P.O. Box 2711
Los Angeles, CA 90053

STATE OF CALIFORNIA

State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, CA 95814

Archaeological Info Center
UCLA Inst. of Archaeology
Fowler Museum of
Cultural History
Los Angeles, CA 90024-1510

Regional Water Quality
Control Board - L.A.Region
101 Center Plaza Drive
Monterey Park, CA 91754-2156
ATTN: Robert Ghirelli

CALTRANS-District 7
Transp.Planning & Analysis
120 South Spring Street
Los Angeles, CA 90012
ATTN: IGR/CEQA Coordinator

CA Dept. of Conservation
1416 Ninth Street
Sacramento, CA 95814
ATTN: Environmental Review

CA Dept. of Conservation
Div. of Oil & Gas
6401 Telephone Road
Ventura, CA 93003
ATTN: Environmental Review

Office of Historic Preservation
P. O. Box 942896
Sacramento, CA 94296-0001
ATTN: Environmental Review

CA Dept. of Fish & Game
330 Golden Shore, Suite 50
Long Beach, CA 90802
ATTN: B. Elias

CA Dept. Parks & Recreation
P. O. Box 942896
Sacramento, CA 94296-0001

California Highway Patrol
411 North Central Ave.
Glendale, CA 91302

CA Integrated Waste
Management Board
8800 Cal Center Drive
Sacramento, CA 95820

CA Dept. Food & Agriculture
Native Amer. Heritage Comm.
915 Capitol Mall, Room 288
Sacramento, CA 95814
ATTN: William Johnson

COUNTY OF LOS ANGELES

County of Los Angeles
Forester/Fire Warden
1320 N. Eastern Avenue
Los Angeles, CA 90063
ATTN: Paul Rippens

County of Los Angeles
Dept. Health Svcs.-Noise
2525 Corporate Place
Monterey Park, CA 91754
ATTN: Frank Gomez

Mr. Jack Petralia
Public Health Prog & Svcs.
Environmental Health Div.
2525 Corporate Place
Monterey Park, CA 91754

COUNTY OF LOS ANGELES (con't)

County of Los Angeles
Dept. Parks & Recreation
433 South Vermont Ave.
Los Angeles, CA 90020
ATTN: Bertha Ruiz

Los Angeles County
County Sanitation Districts
P. O. Box 4998
Whittier, CA 90607-4998
ATTN: Dainis Kleinberg

L.A. County Public Library
P. O. Box 7011
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L.A. Dept. of Public Works
Planning Division
900 South Fremont Ave.
Alhambra, CA 91803
ATTN: Michael Nagao

L.A. Dept. Regional Planning
Land Division Section
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ATTN: John Hartman

Los Angeles County
Dept. Regional Planning
Zoning Permits Section
320 W. Temple St., Room 1348
Los Angeles, CA 90012

Los Angeles County
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Santa Clarita, CA 91355
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L.A. Office County Counsel
Hall of Admin., Rm. 648
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Los Angeles, CA 90012
ATTN: Charles Moore

Los Angeles County
Chief Admin. Office
500 West Temple Street
Los Angeles, CA 90012
ATTN: EIR Reviewer

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Management District
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Diamond Bar, CA 91765

Metropolitan Trans. Authority
818 West Seventh Street
Los Angeles, CA 90017

Castaic Lake Water Agency
23560 Lyons Avenue, #225
Newhall, CA 91321

Newhall County Water District
23780 N. Pine Street
Newhall, CA 91322

Valencia Water Company
28769 Castaic Canyon Road
Valencia, CA 91355

City of Santa Clarita
Comm. Development Dept.
23920 Valencia Blvd., #300
Santa Clarita, CA 91355

County of Ventura
Planning Dept.
800 South Victoria Ave.
Ventura, CA 93009
ATTN: Kim Hocking

Wm. S. Hart Union H.S. Dist.
21515 Redview
Newhall, CA 91350
ATTN: James Brown, Ed.D.

Castaic Union School Dist.
31616 N. Ridge Route Road
Castaic, CA 91384

Saugus Union School District
24930 Avenue Stanford
Santa Clarita, CA 91355

Santa Clarita Civic Assn.
P. O. Box 384
Santa Clarita, CA 91322
ATTN: Tamsie Irvan, Pres.

Santa Clarita Oak Conservancy
P. O. Box 520
Saugus, CA 91380

LOCAL & OTHER AGENCIES (con't)

SCOPE
P. O. Box 1182
Canyon Country, CA 91351
ATTN: Lynne Plambeck, Secy.

So. Calif. Gas Company
P. O. Box 457
Tujunga, CA 91042
ATTN: Ray Rawls

So.Calif.Assn.of Governments
818 W. Seventh St., 12th Floor
Los Angeles, CA 90017

So. Calif. Edison Company
800 West Cienega Ave.
San Dimas, CA 91773
ATTN: Gary Spinning

SAVE OPEN SPACE
c/o Rosemary Woodlock
21015 Mulholland Drive
Woodland Hills, CA 91361

Sierra Club
3550 W. Sixth St., #321
Los Angeles, CA 90020
Director of Support Svcs.

Newhall Land and Farming
23823 Valencia Blvd.
Valencia, CA 91355

United Water Conservation District
725 E. Main Street, Suite 301
Santa Paula, CA 93061
ATTN: Jayme Laber

Metropolitan Water District
P.O. Box 54153
Los Angeles, CA 90054-0153
ATTN: Patricia Fernandez

Los Angeles Department
of Water and Power
111 N. Hope Street
Los Angeles, CA 90051-0100
ATTN: Daniel Waters

Valencia Library
23743 W. Valencia Blvd.
Valencia, CA 91355

DRAFT

ENVIRONMENTAL IMPACT REPORT

DEIR

FOR

TESORO DEL VALLE PROJECT

LOS ANGELES COUNTY PROJECT NO. 92074
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OAK TREE PERMIT
SCH. NO. 93021007

COUNTY OF LOS ANGELES
DEPARTMENT OF REGIONAL PLANNING
320 West Temple Street, Room 1348
Los Angeles, California 90012
Contact: **Frank Meneses**

Michael Brandman Associates
11444 W. Olympic Blvd. 10th Floor
Los Angeles CA, 90064

OCTOBER 1995

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Geotechnical Evaluation for Environmental Impact Report, Proposed Tesoro del Valle Residential Development Vesting Tentative Tract 51644, July 1994

Geotechnical Response to County of Los Angeles Review Letters, May 4, 1995

Geotechnical Response to County of Los Angeles, Review Letter, June 28, 1995

Phase 1 Environmental Site Assessment, Clougherty Ranch, June 1992

B Water Resources

Richard Slade and Associates

Hydrogeologic Assessment and Well Site Feasibility Study, Clougherty Ranch Property, July 1993

The Limnion Corporation

Water Quality Management Plan, Tesoro del Valle, November 1993

[a] Due to their voluminous nature, the technical appendices have been distributed only to those agencies with jurisdiction over a technical matter. All oversized exhibits referenced in the technical appendices have not been distributed but are available for review at the County of Los Angeles Department of Regional Planning.

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Michael Brandman Associates

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Preliminary Wetlands Delineation
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Biota Report for the Proposed Tesoro del Valle (formerly Clougherty Ranch) Project, Los Angeles County, California, January 1993

Michael Brandman Associates and Sapphos Environmental

Supplemental Biota Report for the Proposed Tesoro del Valle Project, Los Angeles County, California, March 1993

Revised Supplemental Biota Report for the Proposed Tesoro del Valle Project, Los Angeles County, California, April 1993

Sapphos Environmental

Oak Tree Report for the Proposed Tesoro del Valley (formerly Clougherty Ranch) Project, Los Angeles, California, July 1994

D Traffic and Circulation
Barton-Aschman Associates

Site Traffic Impact Analysis of Tesoro del Valle, November 1993
Tesoro del Valle - Level-of-Service Analyses of I-5, SR-14, and SR-126, June 1994
Tesoro del Valle - Site Traffic Impact Analysis of a 40,000-Square-Foot, July 1994 Commercial Development
Tesoro del Valle - Traffic Analysis Assuming General Plan Buildout, September 1994

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Michael Brandman Associates

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Alfred Gobar Associates

Santa Clarita Valley Population and Housing Capacity Analysis, July 1993

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Clougherty Ranch Los Angeles County, California, Cultural Resources Investigation: Literature Search on Survey, May 1992
Phase 2 Historic Resources Investigation for the Proposed Tesoro del Valle Development, Los Angeles County, California, August 1992

R. C. Delphey Engineering, Inc.

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SECTION 1
EXECUTIVE SUMMARY

1.1 PROJECT DESCRIPTION

The proposed project, referred to in this report as Tesoro del Valle, is a master planned development of approximately 3,000 units on a 1,795-acre site. The development would include various sized single-family homes, as well as multi-family units. A 5-acre commercial site, two elementary schools, 40 acres of active parks, a fire station, and a swimming and tennis club are also proposed for the project site to support the residential uses. Approximately 1,002 acres of the 1,795-acre site would remain in open space uses after development. Approximately 672 acres of the site would be retained as substantially undeveloped natural open space.

The project would require the following discretionary actions: a General Plan amendment to allow for approximately 2,000 more units than are currently allowed under the site's General Plan designations, a rezone from heavy agriculture to urban uses consistent with the requested General Plan designations, issuance of an oak tree permit to remove 30 oak trees, approval of a vesting tentative tract map, and issuance of a conditional use permit for development in hillside areas and within a Significant Ecological Area (SEA).

1.2 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Table 1.2-1 (see page 1-5) provides an executive summary of the proposed project. The summary focuses on the environmental consequences of the project and includes the project and cumulative environmental impacts from implementation of the proposed project, a summary of mitigation measures included in the project design or identified during the impact analysis that are required to reduce the level of impact, and the level of significance after mitigation (i.e., significant unavoidable impacts). Unavoidable impacts cannot be mitigated either because mitigation is not feasible or impacts are too adverse to be fully mitigated. Section 1.3 provides a summary of the alternatives to the proposed project.

1.3 PROJECT ALTERNATIVES

As described in Section 6.2, four feasible alternatives were analyzed in comparison to the proposed project. These alternatives include the no-project alternative, buildout of the General Plan, a reduced density alternative, and a reduced development area alternative. A balanced commercial/residential alternative and a pedestrian-oriented alternative were also considered but were rejected from further consideration because of their apparent infeasibility. Finally, six alternative emergency access alternatives were also analyzed in the alternatives section (one of those having been incorporated into the proposed project).

The no-project alternative was determined to be environmentally superior to the proposed project. When the no-project alternative is identified as superior to the project, CEQA requires that another of the alternatives considered must be chosen that is superior to the proposed project. Of the other alternatives analyzed, the reduced development area alternative would be considered environmentally superior to the proposed project.

1.4 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

There are several issues of concern associated with the proposed project that were considered by the County of Los Angeles during review of the proposed project. First, the project site is adjacent to, and contains portions of, San Francisquito Creek, designated by the County of Los Angeles as Significant Ecological Area (SEA No. 19). The project avoids any direct encroachment of urban development into the main channel of San Francisquito Creek (a bridge embankment would encroach into the floodplain, however) and includes design features to maintain the quality of runoff entering the creek from the project to protect the integrity of the SEA. The compatibility of the project with the resources in the SEA and interpretation of SEA criteria is, however, an area of controversy associated with the proposed project.

The need for additional housing opportunities in the Santa Clarita Valley is also an issue to be considered during review of the project. This latest population projection by the Southern California Association of Governments (SCAG) in the Regional Comprehensive Plan (RCP) for the Santa Clarita Valley for the year 2010, at approximately 460,000, is 74 percent higher than the projection of 270,000 used as the basis for the last comprehensive update of the Santa Clarita Valley Area Plan by the County of Los Angeles in 1990. The increase in projected growth may require additional land to be designated for residential uses or higher density residential designations. Whether the project should be judged on the adopted RCP or the County's growth projections remains to be determined,

since both figures are available. Concurrence with SCAG's projections (growth management, jobs/housing, and vehicle miles traveled) and the ability to help meet this demand by approving the requested General Plan amendment are issues to be resolved for the proposed project.

Related to population growth, the availability of sewage treatment capacity for the additional units requested beyond the existing General Plan remains to be resolved. Although sewage connection fees would help to fund expansions of the County's treatment system, whether the project would use capacity available to other potential planned development in the future remains to be determined. Presently, the Sanitation District is preparing a master plan to meet the future demand for the area based on growth estimates by SCAG.

Providing adequate fire and emergency access is also an issue of the project. The primary proposed access to the project site is from two entry roads from future Copper Hill Drive (westerly to Rye Canyon) on the westside of San Francisquito Creek and San Francisquito Canyon Road on the eastside of the creek. The extension of Mc Bean Parkway north of Copper Hill Drive is also a future possibility but is not currently proposed. In addition to these access points, the Fire Department has required that Copper Hill Drive cross San Francisquito Creek prior to the buildout of the project, and that a bridge (referred to as HH Street) be included in the project's circulation system to connect Planning Areas A and D (across San Francisquito Creek). In addition, five stub roads are included in the tract map as potential connections to offsite properties should they be later developed (discussed further in Section 6.7). These alternative stub roads are intended for emergency access and good circulation planning. No determination has been made at this time regarding which, if any, of the stub road alternatives would be used. However, even with these requirements adequate access to the site may still remain an issue to be resolved.

The project would result in significant impacts to public schools and libraries. Because the project is requesting a General Plan amendment, the adequacy of existing school impact fees remains an issue to be resolved. As for library impacts, currently (June 1995), no funding mechanism (i.e., impact fees) exists to offset impacts to service. Although the developer is willing to enter into an agreement with the County, whether the project's impact on the library system will be fully mitigated to less than significant levels is considered an issue to be resolved.

The project includes 40 acres of park land, only 15 of which are acceptable based on the County of Los Angeles Department of Park and Recreation. Based on the standards of the department, 25 to 34 acres of parks are needed to meet the needs of the residents. While the payment of fees in lieu of

dedication of additional land will meet the County's requirements, the need for additional parks within the project is an issue to be resolved during review of the project.

Although the project itself could be found to mitigate its share of impacts to sheriff's services through its pro rata share of property taxes, the Sheriff's Department has expressed its concern over cumulative development in the Santa Clarita area. Cumulative impacts are discussed in the appropriate sections of this document.

TABLE 1.2-1

SUMMARY TABLE

Environmental Setting and Impacts	Mitigation Measures	Level of Significance After Mitigation
Earth Resources		
The project will involve changes in the existing topography of the site, and development of the site in areas where potential geologic hazards exist. The site consists of moderately steep to steep terrain in the central and western portions of the site, leveling off toward the east to the bottom of San Francisquito Canyon. The proposed project will require grading of approximately 1,128 acres of the 1,795 acre site. Cut and fill slopes with heights of up to 140 feet are proposed. Proper engineering of the project will ensure that unsafe conditions in hillside areas will be mitigated. Portions of the site are underlain by alluvium, topsoil, and/or slope wash. Both shallow slope failures and deep seated landslides occur in the hillside areas of the site. Development has been setback from the major landslides onsite and remedial grading techniques will be used to mitigate other geological constraints. The site contains some limited areas that have been minimally contaminated by oil, fuel, and other moderately hazardous materials associated with the historical use of the site for agricultural and ranching activities. Areas of existing potential contamination (above ground fuel tank, storage drums, landfill material) will be removed prior to construction and all areas with contaminated soil will be remediated. The site also contains an existing abandoned oil exploration well, and several small landfills. Although no active or potentially active faults are known to exist on the project site, earthquakes on nearby faults may result in strong shaking on the project site.	Implementation of the mitigation measures in the project geotechnical report will reduce impacts associated with loose or compressible soils, expansive soils, and ground settlement to a level considered less than significant. The removal and recompaction of the topsoil and slopewash will mitigate the potential impacts associated with expansive soils and expansive bedrock. Impacts associated with groundshaking can be reduced to a level considered acceptable through the implementation of current building practices and avoidance of unstable areas. A Phase II environmental assessment will be conducted to more fully determine the extent of identified soil contamination on the site and the specific remediation actions. Removal or treatment onsite of contaminated soils will occur in conformance with applicable state and federal regulations.	Less than significant
Earth Resources: Cumulative Impacts		
Impacts to earth resources will occur primarily onsite; limited offsite grading would be required, but no related project development would be affected by the project. As a result, no cumulative impacts are anticipated.		
Water Resources		
The project will result in changes to existing drainage patterns, runoff amounts, and the quality of surface	To protect surface water quality during construction, a stormwater	Less than significant

TABLE 1.2-1 (continued)

Environmental Setting and Impacts	Mitigation Measures	Level of Significance After Mitigation
runoff. The project site primarily drains to three drainages: San Francisquito Creek, to the east, Wayside Canyon to the west, and Tapia Canyon to the northwest. During construction, alteration of the surface areas of the site will lead to an increase in the potential for erosion and sedimentation. Of the three major watersheds receiving runoff from the site, all will experience reductions in runoff rates because of the reduction in bulking caused by development of the project and the county's requirement to maintain watershed sizes. A system of water quality lakes that use submerged aquatic vegetation to clean pollutants from urban runoff will be used to reduce water quality impacts on San Francisquito Creek. No significant impacts are anticipated related to changes in existing drainage patterns. As proposed, the project includes only minor encroachments into the floodplain of San Francisquito Creek (a total of 3.57 acres). One access road (HH Street) to Planning Area D from San Francisquito Canyon Road would cross the floodplain. Culverts will be provided under the road to maintain existing drainage flows. The extension of HH Street, as a bridge over the main channel of the creek, would include embankments that encroach into the floodplain but not the main channel of San Francisquito Creek. As there will be no encroachment into the main channel (i.e., floodway), the velocity of the flows within the creek would not be affected by the project. All habitable structures would be located outside of the floodplain.	pollution runoff plan will be developed and implemented as required by the Federal Clean Water Act. The proposed water quality system (i.e., water quality lakes) will mitigate project impacts on changes to surface water quality. Additional long-term water quality measures (such as grease traps, clarifiers) are required for portions of San Francisquito, Wayside, and Tapia watersheds. Biological measures to mitigate for water quality impacts would also be applied.	
Water Resources: Cumulative Impacts		
Several cumulative projects are located within the San Francisquito Creek watershed. Although cumulative projects within the watershed could affect the quality and velocity of flows within San Francisquito Creek, the proposed project has been designed so that post-development peak runoff is less than pre-development conditions based on County methodology of analysis. Since the project would not represent a significant change to the total current runoff to the creek, its contribution to cumulative impacts would be negligible. It is expected that other projects would be similarly conditioned such that no significant cumulative impacts would occur.		
Biology		
The project site contains eight plant communities. The dominant plant community on the site is Chamise Chaparral (1,274 acres). Venturan Coastal Sage Scrub	Approximately 631 acres of open space will be offered for dedication. A revegetation program will be	Even with implementation of all mitigation measures

TABLE 1.2-1 (continued)

Environmental Setting and Impacts	Mitigation Measures	Level of Significance After Mitigation
(106 acres), Riversidean Alluvial Fan Sage Scrub (90 acres), Mainland Cherry Forest (24 acres), Coast Live Oak Woodland (11 acres), and Southern Cottonwood-Willow Riparian Woodland (6 acres) are the other native plant communities on the site. In addition, four types of converted habitat are present: agricultural (111 acres), ruderal (9 acres), disturbed/developed (including roads) (120 acres), and eucalyptus/exotic trees (1 acre). The site contains approximately 234 mature oak trees in the Oak Woodlands habitat onsite. The eastern portion of the site is crossed in 2 locations by San Francisquito Creek; the floodplain of this creek has been designated as a Significant Ecological Area (SEA), by the County of Los Angeles, to preserve the creek as a movement corridor for a federally endangered fish, the unarmored threespine stickleback (UTS). Sensitive species observed on the site included one sensitive plant species and several bird, reptile, and mammal species. No endangered species were observed on the site. While not observed, suitable habitat exists onsite for other sensitive wildlife species known to be in the area. The project will impact approximately 871 acres of native plant communities on the 1,795-acre site. The project has been designed to preserve the highest quality and most sensitive native vegetation on the site, as well at to preserve the majority of the 234 mature oak trees on the site; 30 will be impacted by the project. The loss of the portions of the riparian vegetation, coastal sage scrub and cherry woodland and oak woodland plant communities on the site is considered a significant impact. The project will also impact locations of the sensitive plant species identified on the project site. The loss of Chaparral and Coastal Sage Scrub habitats onsite will reduce the available habitat for several of the sensitive wildlife species onsite. These impacts on sensitive plant and wildlife species are considered significant. The project will also interrupt wildlife movement across the site. This impact is also considered significant. The project has been designed to include a system of water quality lakes to remove urban pollutants from runoff entering the creek. These measures will reduce overall impacts to San	implemented to mitigate the impact of the project on the sensitive plant species found onsite. A catch-and-release program is proposed to mitigate the impact of the project on two of the sensitive lizard species found onsite. Construction operations will be timed to avoid impacting any active raptor nests onsite and the known nest will be avoided. Revegetation of Riparian, Cherry Woodland, Coastal Sage Scrub, and Alluvial Scrub plant communities impacted by the project will occur onsite. Mitigation of the impact to the 30 oak trees onsite will be achieved by replacing these trees at a ratio of 2:1. The project includes design features to allow wildlife movement across the site. Measures to maintain water quality in San Francisquito Creek have also been required.	proposed, the loss of extensive chaparral onsite is considered a significant loss of habitat for sensitive wildlife species observed on the site or likely to use this habitat. The project will also result in a significant impact related to the interruption of wildlife movement across the site. No anticipated impacts on state or federally rare or endangered species would occur. Indirect impacts to the SEA remain potentially significant due to the inability to control human activity.

TABLE 1.2-1 (continued)

Environmental Setting and Impacts	Mitigation Measures	Level of Significance After Mitigation
Francisquito Creek and help to preserve the integrity of the SEA. Indirect impacts to the SEA from increased human activity are potentially significant.		
Biological Resources: Cumulative Impacts		
The cumulative projects located within the San Francisquito Canyon area account for about 1,000 acres of development. There is a significant cumulative impact resulting from the project's contribution to the loss of natural undeveloped land for wildlife habitat in general, and chaparral and sage scrub communities in particular, the latter of these supporting several sensitive species. Managing frequency and intensity of inundation and water quality of intermittent flows within San Francisquito Canyon Wash is crucial to conserving habitat for the UTS. Similar water quality measures as those proposed by this project would need to be implemented both up and downstream of the project to avoid significant cumulative impacts on water quality. In addition, stream crossings to access future development on both sides of the creek poses a potential significant cumulative impact to the viability of San Francisquito Canyon wash to act as migratory corridor for the UTS and terrestrial species during dry periods.		
Traffic and Circulation		
Development of the site would require use of existing roadways and the construction of future roadways as called for in the Circulation Element of the Santa Clarita Valley Area Plan. Most of these roads will be constructed as conditions for other developments approved in the area, although this project would contribute funds towards their construction. The proposed land uses would generate approximately 30,681 daily trips that will use roads outside of the project, with approximately 2,182 trips in the a.m. peak period and 3,039 trips in the p.m. peak period. Distributing these trips across the future roadway network at buildout, a total of 7 of the 24 study intersections would be significantly impacted in the a.m. Peak period and 11 of the 24 study intersections would be impacted in the p.m. peak period, based on Los Angeles County Public Works thresholds of significance. A signal warrant analysis concluded that the two access points on Copper Hill Drive will require traffic signals based on California Department of Transportation standards.	Proper phasing of circulation improvements consistent with project phasing will be required. The provision of additional through travel and turn lanes at impacted intersections would reduce impacts to less than significant levels at 3 of the impacted intersections in the a.m. peak period and 4 of the impacted intersections in the p.m. peak period. Impacts at 2 of the impacted intersections in the a.m. peak period and 3 of the impacted intersections in the p.m. peak period can only be partially mitigated. Intersections will be constructed at the project entries off of Copper Hill Drive. In addition, transportation demand management measures required to mitigate traffic and air quality impacts (see Section 5.5), such as bus stops, bike lanes, commuter matching services, and connections to mass transit (Metrolink), will be required to mitigate impacts on traffic and air quality.	Significant impacts will remain after implementation of all feasible mitigation measures. Impacts at two intersections in the a.m. peak period and three intersections in the p.m. peak can be mitigated, but not to a less than significant level. Impacts at two intersections in the a.m. peak period and four intersections in the p.m. peak period cannot be feasibly mitigated.

TABLE 1.2-1 (continued)

Environmental Setting and Impacts	Mitigation Measures	Level of Significance After Mitigation
Traffic and Circulation: Cumulative Impacts		
In the cumulative (2000) traffic scenario, a total of 11 of 31 intersections would be impacted in the a.m. peak period and nine of 31 intersections would be impacted by the project in the p.m. peak period. The project was also analyzed using a General Plan Buildout scenario (2030). The results of this analysis indicate that the project along with the future development would impact several segments of State Route 126, Mc Bean Parkway, Bouquet Canyon, Copper Hill Drive, Newhall Ranch Road, and Valencia Boulevard. A recommended mitigation for these cumulative impacts on General Plan buildout is the increased widening of Copper Hill Drive from a six-lane arterial to an eight-lane facility on segments both north and south of Newhall Ranch Road. Even with the implementation of feasible mitigation measures, the project would result in significant cumulative impacts on traffic and circulation.		
Air Quality		
Development of the proposed project would result in impacts to existing air quality during both the construction and operation of the project. Emissions during the construction period of the project would exceed the South Coast Air Quality Management District's (SCAQMD) thresholds for reactive organic compounds, nitrogen oxides, and particulates. Fugitive dust emissions during construction will also exceed the threshold of significance set by the SCAQMD. Operation of the project will result in an increase in emissions as a result of natural gas and electricity use of onsite equipment, and vehicle trips associated with the project. These emissions would exceed SCAQMD thresholds for carbon monoxide, nitrogen oxides, and reactive organic compounds and, therefore, are considered significant impacts. Localized impacts from vehicular emissions of carbon monoxide would not be significant. The project is considered consistent with the Air Quality Management Plan (AQMP) in some respects, and inconsistent in others.	Incorporation of standard construction emissions reductions, such as dust suppression and construction equipment operation improvements, will be required to mitigate impacts. Operational emissions will be partially mitigated through the use of incentives for alternative modes of transportation through the homeowners and/or a transportation management organization (T.M.O.), and through measures designed into the project (such as bike paths, onsite retail commercial uses, and circulation mitigation). However, even with the incorporation of these mitigation measures, air quality impacts would remain significant due to the nature and magnitude of the project and the use of thresholds set by the SCAQMD.	Significant
Air Quality: Cumulative Impacts		
Project utility-related and vehicular operational emissions, together with emissions from future projects, would cumulatively contribute to existing and projected exceedances of national and state ambient air quality standards in the South Coast Air Basin. The project's contribution to the emissions of CO, NOx, ROC, and PM10 are cumulatively significant. Mitigation measures identified to reduce project-related impacts would also assist in mitigating cumulative impacts. However, cumulative impacts are considered significant even after mitigation.		
Noise		
Implementation of the project would result in increases in both short-term (during construction) and long-term noise levels due to the considerable change in character	Standard noise reduction techniques will be utilized used the construction period to reduce short-term noise im-	Less than significant

TABLE 1.2-1 (continued)

Environmental Setting and Impacts	Mitigation Measures	Level of Significance After Mitigation
of use of the site. The increase in noise levels during construction would be less than significant because of their temporary nature and the use of standard construction techniques, such as wooden construction barriers, walls, and muffled construction equipment. Long-term noise levels would rise as a result of increases in traffic. Two roadway segments, Mc Bean Parkway from Decoro Drive to Copper Hill Drive and Copper Hill Drive from Dickason Road to Decoro Drive, would experience increases in noise levels close to levels normally considered significant as a result of increased traffic. The impact of the project alone on noise levels offsite, however, may be considered less than significant, through utilization of typical noise mitigation techniques (such as berms, walls, and setbacks). Development onsite within approximately 500 feet of the centerline of Copper Hill Drive would be exposed to high traffic noise levels.	pacts. Walls should be constructed to reduce noise levels along Copper Hill Drive onsite where sensitive uses (i.e., schools and residences) will be within approximately 500 feet of the centerline of the roadway. Appropriate methods, such as screening vegetation, should be used to discourage graffiti.	
Noise: Cumulative Impacts		
Using cumulative traffic volumes, no significant project-related offsite noise impacts are anticipated. New offsite development along major arterial, such as McBean Parkway, Copper Hill Drive, and Newhall Ranch Road, would potentially be exposed to higher traffic noise levels. Sound barriers or walls may be necessary to mitigate noise increases, but further site-specific review during the development/environmental review process will determine the specific needs for development in these areas.		
Aesthetics		
Development of the project would require grading of moderately steep to steep hillsides. The aesthetic characteristics of the site will change from undeveloped open space to urban development. Approximately 670 acres of the site would be retained in its natural state and an additional 320 acres would be disturbed natural and urban open space. The project has been designed to preserve the most visible rock outcrops on the site. Development of the project would not significantly affect the view from any designated scenic highway. Of the five viewpoints identified for analysis of the project, views from three would either be unaffected by the project or the change in the view would be mitigated by the proposed landscape plan. Views of the site from the other two viewpoints (one from the south of the project and one from San Francisquito	Implementation of the proposed landscape master plan would partially mitigate the impact of the project. The "hard-edge" of urban development will be minimized through revegetation, which includes native species. Structures and urban features will be screened from most views by this vegetation. However, some views of the site will be unavoidably altered. Mitigation in the form of setbacks will also ensure structures will not be silhouetted against the skyline from views in the Angeles National Forest.	Significant

TABLE 1.2-1 (continued)

Environmental Setting and Impacts	Mitigation Measures	Level of Significance After Mitigation
Canyon Road) would be significantly affected by the project.		
Aesthetics: Cumulative Impacts		
Future development within the San Francisquito Canyon viewshed would result in a major change in character of the area from open space to suburban development. The project's contribution to this change in the canyon is considered cumulatively significant. The project's cumulative impact from two viewpoints considered sensitive would also be significant.		
Land Use		
Approximately 110 acres of the site are used for agricultural purposes. The site also contains easements in favor of the Metropolitan Water District (MWD) for a tunnel aqueduct and the Southern California Edison Company for 66-kv power lines. Existing and planned urban development is located to the south of the project site and the Angeles National Forest is located to the north of the site. In order to mitigate project impacts within the SCE easement, the project has been redesigned to remove water quality lakes from the easement, and in place of the lakes, soccer fields would be constructed within the Edison easement area. There is some potential for exposure to Electromagnetic fields in this area. The project will also eliminate the agricultural operations on the site. These impacts are not considered significant.	Although other development has occurred above MWD aqueducts, the MWD will have the opportunity to review and comment on the plans for development. The project will not include any permanent structures within the Edison easement and will provide signs within the portion of the easement area containing the proposed recreation facilities. The signs will state that there is a potential for exposure to electromagnetic fields located in the vicinity. In the event that EMF exposure is shown in the future to have negative health effects for the levels present onsite, the area proposed for recreational soccer fields will be abandoned for passive open space. With the approval of the requested plan amendment, the project would become consistent with the general plan. However, it would substantially alter the location and distribution of the population planned in the area.	Less than significant
The existing Santa Clarita Area Plan land use designations for the site allow approximately 1,000 units on the site. A general plan amendment is being requested to allow 3,000 units to be built on the site. As the project is requesting a plan amendment, the project can be considered inconsistent with designations in the general and area plan. Current regional estimates for growth are far higher than previous projections. According to the applicant, the project will help to meet the need for additional residential units.		
Land Use: Cumulative Impacts		
The proposed project is compatible with nearby approved cumulative development to the east and southeast across San Francisquito Creek. As such, the project would be considered an extension of the urban boundary that currently exists just south of the project's boundary subject to a finding by the Board of Supervisors that this is an appropriate modification of the local plan. It should be noted that Valencia Company's Master Planned development, North River, is located in the area south of the project on the west side of San Francisquito Creek.		

TABLE 1.2-1 (continued)

Environmental Setting and Impacts	Mitigation Measures	Level of Significance After Mitigation
Socioeconomics		
Development of the project would increase the number of residential units in the Santa Clarita Valley by 3,000, the population by 8,640 and jobs by 150. The project would represent 3 percent of the housing and population growth and a fraction of the employment growth projected by the Southern California Association of Governments (SCAG) for the Santa Clarita Valley. Impacts are considered adverse but less than significant. The project would decrease the existing Santa Clarita jobs/housing balance from 1.05 to 1.00 and decrease the projected future jobs/housing balance from 0.84 to 0.81. No significant impacts are anticipated as a result of project implementation on socioeconomics.	No mitigation measures are necessary.	Adverse, but less than significant
Socioeconomics: Cumulative Impacts		
The proposed project would increase cumulative housing growth by 6.9 percent. Known development projects would either exceed County Department of Regional Planning growth estimates or make substantial contributions to the growth estimates of the Southern California Association of Governments. Exceeding the growth projections of the County of Los Angeles would be considered a significant cumulative impact. Using the substantially higher projections of SCAG, this cumulative development may not be considered significant.		
Public Services/Utilities		
Police		
The project will result in an increase in population that is served by the Los Angeles County Sheriff's Department. A total of 8,640 new residents are expected from the project. Additional demands from residential and commercial uses would be placed on the Sheriff's Department. Because of the lack of manpower available to serve the project area, the increased demands are considered significant by the Sheriff's Department. The Sheriff's Department has indicated the limited access provided by a gated private development (Planning Area C), as well as the phased construction of Copper Hill Drive, would impact the Sheriff's Department ability to provide service to the project.	In order to provide sufficient access, the project applicant will be required to consult with the Sheriff's Department to determine a method for entry into the gated portion of the project (such as knock-boxes). Implementation of the project will result in additional revenues to the County's general fund should logically be used to provide additional resources for the Sheriff's Department. However, the availability of these funds is not guaranteed; thus, impacts remain potentially significant.	Potentially significant

TABLE 1.2-1 (continued)

Environmental Setting and Impacts	Mitigation Measures	Level of Significance After Mitigation
Police: Cumulative Impacts		
Cumulative development would result in a substantial increase in the resident population served by the Sheriff's Department. This increase could result in significant cumulative impacts to the Department. No funding mechanism, other than taxes, currently exists to mitigate the additional cumulative demands placed on the Sheriff's Department. As such, an additional funding mechanism should be pursued by the Sheriff's Department with approval by the Board of Supervisors. The Sheriff's Department is authorized to perform long-range planning in accordance with adopted projections. It is suggested that the Sheriff's Department conduct a study of various financing options which may be available to secure additional funding should it be determined that the Department's future allocation of General Fund monies is insufficient.		
Fire		
The Los Angeles County Fire Department has stated that project development would require additional manpower, equipment and facilities to provide adequate fire services to the project. Since tax revenues are not sufficient to meet the growing needs of the Fire Department, impact fees are required of the project applicant during building permit stage. The project will also be required to meet the standard design and access requirements of the Fire Department. The Fire Department has also tentatively approved the phasing plan of the project.	Project mitigation measures were recommended by the fire department during the initial review stages of the project. These measures cover fire protection facilities, access, and brush clearance. In addition, the project developer will be required to pay a fee of $0.18 per square foot of structure or the prevailing rate for the mitigation of impacts to fire facilities. A fire station site has been reserved for purchase on the project site.	Less than significant
Fire: Cumulative Impacts		
Cumulative development would require the expansion of existing facilities and manpower. While the project would be conditioned to provide funds for additional facilities, the cumulative impact of the project on the fire department's manpower resources is cumulatively significant considering the limitations of tax revenues.		
Schools		
Proposed residential development would generate approximately 1,513 total students, consisting of 793 elementary, 240 junior, and 480 high school students. The school districts affected by the project include the Saugus Union and William S. Hart School District. The project represents a significant portion of the projected growth for these districts. Because of existing overcrowded conditions and the amount of students generated by the project, impacts to the school districts would be considered significant.	The proposed project includes making available for purchase two elementary school sites to the affected school district to offset impacts of the project. The school sites would be sufficient to more than meet the elementary school demands of the project. Further, in accordance with the joint resolution between the County of Los Angeles and the school districts of Santa Clarita Valley, the developer will be required to sign an agreement for the provision of funds to mitigate project impacts. With these measures,	Less than significant

TABLE 1.2-1 (continued)

Environmental Setting and Impacts	Mitigation Measures	Level of Significance After Mitigation
	impacts would be reduced to less than significant levels.	
Schools: Cumulative Impacts		
Cumulative development would require the construction of additional school facilities. Individual projects will be conditioned to mitigate their impacts to school services. However, rapid growth may temporarily impact the school district because school construction is a lengthy process. Payment of fees, phasing, and restricting growth are available to mitigate this impact of cumulative development to less than significant levels.		
Solid Waste		
Approximately 6.3 tons per day of solid waste would be generated by the project. The solid waste generated by the project would be 0.5 percent of the daily disposal of the Chiquita Landfill and 0.13 percent of the permitted capacity of the landfill. At project buildout, current solid waste reduction laws will require a 50 percent reduction in solid waste generated by the project. An unquantifiable increase in household hazardous wastes from project would adversely affect the County's abilities to dispose of this type of waste. While the impacts would not be significant due to the common nature of the materials, mitigation would be required to ensure proper disposal.	Expansion of recycling services to serve the proposed project will help to mitigate solid waste impacts on area landfills, as well as facilitate government efforts to reduce solid waste generation by 50 percent. Further, the Homeowners Organization or other entity will help hazardous materials disposal (and recycling) by providing proper information to those that live and work on site.	Less than significant
Solid Waste: Cumulative Impacts		
The project's contribution to cumulative solid waste generation is 14 percent of the projected cumulative waste stream. Due to the difficulty in locating and constructing landfills and the impending shortage of capacity, the project's contribution to solid waste impacts is cumulatively significant. Project mitigation measures have been required to limit the cumulative impacts of the project.		
Library		
Residential population increases will result in an increased demand for library facilities and books. Based on standard library requirements, a total of 3,024 square feet of library space and 17,280 library material items would be needed for the project's residents. This translates into approximately $1.2 million in costs for the library department. This is considered a significant impact on existing library services.	Based on the recommendations of the County Public Library, the project developer is recommended to enter into an agreement with the County of Los Angeles to specify methods of mitigation, which would include the contribution of funds to reduce the impacts of the project to less than significant levels.	Less than significant; subject to library recommendations as conditions of approval.

TABLE 1.2-1 (continued)

Environmental Setting and Impacts	Mitigation Measures	Level of Significance After Mitigation
Library: Cumulative Impacts		
Cumulative development would result in a demand of 346,146 library material items and 60,573 square feet of library space. The project's contribution to this demand is 5 percent. The project's contribution to the potentially significant cumulative impact is considered less than significant considering the mitigation of its project impacts.		
Parks and Recreation		
The residents of the project will generate the need for additional parks facilities. Based on the land use characteristics of the project and County park standards, approximately 25 to 34 acres of park land would be required to meet the needs of project residents. A total of 40 acres of active park land is proposed; however, only 15 acres meet Quimby Act requirements. This is between 10 and 19 acres less than park requirements for a development of this size. Payment of fees in lieu of dedication of additional park land ranging between 1.3 and 2.4 million dollars would mitigate this impact under the County's requirements. The parks department has recommended that additional park land be provided instead of mitigating the entire shortfall of park lands through the payment of fees. A trail system located onsite is also proposed to be incorporated into the county trail network. In order to ensure a cohesive network, the developer will be required to obtain park department approval.	During the sub-division review and approval process, the parks department and the applicant will determine the proper obligations of the project, in terms of park land, improvements for parks, or in lieu fees. The developer will also need to obtain approval from the parks department for the dedication of the trail network.	Less than significant
Parks and Recreation: Cumulative Impacts		
Cumulative development would require 123 acres of additional park land based on county standards. As each project would be required to mitigate is own impacts, cumulative impacts of the project are considered less than significant.		
Communication		
New phone service will be required, but no significant impacts are anticipated.	No mitigation measures are necessary.	Less than significant
Communication: Cumulative Impacts		
Each of the cumulative projects would be served by the extensions of necessary services, which could be met by the local providers. No significant cumulative impacts are anticipated as a result of project implementation.		

TABLE 1.2-1 (continued)

Environmental Setting and Impacts	Mitigation Measures	Level of Significance After Mitigation
Electricity		
A total of 18 million kilo-watt hours per year of electricity would be consumed by the project. Facilities are located close to the site with sufficient capacity to serve the project. No significant impacts, therefore, are anticipated. Title 24 building code requirements will reduce energy consumption levels to a minimum and would mitigate any potential impacts to less than significant levels.	Incorporation of Title 24 energy conservation requirements would reduce impacts to a less than significant level.	Less than significant
Electricity: Cumulative Impacts		
Cumulative development would consume about 133 million kWh of electricity each year. This demand is expected to be met by Southern California Edison. No significant cumulative impacts are anticipated.		
Natural Gas		
A total of 18 million cubic-feet per month of electricity would be consumed by the project. Impacts for providing service are not anticipated to be significant, since facilities are located close by and the Southern California Gas Company is required by the Public Utilities Commission to provide service to all customers. Title 24 building code requirements will reduce energy consumption levels to a minimum and would mitigate any potential impacts to less than significant levels.	Incorporation of Title 24 energy conservation requirements would reduce impacts to a less than significant level.	Less than significant
Natural Gas: Cumulative Impacts		
Cumulative development would consume about 91 million cubic feet of natural gas each year. This demand is expected to be met by the Southern California Gas Company. No significant cumulative impacts are anticipated.		
Sewage		
Based on the county's development monitoring system, a total of 0.72 million gallons per day of sewage from the proposed uses is expected and will require treatment by the County of Los Angeles Sanitation District's Santa Clarita Valley Joint Sewerage System (SCVJSS). The project represents approximately 4 percent of the future (1997) capacity of the treatment system. Available capacity at the point of project buildout could be sufficient to serve the project assuming no other growth. As the project developer will be required to pay connection fees to the Sanitation districts, impacts would be mitigated to a less than	Payment of hook-up fees and the construction of adequate sewer lines will reduce impacts to less than significant levels. No building permits will be issued if adequate capacity is not available at any given point in the phasing plan of the project.	Less than significant

TABLE 1.2-1 (continued)

Environmental Setting and Impacts	Mitigation Measures	Level of Significance After Mitigation
significant level. The project developer would also fund the extension of sewer lines to the Sanitation Districts treatment plant, thus no significant impacts are anticipated.		
Sewage: Cumulative Impacts		
In the year 2000, buildout of the proposed project, in conjunction with cumulative development, could require the early expansion of the SCVJSS. At this point, sewage generated would exceed the planned capacity by 0.59 mgd; however, this could be treated with temporary storage of peak flows which has been a standard practice. In the year 2010, sufficient capacity should be available from the SCVJSS to serve foreseeable development within the Sanitation District's service boundaries. Individual developments would be required to pay sewage connection fees to allow for the future expansion of the treatment system. No significant cumulative impacts are anticipated.		
Water		
The project site lies partially within the service boundary of the Castaic Lake Water Agency, which provides wholesale water service to the area. Portions of the site are within the service boundaries of several local retail water providers. The project site would require annexation to both the CLWA and the Valencia Water Company, the local retail provider. To accomplish this, additional sources of water will be required to offset the water needs of uses proposed for those areas of the site not in the service boundaries.	The portion of the site needs to be annexed to the Castaic Lake Water Agency and the entire site needs annexation into the Valencia Water Company. A dependable supply of water will need to be identified by the Castaic Lake Water Agency or the project applicant before annexation can occur.	Less than significant
Project water consumption will result from urban water usage, irrigation of landscaping, and the onsite water quality lakes. Total consumption would be approximately 2,800 acre-feet (AF) per year. Based on DMS calculations, this represents 15 percent of the available supply of the VWC and does not exceed its DMS stated supply. With the annexation of the project site into the service boundaries, impacts would be considered less than significant.		
Water: Cumulative Impacts		
Cumulative water demand is estimated to be about 11,000 acre-feet per year. Cumulative development, including the proposed project, would not exceed the Valencia Water Company's known and stated supply. No significant cumulative impacts are expected.		
Cultural Resources		
Based on surveys of the site, no significant archeological resources exist on the project site. The site contains nine adobe and wood structures associated	The loss of most of the historic structures onsite will be mitigated through the design and implementa-	Less than significant

TABLE 1.2-1 (continued)

Environmental Setting and Impacts	Mitigation Measures	Level of Significance After Mitigation
with the historical use of the site as a ranch by the early western movie actor, Harry Carey. The adobe structures onsite include a main ranch house and 6 related adobe structures, such as a stable and garages, in a complex in the southern portion of the site and a caretaker's house near San Francisquito Canyon Road. These buildings are considered to be of historic significance for several reasons. First, the ranch complex represents a significant example of adobe architecture from the Adobe Revival period of the 1920s and 1930s. Second, this complex of buildings is also representative of a working ranch of early 1900s. Third, these buildings are associated with a significant actor of early western movies, Harry Carey. For these reasons these buildings are considered eligible for listing in the National Register of Historic Places as a National Historic District. The project would include preservation of the main ranch house as a history museum. Three of the most significant adobe structures on the site were severely damaged during the January 1994 earthquake. Because of the structural damage, these buildings require demolition. Thus, eight of the nine historical structures identified onsite would be eliminated. The loss of these buildings would result in the loss of the historic district and would be a significant impact.	tion of an interpretive program involving photographic documentation of the history of the property. Onsite archaeological monitoring during grading will reduce the potential of impacting unknown resources. Compliance with Section 106 of the National Historic Preservation Act will mitigate impacts of the project to less than significant levels.	

Cultural Resources: Cumulative Impacts

Historic resources were identified only for the project site; the site does not contribute to the context of offsite historic or archaeological resources. Thus, the development of the project would not cumulatively impact any known offsite resources.

SECTION 2
INTRODUCTION

2.1 *PURPOSE OF EIR*

In conformance with the California Environmental Quality Act (CEQA) and the state CEQA Guidelines, as amended, this environmental impact report (EIR) evaluates the individual and cumulative environmental impacts associated with development of an approximate 1,795 acre site into approximately 3,000 residential units, two schools, a commercial center, and a swim and racket club.

In order to implement the project, the following discretionary actions would require approval: a general plan amendment to the countywide and area plans, a zone change, a vesting tentative tract map, a conditional use permit for development on hillsides and in an SEA, and an oak tree permit to remove 30 oak trees.

The EIR process as defined by CEQA requires the preparation of an objective, full-disclosure document. The purpose of the document is to provide objective planning and environmental information to guide and assist the County of Los Angeles Board of Supervisors and the Regional Planning Commission (RPC), and the public-at-large, in the consideration and evaluation of the potential environmental implications that may result from construction of the proposed project.

2.2 *ORGANIZATION AND CONTENT*

For purposes of function and clarity this EIR has been divided into the following sections:

- **Section 3, Project Description:** provides a detailed project description of the proposed project including the objectives of the project, the need for the project, specific characteristics of the project in terms of proposed land uses, phasing of development, landscaping, grading, improvements to support the project, and approvals required to implement the project.

- **Section 4, General Environmental Setting:** describes the existing environmental setting both onsite and offsite. General environmental characteristics and surrounding development are discussed in this section.

- **Section 5, Environmental Setting, Impacts, and Mitigation Measures:** describes the existing conditions found at the project site and the surrounding area, and assesses the potential environmental impacts that may be generated by development of the proposed project. This section is divided among the topics of earth resources,

water resources, biological resources, traffic and circulation, air quality, noise, aesthetics/visual, land use, socioeconomics, public services and utilities, and cultural resources. Potential project impacts are compared to thresholds of significance in order to determine their significance. Significant impacts are identified as those which exceed the established threshold. Mitigation measures, intended to reduce potentially adverse impacts, are proposed where possible. Those significant adverse impacts that cannot be mitigated to below acceptable levels or eliminated are also identified. In addition, the cumulative impacts of development of the project, in addition to related projects, are assessed.

- **Section 6, Alternatives:** provides a comparison of environmental consequences of four alternatives to the proposed project, including a "no-project" alternative. The relative impacts of the alternatives are compared to the impacts analyzed in Section 5.

- **Section 7, Long-term Implications of the Project:** identifies potential temporal, economic or population growth impacts, both short-term and long-term, that may be created or fostered by the development.

- **Section 8, Organizations and Persons Consulted:** provides a list of all governmental agencies, community groups, and other organizations consulted during the preparation of this EIR.

- **Section 9, References:** lists all sources, communications, correspondences used in the preparation of this EIR.

2.3 *PROJECT HISTORY AND BACKGROUND*

2.3.1 PROJECT SITE HISTORY

Previous Submittals/Santa Clarita Valley Area Plan Update

The project site has been the subject of development proposals prior to the proposed project. In December of 1989, the Lusk Company proposed development of a 3,000 unit residential community on the project site. This proposal included residential uses, a golf course, parks, schools, open spaces and commercial uses. At the time of the development proposal, access to the site was a key concern as there was no planned access route to Interstate 5 in the project vicinity. The primary access point to the project site was San Francisquito Canyon Road. As this one road alone could not provide sufficient access, several other alignments for secondary access to Interstate 5 were examined.

During this same period, the Los Angeles County Department of Regional Planning was in the process of updating the Santa Clarita Valley Area Plan (SCVAP). Prior to the plan update, zoning and land

use designations of the subject site allowed for a range of development (approximately 540 units under Area Plan land use designations and 1,000 units under the existing A-2-2 zoning). During the update process, the Lusk Company proposal was considered by the County planning staff and the Regional Planning Commission. At the hearings for the plan update, testimony was provided by the Lusk Company as to the benefits of developing the project site through a Specific Plan process. The Lusk Company requested a Specific Plan designation for the project site as part of the plan update.

One issue considered during the SCVAP update was the availability of funding for the planned extension of Copper Hill Drive. As adopted, the updated plan included increasing densities along Copper Hill Drive east of McBean to compensate land owners that would have to fund the construction of the roadway including a bridge over San Francisquito Creek. Development densities on the project site were also increased during the plan update. By changing the land use designation from non-urban 1 to urban-1 on 165 acres of the southern portion of the site, the allowable number of units on the site was increased to 1,000 units.

The recommendation of the Department of Regional Planning staff on the proposal to develop 3,000 units included the following comments:

> "This project would extend along San Francisquito Canyon north of the North River development. It has topographic features similar to land to the south. However, access is currently limited to one secondary highway, San Francisquito Canyon. With improved access, additional development could be considered."

2.3.2 PROJECT DESIGN PROCESS

The proposed project has gone through a detailed design process prior to and during the project's submittal to the Regional Planning Department. In addition to previous constraints analyses performed for the Lusk Company proposal, the current applicant was required to prepare a biological constraints analysis, geologic feasibility study, and a cultural resources study. In addition, the applicant consulted with public agencies including the Army Corps of Engineers (ACOE), the United States Fish and Wildlife Service (USFWS), the United States Forest Service (USFS), the California Department of Fish and Game (CDFG), California Regional Water Quality Control Board (CRWQCB), the County of Los Angeles Departments of Public Works (DPW), Forester/Fire Warden, and Parks and Recreation. The City of Santa Clarita, the County's Significant Ecological Area Technical Advisory Committee (SEATAC), and Unarmored Threespine Stickleback Recovery Team were also consulted during the design of the project.

A summary of this consultation process is presented below:

- ACOE: The ACOE has jurisdictional authority over "waters of the United States," such as San Francisquito Creek. Their authority also extends to cultural resources located onsite. A delineation of the area subject to the regulatory jurisdiction of the ACOE pursuant to Section 404 of the Clean Water Act was prepared and has been formally submitted for review and approval.

- USFWS: Copies of all reports prepared for SEATAC were provided to the USFWS. The meetings were held with the USFWS to discuss measures to avoid and minimize impacts to the federally listed endangered fish species, the unarmored threespine stickelback.

- USFS: Due to the proximity of the project site to the Angeles National Forest, the Forest Service was consulted by the applicant. The relationship of the project site to the national forest, the design of fuel modification programs, and riparian mitigation were discussed, as well as proposed and existing trails that lead into the Angeles National Forest from the project vicinity.

- CDFG: The Department of Fish and Game also has jurisdictional authority over wetlands and endangered, threatened, and sensitive plant and animal species. Issues such as roadway alignments, bridge crossings, wildlife movement corridors, and sensitive species habitat were discussed between the applicant and the representatives of the CDFG.

- CRWQCB: The RWCQB was consulted during two phases of the project. During the scoping phase of the project, the RWQCB was contacted to identify concerns of project development on water quality in San Francisquito Creek and the Santa Clara River. The RWQCB was also contacted for review of the water quality system developed for use onsite.

- DPW: The Department of Public Works was consulted during the circulation planning process for the project. Because access to the site had to be determined, the applicant held discussions with the Department of Public Works to identify potential alignments of future roadways (Copper Hill Drive and Mc Bean Parkway) so that adequate access was provided to the site.

- Forester/Fire Warden: The Fire Department was consulted in regards to fire breaks, fuel modification zones, oak tree preservation, access, fire station, and recreational trails.

- Parks and Recreation: Trails, park acreages and regional needs were all items discussed with the Parks and Recreation Department.

- City of Santa Clarita: The City of Santa Clarita provided input on several aspects of the project, including the proposed development intensity, traffic, bike circulation, visual impacts, and impacts to San Francisquito Creek.

- UTS Recovery Team: The UTS Recovery Team was contacted by the applicant for comment on potential impacts to the federally endangered unarmored threespine stickleback, and appropriate mitigation measures.

In addition to agency scoping meetings, the County's Significant Ecological Advisory Committee (SEATAC) reviewed the project. In September 1992, a biological constraints analysis was presented to SEATAC for review and comment. Biological resources that constrained development of the property were identified in this report. The site contains portions of Significant Ecological Area 19 (San Francisquito Creek), which was created to preserve the habitat of an endangered fish species, the unarmored threespine stickleback. In addition, the site contains several other sensitive species, four vegetation communities classified as sensitive by the state, and oak trees. The need to provide for wildlife movement across the site was identified as a constraint. Other areas of concern included potential water quality and hydrology impacts to San Francisquito Creek. Following review of the constraints analysis by SEATAC, a full biological assessment of the original conceptual land use plan was prepared.

Through the SEATAC review process, a biological report and two supplemental reports were prepared to address SEATAC's concerns. Several development alternatives were presented to SEATAC. Two of these are analyzed in Section 6.0 of this EIR as alternatives to the project. Of the recommendations and concerns expressed by SEATAC, a summary of some of the more significant changes to the project made during this process is as follows:

- Grading and development footprints were changed in an attempt to avoid some of the cherry woodlands, maintain ridgelines and other known corridors used for wildlife movement, avoid sensitive plant species and animal habitats (i.e., occupied raptor nests and other sensitive habitat areas), and avoid oak woodlands and drainages into adjacent canyons.

- Circulation routes were redesigned for the central portion of the site so that the roadway formed the edge of the development area.

- A water quality basin located within the SEA was eliminated to reduce impacts to the SEA.

- An equestrian center located in the north of the site was eliminated.

- An advanced water quality system, consisting of a series of water quality lakes, was designed for the project to reduce the potential impact of urban pollutants on the San Francisquito Creek.

- Development was moved outside of the floodplain to only areas that have been disturbed by agricultural uses.

- Secondary access that was proposed for the northern portion of the site was eliminated for several reasons: geotechnical concerns were raised about the feasibility of such an access, elimination of the access preserved habitat and wildlife movement, and elimination would avoid the need for a bridge crossing of San Francisquito Creek at the northern project site boundary. Instead, a secondary, public access road was proposed to connect the northern planning area with the central planning area. It should be noted that subsequent changes also have occurred with regard to secondary access (see Sections 3.4.2 and 3.4.5).

In addition to these changes, several revisions unrelated to the SEATAC review were made to the conceptual plan subsequent to the review by SEATAC. These include the provision of a 5-acre commercial site, the addition of water tanks throughout the site for potable water storage, two access roads from Planning Area D to San Francisquito Canyon Road, five potential emergency access alternatives, and the redesign of parks throughout the site. Moreover, during the county subdivision review process for the proposed project, additional County requirements resulted in more changes to the project design. The two access roads from Planning Area D to San Francisquito Road were combined into one road that would initially connect to San Francisquito Canyon Road. When, and if, Mc Bean Parkway is extended north from Copper Hill, this access road would also connect to Mc Bean Parkway.

A further requirement of the Fire Department was an access link between Planning Areas A and D, which are separated by San Francisquito Canyon Wash. A 250-foot bridge across the wash is proposed by the applicant to meet this requirement. The addition of the bridge resulted in reducing the number of emergency access alternatives (addressed in Section 6.7) by one; however, the fire department is still requiring the dedication of stub roads for potential future connections to offsite properties.

The bridge embankments, on either side of the wash, would partially encroach into the floodplain, but would not impact the floodway. The bridge has been located in an area that is already used for a stream crossing and in areas that are used for agricultural production.

The drainage system proposed for the project was redesigned at the request of the Department of Public Works. The system has been designed to maintain the size (in acres) of each watershed such that runoff is not diverted as a result of the project. Consequently, one of the water quality lakes proposed for the northern planning area was eliminated.

Concerns about geologic stability caused portions of the project to be redesigned. Unstable slopes and areas thought to be slides have been remediated by removal of the unstable material or other earthwork activities. As a result, one canyon area supporting cherry woodlands has been additionally impacted by the project and additional open space areas would be impacted by development. All totaled, these changes increased the development area by 21 acres.

An equestrian trail system, meeting the design requirements and proposed trail system of the Department of Park and Recreation, has been included in the tract map.

The need for the northern school site has not been determined by the local school district. The project applicant is proposing the site to be divided into 22 lots. Should the school not be necessary, these lots would be constructed for residential uses, but the total number of units would not increase beyond 3,000.

A fire station site has also been proposed by the applicant to meet the proximity requirements of the Fire Department. The station would be located in Planning Area B. As of this writing, it is unclear whether the Fire Department will condition the project to require the fire station site. This, and other requirements discussed above, have led to an overall increase in the development's footprint (as described in this EIR) since the project was initially proposed. For a visual comparison of the original concept plan and the project as currently proposed, see Exhibits 6.1-1 and 3.4-1, respectively, in this EIR.

SECTION 3
PROJECT DESCRIPTION

3.1 *PROJECT LOCATION*

The Tesoro del Valle project site is located in the unincorporated portion of Los Angeles County north of the City of Santa Clarita and south of the Angeles National Forest. Castaic Lake is located to the northwest of the site. The site is located on the Newhall USGS topographic quadrangle (T.5N., R.16W. Sections 27, 28, 29, 32, 33, and 34, and T.4N., R.16W. within the San Francisco Land Grant Boundary). Exhibit 3.1-1 shows the regional location of the site, and Exhibit 3.1-2 provides a more localized vicinity map. Exhibit 3.1-3 is an aerial photograph of the site and surrounding areas.

The irregular U-shaped site is located 2 miles east of Interstate 5 (Golden State Freeway) and north of Seco Canyon Road. San Francisquito Canyon Road presently runs along the eastern boundary of the project site. Site access is currently provided from San Francisquito Canyon Road on Farmer John Lateral Road. The eastern portion of the project site includes portions of the San Francisquito Canyon Significant Ecological Area (SEA No. 19) as designated by the County of Los Angeles.

3.2 *STATEMENT OF OBJECTIVES*

The applicant proposes to develop the 1,795 acre site for the creation of approximately 3,000 dwelling units and related recreational and support facilities. The objectives of the applicant in proposing this project include:

- Create a high quality, master planned, low density, residential environment that includes permanent open space areas. Transition residential densities within the project to promote compatibility with existing and planned residential areas to the south, such as the North River area of the master planned community of Valencia, and the Angeles National Forest to the north.

- Provide an opportunity for the long-term preservation of the undisturbed portions of SEA 19 located within the property boundaries and minimize any effects from development of the project on the SEA.

- Preserve the significant historic resources of the site for the residents of the Santa Clarita Valley.

- Develop the site in a manner that complements the natural terrain and protects major rock outcrops and the high quality oak and cherry woodland groves located on the site.

- Provide a range of housing types to meet the demand for additional housing.

- Design a circulation system that is oriented to direct trips to Copper Hill Drive and minimize project traffic on San Francisquito Road and Mc Bean Parkway.

- Provide a range of active and passive recreation opportunities, including a high quality recreational trail system, within the project to serve residents of the project and the surrounding area.

3.3 *PURPOSE AND NEED*

The project is proposed by the applicant to meet the demand for housing in the Santa Clarita Valley. According to the applicant, this demand will exceed planning projections and the capacity for housing allowed by the Santa Clarita Valley Area Plan.

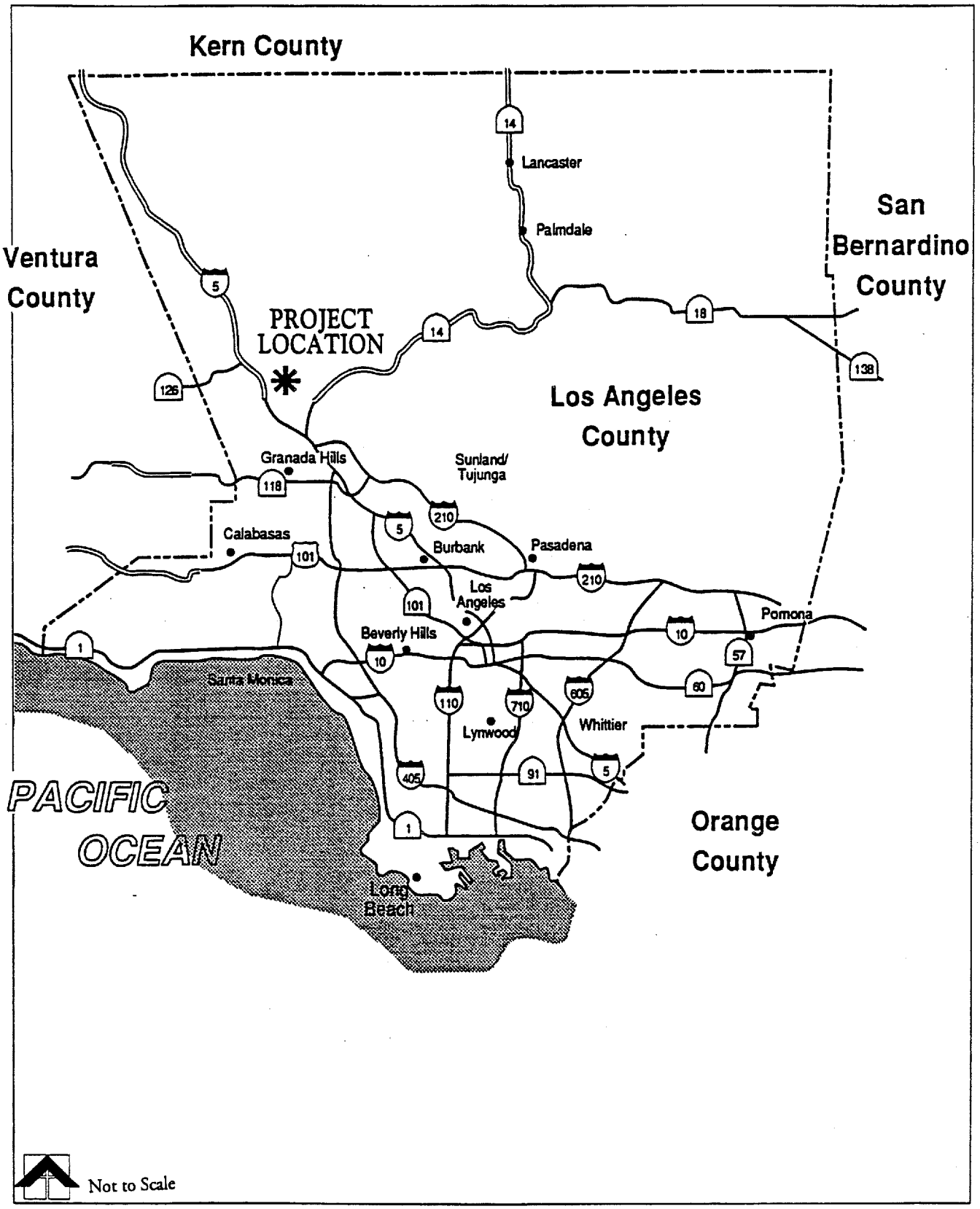
3.4 *PROJECT CHARACTERISTICS*

3.4.1 LAND USE

Tesoro del Valle is a master planned, private residential community designed to complement the natural characteristics of the site and surrounding areas. A total of approximately 1,000 acres of the 1,795 acre site is planned as open space in both natural and developed areas. Exhibit 3.4-1 illustrates the conceptual land use plan for the project. Plate 1, located in the map pocket in the back of this EIR, depicts the project at 1:400 scale. In addition, Exhibit 3.4-2 provides an aerial rendering of the project in the as-built condition.

The project has been designed to provide a full range of housing opportunities from multi-family units to large lot single family homes. The project would be developed as a tract development and sold to merchant builder(s), who would build the homes. .

Tesoro del Valle would include a variety of land uses to support the residential uses proposed. These uses would include community commercial, schools, passive and active recreational areas, and open space uses. Each of these uses are discussed in more detail below.



Michael Brandman Associates

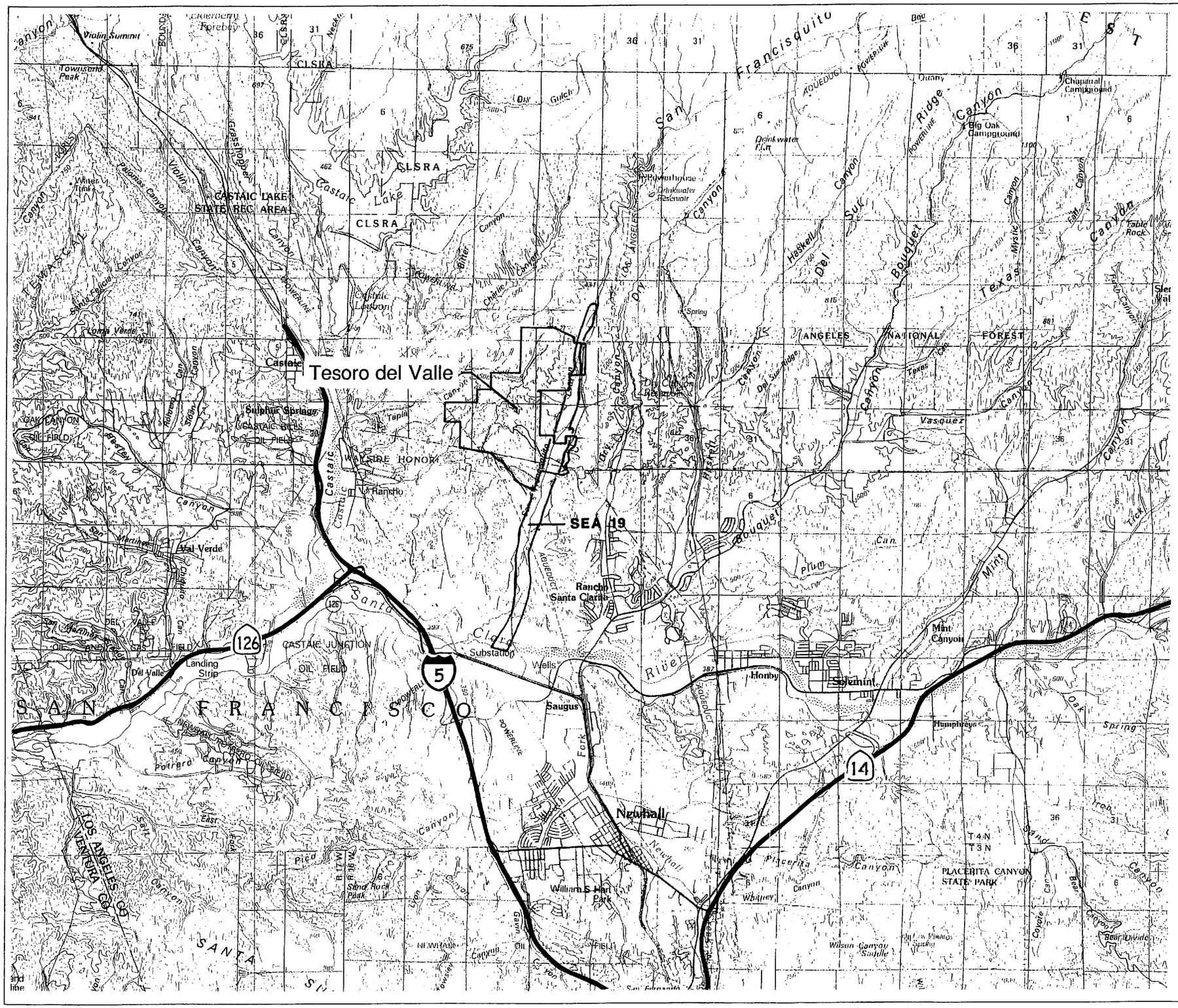
exhibit **3.1-1**

Regional Location Map

SEPT•24•1993

Tesoro del Valle

1627ER01



Not to Scale

Michael Brandman Associates

exhibit **3.1-2**

Project Vicinity Map

SEPT•24•1993 Tesoro del Valle

1627ER01

Not to Scale

Michael Brandman Associates

exhibit **3.1-3**

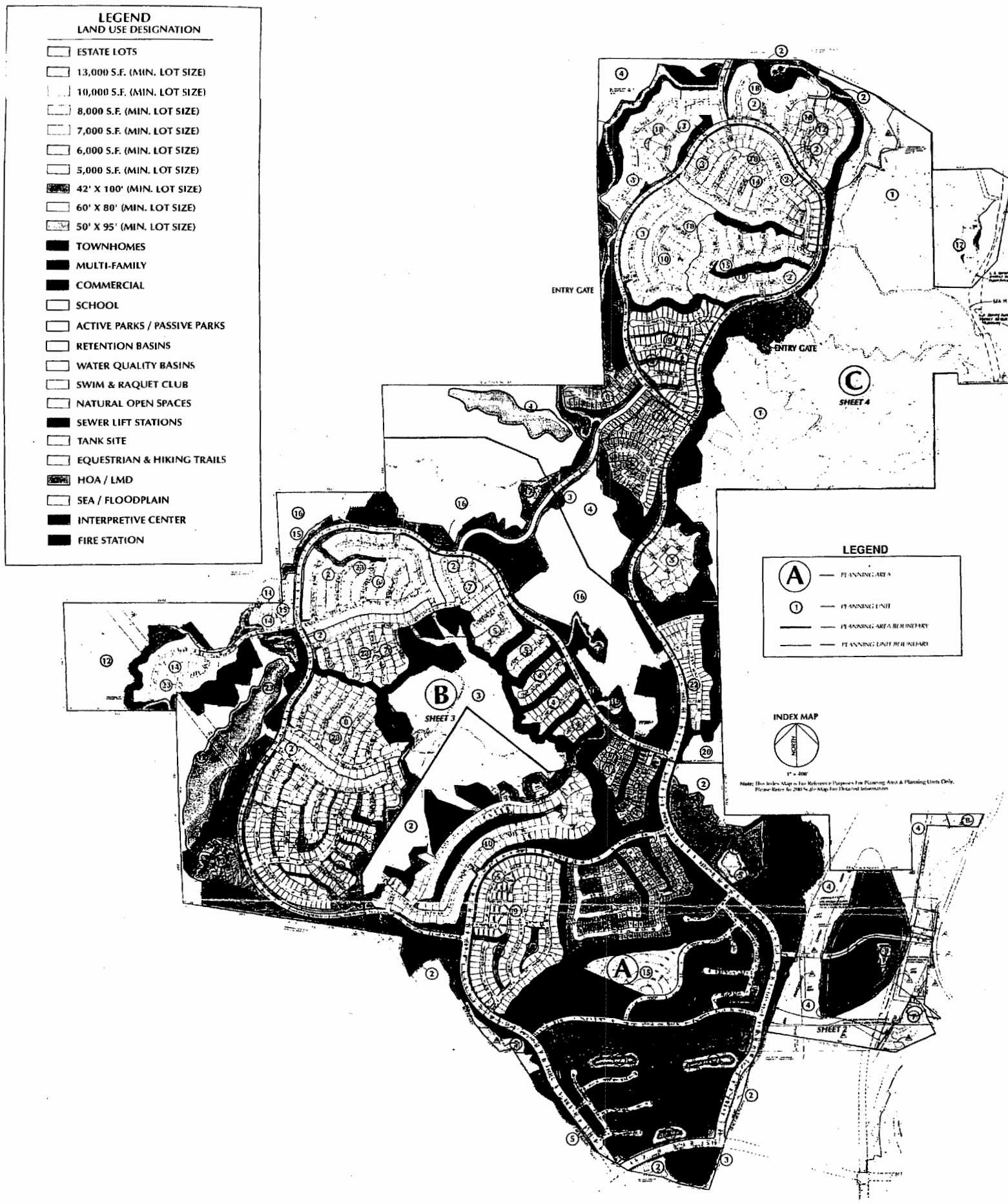
Aerial Photo #1

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Date of Photography, 10-26-89; Prepared by, Hunsaker & Associates.



Michael Brandman Associates

exhibit **3.4-1**

Conceptual Land Use Plan

SEPT•24•1993 rev. 4/94 rev.10/94 rev. 5/95

Tesoro del Valle

1627ER01

SOURCE: Hunsaker & Associates.

Michael Brandman Associates

exhibit **3.4-2**

Aerial View of Project

JUN • 1995

Tesoro del Valle

1627ER01

SOURCE: Headrick Chase & Associates, 1995.

Residential

Tesoro del Valle has been designed as a low density residential development that provides a full range of housing opportunities. Residential land uses would comprise the majority of the development proposed for the site and would include both single family and multi-family residences. The northern planning area of the project has been designed with private access gates to limit public access. In keeping with the objectives of the project, multi-family and smaller sized single family residential building areas have been concentrated in the southern portion of the project site to complement existing and planned uses in this area and the planned circulation system. In general, the northern portion of the project site contains mostly larger sized, private single-family homes (lots primarily above 7,000 square feet) and estates, and provides a transition of residential densities in order to promote compatibility with the Angeles National Forest.

Approximately two-thirds of the residential units proposed for Tesoro del Valle would be of a single family dwelling variety. Single family residential land uses would range in size from approximately multi-acre estate lots to 4,200-square-foot lots for zero lot line single-family homes. Table 3.4-1 provides a breakdown of the total number of residential uses proposed for Tesoro del Valle at buildout.

A total of 2,016 single-family lots would be developed on 593 acres of the site. Similar housing types would be grouped together to form residential neighborhoods. Larger sized lots would be located on the edges of the project site to minimize the effects of urban development on adjacent lands. Lots provided for zero lot line homes (approximately 4,200 square feet in size), as well as other smaller sized lots, would provide affordable housing opportunities. The square footages described for each category of housing represent the minimum lot size; actual gross lot size could be larger depending on topography.

Approximately a third of the residential development of Tesoro del Valle would be in the form of multi-family residential housing. The multi-family housing would be concentrated in the southeastern portion of the site. Table 3.4-1 provides a breakdown of the multi-family residential units proposed for the project at buildout. Multi-family housing would consist of a combination of townhomes, condominiums, and carriage units.

By concentrating one-third of the development in the southern quarter of the site, the heaviest concentrations of population on the site will be located closer to planned circulation facilities. As a result, vehicular travel is less than would be otherwise.

TABLE 3.4-1
RESIDENTIAL USES AT BUILDOUT

Minimum Lot Size	Total Dwelling Units	Total Acres	Dwelling Units/ Acre
Single Family			
Estate	3	28.7	0.1
10,000	265	112.0	2.4
8,000	282	97.5	2.9
7,000	419	120.3	3.5
6,000	419	108.8	3.9
5,000	239	50.2	4.8
4,800	168	31.8	5.3
4,750	124	26.7	4.6
4,200	97	16.8	5.8
Single-Family Subtotal	2,016[a]	592.8	3.4
Multi-Family	962	60.8	15.8
TOTAL	2,978	653.6	4.6

[a] Alternate use of school site in Planning Area C is 22 units at 13,000-square-foot lot size on 11 acres or 2 DU/ac. Thus, a total of 3,000 units are analyzed.

Source: Evans-Collins Community Builders 1995.

Commercial

In support of the residential uses, a 5-acre neighborhood commercial site is proposed for the southern portion of the site adjacent to Copper Hill Drive. Anticipated to serve mostly project residents and drive-by traffic, the commercial site would be approximately 40,000 gross square feet in size. Although no specific land uses have been identified at this time, given the neighborhood commercial designation and the location of the commercial site, the potential uses that may occur include dry cleaners, grocery stores, restaurants, convenience stores, banks (ATM), post offices, video rentals, and service stations. Any uses not allowed by right under the neighborhood commercial zoning

designation would be required to undergo approval of the appropriate permits and further environmental review.

In addition, a fire station is proposed to serve the project site and surrounding communities. As shown on Exhibit 3.4-1, the station would be located in the central portion of the site on a lot of approximately 2.3 acres. The applicant proposes to reserve the land for the station; the County Fire Department would have to purchase the land and build the necessary facilities.

Schools

The proposed project has been designed to provide certain school uses onsite. The provision of schools onsite integrates educational services into the community and reduces the separation of the community from the educational facilities. As a result, schools are easier to access by children and the resources provided at the school benefits both the children and the surrounding community, during school hours and after hours.

Two elementary school sites approximately 11 acres in size have been included in the proposed project. One school site would be located in the southern portion of the site, near Copper Hill Drive. The other site would be located in the northern portion of the site, adjacent to the main north/south circulation route. At this time, the local school district has not determined the necessity of the northern school site. In the case that the school is not needed, an alternate use for the site will be for single-family residences. To facilitate this alternate use, the northern school site is proposed for 22 lots. Should the school be built, it would be located on all 22 lots, whereas if residences are built, each would be located on a separate lot. Regardless, the total number of residential units on the site would not exceed 3,000. The schools would be designed to serve between 500 and 700 children each.

The applicant has designed the land use plan to include school sites to serve the resident community. If the project is approved, the land for the schools would be reserved for one of the school districts serving the site. The project site is located in an area where elementary school service is provided by both the Saugus Union School District and Castaic Union School District. The William S. Hart Union School District would provide all junior and senior high school services. Prior to the development of the project, the Saugus School District intends to annex a portion of the site not currently in the district.

Parks and Recreation

Parks and recreational opportunities are an integral component of the proposed project. The project would consist of several different types of parks and recreational resources. The types of parks proposed for the project are:

- Active Parks. These are parks that are solely devoted to park uses. They would be developed with park facilities, such as benches, play grounds, multi-purpose fields, etc., and available to the general public. Minimum park acreage would be 7 acres. The parks would be maintained by Los Angeles County, a homeowners organization, or a landscape maintenance district.

- Passive Parks. These parks would be recreational in nature, but would lack any improvements. Passive parks have been planned for areas of environmental sensitivity. These natural areas are conducive to low levels of recreational activity, such as walking, picnicking, etc. (see Open Space land uses below).

Passive and active parks would be distributed throughout the project site. Twenty-four acres of active park uses are proposed in Planning Area A along the Southern California Edison easement. One 7.0-acre active park is proposed in the western-most portion of the project site in Planning Area B. In Planning Area C, one 8.3-acre active park would be provided for residents in the northern portion of the site and would also help to visually buffer the development from offsite viewers to the east.

In addition to parks, the project proposes an extensive trail network. The trail system would devote approximately 6.9 acres of the site to bike and hiking trails throughout the site. Much of this area takes advantage of existing trails that would be integrated into the open space preserves and passive recreation areas of the project. The trail system would provide recreational opportunities for residents of Tesoro del Valle. Equestrian trails are also proposed consistent with the County of Los Angeles Department of Parks and Recreation equestrian trails master plan. A total of 8.4 acres of the site would be devoted to equestrian trails. The proposed equestrian trail system would connect to a County-proposed trail on the east side of San Francisquito Canyon Wash at a general crossing south of Planning Area D. One backbone trail would extend north/south through the site. The trail would be located adjacent to the major north/south collector, but would be at the outermost portion of the right-of-way on a path separated from the street by sidewalks, fencing, and landscaping. The equestrian trail system would loop throughout the site and contain several spurs that connect to the existing offsite trail system. The equestrian trail system is illustrated in Plate 1 and a cross section of the trail as built within the developed portions of the site is illustrated in Exhibit 3.4-3. Although some of the larger estate lots (a total of three) would allow equestrian uses according to zoning

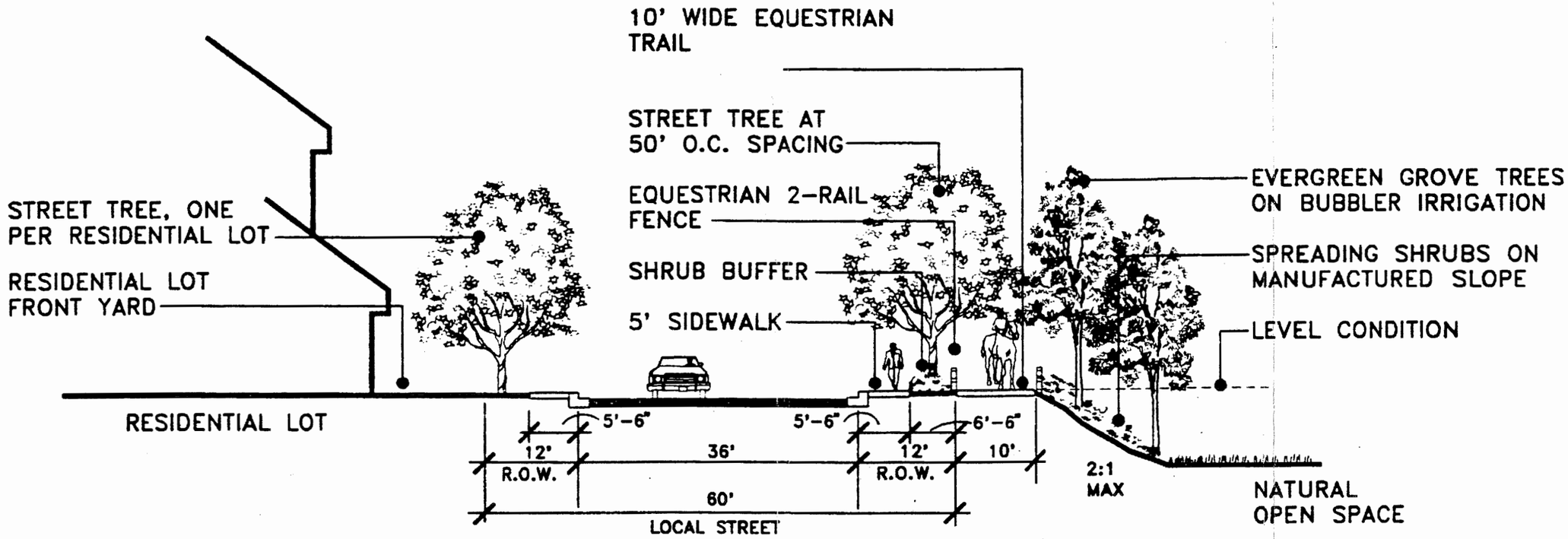


exhibit 3.4-3

Typical Trail Cross-Section

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1627ER01

Tesoro del Valle

SOURCE: HRP Land Design, 1993.

regulations, specific restrictions, such as CC&Rs, would be imposed to prohibit horses from being kept onsite.

Finally, a 15-acre recreation center would be developed for project residents. Integrated with an existing ranch house considered to be a historic resource at the site, a swim and racket club would be developed in the southeastern portion of the site, adjacent to a multi-family development. The club would include approximately 12 tennis courts and one exhibition court, several basketball courts, a 25 meter pool, a resort pool, an approximate 1,000 square foot tennis shop, and a 8,000 square foot club house for private use by club members. A museum (see Section 5.11, Cultural Resources) would be integrated with the club center and designed to provide an educational resource for visitors. The museum would be available to the public.

Open Space

As a Master Planned Community, Tesoro del Valle has been designed to maximize the amount of open space and natural areas left undisturbed by grading. Open space includes both recreation areas discussed above and other areas of undeveloped land. The eight types of open spaces recognized by the Los Angeles County General Plan included in the project, but not discussed previously under recreation are:

- Natural Areas. The project has been designed to include 559 acres of natural open space, including some of the mainland cherry forest, oak woodlands, chamise chaparral, coastal sage scrub, and alluvial scrub habitats. These areas would be undisturbed by development or grading and contain natural vegetation and habitats as they currently exist on the site. These areas would provide refuge for plants and animals and act as wildlife corridors for species to travel through and around the site. These natural areas will be offered to the County of Los Angeles as permanent open space.

- Natural Fuel Modification Areas. Approximately 21 acres of natural open space would be retained as open space, but would be modified to reduce the amount of combustible material. The Los Angeles County Fire Department requires these fuel modification zones as a means for reducing the fire hazard on development. Natural fuel modification areas do contain native vegetation, but species that are readily combustible are removed and existing fire-retardant species are left in place. In addition, other native fire-retardant species are introduced into these areas to take the place of the removed vegetation.

- Area of Scenic Beauty. The project would retain 73 acres of SEA No. 19, San Francisquito Creek, as permanent open space. This acreage could be dedicated to an agency which would be acceptable to Los Angeles County.

- Graded Slopes. Approximately 219 acres of the project site would consist of graded slopes. These areas would be re-vegetated with native species for fire purposes and left as an open space resource.

- Water Quality/Riparian Areas. Approximately 16 acres of the project site would include water quality lakes, which would also act as open space. As an integral part of the drainage of the project, lakes have been proposed to cleanse the urban stormwater from contaminants, before the runoff reaches sensitive areas downstream. A full discussion of these lakes is located in Section 5.2, Water Resources.

- Landscaped Areas. Throughout the network of project roadways a total of approximately 84 acres of landscaped areas would line the sides of the streets and provide entry monumentation. These areas are part of the open space of the project. A landscape plan, approved by the County Forester/Fire Warden, would be developed to include drought-tolerant and fire-resistant plant materials for the landscaped areas of the project.

Open space would be maintained by a landscape management district or the development's homeowners' organization. In addition to the open space areas described above, the project includes a variety of recreational land uses that would also be considered open spaces resources of the project. Recreational land uses are discussed in the section above. Section 3.4.2 provides a summary acreages for each of the land uses described in this section.

3.4.2 PHASING OF DEVELOPMENT

Tesoro del Valle would be a phased development. The proposed phases are based on the extension of the necessary infrastructure (i.e., circulation improvements, utilities, etc.) within the site. The timing of the phases would be determined by the demand for housing in the marketplace. An additional benefit of phasing would be to reduce the severity of the project's impacts at any one time, since the development will take place over several years.

As proposed by the applicant, the project has been designed to be constructed in four phases which coincide with the four planning areas. Planning Areas A, B, and C are proposed to be constructed sequentially during a 6-year period. Depending on market conditions, Planning Area D may be constructed concurrently with Planning Areas B or C within the 6-year period, or sequentially following completion of Planning Area C, which would extend the completion of project buildout to a 8-year period. Construction of Planning Area C is contingent upon providing adequate secondary access to the area. Planning Area C could not be built without demonstrated compliance with the Fire Department's requirements for access (see Section 3.4.5, Circulation Improvements; Section 6.2, Description of the Alternatives Considered; and Section 6.8, Analysis of the Alternative Emergency

Access Alignments). Table 3.4-2 depicts the acreage of each land use by phase. Table 3.4-3 provides residential dwelling units and densities for each planning area.

Planning Area A

Located in the southern portion of the property, Planning Area A is comprised of a mix of housing types ranging from townhomes to 7,000-square-foot single-family lots. Planning Area A would include a total of 1,205 dwelling units consisting of 666 single-family units and 539 multi-family units. Planning Area A includes the commercial site, a school site, park and recreation facilities, and water quality lakes. Park and recreation facilities would include a swim and tennis club, ball fields, soccer fields, and preservation of the existing ranch house as an interpretative center for local history. Planning Area A includes approximately 162 acres of open space.

Planning Area B

Planning Area B is located in the western portion of the San Francisquito Canyon Watershed, and includes the upper reach of Wayside Canyon and an unnamed "blue-line" drainage, as shown on the Newhall USGS map of the site. Planning Area B includes development of 5,000 square feet to estate-sized pads for 722 single-family dwelling units. In addition to development of single-family dwelling units, Planning Area B includes a nature park (mainland cherry forest), 7.0-acre active park, a fire station, and water tank sites. Planning Area B provides 350 acres of open space, including 241 acres to be managed for wildlife habitat.

Planning Area C

Planning Area C is located in the northern portion of the property. Proposed development would consist of 648 single-family dwelling units (including 22 optional lots within the school site) on lots ranging from 5,000- to 10,000-square-foot pads and estate lots (up to 20,000 square feet). Planning Area C includes a school site, a nature park (valley oak woodland), and an active park. Planning Area C would provide approximately 417 acres of open space, including 324 acres of natural habitat. The proposed natural open space would include the tributary drainage to Tapia Canyon. In addition, approximately 29 acres of SEA No. 19 that lies in the northern portion of the project site would be preserved.

TABLE 3.4-2
TESORO DEL VALLE ACREAGE STATISTICAL SUMMARY

	Area A	Area B	Area C	Area D	Total
Developed Area					
Residential	193.2	213.6	222.0	24.8	653.6
Commercial	5.6	---	---	---	5.6
Fire Station	---	2.3	---	---	2.3
Schools	10.8	---	11.0	---	21.8
Maintenance Yard	1.2	---	---	---	1.2
Sewer Lift Station	0.1	---	---	0.1	0.2
Water Tank Site	---	5.9	1.6	--	7.5
Roads and Sidewalks	32.2	17.4	6.2	2.0	57.8
Recreation Club	15.5	---	---	---	15.5
Active Parks	24.7	7.0	8.3	--	40.0
Subtotal Development	282.8	246.2	249.1	26.9	805.0
Open Space					
Passive Parks	--	2.4	1.5	---	3.9
Contour Grading					
Manufactured Slope	50.1	88.2	70.7	9.5	218.5
Landscaping Adjacent to Streets	44.4	18.6	21.1	0.2	84.3
Water Quality/Riparian Area	13.7	--	--	2.1	15.8
Subtotal Open Space	108.2	109.2	93.3	11.8	322.5
Subtotal Developed Area	**391.0**	**355.4**	**342.4**	**38.7**	**1,127.5**
Undeveloped Area					
Open Space					
Natural	50.7	229.8	278.0	--	558.5
Area of Scenic Beauty/SEA	---	---	28.7	44.2	72.9
Riding/Hiking Trails	---	3.4	3.5	---	6.9
Equestrian Trails	1.1	0.6	6.1	0.6	8.4
Natural Fuel Modification Zone	2.3	7.2	7.4	3.9	20.8
Subtotal Undeveloped Area	54.1	241.0	323.7	48.7	667.5
TOTAL PROJECT ACREAGE	**445.1**	**596.4**	**666.1**	**87.4**	**1,795.0**

Source: Evans-Collins Community Builders 1995.

TABLE 3.4-3
RESIDENTIAL DENSITIES BY PLANNING AREA

	Area A			Area B			Area C			Area D			Total		
	DU	AC	DU/AC	DU	AC	DU/AC	DU	AC	DU/AC	DU	AC	DU/AC	DU	AC	DU/AC
Single-Family	666	150.1	4.44	722	213.6	3.4	626	222.0	2.8	2	7.1	0.3	2,016	592.8	3.40
Multi-Family	539	43.1	12.5	–	–	–	–	–	–	423	17.7	23.9	962	60.8	15.82
Entire Site													2,978[a]	1,795	1.66

[a] Alternative use of a school site for residential uses would increase the total units to 3,000.

Source: Evans-Collins Community Builders 1995.

Planning Area D

Planning Area D is located east of the main channel of San Francisquito in the southern portion of the property. This creek area is raised out of the floodplain and is currently in agricultural production. Proposed development consists of 423 multi-family dwelling units (surrounded by the SEA), two estate lots, one of which is an existing structure, and a water quality/riparian area. The proposed open space for this planning area includes 49 acres of natural open space in San Francisquito Canyon (a large portion of SEA No. 19) that would be dedicated for long-term preservation.

3.4.3 LANDSCAPE MASTER PLAN

The landscape master plan was designed with several functions in mind. These include retaining natural habitat areas, providing a visual buffer of the urban land uses present at the site from offsite uses, revegetating disturbed areas with drought-tolerant, water-conserving plant species, providing a unique community image, establishing community boundaries, providing a transition between natural habitat areas (oak, cherry woodland, and wildlife corridors) and urban uses, providing a landscape palette and modification zones to reduce fire hazards, and providing a system to link adjacent and/or similar uses.

Landscape improvements would include various entry monuments, tubular fences and walls and trail improvements. The trail system would be oriented to two use types. Internal to the developed portions of the site, a pedestrian and bike trail system would be developed along most of the collector road system. A pedestrian trail would also meander around the project's water quality lakes and passive parks on the southern portion of the site (Planning Area A). In Planning Areas A, B, and C, an equestrian trail would be established along existing fire roads and some collector streets. Equestrian trails in these two planning areas could be accessed by residents of the community and the public. Entry gates for the private portions of the project would only limit vehicular access and would not affect or inhibit the equestrian trails (see Exhibit 3.4-3).

The landscape palette incorporates a full range of natural and exotic tress, shrubs, and ground cover for the open space areas of the site. Around the periphery of the site large grove trees (with a 40- to 60-foot height) would buffer the structures located on the project site. These grove trees would most likely be either pine or eucalyptus trees. Other landscape types of trees located throughout the site will include large dome entry accent tree, flowering entry accent tree, open space large dome trees, street trees (per Los Angeles County standards), median island trees (per Los Angeles County), evergreen grove trees, riparian grove trees, open space transition trees, and cherry woodland transition tree. Exhibit 3.4-4 provides a typical cross-section of a landscaped area with the previously mentioned trees.

In addition to trees, various land covers will be utilized. These land covers would be maintained by a landscape management district or the development's homeowner's organization. Land covers would fall into the following categories: ground cover with shrubs and permanent irrigation, hydroseeded mowed and unmowed turf, ground cover with permanent irrigation-slopes 5 feet and under, native hydroseeded with permanent irrigation, vegetation management-100 foot thinned zone from structures, revegetation management, and native open space. For illustration, Exhibit 3.4-5 provides a typical landscaping plan area for the project site.

3.4.4 GRADING

The master planned project has been designed so that grading will be balanced within each phase of development, except for Planning Area A. A total of approximately 516,375 cubic yards of fill from Planning Area A will be exported to Planning Area D to create a suitable building pad and development area for the multi-family units proposed there. Table 3.4-4 lists the average grading per unit for each of the project phases. Total grading for each of the four phases will amount to 23.3 million cubic yards with no net import or export of fill material.

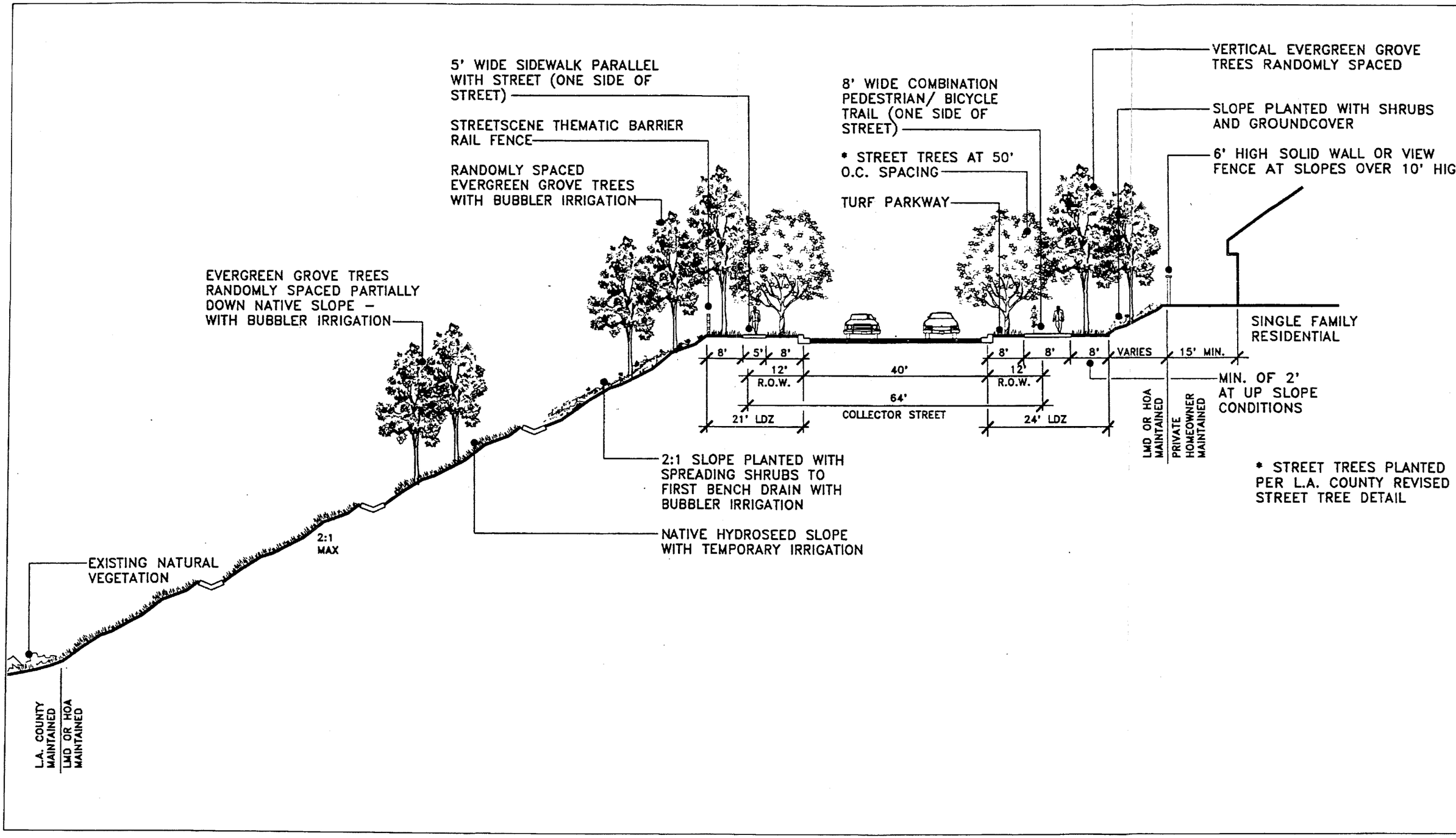

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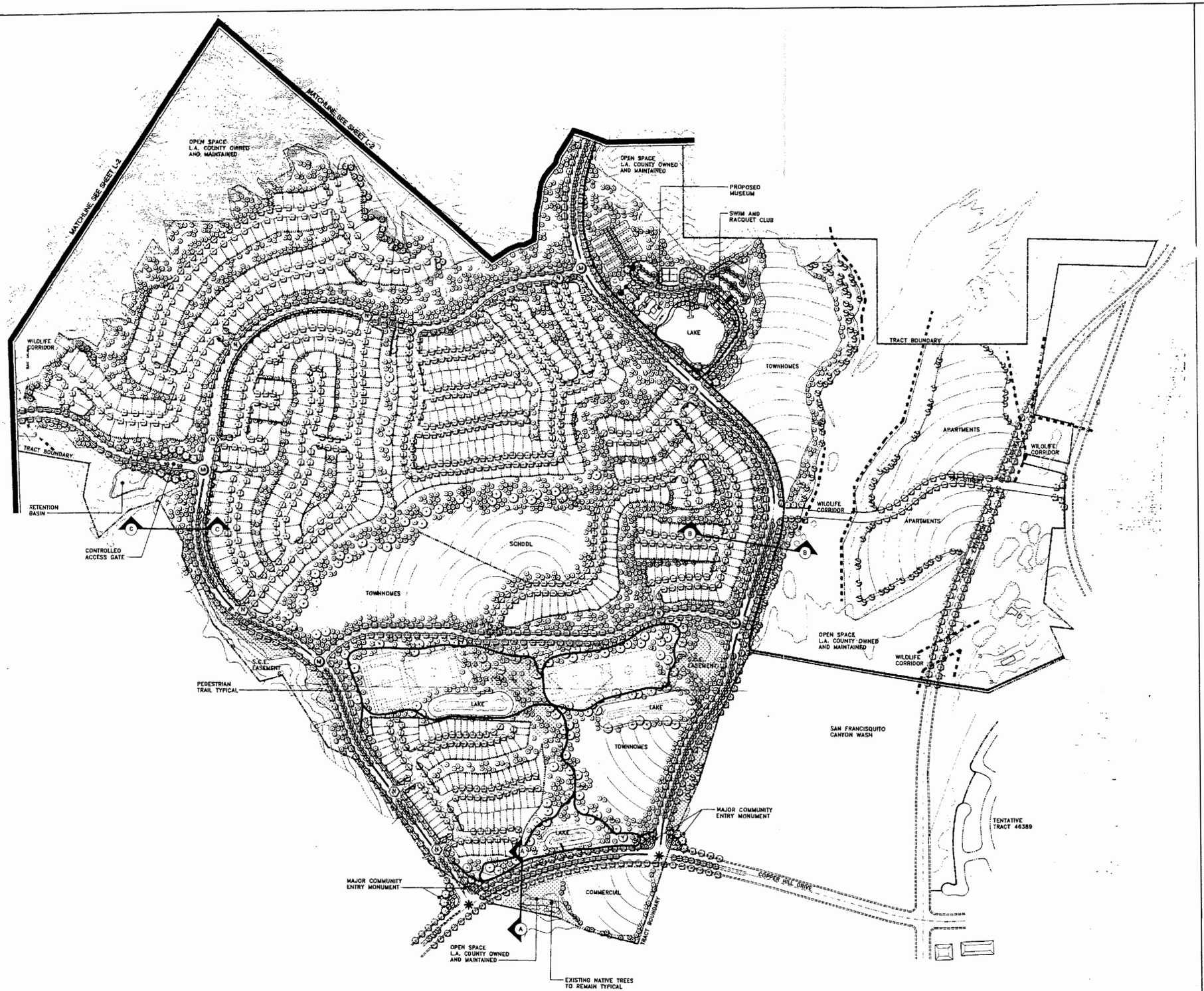
exhibit 3.4-4

Typical Landscape Cross-Section

Tesoro del Valle

SOURCE: HRP Land Design, 1993.



CONSTRUCTION

- PILASTER
- MAJOR COMMUNITY ENTRY MONUMENT
- MINOR COMMUNITY ENTRY MONUMENT
- NEIGHBORHOOD ENTRY MONUMENT
- SOLID WALL
- TUBULAR STEEL VIEW FENCE
- PEDESTRIAN TRAIL
- EQUESTRIAN TRAIL
- WILDLIFE CORRIDOR BOUNDARY

TREES

- LARGE DOME ENTRY ACCENT TREE
- FLOWERING ENTRY ACCENT TREE
- OPEN SPACE LARGE DOME TREE
- STREET TREE - PER LOS ANGELES COUNTY APPROVED STREET TREE LIST
- MEDIAN ISLAND TREE - PER LOS ANGELES COUNTY APPROVED STREET TREE LIST
- EVERGREEN GROVE TREE
- RIPARIAN GROVE TREE
- OPEN SPACE TRANSITION TREE
- CHERRY WOODLAND TRANSITION TREE

GROUNDCOVER

- LMD OR HOA MAINTAINED SLOPE
  GROUNDCOVER AND SHRUBS WITH PERMANENT IRRIGATION
- LMD OR HOA MAINTAINED GREENBELT
  HYDROSEED MOWED AND UNMOWED TURF
- HOMEOWNER MAINTAINED SLOPE
  GROUNDCOVER WITH PERMANENT IRRIGATION – SLOPES 3' AND OVER
- LMD OR HOA MAINTAINED NATIVE TRANSITION SLOPE
  NATIVE HYDROSEED WITH PERMANENT IRRIGATION
- LMD OR HOA MAINTAINED FIRE FUEL ZONE
  VEGETATION MANAGEMENT – 100 FOOT THINNED ZONE FROM STRUCTURE
- PRIVATE, LMD OR HOA MAINTAINED GRADING TRANSITION ZONE
  REVEGETATION MANAGEMENT
- NATIVE OPEN SPACE
  L.A. COUNTY OWNED AND MAINTAINED

NOTE: Area shown is "Planning Area A"

0 200 400 800

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exhibit 3.4-5

Typical Landscape Design

SEPT•24•1993 rev. 11/94 rev. 5/95 Tesoro del Valle

1627ER01

SOURCE: HRP Land Design, 1993.

TABLE 3.4-4
AVERAGE GRADING PER UNIT BY PLANNING AREA
(in cubic yards)

Grading	Planning Area A	Planning Area B	Planning Area C	Planning Area D	Average Grading Per Unit
Cut	6,608	11,522	10,794	47	7,764
Fill	6,196	11,522	10,794	1,215	7,764

Source: Evans Collins Community Builders 1995.

The cut and fill grading plan for the proposed project is illustrated in Exhibit 3.4-6. The grading plan addresses applicable geotechnical issues and measures as required by the Los Angeles County Grading Code. During the construction of each phase of development, residential pads will be rough graded and dry hyrdoseeded, which will help to prevent erosion. All proposed onsite fills will be placed and compacted according to current standards and engineering practices and are designed to include subdrains.

The proposed project is currently located within a Hillside Management Area as designated by the County of Los Angeles General Plan. Exhibit 3.4-7 illustrates different types of slopes present at the project site. As can be seen by this exhibit, the site is made up of 649 acres of 0 to 25 percent slopes, 590 acres of 25 to 50 percent slopes, and 556 acres of slopes greater than 50 percent.

3.4.5 CIRCULATION IMPROVEMENTS

Circulation improvements for the project include onsite improvements designed to complement planned roadway improvements in the area.

Interior Circulation

Circulation to the project site and internal to the project would be through various collector roads (see Exhibit 3.4-1, Conceptual Land Use Plan), which would be both public and private. Development located in the northern portion of the site would be a private community with gates controlling access

at the collector road entry points (see Exhibit 3.4-1). Planning Areas A and B would have public access without any gates.

Primary access would be provided at two points on Copper Hill Drive at the southern portion of the site. One main north/south collector would traverse from Copper Hill Drive to the northern portion of the development, where it would loop around and connect to itself. Another collector road would connect further west on Copper Hill Drive, run northwest to the western portion of the site, which would have its own collector loop, then loop to the east to connect with the north/south collector. Another collector road would run east/west between the north/south collectors to serve the denser single-family residential lots in the southern portion of the site. A local road would connect Planning Area B with Planning Area C. (A total of 58 acres of the project area would be devoted to roads and sidewalks.)

A secondary access route is a 250-foot bridge over San Francisquito Creek from Planning Area A to Planning Area D. This road is shown on Exhibit 3.4-1 and as Alternative 3 on Exhibit 3.4-8. This road would connect the primary north/south collector, which intersects Copper Hill Drive, to Planning Area D and San Francisquito Canyon Road. Eventually, the extension of this road could connect to the northerly extension of Mc Bean Parkway.

Fire Department-approved emergency access for the entire project site has been tentatively accepted by the Fire Department and the Subdivision Committee. Several stub roads have been proposed by the applicant to provide future emergency access through a connection to offsite properties that may be developed in the future (see Exhibit 3.4-8). Two of these stub roads would be located in Planning Area A that would be located in the southwestern portion of the planning area that could connect to the Newhall Land and Farming Company property to the south. In Planning Area B, one stub road is proposed at the northeasternmost edge of the planning area and could connect to a property east of the site, and one is located at the western edge of the planning area to connect to property on the west. One final stub road is proposed in the northernmost portion of Planning Area C and would connect to an existing unimproved easement used by Southern California Edison. These stub roads would be considered future streets. See Section 6.2 and Section 6.8 for further discussion and analyses of these alternative access alignments.

Exhibit 3.4-9 provides a cross-section of the proposed public roads of the project. All collector roads (public or private) would be constructed according to Los Angeles County standards. Public roads would be maintained by the County of Los Angeles. The private collector road system would be

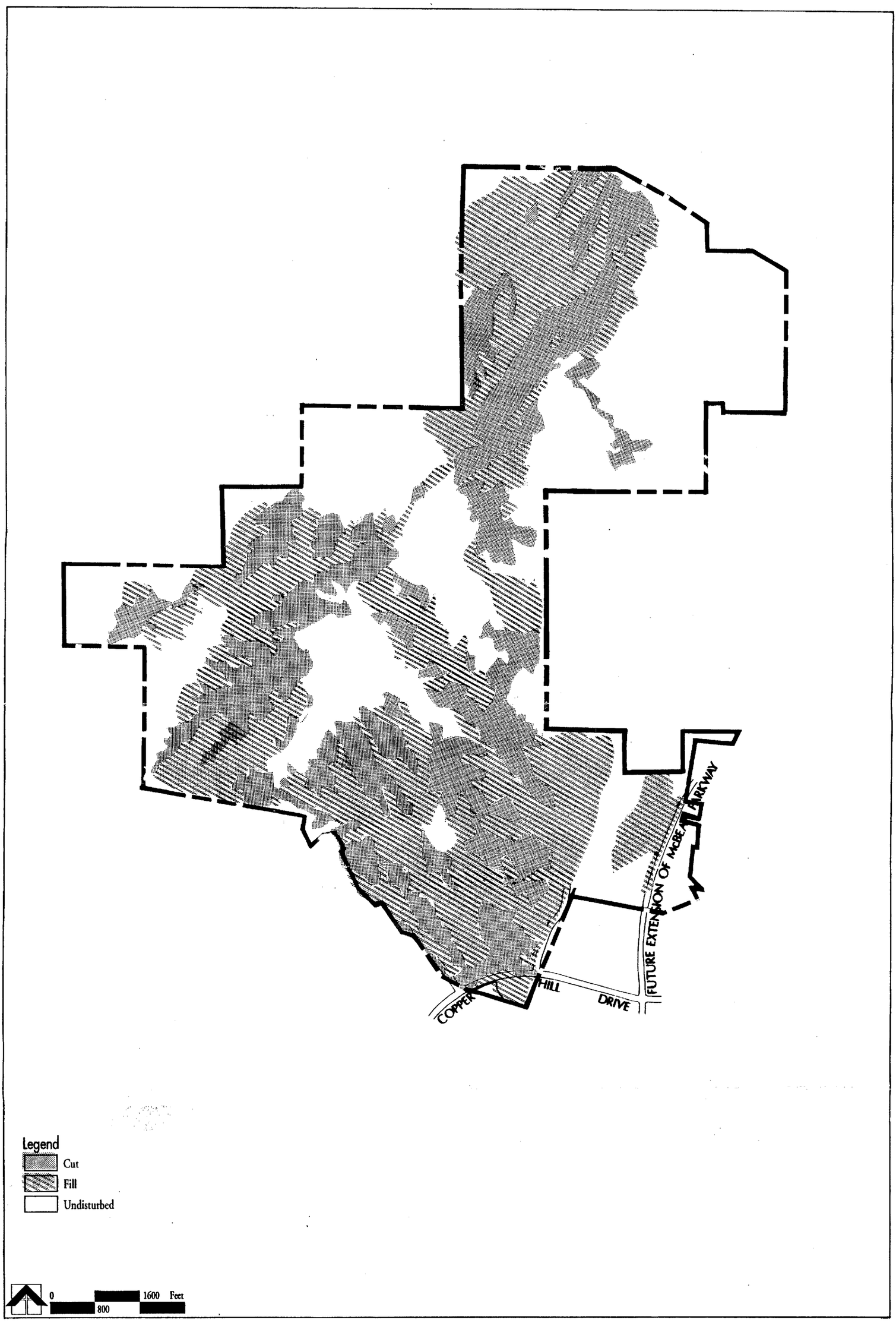

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exhibit 3.4-6

Cut and Fill Grading Plan

Tesoro del Valle

SOURCE: Hunsaker & Associates

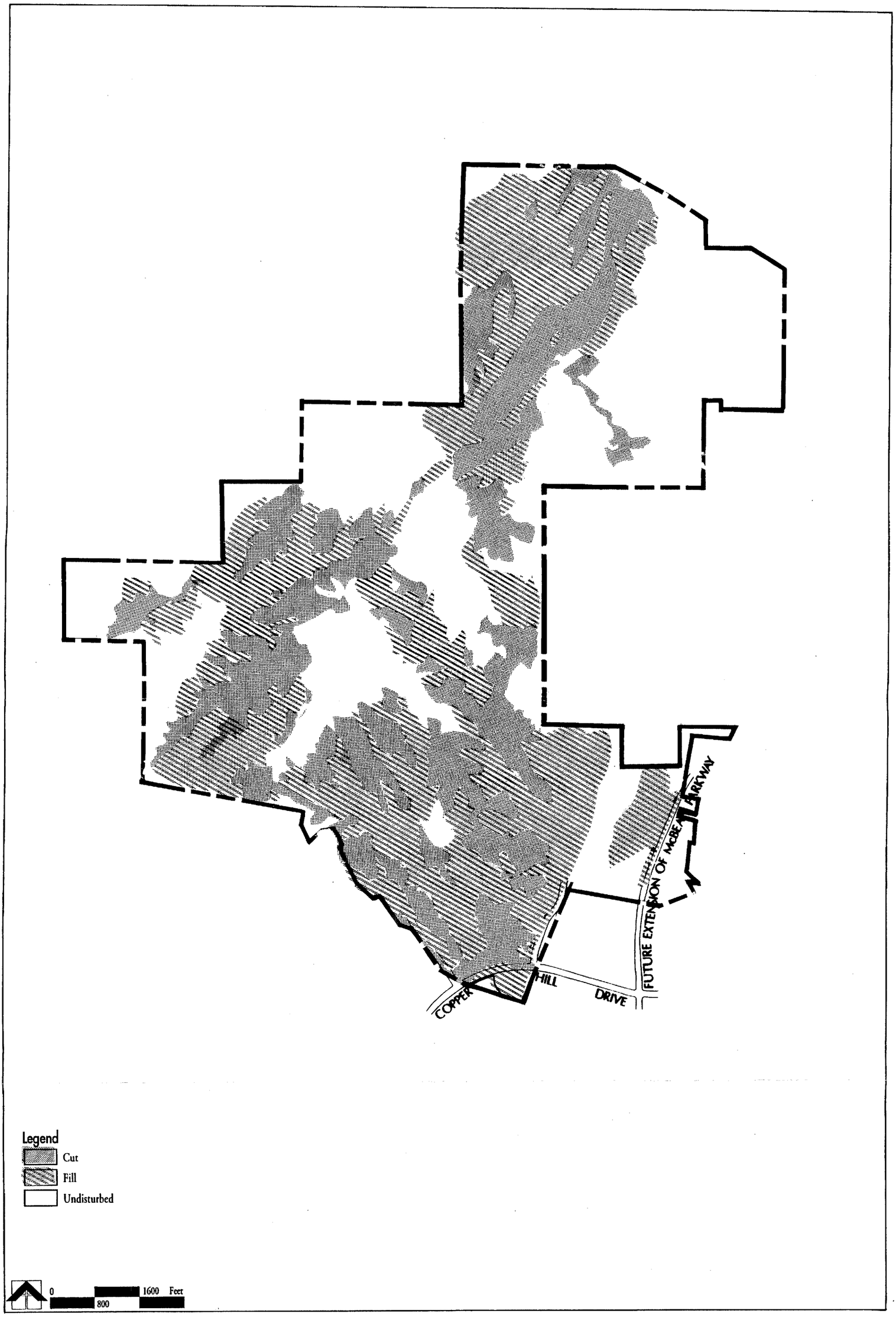

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exhibit 3.4-6

Cut and Fill Grading Plan

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Hunsaker & Associates

Michael Brandman Associates

exhibit **3.4-7**

Slope Analysis

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Hunsaker & Associates, 1993.

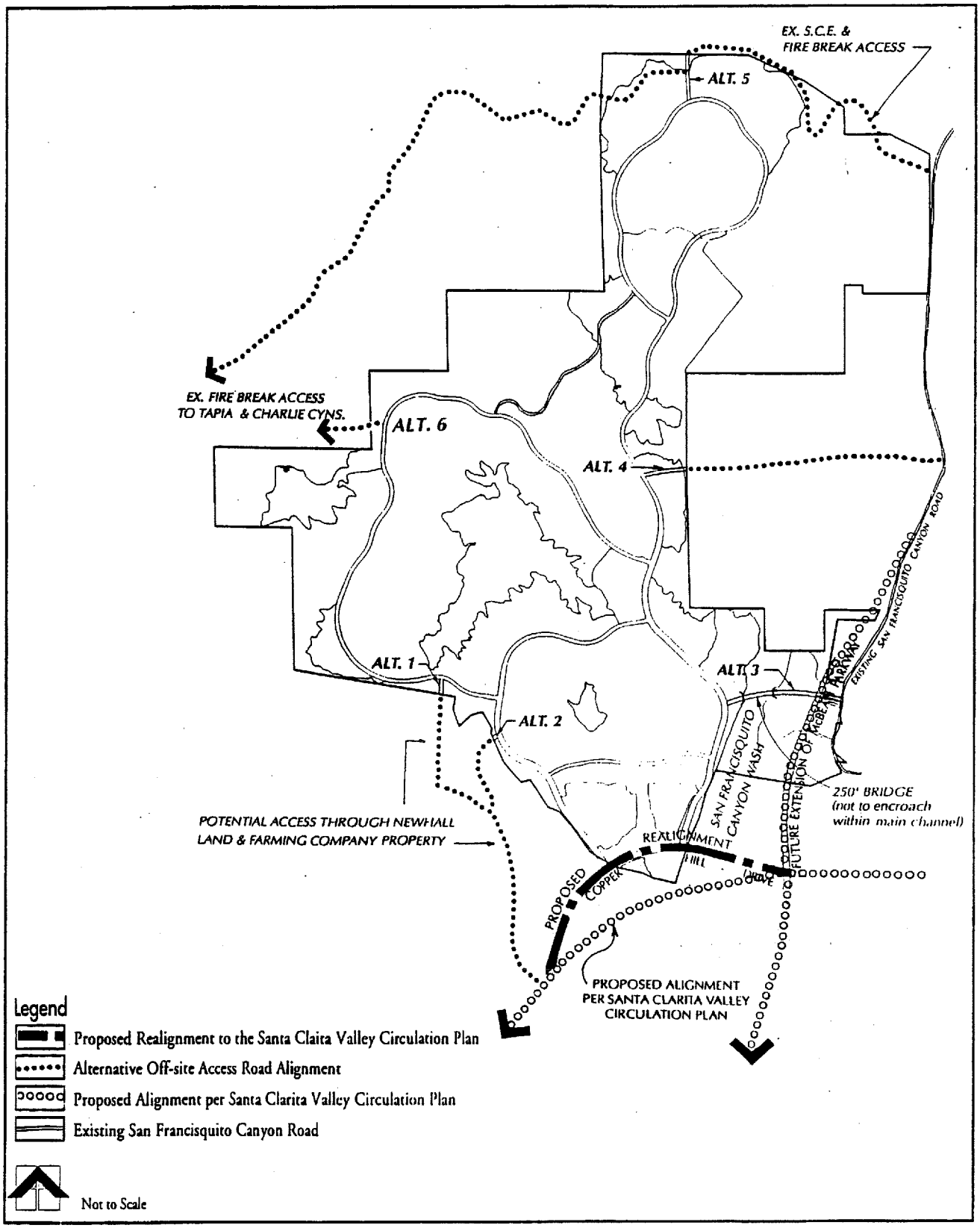

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exhibit **3.4-8**

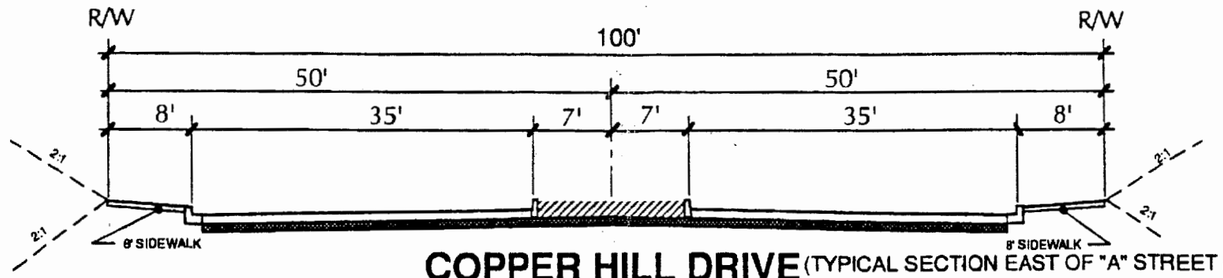
Alternative Access Alignments

SEPT•24•1993 rev. 4/94 **rev. 7/95**

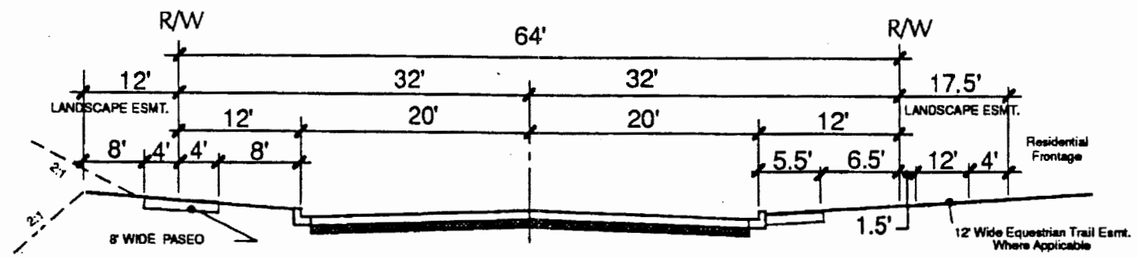
Tesoro del Valle

1627ER01

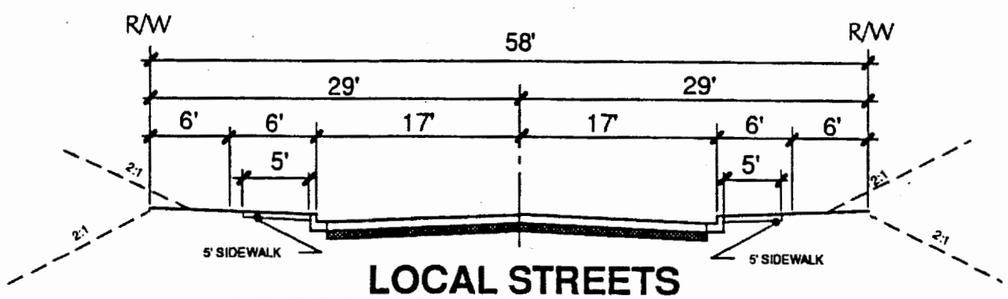
SOURCE: Hunsaker & Associates, 1994



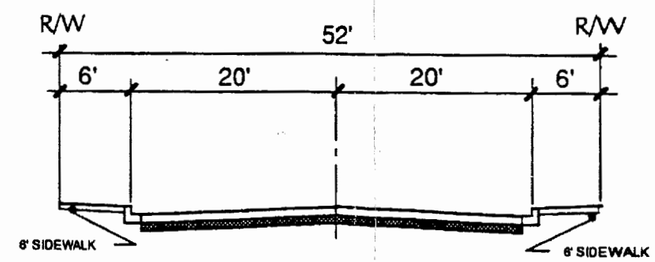
COPPER HILL DRIVE (TYPICAL SECTION EAST OF "A" STREET & WEST OF "B" STREET BY OTHERS)
McBEAN PARKWAY (TYPICAL SECTION SOUTH OF COPPER HILL DR.)
(PUBLIC)



COLLECTOR STREET
(PUBLIC)



LOCAL STREETS
CUL-DE-SAC'S LESS THAN 700' IN LENGTH
(PUBLIC)



BRIDGE SECTION
A Portion of "H H" street

exhibit 3.4-9

Cross–Section of Public Roads

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Tesoro del Valle

1627ER01

maintained by a homeowners association since the roads would be privately owned and limited to resident access.

A system of internal roads will also be developed to access each of the residential developments from the collector road system. The internal road system will be built according to Los Angeles County standards for public roads, as shown in Exhibit 3.4-9. In accordance with such standards, street lighting will be kept to a minimum and sidewalks would be provided.

Planned Roadway Improvements

The proposed project will be served by planned roadway improvements in the area to be completed by others (as of this writing), including the extension of Copper Hill Drive. This action will require additional technical review including any CEQA-related matters prior to implementation. The future roadway network is illustrated in Exhibit 3.4-10. As shown in this exhibit, access to the project site would be from the future extension of Copper Hill Drive and the existing San Francisquito Canyon Road. Although the project site is dependent on future roadway improvements for access to the site, the necessary improvements have already been conditioned on tentatively approved residential tracts in the project vicinity. Should those improvements not be constructed by others, the project applicant would have to provide the improvements and processing requirements or the project would not be able to record. Other improvements, such as the extension of Newhall Ranch Road to Interstate 5, are also anticipated to be developed for the future roadway network. It should be noted that the County cannot predict with certainty when these roads will be built since they would be built by private developers or a bridge and thoroughfare (B&T) district.

The proposed tract map includes an easement for a planned future extension of McBean Parkway north of Copper Hill Drive. This easement was placed on the map at the request of the County of Los Angeles Public Works Department. As mapped, this road extension would be located immediately east of Planning Area D and west of San Francisquito Canyon Road. However, the final alignment of McBean Parkway would be subject to review and approval by the County's Interdepartmental Engineering Committee (IEC) and the Significant Ecological Area Technical Advisory Committee (SEATAC).

Construction of this road is not a part of the proposed project. As planned, the proposed project does not require the extension of McBean Parkway to provide access to Area D. Access to Area D will be provided by a roadway from San Francisquito Canyon Road.

Circulation/Access Phasing

A circulation and access phasing plan has been developed and recommended for the proposed project by several County Departments. The Department of Regional Planning, Forester/Fire Warden, and Department of Public Works developed the plan in an effort to achieve good circulation to east of San Francisquito Creek, including access to existing and proposed commercial uses, public facilities, and the existing Middle School (which residents of the project would likely use). The following phasing plan is recommended to the Regional Planning Commission (RPC) to be a requirement of project approval:

- 0-300 units can be recorded and built subject to 36-feet of paving on Copper Hill west of the project site to Rye Canyon. Units could not be built in Planning Areas B and C. The road would have to be constructed or a bond submitted to the County to cover the cost of construction prior to the recordation of the first unit.

- 301-600 units can be recorded and built subject to the provision of 64-feet of paving on Copper Hill to the west. Two access roads (project "driveways") into the project from Copper Hill are also required. Units could not be built in Planning Areas B and C.

- 601-1,700 units can be recorded and built with the connection of Planning Area A to D and San Francisquito Canyon Road via a bridge over the creek. This assumes that Copper Hill Drive is not connected to the east over the creek.

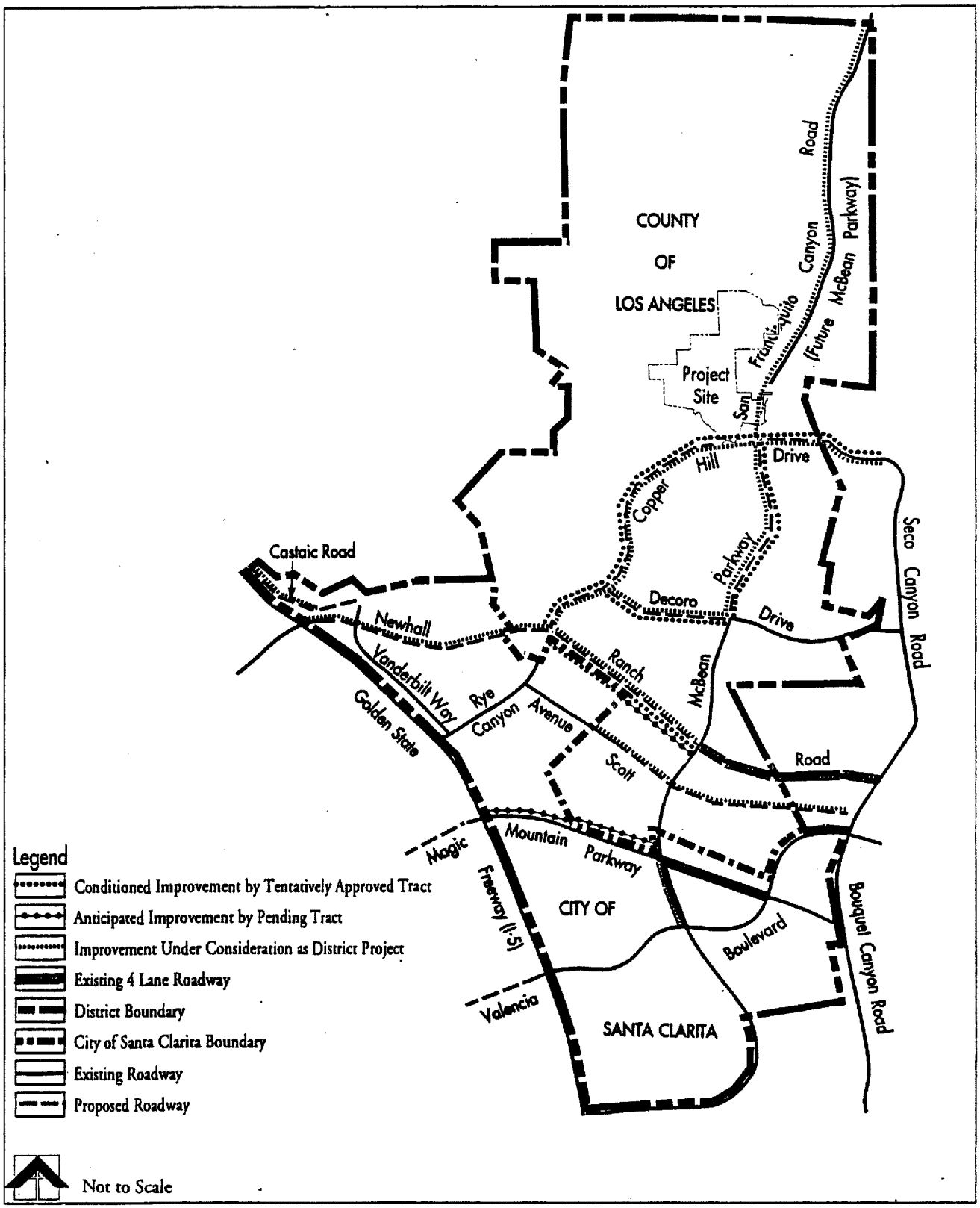
- >1,701 units can be recorded and built when Copper Hill Drive bridge (64 feet of paving) over San Francisquito Creek is built.

This phasing plan is recommended if the project is approved. No formal recommendation has been made as yet on the project. These requirements, if required by the RPC, would be conditioned through the tract map process (recordation of units) as well as through the conditional use process (building permits).

3.4.6 UTILITY IMPROVEMENTS

Water System

At this time, the applicant has applied for water service with the Valencia Water Company. The Valencia Water Company is a water retailer that purchases water from the Castaic Lake Water Agency. The water service boundaries of the Castaic Lake Water Agency currently include Planning



Michael Brandman Associates

exhibit **3.4-10**

Future Roadway Network

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Tesoro del Valle

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Areas A, B, [illegible] project site. In order to serve the entire development, Planning Area C must be annexed to the water company's service area.

Existing water transmission facilities terminate at Seco Canyon/Copper Hill Drive and in Rye Canyon to the west. In order to supply water to the site, water lines would be extended westerly through both Copper Hill Drive and San Francisquito Canyon Road, whereupon they would connect to the project's internal water system. This assumes that the Copper Hill Drive bridge over San Francisquito Creek is constructed and supports the water mains. Otherwise, if the bridge is not in place, water lines would be extended to the project site from Rye Canyon through the extension of Copper Hill Drive to the project's southerly boundary. Planning Area D would nevertheless receive water from the existing main terminus at Seco Canyon/Copper Hill Drive. This line would be extended through San Francisquito Canyon Road.

Five water tanks, three in Planning Area B and two in Planning Area C, would provide short-term water storage and pressure to the project. The combined water storage capacity of these tanks would be 15.25 million gallons. A series of 8-, 10-, 12-, and 18-inch water mains would be constructed within the project's roadway system, thus not resulting in any further onsite disturbance. Since the extension of water lines to the project site would occur within existing and future roadways, no additional areas would be disturbed in order to serve the project site.

Sewer System

The sewage system for the site would consist of a gravity collection system to collect onsite flows and transfer the flows along future and existing rights-of-way to the County Sanitation Districts' treatment plant. As presently proposed, two sewer lift stations would be required to convey project flows to gravity flow sewer lines offsite. One small sewer lift station would pump flows from Planning Area D to a larger lift station located at the southern portion of the site. The large lift station would transport flows to a high point in Copper Hill Drive, west of the project site, where they would flow by gravity via Newhall Ranch Road, Avenue Scott, and Rye Canyon Road to the Sanitation Districts' treatment plant. To fully serve the sewage generated by the project, a parallel trunk line would have to be constructed from Rye Canyon to the Sanitation Districts' treatment plant by the applicant or jointly with other private developers. Once constructed, the onsite and offsite sewage collection facilities (if considered regional nature) would be dedicated to the Sanitation District.

Conveyance lines would vary in size from 6-inch lines to 36-inch reinforced concrete pipes (RCP) serving as trunk lines. Onsite sewage flows would be conveyed via 8- to 12-inch vitrified clay pipes (VCP) depending on function and service connections.

Flood Control/Drainage Plan

A drainage system has been designed for the project site to meet the specific needs of the project site. Because the site is situated in three major watersheds, the drainage network would drain the site according to topography. Portions of the site in the Wayside and Tapia Canyon watersheds would have a drainage system of catch basins, storm drainage lines, and outlets discharging into natural drainages. No debris basins have been proposed for these drainages.

Developed portions of the site within the San Francisquito Canyon watershed would have a drainage network using catch basins in streets and storm drainage lines to transport runoff to onsite water quality lakes. Five water quality lakes have been designed into an integrated system that cleans runoff from the watershed. Aquatic vegetation growing in the lakes and temporary storage of runoff would remove nutrients such as nitrogen and phosphorus, as well as heavy metals from the urban runoff that will eventually drain into San Francisquito Creek. At this time, either a landscape maintenance district (LMD) or the homeowners association would be responsible for maintenance of the lakes.

The terminus of the drainage system would be located at the southern tip of the project site. Energy dissipating devices, designed to minimize erosion impacts to San Francisquito Creek and meet Los Angeles County standards, would be installed at the drainage system outlet. For additional information on this system, please refer to Section 5.2, Water Resources and Technical Appendix B, Limnion Water Quality Management Plan.

Gas, Electricity, and Communications

Existing gas electricity and communication systems are all located within close proximity to the project site. Extensions of existing lines can be undertaken along existing or future roadways, such that additional environmental disturbance would not occur. Please see Section 5.10 for additional discussion of utility lines and locations.

3.5 *REQUIRED APPROVALS AND INTENDED USES OF THE EIR*

Implementation of the proposed project would require approvals from the agencies listed below:

Lead Agency

The County of Los Angeles has the principal responsibility for approving the project and is the Lead Agency as defined by Section 21067 of CEQA. As Lead Agency, the County is responsible for the preparation and distribution of this EIR. The County of Los Angeles has the responsibility for the following actions:

- General Plan Amendment. A General Plan Amendment is needed to allow for the increased densities and uses proposed for the site. The amendment request includes changing the Countywide General Plan from non-urban, SEA, and low-density residential to low/medium-density residential, medium-density residential, high-density residential, major commercial, and open space, and changing the Santa Clarita Valley Area Plan (SCVAP) from hillside management, non-urban 1, urban 1, and SEA to urban 1, urban 2, urban 3, urban 4, commercial, open space, and SEA. Population projections in the SCVAP may also need to be amended, as determined by the Planning Commission and Board of Supervisors.

- Zone Change. A Zone Change will be required to bring the proposed zoning into conformance with the County's General Plan and the proposed development. The zone change request would be from heavy agriculture (A-2-2), to heavy agriculture, residential planned development (RPD), neighborhood business (C-2), commercial recreation-development program (CR-DP), multiple residence-development program (R-3DF), and open space (OS).

- Vesting Tentative Tract Map. A tentative tract map will require approval from the County Regional Planning Department, as well as the Public Works Department, Fire Department, and the Parks and Recreation Department in order to subdivide the project site into parcels for development.

- Conditional Use Permit. A CUP is required to allow for development in a Significant Ecological Area and in a Hillside Management Area.

- Oak Tree Permit. For removal of 30 native oak trees, an oak tree permit must be approved by the County Fire Department and issued by the Regional Planning Department.

Responsible Agencies

The following agencies are identified as responsible agencies in accordance with Section 21069 of CEQA. Responsible agencies are public agencies other than the Lead Agency that have responsibility for carrying out or approving the project:

- U.S. Army Corps of Engineers. Pursuant to Section 404 of the Federal Clean Water Act, the U.S. Army Corps of Engineers has jurisdiction over "waters of the United States" located on the project site, such as streams, and must issue a permit prior to the discharge of fill material into these areas.

- California Regional Water Quality Control Board (RWQCB). The RWQCB would review and approve permits and plans that pertain to construction activities.

- Department of Fish and Game. The Department of Fish and Game has jurisdiction over biological resources and riparian/wetland areas affected by the project. Pursuant to Section 1603 of the Fish and Game Code, a Streambed Alteration Agreement is required prior to substantial disturbance of any stream channel on the project site.

- County of Los Angeles Sanitation Districts. The service boundaries of Sanitation District No. 26 and 32 would require annexation of the project site.

- Castaic Water Agency/Valencia Water Company. A portion of the site would need annexation into the service boundaries of these two water agencies.

- Saugus Union School District. The school district will need to alter its service boundaries to include the entire project site.

- Local Agency Formation Commission (LAFCO). LAFCO must approve the annexation of portions of the project site into several independent agency's jurisdictional boundaries (such as the water district and school district).

Trustee Agencies

Other than the California Department of Fish and Game (CDFG), no other trustee agencies, as defined by CEQA, are known to have jurisdiction over the project's approval process. The CDFG has jurisdiction by law over the fish and wildlife of the state.

Intended Uses of the EIR

The above listed lead and responsible agencies will consider the information presented in this document in connection with their decision on whether or not to approve the proposed project.

SECTION 4
GENERAL ENVIRONMENTAL SETTING

4.1 *REGIONAL LOCATION*

The 1,795 acre project site is located in the eastern portion of the Santa Clarita Valley in Los Angeles County. The City of Santa Clarita, a rapidly expanding city with a 1990 population of approximately 120,000, is located approximately 1 mile south of the project site. The Santa Clarita Valley is an irregular shaped area draining a watershed of approximately 500 square miles, with boundaries defined by significant mountain ridges of varying heights, canyons, the valley floor, and the Santa Clara river bed. Major ridgelines of the San Gabriel and Santa Susana Mountains form the Valley to the south, east and west, separating the area from the San Fernando Valley and metropolitan communities of the Los Angeles Basin to the south.

To the north of the project site is the Angeles National Forest. Interstate 5 is approximately 2 miles due west of the project site. San Francisquito Canyon Road presently provides access to the site and is a entry corridor into the Angeles National Forest.

The project site is within the South Coast Air Basin (SCAB), a 6,600-square mile area defined by Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Bounded by several mountain ranges, sunshine and inversion layers within the basin make it an area of high pollutant levels.

4.2 *LOCAL SETTING*

The project site is located along the western ridgeline of San Francisquito Canyon. Besides being located within San Francisquito Canyon, the project site also lies within Wayside, Tapia, and several unnamed canyons and ridgelines.

The County of Los Angeles has designated the floodplain of San Francisquito Creek from the boundary of the Angeles National Forest (approximately 0.5 mile north of the site) to its confluence with the Santa Clara River as a Significant Ecological Area (SEA No. 19). SEA No. 19 is contiguous with the Santa Clara River Significant Ecological Area (SEA No. 23). The main purpose for establishing SEA No. 19 was to preserve San Francisquito Canyon as a movement corridor between the known populations of the unarmored threespine stickleback (UTS) upstream and downstream in the Santa Clara River. The stickleback requires clean, free-flowing perennial streams and ponds

surrounded by natural vegetation. The intermittent portions of San Francisquito Creek located between these populations provide a connection between the upstream and downstream habitats for the stickleback, allowing for periodic movement during the wet season.

The project site is primarily undeveloped open space, with dry farming occurring in the south eastern portion of the site. Several dirt roads and fire breaks cross the site. The main vegetation community existing on the site is Chamise Chaparral which totals approximately 1,274 acres of the 1,795-acre site. Four state-designated sensitive habitat types occur in the proposed project area: coast live oak woodland, mainland cherry forest, Riversidean alluvial fan sage scrub, and southern cottonwood-willow riparian woodland/mulefat scrub. Besides the stickleback, other sensitive plant and animal species observed or that potentially occur on the site include slender-horned spineflower, Peirson's morning glory, Nevin's barberry, Swainson's hawk, San Diego coast horned lizard, coastal western whiptail, loggerhead shrike, Bell's sage sparrow, Southern California rufous-crowned sparrow, San Diego woodrat, San Diego black-tailed jackrabbit, Santa Ana sucker, San Emigdio blue, silvery legless lizard, coastal rosy boa, coast patch-nosed snake, San Bernardino ringneck snake, California horned lark, southern grasshopper mouse, ferruginous hawk, pale big-eared bat, California mastiff bat, sharp-shinned hawk, prairie falcon, badger, arroyo chub, San Bernardino Mountain kingsnake, burrowing owl, long-eared owl, purple martin, golden eagle, pallid bat, northern harrier, and yellow warbler.

The project site consists primarily of steep to moderately steep terrain. Elevations range from 1,200 feet mean sea level (msl) in San Francisquito Wash to 1,932 feet msl near the northern project property line. The bedrock is characterized by two major formations, the Saugus and the Castaic. There are at least six major landslides located within the northeast portion of the site. There are no known active faults known to traverse the property. Isolated areas of artificial fill occur in the central portion of the site, and in agricultural areas and along the edges of graded roads and firebreaks.

Development on the project site has been isolated to several buildings and accessory structures of Farmer John (Clougherty) Ranch. Several adobe structures, including a ranch house, are located on the site and were once used by Harry Carey during the romantic period of celebrity cowboy ranching, which took place in the Saugus-Newhall region between the two world wars. The ranch complex and other cultural resources have the potential for being significant historical resources.

4.3 *RELATED PROJECTS*

This section provides a summary of related projects that could, in combination with the proposed project, cause cumulative impacts. Cumulative impacts result from the combined effect of separate projects. For example, the traffic impacts caused by two projects in close proximity may not cause significant impacts if each project is analyzed separately but would have a significant impact when they are analyzed together. Cumulative impact analysis allows for a reasonable forecast of potential project effect on future environmental conditions.

The set of projects used for the cumulative impact analysis in this EIR were gathered from the County of Los Angeles Regional Planning Department and the City of Santa Clarita Planning Department. The related projects include projects that have been recently proposed, approved, or are under construction for which applications for discretionary approvals have been filed with these agencies. For several topics, such as water and sewer, related projects occurring within a service district were identified using the County of Los Angeles Development Monitoring System (DMS). The computer printouts used for this analysis are located in Appendix D of this EIR. For purposes of traffic, a specific set of cumulative projects were identified through a joint effort between the City of Santa Clarita and the County of Los Angeles. Since the related projects have varying degrees of applicability to environmental issues, the following is a summary of the methodology for consideration of related projects for each topic:

- Earth and Water Resources. Cumulative impacts to water resources would be limited to those areas within the San Francisquito Canyon and Wayside Canyon watersheds. The ridgelines of these canyons were used to delineate the study area for cumulative impacts.

- Biological Resources. Biological impacts were assessed during the biological review of the project by SEATAC. Five related projects were identified in San Francisquito Watershed that could potentially result in cumulative impacts. Table 4.3-1 identifies these projects.

- Transportation and Circulation. Table 4.3-1 lists the projects used for the traffic analysis. The applicable projects were determined jointly with the County of Los Angeles and the City of Santa Clarita.

- Air Resources and Noise. Cumulative impacts to air resources and noise levels are derived from cumulative traffic impacts, and thus, consider the study area used for the cumulative traffic analysis.

- Aesthetics. Cumulative aesthetic impacts were isolated to projects within the same viewshed as the proposed project.

- Socioeconomics. Cumulative socioeconomic impacts were determined based on an independent review of all pending development within Regional Statistical Area (RSA) #8.

- Water Service. Because water supplies for the proposed project will be served by the Valencia Water Company, cumulative impacts would be limited to those within the boundaries of the Company. The County Development Monitoring System was used to calculate cumulative water demands.

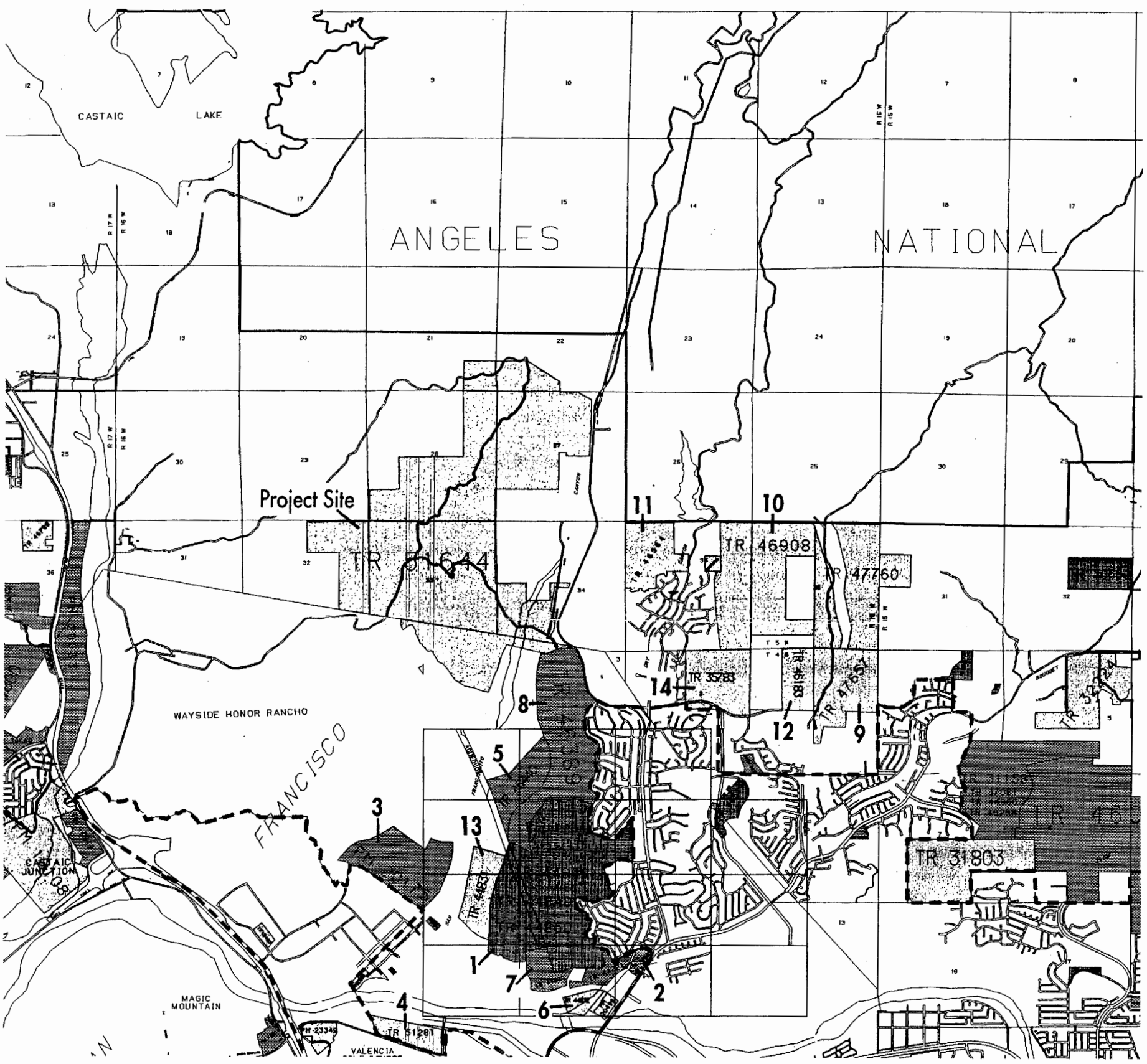
- Sewer Service. If annexed, the project site would be served by Los Angeles County Sanitation Districts Nos. 26 and 32. Related projects within these service district boundaries were utilized for the sewer cumulative impact analysis.

- Police and Fire Services. For police services, all county projects analyzed in the traffic analysis were used for cumulative analysis. Cumulative impacts for fire services were determined on geographic location to the local fire stations.

- School Facilities. The project site lies within the Saugus Union School District, the Castaic Union School District and the William S. Hart Union School District. To appropriately analyze cumulative school service impacts, related projects which lie within the service area of these three schools were chosen for analysis.

- Natural Gas and Electrical Service. In order to provide a relative comparison of cumulative natural and gas consumption, a summary of development in the traffic section was used for this analysis.

Each environmental topic discussion within Section 5.0 has a cumulative impact discussion which analyzes the impacts of the related projects based on the geographical areas described above. Table 4.3-1 provides a summary of all the potential related projects used for the cumulative traffic analysis. Due to the technical nature of the DMS, projects included in its analysis are not individually shown. Related projects are projected to be constructed within the buildout period of the proposed project (i.e., by the year 2000). One significant development south of the project site is the area referred to as the "North River" planning area. This planning area includes several projects such as 83-008, 86-491, 88-321, and 89-140. Each of these proposals has an associated tentative tract that is identified in the DMS. For purposes of clarification, the subdivisions in the North River area have been identified in Table 4.3-1. Exhibit 4.3-1 maps the location of related projects within 2 miles of the site. Exhibit 4.3-2 provides an aerial view of the project in relation to surrounding development.



NOTE: Projects shown but not numbered are not considered related projects.

Michael Brandman Associates

exhibit **4.3-1**

Related Project Location Within 2 Miles of Site

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exhibit **4.3-2**

Aerial View of Project Site and Related Projects

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Tesoro del Valle

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SOURCE: Headrick Chase & Associates, 1995.

Table 4.3-2 summarizes the development listed in Table 4.3-1 according to land use type and jurisdiction. As shown in Table 4.3-2, approximately 14,000 units are proposed for the Santa Clarita Valley in comparison to approximately 3.5 million square feet of both commercial and office uses. Only one hotel consisting of 312 rooms is proposed.

TABLE 4.3-1
RELATED PROJECTS LIST

				Cumulative Topics[1]								
Map # [2]	Tract #	Use	Size	E/W	B	T	A/N	Ae	S	P	F	N/E/Sw
County of Los Angeles												
1	TR 43591[3]	SF	901 units	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	TR 44830	MF	192			✓	✓		✓	✓		✓
3	PM 20175[3]	I/C	811k-I			✓	✓		✓	✓		✓
			268k-C									
4	TR 51281	MF	1,215 units			✓	✓		✓	✓		✓
5	TR 45440[3]	SF/C/Sc	363 units			✓	✓		✓	✓		✓
			300k-C,660-Sc									
6	TR 44832[3]	MF	250 units			✓	✓		✓	✓		✓
7	TR 44823[3]	SF	352 units			✓	✓		✓	✓		✓
8	TR 46389[3]	SF/MF/C	875/577/300k-C	✓	✓	✓	✓	✓	✓	✓	✓	✓
9	TR 47657	SF/MF/C	434/102/36k-C/4k-O			✓	✓		✓	✓		✓
10	TR 46908	SF	591 units			✓	✓		✓	✓		✓
11	TR 46564	SF	319 units		✓	✓	✓		✓	✓	✓	✓
	TR 47447	SF	208 units			✓	✓		✓	✓		✓
12	TR 46183	SF	208 units			✓	✓		✓	✓		✓
	CP 88223	H	152 rooms			✓	✓		✓	✓		✓
	PM 18301	C	719k-O			✓	✓		✓	✓		✓
	TR 48026	MF	69 units			✓	✓		✓	✓		✓
	TR 44339	MF	296 units			✓	✓		✓	✓		✓
	TR 44340	MF	75 units			✓	✓		✓	✓		✓
	TR 44338	MF	300 units			✓	✓		✓	✓		✓
	TR 43896	SF/MF/C	781/192/68k-C			✓	✓		✓	✓		✓
	TR 33608	SF/MF/C	220/770/45k-O			✓	✓		✓	✓		✓
			125k-C/160 rooms									
	TR 45433	SF/MF	1070/798 units			✓	✓		✓	✓		✓

TABLE 4.3-1 (continued)

Map #[2]	Tract #	Use	Size	Cumulative Topics[1] E/W	B	T	A/N	Ae	S	P	F	N/E/Sw
	TR 44353	SF	82 units			✓	✓		✓	✓		✓
13	TR 44831[3]	MF	420 units	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TR 49079	SF	78 units			✓	✓		✓	✓		✓
	TR 46648	SF	73 units			✓	✓		✓	✓		✓
14	TR 35783	SF	419 units			✓	✓		✓	✓		✓
	TR 44821[3]	MF	288 units			✓	✓		✓	✓		✓
	TR 37539	SF			✓				✓	✓		✓
City of Santa Clarita												
	TPM 16051	CBP	76k			✓	✓		✓		✓	
	TPR 22349	CBP	76k			✓	✓		✓		✓	
	TTM 44374	SF/MF	314/706 units			✓	✓		✓		✓	
	TPM 20795	C	700k-O			✓	✓		✓		✓	
			513k-Mall									
	PP 90072	O	102k			✓	✓		✓		✓	
	PP 89094	C	149k			✓	✓		✓		✓	
	PP 91004	W	7k			✓	✓		✓		✓	
	PP 91058	O	58k			✓	✓		✓		✓	
	PP 92023	O	25k			✓	✓		✓		✓	
	CUP 92003	O	131k			✓	✓		✓		✓	
	CUP 91001	O	29k			✓	✓		✓		✓	
	N/A	SF/MF	400/400			✓	✓		✓		✓	
		C/I	250k (50/50)									

Uses= SF-single family; MF-multi-family; C-commercial; BP-business park; O-office; I-industrial; H-hotel; Sc-school.

Cumulative Topics= E/W-earth and water; B-biology; T-traffic; A/N-air and noise; Ae-aesthetics; P-police; F-fire; N/E/Sw-natural gas, electricity, and solid waste.

1 Cumulative impacts for water and sewer were analyzed using the County of Los Angeles Development Monitoring System, which aggregates project (tracts) within the relative service study area.

2 Related projects within 2 miles of the project site and considered related projects are shown on Exhibit 4.3-1. Other projects not shown on the exhibit fall outside of this boundary, but are identified by tract no.

3 Tracts within Valencia Company's North River Planning Area.

Source: Barton Aschman Associates 1993; Department of Regional Planning 1993.

TABLE 4.3-2
SUMMARY OF RELATED PROJECTS

Use	County of L.A.	City of SC	Total
Residential			
SF	6,974	714	7,688
MF	5,544	1,10	6,650
Subtotal Residential	12,518	1,820	14,338
Commercial	800k	936k	1,736k
Office	768k	1,045k	1,813k
Hotel	312rm	—	312rm
Industrial	811k	132k	943k
School	660 stud		660 stud

Source: County of Los Angeles, City of Santa Clarita 1993.

In addition to the projects mentioned above, applications for one significant related project were submitted to the County of Los Angeles during the preparation of the Draft EIR. As a result, this project, referred to as the Newhall Ranch Project, is considered a related project under CEQA. The site is near the junction of State Route (SR) 126 and Interstate 5, approximately 5 miles from the proposed project. The project is made up of 12,000 acres of land that partially straddles SR-126. As initially proposed, the project would consist of 24,700 units, 170 acres of active parks, a 200-acre business park, a golf course, and ten schools ranging from elementary to high school.

The Newhall Ranch Project has begun its planning and environmental processing through the Regional Planning Department. As part of this process, environmental documentation will be required to assess its project-level, as well as cumulative, impacts on the environment. Specifically, the cumulative analysis for the Newhall Ranch Project will address other related projects in the region, including this proposed project. Because of the size, regional nature, and preliminary stage of development, this project can only be cumulatively considered based on its known characteristics, which are presently limited. The cumulative analysis contained within this document acknowledges and addresses this project, where appropriate without being speculative.

SECTION 5
ENVIRONMENTAL SETTING, PROJECT IMPACTS, AND MITIGATION MEASURES

5.1 *EARTH RESOURCES*

INTRODUCTION

The main information obtained for this section originates from two technical studies: Phase 1 Environmental Site Assessment; and a Geotechnical Evaluation both prepared by Geosoils. In addition, a seismic update report was prepared by GeoSoils following the January 17, 1994, Northridge earthquake. These studies are located in Technical Appendix A.

ENVIRONMENTAL SETTING

Topography

The site consists of moderately steep to steep terrain in the central and western portions of the site, leveling off toward the east to the broad alluvial bottom of the San Francisquito Creek. Elevations within the site range from approximately 1,932 feet above mean sea level (MSL) along the central ridgeline to 1,200 feet MSL near the southern portion of San Francisquito Creek. The prominent topographic feature within the area is a northeast trending ridge that transects the central portion of the site. Tributary canyons to the east of the ridge drain in a southeasterly direction into San Francisquito Creek. Drainages west of the ridge include the upper portion of Wayside Canyon and its tributaries, and a northwest trending tributary of Tapia Canyon.

Geology/Soils

The project site has the following geologic units (earth materials) located onsite: fill, topsoils, slopewash, alluvium, Saugus formation, and Castaic formation. A description of these areas and their components is provided below.

- Fill. A relatively large flat graded area exists in the upper portion of "Farmer John" Canyon. This area was graded between 1968 and 1973 by cut-fill methods. Fill soils appear to be up to 25 or more feet in depth. Additional areas of shallow (i.e., 2 to 4 feet thick), poorly compacted fill exists locally in association with old access road grading. Exhibit 5.1-1 illustrates fill areas.

- Topsoil. Most of the site is covered by surficial accumulations of topsoil consisting of silty sands, silts, silty sands with gravels, and coarse sandy gravels. This material is mostly residual, having developed through the weathering and decomposition of the underlying bedrock. Topsoil is present over most of the site.

- Slopewash. The term "slopewash" refers to thicker deposits of topsoil that generally accumulate in swales and near the toes of natural slopes in response to rainwash, slope creep, mass wasting, etc. Because slopewash is primarily derived from adjacent upslope soil, its composition is generally similar to that of topsoil; however, it is typically thicker than the normal soil zone.

- Alluvium. Alluvium within the site occurs in the major canyons and tributary canyon bottoms. This material consists of older alluvial terrace deposits and recent alluvium and flood plain deposits and is generally composed of silty coarse sands with gravel, cobbles, and some boulders. The alluvium thickness ranges from several feet near the upper ends of the canyons to over 100 feet deep near the canyon mouths.

- Saugus Formation. Bedrock of the Saugus Formation is exposed throughout the site. This formation consists of non-marine, fluvial lenses of conglomerate, conglomeritic sandstone, and sandstone alternating with siltstone, silty sandstone, and sandy siltstone and claystone.

- Castaic Formation. In the northeastern portion of the site, the Saugus Formation is underlain by the Castaic Formation. The Castaic Formation consists of a sequence of marine siltstone, mudstone, sandstone, and conglomerate.

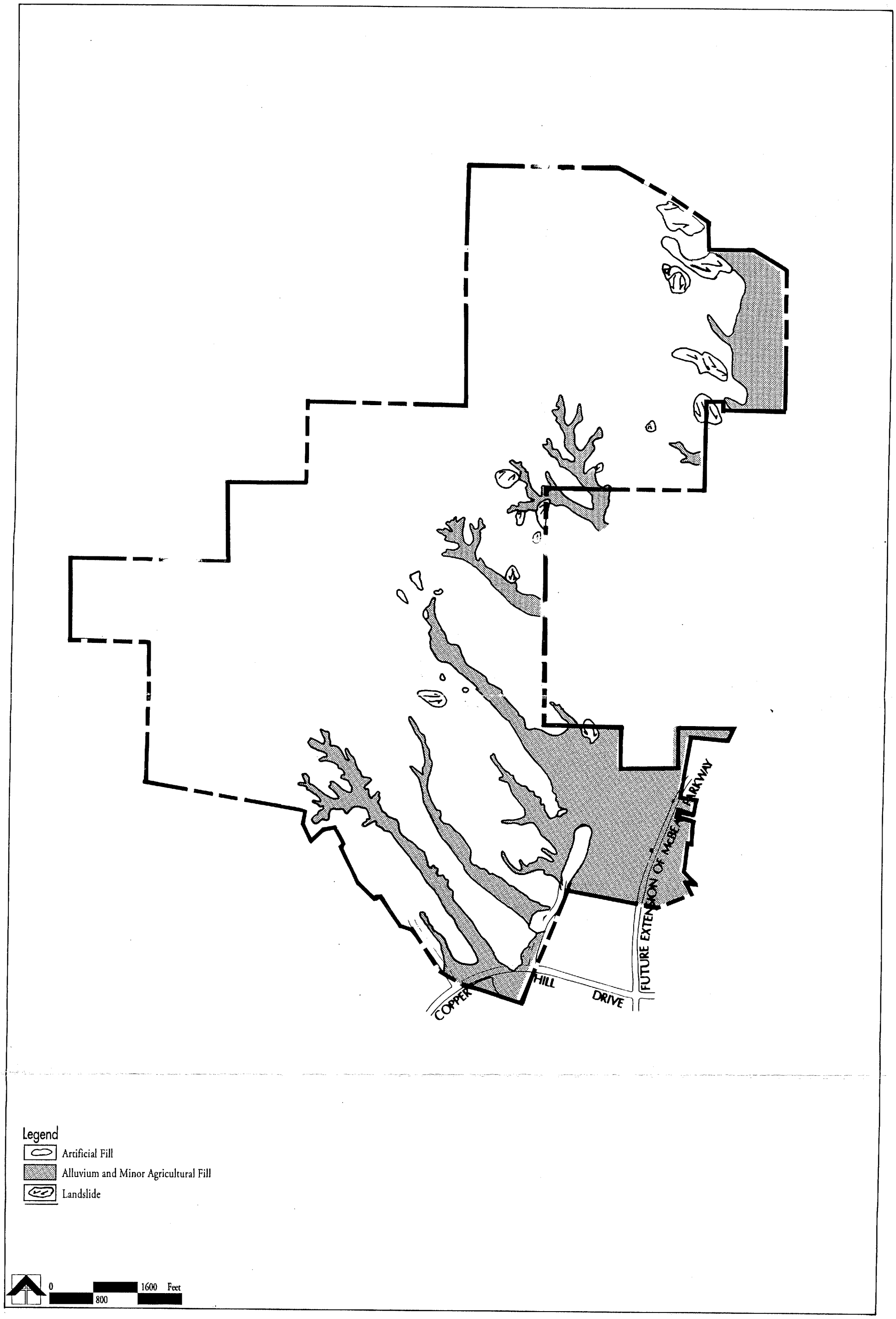
Expansive Soils

The topsoil, slopewash, and Saugus Formation contain varying proportions of clay. A soil's potential to shrink and swell depends on the amount and types of clay in the soil. Certain clays expand when wet and shrink when dry. Expansive soils can cause structural damage to foundations and roads.

The topsoil and slopewash on the site may be subject to expansion. Likewise, some of the claystone beds of the Saugus Formation may be expansive.

Ground Settlement

Fill on the project site has not been properly compacted and could undergo future settlement. This includes the flat pad in "Farmer John" Canyon and local areas of shallow fill. Topsoil, slopewash, and the upper 5 to 10 feet of alluvium on the project site are generally loose, porous, and subject to consolidation and settlement. The alluvium becomes much firmer and denser with increasing depth.



Michael Brandman Associates

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exhibit **5.1-1**

Site Geology

Tesoro del Valle

SOURCE: GEOSOILS, 1993.

Settlement can occur when loosely consolidated materials and fills collapse into soil pore space under the weight of structures/fills or with the addition of water. The existing artificial fill, recent alluvial deposits, weathered portions of the older alluvial deposits and bedrock, colluvial deposits, and highly disturbed portions of the landslides are compressible, and in some cases, collapsible.

Geologic Hazards

Slope Stability/Landslides

Both shallow slope failures and deep seated landslides occur in the hillside areas of the site. Shallow erosion and surficial slumping are generally contained within the topsoil, slopewash, and upper several feet of weathered bedrock that mantle the steep natural slopes of the site. Exhibit 5.1-1 shows the location of onsite landslides.

The deeper failures are primarily underlain by bedrock of the Castaic Formation in the northeasterly portion of the site. Several smaller landslides also occur within the Saugus Formation in the central-southern portion of the site.

Seismicity

The severity of an earthquake is generally expressed in two ways, magnitude and intensity. The energy released, or the magnitude of an earthquake, is represented by the Richter Magnitude Scale. The magnitude scale is a logarithmic scale where each whole number increase in Richter magnitude (M) represents a tenfold increase in the wave amplitude generated by an earthquake, which is a representation of an earthquake size. Also, for each full point increase in Richter magnitude, the corresponding amount of energy released increases 31.6 times. Thus, a M 6.3 earthquake is 10 times larger than a M 5.3 earthquake and releases 31.6 times more energy. In contrast, a M 7.3 earthquake is 100 times larger than a M 5.3 and releases almost 1,000 times more energy.

The Modified Mercalli Intensity (MMI) scale is used to emphasize the current seismic environment and measures the amount of damage at a particular site following an earthquake. Intensity scales measure ground shaking severity according to damage done to structures, changes in the earth surface, and personal accounts. The MMI scale ranges from I to XII, where I = nothing felt and XII = total destruction, lines of sight disturbed, and objects thrown into the air. Because the MMI scale uses subjective measures to describe the intensity of an earthquake, there may be a number of values of intensity since the observable effects may vary from location to location.

Table 5.1-1 defines the MMI values and provides a comparison to the Richter magnitude scale. Table 5.1-2 lists nearby faults that could affect the site during the lifespan of the development. The table lists estimated maximum credible and probable Richter magnitudes for each fault, its distance from the site, estimated repeatable horizontal ground accelerations, and estimated Mercalli Intensity or damage estimates.

A maximum credible earthquake is the maximum earthquake that appears capable of occurring under the presently known seismic conditions. The maximum probable earthquake is the maximum earthquake that is likely to occur during a 100-year interval. Neither a maximum probable earthquake nor a maximum credible earthquake occurrence can be assured; however, their likelihood of occurring is great enough to be of concern (CDMG 1980). Table 5.1-2 gives the maximum credible magnitudes and maximum probable magnitudes for faults within 30 miles of the project area.

Locally Significant Faults

Although no known active faults cross the project site, the site is located in a seismically active region and in relatively close proximity to several active and potentially active faults (see Exhibit 5.1-2). Numerous faults occur within 30 miles of the project site that are capable of generating significant ($M \geq 6.0$) earthquakes (Table 5.1-2). In most tectonic settings and for most faults it is not possible to predict the location, time, and magnitude of such significant earthquakes. Therefore, estimates of potential future earthquake activity are based on the study of past earthquakes associated with a given fault.

The most recent seismic shaking to occur on the site was from the January 17, 1994, Northridge earthquake. The 6.7 M earthquake was centered 19 kilometers below the earth's surface and continued within 5 kilometers of the surface. The Northridge "Thrust" fault, which has not been officially named, is a southerly dipping fault, which may be an extension of the Oak Ridge fault. Due to the recent nature of the earthquake, the effects of the event are still under study by various geologic experts and some conclusions regarding the earthquake still have not been made.

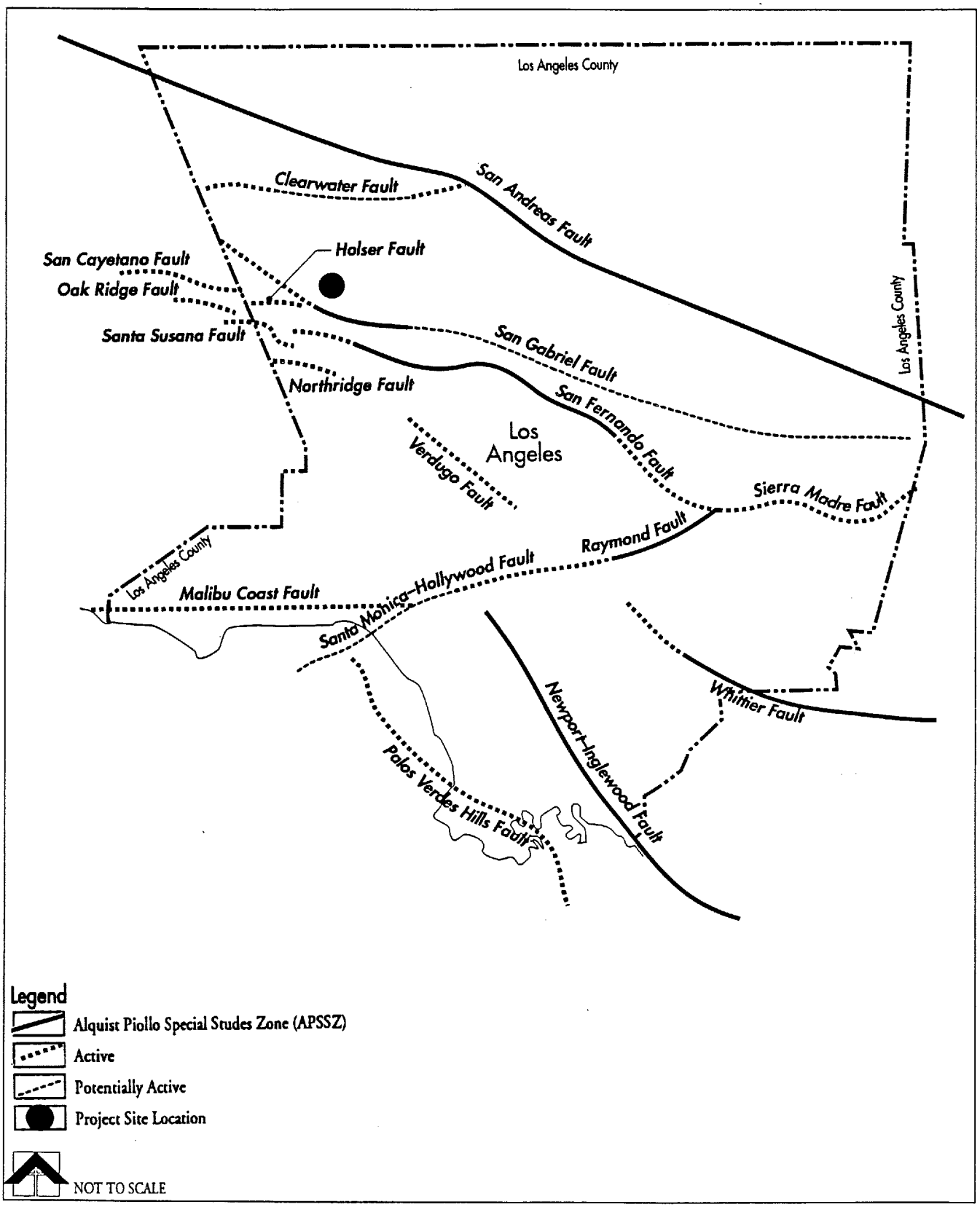

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exhibit **5.1-2**

Fault Location Map

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1627ER01

SOURCE: Michael Brandman Associates (MBA), 1993.

TABLE 5.1-1

RELATIONSHIP BETWEEN GREATEST MEASURED INTENSITY AND MAGNITUDE

Richter Magnitude M	Modified Mercalli Intensity Scale	Description
	I	Detected by only sensitive instruments
M3	II	Felt by a few people at rest.
	III	Felt noticeably indoors, but not always recognized as a quake: vibration like a passing truck.
M4	IV	Felt indoors by many and outdoors by few.
	V	Felt by most people. Some breakage of windows, dishes, and plaster.
M5	VI	Felt by all; falling plaster and chimneys; damage small.
	VII	Damage to buildings varies; depends on quality of construction.
M6	VIII	Walls, monuments, chimneys fall; panel walls thrown out of frames.
	IX	Buildings shift off foundations; foundations crack; ground cracks; underground pipes break.
M7	X	Most masonry and frame structures destroyed; ground cracks; landslides.
M8	XI	Ground fissures; pipes break; landslides; rails bend; new structures remain standing.
	XII	Damage total; waves seen on ground surface; objects thrown into the air.

Source: Bolt 1988.

TABLE 5.1-2
SIGNIFICANT FAULTS

Fault	Approx. Dist.	Max Credible Event Repeatable Mag.	Max Credible Event Horizontal Acceleration (g)	Max Credible Event MMI	Max Probable Event Repeatable Mag.	Max Probable Event Horizontal Acceleration (g)	Max Probable Event MMI
San Gabriel	3	7.0	0.472	X	5.75	0.241	IX
Holser	4	6.6	0.428	X	5.75	0.258	IX
Clearwater	8	7.0	0.32	IX	3.00	0.024	V
Oak Ridge	11	7.2	0.276	IX	6.50	0.188	VIII
San Cayetano	12	7.5	0.306	IX	6.25	0.153	VIII
Santa Susana	12	7.0	0.237	IX	6.00	0.133	VII
Simi-Santa Rosa	13	7.0	0.212	VIII	5.25	0.071	VI
Northridge Hills	14	6.5	0.146	VIII	5.0	0.055	VI
San Andreas	15	8.3	0.271	IX	8.00	0.234	IX
Sierra Madre-San Fernando	15	7.5	0.252	IX	6.00	0.105	VII
Verdugo	16	6.7	0.144	VIII	4.5	0.034	V
Pine Mt.	16	7.0	0.178	VIII	4.25	0.030	V
Santa Ynez	20	7.5	0.209	VIII	5.25	0.050	VI
Fraizer Mt.	27	6.5	0.114	VII	3.0	0.011	III
Santa Monica-Hollywood	30	7.5	0.195	VIII	5.25	0.045	VI
Newport-Inglewood	31	7.0	0.101	VII	5.75	0.045	VI
Malibu Coast	31	7.5	0.185	VIII	6.50	0.098	VII
Arroyo Parida-More Ranch	32	7.5	0.78	VIII	5.25	0.041	V

Source: Geosoils 1994.

Subsequent to the earthquake, a seismic update of the site was performed by Geosoils, Inc. As discussed in Section 5.11, Cultural Resources, most of the onsite adobe buildings were severely damaged from ground shaking. Minor rockfall was observed in several locations onsite, as well as some settlement of poorly compacted fill along the existing dirt access roads.

The nearest State of California, Division of Mines and Geology, strong motion station is located at the Los Angeles County Fire Station in Newhall. At this location, horizontal ground acceleration was recorded at 0.63 g (gravity) and the duration of shaking was about 10 seconds. The repeatable horizontal ground acceleration was approximately 0.3g.

Besides the 1994 Northridge earthquake, the 1971 Sylmar earthquake also had a strong impact on the project site. The 6.4 M earthquake created severe shaking on the project site as a result of the site's proximity to the epicenter (10 miles), and the event's size (6.4 M).

> San Fernando Fault Zone. This fault was not known to be active until the 1971 event. The San Fernando Fault is comprised of five major strands, the total length of which is at least 10.5 miles. The five fault segments consist of, from west to east, the Reservoir Segment, Mission Wells Segment, Sylmar Segment, Tujunga Thrust, Lake View Segment. The project site lays closest to the Reservoir Segment which extends from the lower Van Norman reservoir embankment eastward to approximately 1 mile east of Lower Van Norman Lake where it meets the Mission Wells Segment. These faults were zoned within the Alquist Priolo Special Studies Zone (APSSZ) in 1976.

In addition to the 1971 San Fernando event, the July 1952 Kern County earthquake created a large seismic impact on the project site. Located 44 miles from the project site, this event created intensities of VIII at the project site.

> White Wolf Fault Zone. The White Wolf Fault Zone was undiscovered until it ruptured July 21, 1952. Originating just west of Highway 5 and Junction 99, it continues northeasterly for 50 miles.

Although these historic events have generated significant ground motion at the project site, the active San Gabriel and Holser faults and the potentially active Clearwater fault could have the strongest affect on the site due to their proximity.

> San Gabriel Fault. Although the fault extends 81 miles, only 16 miles of its length, from Castaic Lake to Placerita Canyon, have been identified of active. Within this 16 miles, 6 miles have been designated as an APSSZ along 6 miles. The San Gabriel fault is

believed capable of generating a 7.0 M earthquake. The project site is located approximately 3 miles north of the portion of the fault designated as an APSSZ.

Holser Fault. The Holser Fault intersects the APSSZ portion of the San Gabriel fault and extends approximately 12 miles westward. The fault lies approximately 4 miles from the project site and has been identified as active and capable of generating a 6.6 M event.

Clearwater Fault. The Clearwater fault is designated as potentially active except for the easternmost portion which is designated as an APSSZ. From its intersection with the San Andreas fault, the Clearwater fault extends approximately 20 miles westward. The project site lies 8 miles from the potential active portion of the fault and 14 miles from the APSSZ portion of the fault.

Ground Displacement

The site has no known active or potentially active faults crossing the property; therefore the potential for ground rupture is low. The site is not within an Alquist-Priolo Earthquake Fault Zone; however, it is located within a seismically active area and ground shaking is likely to occur.

Ground Shaking

As indicated in Table 5.1-2, the project site is expected to sustain ground accelerations up to 0.472g. Acceleration of gravity (g) is a means of expressing the amount of ground shaking at a site, where g represents 1.0, the force of gravity. Ground acceleration is the incremental increase of the velocity of the ground, where each change in rate acts as a force on a structure.

As indicated in Table 5.1-2, a maximum credible earthquake originating from the San Gabriel and Holser faults could cause the greatest acceleration on the site.

Liquefaction

Liquefaction describes the phenomenon in which soil particles vibrate. As the soil vibrates smaller particles shift and fill the voids between larger soil particles. These voids are normally filled with water. As the soil particles condense, less space is left for the water, causing excess water pressure. As a result, the groundwater is pushed over the soil and the soils acquire a high degree of mobility. This reaction leads to structural damage of buildings caused by the settlement or subsidence of the soil. Liquefaction typically occurs in areas where the groundwater is less than 30 feet from the surface and where the soils are composed of poorly consolidated fine to medium sand.

There is a very low to negligible potential for liquefaction to occur at the southeastern portion of the site, east of San Francisquito Creek. In this area, the groundwater table periodically rises within 30 feet or less of the ground surface. However, because the alluvial materials are relatively dense sands with gravel, the potential for liquefaction to occur in these soils is very 3low.

Hazardous Materials

A Phase I site assessment for the presence of hazardous materials was coordinated by GeoSoils in 1992. This study is contained in Technical Appendix A.

This study revealed areas of limited soil contamination in various locations on the property. In general these contaminated areas are the result of the leaking or spilling of materials, such as fuel, associated with the ranching and farming activities on the property. The site contains two above ground fuel tanks near the main ranch house used to fuel farm equipment. Minor soil staining around the tanks indicates that some fuel spillage has occurred. Some diesel fuel, oil, and heating oil drums are stored outside near the main ranch house and caretaker's residence. Only minor soil staining was observed near these drums. Some limited soil staining resulting from leaking was also observed around two of the four water wells onsite.

The site also contains several small trash dumps. This landfilled trash is expected to consist of relatively inert household rubbish.

An oil exploration well, Texaco DeNault No. 1, was drilled on the site in 1963. This well was considered a dry hole and abandoned the same year under permit by the California Division of Oil and Gas according to current standards. Analysis of soils in the vicinity of the oil well detected components of drilling fluid; however, the concentrations were below Threshold Limit Concentration values outlined in the California Code of Regulations, Title 22.

ENVIRONMENTAL IMPACTS

Topography

Implementation of the proposed grading plan would result in alteration of approximately 1,128 acres of the project site; 668 acres would be left undisturbed. The maximum cut slope proposed is 140± feet and fill slopes are also planned to a maximum vertical height of 140± feet. All

manufactured slopes will maintain 2:1 gradients. Most slopes created during grading will be maintained by a homeowner association or a landscape maintenance district (LMD).

Because areas of slopewash are generally thicker than the normal soil zones, they will require deeper grading removals. Areas which appear to contain thick accumulations of slopewash will be investigated by backhoe and/or drilling prior to the onset of grading to ensure that the entire depth of the material is accounted for removal in the grading plan.

The design of the proposed project is generally consistent with the intent of the Hillside Development Guidelines. Design of the project would ensure that unsafe conditions resulting from development in hillside areas will be mitigated to less than significant levels. The recommendations contained within the guidelines in regards to project design, layout, etc., were followed for the project. However, in order to develop the project as proposed, a significant amount of hillside and sub-ridgeline grading and canyon filling will have to occur. This will result in an alteration of the topographic characteristics of the site, although the final design of the project would not create any unsafe conditions. For additional discussion of the project's consistency with the hillside management area, please refer to Section 5.8, Land Use.

Geology/Soils

Expansive Soils

No mappable acres of highly expansive or critically expansive soils are known to exist on the site. Most of the soils and bedrock materials onsite are granular and considered low to moderately expansive.

Hazards associated with expansive soils/bedrock will be minimized by recognizing potentially expansive soils/bedrock types prior to and during grading through soil/foundation studies. If expansive materials are identified, the following will be accomplished:

- Footings and slabs will be designed appropriately and to the approval of Los Angeles County Public Works.
- Expansive materials will be over excavated and replaced with a compacted blanket of non-expansive material.

- Grading techniques will be selected which ensure that expansive soils are not placed within the upper 10± feet of compacted fill lots or within 20 feet of the face of a compacted fill slope.

- The Uniform Building Code and the County of Los Angeles specification regarding local expansive soil conditions will be adhered to.

Both the Saugus and Castaic formation bedrock should excavate readily with conventional heavy duty grading equipment and produce good quality fill materials. Some of the conglomerate beds, however, may generate oversized boulders. Such boulders should be placed in windows in fills, in accordance with the recommendations of the project geotechnical engineer as contained in the geotechnical report (Technical Appendix A).

Implementation of theses measures during grading activities will reduce impacts associated with expansive soils/bedrock to a level considered less than significant.

Ground Settlement

Old poorly compacted fills, topsoil, slopewash, and some of the alluvium on the site is highly compressible and not considered suitable for structural and/or fill support. If unmitigated, these loose soils could consolidate or settle under increased loading from the weight of structures and/or compacted fill embankments. Additional moisture from rainfall and/or landscape irrigation could also cause settlement of these loose surficial materials.

Under the proposed grading plan, all loose poorly compacted compressible old fill, topsoil, and slopewash will be removed and recompacted within graded areas. The upper compressible portions of alluvium within the canyons will also be removed to the dense underlying materials and recompacted within graded areas. These measures will reduce impacts associated with settlement/ collapsible soils to a level considered less than significant.

Geologic Hazards

Slope Stability/Landslides

The geologic investigation (Technical Appendix A) indicates that cut slopes in bedrock of the Saugus Formation, which have favorable geologic structure, should perform well at gradients of 2:1 or flatter. All cut slopes will be closely monitored by the project geologist. If adverse structural conditions

and/or highly fractured bedrock are encountered, the slope will be buttressed or stabilized. Buttress designs will be built to the approval of the County of Los Angeles. Implementation of these measures will reduce impacts associated with stability of the Saugus Formation to a level considered less than significant.

The several large landslides located in the northeasterly portion of the site have been investigated by drilling borings, excavations for test pits, geologic mapping, and review of aerial photos. No development is proposed in the area underlain by the large landslides within the Castaic Formation at the northeast corner of the property. Proposed development has been set back behind a 2:1 projected plain from the bottom, or slide plane, of each landslide. All other landslides within graded areas will be removed and recompacted. Thus, no significant impacts from landslides are expected.

In areas of known potential for shallow slumping and erosion, provisions will be made to protect areas of development from potential mudflow damage. Corrective measures where steep natural slopes ascend from graded pads may consist of compacted earth berms, impact walls, catchment areas (basins), or other debris control devices. In areas where steep natural slopes descend from graded pads, the upper 10± feet of the natural slope will be trimmed back to a 2:1 or flatter, to remove the loose topsoil from the outer edge of the pad. This will minimize the potential for surficial failures to encroach on the pad and reduce the potential for damage to perimeter fences, swimming pool decks, and other improvements near the outer edge of the residential pads. Implementation of these measures will reduce impacts associated with surficial instabilities to a level considered less than significant.

Seismicity

Ground Displacement

No known active or potentially active faults are known to exist on the project site and the site is not in an Alquist-Priolo Earthquake Fault Zone. However, there is an extremely remote potential for displacement to occur onsite from an unknown or undiscovered fault. The impacts from an unrecognized source are considered to be adverse but less than significant because of the common hazard experienced by all areas in Southern California. Thus, no significant impacts associated with ground rupture/displacement are anticipated.

Ground Shaking

The historic seismic record and continuing activity of Southern California faults indicates the probability of a strong earthquake occurring relatively near the project site during the life of the proposed project. The San Gabriel, Holser, San Fernando/Sierra Madre, and San Andreas faults represent the most potentially damaging faults to the project site due to strong groundshaking. Based on the current framework of knowledge of local faults, repeatable horizontal accelerations could be on the order of 0.472g in the event of an earthquake on the San Gabriel fault.

The effects of seismic shaking depend on the design of the buildings, foundation, soil conditions, and the severity and duration of shaking. Structures similar to those proposed for the project have been successfully designed in similar geologic environments. Slopes and other structures shall be designed with seismic shaking taken into account. Seismic factors must be taken into consideration in the detailed preliminary geotechnical engineering studies required for a grading permit. The proposed structures will incorporate earthquake resistant design as required by existing building codes.

Acknowledging the potential for severe ground shaking hazard and designing structures to withstand such shaking without serious damage or injury will reduce impacts to an acceptable level considered consistent with existing code. The lateral force design parameters will serve as indicators for site design and independent, thorough testing and studies by a qualified structural engineer will be performed to provide detailed assurance that a properly conservative design has been made and that all impacts associated with ground shaking has been mitigated to a level considered less than significant. It should be noted that an unknown seismic event in close proximity to the site could generate unmitigable impacts. Existing adobe structures that are to remain onsite shall be retrofitted to current standards to mitigate the hazard associated with the potential collapse of these buildings.

Liquefaction

Liquefaction potential over most of the site is considered very low because liquefiable materials either do not exist and/or will be mitigated, as detailed under Mitigation Measures below, if necessary.

Seiche

Oscillatory waves in enclosed bodies of waters (seiches) can be anticipated in the water quality lakes. Therefore, the lakes will be designed by the project civil engineer such that the water level is low enough so that a seiche will not overflow the banks of these lakes.

Hazardous Materials

The existing above ground fuel tanks will be removed from the site, as will all diesel fuel, oil, and heating oil storage drums. The limited area of contaminated soil around the tanks, storage drums, and water wells will be removed or treated until contaminant levels are in compliance with state and federal thresholds. The trash contained in the small landfills onsite will be excavated and disposed of offsite in a sanitary landfill. If any signs of soil contamination are encountered, they will be investigated and remediated.

Oil Wells

The proposed grading plan would result in a cut of over 32 feet in the vicinity of the oil exploration well. This would remove the upper surface plug and would require reabandonment of the well. The Division of Oil and Gas will be provided with the grading plans and the Divisions recommendations shall be incorporated into the grading plan prior to issuance of the grading permit. Impacts associated with the exploratory oil well are considered less than significant.

As discussed above, soils in the vicinity of the oil well contained concentrations of drilling fluid below Threshold Limit Concentration values outlined in the California Code of Regulations, Title 22. Thus, no special handling of these soils will be required.

CUMULATIVE IMPACTS

Impacts to earth resources will primarily occur onsite. Some offsite grading for cut and fill slopes would be required, but no offsite properties would be adversely affected by development of the project. As a result, no cumulative impacts are anticipated.

MITIGATION MEASURES

During the subdivision review process for the project, the Department of Public Works required detailed investigations of soil, geologic structure, landslides, and expansive/compressive soils. These investigations included identification of unstable soils, previous landslides, and areas where development is infeasible. In complying with these standard practices and requirements of the Department of Public Works and the Uniform Building Code, most of the potential geologic/seismic/ erosion concerns have been addressed and mitigated to a level that is considered less than significant. Preliminary investigations and analysis have identified areas where standard engineering techniques

cannot provide adequate economically feasible mitigation for geologic concerns. The following measures are required in addition to the other standard measures required by the Department of Public Works:

Slope Stability/Landslides

1. During grading, subdrains shall be installed beneath compacted fill where fill is placed over drainage channels and hillside gullies, or in other areas where groundwater is encountered during grading. In addition, deep-rooted vegetation shall be planted on all cut slopes to reduce erosion. Proper drainage for manufactured slopes shall be provided to limit erosion of manufactured slopes. These measures will be effective in reducing slope hazards to less than significant levels.

2. Prior to approval of development permits, an engineering geologist and soils geologist shall assess rock faces and slopes within, and upslope of, areas proposed for development for potential instability. Prior to approval of grading permits, the proposed grading plan outlining remediation methods for the onsite landslides shall be approved by the Materials Engineering Division. During grading operations, a County Engineer shall conduct a field investigation to ensure that the remediation methods outlined in the grading plan are accomplished.

3. Prior to approval of the grading permits, in areas disturbed by grading, an engineering geologist shall evaluate steep slopes and swale areas upslope of proposed building pads for mudflow potential. If the potential for mudflow exists, diversion devices or recommendations of the engineering geologist shall be incorporated into the plans and/or loose soils shall be removed from the slopes and the slopes replanted. The design engineer shall submit the geologist's evaluation along with a proposal, if necessary, for design of diversion devices to Los Angeles County Public Works, Materials Engineering Division, prior to approval of grading plans. If properly implemented, these measures will reduce the potential hazards from mudflow to a less than significant level.

Seismicity

4. If further investigations (i.e., during 40-scale grading plan review) indicate liquefaction potential in the alluvial areas, the following mitigation measure shall be implemented: prior to approval of a grading permit, a geotechnical report prepared by a registered engineer shall be prepared and submitted to the County Department of Public Works to identify specific construction methods to mitigate the potential for liquefaction. Such measures could include densification of loose alluvial soils or vibroflotation/vibroreplacement of loose soils, a technique that involves backfilling soils into a dense cylinder of compacted material capable of better supporting foundations. Either method of mitigation should be designed to avoid impacts to the Significant Ecological Area within San Francisquito Creek.

5. All cut and fill slopes, foundations, and structures shall be designed and constructed according to Chapter 70 of the Unified Building Code (UBC) and the Los Angeles County Grading Ordinance. All adobe buildings remaining onsite shall be retrofitted to earthquake standards contained in the UBC. The potential for significant exposure to earthquake hazards related to slope instability is expected to be relatively low if the above measures are properly implemented.

6. Prior to approval of grading plans, the project engineer shall demonstrate to the satisfaction of the Department of Building and Safety that the water quality lakes have been designed to prevent a seiche from overflowing the lake berms.

Onsite Soil Contamination

7. Based on the preliminary investigation of contamination sources, no sources of significant concern were found. Some sources of contamination were identified and further investigation was recommended in the preliminary investigation. Therefore, to ensure the safety of construction workers and future residents, employees, and visitors of the project, the following shall be accomplished prior to approval of the grading permit:

    a. A Phase II environmental assessment shall be conducted at the project site to determine 1) if any soil contamination is present; 2) if so, the type of contaminant; 3) the vertical and horizontal extent of contamination, and 4) the concentration of contamination. Additionally, the landfill area will be investigated to determine the presence of hazardous materials. Implementation of a remedial action plan, if necessary, will be developed, approved by the State Department of Toxics, and implemented. Such a plan may include removal of the affected soils or in place remediation.

    b. If contaminated soils exist on site and are to be removed rather than treated in place, the applicant shall adhere to local, state, and federal regulations pertaining to the disposal of contaminated soils. This use of a certified hauler, disposal at an appropriate land fill (Class 1), and payment of all fees. All actions regarding transport and disposal shall be manifested as required by legislation.

    c. If contaminated soils exist on site and are to be treated in place rather than removed, the applicant shall implement treatment approved by the U.S. Environmental Protection Agency and permitted by the California State Department of Toxics.

UNAVOIDABLE ADVERSE IMPACTS

With proper implementation of the above measures, no significant impacts associated with geology, soils, topography, or contamination are expected.

5.2 *WATER RESOURCES*

INTRODUCTION

Information obtained for this section originates, in part, from the Hydrologic Assessment prepared by Richard Slade and Associates, the Water Quality Management Plan, prepared by the Limnion Corporation, and a drainage analysis prepared by Hunsaker and Associates, 1995. The latter of these reports is too voluminous to include in the EIR or Technical Appendices. A copy of this report is available for review at the County of Los Angeles Department of Regional Planning. The other studies are located in Technical Appendix B.

ENVIRONMENTAL SETTING

Surface Hydrology

Topographically, the site consists of moderately steep to steep terrain in the central and western portions of the site, leveling off toward the east to the broad alluvial bottom of San Francisquito Creek. San Francisquito Creek crosses the eastern portion of the site. Additionally, the upper ends of Wayside Canyon and an unnamed drainage cross the western portion of the site and Tapia and Charlie canyons cross the northwestern portion of the site. Exhibit 5.2-1 illustrates these watersheds.

Drainage Patterns

The site is transected by a nearly continuous northeast-trending ridge line that creates a natural drainage divide. The drainage to the east flows southeasterly into tributaries of San Francisquito Creek which traverses the southeastern portion of the site. The project site comprises approximately 1,120 acres of the tributary area for this watershed; a small area of this watershed lies upstream of the project site and discharges into the project site. Surface water, after entering San Francisquito Creek, flows downstream via natural channels to the Santa Clara River, approximately 3.3 miles south of the project site.

Within the San Francisquito watershed, surface water resources are limited to the creek channel flow during periods of precipitation which supply water to the riparian habitat along the streambeds. Where San Francisquito Creek crosses the project site the stream bed is usually dry; however, after the heavy rains, the stream typically flows steadily for several months. During periods of moderate

rainfall, streamflow seeps into the alluvium and the stream bed becomes dry on the project site within days of the event.

Surface water to the west of the main ridge on the property primarily flows into tributaries of Wayside and Tapia Canyons which in turn drain to Castaic Valley, eventually discharging into the Santa Clara River. These southwest draining streams are intermittent, flowing only during the rainy season. A small portion of the western area of the site drains to an unnamed blueline stream located between Tapia and Wayside Canyons and a small portion of the northwest corner of the site drains into Charlie Canyon to the north.

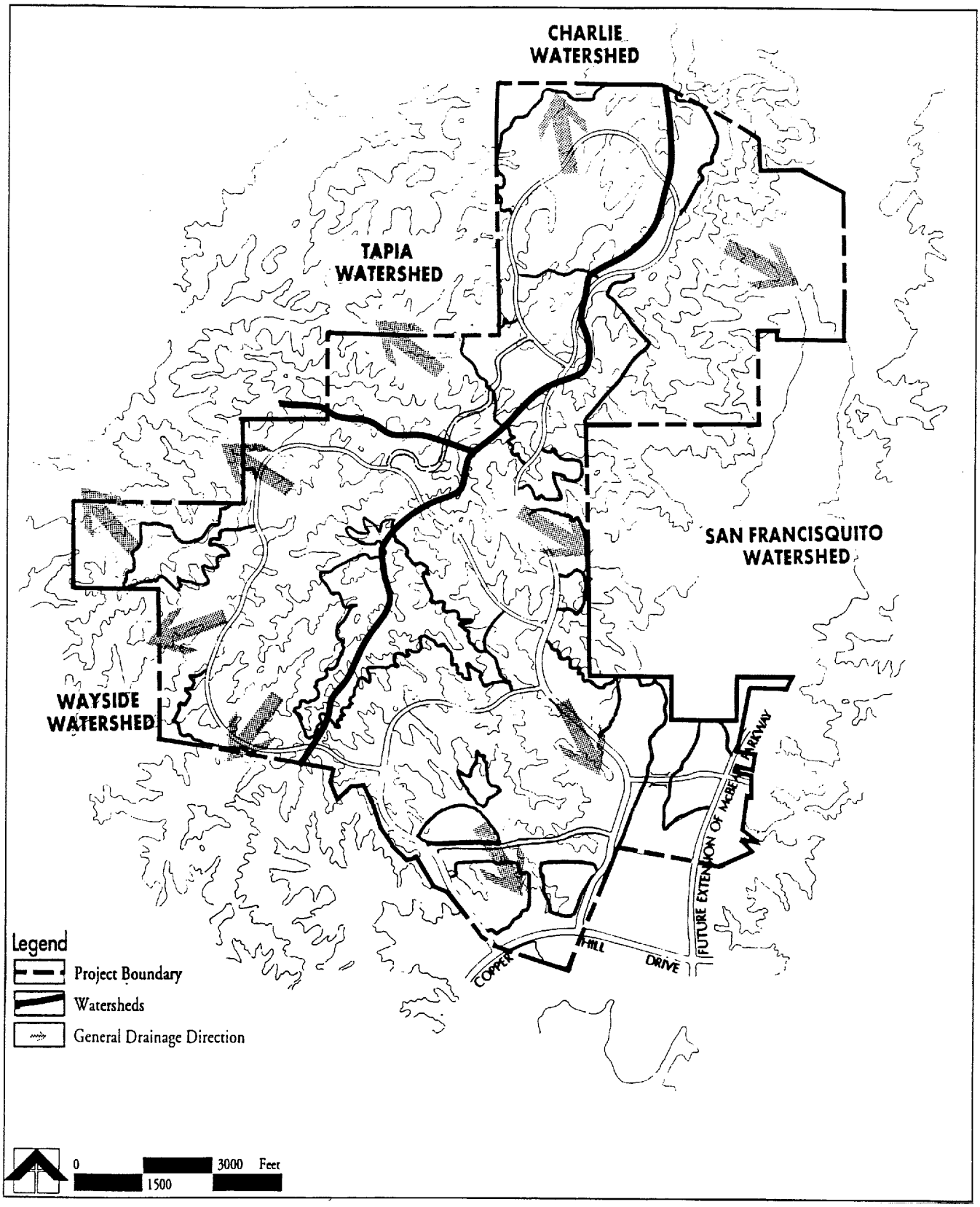
Approximately 330 acres in the northwest portion of the project site contribute runoff to Tapia Canyon via a series of tributaries. Wayside Canyon also receives runoff from approximately 350 acres of the project site.

Flooding

Flooding is limited to seasonal storms that typically occur between November and mid-April. There are two known floodplain studies that have been prepared on the San Francisquito Creek. One was prepared by the Los Angeles County Flood Control District, the other by Hunsaker & Associates Irvine, Inc. (1994). The floodway depicted on the FIRM (Flood Insurance Rate Map) map for this area is not based on a hydraulic analysis of the creek. In a discussion with Federal Emergency Management Agency (FEMA), it was indicated that the floodway delineation was most likely accomplished through an inspection of San Francisquito Creek. The FIRM floodway is shown in Exhibit 5.2-2.

The Los Angeles County analysis determined both the existing floodplain limits and the floodway limits within this reach of the San Francisquito Creek. The results of this study indicate that at the location of Planning Area D, there is an island of land above the floodway elevations. It should be noted that this island was created from the importation of fill material (prior to the 1940s) for agricultural production. The size of this island is approximately 30 acres. Both the Los Angeles County floodplain and floodway are shown in Exhibit 5.2-2. Existing stream velocities for frequent small-magnitude flood events in San Francisquito Creek range from 3.1 to 5.9 feet per second (fps). Stream velocities for the capital storm event range from 3.9 to 7.7 fps.

The analysis prepared by Hunsaker & Associates determined the existing floodplain limits within this reach of the San Francisquito Creek. The analysis was prepared using the U.S. Army Corps of



Michael Brandman Associates

exhibit **5.2-1**

Watershed/Existing Drainage

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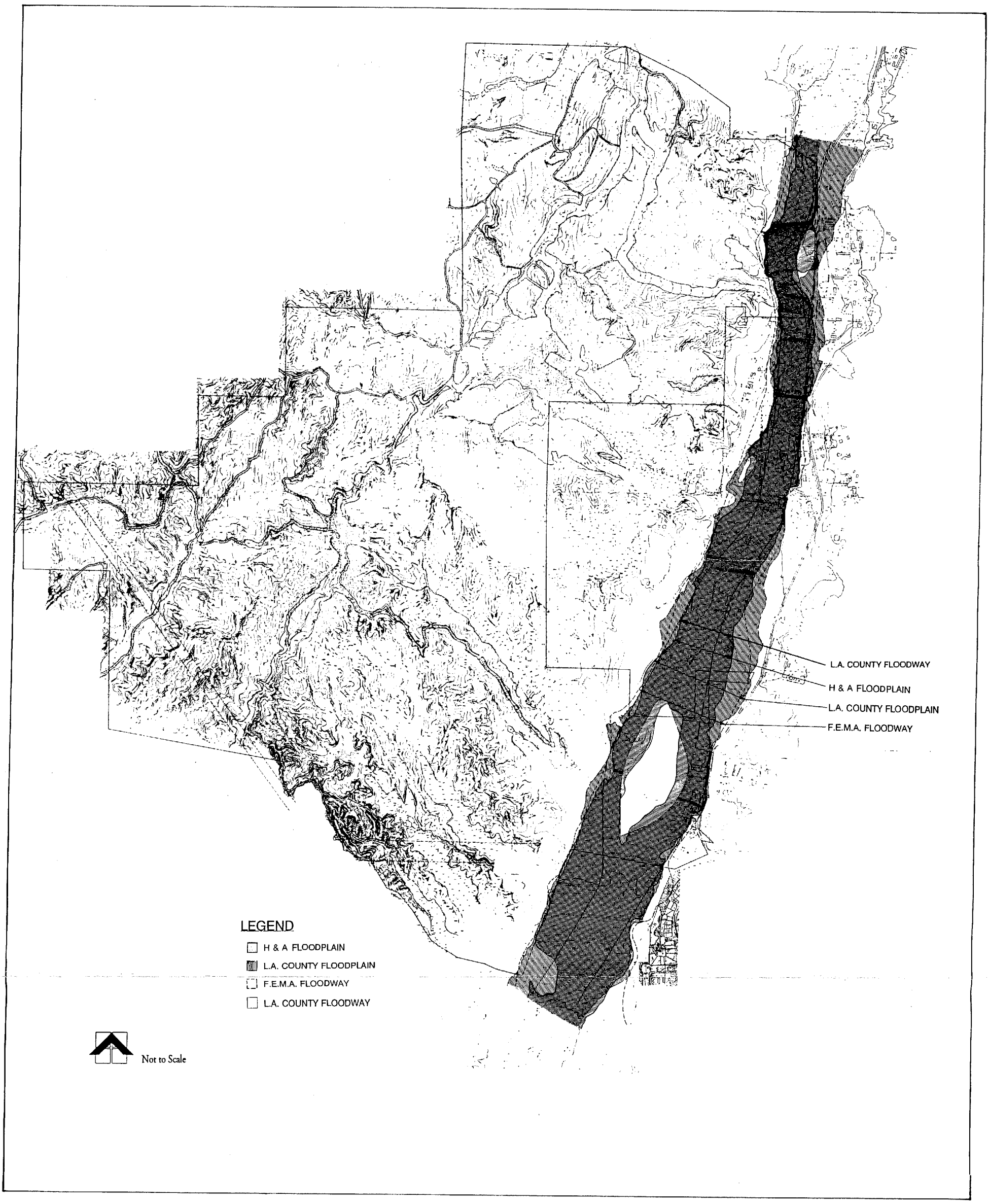
Tesoro del Valle

1627ER01

SOURCE: Michael Brandman Associates, 1992.



Michael Brandman Associates

April•94 rev. 5/95

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exhibit **5.2-2**

Hydrological Delineation

Tesoro del Valle

SOURCE: Hunsaker & Associates, 1993.

Engineers' HEC-2 Water Surface Profile computer program to model the creek. This analysis again indicated the location of an island of land above the floodplain within the site of Planning Area D.

All three floodplains or floodways are very similar; however, the floodway shown in the FIRM map covers the island in Planning Area D. However, this island is present in both instances in which a specific hydraulic analysis was performed. A comparison of the flood limits is presented in Exhibit 5.2-2.

Water Quality

There is no published historical water quality monitoring data available for the San Francisquito, Wayside, or Tapia watersheds. Based on the land use characteristics of these watersheds, surface water quality is expected to be good in terms of mineral content, organic matter, nutrient loads, and toxic contaminants.

Agricultural uses on the site are a probable generator of non-point source pollutants in the San Francisquito watershed. Portions of the site within this watershed are currently dry farmed for wheat. Although pesticides, herbicides, fertilizers, and fungicides were employed on the southeastern portion of the site from the mid 1970s to late 1980s, no farm chemicals are currently used on the site (GeoSoils June 1992). Residue of these chemicals may exist within the soil (organochlorine and organophosphorus compounds; DDT, DDE, DDD, etc.). However, any such residues that are present probably occur below the surface, and do not enter stormwater runoff.

Water quality in the natural receiving waters downstream of the project site can be potentially affected by discharges of stormwater runoff and septic system seepage problems. As required by the Los Angeles Regional Water Quality Control Board (RWQCB), the U.S. Fish and Wildlife Service, and the California Department of Fish and Game, the quality and flow of waters within San Francisquito Creek are to be maintained for preservation of the unarmored threespine stickleback.

After San Francisquito Creek crosses the southern property boundary it receives urban stormwater runoff from residential uses within the community of Bouquet Canyon, especially during the "wet" season. Through the year, urban areas throughout this watershed may contribute "nuisance" flows from the storm drain system to the Creek resulting from excess irrigation water and various incidental human uses (i.e., vehicle washing, pavement cleaning, etc.). Nuisance flows can range from ambient quality characteristics of drinking water to flows containing oil and grease, surfactants, and pesticides.

Water quality in Wayside and Tapia Canyons is anticipated to be good. The Peter J. Pitchess Honor Ranch in Wayside Canyon may contribute some non-point source urban pollutants to runoff in the lower portions of this watershed.

Groundwater

Aquifer Characteristics

Water wells within the project area obtain their water supply directly from the underlying alluvium. On the project site, the majority of this material occurs as natural valley fill deposits in San Francisquito Canyon and consists of clay, silt, sand, and gravel. The alluvium in San Francisquito Canyon is approximately 130 feet thick; the saturated portion of the alluvium (50 to 123 feet thick) represents the most probable source of developable groundwater for potable uses. Onsite agricultural uses have used well water for irrigating crops for many years.

Historic data indicates that water levels in the alluvium are directly related to changes in rainfall. Recharge to the alluvium appears to be largely from deep percolation of surface water runoff in San Francisquito Creek and direct rainfall. Generally, the lowest groundwater levels occur in late September or October, prior to the onset of relatively high seasonal rains. Relatively "dry" periods comprise a significant portion of 40 years of historic rainfall data in this area. Therefore, available water supply is conservatively based upon the "dry" periods for baseline water-supply operational conditions.

The groundwater in storage for the portion of the alluvium (83 acres {1400 ft x 2600 ft}) which underlies the southeastern portion of the project site ranges from approximately 470 to 785 acre-feet (AF) during "dry" periods and approximately 1,155 to 1,925 AF during "wet" periods.

The amount of underflow of the groundwater, or recharge, from upstream sources through the alluvium in this area ranges from approximately 765 acre-feet per year (AF/Y) to 3,290 AF/Y. The larger underflows would tend to occur during "wet" rainfall periods (highest water levels) while the lower underflows would tend to occur during "dry" rainfall periods (lowest water levels).

Additional contribution of water to underflow to the alluvium is seepage from Drinkwater Reservoir. Through an agreement with the National Forest Service, underflow seepage from the reservoir is allowed by DWP to percolate into the alluvium of the river. Because the water is aqueduct water, the system is closed, and as a result, there are no surface releases of water from this reservoir. In

addition, surface runoff into the reservoir from the surrounding terrain is minimized. The continuous seepage from the reservoir is approximately in the range of 0.5 to 1.0 cubic foot per second (360 to 720 AF/Y). However, reportedly, recent work to fill large voids beneath the dam may have reduced the underflow seepage considerably.

Groundwater Quality

Historically, groundwater quality beneath the project site has been moderate. During the period 1961 to 1991 total dissolved solids (TDS) has ranged from 461 milligrams per liter (mg/l) to 884 mg/l. The recommended State Secondary Maximum Contaminant Level (MCL) for TDS is 500 mg/l. Thus, the alluvium has historically exceeded the recommended MCL for TDS. More recently, trends in water quality data have shown an improvement in quality. This could be attributed to recent rains diluting contaminants in the groundwater (see additional discussion under Environmental Impacts, Groundwater Quality).

Nitrate levels between 1961 and 1991 ranged from non-detectable concentrations to 43.8 mg/l. The State Primary MCL for nitrate is 45 mg/l.

Iron has been present in concentrations ranging between 0.025 mg/l and 3.06 mg/l. Manganese has ranged between 0.01 and 0.270 mg/l. Neither iron or manganese have exceed its respective State Secondary MCL (0.30 mg for iron and 0.05 for manganese) with the exception of a water sample taken in 1991. In that year, iron was detected at a concentration of 3.06 mg/l and manganese at 0.270 mg/l. Theses anomalous concentrations may be an artifact of water sampling and analysis (e.g., analyzing non-filtered water samples with high turbidity).

Recent (1993) analysis show that TDS in groundwater to be of 460 mg/l, nitrate at 1.7 mg/l, and iron and manganese were in concentrations below detection limits. None of the constituents exceeded its respective State Primary or Secondary MCL. Additionally, other metals (aluminum, arsenic, barium, cadmium, chromium, copper, lead, mercury, silver, and zinc) were not detectable in laboratory analysis.

ENVIRONMENTAL IMPACTS

Surface Hydrology

The project proposes to construct residential and commercial structures in a mostly undisturbed area. In order to develop structures on the hillside slopes, the slopes will be graded and benched to provide suitable building sites. The site grading process will require modification of tributaries to San Francisquito, Wayside, and Tapia Creeks and modification or filling of minor drainages that transverse the site. Development activities will result in compaction of loose soils, placement of pavement, and removal of much of the brush and debris.

Impacts associated with these types of development activities include changes in absorption rates, drainage patterns, and the quality of surface runoff. The project would be considered to have a significant impact on water resources should the peak runoff rate leaving the site after development exceed the peak runoff rates from its natural condition. Additionally, because a portion of the site is located within the floodplain of the San Francisquito Creek, alterations to the course of flow of flood waters or the potential exposure of people or property to flood waters would be considered a significant impact.

Drainage Patterns

The three major watersheds receiving runoff from the site will not be significantly impacted by changes in runoff rates or tributary drainage areas after development. Table 5.2-1 provides the watershed characteristics for the project site pre- and post-development. Based on the drainage analysis prepared by Hunsaker and Associates according to the methodology established by the Los Angeles County Department of Public Works, onsite drainage systems have been designed to maintain the same or reduced runoff rates during the 50-year capital storm both before and after project implementation to comply with requirements of the Los Angeles County Development of Public Works. Consequently, no significant impacts are anticipated on drainage patterns.

The drainage concept proposed by the applicant includes the installation of energy dissipators for the San Francisco watershed to ensure that flows leaving the site are maintained at a non-erosive velocity. Additional dissipaters will be required for Tapia and Wayside watersheds in order to mitigate impacts. Otherwise, no significant impacts associated with changing stormwater flow rates are anticipated.

TABLE 5.2-1
COMPARISON BETWEEN PRE- AND POST-DEVELOPMENT RUNOFF

Watershed Area	Tributary Area		Runoff	
	pre-development (acres)	post-development (acres)	pre-development (cfs)	post-development (cfs)
San Francisquito	1,119	1,120	2,929	2,870
Wayside	353	355	864	859
Tapia	330	327	898	835
TOTAL	1,802	1,802	4,681	4,564

Source: Hunsaker & Associates 1995.

Flooding

With regard to potential flooding impacts, as designed, the project includes no encroachment into the floodway (main channel) of San Francisquito Creek (as delineated by DPW). Some minor encroachment (about 3.57 acres) into the floodplain of San Francisquito Creek would result from the eastern extension of HH Street to San Francisquito Road and from grading for the easterly slope of Planning Area A by San Francisquito Creek. Proposed development in Planning Area D, which is located on the existing, elevated agricultural bench 4 feet above the floodplain, would consist of multi-family units located between 10 and 15 feet above the floodplain. As discussed in Section 3.4.4, approximately 516,375 cubic yards of fill would be brought from other graded areas of Planning Area A into Planning Area D. This fill would further raise the development area above the existing floodplain. A 50-foot buffer of natural vegetation would be maintained from the existing edge of the floodplain to the areas disturbed by grading. To protect the developed uses from erosion during flood events, the slopes leading up to the pads for the multi-family units' development will be stabilized with rock (e.g., rip-rap) or another stabilization method acceptable to the County Department of Public Works.

With regard to alterations of stream velocities, development of Planning Area D and the bridge across San Francisquito Creek would result in stream velocities for frequent small-magnitude flood events

in San Francisquito Creek ranging from 3.2 to 5.9 fps. Estimates of stream velocities for the capital storm event would range from 4.1 to 7.7 fps. As such, the proposed project would not change the existing maximum stream velocity of 7.7 fps, and would not result in a significant impact.

As noted above, one access road (HH Street) is proposed to be constructed from Planning Area D to San Francisquito Canyon Road. While this road would encroach into the floodplain, it would be constructed on embankment fills with culverts designed to meet County Department of Public Works requirements. It should be noted that this portion of the floodplain is currently separated from the main channel of the creek by the existing agricultural bench, and only conveys water during high flows (i.e., storm events). As the access road would be designed with properly sized culverts, no flooding impacts are anticipated from its construction. For a discussion of impacts on the SEA from the access road, see Section 5.3, Environmental Impacts, San Francisquito Canyon/ Significant Ecological Area No. 19.

Water Quality

Short-Term Impacts

Alteration of surface areas during grading and site preparation may increase the potential for erosion and sedimentation. Erosion and sedimentation can lead to the degradation of aquatic and riparian habitats by increasing turbidity and reducing light penetration. Additionally, increased pollutant transport can occur since toxic substances (nutrients, hydrocarbons, trace metals, organic compounds, etc.) in stormwater tend to adhere to sediments. Other pollutants of concern to surface water quality include nutrients, trace metals, toxic chemicals, and miscellaneous wastes. These pollutants can originate from a variety of construction activities.

The Federal Water Pollution Control Act (also referred to as the Clean Water Act (CWA)) establishes a framework for regulating industrial and municipal storm water discharges under the National Pollution Discharge Elimination System (NPDES) program. The NPDES program effectively prohibits the discharge of pollutants to waters of the United States from any point, unless the discharge is in compliance with a NPDES permit. Construction activities of 5 acres or more are defined in the regulations as an industrial activity. In California, the State Water Resources Control Board (SWRCB) has issued a statewide "General Permit" for construction activities that require a NPDES permit.

The project will be required to obtain a permit from the Los Angeles RWQCB; most likely a "general" permit will be sufficient for construction processes. General permits are available for

development projects in California and must be applied for by filing a Notice of Intent (NOI) with the RWQCB at least 90 days prior to the onset of grading. Stormwater pollution prevention plans must be developed that use structural and nonstructural Best Management Practices (BMPs) to obtain reductions in urban pollutant loading to the "maximum extent practicable". BMPs, such as sand bag dikes, temporary desilting basins, and spillways, can reduce water quality impacts to receiving waters during project construction. The BMP objectives for construction projects include:

- Practice Good Housekeeping
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes and Channels
- Control Site Perimeter
- Control Internal Erosion

In addition to requirements of the NPDES program, many stormwater pollution control regulations and programs are in place in California including CWA 401 and 404 permits, Uniform Building Code (Chapter 70), Fire Code, Fish and Game Code Sections 1601 and 1603 Stream Bed Alteration Agreements, etc. Like NPDES, these programs require the development and implementation of BMPs to control pollutants in stormwater discharges. Full compliance with applicable local, state, and federal water quality standards by the applicant shall reduce impacts to a level considered less than significant.

Long-Term Impacts

Conversion of open space to urban uses results in an increase in the potential for stormwater runoff to transport contaminants from roadway surfaces, lawns, driveways, and parking lots, and other exposed structural and landscape surfaces into the storm drain system. Studies of urban runoff contamination have shown different rates of pollutant generation for residential, commercial, and highway areas and, in general, mass loading of contaminants increases as one progresses downstream. These studies also validate the concept of heavy "first flush" contamination where runoff concentrations are highest within the first 0.5 to 1.0 inches of rain. Typical urban runoff contaminants (i.e., oil and grease, surfactant, heavy metals, solvents, pesticides, nutrients, or fecal coliform bacteria) could potentially be expected in stormwater runoff to the San Francisquito, Wayside, and Tapia watersheds.

The proposed development has incorporated water quality basins and other structural BMPs to achieve water quality enhancement through filtration, sedimentation, and aquatic system transformations. Four water quality lakes are included in the project design to remove nutrients and priority pollutant metals in the stormwater from the project west of San Francisquito Creek. A fifth water quality lake is proposed in the eastern portion of Planning Area D (Exhibit 5.2-3).

Due to the requirement to maintain the water quality in San Francisquito Creek to minimize any impacts to the unarmored threespine stickleback, an extensive network of water quality lakes has been designed to remove pollutants from runoff in the San Francisquito watershed.

These water quality lakes include submersed aquatic plants chosen for their abilities to remove pollutants and prevent algae growth. This commercially available system of vegetation uses a combination of cultivation of a rootless submersed plant, (*Ceratophyllum demorsum*) within a fully submerged containment system and submersed rooted aquatic plants. Considerable research has documented the ability of aquatic microphytic plants, such as ceratophyllum, to absorb large quantities of nutrients from the water. These plants will remove nutrients and pollutants through direct absorption of the constituents from the water and the uptake of these materials from sediments in the lake.

The water quality lakes proposed for the project involve a patented system using submerged containers holding the Ceratophyllum. These containers can be easily accessed to harvest and exchange this plant material to maintain the effectiveness of the lakes.

Each lake will contain two areas. The outer area is deeper to allow for the installation of a series of submerged pods containing the Ceratophyllum plant in the pollution removal process but which in their natural state would float freely in the lake. The center of the lake is shallow to allow for the growth of rooted submerged aquatic plants. Harvesting of vegetation would occur at least twice a year. One harvest would occur in late spring or early summer to maximize removal of trace metals stored in the vegetation. A second harvest would occur in late fall. An additional harvest could occur during the summer months if plant growth reaches undesirable levels. All harvested plant material would be transported to a sanitary landfill for disposal with other green wastes. Harvesting and maintenance of the water quality lakes would be conducted by either the homeowners association or a landscape maintenance district.

Three processes will work in these lakes to reduce the concentration of each constituent in the stormwater:

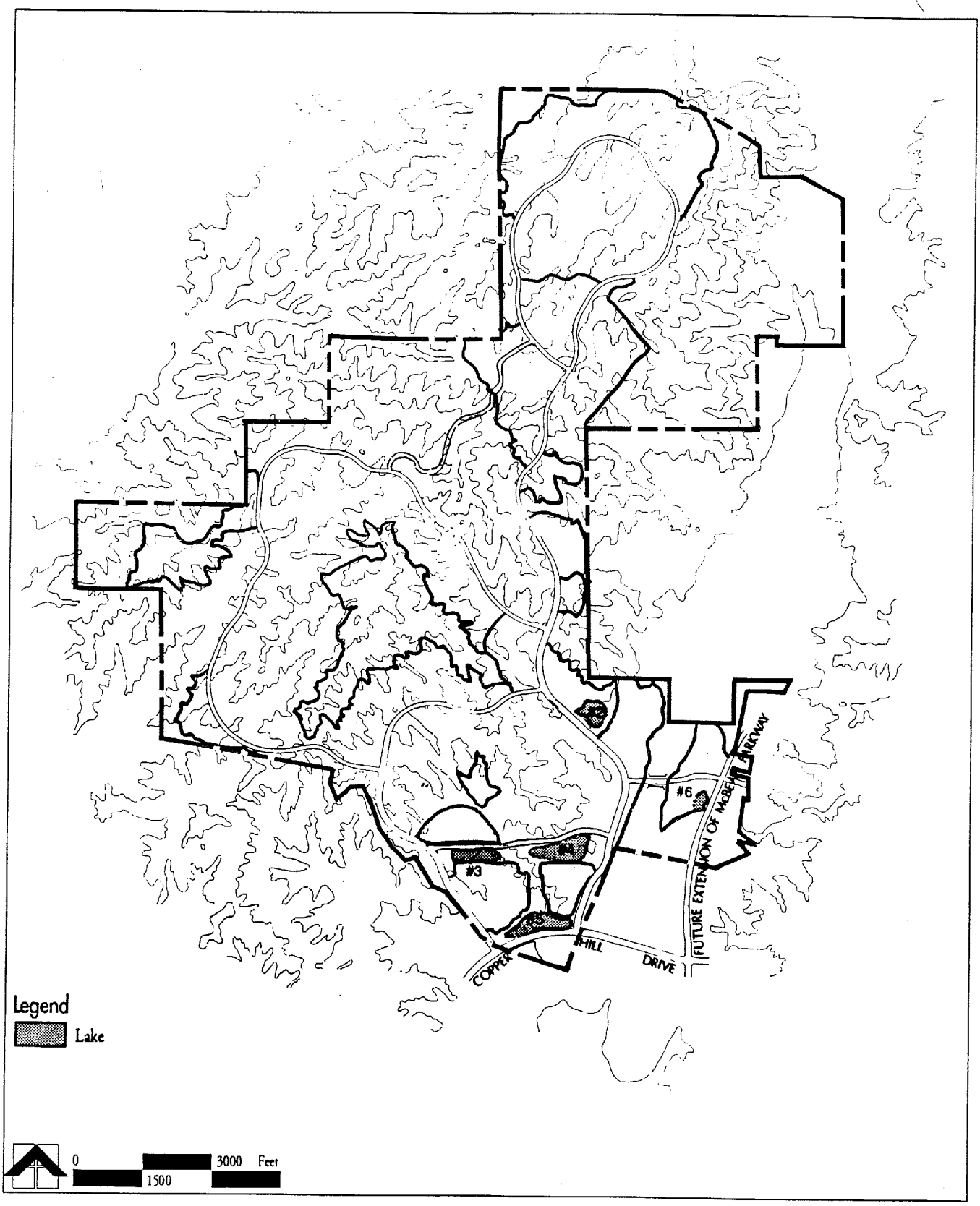

exhibit **5.2-3**

Water Quality Lakes–San Francisquito Canyon Watershed

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Tesoro del Valle

1627ER01

SOURCE: The Limnion Corporation

Settling and Absorption. During the winter months, physical settling and plant absorption will reduce concentrations in the water column.

Plant Uptake (Absorption of Contaminants). In the spring, vegetative uptake will incorporate settled and absorbed materials into plant tissue, as well as continue to extract remaining constituents from the water column.

Harvesting. Harvesting of the vegetation then accomplishes complete removal of these trace elements and nutrients from the aquatic system.

Table 5.2-2 provides the typical concentration of each constituent discharged from the project site before and after implementation of the water quality lakes. As shown in these tables, the proposed water quality system would significantly improve post-development runoff water quality.

It is important to note the percent removal figures given in Table 5.2-2 represent the amount of the constituent removed from the water column within the lake, not the total amount removed by the lake system. For example, cadmium shows an 82 percent removal rate. This does not mean that 18 percent of the cadmium will end up in the outflow waters; it indicates that 82 percent of the cadmium entering the lake will be settled or adsorbed, and 18 percent will remain in solution in the lake waters. Because a typical storm will flush out perhaps 5 percent to 10 percent of the total lake volume, only 5 to 10 percent of the 18 percent (or 0.9 to 1.8 percent) may actually leave the lake. The amount in solution will be available for the slower process of plant uptake, and will eventually be removed from the aquatic system as well.

Tables in Technical Appendix B give examples of projected loading and removal rates of trace elements and nutrients for an average storm.

In addition to the water quality lakes—structural BMPs—the project can also reduce pollutant loading into stormwater by implementing nonstructural BMPs. Nonstructural BMPs are those pollutant controls which are a part of the development's maintenance system rather than its infrastructure and can include recycling, signage (e.g., "no dumping"), street sweeping, hazardous waste collection, and fertilizer management.

Under the State Porter-Cologne Act (Water Code 13000, et seq.) the RWQCB has developed an Inland Waters Basin Plan. The plan serves as the blueprint for protecting water quality and identifies specific water quality objectives for surface waters. Discharges to surface waters which result in a violation of the objectives for downstream water bodies are prohibited under the basin plan. Water quality

objectives for the protection of freshwater aquatic life and objectives for protection of human health are given in Table 5.2-3.

TABLE 5.2-2
TYPICAL POST-DEVELOPMENT POLLUTANT CONCENTRATION WITH AND WITHOUT WATER QUALITY LAKES (mg/l)

Nutrient/Metal	Range of Concentration Without Lakes	Range of Concentration With Lakes	Projected Removal Rate (%)
Nitrate	0.30-0.51	0.019-0.032	87
Phosphate	0.21-0.28	0.021-0.038	75
Cadium	0.0010-0.0013	0.0001	82
Chromium	0.007-0.011	0.0001-0.0002	95
Copper	0.003-0.015	0.0004-0.003	64
Iron	0	0	80
Lead	0.026-0.043	0.002-0.003	85
Magnesium	0.47-0.82	0.04-0.08	80
Manganese	0.035-0.062	0.14-0.01	68
Nickel	0.012-0.021	0.001-0.002	80
Zinc	0.01-0.12	0.01-0.02	61

Note: Detailed calculations of potential removal rates are provided in Technical Appendix C.
Source: Limnion Corporation 1993.

Comparing Table 5.2-2 to Table 5.2-3 shows that with implementation of the water quality lakes, the project will not contribute to a violation of water quality standards for San Francisquito Creek. Therefore, no significant impacts are anticipated. While no comparable quantitative information is available on the effectiveness of the passive filter detention basins, sand and gravel basins will be required to mitigate any decrease in the quality of runoff to Wayside and Tapia Canyons to a level considered less than significant.

TABLE 5.2-3
WATER QUALITY OBJECTIVES

	Objectives for Protection of Freshwater Aquatic Life	Objectives for Protection of Human Health	
Constituent	Daily Average ug/l	Sources of Drinking Water, 30-Day Average (ug/l)	Other Waters 30-Day Average (ug/l)
Cadmium	-	10	-
Chromium	4.3	0.05	-
Copper	-	1000.0	-
Iron	-	-	-
Lead	-	50.0	-
Manganese	-	-	-
Nickel	-	0.6	4.6
Zinc	-	5.0	-

Note: "-" indicates no set objective.
Source: RWQCB 1986.

Groundwater

The area of saturated alluvium (83 acres) within the San Francisquito Creek stream channel will not be removed during project development. Implementation of the proposed project will not interfere with upstream groundwater movement. Therefore, groundwater storage and recharge to the onsite portion of the aquifer will not be significantly impacted by the proposed project. Any groundwater withdrawn for use on the project site would be limited to historic rates of withdrawal for agricultural irrigation. Water withdrawals within the creek are regulated by the State Water Resources Board.

As discussed above (Drainage Patterns), approximately 1,120 acres of the site currently drain towards San Francisquito Creek. In the undeveloped condition, onsite drainages discharge into the creek at several points. In the post-development condition, runoff from the site into the San Francisquito watershed will generally discharge to these same locations. Thus, groundwater recharge via infiltration of stormflow will not be significantly affected by the project. Groundwater supplies downstream of the site will continue at pre-development levels.

Groundwater Quality

A portion of the runoff from the site currently provides recharge to the groundwater table beneath San Francisquito Creek. As discussed above, runoff from the project area tributary to San Francisquito Creek will enter water quality lakes prior to leaving the project site. As the lakes will reduce contaminant levels to a level considered consistent with state and local guidelines, the runoff will not affect the quality of the groundwater. No significant impacts are anticipated.

CUMULATIVE IMPACTS

Of the related projects identified in Section 4.3, several are proposed within the San Francisquito Canyon watershed. No projects are proposed within Tapia, Wayside, Charlie, or the unnamed watersheds occurring on the site. Although related projects within the watershed could affect the quality and velocity of flows within San Francisquito Creek, the proposed project has been designed so that post-development conditions are less. Since the proposed project would not represent a significant change in the quantity or quality of flow in the creek, its contribution to cumulative impacts would be negligible. It is expected that other projects will similarly be conditioned such that no significant cumulative impacts would occur.

MITIGATION MEASURES

Short Term Water Quality

1. The project owner or his designated general contractor will be responsible for filing a Notice of Intent (NOI) to be covered by the California General Permit for New Development (a variety of industrial permit) under the NPDES Stormwater Discharge Program. This NOI will be filed with the Los Angeles RWQCB at least 90 days prior to the onset of site grading. Compliance with terms of this permit will likely include the preparation of a Stormwater Pollution Prevention Plan, which includes elements of the construction site erosion control plan, and possibly a limited

stormwater runoff monitoring program. This plan shall be prepared within six months of filing the NOI.

2. Prior to issuance of a grading permit, the project applicant shall submit to the Los Angeles County Public Works Department an erosion control program for its review and approval which indicates that proper control of siltation, sedimentation, and other pollutants that will be implemented in accordance with the Los Angeles County Grading Code. The use of filter fences, filter dikes, and other construction site Best Management Practices (BMPs) near stormwater system outlets shall be included in the program.

3. Sand bags shall be placed during construction to prohibit the transport of any onsite sediment and debris to downstream areas. Erosion control devices must be installed or in place at the conclusion of every working day during the rainy period of October 15 to April 15. These will be designed by the design engineer to keep all debris on the project site as mandated by county ordinances.

Long Term

4. Energy dissipators will be installed at all offsite discharge locations to eliminate the hazard of erosion in natural offsite channel courses. These facilities will be designed to the satisfaction of the County Department of Public Works.

5. Subdrains as required by the geotechnical consultant will be installed.

6. All proposed cut-and-fill slopes shall be landscaped as soon as practicable after completion of grading to reduce potential erosion and increased runoff.

7. Implementation of source control BMPs, such as oil and grease traps for parking lots, clarifiers, or maintenance areas can be implemented through use of restrictive conditions, covenants, and restrictions (CC&Rs). Such CC&Rs shall be submitted to, and approved by, the Los Angeles County Planning Department. Activities subject to the NPDES industrial permit process will be required to obtain the required permits and to supply applicable Stormwater Pollution Prevention Plans and monitoring programs to the Regional Water Quality Control Board for approval.

8. The final design and specifications for the onsite water quality lakes shall be approved by the County Department of Public Works and the Los Angeles RWQCB prior to their installation. All monitoring reports required by the Los Angeles RWQCB for continued operation of the lakes shall also be submitted to the County Department of Public Works by the homeowners organization or landscape maintenance district, whichever is responsible for maintenance of the lakes.

UNAVOIDABLE ADVERSE IMPACTS

No significant unavoidable adverse impacts to surface or groundwater resources are anticipated.

5.3 *BIOLOGICAL RESOURCES*

INTRODUCTION

The biological resources of the project area are described in this section from information obtained by MBA and Sapphos Environmental biologists through field reconnaissance, and supplemented by existing documentation of biological resources within the project vicinity. This assessment includes a discussion of general biological resources, sensitive plant and wildlife species, and sensitive habitats, that are present, or potentially present, on the site or in the project vicinity. Potentially significant impacts associated with the proposed project and mitigation measures to reduce those anticipated impacts are presented.

Project Setting

The entire project site is north of the City of Santa Clarita and includes portions of San Francisquito Canyon Creek, extending up the western slopes of the canyon to include the main ridge and the upper reaches of Wayside and Tapia Canyons. San Francisquito Canyon is one of the largest tributaries of the Santa Clara River, entering from the Sierra Pelona Mountains to the north. San Francisquito Creek is fed by several small drainages in the north. The floodplain of San Francisquito Creek has been designated as a Significant Ecological Area (SEA No. 19) by the County of Los Angeles.

The parcel consists primarily of undeveloped open space. Several farm houses occur along the alignment of San Francisquito Canyon Wash. A few cattle ponds also occur on the property. The property is dissected by a number of dirt roads and large firebreaks. With the exception of the agricultural areas, the site consists of steep to moderately steep terrain. Elevations on the project site range from approximately 1,200 feet mean sea level (msl) in San Francisquito Canyon Wash to 1,932 feet msl near the northern portion of the property.

Significant Ecological Area Review

As the project contains portions of an SEA, a review by the County of Los Angeles Significant Ecological Area Technical Advisory Committee (SEATAC) was conducted in preparation of the draft EIR. A biological constraints analysis (MBA 1992), biota report (MBA 1993a), and two supplemental biota reports (MBA and Sapphos Environmental 1993a, MBA and Sapphos Environmental 1993b) were prepared to provide information to the SEATAC. This section incorporates information from these reports and addresses county policies related to the SEA. The proposed project was revised

during and after the SEATAC review in response to comments on the project and potential impacts to biological resources within SEA No. 19.

Methods

Documentation pertinent to the biological resources on the Tesoro del Valle property were compiled, reviewed and analyzed. The literature consisted of a review of previous site-specific studies in, and adjacent to, SEA No. 19 including: (1) Biological Assessments and Biota Reports prepared for SEA No. 19 by Tierra Madre (1989 a-d); (2) SEATAC Report for a Portion of SEA No. 19, Tentative Tract 44831, CUP 86-491 (Independent Environmental Consultants 1990) and the Addendum (Dames and Moore 1991); (3) the East Copper Hill/Duplex II EIR (Sikand Engineering 1991); Tesoro del Valle Property: Revised\Preliminary Investigation (Robert Bein, William Frost and Associates 1989); and Phase I Report for San Francisquito Canyon Significant Ecological Area No. 19 (MBA 1991). In addition, the following sources were consulted: (1) the Federal Register Listing Package for each federally listed endangered or threatened species potentially occurring on the project site: (2) literature pertaining to habitat requirements of sensitive species potentially occurring on the site; (3) the California Department of Fish and Game Annual Report (1992) on the status of California's listed threatened and endangered plants and animals; (4) California Department of Fish and Game List of Endangered and Threatened Animals in California (1995); (5) the California Natural Diversity Data Base (RareFind 1994) information regarding sensitive species potentially occurring on the project site; and (6) the California Department of Fish and Game's Wildlife Habitat Relationships System (CDFG 1988) for specific information on habitats occurring on the project site. Based on the literature, a field survey program was developed to map plant communities and identify suitable habitat for sensitive species.

General botanical and wildlife field surveys were conducted by MBA staff ecologists March 16 through March 19, April 1, 3, and 4, 1992. Surveys of the project site and surrounding area were conducted on foot and by vehicle where accessible. Where access was not obtained, the site was surveyed with 8x10 power binoculars and by review of aerial photographs. Plant communities were mapped on a 200-scale (1 inch=200 feet) topographic map. Species of plants observed during the survey were recorded or collected for subsequent identification. A list of plant species observed is provided in Technical Appendix C, Table C-1. This list does not include all cultivated species growing in the agricultural or landscaped areas on the project site. Wildlife and their sign (tracks, scat, burrows, etc.) observed during the survey were recorded. A complete list of vertebrate species observed or expected on the site based on distributional data and habitat assessment is provided in Technical Appendix C, Table C-1.

Focused surveys for sensitive species were conducted on June 25, 26, 30, and July 1 and 8, 1992. Directed surveys were undertaken in all areas of suitable habitat for each sensitive plant or animal species potentially occurring on the site. Habitat deemed suitable for sensitive plant species was surveyed by walking parallel transects. Distance between transects varied depending on terrain and vegetation, but was sufficiently close to permit an adequate coverage of the site. Populations of sensitive species were mapped on a 200-scale topographic map of the project site.

Plant community designations are derived from Holland (1986); California Natural Diversity Data Base (CNDDB 1994) codes are indicated after the community name. Plant species names and common names, where not available from Munz (1974), are taken from Raven et al. (1986), Abrams (1923, 1944), and Abrams and Ferris (1951, 1960). References used for wildlife taxonomy include Emmel and Emmel (1973) and Mattoni (1990) for butterflies, Jennings (1983) for amphibians and reptiles, the American Ornithologists' Union (1983 and supplements) for birds, and Jones et al. (1982) for mammals. General wildlife distributions were determined from the California Wildlife Habitat Relationships System (CWHRS 1988), Jennings (1983), Stebbins (1985), Garrett and Dunn (1981), Hall and Kelson (1981), Burt and Grossenheider (1976), Jones et al. (1982), and Ingles (1965).

ENVIRONMENTAL SETTING: GENERAL BIOLOGICAL RESOURCES

Plant Communities

A total of seven plant communities described by Holland (1986) occur on the Tesoro del Valle site. In addition, four types of converted vegetation communities are also present (agricultural, ruderal, disturbed/developed, and eucalyptus/exotic trees). A discussion of the dominant vegetation associated with each plant community follows. Plant communities were mapped on the site (Exhibit 5.3-1). A summary of the plant communities is provided in Table 5.3-1.

Riversidean Alluvial Fan Sage Scrub

This is the dominant plant community along the alignment of San Francisquito Creek. This community is found in major washes and floodplains in a narrow range in Southern California and is associated with infrequently flooded alluvial deposits along the margins of the floodplain. The CNDDB recognizes this habitat as sensitive due to loss from development and channelization of drainages and because it may support sensitive plant species. On the project site, alluvial scrub occurs primarily in the San Francisquito Canyon wash in the northeast and southeast corners. Alluvial scrub is dominated by scale-broom (*Lepidospartum squamatum*) with Spanish bayonet (*Yucca whipplei*),

deerweed (*Lotus scoparius*), California buckwheat (*Eriogonum fasciculatum*), golden aster (*Chrysopsis villosa*), and woolly star (*Eriastrum densifolium*). Commonly occurring annual species in this community include foxtail chess (*Bromus rubens*), Mediterranean schismus (*Schismus barbatus*), pectocarya (*Pectocarya penicilata*), and dwarf stonecrop (*Crassula conata*). Disturbed, sandy areas at the edges of the drainage and along roads that cross the stream support annual burweed (*Ambrosia acanthicarpa*), dove weed (*Eremocarpus setigerus*), short-podded mustard (*Brassica geniculata*), common wild oat (*Avena fatua*), saw-toothed goldenbush (*Hazardia squarrosus*), rattlesnake spurge (*Chamaesyce albomarginata*), tree tobacco (*Nicotiana glauca*), Russian-thistle (*Salsola australis*), and everlasting (*Gnaphalium spp.*).

TABLE 5.3-1
PLANT COMMUNITIES SUMMARY

Plant Community	Existing Acres
Riversidean Alluvial Fan Sage Scrub	90
Southern Cottonwood-Willow Riparian Woodland	6
Coast Live Oak Woodland	11
Venturan Coastal Sage Scrub	106
Chamise Chaparral	1,274
Mainland Cherry Forest	24
Non-Native Grassland	43
Agricultural	111
Ruderal (fuelbreaks)	9
Disturbed/Developed (including roads)	120
Eucalyptus/Exotic Trees	1
Total	1,795

Source: Michael Brandman Associates 1994.

San Francisquito Wash, especially the margins, supports some small stands of Great Basin sagebrush (*Artemisia tridentata var. parishii*) that is at the edge of its regional distribution in this area.

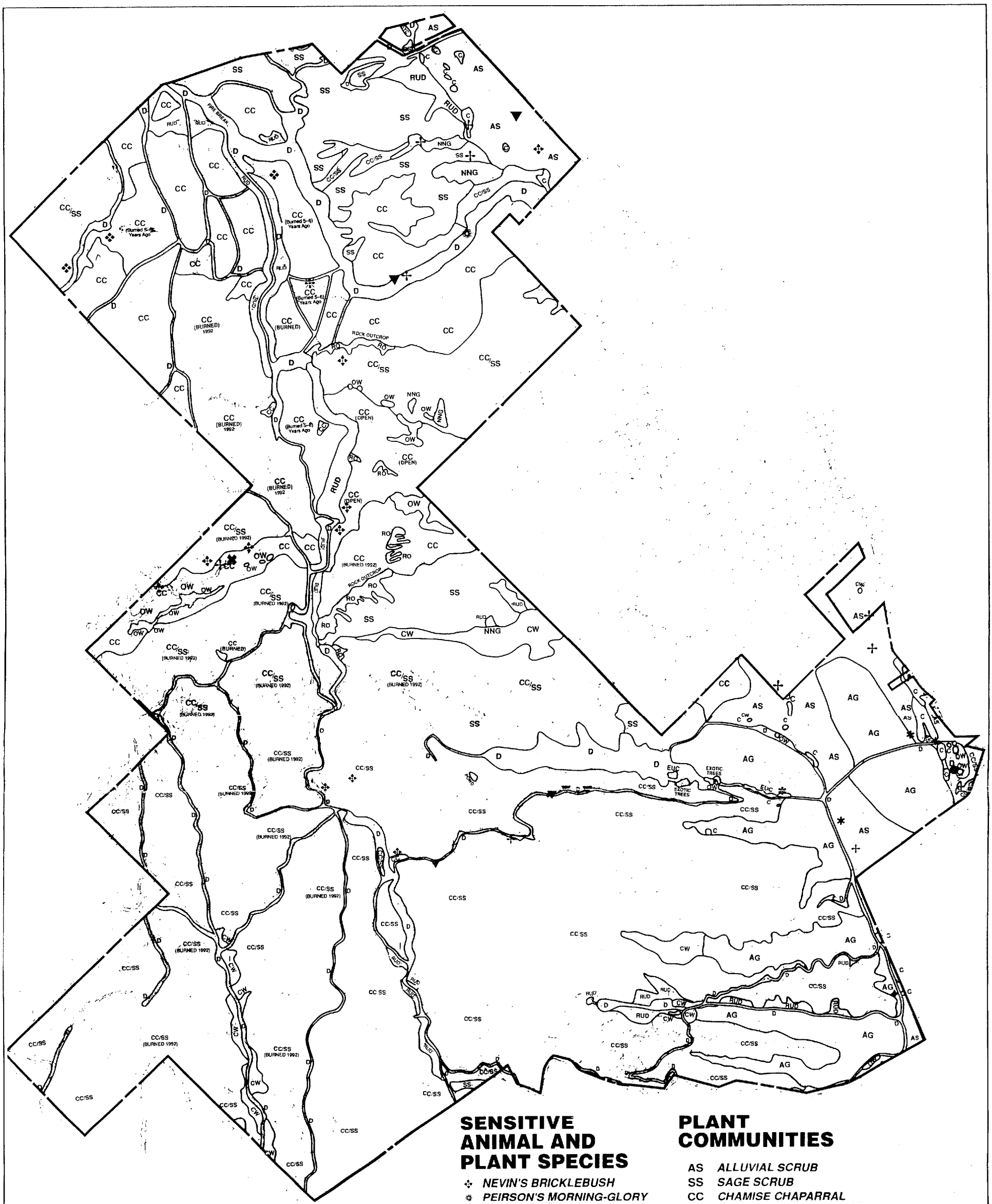


exhibit **5.3-1**

Plant Communities and Sensitive Species Map

Michael Brandman Associates

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Turrini & Brink Planning Consultants.

Southern Cottonwood-Willow Riparian Woodland

This plant community requires very moist conditions with substantial groundwater for most of the year. It is usually concentrated in canyon bottoms and drainages where at least seasonal water flows occur. On the project site, cottonwood-willow riparian woodland is restricted to small, scattered patches in San Francisquito Canyon. The dominant plant in these patches is Fremont cottonwood (*Populus fremontii*) with some California sycamore (*Platanus racemosa*) and an understory of sandbar willow (*Salix hindsiana*), arroyo willow (*Salix lasiolepis*), and red willow (*Salix laevigata*). Smaller understory plants include giant creek nettle (*Urtica holosericea*), mugwort (*Artemisia douglasiana*), poison-oak (*Toxicodendron diversilobum*), mulefat (*Baccharis salicifolia*), spiny clotbur (*Xanthium spinosum*), beardless wild rye (*Elymus triticoides*), and rabbit's-foot grass (*Polypogon monspeliensis*). Besides its own intrinsic value, this plant community serves as important habitat for raptors, migrating songbirds, and other wildlife. It is recognized by the CNDDB as a sensitive habitat due to loss from development, channelization, and agriculture.

Coast Live Oak Woodland

The coast live oak woodland on the project site occurs on canyon bottoms and adjacent slopes in Tapia Canyon, and in the upper reaches of the unnamed canyons near the eastern property boundary (one indicated by the northernmost blue line feeding into San Francisquito Creek). The oak woodland in Tapia Canyon typically consists of clumps of coast live oaks (*Quercus agrifolia*) along the channel with an understory of non-native grasses and forbs or chamise chaparral. The oak woodland in the unnamed blue line occurs in two of the upper tributaries. It consists of large trees (including several "heritage" specimens) forming a closed canopy. The understory is largely undeveloped due to the extreme shading, leaving only a thick layer of oak leaf litter and oak seedlings. A few individual oak trees occur scattered along the slopes of the southeastern canyons on the site. There are several valley oaks (*Quercus lobata*) near the caretaker's house just west of San Francisquito Canyon Road. Approximately 234 mature oaks occur on the site. A more detailed discussion of the oak resources, and the oak tree survey conducted on the site, can be found in Technical Appendix C, *Biota Report for the Proposed Tesoro del Valle Project* 1993 and *Oak Tree Report for the Proposed Tesoro del Valle Project*, July 1994.

Venturan Coastal Sage Scrub

This plant community is found primarily along the western slopes of San Francisquito Canyon between the floodplain and the beginning of upland chaparral. The Venturan coastal sage scrub intergrades

with chaparral, becoming more dominant on drier slopes. It is one of two types of coastal sage scrub in this region, this being the more mesic expression, influenced to some degree by marine air. The dominant plant species include coastal sagebrush (*Artemisia californica*), California buckwheat, black sage (*Salvia mellifera*), white sage (*Salvia apiana*), purple sage (*Salvia leucophylla*), bush sunflower (*Encelia virginensis*), and Spanish bayonet. Between these shrubby species, there are a number of herbaceous species and grasses, including coast range melic (*Melica imperfecta*), ripgut brome (*Bromus diandrus*), foxtail chess (*Bromus rubens*), soft chess (*Bromus mollis*), giant wild rye (*Elymus condensatus*), common wild oat, fescue (*Festuca megalura*), tocalote (*Centaurea melitensis*), red-stemmed filaree (*Erodium cicutarium*), and black mustard (*Brassica nigra*).

Chamise Chaparral

This plant community occurs on the more xeric slopes above San Francisquito Creek and the western hills of the project site. The dominant plant is chamise (*Adenostoma fasciculatum*) which occurs almost to the exclusion of other plant species. Intermixed with the chamise are several other large shrub species, including toyon (*Heteromeles arbutifolia*), elderberry (*Sambucus mexicana*), buck brush (*Ceanothus cuneatus*), scrub oak (*Quercus berberdifolia*), and redberry (*Rhamnus crocea*). Due to the density and height of the plants in this community, there is little understory vegetation. Species in the understory include wishbone bush (*Mirabilis californica*), cudweed aster (*Corethrogyne filaginifolia*), California matchweed (*Gutierrezia californica*), coast range melic, and needlegrass (*Stipa spp.*). Exhibit 5.3-1 illustrates areas of chamise chaparral that have elements of sage scrub intermixed with the chamise. Chamise is dominant in these areas, and the sage scrub elements include coastal sagebrush, black sage, and purple sage.

Extensive areas of chamise chaparral in the western part of the site have been recently burned, in late spring of 1992. These areas are characterized by skeletons of chamise with ash covering the soil. Some areas in the northeastern part of the site were burned approximately five to six years ago. These areas are characterized by burned skeletons of chamise and a profusion of annual, fire-following species. The burned chamise in these areas has, for the most part, begun resprouting. Common species in the chaparral burned five to six years ago include blue dicks (*Dichelostemma pulchellum*) and sacapellote (*Acourtia microcephala*).

Mainland Cherry Forest

Mainland cherry forest is an uncommon and little studied plant community that typically occurs on alluvial substrates near the mouths of canyons. It tends to occur in protected areas such as canyon

bottoms with intermittent drainages. Deeper topsoil in the drainage keeps this plant community in the drainage rather than on the upland slopes. On Tesoro del Valle, the understory of this plant community is scarce to nonexistent and includes herbaceous annuals such as rattlesnake weed (*Daucus pusillus*), tocalote (*Centaurea melitensis*), short podded mustard (*Brassica geniculata*), and occasionally giant wild rye (*Elymus condensatus*). The community is dominated by tree-size specimens of holly-leaved cherry (*Prunus ilicifolia*).

Remnants of mainland cherry forest occur in Wayside Canyon near the site boundary and in the two canyons that drain into San Francisquito in the southeastern corner of the site and in a canyon near the center of the eastern boundary of the site. The CNDDB (1994) indicates that this community was formerly more extensive in Wayside Canyon and has been largely eliminated by agricultural conversion and the Wayside Honor Rancho. Agricultural conversion appears to be the case in the other three canyons as well. The remaining cherry forest on the site consists of fairly open cover of arborescent shrub to tree size holly-leaved cherries with patches of squaw bush (*Rhus trilobata*). Due to its diminishing extent in addition to its inherent scarcity, mainland cherry forest is considered a sensitive habitat by the CNDDB.

Non-native Grassland

Upland areas west of San Francisquito Canyon Wash contain small patches of non-native grassland. These areas are dominated by non-native weedy species such as black mustard, wild oat (*Avena fatua*), and other various grasses.

Disturbed, Agricultural, Firebreaks

Portions of the San Francisquito Canyon wash and the relatively level, broad areas near the mouths of canyons that open onto San Francisquito have been converted to agriculture and no longer support native plant communities.

The upland slopes have many fuelbreaks that are regularly cleared by the Los Angeles County Fire Department. Fuelbreaks are shown on the plant communities map (Exhibit 5.3-1) as ruderal. Within these fuelbreaks are several non-native weedy species such as red-stemmed filaree, black mustard, and various grasses.

Eucalyptus Grove/Exotic Trees

A remnant windbreak consisting of eucalyptus (*Eucalytus* sp.), and Peruvian pepper trees (*Schinus molle*) border the existing dirt road that leads to the main ranch house. Other patches of exotic trees are located within the vicinity of the main ranch house. Several trees along the dirt road have died within the last several years due to drought conditions.

Wildlife

A number of wildlife species were observed, or are expected to occur on the project site. A discussion of these species, by taxonomic group, follows. Species that are considered sensitive by resource agencies and conservation organizations are discussed further in the Sensitive Biological Resources section.

Fishes

The presence of intermittent water in San Francisquito Creek within the proposed Tesoro del Valle project site provides habitat for several fish species. No fish species were observed during the surveys, however, a number of species are known to be present in the vicinity. Those expected to occur in San Francisquito Creek during periods of sufficient water flow may include unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), Santa Ana sucker (*Catostomus santaanae*), arroyo chub (*Gila orcutti*), mosquito fish (*Gambusia affinis*), fathead minnow (*Pimephales promelas*), and speckled dace (*Rhinichthys osculus*).

Amphibians and Reptiles

Amphibian species observed during the survey include the tadpoles of California toad (*Bufo boreas halophilus*) in San Francisquito Creek and in two cattle ponds near the ranch house. Several amphibian species are expected to occur on the project site in the drainages and other moist places, including Pacific tree frog (*Hyla regilla*), garden slender salamander (*Batrachoseps pacificus major*), and black-bellied salamander (*Batrachoseps nigriventris*).

Reptile species observed in the scrub and grassland areas include coastal western whiptail (*Cnemidophorus tigris multiscutatus*), San Diego coast horned lizard (*Phyrnosoma coronatum blainvillei*), Great Basin fence lizard (*Sceloporus occidentalis biseriatus*), side-blotched lizard (*Uta stansburiana*), San Diego alligator lizard (*Gerrhonotus multicarinatus webbi*), and southern Pacific

rattlesnake (*Crotalus viridis helleri*). Other non-sensitive reptile species expected in the scrub, woodland, and grassland habitats include skilton skink (*Eumeces skiltonianus skiltonianus*), San Diego gopher snake (*Pituophis melanoleucus annectens*), red coachwhip (*Masticophis flagellum piceus*), chaparral striped racer (*Masticophis lateralis lateralis*), California common kingsnake (*Lampropeltis getulus californiae*), coast patch-nosed snake (*Salvadora hexalepis virgultea*), and San Bernardino ringneck snake (*Diadophis punctatus modestus*).

Birds

Bird species observed in the grassland, disturbed, and agricultural areas include rock dove (*Columba livia*), mourning dove (*Zenaida macroura*), greater roadrunner (*Geococcyx californianus*), Say's phoebe (*Sayornis saya*), western kingbird (*Tyrannus verticalis*), American crow (*Corvus brachyhynchos*), common raven (*Corvus corax*), western bluebird (*Sialia mexicana*), northern mockingbird (*Mimus polyglottos*), loggerhead shrike (*Lanius ludovicianus*), European starling (*Sturnus vulgaris*), Lazuli bunting (*Passerina amoena*), vesper sparrow (*Pooecetes gramineus*), lark sparrow (*Chondestes grammacus*), white-crowned sparrow (*Zonotrichia leucophrys*), Brewer's blackbird (*Euphagus cyanocephalus*), and house finch (*Carpodacus mexicanus*). A California condor (*Gymnogyps californianus*) was also observed onsite. Raptors observed foraging over these areas include turkey vulture (*Cathartes auratus*), red-tailed hawk (*Buteo jamaicensis*), and American kestrel (*Falco sparverius*). Northern oriole (*Icterus galbula*) was observed in the areas mapped as eucalyptus grove/exotic trees. Other birds expected to use these areas include western meadowlark (*Sturnella neglecta*), and American goldfinch (*Carduelis tristis*).

Bird species observed in the scrub and chaparral habitats include lesser nighthawk (*Chordeiles acutipennis*), mourning dove, greater roadrunner, California quail (*Callipepla californica*), common poorwill (*Phalaenoptilus nutallii*), Anna's hummingbird (*Calypte anna*), ash-throated flycatcher (*Myiarchus cinerascens*), scrub jay (*Aphelocoma coerulescens*), common raven, bushtit (*Psaltriparus minimus*), rock wren (*Salpinctes obsoletus)*, Bewick's wren (*Thryomanes bewickii*), blue-gray gnatcatcher (*Polioptila caerulea*), wrentit (*Chamaea fasciata*), northern mockingbird, California thrasher (*Toxostoma redivivum*), loggerhead shrike, California and rufous-sided towhees (*Pipilo crissalis* and *P. erythropthalmus*), sage sparrow (*Amphispiza belli*), and white-crowned sparrow. Raptors observed foraging over these areas include turkey vulture and red-tailed hawk. Bird species observed flying over the site include white-throated swift (*Aeronautes saxatalis*), violet-green swallow (*Tachycineta thalassina*), and cliff swallow (*Hirundo pyrrhonota*).

Bird species observed in the woodland habitats include red-shouldered hawk (*Buteo lineatus*), barn owl (*Tyto alba*), great horned owl (*Bubo virginianus*), Nuttall's woodpecker (*Picoides nuttallii*), scrub jay, plain titmouse (*Parus inornatus*), phainopepla (*Phainopepla nitens*), ruby-crowned kinglet (*Regulus calendula*), yellow-rumped warbler (*Dendroica coronata*), and California towhee. The killdeer (*Charadrius vociferus*) was observed in the mud near San Francisquito Creek. Other species expected include downy woodpecker (*Picoides pubescens*), acorn woodpecker (*Melanerpes formicivorus*), northern flicker (*Colaptes auratus*), black phoebe (*Sayornis nigricans*), and house wren (*Troglodytes aedon*).

Mammals

Mammal species observed or detected in the grassland, disturbed, and scrub habitats include desert cottontail (*Sylvilagus audubonii*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), San Diego desert woodrat (*Neotoma lepida intermedia*), dusky-footed woodrat (*Neotoma fuscipes*), California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), Pacific kangaroo rat (*Dipodomys agilis*), coyote (*Canis latrans*), domestic dog (*Canis familiaris*), gray fox (*Urocyon cinereoargenteus*), raccoon (*Procyon lotor*), American badger (*Taxidea taxus*), striped skunk (*Mephitis mephitis*), bobcat (*Felis rufus*), and mule deer (*Odocoileus hemionus*). Sign (tracks, scat) of a mountain lion (*Felis concolor*) was also observed on the north-south trending ridgeline. Expected species include brush rabbit (*Sylvilagus bachmani bachmani*), California pocket mouse (*Perognathus californicus*), western harvest mouse (*Reithrodontomys megalotis*), California mouse (*Peromyscus californicus*), deer mouse (*Peromyscus maniculatus*).

The mammals present in woodland habitats will often be the same as those that are found in adjacent habitats. Mammal species detected in the woodland habitats include raccoon, striped skunk, bobcat, and mule deer. The ringtail (*Bassariscus astutus*) is expected to be present in the drainages and woodland habitats.

SENSITIVE BIOLOGICAL RESOURCES

The following discussion describes the plant and wildlife species present or potentially present within the study area that have been afforded special recognition by federal, state, or local resource conservation agencies and organizations. In most cases these species are considered sensitive due to declining or limited population sizes resulting from habitat loss. Habitats that are unique, of relatively limited distribution, or of particular value to wildlife are also discussed. Further information on the

sensitivity status, habitat preference, and potential for occurrence of each of these species on the project site can be found in Technical Appendix C, Table C-1.

Sensitive Plant Species

The California Natural Diversity Database lists three sensitive plant species that occur in the vicinity of the project site. The slender-horned spineflower (*Dodecahema leptoceras*) is a federal and state-listed endangered species. The Peirson's morning glory (*Calystegia peirsoni*) is a Category 2 federal candidate species for listing as threatened or endangered, and a CNPS List 4 species. Nevin's barberry (*Berberis nevinii*) is a Category 1 federal candidate species for listing as threatened or endangered, a state-listed endangered species, and a CNPS List 1B species.

Directed surveys were conducted during the appropriate flowering season for all three of these plant species. While suitable habitat for the slender-horned spineflower occurs on the raised alluvial terrace along San Francisquito Creek, no specimens were observed on the project site. Suitable habitat for Nevin's barberry occurs along the lower slopes of San Francisquito Canyon. No specimens of this species were observed during the directed surveys. Peirson's morning-glory was observed on an east west trending firebreak along the eastern portion of the site.

Sensitive Wildlife Species

The following are federally or state-listed threatened or endangered wildlife species that are known to occur, or may occur, in the vicinity of the project site:

- Unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*)
- California condor (*Gymnogyps californianus*)
- Least Bell's vireo (*Vireo bellii pulsillus*)
- Swainson's hawk (*Buteo swainsoni*)
- Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)
- Southwestern willow flycatcher (*Empindonax traillii extimus*).

Focused surveys were conducted to determine the presence of each of these species on the site. During field surveys, no perennial ponds on the project site were identified that could support the unarmored threespine stickleback, and accordingly, this species was not observed on the project site. A California condor was observed flying over the agricultural fields on the site and perching on a hill. Given the large amounts of open space around the release sites for the condor, it is anticipated that the site may only occasionally be used for foraging by the condor. Directed surveys conducted in the

riparian areas onsite did not locate any suitable habitat (mature willow riparian woodland with a dense understory) for the least Bell's vireo. The Swainson's hawk was not observed but may forage on the site on rare occasions during migration. The Western yellow-billed cuckoo and Southwestern willow flycatcher were not observed onsite and are not expected to occur due to the restricted nature of the riparian woodland habitat onsite.

Some wildlife species considered candidates for potential listing, or proposed for listing, as threatened or endangered may also exist in the vicinity of the site. These species include:

- San Emigdio blue (*Plebulina emigdionis*)
- Santa Ana sucker (*Catostomus santannae*)
- California red-legged frog (*Rana aurora draytonii*)
- Arroyo southwestern toad (*Bufo microscaphus californicus)*
- Western spadefoot toad (*Scaphiopus hammondii*)
- Silvery legless lizard (*Anniella pulchra pulchra*)
- Southwestern pond turtle (*Clemmys marmota pallida*)
- San Diego coast horned lizard (*Phrynosoma coronatum blainvillei)*
- Coastal western whiptail (*Cnemidophorus tigris multiscutatus*)
- Coastal rosy boa (*Lichanura trivirgata rosafuca*)
- Coast patch-nosed snake (*Salvadora hexalepis virgultea*)
- San Bernardino ringneck snake (*Diadophis punctatus modestus*)
- Ferruginous hawk (*Buteo regalis*)
- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)
- California horned lark (*Eremophila alpestris actia*)
- Loggerhead shrike (*Lanius ludovicianus*)
- Bell's sage sparrow (*Amphispiza belli belli*)
- Tricolored blackbird (*Agelaius tricolor*)
- California mastiff bat (*Eumops perotis californicus*)
- Pale big-eared bat (*Plecotus townsendii pallescens*)
- Southern grasshopper mouse (*Onychomys torridus ramona*)
- San Diego desert woodrat (*Neotoma lepida intermidia*)
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)

Of these species, the San Diego coast horned lizard, coastal western whiptail, loggerhead shrike, Bell's sage sparrow, Southern California rufous-crowned sparrow, San Diego woodrat, and San Diego black-tailed jackrabbit were observed on the site. While not observed onsite, suitable habitat exists for the Santa Ana sucker, as well as the unarmored threespine stickelback (during periods when San Francisquito Canyon is inundated with water), San Emigdio blue, silvery legless lizard, coastal rosy boa, coast patch-nosed snake, San Bernardino ringneck snake, California horned lark, and southern grasshopper mouse. The ferruginous hawk, pale big-eared bat, and California mastiff bat may occasionally forage on the site. No suitable habitat was found onsite for the other species listed above.

Other species known to be in the area that are considered to be sensitive by resource agencies include:

- Arroyo chub (*Gila orcutti*)
- San Bernardino Mountain kingsnake (*Lampropeltis zonata parvirubra*)
- Golden eagle (*Aquila chrysaetos*)
- Sharp-shinned hawk (*Accipter striatus*)
- Cooper's hawk (*Accipiter cooperii*)
- White-tailed kite (*Elanus caeruleus*)
- Northern harrier (*Circus cyaneus*)
- Merlin (*Falco columbarius*)
- Prairie falcon (*Falco mexicanus*)
- Burrowing owl (*Speotyto cunicularia*)
- Long-eared owl (*Asio otus*)
- Purple martin (*Progne subis*)
- Yellow warbler (*Dendroica petechia brewsteri*)
- Yellow-breasted chat (*Icteria virens*)
- Pallid bat (*Antrozous pallidus*)
- American badger (*Taxidea taxus*).

Of these species, the sharp-shinned hawk, prairie falcon, and badger were observed on the site. While not observed, suitable habitat exists onsite for the arroyo chub, San Bernardino Mountain kingsnake, burrowing owl, long-eared owl, and purple martin. The golden eagle and pallid bat may forage on the site. The northern harrier may occasionally forage on the site in winter or during migration. The yellow warbler may also occur on the site as a migrant. Suitable habitat was not observed for the other species listed above.

In addition to these species, active raptor nests are protected under the California Fish and Game Code (1989). One active red-tailed hawk nest was observed in an oak tree on the southern portion of the site near San Francisquito Road. American kestrels were observed frequenting a eucalyptus grove onsite, and it is considered likely that this species is nesting in the eucalyptus trees onsite, although no nest cavities were observed.

Sensitive Habitats

Sensitive habitats are vegetation communities or land areas that either support concentrations of sensitive plant or wildlife species, are of relatively limited distribution, or are of particular value to wildlife. Although sensitive habitats are generally not afforded legal protection, unless they support protected species or fall under state or federal regulatory jurisdiction (e.g., wetlands), potential impacts to them may increase concerns and mitigation suggestions by resources agencies.

Riversidean Alluvial Fan Sage Scrub

Riversidean alluvial fan sage scrub occurs along the alignment of San Francisquito Wash. Because of its declining status in southern California, this plant community is considered a sensitive habitat by CDFG.

Southern Cottonwood-Willow Riparian Woodland

Southern cottonwood-willow riparian woodland occurs on the project site within active and intermittent, streams, washes or drainages, especially along San Francisquito Canyon. Riparian woodlands provide high quality foraging, breeding, and cover habitat for a wide variety wildlife species and often support a number of sensitive plant and animal species. Riparian corridors can also serve as important wildlife movement areas for wildlife. Because of its diminishing nature, this resource is subject to protection pursuant to Section 404 of the Clean Water Act and Section 1600 of the state Fish and Game Code.

Coast Live Oak Woodland

Mature oak trees with a diameter of greater than 8 inches are subject to the Los Angeles County Oak Tree Ordinance. Oak tree surveys for the project site have identified approximately 234 mature oak trees on the site subject to the County ordinance (see Appendix F of *Biota Report for Tesoro de Valle Project* and *Oak Tree Report*, July 1994, located in Technical Appendix C of this EIR). The majority of these trees are located in three groves on the site. Approximately 40 trees are located in Tapia Canyon on the western edge of the site. Approximately 200 trees are located in two groves on the eastern edge of the site near the corner of the property. Oak woodlands are also considered a sensitive resource by CDFG because of their high value as wildlife habitat and because of their declining status throughout the state.

Venturan Coastal Sage Scrub

This plant community is found primarily along the western slopes of San Francisquito Canyon between the floodplain and the beginning of upland chaparral. In Southern California, coastal sage scrub is known to support a large number of sensitive plant and animal species, several of which are state or federally listed as threatened or endangered. Because it supports so many sensitive species, and because of its decline throughout the region, coastal sage scrub is considered a sensitive habitat by CDFG.

Mainland Cherry Forest

Due to its diminishing extent in addition to its inherent scarcity, mainland cherry forest is considered a sensitive habitat by the CDFG. Remnants of this plant community occur in Wayside Canyon and a canyon located near the center of the eastern boundary of the site.

Jurisdictional Areas

A preliminary delineation of drainage areas subject to the jurisdiction of the ACOE and CDFG under applicable regulations was conducted by MBA in 1992 (MBA 1992). Exhibit 5.3-2 shows the approximate location of the identified drainage areas. The delineation report was submitted to the ACOE for review. Further refinements and review of the report are being conducted concurrent with the preparation of the draft EIR. No jurisdictional wetlands were located on the project site. However, the delineation did locate 32.6 acres of drainages considered "waters of the United States" subject to this jurisdiction. The majority (29.4 acres) is located within the portions of San Francisquito Creek contained in the northeastern and southeastern corners of the site. The remainder of the jurisdictional areas (3.2 acres) are located in narrow drainages located throughout the site.

Wildlife Movement Corridors

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or by human disturbance. They offer a mix of topography and vegetative cover that provide safety, natural pathways, food, and water for animals moving between disjunct areas of suitable habitat. The fragmentation of wildlife habitat by urbanization creates isolated "islands" of wildlife habitat. Corridors mitigate the effects of this fragmentation by allowing plants or animals to move between remaining habitats and hence to replenish depleted populations, avoid genetic inbreeding, provide escape routes from fire, predators, and human disturbances; allow migration between seasonal ranges for some species; and help ensure long-term maintenance of ecological communities by allowing plant and animal populations to adjust their distribution patterns as vegetation mosaics shift over time.

Exhibit 5.3-3 shows expected primary and secondary corridors on and around the site. As shown on this exhibit, primary corridors (i.e., landscape features that facilitate wildlife movement and provide connections between two or more relatively large habitat or open space areas) around the site include the Santa Clara River, Castaic Creek, and San Francisquito Canyon. San Francisquito Canyon provides a link between the Angeles National Forest and the Santa Clara River. The Santa Clara

River provides access to the Santa Susana and San Gabriel mountains. San Francisquito Canyon serves as a corridor for the unarmored threespine stickleback, as well as terrestrial species. To the northwest of the site, Charlie Canyon is a secondary wildlife movement corridor (i.e., landscape features that facilitate movement within a large natural habitat area, and that often interconnect primary corridors) linking the Angeles National Forest with Castaic Creek.

Within the project site, the north-south trending ridgeline contains a fuelbreak and fire access road of approximately 25-feet wide with a 10-35 foot width of ruderal vegetation on each side. This ridgeline may be used by "ridge-loving" species (coyote, fox, mountain lion) as a corridor that provides access to Wayside and Tapia Canyons. Deer were observed and their tracks and scat, as well as mountain lion scat, were found on the north-south trending ridgeline fuelbreak indicating that this may also serve as a secondary corridor allowing movement to and from the project site area. However, existing, pending, and approved developments south of the project site, including the North River portion of the master planned community of Valencia, could limit the amount of open space available in the future to wildlife south of the project site, thereby limiting wildlife movement south of the southern project boundary, and the value of the onsite corridor along the main ridgeline of the site.

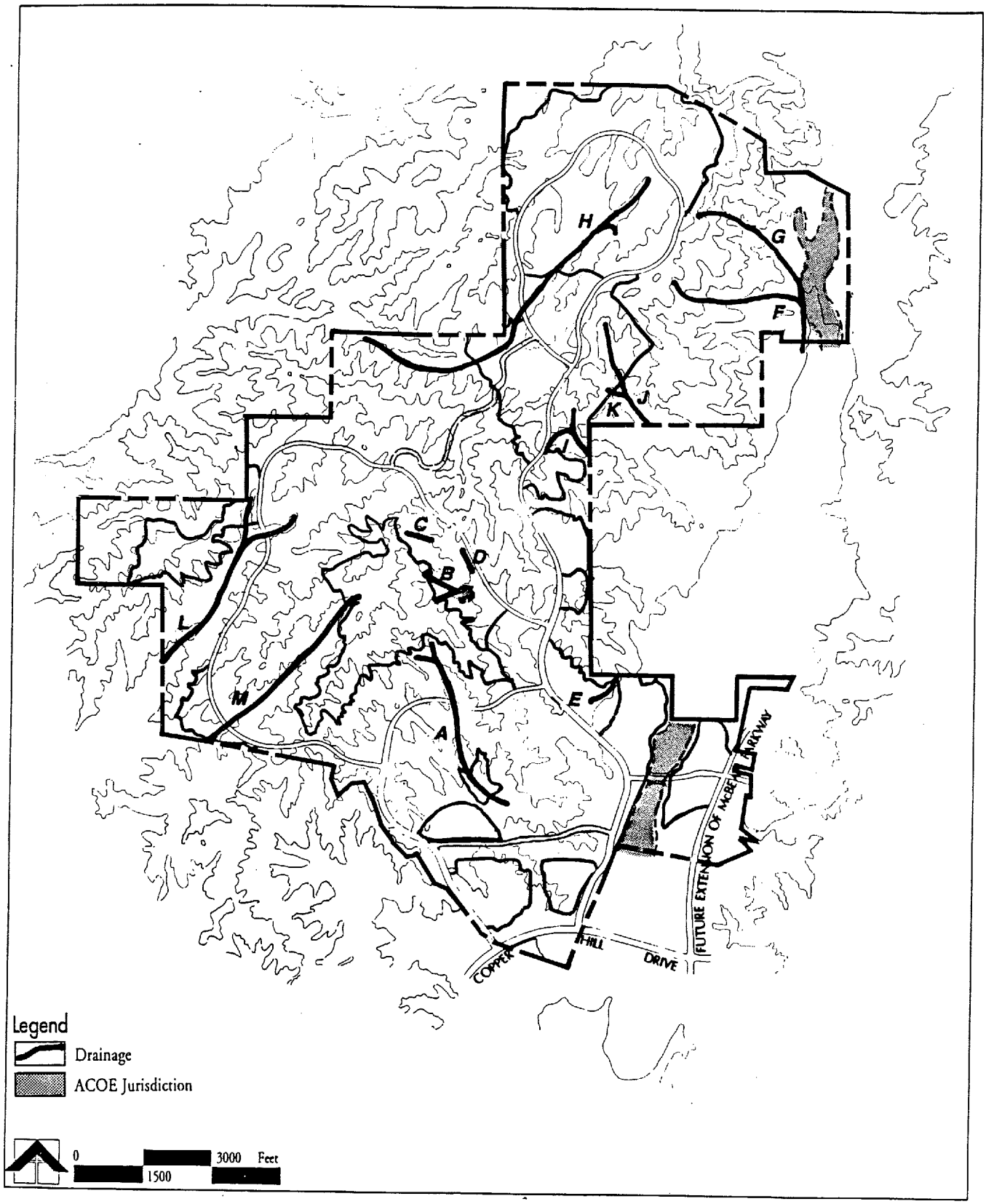
Secondary wildlife movement corridors on the project site besides the main ridgeline, include Wayside Canyon, a tributary to Tapia Canyon, and tributaries to San Francisquito Canyon (Exhibit 5.3-2). Wayside and Tapia Canyons are considered to be regionally important for wildlife movement because there are currently no approved or proposed development projects within these canyons and they provide uninterrupted natural habitat connections between the Angeles National Forest and the Castaic Valley. It should be noted that the Wayside Canyon Honor Rancho in the lower end of the canyon may limit the use of Wayside Canyon as a corridor.

Applicable Plans and Policies Affecting Sensitive Biological Resources

There are several plans and policies related to the sensitive biological resources located on or near the project site. A summary of each of these programs is provided below.

Unarmored Threespine Stickleback Recovery Plan

The unarmored threespine stickleback, a state and federal listed endangered species, is known to occur upstream of the project site in permanent pools and streams located below Drinkwater Reservoir and above Baird Canyon in San Francisquito Canyon. These areas have been designated as essential habitat in the recovery plan for the stickleback (USFWS 1985a). In addition, the recovery plan



Michael Brandman Associates

exhibit 5.3-2

Jurisdictional Areas

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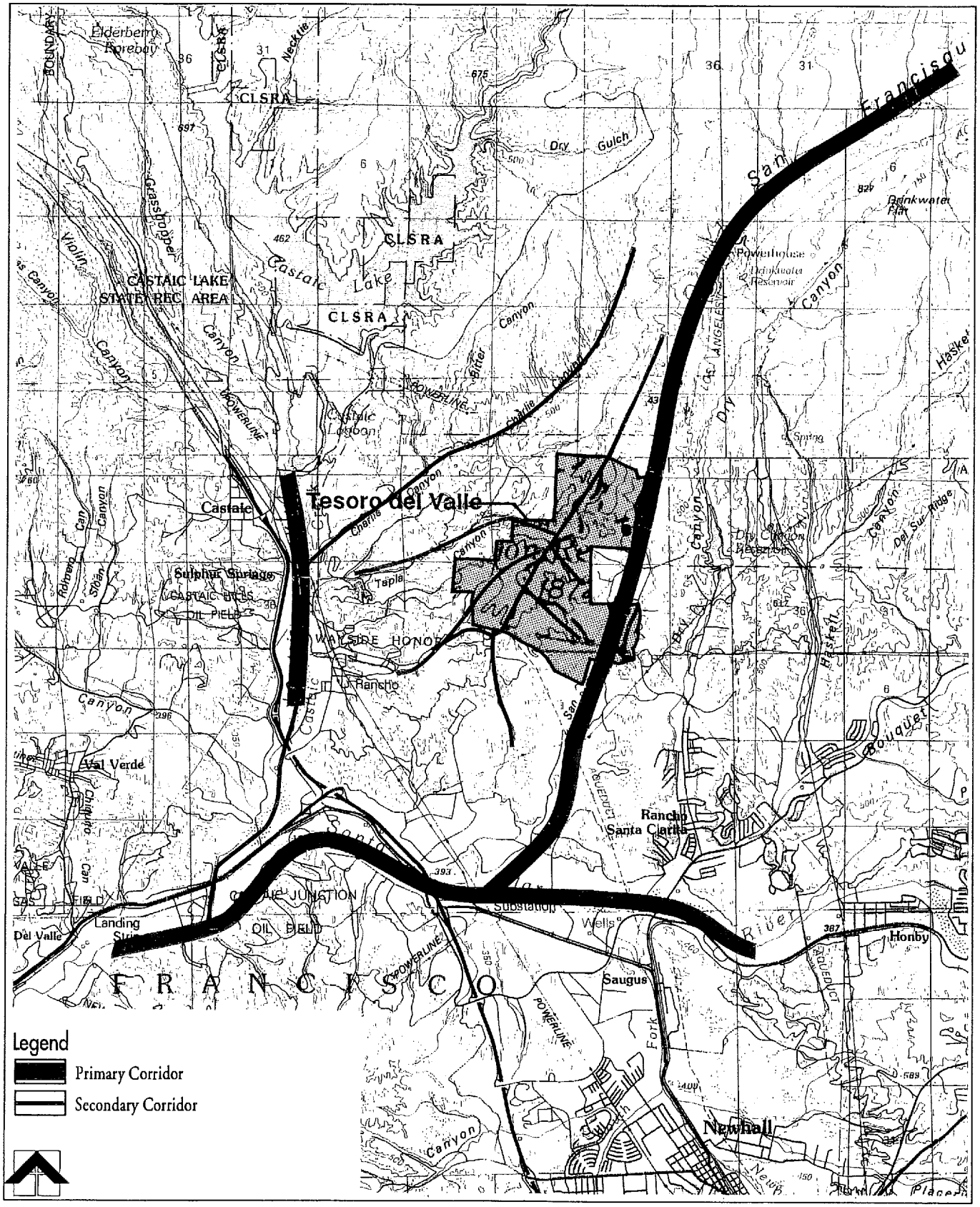
Tesoro del Valle

1627ER01



Michael Brandman Associates

exhibit **5.3-3**

Wildlife Movement Corridors

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Tesoro del valle

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designates a large area of the Santa Clara River, approximately 5 miles downstream of its confluence with San Francisquito Creek, as essential habitat. The largest remaining populations of the unarmored threespine stickleback occur in the Santa Clara River. Due to the level of urban development around the Santa Clara River, these populations of stickleback are considered vulnerable to impacts from urban pollutants. To help preserve populations in San Francisquito Canyon, there is a legally mandated release of water from Drinkwater Reservoir to maintain perennial ponds.

San Francisquito Canyon Significant Ecological Area (SEA No. 19)

The County of Los Angeles has designated the floodplain of San Francisquito Creek from the boundary of the Angeles National Forest (approximately one-half mile north of the site) to its confluence with the Santa Clara River as a Significant Ecological Area (SEA No. 19). SEA No. 19 is contiguous with the Santa Clara River Significant Ecological Area (SEA No.23). The initial purpose for establishing SEA No. 19 was to preserve San Francisquito Canyon as a movement corridor between the known populations of the unarmored threespine stickleback upstream of the SEA in San Francisquito Canyon and downstream in the Santa Clara River. The stickleback requires clean, free flowing perennial streams and ponds surrounded by natural vegetation. The intermittent portions of San Francisquito Creek located between these populations would provide a connection between the upstream and downstream habitats for the stickleback allowing for periodic movement and genetic interchange during the wet season.

A report describing the current biological condition, as of 1991, of SEA No. 19 was prepared by MBA in December 1991 (MBA 1991a). It includes descriptions of plant and wildlife communities, based on field surveys and a review of other reports on the SEA. The report also includes an evaluation of the original intent of the SEA and current uses, and suggests management measures and boundary changes. The County intends to use this report for planning purposes. A current description of the overall condition of the SEA follows.

The main drainage of San Francisquito Creek is generally intact, although a few unimproved roads cross the northern portion of the SEA. Developments in the northern portion of the SEA are generally limited to rural residences and related equestrian uses. These uses are spread out along the hills surrounding the SEA with some private roads cut through the drainage. Extensive development has occurred in the immediate vicinity of the southern portion of the SEA, including some encroachment into the floodplain. Near the confluence of San Francisquito Creek with the Santa Clara River the drainage is forced eastward by concrete barriers into a narrow gap crossed by roads. Development of these facilities may have severed any viable connection to the Santa Clara River for

movement of the stickleback. In addition, the amount of riparian woodland cover along the creek has been reduced from the time the SEA was first established (MBA 1991a).

When the SEA was created, a buffer was established that included tributary drainages to help maintain the water quality within the creek the buffer uses later deleted upon approval of the Santa Clarita Areawide Plan. Since the SEA was established, extensive discing, down to the edge of the main drainage in most cases, occurred in many of these tributaries as a result of agricultural activity (MBA 1991a). Unmitigated discing of the watershed could increase soil erosion and downstream turbidity within San Francisquito Creek during heavy rains. A buffer zone was proposed for the hillsides along the SEA to prevent development-induced erosion and water pollution. Buffer zone management and siltation management practices for the tributary drainages to the SEA are critical to the preservation and recovery of the stickleback (MBA 1991a) which require clean, free-flowing perennial streams to breed.

The project site contains approximately 103 acres of area within SEA No. 19. The northeastern corner of the site contains about 29 acres of area within the SEA. The southern portion of the site contains approximately 74 acres of land in the SEA. Approximately 24.5 acres of the southern portion of the site within the SEA boundary is an elevated area located above the floodplain and used for agricultural cultivation. There is an existing dirt road from San Francisquito Canyon Road to this agricultural area that is a barrier to drainage. There is also an existing dip crossing over the main portion of the creek between this agricultural area and the main portion of the site.

County of Los Angeles General Plan

The *Santa Clarita Valley Area Plan: A Component of the County of Los Angeles General Plan* (Department of Regional Planning, County of Los Angeles 1990) provides land use planning guidelines and policies for Significant Ecological Areas in the unincorporated areas of Los Angeles County in the Santa Clarita Valley. This plan outlines a number of measures, standards, and policies to minimize impacts upon biotic resources within and adjacent to SEAs. Conditions for development in SEAs contained in the plan require that development be designed to be highly compatible with the biotic resources in the SEA and that watercourses be maintained in their natural state.

Streamcourse Regulations

The Army Corps of Engineers, U.S. Fish and Wildlife Service, and the California Department of Fish and Game have regulatory authority over activities within streams designated as blue line streams on

topographic maps prepared by the U.S. Geological Survey and other drainages and adjacent wetland areas. The deposition of fill, alteration of water flow, and vegetation removal may be regulated by these agencies through Section 404 of the Clean Water Act and Section 1603 of the California Fish and Game Code.

ENVIRONMENTAL IMPACTS

Methods

The following discussion examines the potential impacts on plant and wildlife resources that may occur as a result of project implementation. Constraints upon the proposed project posed by biological resources were evaluated with respect to the presence, or potential presence, of the following sensitive biological resources, listed in descending order of significance:

- A federal or state-listed endangered or threatened species of plant or wildlife and its suitable habitat;
- Wetlands and riparian habitat;
- Plants or animals designated as candidates for state or federal listing;
- Habitat, other than wetlands, considered sensitive by regulatory agencies or resource conservation organizations;
- Other species or issues of special concern to agencies or natural resource organizations.

The actual occurrence of these resources on, or in the immediate vicinity of, the project site were correlated with significance criteria (discussed below) to determine whether or not impacts on these resources would be considered significant.

Thresholds of Significance

Significant impacts on biological resources posed by proposed development on the project site were determined from criteria stated in the California Environmental Quality Act Statutes and Guidelines (1988), and from the application of additional thresholds defined by the Significant Ecological Area Technical Advisory Committee (SEATAC) because of the location of the project in and adjacent to the SEA.

With respect to the CEQA guidelines, a significant impact on biological resources will result if any of the following conditions occur with proposed project implementation:

- Substantially affect a rare or endangered species of plant or animal or the habitat of such species (Appendix G);
- Interfere substantially with the movement of any resident or migratory fish or wildlife species (Appendix G);
- Substantially diminish habitat for fish, wildlife, or plants (Appendix G); or
- The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal (Section 15065a).

In addition, because of the sensitive nature and decline of wetland habitats throughout California, the removal, filling, dredging, or damage (directly or indirectly) to wetland or riparian areas would be considered a significant impact.

An evaluation of whether or not an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA, because although they would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of, an important resource on a population-wide, or region-wide, basis.

SEATAC has identified several categories of resources that are eligible for the SEA designation. SEATAC normally assesses impacts on these resources as significant. These resources are as follows:

- Biotic communities, vegetative associations, and habitats of plant and animal species that are either one of a kind, or are restricted in distribution on a regional basis. At a minimum, this would include, but not be limited to state-designated sensitive habitats.
- Biotic communities, vegetative associations, and habitats of plant and animal species that are either one of a kind, or are restricted in distribution in Los Angeles County.

- Habitat that serves, at some point in the life cycle of a species or group of species, as a concentrated breeding, feeding, resting, or migrating grounds, and is limited in availability.

- Biotic resources that are of scientific interest because they are at an extreme in the physical or geographic range of a population or community, or they represent an unusual variation in a population or community.

- Areas that would preserve relatively undisturbed examples of natural biotic communities in Los Angeles County.

- Special areas, not meeting the criteria for SEA Classes 1 through 7, but that have some notable biological feature (such as a wildlife corridor).

As previously discussed, the County of Los Angeles General Plan contains a number of policies and guidelines for Significant Ecological Areas in the unincorporated areas of Los Angeles County aimed towards the preservation of significant biological resources. The Recovery Plan for the unarmored threespine stickleback also contains a number of measures intending to preserve the habitat of this species. Impacts on sensitive biological resources as a result of project implementation that are in conflict with these guidelines, policies, and measures may be considered significant impacts.

Impacts Analysis

Impacts on Plant Communities

Table 5.3-2 summarizes impacts on plant communities, in acres.

Riversidean Alluvial Fan Sage Scrub

The proposed grading will remove approximately 12 acres of alluvial scrub or 13 percent of this plant community on the project site. The area impacted is located at the northeastern corner of Planning Area A, immediately west of the main channel of San Francisquito Creek. This represents a significant impact on this plant community because this community is relatively rare in the region. In addition, much of this habitat in San Francisquito Canyon has already been removed or altered by agricultural uses.

Implementation of the mitigation measures for impacts on alluvial scrub, discussed later in this document, will reduce these impacts to a level considered less than significant.

TABLE 5.3-2

PLANT COMMUNITIES IMPACT SUMMARY OF THE PROPOSED PROJECT

Plant Community	Existing Acres	Impact (acres) (%)	Preserve (acres)
Riverside Alluvial Fan Sage Scrub	90	12 (13)	78
Southern Cottonwood-Willow Riparian Woodland	6	<1 (8)	5.5
Coast Live Oak Woodland	11	2 (18)	9
Venturan Coastal Sage Scrub	106	32 (30)	74
Chamise Chaparral	1,274	807 (63)	467
Mainland Cherry Forest	24	17 (71)	7
Non-Native Grassland	43	30 (70)	13
Agricultural	111	99 (89)	12
Ruderal (fuelbreaks)	9	4 (44)	5
Disturbed/Developed (including roads)	120	75 (63)	45
Eucalyptus/Exotic Trees	1	1 (100)	0
	1,795	1,080 60)	715.5

Southern Cottonwood-Willow Riparian Woodland

Riparian woodland areas are considered sensitive habitat by state resource agencies. Because of the continuing loss of this resource throughout the state, and its importance as habitat for a number of sensitive and non-sensitive wildlife species, the loss of approximately 0.5 acre of this plant community on the project site is considered a significant impact.

Implementation of the mitigation measures for impacts on riparian resources, discussed later in this document, will reduce these impacts to a level considered less than significant.

Coast Live Oak Woodland/Oak Trees

Direct Impacts

The proposed project has been designed to minimize impacts to the approximately 240 oak trees located on the project site. The large groves of oaks on the project site, one on the western edge of the property and two on the eastern edge of the property, have been largely avoided. All heritage oaks on the site are preserved and none of the five valley oaks onsite would be removed.

Implementation of the project would result in the loss of approximately 30 oak trees located in Planning Areas A and C, and approximately 2.0 acres of oak woodland habitat. While the majority of the oak trees (87 percent) and oak woodland habitat (82 percent) on the site will be preserved, the loss of 30 oak trees and 2.0 acres of habitat is considered a significant impact due to the designation of oak woodlands as a sensitive habitat.

Implementation of the mitigation measures for impacts on oak resources, discussed later in this document, will reduce this impact to a level considered less than significant. However, initial construction activities will have direct impacts on the remaining preserved oak woodland habitats. Potential impacts due to project construction could include soil compaction, dust accumulation on trees, and erosion. Mitigation measures are available to mitigate this impact to a level considered less than significant.

Indirect Impacts

The proximity of nearby development will increase the amount of long-term disturbance to the oak woodland habitat area. Drainage patterns can be permanently altered to where daily runoff, and subsequent sediment and debris deposition, is increased. Exotic plant species can become easily established in the native habitat areas, displacing native plant species. Ongoing human recreational activities, which can have adverse effects on the preserved oak woodland habitats, include: (1) discarded and dumped refuse, (2) mechanical damage to native vegetation, (3) general degradation of habitat, (4) disturbance of wildlife species, and (5) introduction of domestic pets to the native habitat areas. These impacts would be considered significant adverse impacts on oak woodland resources.

Implementation of the mitigation measures for impacts on oak resources, discussed later in this document, will reduce these impacts to a level considered less than significant.

Venturan Coastal Sage Scrub

Implementation of the proposed project would remove 32 acres of Venturan coastal sage scrub, or 30 percent of this plant community on the project site. In Southern California, coastal sage scrub is declining as a result of development. Much of the loss of coastal sage scrub in Southern California is occurring in Diegan coastal sage scrub, a state-designated sensitive habitat. Venturan coastal sage scrub is not currently listed as sensitive habitat. However, because this community supports sensitive species on the project site, and because of the continuing loss of this community throughout Southern California, impacts on this plant community as a result of the proposed project are significant.

Implementation of the revegetation program to mitigate for the loss of coastal sage scrub habitat onsite, discussed later in this document, will reduce this impact to a level considered less than significant.

Chamise Chaparral

Proposed grading would involve the removal of approximately 807 acres of chamise chaparral, or approximately 63 percent of this plant community on the project site. Chamise chaparral is not listed as a sensitive plant community and is abundant in the region. Therefore, impacts on this plant community, based on a purely botanical basis, are not significant. However, this community serves as habitat for several sensitive wildlife species. Impacts on these species as a result of loss of this habitat are discussed under sensitive biological resources.

Mainland Cherry Forest

Mainland cherry forest occurs in four areas on the project site. Implementation of the proposed project would involve the removal of approximately 17 acres of mainland cherry forest, or 71 percent of the total habitat. This impact is significant because this is a relatively rare plant community in Southern California and is a state-designated sensitive habitat.

Implementation of the mitigation measures for impacts on mainland cherry forest, discussed later in this document, will reduce these impacts to a level considered less than significant.

Non-native Grassland

Non-native grassland occurs in the upland areas west of San Francisquito Canyon wash. The removal of approximately 30 acres of this plant community amounts to 70 percent of the total occurring onsite. This impact is not considered significant because this plant community is abundant in the region, especially downstream in San Francisquito Canyon and west of the project site.

Agricultural Land

The removal of approximately 99 acres of agricultural areas, or 89 percent of the agricultural areas onsite, is not a significant biological impact because this is not a native habitat, nor is it considered sensitive. However, the loss of 99 acres contributes to the regional loss of agricultural land.

Ruderal Areas

The loss of 4 acres, or 44 percent of this community onsite, is not considered a significant impact because this community is comprised primarily of non-native weedy plant species, is not considered a sensitive plant community, and does not support sensitive plant or wildlife species.

Disturbed/Developed

The removal of approximately 75 acres of disturbed/developed areas is not a significant impact on plant communities because these areas do not represent valuable habitat for wildlife or sensitive plants.

Effects of Brush Clearance

Los Angeles County Code, Volume 7, Title 32, includes the requirements for brush clearance around structures for fire protection. Hazardous vegetation is required to be removed to a distance of 30 feet from any structure, and cut to a height of 18 inches for an additional distance of 70 to 170 feet. As proposed, the development areas would be largely bordered by manufactured cut and fill slopes. Where development is bordered by natural habitats, it is largely chamise chaparral. Oak trees are not considered hazardous, and therefore will not have to be removed as a result of the fuel modification program. The vegetation types that will be removed as a result of brush clearance include coastal sage scrub, chaparral, and non-native grassland. The acreages of each community to be removed are included in the total acreage affected, as discussed above.

General Impacts on Wildlife

The primary impacts of project implementation on wildlife resources are the removal and disruption of habitat and displacement of wildlife, resulting in a less diverse and abundant local faunal population. Adverse impacts on wildlife are generally associated with the degree of habitat loss from the standpoint of physical character, quality, diversity, and abundance of vegetation. Although a few species of wildlife are entirely dependent on a single vegetation community, it is important to recognize that the entire mosaic of vegetation communities within the planning area, and adjoining areas, constitutes a functional ecosystem for wildlife species both within the immediate project area, and as part of the regional ecosystem. Impacts that would potentially disturb this functioning ecosystem need to be considered when addressing the effects of proposed development on wildlife habitat.

The following discussion identifies the potential project area impacts on wildlife resources in terms of habitat fragmentation and loss, displacement of local wildlife, and disturbance as a result of construction activities and ongoing operations.

Habitat Fragmentation and Loss

Habitat fragmentation is defined as the isolation of habitat resulting from the loss of substantial amounts of natural, undisturbed areas. Wildlife in isolated habitat areas eventually decline as a result of genetic inbreeding, lack of dispersion corridors to other open space areas, and the loss of food and water resources as wildlife populations exceed the carrying capacity of these habitat "islands." Large, expansive habitat areas are also needed by several wildlife species, such as mountain lion and coyote, that have large home range and breeding territories.

Implementation of the proposed project would result in the loss of approximately 900 acres, primarily chamise chaparral, of wildlife habitat. Large amounts of chaparral habitat exists in the vicinity of the project site and, therefore, the loss of this particular habitat-type is not expected to be a significant impact on general wildlife species or populations. However, the loss of habitats on the project site that support known foraging or breeding habitat for sensitive wildlife species may be considered significant adverse impacts. Potential impacts on specific sensitive wildlife species as a result of the loss of available habitats are discussed further in the "Sensitive Biological Resources" section of this impact analysis.

Wildlife Loss and Displacement

The removal or alteration of the habitats present on the project site will result in the loss of small mammals, reptiles, amphibians, and other animals of slow mobility that live in the habitats on the site. More mobile wildlife species now using the project site would be forced to move into remaining areas of open space, consequently increasing competition for available resources in those areas. This situation could result in the loss of individuals of wildlife populations that cannot successfully compete. In addition, non-native plant and animal species that are intrusive and highly adapted to urban habitat areas may eventually displace some of the existing native plant and animal species along the urban/natural open space area interface, resulting in diminished wildlife species diversity. Wildlife diversity (a measurement of the numbers of different species in a given area) would decline within the remaining areas of natural habitat within the site because of decreased habitat diversity, smaller areas supporting habitat (there is a recognized correlation between the size of an area and the number of different species it can support), and increased levels of disturbance.

Because large amounts of chaparral habitat exists in the immediate vicinity of the project site, the displacement and loss of wildlife as a result of project implementation is not expected to significantly affect local non-sensitive wildlife populations. No significant impacts on overall wildlife species diversity is expected to occur.

Habitat Disturbance

Construction activities and ongoing operations of the proposed project, if not designed or mitigated properly, could result in increased levels of sedimentation, erosion, pollutants, toxics, and nutrient loading into onsite drainages and San Francisquito Creek. Such increased levels would represent significant impacts on a number of aquatic and terrestrial biological resources (the effects of decreased water quality on the unarmored threespine stickleback is discussed in the Impacts on Sensitive Biological Resources section). The site grading process will also result in changes in soil absorption rates, drainage patterns, and the rate and amount of surface runoff, all of which can adversely impact plant and wildlife habitats. Refer to Section 5.2, Water Resources, for a more in depth discussion of water quality impacts.

Impacts on Sensitive Biological Resources

Sensitive Plant Species

Slender-horned spineflower and **Nevin's barberry** were not identified on the project site during directed surveys. There are no anticipated impacts on these plant species. The **Peirson's morning glory** was identified on the project site. The Peirson's morning glory that was located along a fuelbreak in the proposed preservation area in the northeast portion of the site will not be directly affected by project implementation. However, the removal of any populations of this species located elsewhere on the site would be considered a significant impact.

Impacts on Sensitive Wildlife Species

The **San Emigdio blue butterfly** was not observed on the project site; however, its host plant, the four-winged saltbush was identified. The four-winged saltbush was found in the northern portion of San Francisquito Canyon wash and is within the proposed preservation area of Planning Area C of the proposed project. Because the four-winged saltbush will be preserved, no significant impacts on the San Emigdio Blue butterfly are anticipated.

The **unarmored threespine stickleback, Santa Ana sucker,** and **arroyo chub** were not observed on the project site. However, these fish may disperse through the site during periods of sufficient water flow. In addition, much concern has been expressed over the protection and maintenance of San Francisquito Creek as a suitable movement corridor for the stickleback between known populations upstream and downstream of the project area. While approximately 24.5 acres of upland agricultural terrace within the SEA will be converted to residential development, the proposed project does not involve any direct loss of habitat for these fish species. However, implementation of the proposed project will involve alteration and development of portions of the San Francisquito watershed located on the project site. Typical urban runoff contaminants (i.e., oil and grease, heavy metals, solvents, pesticides, nutrients, or fecal coliform bacteria) associated with the construction and ongoing operations of the project could affect the survivability of these fish and cause a significant impact on these species. The diversion of stormwater into the proposed water quality lakes will provide an effective means of removing an expected 90 percent of urban pollutants and nutrients potentially entering San Francisquito Creek. With implementation of the water quality lakes and other BMPs (described above under impacts on water quality, and in the water resources section), water quality impacts on the stickleback, Santa Ana sucker, and arroyo chub are expected to be less than significant.

San Francisquito Creek is an intermittent stream and is dry during the summer months where it crosses the Tesoro del Valle project site. Flooding is limited to seasonal storms that typically occur between mid-November and mid-April. Existing stream velocities for the frequent small-magnitude flood events on San Francisquito Creek range from 3.1 to 5.9 feet per second. Stream velocities for the capital storm event range from 3.9 to 7.7 feet per second. With the implementation of several measures to control runoff, erosion, and water quality, the development of the project site is expected to result in stream velocities for small-magnitude flood events ranging from 3.2 to 5.9 feet per second, and from 4.1 to 7.7 feet per second for the capital storm event. To determine whether the potential change in stream velocity would have an adverse impact on the movement corridor for unarmored threespine stickleback, coordination was undertaken with the County of Los Angeles Department of Public Works to determine the range of existing stream velocities in the Soledad Canyon portion of the Santa Clara River. The County gave stream velocity data for Soledad Canyon (County of Los Angeles 1992, LSA 1992). Designated habitat for the unarmored threespine stickleback is located upstream of the County's bridge project at Soledad Canyon. The County data indicates that the velocities in Soledad Canyon for the capital storm event are approximately 15 feet per second. Due to the magnitude of flood events in the Santa Clara River (up to 68,000 cfs during the period of record [Boyle Engineering 1990]), stream velocities are expected to exceed those on San Francisquito Canyon and Soledad Canyon. There are no anticipated impacts on the movement corridor for the unarmored threespine stickleback related to the construction of the revetment in Planning Area D of the proposed project.

A stabilization of the slope from Area D to the main channel will occur on areas that have already been disturbed by agricultural use. In concurrence with ACOE and/or CDFG approval, this slope will be stabilized with rip-rap, gabion, or armor flex.

A proposed access bridge crossing and one potential emergency access road (Alternative 5) across San Francisquito Creek, as well as the one proposed access road to Area D, that will span San Francisquito Creek, could result in adverse impacts on the stickleback as a result of construction activities. Measures are included in the mitigation section to minimize and avoid impacts on this species to a less-than-significant level.

The **California red-legged frog, arroyo toad, western spadefoot toad,** and **southwestern pond turtle** were not observed on the site during directed surveys and are not expected to populate the project site due to lack of suitable habitat. Implementation of the proposed project is not anticipated to have any significant impacts on these species.

The **San Diego coast horned lizard** and **coastal western whiptail** were observed on the project site. The **silvery legless lizard, coastal rosy boa, coast patch-nosed snake, San Bernardino ringneck snake,** and **San Bernardino mountain kingsnake** were not observed, but are expected to occur on the project site. Although approximately 565 acres of potential habitat for these species will be preserved, the substantial loss of over 869 acres of suitable habitat, and the resulting potential loss of viable populations, remains a significant and unavoidable impact.

A **California condor** was observed flying over the project site. A number of captive-bred juvenile condors are being released by the USFWS in the Sespe Wilderness Area of the Los Padres National Forest. The wilderness area is approximately 30 miles west of the Tesoro del Valle project site. The individual observed over the project site was likely one of these released condors, and, because the condors are generally expected to forage within and immediately adjacent to the release area, is not expected to use the site as a primary foraging area. Therefore, the loss of habitat due to the project, not considering the related projects, is not considered a significant impact on condors. In addition, condor foraging habitat in this region is currently abundant and is not considered a limiting factor.

The **golden eagle** was not observed on the project site but may use the open areas for foraging. The loss of the agricultural fields and other open space, along with the proximity to human disturbance of the proposed preservation areas, may preclude the use of the site by this species. This impact is locally important, but is not considered significant because of the regional availability of foraging habitat in the Angeles National Forest, Castaic Valley, and other canyons of the Sierra Pelona range.

The **sharp-shinned hawk** was observed on the project site in eucalyptus trees near the main ranch house. The loss of winter habitat and tall trees for roosting is a locally important impact, but is not considered significant because all of the oak woodland habitat on the site are proposed for preservation, and because tall exotic trees occur offsite on land located east of the project site and west of San Francisco Canyon Road, and in the Angeles National Forest.

The **Cooper's hawk** and **long-eared owl** were not observed on the project site. These species may nest in the well-developed oak woodlands. The loss of oak trees, and hence, potential nest sites, represents a local, though not significant, impact for these species. However, the loss of any trees containing active nests of these species would be a violation of 3503.5 of the CDFG Fish and Game Code. Measures are included in the mitigation section to avoid the loss of active nests.

The **ferruginous hawk** and **Swainson's hawk** were not observed on the project site. The potential loss of foraging habitat for these species is not considered significant because these species are

expected to rarely use the site, and suitable habitat is abundant in the surrounding areas to the east, west and north.

The **white-tailed kite** was not observed on the project site. The loss of 133 acres of foraging habitat is locally important, but not significant because foraging habitat is abundant in the region.

The **northern harrier** and **merlin** were not observed on the project site and are expected to occur only as occasional foragers. The loss of agricultural areas represents an important impact on these species. Because these species are not expected to regularly forage on the site, however, this impact is not significant.

The **prairie falcon** was observed foraging on the project site. Most of the project site is suitable foraging habitat for this species. However, no breeding habitat for the prairie falcon occurs on the site. Because of the large amount of suitable foraging habitat in the immediate vicinity and region, the loss of available foraging habitat does not represent a significant impact on this wide ranging species. This species is likely a resident in the vicinity of the project site where suitable nesting habitat may be found within the Angeles National Forest; foraging habitat is declining in the region, especially in the Santa Clarita Valley.

The **burrowing owl** was not observed on the project site. Suitable habitat is limited to the grasslands and agricultural areas. However, because the agricultural areas are farmed and the grasslands are mostly within regularly maintained fuelbreaks, the likelihood of a burrowing owl population existing on the site is slim. Seventy percent of the onsite non-native grasslands will be preserved in the proposed project. Potential impacts on the burrowing owl due to the potential loss of suitable habitat are not significant.

The **western yellow-billed cuckoo, southwestern willow flycatcher, least Bell's vireo, yellow warbler,** and **yellow-breasted chat** were not observed on the project site. These birds require more developed riparian vegetation than what is found on the Tesoro del Valle site. No significant impacts on these species from project implementation are anticipated.

Both the **California horned lark** and the **loggerhead shrike** were observed on the project site. Project implementation will result in the loss of approximately 133 acres of open ruderal, grassland, and agricultural areas that represent foraging and nesting habitat for these species. However, these species remain relatively common in Southern California and suitable habitat is abundant throughout

the region. The loss of this habitat will not result in substantial reductions of populations of this species.

The **purple martin** is not expected to forage or nest on the project site. The loss of 60 percent of natural areas on the site is not a significant impact on this species.

The **Bell's sage sparrow** and **Southern California rufous-crowned sparrow** were observed on the project site. The loss of 807 acres of chaparral and 32 acres of sage scrub is a significant unavoidable impact on these species because suitable habitat in Southern California is on the decline, and this loss represents a substantial loss of foraging and nesting habitat in the region for these species.

The **tricolored blackbird** was not observed on the project site. It may occur occasionally in agricultural areas in winter. The project will not result in the loss of known breeding habitat or in a substantial loss of foraging habitat.

The **California mastiff bat, pallid bat,** and **pale big-eared bat** were not observed on the project site, but may use the site for foraging. A search of potential roost sites for bats on the site was conducted; no known roosts of these species occur on the site. Therefore, the loss of onsite habitats is not considered a significant impact on these species.

The **San Diego desert woodrat** and **San Diego black-tailed jackrabbit** were observed on the project site. The **southern grasshopper mouse** was not observed on the project site (a small mammal trapping program on the site was not conducted). The loss of approximately 1,080 acres of suitable habitat represents a substantial loss of habitat for these species and is, therefore, a significant unavoidable impact.

Burrows potentially used by the **American badger** were identified on the project site in the upper reaches of Tapia Canyon. The project as proposed will involve the use of Tapia Canyon as a passive recreational trail and nature park, and will not involve grading that would affect the burrows. However, while not considered a significant impact, construction activities may result in temporary, or permanent site abandonment. Suitable foraging and breeding habitat for this species exists throughout the project vicinity. Because no identified burrows of this species will be removed, no significant impacts on this species will occur.

Wildlife Movement

The project site provides opportunities for movement by terrestrial species between the Angeles National Forest and the Santa Clara River, which provides a link to other major open space areas. In addition, San Francisquito Canyon wash, which crosses the eastern edge of the property, has been identified as a movement corridor linking populations of the unarmored threespine stickleback upstream of the project with populations downstream in the Santa Clara River. Because project design will not block or impede the movement of terrestrial or aquatic species along San Francisquito Canyon, no significant impacts on wildlife movement are anticipated along the creek in this area.

Implementation of the project will, however, interrupt movement that presently occurs on the ridges and in the canyons onsite. The primary movement corridor identified on the main ridgeline fuelbreak on the site will be interrupted, as will the secondary movement corridors in the eastern canyons on the site that lead to San Francisquito Canyon. In addition, indirect impacts on wildlife movement may result from night lighting in adjacent development areas and from recreational use of the trails and open space areas of the project.

The project includes design features to accommodate limited wildlife movement. A portion of the main ridgeline corridor will be preserved in the central area of the proposed project site (bordering Areas B and C) and is proposed to also serve as a hiking trail. However, the use of this ridgeline as a primary movement area connecting Angeles National Forest with open space areas south of the project site will be interrupted by the proposed project and road system. Tapia and Wayside Canyons will be preserved but are proposed to include hiking trails. This will allow for some wildlife movement to occur, but human presence may preclude the use of these corridors by species that are sensitive to human presence. In the project design, there are several places where natural habitat, that could be used by wildlife as corridors, are transected by proposed roads. These roads may disrupt movement in these areas.

Mitigation measures to reduce impacts on wildlife movement are provided, but would not reduce impacts on the interruption of wildlife movement to a level considered less than significant. While the most important corridor crossing the site, San Francisquito Canyon Creek, will be preserved, and other corridors around the site will continue to provide opportunities for movement in the area, the overall impact on wildlife movement that will result from implementation of the project is considered substantial and, therefore, significant and unavoidable.

Onsite Jurisdictional Areas

The majority of the 32.6 acres of jurisdictional areas (29.4 acres) is located within San Francisquito Creek. The remaining 3.2 acres are distributed in small drainages throughout the site. The project will impact the majority of these small drainages. The project has been designed to avoid any encroachment into the main portion of the channel of San Francisquito Creek containing jurisdictional lands. Project impacts will be limited to the 3.2 acres of jurisdictional areas located within the smaller drainages in the main portion of the site. Because of their sensitive nature and requirements for mitigation of impacts greater than 1.0 acre under ACOE jurisdiction, this impact is considered significant. Actions that will result in the discharge of dredged or fill material into areas delineated as "waters of the United States" are subject to ACOE permitting requirements, pursuant to Section 404 of the Clean Water Act.

San Francisquito Canyon/Significant Ecological Area No. 19

Approximately 29.0 acres of the northern portion of the site and 74.0 acres of the southern portion of the site are located within SEA 19. As designed, the project includes no direct encroachment into the northern portion of the SEA onsite.

Within the 74.0 acres of the SEA located on the southern portion of the site, multi-family residential development is proposed on the 24.5-acre area located above the floodplain. This area is currently used for agricultural purposes. A 50-foot setback containing natural vegetation is proposed around this development area (Area D). Some protection of the slope from this area down to the floodplain with rock (i.e., rip-rap) or another acceptable stabilization method is planned. Only minor encroachment (a total of 3.57 acres) into the existing floodplain as delineated by DPW for bank stabilization of Planning Area A or D or the establishment of a 50-foot buffer along the creek would occur.

Access to Area D will be provided by one access road from San Francisquito Road. This road would be constructed on embankment fills with culverts underneath designed to pass through drainage flows. The road would encroach into the existing floodplain. In addition, the Los Angeles County Fire Department has requested an access route to cross San Francisquito Creek. The applicant proposes to comply with this request by constructing a bridge crossing from Planning Area A to Planning Area D. The bridge would be constructed partially within the floodplain and will span the streamcourse. Potential impacts on the biological resources of the SEA, including the unarmored threespine stickleback, could occur as a result of construction activities of these roads. Measures are

included in the Mitigation Section to reduce these impacts to a level that is considered less-than-significant.

The tentative tract map for the project includes an easement for the future construction of McBean Parkway between San Francisquito Road and Area D at the request of the Los Angeles Department of Public Works. The alignment for this road has not been finalized and construction of this road is not a part of the proposed project. During its review of the project, the SEA Technical Advisory Committee (SEATAC) recommended that this road be located outside the boundaries of the SEA.

Other than the access roads to Area D, the project, as designed, includes no additional encroachments into San Francisquito Creek. (The 24-acre residential development in Area D will be constructed on an area currently used for agriculture.) The project has been designed to eliminate the need for any significant stabilization or channelization of the main channel that could result in an increase in the velocity of the creek. The existing velocity of 3.1 to 7.7 feet per second will be maintained even with the proposed bridge crossing. Maintenance of the existing velocity of the creek is considered essential to avoid impacts to the unarmored threespine stickleback.

Development in and around the SEA can also result in indirect impacts on the biological resources of the SEA. Documentation related to SEA 19 notes the importance of avoiding increases in siltation and pollutant loads (MBA 1991a). The water quality system designed for the project, as described above and in the hydrology section of this document, will mitigate any potential impact to the quality of surface runoff entering San Francisquito Creek. As originally planned, the project included a single constructed wetland at the southern edge of the project designed to accept all runoff that would enter San Francisquito Creek. The SEATAC expressed concern about the location and design of this constructed wetland. Due to its proposed location adjacent to the main channel of San Francisquito Creek, concerns were expressed that the wetland would serve as an attractive nuisance for wildlife. Wildlife entering the wetland could be impacted by the concentrations of urban pollutants contained in the water and vegetation. A concern was also expressed about the ability to maintain the wetland to ensure continued effectiveness.

Following review of the project by the SEATAC, the water quality system was redesigned to consist of five water quality lakes distributed throughout the project. These lakes use a submersed macrophyte system that also allows for regular maintenance and replacement of the macrophytic vegetation. Given the location and design of these water quality lakes, no impacts to wildlife are anticipated. Through this system of water quality lakes, stormwater will also be retained to reduce the velocity of runoff.

The project may also indirectly impact the resources in the SEA by increasing the level of human and domestic pet activity in San Francisquito Creek. The project incudes a buffer containing natural vegetation, with a minimum width of 50 feet, along the edges of Planning Areas A and D that are adjacent to the creek. With implementation of these measures, indirect impacts associated with increases in human activity near the SEA could be reduced but remaining potentially significant as a result of the inability to control human activity.

The original intent of the SEA No. 19 designation to preserve connections between the populations of unarmored threespined stickleback in the San Francisquito Canyon and Santa Clara River drainages has been severely compromised by roads, barriers, and grading associated with ongoing development near the confluence with the Santa Clara River. Surface water flows required by the stickleback through the lower portion of San Francisquito Creek have been interrupted. In addition, there is little left of the riparian woodland originally described when the SEA was designated, and extensive discing has occurred in almost every tributary drainage into San Francisquito Creek, in most cases down to the edge of the main drainage (MBA 1991a). The previous and ongoing development at the southern end of the canyon and the discing of the tributary drainages are inconsistent with the intentions of the SEA designation.

The design of the Tesoro del Valle project, including water quality control measures, riparian vegetation restoration, and wildlife movement corridor access, has attempted to preserve the original intent of the SEA designation in preserving the link between upstream and downstream populations of the unarmored threespine stickleback. The management recommendations described by MBA (1991a) include the reestablishment of a buffer zone around the SEA and the implementation of a number of water quality and quantity control measures to protect and enhance surface hydrology. A number of these concepts have been incorporated into the design and mitigation measures of the proposed project, including the establishment of a 50-foot buffer along Planning Areas A and D adjacent to the creek; measures to replace riparian vegetation; measures to control water quality, velocity, erosion, and sedimentation; and measures to ensure wildlife movement. It should be noted that the buffers for the proposed project are not necessarily those identified in the original England and Nelson (1976) SEA report. In that report, the entire watershed was recommended as a buffer. The reestablished buffers mentioned by MBA (1991a) imply reestablishing the original buffers. Thus, while the project follows the intent of the recommendations for buffers, the actual size of the buffer (50-feet) do not provide the protection originally conceived by England and Nelson. SEATAC has indicated its preference to retain the original buffers as well; however, such consideration could effectively render the proposed project infeasible.

The proposed measures to minimize and avoid impacts on the SEA are explained in more detail in the Mitigation Measures section and in Technical Appendix C, Water Quality Mitigation. Implementation of these measures could reduce potential impacts on the integrity of the SEA to a level considered less than significant, subject to the appropriate findings made by the decision-makers (Regional Planning Commission and the Board of Supervisors). It should be noted that SEATAC found the proposed project to be incompatible with the biotic resources of the SEA.

CUMULATIVE IMPACTS

A list of related projects for assessing cumulative impacts on biological resources and the integrity of the SEA was derived from a literature review and in coordination with the County of Los Angeles, Department of Regional Planning Subdivision Section. In addition, the County's computer database was queried for all cases in the vicinity of the proposed project. As a result of the literature review and coordination with the County, six related projects were identified in the San Francisquito Canyon area. Identified related projects include: Tentative Tract #37539, Tentative Tract #46564, Tentative Tract #46908, Tentative Tract #44831, Tentative Tract # 46389, and Tentative Tract #43591 (see Exhibit 4.3-1). The proposed project, when evaluated in conjunction with the related projects, poses cumulative impacts beyond those directly related to the proposed project. The Newhall Ranch project also represents a significant cumulative project that will contribute to the regional loss of sensitive and non-sensitive habitats.

The six identified tentative tracts within San Francisquito Canyon account for development of over a thousand acres in the area of the Tesoro del Valle project. Limited open space conservation within the San Francisquito Canyon watershed is included in some of these other projects. Over half the lots designated as open space are accounted for by land uses such as developed park sites, landscaped paseos, transmission easements, and water tank sites. As such, there is a significant cumulative impact to loss of natural open space for wildlife habitat within the San Francisquito Canyon watershed. Managing frequency and intensity of inundation and water quality of intermittent flows within the San Francisquito Canyon Wash are crucial to conserving habitat for the unarmored threespine stickleback and existing populations of the species upstream in the Angeles National Forest and downstream in the Santa Clara River. The Tesoro del Valle project includes a drainage plan and an extensive water quality control program to avoid significant changes in frequency and intensity of floodwater flows and maintain existing water quality. Similar measures would need to be implemented in both upstream and downstream projects to avoid significant cumulative impacts on water quality. Finally, the need for road crossings to facilitate regional traffic, circulation, and emergency access to proposed development on the east and west sides of San Francisquito Canyon poses a potential cumulative

impact to viability of San Francisquito Canyon wash as a migratory corridor of the unarmored threespine stickleback, and during dry periods, as a regional movement corridor by terrestrial wildlife species. As such, the applicant has worked with the adjacent property owners to define a potential alignment of Copper Hill Drive that could be used to serve the applicant's proposed project, Tentative Tract 46389, and other related projects.

In addition to the other related projects described in Section 4.3, implementation of the Tesoro del Valle project will contribute to the cumulative loss of habitat, specifically chaparral and sage scrub habitat, in the general area that supports sensitive species. This cumulative impact is considered to be significant.

MITIGATION MEASURES

The proposed project includes the preservation of approximately 631 acres of undisturbed natural areas (35 percent of the site) which includes the SEA (see Table 3.4-2). An additional 36 acres of land in undeveloped areas of the site would be devoted to riding/hiking trails and natural fuel modification zones. In addition, approximately 222 acres of the site would be devoted to passive parks and revegetated slopes, which would contain natural habitats that could be used by wildlife.

Open Space

The applicant proposes to dedicate approximately 631 acres of subdivided undeveloped land for open space to the County of Los Angeles Department of Parks and Recreation, or to an agency acceptable to the County of Los Angeles and the applicant that would take title of the land. In order to avoid potential impacts to wildlife in the natural open space areas on the site from construction of the project, the following measures will be implemented:

1. The limits of grading will be clearly marked on each parcel. All areas required for storage of equipment, stockpile areas, turnarounds, and site access will be within the limits of grading. No work will occur outside of the identified construction site.

2. Erosion control measures, such as temporary berms, sandbagging, and desiltation basins, will be in place during all phases of construction and will be regularly maintained. All cut, graded, or filled slopes should be landscaped as soon as possible with the appropriate native species (see below) in order to diminish the potential for erosion problems.

3. Signage will be developed and placed along the boundaries of preserved natural open space areas to discourage recreational vehicles from entering these areas.

Sensitive Species

Unarmored Threespine Stickleback

The following recommendations combine management practices for water quality enhancement of urban runoff with measures for controlling increased runoff quantity to avoid direct and indirect impacts on the unarmored threespine stickleback. The following is a summary of these recommendations; a detailed discussion of these measures can be found in Detailed Water Quality Mitigation Measures, Technical Appendix C.

A water quality control program has been designed that uses point source controls to minimize pollutant discharge into onsite drainages; and that employs structural systems to capture first flush storm runoff and nuisance flows prior to surface runoff reaching San Francisquito Canyon Wash.

Water quality control measures incorporated into the program include the following:

1. Detailed drainage studies of the project area.

2. Development and management of five water quality lakes, to be filled year-round with water, to catch and remove urban pollutants from water runoff. Mosquito fish are not to be used for mosquito abatement due to the related impacts on the stickleback.

3. Development of a monitoring program for baseline water quality and the effectiveness of the water quality lakes.

4. Designs for efficient landscaping practices to reduce the amount of impervious surfaces.

5. Provisions for overall control, maintenance, and monitoring responsibilities.

6. Development of an eradication program for undesirable non-native invasive plant and animal species associated with the water quality in lakes.

Construction, erosion, and sedimentation measures to reduce impacts during construction of the property include the following:

1. Developing a siltation basin plan and employing siltation basins during construction.

2. Employing filter fences, trash racks, and other devices of stormwater outlets.

3. Limiting construction in or near San Francisquito Canyon Wash to the non-rainy season.

4. Employing Best Management Practices, such as storm drain maintenance, street sweeping, and litter control, to reduce the amount of pollutants from urbanized areas potentially affecting the wash.

5. Construction of any bridge crossing on San Francisquito Creek should be undertaken during the non-rainy season when the creek is normally dry. However, it is acknowledged that there are occasional above-average rainfall years that result in flowing water beyond the rainy season. Should bridge construction be undertaken in such a year, water would need to be directed via a culvert (or similar structure) to bypass the construction area. The following procedure would be used for such a bypass operation:

   - Preconstruction survey for unarmored threespine stickleback by a qualified biologist holding a U.S. Fish and Wildlife Service permit to handle the unamored threespine stickleback.

   - Placement of a block net or silt screen at the upstream end of the proposed diversion.

   - Installation of a bypass culvert (18-inch diameter or greater).

   - Removal of the block net or silt screen.

   - Complete bridge construction.

   - Placement of a block net or silt screen at the upstream end of the proposed diversion.

   - Removal of bypass culvert.

This program will mitigate most of the potential impacts to water quality in San Francisquito Canyon Creek to a level considered less-than-significant. In addition, to avoid potential impacts on the stickleback as a result of dewatering of natural groundwater basins, the use of existing groundwater aquifers will be limited to the historic rate of withdrawal.

Peirson's Morning Glory

Preconstruction surveys for Peirson's morning glory will be conducted during the flowering season (May through June) to determine if the plant is present within the proposed grading area. If the plant is present, the locations would be staked. During the wet season (November through February), Peirson's morning glory plants potentially impacted by proposed grading will be transferred to suitable habitat areas that are designated for long-term preservation. Plants will be collected by first removing the stems to a length of 5 inches (to reduce transpiration) and then collecting the root ball by digging up at least 6 inches of soil around each root ball. If the transplanting program is not successful, then a seed propagation program in an approved location (as determined by CDFG and the County) will be considered. As a caution, seeds will be collected from plants on the site, during the appropriate season prior to proposed grading, for possible use in a propagation program. Implementation of this program will mitigate any potential impacts on Peirson's morning glory to a level considered less than significant.

Special Status Reptiles

To reduce the amount of mortality on two sensitive lizards, the San Diego coast horned lizard and coastal western whiptail, a catch-and-release program is proposed. Prior to commencement of construction, a catch-and-release plan to salvage individuals of San Diego coast horned lizard and coastal western whiptail will be implemented. This salvage technique is recommended because lizards are not as mobile as birds and mammals and, after relocation, may not wander as far in search of familiar territory. However, this program is unproven and should be viewed as experimental. Follow-up studies would need to be conducted to determine the success of such a program. The salvage program will be conducted during the active season for these species (March through October). Individual coastal western whiptails will be captured using the pit trapping technique and coast horned lizards will be captured by the same method and enhanced by hand-captures. The lizards will be released in the areas of suitable habitat (most likely in the natural open space preserves of Planning Areas B and C) on the site and, as determined by CDFG or USFWS biologists and the County, that are designated for long-term preservation. Preferred locations will be those habitats that may be underpopulated or unoccupied by these species, as determined by site-specific surveys of preserve areas prior to construction, possibly due to past activities, including agriculture, grazing, and over collection. This program will be conducted by a qualified herpetologist deemed acceptable to the County biologist. While this program may mitigate the impact to these species to some extent, the loss of occupied habitat, and habitat potentially supporting other special-status reptiles, is still considered a significant impact.

Special Status Birds

Because specific mitigation measures, such as trapping and relocating birds (i.e., Bell's sage sparrow), are considered infeasible for these highly mobile vertebrates, and the loss of approximately 839 acres of suitable habitat cannot be mitigated to a level less than significant, the loss of habitat would be considered a significant unavoidable impact.

Nesting Raptors

One red-tailed hawk nest was located in the southeastern portion of the property near the existing alignment of San Francisquito Canyon Road. Suitable nesting habitat for several other raptor species that were observed onsite (although nests were not located) include red-shouldered hawk, American kestrel, barn owl, and great horned owl. In addition, the site provides suitable nesting habitat for several species that were not observed during field surveys but are expected to occur onsite including Cooper's hawk, and long-eared owl. Nesting raptors are afforded protection pursuant to the federal Migratory Bird Treaty Act. As such, the following mitigation measures are recommended to avoid impacts to nesting raptors.

1. To avoid impacts to the red-tailed hawk nest in the southeastern portion of the property, prior to commencing construction activities within 1,000 feet of the known nesting location, a raptor specialist would be retained to determine if the nest is still active. If the nest is active, construction activities will be prohibited within 1,000 feet of the nest site during the breeding season (February to June). This nest site would be preserved as part of the project design in all alternatives under consideration. This nest site is currently located adjacent to an occupied residence and near the existing alignment of San Francisquito Canyon road. There are no anticipated direct impacts on this species.

2. Suitable nesting habitat exists for several other raptor species. A raptor specialist shall be retained to complete pre-construction surveys in all suitable nesting habitat for raptors to determine if active nests are present. Pre-construction surveys will be completed between January and June in the breeding season that precedes ground-disturbing activities within 1,500 feet of suitable nesting habitat. Where active nests are encountered, construction activities would be prohibited during the breeding season (from January to September depending on which species is identified). Nest trees that are identified in the grading area will be removed during the non-breeding season.

Impacts to raptor nests can be mitigated to a level considered less than significant with implementation of these measures.

Jurisdictional Drainages

Project implementation will impact 3.2 acres of drainages considered waters of the United States. The discharge of dredged or fill material into these areas is subject to the jurisdiction of the ACOE, pursuant to Section 404 of the Clean Water Act, and may require a Nationwide Permit.

The project proponent will coordinate with the ACOE prior to construction to secure a Section 404 Clean Water Act permit and will abide by the conditions of any executed permit. Measures to mitigate fill impacts on jurisdictional drainages are included in the conditions of the permit, and typically require the restoration or replacement of lost drainages on a 1 acre:1 acre basis.

Riparian Vegetation

Riparian habitat is limited to scattered patches of mulefat around an artificial cattle pond and a sparse cover of mulefat in the areas designated as Canyon B and Canyon C in the jurisdictional delineation report. In addition scattered individual cottonwoods occur along the eastern portion of the property adjacent to San Francisquito Canyon wash. A total of approximately 0.5 acre of cottonwood-willow riparian woodland scrub habitat would be removed. Due to the regional scarcity of these resources and their value as wildlife habitat, even the loss of approximately 0.5 acre of riparian vegetation is considered a significant impact requiring mitigation.

In conjunction with the comments offered by the U.S. Fish and Wildlife Service (USFWS, J. Hanlon, Personal Communication 1992), the U.S. Army Corps of Engineers (ACOE, B. Smith, Personal Communication 1992) and USDA Forest Service (USDA, M. Wickman, Personal Communication 1992), potential locations for riparian mitigation have been aligned along San Francisquito Canyon. Riparian revegetation along San Francisquito Canyon accomplishes two objectives: (1) it mitigates impacts on riparian habitat, and (2) enhances the migratory corridor along San Francisquito Canyon for the unarmored threespine stickleback.

The applicant intends to mitigate for impacts on mulefat scrub and southern cottonwood/willow riparian habitat through revegetation in and adjacent to San Francisquito Canyon wash, near the northern and southern portions of the property. Mitigation will be accomplished in the San Francisquito Canyon Wash portion of the property. A list of replacement species and performance criteria is included in Table C-2 in Technical Appendix C. A summary of these measures follows:

1. Mitigation for impacts will consist of planting a total of 1.0 acre of cottonwood, willows, and appropriate riparian understory species. Mitigation will be accomplished in the following areas: (1) onsite northern portion of San Francisquito Canyon Wash on the western margin of the wash; and (2) southern Portion of San Francisquito Canyon Wash; planting to be accomplished parallel to Planning Area D along the eastern margin of the wash.

2. Revegetation will be accomplished through the use of a mix of native riparian-associated trees such as cottonwoods, willows, and associated understory species (see Table C-2, Technical Appendix C, for number and density). Taller tree species will be interspersed with lower-growing understory species to create a variety of habitat types and structures that will enhance the functional integrity of the created habitat areas.

3. The performance goal for the revegetation sites is 100 percent survival of the trees planted 5 years after the date of planting. Total cover over the revegetated riparian habitat shall equal 50 percent or greater at 5 years after planting. Revegetation can be accomplished through use of various sized materials. Replanting will take place, as necessary, to ensure 100 percent survival of tree species. Performance criteria for the riparian mitigation program is summarized in Table C-3, Technical Appendix C.

4. The mitigation area must be dedicated in perpetuity as wildlife habitat and monitored for the first 5 years to ensure successful implementation. A deed restriction or conservation easement is usually required by the CDFG to ensure permanent preservation of the area for wildlife habitat.

5. After the initial planting has been completed, all the mitigation sites will be monitored monthly for the first year, and quarterly for the following 4 years.

6. A monitoring program that includes the standard sampling and monitoring protocol as described in this report, will be conducted for the mitigation program for riparian resources. The annual monitoring reports will continue for at least a period of five years or until the restoration biologist and County biologist agree that a level of vegetation cover and species richness comparable to the existing vegetation, as based on a preconstruction survey, has been reached.

With implementation of this program, the impact on riparian habitat can be mitigated to a level considered less than significant.

Coast Live Oak Resources

A number of measures have been developed to mitigate the loss of oak resources on the project site. A detailed oak tree mitigation plan can be found in Technical Appendix C. A summary of this plan follows.

The oak tree mitigation program involves the replacement of the thirty oak trees (*Quercus agrifolia*) and 2.0 acres of habitat that will be lost as a result of the project, in accordance with the provisions of Los Angeles County Code Title 22, and the protection of oaks to be preserved as part of the project site plan. Oak tree mitigation measures include the following:

1. The replacement of lost oaks (coast live oak) at a 2:1 ratio with 15-gallon stock at pre-determined locations adjacent to existing oaks.

2. The preservation of approximately 204 oaks on the project site.

3. Guidelines to ensure avoidance or minimization of impacts on preserved oak woodlands during construction-related activities.

4. Guidelines to minimize disturbance to the remaining oak woodlands from human and urban-related activities and encroachment.

5. Development of a monitoring program agreed upon by the County (see Technical Appendix C for details of the proposed monitoring program).

This program will mitigate the impact on oak trees to a level considered less than significant.

Mainland Cherry Forest Resources

1. In an effort to reduce the amount of impact on mainland cherry forest caused by project implementation, 7 acres representing 29 percent of this resource on the project site will be preserved as designated open space onsite. The preservation area is in Wayside Canyon.

2. Measures to avoid or minimize construction impacts on cherry trees will be the same guidelines as those described for avoidance or minimization of impacts on preserved oaks (see oak resources above). The proximity of development to the preserved cherry woodlands will increase the amount of long-term disturbance to the habitat in much the same manner as described for oak resources. Guidelines to minimize disturbance to the preserved cherry woodlands will be the same as those for minimizing disturbance to the preserved oak woodland habitats (see oak resources above).

3. To compensate for the removal of 17 acres of cherry woodland, a revegetation program will be implemented. Cherry woodland shall be replaced at a 1:1 acre ratio using 5-gallon or larger stock of *Prunus ilicifolia*. These shall be planted at a density of no less than 50 trees per acre. Replacement trees shall include a range of age classes to allow for a more diverse population. Revegetation locations will include the open areas between clumps of preserved cherry trees in Wayside Canyon.

4. A monitoring program that includes the standard sampling and monitoring protocol (see Technical Appendix C) will be conducted for the mitigation program for mainland cherry forest. The annual monitoring reports will continue for at least a period of 5 years or until the restoration biologist and County biologist agree that a level of vegetation cover and species richness comparable to the existing vegetation, as based on a preconstruction survey, has been reached.

Implementation of the above mitigation measures will reduce impacts on mainland cherry forest to a level considered less than significant.

Venturan Coastal Sage Scrub Resources

1. The graded areas surrounding the development will consist of 219 acres of manufactured slopes to be managed as open space. Manufactured slopes, located outside of fuel modification areas, can be revegetated with coastal sage scrub species to mitigate for coastal sage scrub and chamise chaparral removal. The three methods of revegetation that could be used are hydro-seed method, planting of nursery stock, and the "native regrowth" method. The methodology used will depend on the specific location for revegetation, and as determined by the restoration specialist and the County.

    a. In areas that are appropriate for the native regrowth method, topsoil (the top 4 to 6 inches) and vegetative material from the coastal sage scrub vegetation that will be removed will be collected (prior to grading), shredded, and stockpiled (for a period not to exceed 3 months). Following grading, the stored soil and shredded material will then be spread over the revegetation areas and tamped in by means of a sheepsfoot roller or similar device.

    b. In areas that will be hydroseeded, a mix of species will be used that includes a cover crop (a quickly growing species that will keep weeds down). Species to be used include laurel sumac, black sage, white sage, purple sage, California buckwheat, and California sagebrush. See Table C-4, Technical Appendix C for a complete list of species, size, and amount/acre. Hydroseeding will be conducted in the late fall to late winter season.

    c. In Planning Area C of the project site, where the existing vegetation is chamise chaparral with coastal sage scrub elements, the revegetation areas

should be planted with nursery-stock chamise, and coastal sage scrub plants, as indicated above.

2. A monitoring program that includes the standard sampling and monitoring protocol as described in this report (see Technical Appendix C), will be conducted for the mitigation program for coastal sage scrub. The annual monitoring reports will continue for at least a period of five years or until the restoration biologist and County biologist agree that a level of vegetation cover and species richness comparable to the existing vegetation, as based on a preconstruction survey, has been reached.

Implementation of the above mitigation measures will reduce impacts on coastal sage scrub to a level considered less than significant.

Riversidean Alluvial Fan Sage Scrub Resources

In order to mitigate for the removal of 12 acres of Riversidean alluvial fan sage scrub habitat, replacement and enhancement on a 1:1 basis will be required onsite. The areas for mitigation will include existing habitat areas in the northern and southern onsite portions of San Francisquito Canyon wash. Specific locations for mitigation of alluvial scrub habitat will be determined in cooperation with the California Department of Fish and Game and the County biologist; these locations will likely include the existing terraces along both sides of the creek. Appropriate delineation and mapping of these areas will be prepared and submitted to the County biologist. The following performance criteria will be required to ensure proper mitigation and survivability:

1. Prior to any clearing or grading operations on the project site, seeds, cuttings, and transplants of alluvial scrub species will be collected during the appropriate season and planted or stored for later installation on the mitigation site.

    a. Cuttings will be taken from an appropriate variety of onsite alluvial scrub species during the late winter and early spring, then rooted in flats, liners or 1-gallon containers.

    b. Seed will be collected during the late spring or early summer from as many onsite species and as many individuals as feasible. Seeds from individual species will be cleaned and stored separately.

    c. Appropriately sized shrubs that constitute natural components of the alluvial scrub habitat and lie within areas that will be affected by grading activities will be excavated with their root balls intact, stored, and replanted as soon as possible.

2. Site preparation for the alluvial scrub revegetation area will occur after flood control improvements have been completed. Topsoils removed by grading in alluvial scrub habitat will be distributed on the revegetation site.

3. A temporary irrigation system will be installed and tested prior to implementation of the proposed revegetation plan.

4. Planting will be performed, primarily during the cooler, wetter months, between November 15 and April 15, immediately following a rain of at least 1/2 inch. Newly planted and seeded alluvial scrub will be maintained (including weed control and erosion control) for a 3-year period beginning with the initiation of planting.

5. A monitoring program that includes the standard sampling and monitoring protocol (see Technical Appendix C) will be conducted for the mitigation program for alluvial scrub. The annual monitoring reports will continue for at least a period of five years or until the restoration biologist and County biologist agree that a level of vegetation cover and species richness comparable to the existing vegetation, as based on a preconstruction survey, has been reached.

Implementation of the above mitigation measures will reduce impacts to Riversidean alluvial fan sage scrub resources to a level considered less than significant.

Wildlife Movement

The wildlife corridor system proposed in the project design will consist of preserved portions (between Planning Areas B and C) of the existing ridgeline corridor and some secondary drainage corridors with a proposed hiking trail network to connect the preserved portions. This will primarily serve to connect the remaining open spaces (within Planning Areas B and C) that have been fragmented by project implementation and allow wildlife to move north/south and west from the angeles National forest through the project site and west to Wayside Canyon. This trail network will consist of existing trails that will be minimally upgraded to meet the County Parks and Recreation trail standards. The proposed hiking trails may be used by wildlife that would normally use the existing ridgeline corridor because it will have topography that is similar to the existing condition. The existing ridgeline corridor is a man-made feature (fuel break), and the proposed trails also will be man-made. Trails will be improved according to the County Parks and Recreation standards for riding and hiking trails. With this, the trails will be constructed using the minimum width requirements (trees and shrubs will be cleared to a minimum width of eight feet) and the maximum slope requirements (grades shall not exceed 10 percent, or shall not exceed 15 percent when avoiding switchbacks).

There are several places where the proposed trails or wildlife movement corridors would intersect with proposed roads (Exhibit 5.3-4). Improvements (discussed further in this section) will be made to these intersections to facilitate wildlife movement and to connect fragmented open space areas in Planning Areas B and C. Four of these intersections are overcrossings in Planning Area B of the project site. The north/south collector road will be an overcrossing.

One wildlife corridor/road intersection is in Planning Area C along the proposed north/south collector road in the center of the site. This will be constructed as an overcrossing.

All of the over-road type intersections will be a minimum of 250 feet wide and will be revegetated with native plants following the guidelines for fuel modification zones in Technical Appendix C.

The minimum 250-foot width of overroad crossings is measured between property lines of urban development. No encroachment of development would occur in this 250 foot corridor. It should be noted that several of the crossings are greater than 250 feet (e.g., 300 to 350 feet), but 250 feet is the minimum distance.

The following general guidelines will be incorporated into all bridge designs over San Francisquito Creek in order to facilitate wildlife movement:

1. The bottom of the crossing will be no less than 20 feet wide, and the distance from the ground to the bottom of the bridge should be no less than approximately 15 feet in height.

2. The roadway bridge will have an opening in the middle to allow light to come through.

3. For those crossings that are at a minimum of 20 feet in width, the crossing will be shaped like an hour glass, with the greatest constriction in the middle and the sides flaring out at either end. This design is intended to minimize the length of the narrowest section of the crossing under the bridge. The flaring will begin as close to the center of the roadway bridge as possible.

All of the wildlife movement corridor/road intersections that will include road undercrossings will be constructed using the "openness effect" concept developed by Reed et al. (Envicom Corp. 1992). This concept involves the use of a formula for determining the dimensions of an underpass. The surface area of the opening to the underpass is assumed to be elliptical with the width greater than the height. The length of the underpass should be the same as the width of the roadway and use the same

hourglass shape as described above for bridge crossings. To apply the concept, the following formula is calculated:

½ width (in meters) x ½ height (in meters) x 3.14 = surface area of culvert opening
Surface area of culvert opening/length (in meters) of culvert = openness effect

An openness effect ratio of at least 0.6 should be obtained. The width, height, and length must be measured in meters, or the 0.6 ratio will not apply.

Additional measures to reduce impacts on wildlife movement include:

1. All project fencing in perimeter areas shall be open in design to allow wildlife movement. Chain-link fences or other types of fences that may form a barrier shall be prohibited.

2. Low-intensity street lamps at the edge of development, low-height light poles, and shields of internal silvering of the light globe or external opaque reflectors will be used. The degree to which these lighting measures are incorporated should be dependent upon the distance of the light source from the edge of development.

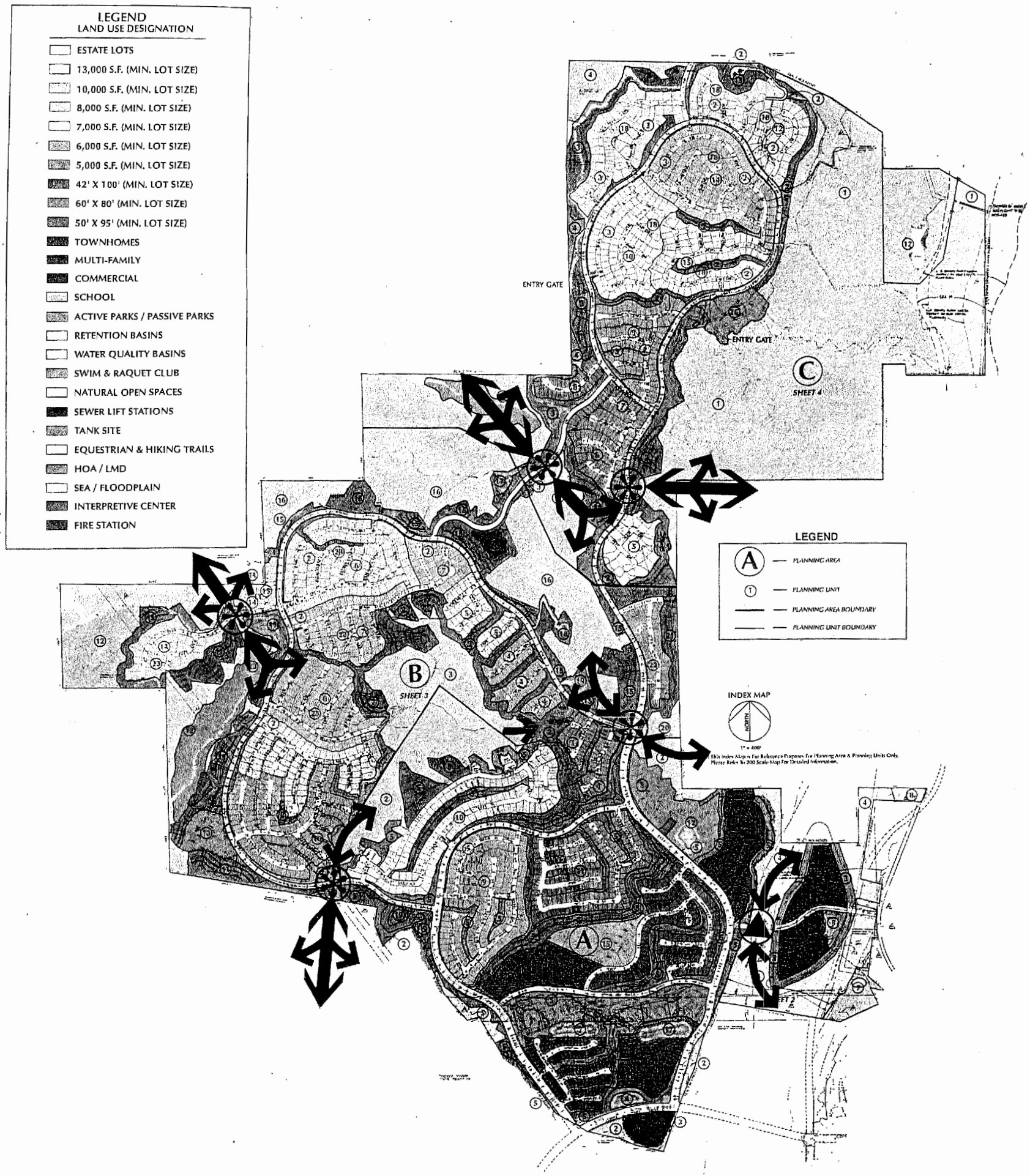
3. The use of hiking trails shall be restricted to the daylight hours between dawn and dusk.

4. Design criteria, to the satisfaction of the California Department of Fish and Game and the County Biologist, shall be included in the final tract map for each parcel that contains a wildlife corridor crossing prior to construction. The specifications shall include illustrations of the crossings (plan view and cross-section), heights and widths, and re-vegetation species.

Implementation of these measures will mitigate the impact of the project on wildlife movement to some extent. The overall impact on regional wildlife movement will remain significant after implementation of these mitigation measures.

San Francisquito Canyon/Significant Ecological Area No. 19

A buffer zone containing natural vegetation with a width of not less than 50 feet is proposed along the edge of the project adjacent to San Francisquito Canyon Creek. Fencing along this buffer should be used to discourage human encroachment into those areas of the SEA that will not be encroached upon as a result of project implementation. Signs should also be placed on all fences in this area identifying the SEA and requesting that this area not be entered.



Legend

- Wildlife Movement/Road Intersections–Overcrossing
- Wildlife Movement/Road Intersections–Undercrossing
- Movement Flow*

*NOTE: All "Wildlife Movement/Road Intersections" indicate through movement in both directions.

0 800 1600 Feet

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SEPT•24•1993 rev 10/94 rev. 5/95 **rev. 7/95**

1627ER01

exhibit **5.3-4**

Wildlife Movement/Road Intersections

Tesoro del Valle

SOURCE: Hunsaker & Associated, 1994.

In order to reduce the amount of potential human disturbance to San Francisquito Canyon and the SEA, an educational pamphlet, to be distributed at the time of home sale, will be developed that will address the following:

- SEA No. 19 and its ecological significance.
- Sensitive biological resources in the area.
- Living in a fire-prone area.
- Living in a transitional zone between natural and developed areas.

The project would develop residential uses within the SEA. However, with the incorporation of mitigation measures, project direct impacts to biological resources within the SEA would be mitigated to a level considered less than significant. However, indirect impacts associated with human activity cannot be fully mitigated due to the inability to fully control human activity. As a result, indirect impacts on the SEA are considered potentially significant.

UNAVOIDABLE ADVERSE IMPACTS

The project will result in the removal of 871 acres of native vegetation and 209 acres of non-native vegetation. After implementation of the mitigation measures listed above, the impacts to native vegetation communities onsite are considered to be mitigated to a less than significant level. The loss of approximately 807 acres of chamise chaparral will reduce the available habitat for several sensitive wildlife species, including the coast horned lizard and coastal western whiptail, silvery legless lizard, coastal rosy boa, coast patch-nosed snake, San Bernardino ringneck snake, San Bernardino Mountain kingsnake, Bell's sage sparrow, Southern California rufus-crowned sparrow, southern grasshopper mouse, San Diego desert woodrat, and San Diego black-tailed jackrabbit. The loss of habitat for these sensitive species is considered a significant impact of the project.

The project will also result in the interruption of wildlife movement across the site. The site provides a link between the Angeles National Forest to the north and the Santa Clara river to the south. San Francisquito Canyon Creek is the most important movement corridor crossing the site. No interruption of this corridor will result from the project. The project will interrupt other movement corridors on the site, however. While the project design provides for wildlife movement, the interruption of movement corridors on the site is considered a significant impact of the project.

SEATAC has found the project to be incompatible with the SEA. Overall, the project would result in significant impacts from loss of habitat and interruption of wildlife movement. All other impacts to biological resources on the site can be mitigated to a level considered less than significant.

5.4 *TRAFFIC AND CIRCULATION*

This section incorporates information from the traffic and circulation analysis, located in Technical Appendix D, prepared by Barton-Aschman Associates for the proposed project. The County of Los Angeles Traffic Analysis Guidelines require analysis of the following scenarios: (1) existing traffic conditions; (2) existing plus ambient growth; (3) existing plus ambient growth plus project at buildout; and (4) Year 2000 conditions with related projects plus the proposed project (for cumulative analysis). The traffic report also includes a cumulative scenario consisting of buildout of the project assuming buildout of existing County of Los Angeles and City of Santa Clarita General Plans, along with analysis of additional scenarios not required by the Traffic Analysis Guidelines. This section focuses on these scenarios required by the County. Also, see related circulation, access, and phasing discussion under circulation improvements in Section 3, Project Description.

The scope of analysis for the traffic report was mutually identified by the County of Los Angeles Public Works Department and the City of Santa Clarita. Existing traffic conditions (1993) were collected through weekday morning and evening peak hour traffic counts taken in April of 1993 by Wiltec.

ENVIRONMENTAL SETTING

Roadway System

The characteristics of the long-term roadway system in the project area are as follows:

- Regional access to the Santa Clarita Valley is provided by I-5 (Golden State Freeway) and SR-14 (Antelope Valley Freeway). In the area most relevant to this analysis, access via I-5 is provided via interchanges at SR-126/Henry Mayo Drive, Rye Canyon Road/The Old Road, Magic Mountain Parkway, Valencia Boulevard, and McBean Parkway. Access via SR-14 is provided via San Fernando Road.

- Local access for the study area is provided by the following arterial roadways: Bouquet Canyon Road, Copper Hill Drive, Decoro Drive, Haskell Canyon Road, Magic Mountain Parkway, McBean Parkway, Newhall Ranch Road, Rye Canyon Road, Seco Canyon Road, San Fernando Road, and Soledad Canyon Road.

It should be noted that the roadway network in the Santa Clarita area was heavily damaged as a result of the January 17, 1994, Northridge earthquake. Consequently, travel patterns were altered dramatically until damaged portions of I-5 and SR-14 were repaired. Currently, all repairs to the

I-5 North ramps-Valencia Boulevard, I-5 South ramps-Valencia Boulevard, I-5 North ramps-McBean Parkway, and I-5 South ramps-McBean Parkway.

As required by the County of Los Angeles and the City of Santa Clarita, weekday morning and evening peak-hour traffic counts were conducted at the 21 existing study intersections. These counts were conducted in April 1993 at the request of Barton-Aschman by WILTEC, a traffic data research company. These data are illustrated on Exhibit 5.4-1 (weekday morning peak hour) and Exhibit 5.4-2 (weekday evening peak hour).

Level-of-Service Concept

The "quality of flow" on a street system typically is described by transportation planners in terms of level of service. As discussed in Table 5.4-1, levels of service range from A to F, with Level A indicating virtually no delay or congestion and Level F representing essentially total intersection breakdown with stop-and-go operation. In most urbanized areas, the limit of acceptable operation normally is considered to be Level D, with a maximum volume-to-capacity ratio of 0.90. (Refer to Table 5.4-1.) However, in unincorporated areas of the county, the County of Los Angeles considers 0.85 to be the maximum acceptable volume-to-capacity ratio, thereby striving for the mid-range of Level D.

Level-of-Service Analysis

In calculating level of service, the Intersection Capacity Utilization (ICU) method was utilized. For intersections located within the City of Santa Clarita, ICU parameters (such as vehicular saturation flow rates and clearance intervals) required by the City were utilized; for those intersections located within unincorporated areas of the County of Los Angeles, ICU parameters required by the County were utilized.

Based upon the existing intersection lane configurations illustrated on Exhibit 5.4-3 and the existing peak-hour volumes on Exhibits 5.4-1 and 5.4-2, level-of-service analyses for existing conditions were generated. The results of these ICU analyses are summarized in Table 5.4-2. The computer-generated ICU analyses are reproduced in the supplementary report *Technical Appendix—Site Traffic Impact Analysis of Tesoro del Valle, Santa Clarita Valley, County of Los Angeles,* August 27, 1993, on file with the County of Los Angeles Department of Public Works, Traffic and Lighting Division.)

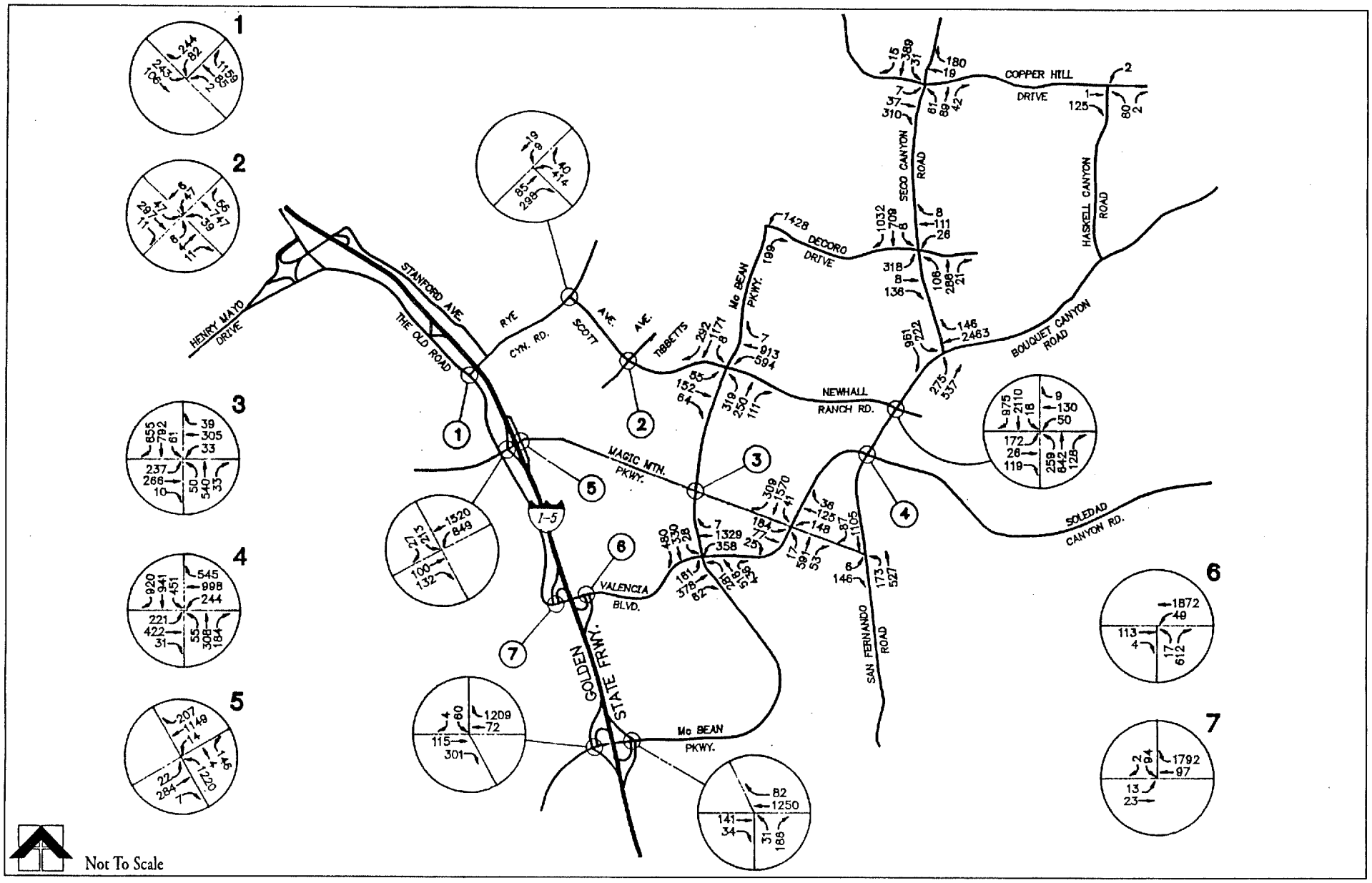

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exhibit **5.4-1**

Existing (1993) Volumes - A.M. Peak Hour

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Barton-Aschman Associates, Inc.

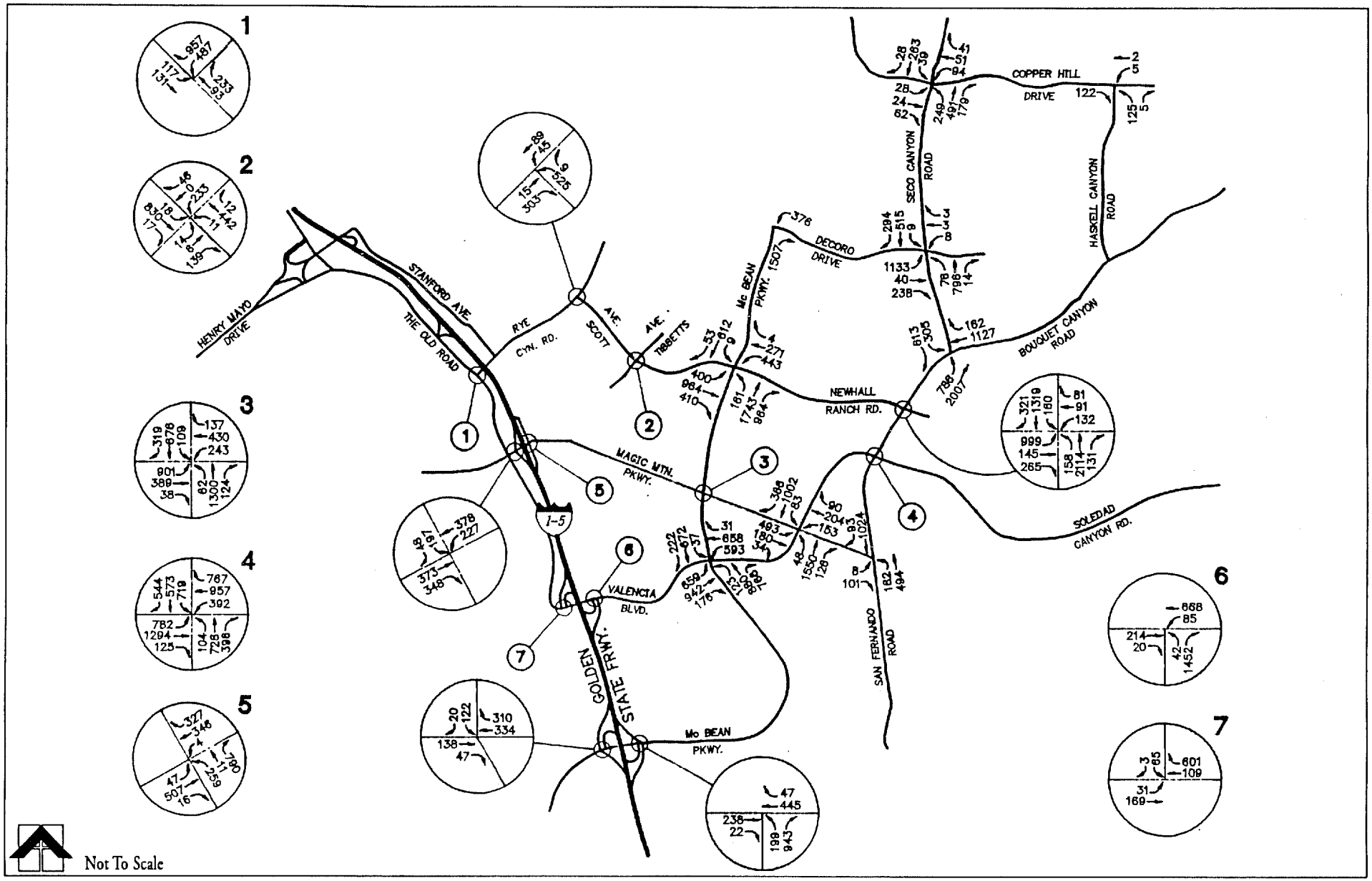

exhibit **5.4-2**

Existing (1993) Volumes - P.M. Peak Hour

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SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Barton-Aschman Associates, Inc.

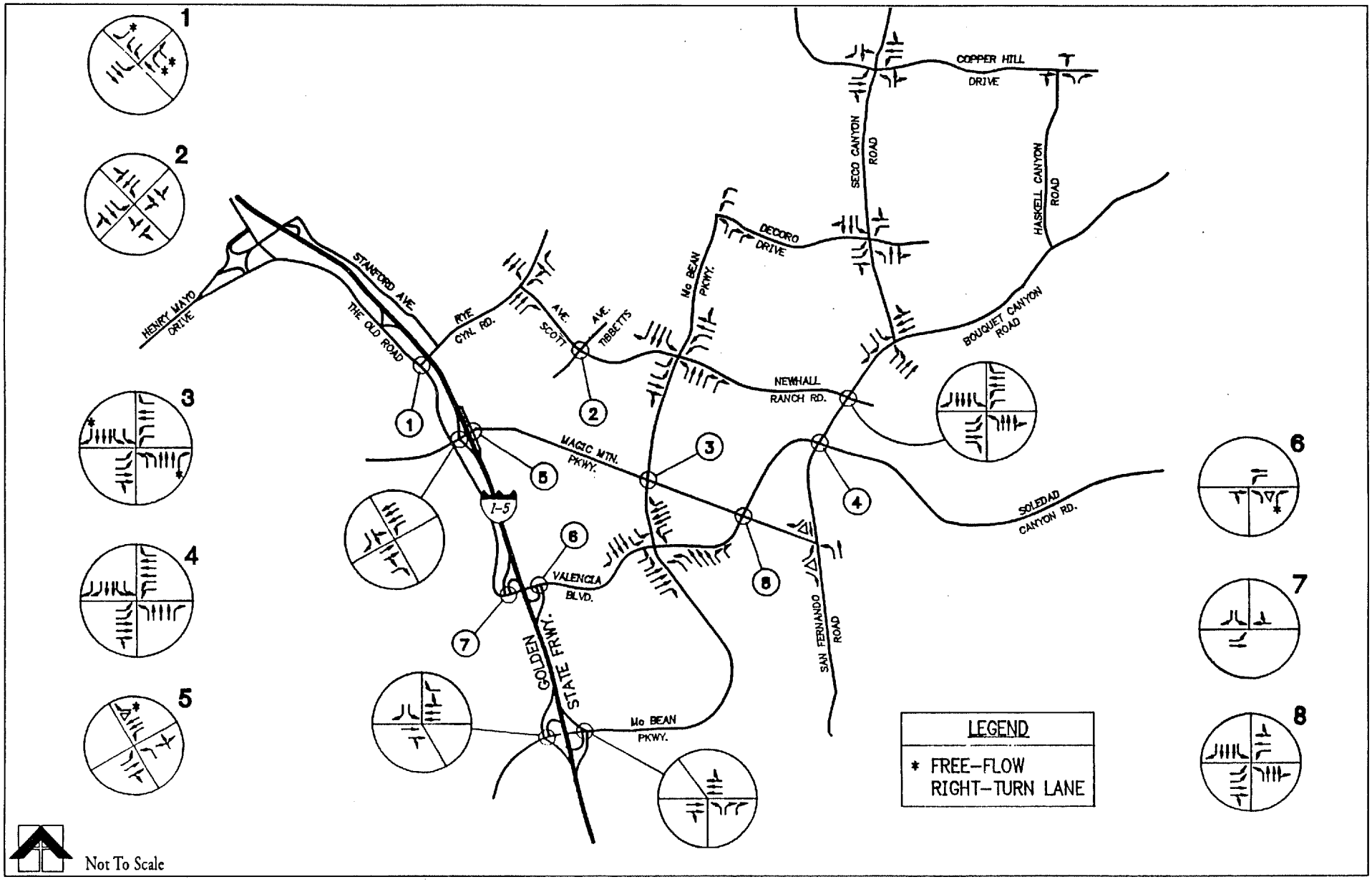

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exhibit **5.4-3**

Existing Intersection Configurations

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Barton-Aschman Associates, Inc.

TABLE 5.4-2
EXISTING WEEKDAY LEVELS OF SERVICE

Intersection	A.M. Peak Hour		P.M. Peak Hour	
	ICU[1]	LOS[2]	ICU[1]	LOS[2]
Copper Hill Dr.-Haskell Canyon Rd.	0.23	A	0.18	A
Copper Hill Dr.-Seco Canyon Rd.	0.60	A	0.78	C
Seco Canyon Rd.-Decoro Dr.	**0.87**	**D**	0.76	C
McBean Pkwy.-Decoro Dr.	0.60	A	0.58	A
Bouquet Canyon Rd.-Seco Canyon Rd.	**0.92**	**E**	**0.90**	**D**
Bouquet Canyon Rd.-Newhall Ranch Rd.	**0.92**	**E**	**1.04**	**F**
McBean Pkwy.-Newhall Ranch Rd./Scott Av.	**0.97**	**E**	**1.23**	**F**
Tibbetts Av.-Scott Av./Newhall Ranch Rd.	0.49	A	0.67	B
Rye Canyon Rd.-Scott Av.	0.25	A	0.28	A
Rye Canyon Rd.-The Old Rd.	0.33	A	0.40	A
Bouquet Canyon Rd.-Valencia Blvd./Soledad Canyon Rd.	0.71	C	**1.03**	**F**
Magic Mountain Pkwy.-Bouquet Canyon Rd./San Fernando Rd.	**0.86**	**D**	0.82	D
Magic Mountain Pkwy.-Valencia Blvd. city	0.57	A	0.76	C
Magic Mountain Pkwy.-McBean Pkwy. city-co	0.46	A	**0.86**	**D**
I-5 North ramps-Magic Mountain Pkwy.	**0.90**	**D**	0.74	C
I-5 South ramps-Magic Mountain Pkwy.	0.81	D	0.52	A
McBean Pkwy.-Valencia Blvd. city	0.78	C	0.69	B
I-5 North ramps-Valencia Blvd.	**1.23**	**F**	0.50	A
I-5 South ramps-Valencia Blvd.	**1.35**	**F**	0.60	B
I-5 North ramps-McBean Pkwy.	0.39	A	0.45	A
I-5 South ramps-McBean Pkwy.	0.48	A	0.28	A

[1] Intersection Capacity Utilization.
[2] Level of Service (refer to Table 5.4-1).
Note: Bolded intersections exceed the County's maximum threshold for congestion.

Source: Barton Aschman Associates 1993.

Under the general plan buildout analysis and analysis of impacts to Caltrans roadway segments, the project would result in a significant unavoidable impact if the project scenario V/C ratio exceeds 1.00 and the V/C increase due to project traffic is 0.01 or greater.

Methodology

Traffic analysis was completed for each phase of the project and for the project at buildout. To present all of the information for each of the analyzed scenarios, an excessive amount of information would have to be presented in this document. Instead, the analysis for the project at buildout is presented in this section. The remainder of the traffic analysis scenarios required by the Los Angeles County Public Works Department can be reviewed in the traffic appendix (See Technical Appendix D). Impacts to Caltrans roadways are identified within this section. In addition, this section addresses the cumulative and buildout scenarios of the project's traffic impacts. Each of these scenarios is identified separately within each subsection of this section.

Project Trip Generation

Based upon the land-use characteristics of the project, ITE vehicular trip generation rates associated with those land uses, and assumptions provided by the County of Los Angeles Department of Public Works, estimates of project-generated volumes were made. These estimates were made for the weekday morning peak hour, the weekday evening peak hour, and on a 24-hour basis. The results of this trip generation analysis are summarized in Table 5.4-3.

As Table 5.4-3 reveals, the project will generate approximately 30,680 *external* trips per day (15,340 inbound and 15,340 outbound) upon project buildout in year 2000.

Project Trip Distribution

The directional distribution of vehicular trips to/from the project site was based upon traffic volume output from the County of Los Angeles/City of Santa Clarita computerized travel-demand model; data contained in traffic studies conducted for other developments in the Santa Clarita Valley; and discussions with the County of Los Angeles and the City of Santa Clarita. Based upon these informational sources, the regional distribution of project traffic illustrated on Exhibit 5.4-4 was developed and utilized in this study.

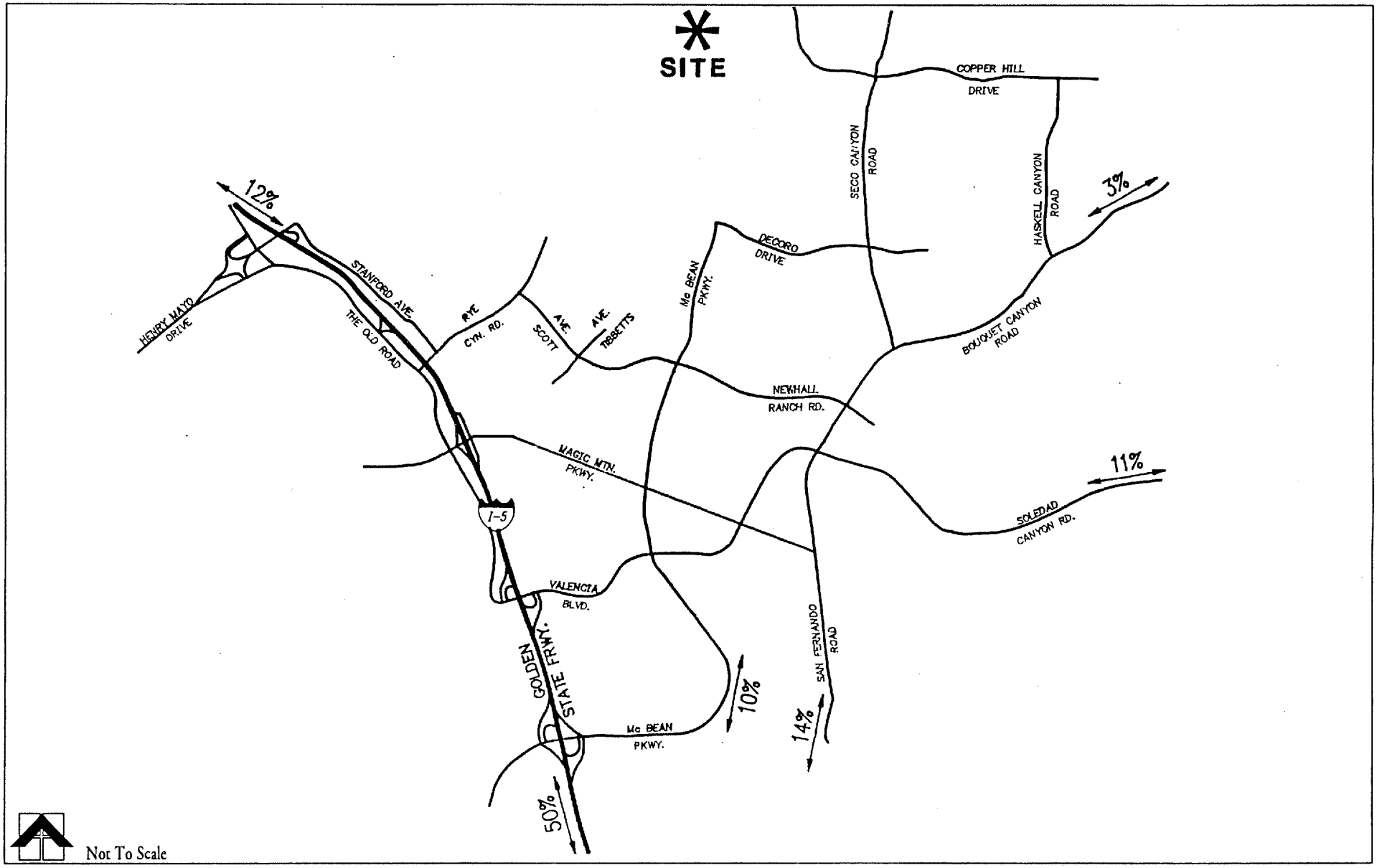

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exhibit **5.4-4**

Regional Project Distribution

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Barton-Aschman Associates, Inc.

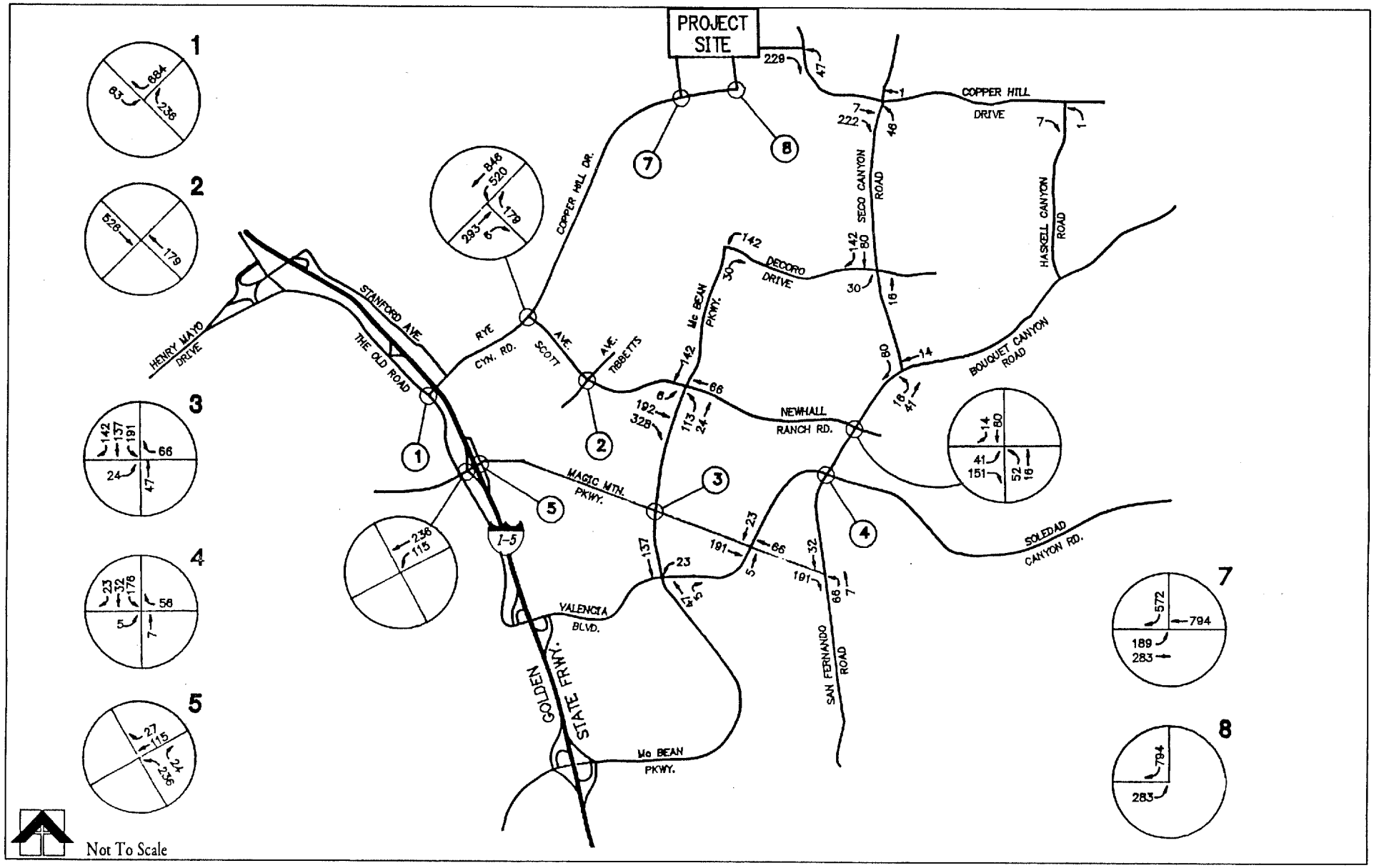

exhibit **5.4-5**

Project Buildout Volumes - A.M. Peak Hour

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SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Barton-Aschman Associates, Inc.

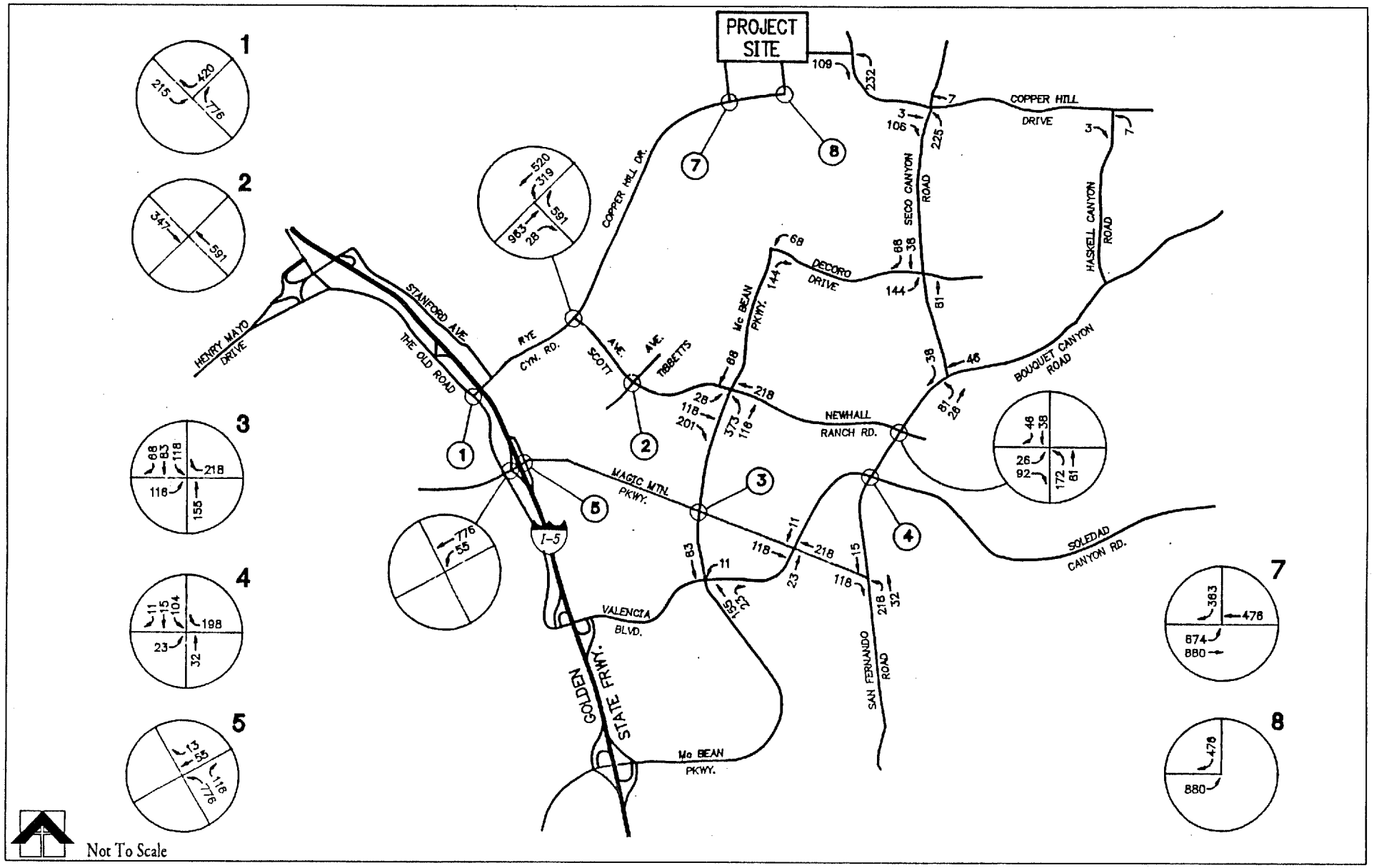

exhibit **5.4-6**

Project Buildout Volumes - P.M. Peak Hour

Michael Brandman Associates

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Barton-Aschman Associates, Inc.

a bridge over San Francisquito Creek) must be in place for Planning Areas B and C to record according to the Fire Department. The alignment of this easterly extension still requires approval from several entities, including the County Interdepartmental Engineering Committee, SEATAC, California Department of Fish and Game, and the Army Corps of Engineers.

With respect to Planning Area D access, the Copper Hill Drive extension was assumed to be supplemented by site access via San Francisquito Canyon Road to serve only the project development east of the San Francisquito Creek. No other roadway improvements for project access were assumed.

Project Impact Analysis

Future (2000) Ambient/Non-Project Traffic Volumes

The future (2000) ambient/non-project traffic conditions refer to the traffic volumes at the time of completion of the project in 2000 excluding project-generated traffic and including a nominal expansion of existing (1993) volumes based upon a historical "background" or ambient traffic growth factor. The purpose of defining this particular condition is to provide a level-of-service benchmark against which project-generated impacts can be compared.

In order to evaluate the relative traffic impacts of the proposed project, it is first necessary to establish the future non-project traffic condition, i.e., the "base" condition to which project-related impacts can be compared. For the 2000 ambient/non-project traffic conditions, the existing (1993) peak-hour volumes illustrated on Exhibit 5.4-1 (existing weekday morning peak-hour volumes) and Exhibit 5.4-2 (existing weekday evening peak-hour volumes) were expanded using a simple traffic growth factor of 2 percent per year. This factor was provided by the County of Los Angeles Department of Public Works.

Based upon the above criteria, projections of 2000 ambient/non-project traffic volumes were made. Exhibits 5.4-7 and 5.4-8 illustrate these volumes for the weekday morning and evening peak hours, respectively.

Future (2000) Ambient/Non-Project Plus Project Traffic Conditions

The future (2000) ambient/non-project plus project traffic conditions are determined by combining the ambient/non-project traffic volumes illustrated on Exhibits 5.4-7 and 5.4-8 (weekday morning peak hour and evening peak hour, respectively) with the project at buildout traffic volumes illustrated on

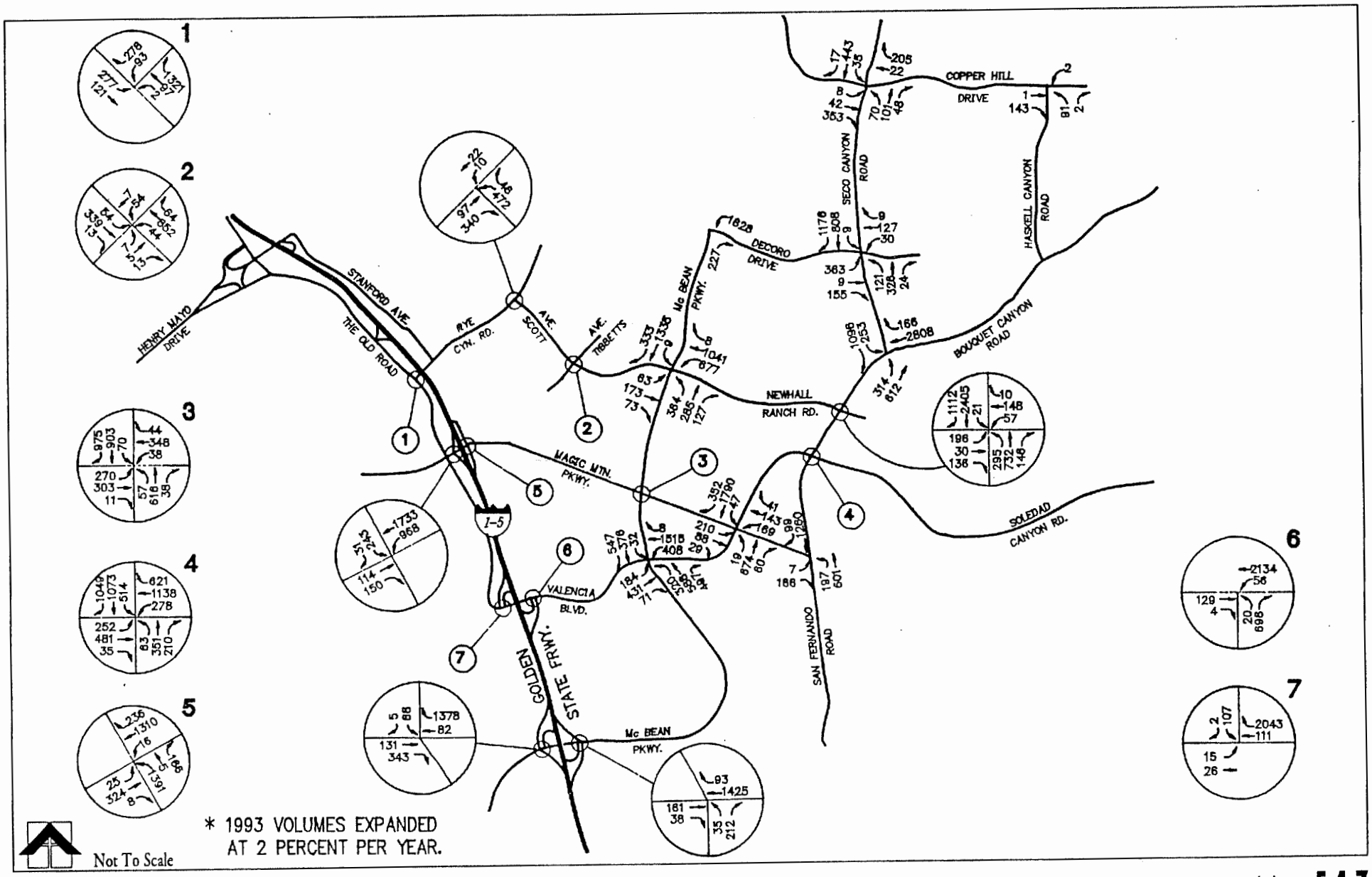

exhibit **5.4-7**

2000 Non-Project* Volumes - A.M. Peak Hour

Michael Brandman Associates

SEPT•24•1993

Tesoro del Valle

SOURCE: Barton-Aschman Associates, Inc.

1627ER01

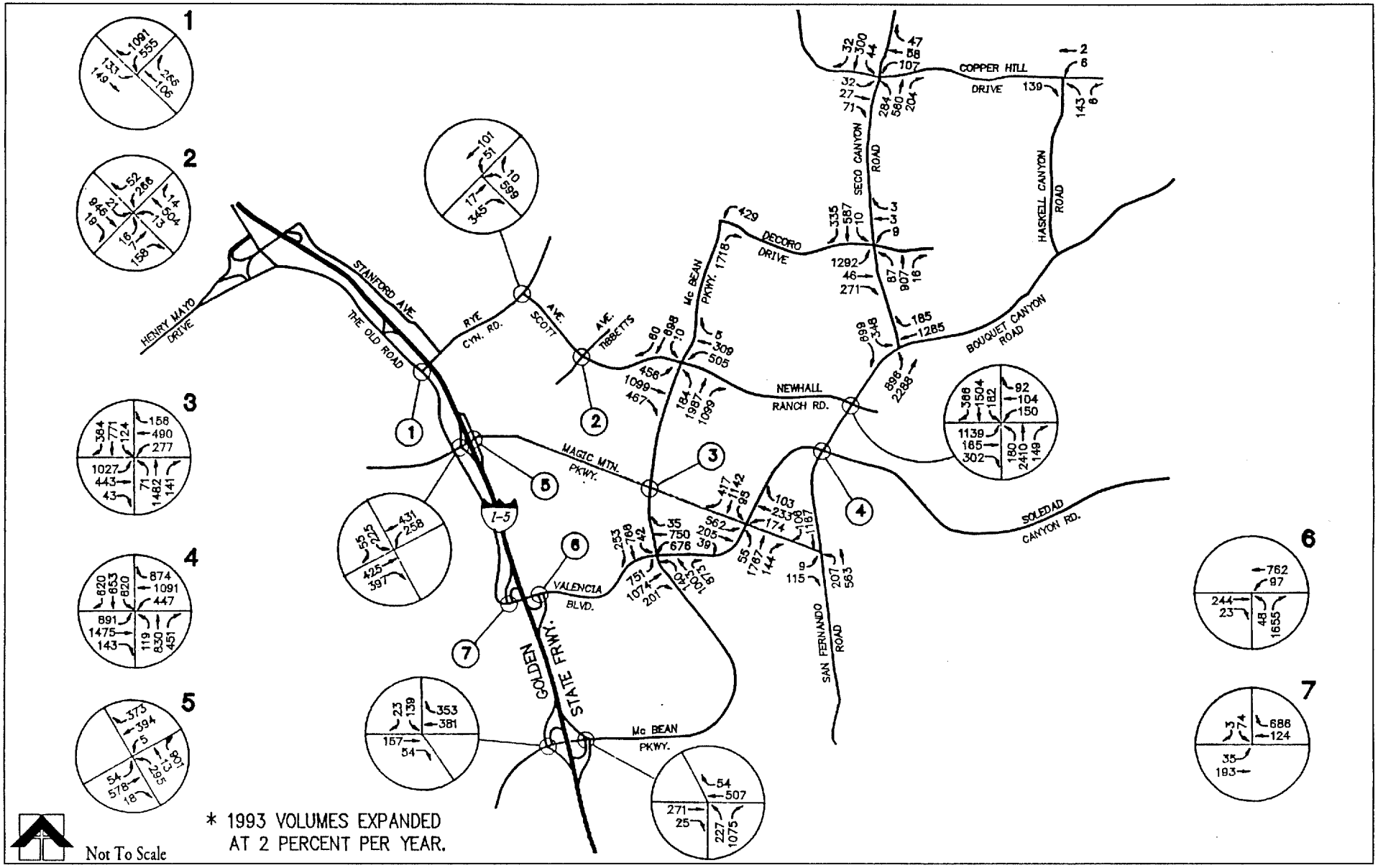

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exhibit **5.4-8**

2000 Non-Project* Volumes - P.M. Peak Hour

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Barton-Aschman Associates, Inc.

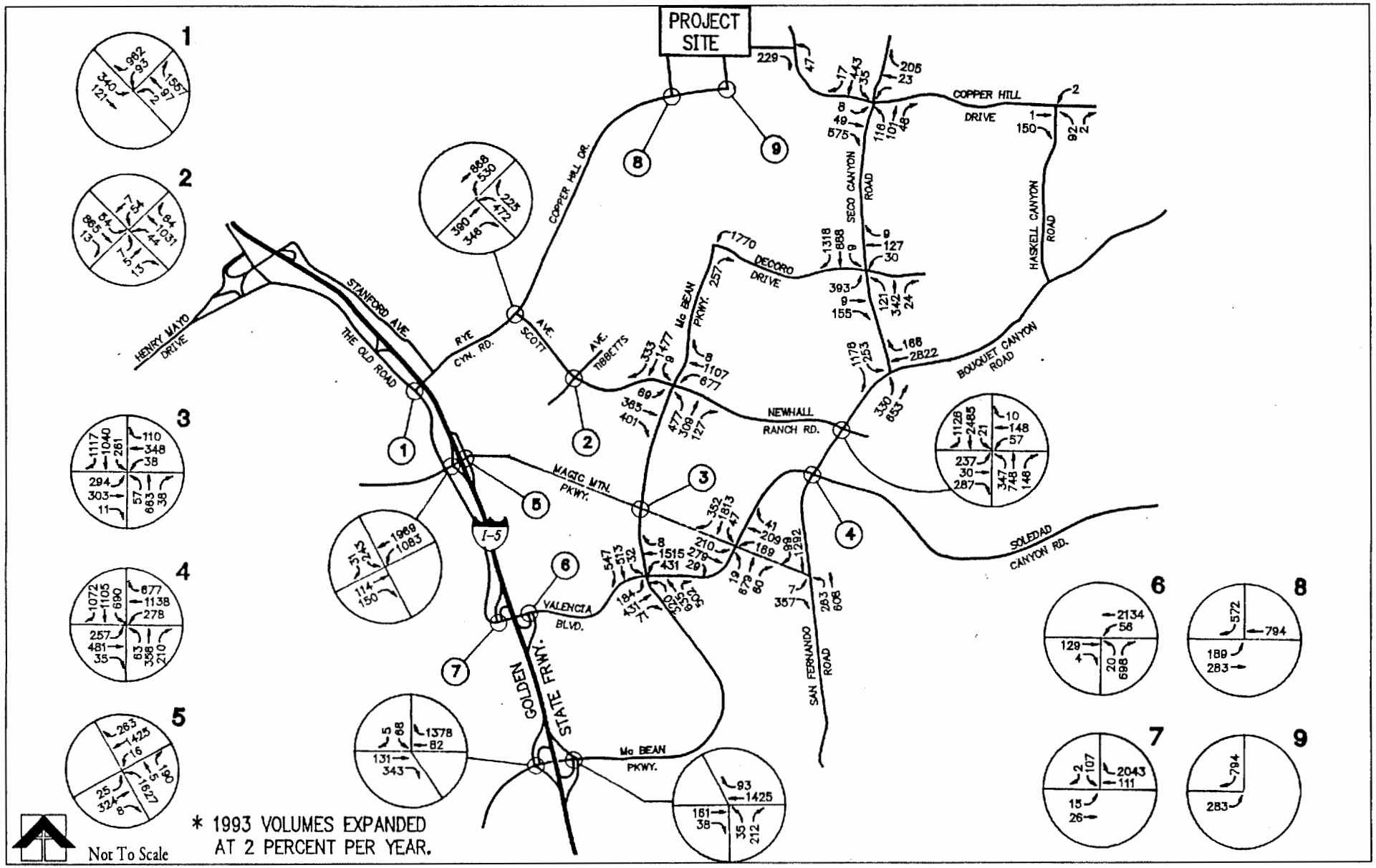


exhibit **5.4-9**

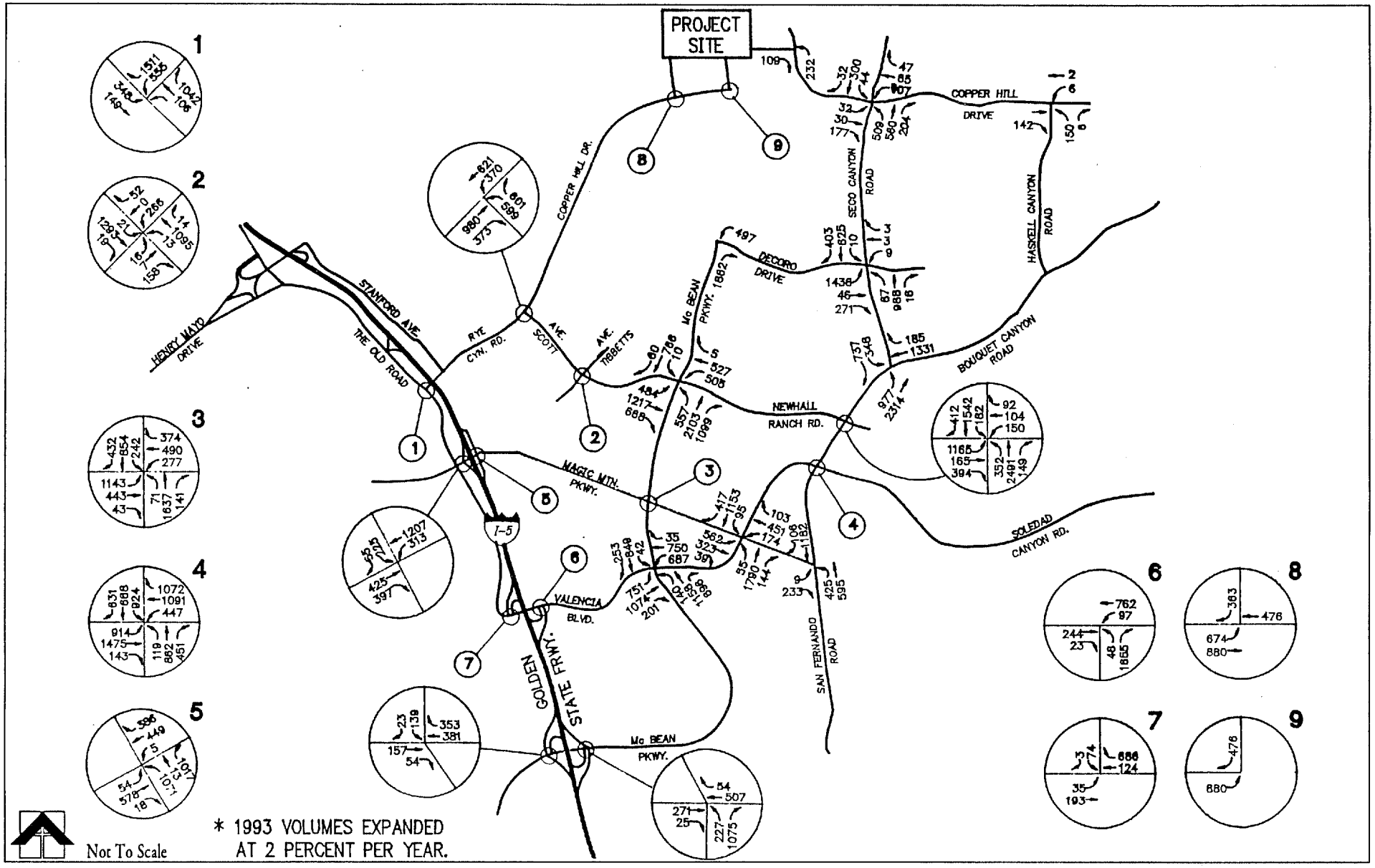
2000 Non-Project* Plus Project Buildout Volumes - A.M. Peak Hour

Michael Brandman Associates

SEPT•24•1993 **Tesoro del Valle**

1627ER01

SOURCE: Barton-Aschman Associates, Inc.



Michael Brandman Associates

exhibit **5.4-10**

2000 Non-Project* Plus Project Buildout Volumes - P.M. Peak Hour

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Barton-Aschman Associates, Inc.

TABLE 5.4-4

2000 WEEKDAY LEVELS OF SERVICE WITH AMBIENT NON-PROJECT VOLUMES A.M. PEAK HOUR

Intersection	Without Project		With Project		Project Impact	
	ICU[1]	LOS[2]	ICU[1]	LOS[2]	ICU[3]	Significant?[4]
Copper Hill Dr.-Haskell Canyon Rd.	0.25	A	0.25	A	0.00	No
Copper Hill Dr.-Seco Canyon Rd.	0.67	B	0.78	C	0.11	No
Seco Canyon Rd.-Decoro Dr.	0.98	E	1.07	F	0.09	Yes
McBean Pkwy.-Decoro Dr.	0.67	B	0.72	C	0.05	No
Bouquet Canyon Rd.-Seco Canyon Rd.	1.04	F	1.07	F	0.03	Yes
Bouquet Canyon Rd.-Newhall Ranch Rd.	1.03	F	1.08	F	0.05	Yes
McBean Pkwy.-Newhall Ranch Rd./Scott Av.	1.10	F	1.33	F	0.23	Yes
Tibbetts Av.-Scott Av./Newhall Ranch Rd.	0.55	A	0.77	C	0.22	No
Rye Canyon Rd.-Scott Av.	0.28	A	0.68	B	0.40	No
Rye Canyon Rd.-The Old Rd.	0.37	A	0.41	A	0.04	No
Bouquet Canyon Rd.-Valencia Blvd./Soledad Canyon Rd.	0.80	C	0.81	D	0.01	No
Magic Mountain Pkwy.-Bouquet Canyon Rd./San Fernando Rd.	0.97	E	1.09	F	0.12	Yes
Magic Mountain Pkwy.-Valencia Blvd.	0.64	B	0.70	B	0.06	No
Magic Mountain Pkwy.-McBean Pkwy.	0.51	A	0.55	A	0.04	No
I-5 North ramps-Magic Mountain Pkwy.	1.01	F	1.14	F	0.13	Yes
I-5 South ramps-Magic Mountain Pkwy.	0.91	E	0.98	E	0.07	Yes
McBean Pkwy.-Valencia Blvd.	0.87	D	0.87	D	0.00	No
I-5 North ramps-Valencia Blvd.	1.40	F	1.40	F	0.00	No
I-5 South ramps-Valencia Blvd.	1.52	F	1.52	F	0.00	No
I-5 North ramps-McBean Pkwy.	0.43	A	0.43	A	0.00	No
I-5 South ramps-McBean Pkwy.	0.53	A	0.53	A	0.00	No
Copper Hill Dr.-East Driveway	—	—	0.36	A	—	—
Copper Hill Dr.-West Driveway	—	—	0.53	A	—	—
San Francisquito Canyon Rd.-Driveway	—	—	0.27	A	—	—

1. Intersection Capacity Utilization.
2. Level of Service (refer to Table 5.4-1).
3. (ICU Without Project) - (ICU With Project).
4. ICU with project is greater than 0.85 and the ICU increase due to the project is greater than or equal to 0.01.

Source: Barton-Aschman Associates 1993.

The 11 intersections during the P.M. Peak Hour meeting the county's significance threshold are: Copper Hill Drive/Seco Canyon Road, Seco Canyon Road/Decoro Drive, Bouquet Canyon Road/Seco Canyon Road, Bouquet Canyon Road/Newhall Ranch Road, McBean Parkway-Newhall Ranch Road/Scott Avenue, Tibbetts Avenue-Scott Avenue/Newhall Ranch Road, Bouquet Canyon Road-Valencia Boulevard/Soledad Canyon Road, Magic Mountain Parkway-Bouquet Canyon Road/San Fernando Road, Magic Mountain Parkway/Valencia Boulevard, and I-5 northbound ramps/Magic Mountain Parkway.

Future (2000) State Highway Traffic Conditions

In response to comments received on the Notice of Preparation from Caltrans, traffic forecasts and level-of-service analyses indicating the impact of the proposed project on the State Highways (I-5, SR-14, and SR-126) in the study area were generated and presented in Table 5.4-6. For comparative purposes, the no-project scenario traffic forecasts and related level-of-service analyses on the State Highways are included in Table 5.4-6.

As Table 5.4-6 reveals, of the 37 freeway and roadway segments analyzed, 34 would experience no significant impact due to buildout of the proposed project, i.e., the segments' volume-to-capacity (V/C) ratios are identical with and without the proposed project and/or the with project ratios do not exceed 1.00 with an increase of 0.01 or greater, the threshold of significance. With respect to the remaining three segments (Magic Mountain Parkway between I-5 and Tourney Road, and SR-126/Newhall Ranch Road between Dickason Drive and McBean Parkway, and between McBean Parkway and Bouquet Canyon Road), the threshold of significance is exceeded. No feasible mitigation measures have been identified for these roadway segments due to right-of-way constraints. As a result, the proposed project would result in significant unavoidable impacts to these segments.

CUMULATIVE IMPACTS

Future (2000) Cumulative/Non-Project Traffic Volumes

The future (2000) cumulative/non-project traffic conditions refer to the total volumes at the time of completion of project buildout in 2000 excluding project-generated traffic and including (a) a nominal expansion of existing volumes based upon a historical "background" or ambient traffic growth factor and (b) traffic associated with other known projects ("related" projects) located in the study area. The purpose of defining this particular condition is to provide a level-of-service benchmark against which project-generated impacts can be compared.

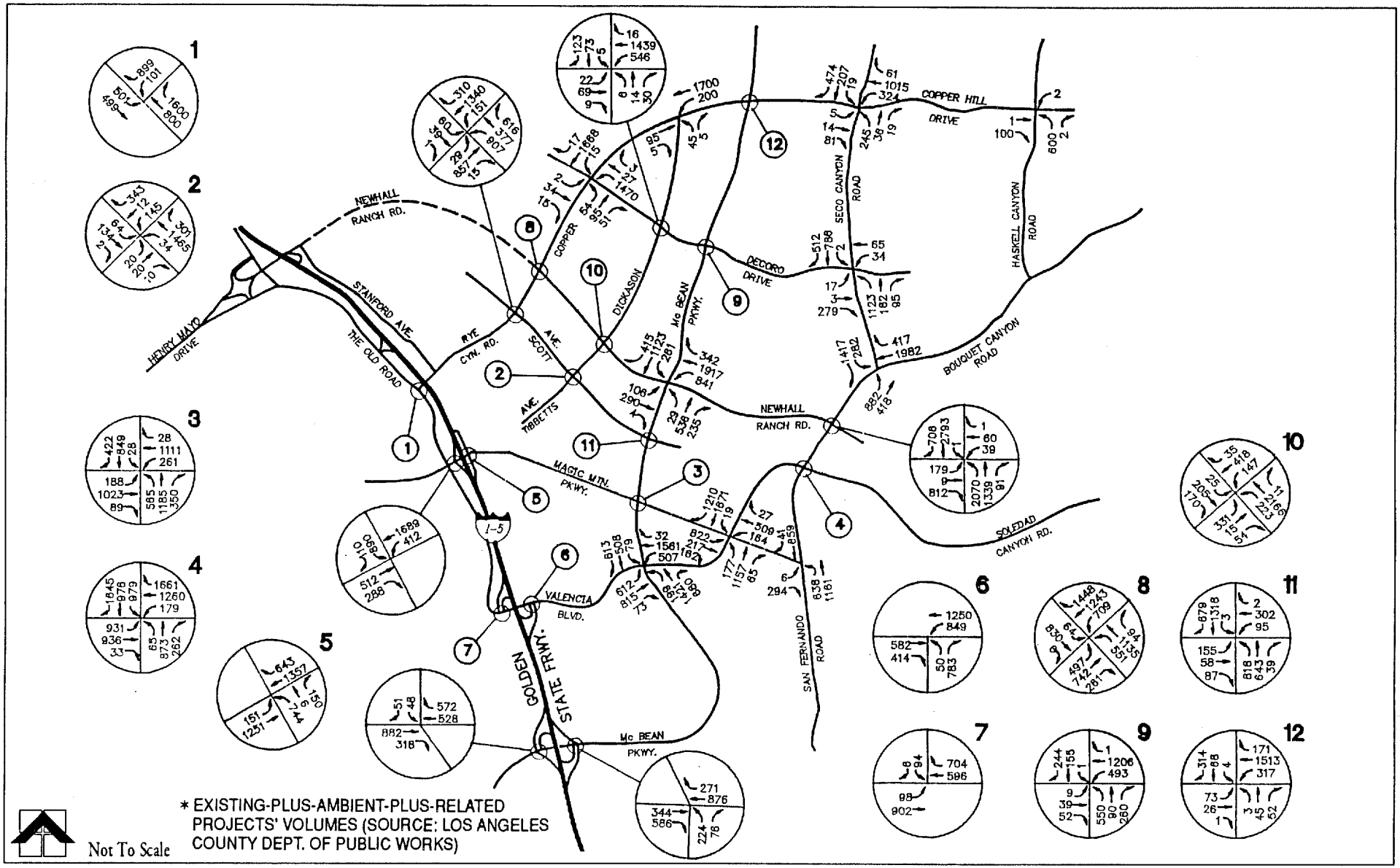


exhibit **5.4-11**

2000 Cumulative/Non-Project* Volumes With Newhall Ranch Road Extension to I-5 - A.M. Peak Hour

Michael Brandman Associates

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Barton-Aschman Associates, Inc.

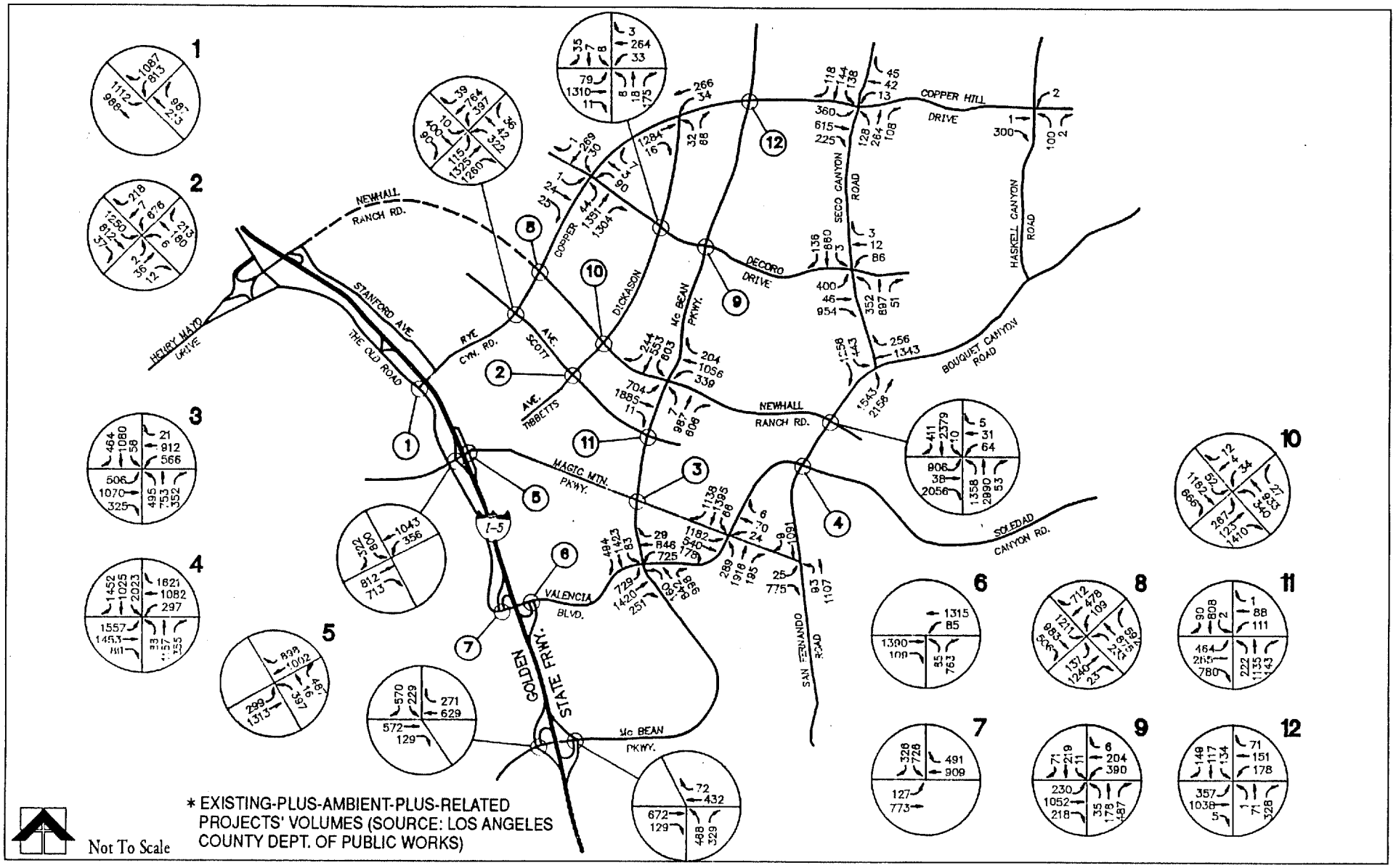


exhibit **5.4-12**

2000 Cumulative/Non-Project* Volumes With Newhall Ranch Road Extension to I-5 - P.M. Peak Hour

Michael Brandman Associates

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Barton-Aschman Associates, Inc.

TABLE 5.4-6

LEVELS-OF-SERVICE OF I-5, SR-14, AND SR-126 WITH AND WITHOUT PROPOSED PROJECT[a]

Route	Segment Location	Without Tesoro del Valle[b]				With Tesoro del Valle[c]			
		NB or EB		SB or WB		NB or EB		SB or WB	
		ADT[d]	V/C	ADT[d]	V/C	ADT[d]	V/C	ADTd[d]	V/C
I-5 (N/S)	SR-14 to Calgrove Blvd.	96	0.85	109	0.97	96	0.85	109	0.97
	Calgrove Blvd. to Lyons Ave.	89	0.79	102	0.91	89	0.79	102	0.91
	Lyons Ave. to McBean Pkwy.	82	0.73	97	0.86	82	0.73	96	0.85
	McBean Pkwy. to Valencia Blvd.	72	0.64	89	0.79	72	0.64	89	0.79
	Valencia Pkwy. to Magic Mtn. Pkwy.	66	0.73	84	0.93	65	0.72	85	0.94
	Magic Mtn. Pkwy. to Rye Canyon Rd./The Old Rd.	61	0.68	85	0.94	60	0.67	85	0.94
	Rye Canyon Rd./The Old Rd. to SR-126	61	0.68	83	0.92	60	0.67	84	0.93
	SR-126 to Backer Rd.	56	0.62	74	0.82	56	0.62	74	0.82
SR-14 (NS)	I-5 to San Fernando Rd.	97	0.72	105	0.78	96	0.71	104	0.77
	San Fernando Rd. to Placerita Canyon Rd.	82	0.73	98	0.87	81	0.72	97	0.86
	Placerita Canyon Rd. to Golden Valley Rd.	77	0.68	91	0.81	77	0.68	90	0.80
	Golden Valley Rd. to Via Princessa	75	0.67	88	0.78	75	0.67	89	0.79
	Via Princessa to Sand Canyon Rd.	65	0.72	80	0.89	65	0.72	80	0.89
	Sand Canyon Rd. to Soledad Canyon Rd.	63	0.70	79	0.88	62	0.69	78	0.87
	Soledad Canyon Rd. to Agua Dulce Canyon Rd.	58	0.64	74	0.82	57	0.63	73	0.81

TABLE 5.4-6 (continued)

		Without Tesoro del Valle[b]				With Tesoro del Valle[c]			
		NB or EB		SB or WB		NB or EB		SB or WB	
SR-126/Newhall Ranch Rd. (EW) (Future Alignment)	Golden Valley Rd. to Soledad Canyon Rd.	38	0.68	38	0.68	37	0.66	37	0.66
	Soledad Canyon Rd. to Whites Canyon Rd.	34	0.61	34	0.61	34	0.61	33	0.59
	Whites Canyon Rd. to Via Princessa ramps	48	0.86	45	0.80	47	0.84	45	0.80
	Via Princessa Ramps to SR-14	42	0.75	44	0.79	42	0.75	43	0.77

[a] Source: County of Los Angeles Department of Public Works, Planning Division, February 23, 1994.
[b] Includes 1,000 residential units within Tesoro del Valle per the existing County of Los Angeles General Plan.
[c] Includes 3,029 residential units, two elementary schools, a racquet club, to a 40,000-square-foot commercial development within the proposed project
[d] Average daily traffic expressed in thousands of vehicles.
Note: Bolded intersections represent significant impacts.

Source: Barton Aschman Associates 1994

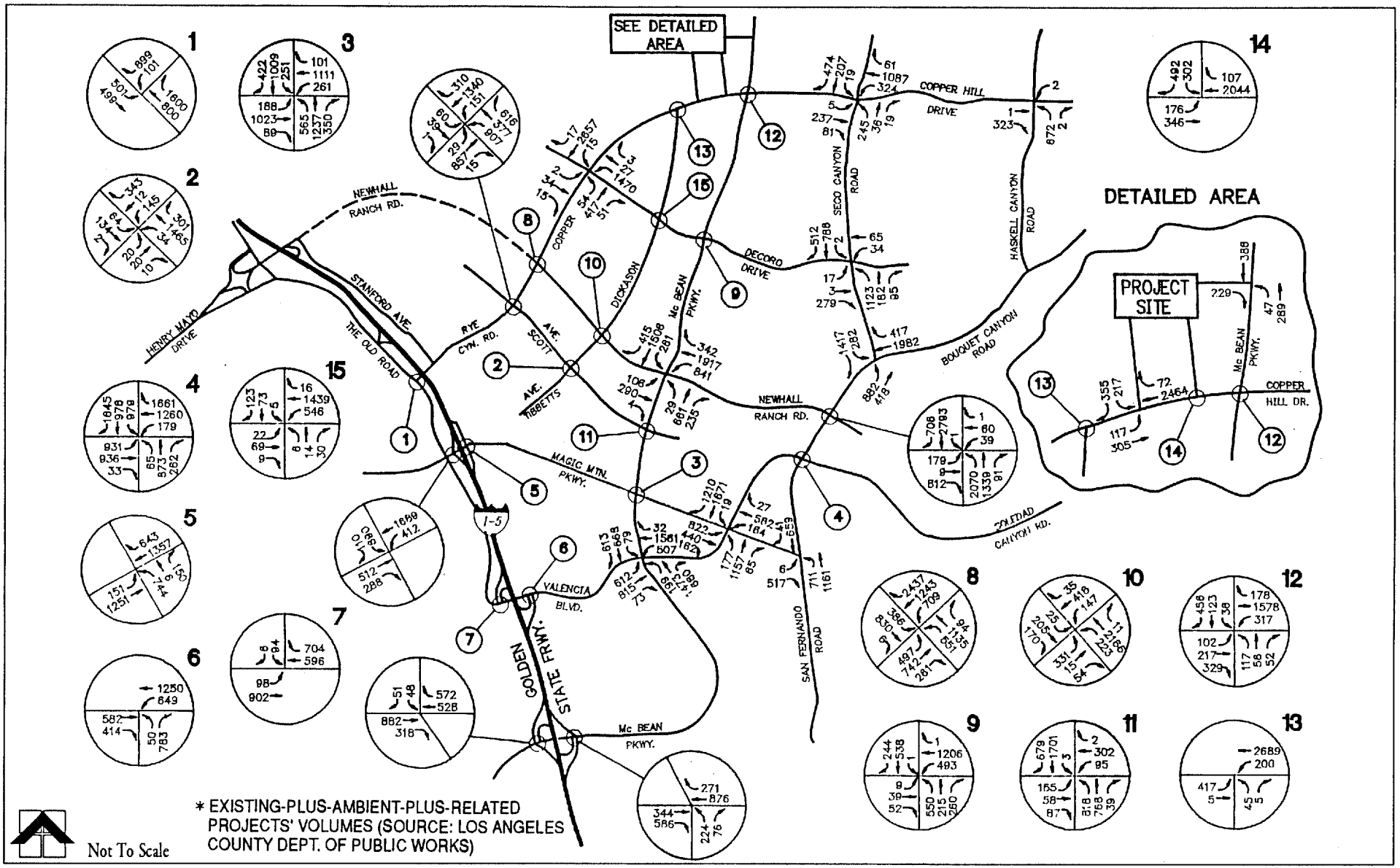


exhibit **5.4-13**

2000 Cumulative/Non-Project* Plus Project Buildout Volumes With Newhall Ranch Road Extension to I-5 - A.M. Peak Hour

Michael Brandman Associates

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Barton-Aschman Associates, Inc.

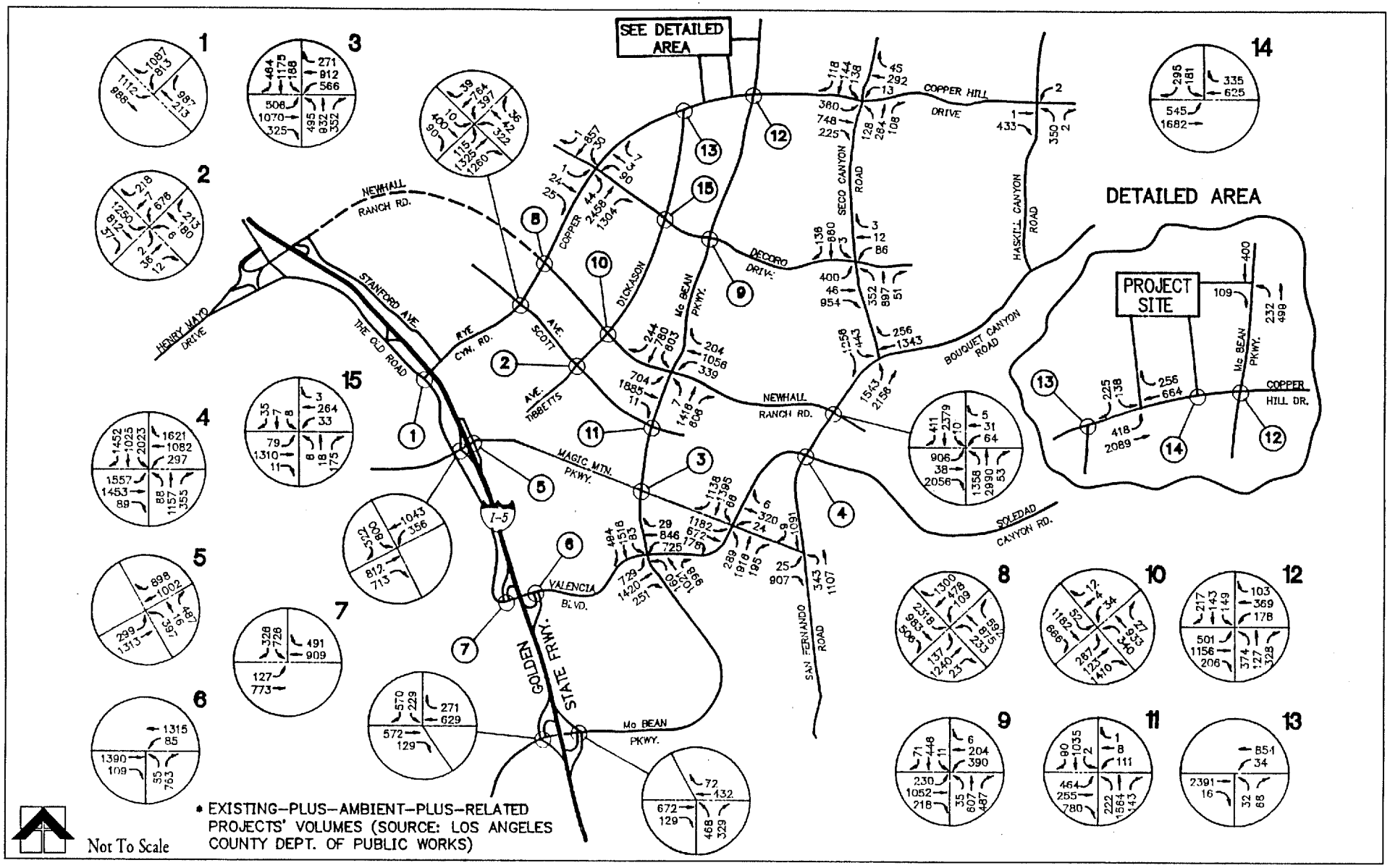


exhibit **5.4-14**

2000 Cumulative/Non-Project* Plus Project Buildout Volumes With Newhall Ranch Road Extension to I-5 - P.M. Peak Hour

Michael Brandman Associates

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Barton-Aschman Associates, Inc.

computer-generated ICU analyses are reproduced in the supplementary report *Technical Appendix—Site Traffic Impact Analysis of Tesoro del Valle, Santa Clarita Valley, County of Los Angeles*, August 27, 1993, and are on file with the County of Los Angeles Department of Public Works, Traffic and Lighting Division.)

As Table 5.4-7 shows, during the cumulative 2000 weekday morning peak hour, a total of 11 of the 31 study intersections will require mitigation in order to not be significantly affected by project buildout traffic based upon County of Los Angeles significance criteria, i.e., if an intersection's with-project ICU is greater than 0.85 and the ICU increase due to the project is 0.01 or more, measures must be pursued which mitigate one or both of said criteria.

As shown in Table 5.4-7, the 11 of the 31 intersections during the A.M. Peak Hour that meet the county's significance threshold are: Copper Hill Drive/Seco Canyon Road, McBean Parkway/Decoro Drive, McBean Parkway/Newhall Ranch Road, Magic Mountain Parkway-Bouquet Canyon Road/San Fernando Road, Magic Mountain Parkway/Valencia Boulevard, Magic Mountain Parkway/McBean Parkway, McBean Parkway/Valencia Boulevard, Copper Hill Drive/McBean Parkway, Copper Hill Drive/Decoro Drive, Copper Hill Drive/Newhall Ranch Road, Avenue Scott/McBean Parkway.

As Table 5.4-8 shows, during the cumulative 2,000 weekday evening peak hour, a total of nine of the 31 intersections will be significantly impacted by project buildout traffic based upon the aforementioned County of Los Angeles significance criteria.

As shown in Table 5.4-8, the nine of the 31 intersections during the P.M. Peak Hour that meet the county's significance threshold are: McBean Parkway/Decoro Drive, McBean Parkway/Newhall Ranch Road, Magic Mountain Parkway-Bouquet Canyon Road/San Fernando Road, Magic Mountain Parkway/Valencia Boulevard, Magic Mountain Parkway/McBean Parkway, McBean Parkway/Valencia Boulevard, Copper Hill Drive/McBean Parkway, Copper Hill Drive/Newhall Ranch Road, Avenue Scott/McBean Parkway.

Future Cumulative (Buildout of County and City General Plans)/Non-Project Plus Project Traffic Conditions, Year 2030

At the request of the County of Los Angeles Department of Public Works, Planning Division, traffic impacts generated by the proposed project have been further examined assuming buildout of the existing County of Los Angeles General Plan and the existing City of Santa Clarita General Plan (Year 2030). Because the project applicant is requesting a general plan amendment, this additional level of analysis, which is not performed for projects that do not seek to amend the general plan, was required by the Transportation Planning Division.

TABLE 5.4-8
2000 WEEKDAY LEVELS OF SERVICE WITH CUMULATIVE NON-PROJECT VOLUMES - P.M. PEAK HOUR
(With Newhall Ranch Road Extension to I-5)

Intersection	Without Project		With Project		Project Impact	
	ICU[1]	LOS[2]	ICU[1]	LOS[2]	ICU[3]	Signif.?[4]
Copper Hill Dr.-Haskell Canyon Rd.	0.35	A	0.59	A	0.24	No
Copper Hill Dr.-Seco Canyon Rd.	0.78	C	0.84	D	0.06	No
Seco Canyon Rd.-Decoro Dr.	1.24	F	1.24	F	0.00	No
McBean Pkwy.-Decoro Dr.	0.83	D	0.94	E	0.11	Yes
Bouquet Canyon Rd.-Seco Canyon Rd.	1.21	F	1.21	F	0.00	No
Bouquet Canyon Rd.-Newhall Ranch Rd.	1.90	F	1.90	F	0.00	No
McBean Pkwy.-Newhall Ranch Rd.	1.50	F	1.63	F	0.13	Yes
Av. Tibbetts-Av. Scott	1.44	F	1.44	F	0.00	No
Rye Canyon Rd.-Av. Scott	1.42	F	1.42	F	0.00	No
Rye Canyon Rd.-The Old Rd.	1.21	F	1.21	F	0.00	No
Bouquet Canyon Rd.-Valencia Blvd./Soledad Canyon Rd.	1.97	F	1.97	F	0.00	No
Magic Mountain Pkwy.-Bouquet Canyon Rd./San Fernando Rd.	1.22	F	1.31	F	0.09	Yes
Magic Mountain Pkwy.-Valencia Blvd.	1.05	F	1.13	F	0.08	Yes
Magic Mountain Pkwy.-McBean Pkwy.	1.13	F	1.15	F	0.02	Yes
I-5 North ramps-Magic Mountain Pkwy.	0.90	D	0.90	D	0.00	No
I-5 South ramps-Magic Mountain Pkwy.	1.14	F	1.14	F	0.00	No
McBean Pkwy.-Valencia Blvd.	0.99	E	1.01	F	0.02	Yes
I-5 North ramps-Valencia Blvd.	1.10	F	1.10	F	0.00	No
I-5 South ramps-Valencia Blvd.	1.51	F	1.51	F	0.00	No
I-5 North ramps-McBean Pkwy.	0.61	B	0.61	B	0.00	No
I-5 South ramps-McBean Pkwy.	0.68	B	0.68	B	0.00	No
Copper Hill Dr.-McBean Pkwy.	0.61	B	0.97	E	0.36	Yes
Copper Hill Dr.-Dickason Dr.	0.41	A	0.64	B	0.23	No
Copper Hill Dr.-Decoro Dr.	0.49	A	0.72	C	0.23	No
Decoro Dr.-Dickason Dr.	0.66	B	0.66	B	0.00	No
Copper Hill Dr.-Newhall Ranch Rd.	1.43	F	2.18	F	0.75	Yes
Newhall Ranch Rd.-Dickason Dr.	1.37	F	1.37	F	0.00	No
Av. Scott-McBean Pkwy.	0.92	E	1.05	F	0.13	Yes
Copper Hill Dr.-East Driveway	—	—	0.59	A	—	—
Copper Hill Dr.-West Driveway	—	—	0.61	B	—	—
San Francisquito Canyon Rd.-Driveway	—	—	0.56	A	—	—

1. Intersection Capacity Utilization.
2. Level of Service (refer to Table 5.4-1).
3. (ICU Without Project) - (ICU With Project).
4. ICU with project is greater than 0.85 and the ICU increase due to the project is greater than or equal to 0.01.
5. Intersection cannot be mitigated within existing right-of-way.

Source: Barton-Aschman Associates 1993.

TABLE 5.4-9
GENERAL PLAN BUILDOUT LEVELS OF SERVICE WITH AND WITHOUT PROPOSED PROJECT

Street	Segment Location	Without Project[2]		With Project but Without Widening of Copper Hill Drive[3]			With Project and With Widening of Copper Hill Drive[5]		
		NB or EB V/C	SB or WB V/C	NB or EB V/C	SB or WB V/C	Significant Impact[4]	NB or EB V/C	SB or WB V/C	Significant Impact[4]
Copper Hill Drive (E/W)	East of Haskell Cyn. Rd.	0.23	0.24	0.24	0.26	No	0.24	0.26	No
	Between Haskell and Seco Cyn. Rd.	0.64	0.65	0.66	0.66	No	0.66	0.66	No
	Between Seco Cyn. Rd. and McBean Pkwy.	0.65	0.65	0.67	0.68	No	0.67	0.68	No
	Between McBean Pkwy. and Dickason Dr.	0.53	0.54	0.66	0.65	No	0.66	0.65	No
	Between Dickason Dr. and Decoro Rd.	0.46	0.46	0.52	0.52	No	0.53	0.53	No
	Between Decoro Rd. and Newhall Ranch Rd.	1.11	1.12	1.14	1.15	Yes	0.90	0.90	No
Rye Canyon Road (N/S)	Between Newhall Ranch Rd. and Ave. Scott	1.02	1.02	1.05	1.02	Yes	0.92	0.87	No
	Between Ave. Scott and I-5	0.57	0.59	0.58	0.60	No	0.59	0.61	No
Haskell Canyon Road (N/S)	North of Copper Hill Rd.	0.76	0.76	0.76	0.76	No	0.77	0.76	No
	Between Copper Hill Dr. and Bouquet Cyn. Rd.	0.52	0.55	0.52	0.54	No	0.52	0.55	No
Seco Canyon Road (N/S)	North of Copper Hill Dr.	0.64	0.64	0.65	0.65	No	0.64	0.65	No
	Between Copper Hill Dr. and Decoro Rd.	0.60	0.60	0.64	0.62	No	0.63	0.62	No
	Between Decoro Rd. and Bouquet Cyn. Rd.	0.96	0.97	1.00	0.99	No	0.98	0.99	No
McBean Parkway (N/S)	North of Copper Hill Dr.	0.87	0.87	0.87	0.86	No	0.87	0.86	No
	Between Copper Hill Dr. and Decoro Rd.	0.76	0.77	0.86	0.87	No	0.86	0.87	No
	Between Decoro Rd. and Newhall Ranch Rd.	1.04	1.04	1.09	1.10	Yes	1.09	1.09	Yes
	Between Newhall Ranch Rd. and Ave. Scott	1.02	0.98	1.03	1.01	Yes	1.02	0.99	No

TABLE 5.4-9 (continued)

Street	Segment Location	Without Project[2]		With Project but Without Widening of Copper Hill Drive[3]			With Project and With Widening of Copper Hill Drive[5]		
		NB or EB V/C	SB or WB V/C	NB or EB V/C	SB or WB V/C	Significant Impact[4]	NB or EB V/C	SB or WB V/C	Significant Impact[4]
Newhall Ranch Road (continued)	Between Copper Hill Dr. and I-5	0.71	0.75	0.72	0.76	No	0.72	0.76	No
Avenue Scott (E/W)	Between McBean Pkwy. and Dickason Dr.	0.48	0.49	0.47	0.50	No	0.48	0.50	No
	Between Dickason Dr. and Rye Cyn. Rd.	0.45	0.48	0.43	0.49	No	0.45	0.52	No
Soledad Canyon Road (E/W)	East of Bouquet Cyn. Rd.	0.83	0.80	0.83	0.80	No	0.84	0.81	No
Valencia Blvd. (E/W)	Between Bouquet Cyn. Rd. and Magic Mtn. Pkwy.	1.31	1.27	1.30	1.26	No	1.31	1.26	No
	Between Magic Mtn. Pkwy. and McBean Pkwy.	1.07	1.05	1.09	1.05	Yes	1.09	1.05	Yes
	Between McBean Pkwy. and I-5	1.26	1.19	1.27	1.19	Yes	1.27	1.20	Yes
Magic Mtn. Pkwy. (E/W)	Between Bouquet Cyn. Rd./San Fernando Rd. and Valencia Blvd.	0.93	1.00	0.94	0.99	No	0.93	0.99	No
	Between Valencia Blvd. and McBean Pkwy.	1.21	1.26	1.20	1.26	No	1.20	1.25	No
	Between McBean Pkwy. and I-5	1.15	1.24	1.14	1.24	No	1.14	1.22	No

1 Source: County of Los Angeles Department of Public Works, Planning Division (computer model output dated September 7, 1994).
2 Includes 1,000 residential units within Tesoro del Valle per the existing County of Los Angeles General Plan, including the existing General Plan Circulation Element roadway classifications.
3 Includes 3,029 residential units, two elementary schools, racquet club, and a 40,000-square-foot commercial development within Tesoro del Valle, including the existing General Plan Circulation Element roadway classifications.
4 A significant impact occurs if the with-Tesoro del Valle V/C ratio exceeds 1.00 and the V/C increase due to Tesoro del Valle traffic is 0.01 or greater.
5 Assumes the existing General Plan Circulation Element roadway classifications and the addition of one travel lane per direction on Copper Hill Drive (thereby creating four travel lanes per direction) between (a) the travel-demand model's centroid connector (intersecting Copper Hill Drive) between Decoro Road and Newhall Ranch Road and (b) the travel-demand model's centroid connector (intersecting Copper Hill Drive) between Newhall Ranch Road and Avenue Scott.

However, since no additional feasible mitigation measures have been developed for the remaining segments, the project would result in significant unavoidable cumulative impacts under the general plan buildout scenario (Year 2030).

Traffic Signal Warrant Analysis

In order to identify the need for traffic signalization both with and without project traffic at study intersections, a traffic signal warrant analysis was performed based on criteria contained in the *Traffic Manual*, State of California Department of Transportation, 1991. Using cumulative traffic conditions illustrated in Exhibits 5.4-11 through 5.4-14, traffic volumes and intersection controls were analyzed to determine which intersections required signalization. Eleven of the 31 study intersections have signals and, therefore, would not require signalization. Of the remaining 20 intersections, 16 satisfy signal warrants even without project traffic; one does not satisfy signal warrants either with or without project traffic; and of the three intersections created by project driveways intersecting public streets, two satisfy warrants and one does not. Thus, to mitigate project impacts on the need for signalizing intersections, mitigation is required for the signalization of the two east and west driveways at Copper Hill Drive.

MITIGATION MEASURES

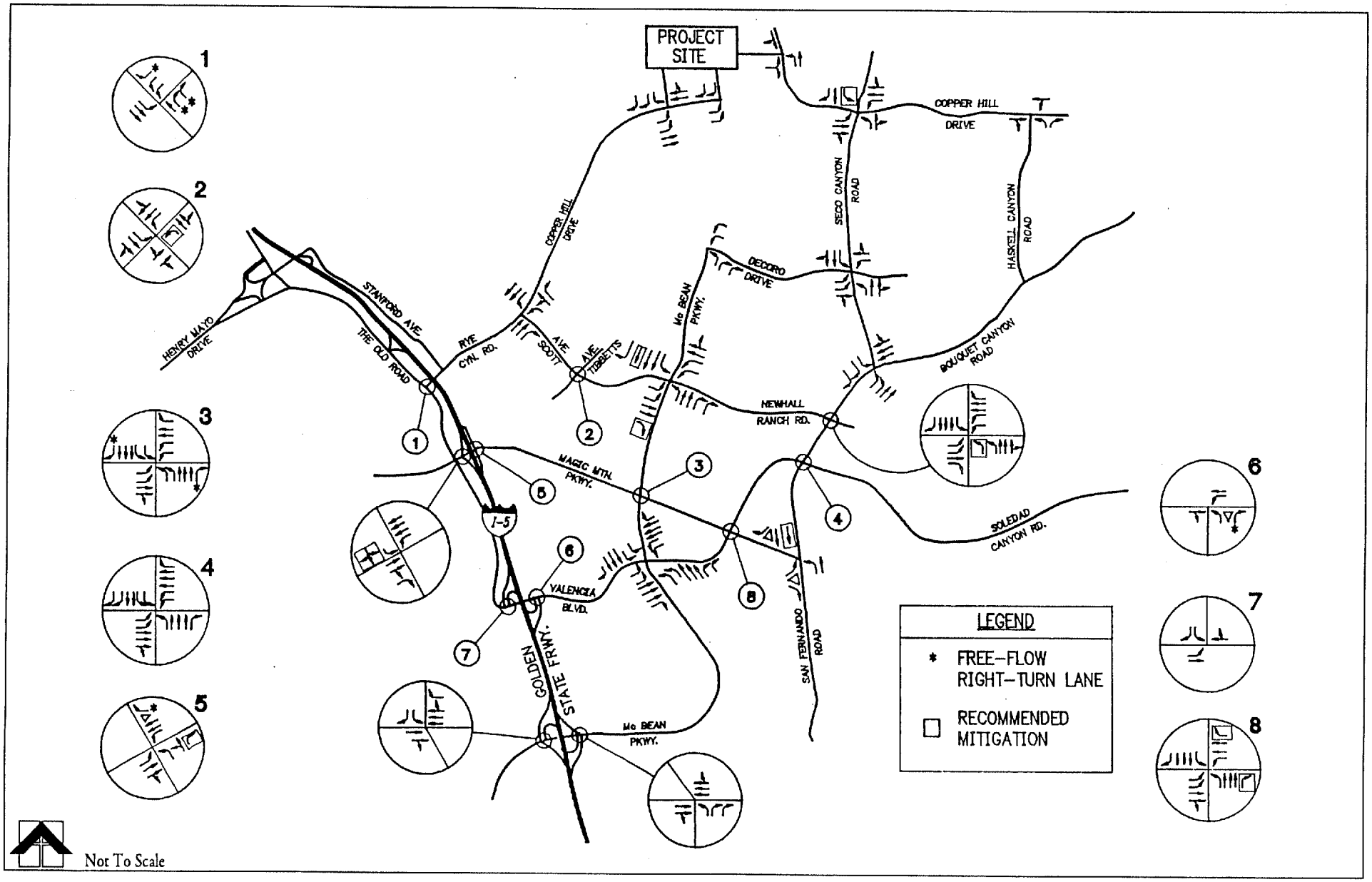
During the County's Interdepartmental review of the proposed project's traffic analysis, recommendations from the County of Los Angeles Department of Public Works, Traffic and Light ing Division in consultation with the City of Santa Clarita's Traffic Engineer for intersection improvements and phasing were submitted as comments on the Screencheck EIR. These recommended improvements are based on the review of detailed traffic analyses prepared for the project, previous improvements required of other related projects, and preferred mitigation techniques. The recommended measures will supplement in greater detail those described in this DEIR and are contained in the letters received on the project, located in Appendix C of the EIR. It should be noted that the measures identified by the Traffic and Lighting Division will be made conditions of approval of the tentative tract map. The following measures have been identified by the applicant's traffic engineer for inclusion in this DEIR.

TABLE 5.4-11
LEVEL OF SERVICE FOR P.M. PEAK HOUR AFTER MITIGATION

Intersection	With Project Mitigation		Remaining Project Impact	
	ICU[1]	LOS[2]	ICU[3]	Signif.?[4]
Copper Hill Dr.-Haskell Canyon Rd.				
Copper Hill Dr.-Seco Canyon Rd.	0.69	B	-0.18	No
Seco Canyon Rd.-Decoro Dr.	[5]			Yes[5]
McBean Pkwy.-Decoro Dr.				
Bouquet Canyon Rd.-Seco Canyon Rd.	[5]			Yes[5]
Bouquet Canyon Rd.-Newhall Ranch Rd.	1.20	F	0.02	Yes
McBean Pkwy.-Newhall Ranch Rd./Scott Av.	1.32	F	-0.07	No
Tibbetts Av.-Scott Av./Newhall Ranch Rd.	0.78	C	0.02	No
Rye Canyon Rd.-Scott Av.				
Rye Canyon Rd.-The Old Rd.				
Bouquet Canyon Rd.-Valencia Blvd./Soledad Canyon Rd.	[5]			Yes[5]
Magic Mountain Pkwy.-Bouquet Canyon Rd./San Fernando Rd.	0.71	C	-0.21	No
Magic Mountain Pkwy.-Valencia Blvd.	0.86	D	0.01	Yes
Magic Mountain Pkwy.-McBean Pkwy.	[5]			Yes[5]
I-5 North ramps-Magic Mountain Pkwy.	0.89	D	0.06	Yes
I-5 South ramps-Magic Mountain Pkwy.	0.56[6]	A	-0.01	No[6]
McBean Pkwy.-Valencia Blvd.				
I-5 North ramps-Valencia Blvd.				
I-5 South ramps-Valencia Blvd.				
I-5 North ramps-McBean Pkwy.				
I-5 South ramps-McBean Pkwy.				
Copper Hill Dr.-East Driveway	—	—	—	—
Copper Hill Dr.-West Driveway	—	—	—	—
San Francisquito Canyon Rd.-Driveway	—	—	—	—

1 Intersection Capacity Utilization.
2 Level of Service (refer to Table 5.4-1).
3 (ICU Without Project) - (ICU With Project).
4 ICU with project is greater than 0.85 and the ICU increase due to the project is greater than or equal to 0.01.
5 Intersection cannot be mitigated within existing right-of-way.
6 Significant impact in A.M. peak hour.

Source: Barton-Aschman Associates 1993.



Michael Brandman Associates

exhibit **5.4-15**

Recommended 2000 Intersection Configurations With Project Buildout

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Barton-Aschman Associates, Inc.

Avenue Tibbitts-Avenue Scott/Newhall Ranch Road: On the westbound Avenue Scott/Newhall Ranch Road approach, provide one left-turn lane, one through lane, and one optional through/right-turn lane.

Magic Mountain Parkway-Bouquet Canyon Road/San Fernando Road and McBean Parkway-Newhall Ranch Road/Avenue Scott: Refer to morning peak-hour mitigation discussed above.

In addition, the following mitigation measures have been identified to reduce the impacts of the project, however, significant impacts would remain at these intersections.

A.M. Peak Hour

3. Prior to final project buildout, the following intersection improvements will be completed by the developer according to the phasing schedule identified by the Los Angeles County Public Works Department:

   I-5 North ramps-Magic Mountain Parkway: On the northbound I-5 off-ramp approach, provide one left-turn lane, one optional through/left-turn lane, and one right-turn lane.

   I-5 South ramps-Magic Mountain Parkway: On the southbound I-5 off-ramp approach, provide one left-turn lane and one optional left-turn/through/right-turn lane.

P.M. Peak Hour

4. Prior to final project buildout, the following intersection improvements will be completed by the developer according to the phasing schedule identified by the Los Angeles County Public Works Department:

   Magic Mountain Parkway-Valencia Boulevard: On the northbound Valencia Boulevard approach, provide one left-turn lane, three through lanes, and one right-turn lane; and on the westbound Magic Mountain Parkway approach, provide one left-turn lane, two through lanes, and one right-turn lane.

   I-5 North ramps-Magic Mountain Parkway and Bouquet Canyon Road-Newhall Ranch Road: Refer to morning peak-hour mitigation discussed above.

5. Prior to final project buildout, the following roadway improvements shall be in place in order to provide adequate access to the site. Timing, funding, and responsible parties of these improvements shall be identified by the Los Angeles County Public Works Department and required as conditions of approval of the proposed project.

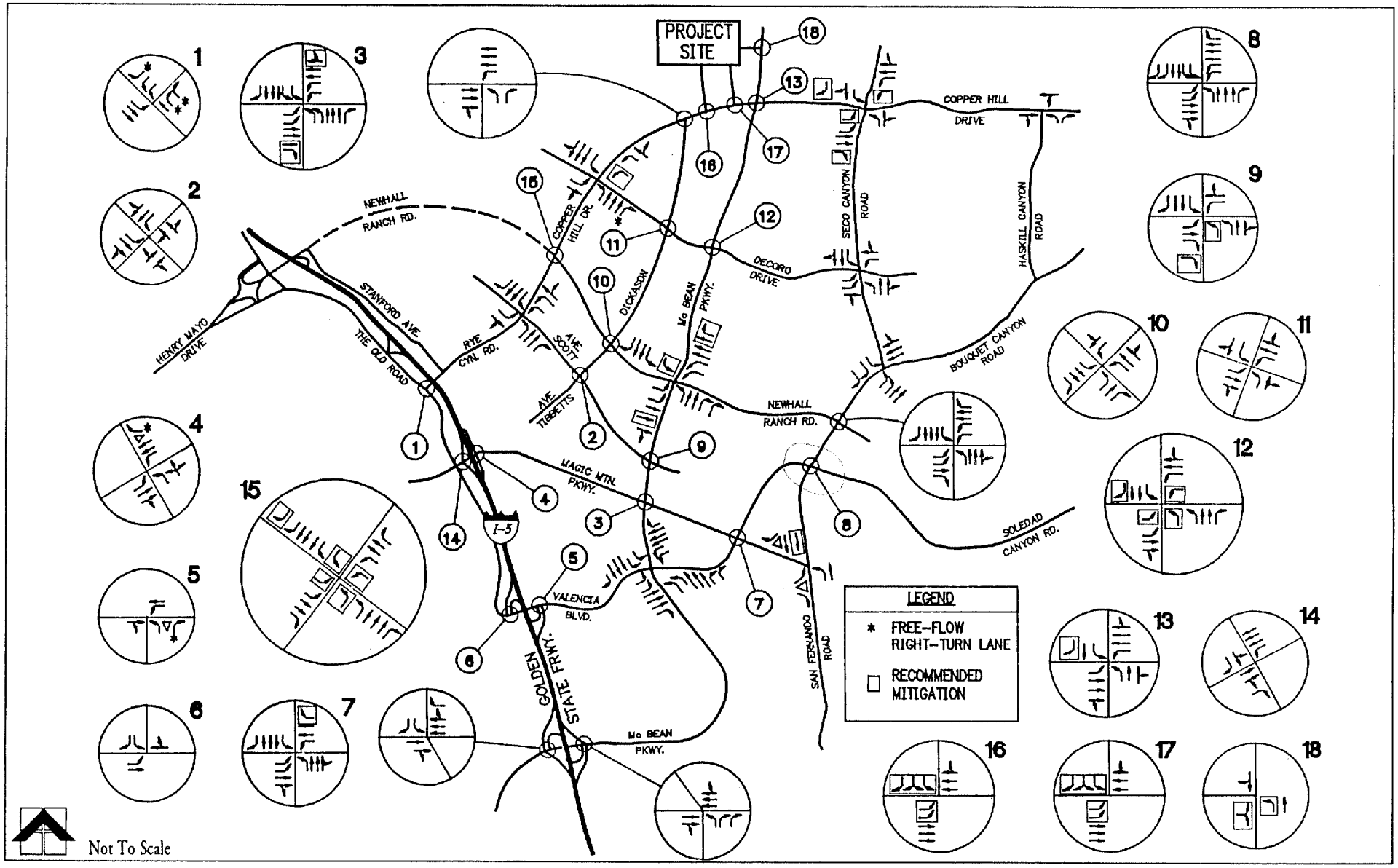


exhibit **5.4-16**

Recommended 2000 Intersection Configurations With Project Buildout With Newhall Ranch Road Extension to I-5

Michael Brandman Associates

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Barton-Aschman Associates, Inc.

TABLE 5.4-12
LEVEL OF SERVICE FOR A.M. PEAK HOUR AFTER CUMULATIVE MITIGATION

Intersection	With Project Mitigation		Remaining Project Impact	
	ICU[1]	LOS[2]	ICU[3]	Signif.?[4]
Copper Hill Dr.-Haskell Canyon Rd.				
Copper Hill Dr.-Seco Canyon Rd.	0.83	D	-0.06	No
Seco Canyon Rd.-Decoro Dr.				
McBean Pkwy.-Decoro Dr.	0.84	D	-0.13	No
Bouquet Canyon Rd.-Seco Canyon Rd.				
Bouquet Canyon Rd.-Newhall Ranch Rd.				
McBean Pkwy.-Newhall Ranch Rd.	1.03	F	-0.18	No
Av. Tibbetts-Av. Scott				
Rye Canyon Rd.-Av. Scott				
Rye Canyon Rd.-The Old Rd.				
Bouquet Canyon Rd.-Valencia Blvd./Soledad Canyon Rd.				
Magic Mountain Pkwy.-Bouquet Canyon Rd./San Fernando Rd.	0.78	C	-0.11	No
Magic Mountain Pkwy.-Valencia Blvd.	1.17	F	0.01	Yes
Magic Mountain Pkwy.-McBean Pkwy.	0.82	D	-0.09	No
I-5 North ramps-Magic Mountain Pkwy.				
I-5 South ramps-Magic Mountain Pkwy.				
McBean Pkwy.-Valencia Blvd.	[5]			Yes[5]
I-5 North ramps-Valencia Blvd.				
I-5 South ramps-Valencia Blvd.				
I-5 North ramps-McBean Pkwy.				
I-5 South ramps-McBean Pkwy.				
Copper Hill Dr.-McBean Pkwy.	0.82	D	0.08	No
Copper Hill Dr.-Dickason Dr.				
Copper Hill Dr.-Decoro Dr.	1.23	F	-0.21	No
Decoro Dr.-Dickason Dr.				
Copper Hill Dr.-Newhall Ranch Rd.	1.40	F	-0.48	No
Newhall Ranch Rd.-Dickason Dr.				
Av. Scott-McBean Pkwy.	1.20	F	-0.11	No
Copper Hill Dr.-East Driveway	—	—	—	—
Copper Hill Dr.-West Driveway	—	—	—	—
San Francisquito Canyon Rd.-Driveway	—	—	—	—

1. Intersection Capacity Utilization.
2. Level of Service (refer to Table 5.4-1).
3. (ICU Without Project) - (ICU With Project).
4. ICU with project is greater than 0.85 and the ICU increase due to the project is greater than or equal to 0.01.
5. Intersection cannot be mitigated within existing right-of-way.

Source: Barton Aschman 1993.

McBean Parkway-Decoro Drive: On the northbound McBean Parkway approach, provide two left-turn lanes, two through lanes, and one right-turn lane; on the southbound McBean Parkway approach, provide one left-turn lane, two through lanes, and one right-turn lane; on the eastbound Decoro Drive approach, provide two left-turn lanes, one through lane, and one optional through/right-turn lane; and on the westbound Decoro Drive approach, provide two left-turn lanes, one through lane, and one optional through/right-turn lane.

McBean Parkway-Newhall Ranch Road: On the southbound McBean Parkway approach, provide two left-turn lanes, two through lanes, and one right-turn lane; on the eastbound Newhall Ranch Road approach, provide two left-turn lanes, two through lanes, and one optional through/right-turn lane; and on the westbound Newhall Ranch Road approach, provide two left-turn lanes, three through lanes, and one right-turn lane.

Magic Mountain Parkway-Bouquet Canyon Road/San Fernando Road: On the southbound Bouquet Canyon Road/San Fernando Road approach, provide two through lanes and one right-turn lane.

Magic Mountain Parkway-McBean Parkway: On the eastbound Magic Mountain Parkway approach, provide two left-turn lanes, three through lanes, and one right-turn lane; and on the westbound Magic Mountain Parkway approach, provide two left-turn lanes, two through lanes, and one optional through/right-turn lane.

Copper Hill Drive-McBean Parkway: On the southbound McBean Parkway approach, provide one left-turn lane, one through lane, and one right-turn lane.

Copper Hill Drive-Decoro Drive: On the westbound Decoro Drive approach, provide two left-turn lanes and one optional through/right-turn lane.

Copper Hill Drive-Newhall Ranch Road: On the northbound Copper Hill Drive approach, provide two left-turn lanes, three through lanes, and one right-turn lane; on the southbound Copper Hill Drive approach, provide two left-turn lanes, three through lanes, and two right-turn lanes; on the eastbound Newhall Ranch Road approach, provide two left-turn lanes, two through lanes, and one right-turn lane; and on the westbound Newhall Ranch Road approach, provide two left-turn lanes, two through lanes, and one right-turn lane.

Avenue Scott-McBean Parkway: On the northbound McBean Parkway approach, provide two left-turn lanes, one through lane, and one optional through/right-turn lane; and on the eastbound Avenue Scott approach, provide one left-turn lane, one through lane, and two right-turn lanes.

Future Cumulative (Building of County and City General Plans)/Non-Project Plus Project

For the significant cumulative impacts under the buildout scenario of the Los Angeles County General Plan and the City of Santa Clarita General Plan, the following mitigation measure to increase capacity on Copper Hill Drive was developed:

10. Prior to General Plan buildout (Year 2030), or as determined by the County of Los Angeles Public Works Department, Copper Hill Drive will be upgraded from a six-lane Major Arterial Highway to an eight-lane facility both north and south of Newhall Ranch Road. The northerly limit of this upgrading should be between Decoro Road and Newhall Ranch Road; the southerly limit should be between Avenue Scott and Newhall Ranch Road. These northerly and southerly limits should be defined by the locations of the principal east-west collector streets/driveways serving the major land uses adjacent to Copper Hill Drive between Decoro Road and Avenue Scott.

This improvement would be implemented through a B&T district, to which the project would contribute.

UNAVOIDABLE ADVERSE IMPACTS

Project

With the incorporation of mitigation measures project-related impacts at three of the seven significantly impacted intersections in the A.M. peak hour and four of the 11 intersections impacted during the P.M. Peak hour would be reduced to levels that are considered less than significant. Of the remaining intersections two of the seven impacted intersections impacted in the A.M. Peak hour and three of the 11 intersections impacted in the P.M. Peak Hour can be mitigated but not to a level of insignificance. The following intersections would have significant impacts that cannot be mitigated to a level that is considered less than significant: signif.

A.M. Peak

- I-5 Northbound ramps-Magic Mountain Parkway
- I-5 Southbound ramps-Magic Mountain Parkway

P.M. Peak

- Bouquet Canyon Road/Newhall Ranch Road
- Magic Mountain Parkway-Valencia Boulevard

- I-5 Ramps/Magic Mountain Parkway

In addition to the intersections identified above, the following intersections would be significantly impacted by the project and no feasible mitigation exists to mitigate the project's impacts:

A.M. Peak

- Seco Canyon Road-Decoro Drive
- Bouquet Canyon Road-Seco Canyon Road

P.M. Peak

- Seco Canyon Road-Decoro Drive
- Bouquet Canyon Road/Seco Canyon Road
- Bouquet Canyon Road/Valencia Boulevard-Soledad Canyon Road
- Magic Mountain Parkway-McBean Parkway

As a result, the proposed project would have significant unavoidable impacts at the above listed intersections.

The following Caltrans roadway segments would be unavoidably impacted:

- **Magic Mountain Parkway**, between I-5 and Tourney Road
- **SR-126/Newhall Ranch Road**, between Dickason Drive and McBean Parkway, and between McBean Parkway and Bouquet Canyon Road)

Cumulative

With the incorporation of cumulative mitigation measures, cumulative impacts at nine of the eleven significantly impacted intersections in the A.M. peak hour and five of the nine intersections impacted during the P.M. Peak hour would be reduced to levels that are considered less than significant. Of the remaining intersections one of the 11 impacted intersections impacted in the A.M. Peak hour and three of the nine intersections impacted in the P.M. Peak Hour can be mitigated but not to a level of insignificance. The following intersections would have cumulative significant impacts that cannot be mitigated to a level that is considered less than significant:

A.M. Peak

- Magic Mountain Parkway-Valencia Boulevard

P.M. Peak

- Magic Mountain Parkway-Valencia Boulevard
- Copper Hill Drive-Newhall Ranch Road
- Avenue Scott-McBean Parkway

In addition to the intersections identified above, the following intersections would have significant cumulative impact by the project and no feasible mitigation exists to mitigate the project's cumulative impacts:

A.M. Peak

- McBean Parkway-Valencia Boulevard

P.M. Peak

- McBean Parkway-Valencia Boulevard

As a result, the proposed project would have significant unavoidable cumulative impacts at the above mentioned intersections.

In addition, under the general plan buildout scenario, the following roadway segments would be unavoidably impacted:

- **McBean Parkway**, between Decoro Road and Newhall Ranch Road, between Avenue Scott and Magic Mountain Parkway, and between Valencia Blvd., and I-5
- **Bouquet Canyon**, between Newhall Ranch Road and Soledad Canyon Road
- **Newhall Ranch Road**, between Bouquet Canyon Road and McBean Parkway, and between McBean Parkway and Dickason Drive
- **Valencia Boulevard**, between Magic Mountain Parkway and McBean Parkway, and between McBean Parkway and I-5

5.5 AIR QUALITY

ENVIRONMENTAL SETTING

Regulatory Requirements

Air quality in the Basin is regulated by federal, state, and regional control authorities. The U.S. Environmental Protection Agency (EPA) is involved in local air quality planning through the federal Clean Air Act (CAA), as recently amended by the Clean Air Act Amendments of 1990 (the "1990 Amendments"). The EPA is responsible for setting and enforcing the national standards for atmospheric pollutants. The EPA enforces these national standards and also regulates emission sources that are under the exclusive authority of the federal government, such as aircraft and certain locomotives. At the state level, the Lewis-Presley Air Quality Management Act (originally adopted in 1976 and substantially amended in 1987) and the California Clean Air Act of 1988 (the Sher Bill, AB 2595) set air quality planning and regulatory responsibilities for the Basin. The California Air Resources Board (ARB), which became part of the California Environmental Protection Agency (Cal EPA), is charged with the responsibility for ensuring implementation of the California Clean Air Act (CCAA), responding to the CAA, coordinating efforts to attain and maintain ambient air quality standards, and conducting research into the causes of, and solutions to, air pollution problems. At the regional level, the SCAQMD and the Southern California Association of Governments (SCAG) have responsibility for preparing and periodically revising the Air Quality Management Plan (AQMP), which contains measures to meet state and federal requirements. 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 plans.

Federal Regulatory Requirements

The early federal legislative response to air quality concerns consisted of the Air Pollution Control Act of 1955, the Clean Air Act of 1963, and the Air Quality Act of 1967. The goal of the Clean Air Act (CAA) of 1970, as stated by Congress in the 1977 CAA Amendments, was "to protect and enhance the quality of the nation's air resources." The 1990 Amendments are extremely broad. One of the primary goals of the 1990 Amendments was an overhaul of the planning provisions for those areas not currently meeting National Ambient Air Quality Standards (NAAQS). The major titles of the 1990 Amendments address attainment of air quality standards, mobile source emissions, air toxics, acid rain, a new federal permit program, enforcement, and protection of stratospheric ozone. The

titles that most substantially affect the air quality analysis of the proposed project are Title I (attainment and maintenance provisions) and Title II (mobile source provisions).

Title I of the Clean Air Act Amendments of 1990

The goal of Title I is to attain federal air quality standards for six criteria pollutants: ozone (O_3), carbon monoxide (CO), fine particulate (PM10), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead (Pb). Federal standards, which are established by the EPA at levels to protect public health with an adequate margin of safety, are presented in Table 5.5-1, Ambient Air Quality Standards.

The 1990 Amendments divided the nation into five categories of planning regions, depending on the severity of their pollution, and set new timetables for attaining the air quality standards. The categories range from "marginal" to "extreme." Attainment deadlines are from 3 to 20 years, depending on the category. The South Coast Air Basin is the only region in the nation classified as an "extreme" ozone nonattainment area. For areas designated "extreme," Section 181 of the CAA sets the ozone attainment deadline as 20 years from the date of the CAA's enactment. Deadlines for attainment of carbon monoxide and PM10 standards are 2000 and 2005, respectively.

Title I also requires each nonattainment area to submit a comprehensive inventory of actual emissions as part of a State Implementation Plan (SIP) revision to demonstrate the means for achieving federal standards by the established deadlines. Each nonattainment area must achieve a 15 percent reduction from its actual 1990 emissions inventory within 6 years. Thereafter, each area must achieve a 3 percent annual reduction. The SCAQMD and ARB have a good record for providing the required SIP submittals in the allotted time frame. The Basin has been able to comply with all key actions required under Title I.

Provisions of Section 182 of the 1990 Clean Air Act Amendments relate to ozone nonattainment areas and Sections 186 and 187 relate to carbon monoxide nonattainment areas. These sections emphasize strategies for reducing vehicle miles travelled. Section 182 requires submission of a SIP revision "that identifies and adopts specific enforceable transportation control strategies and transportation control measures to offset any growth in emissions from growth in vehicle miles travelled or numbers of vehicle trips in such area" to meet statutory requirements for demonstrating periodic emissions reduction requirements. Section 187 makes the same basic requirement applicable to carbon monoxide nonattainment areas. Section 189 sets forth requirements for PM10 nonattainment areas.

TABLE 5.5-1

AMBIENT AIR QUALITY STANDARDS

Air Pollutant	California Concentration[a]	National[b] Primary(>)	National[b] Secondary(>)
Ozone	0.09 ppm, 1-hr. avg.	0.12 ppm, 1-hr. avg.	0.12 ppm, 1-hr. avg.
Carbon Monoxide	9.0 ppm, 8-hr. avg. 20 ppm. 1-hr. avg.	9.0 ppm, 8-hr. avg. 35 ppm, 1-hr. avg.	9.0 ppm, 8-hr. avg. 35 ppm, 1-hr. avg.
Nitrogen Dioxide	0.25 ppm, 1-hr. avg.	0.053 ppm, annual avg.	0.053 ppm, annual avg.
Sulfur Dioxide	0.05 ppm, 24-hr avg.[c] 0.25 ppm, 1-hr. avg.	0.03 ppm, annual avg. 0.14 ppm, 24-hr. avg.	0.50 ppm, 3-hr. avg.
Suspended Particulate Matter (PM 10)	30 ug/m^3 annual geometric mean 50 ug/m^3, 24-hr. avg.	50 ug/m^3, annual arithmetic mean 150 ug/m^3, 24-hr. avg.	50 ug/m^3, annual arithmetic mean 150 ug/m^3, 24-hr. avg.
Sulfates	25 ug/m^3, 24-hr. avg.		
Lead	1.5 ug/m^3, 30-day avg.	1.5 ug/m^3, calendar quarter	1.5 ug/m^3, calendar quarter
Hydrogen Sulfide	0.03 ppm, 1-hr. avg.		
Vinyl Chloride	0.010 ppm, 24-hr. avg.		
Visibility-Reducing Particles	In sufficient amount to reduce the prevailing visibility to less than 10 miles at relative humidity less than 70%, 1 observation		

[a] California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxides (1-hour), nitrogen dioxide, suspended particulate matter-PM10 visibility reducing particulates, are values that are not to be exceeded. The sulfur dioxide (24-hour), sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride standards are not to be equaled or exceeded.

[b] National standards, other than ozone and those based on annual averages or annual arithmetic means, are not to exceed more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentration above the standard is equal to or less than one.

[c] At locations where the state standards for ozone and/or total suspended particulate matter are violated. National standards apply elsewhere.

Note: ppm = parts per million by volume.
ug/m3 = micrograms per cubic meter.

Source: California Air Resources Board 1991.

Title II of the Clean Air Act Amendments of 1990

Title II of the 1990 Amendments, which contains provisions to control emissions from mobile sources, includes the following measures to reduce pollutants from mobile sources: (1) mandatory use of cleaner, reformulated gasoline in those cities with the most severe ozone problem, (2) use of cleaner fuels, such as methanol and natural gas, to meet particulate standards, and (3) requirements on auto manufacturers to reduce tailpipe emissions of hydrocarbons (HC) and oxides of nitrogen (NOx). Section 177 of Title II permits California to adopt stricter vehicle emission standards and allows other states to adopt California's stricter standards.

California Clean Air Act Requirements

The California Clean Air Act of 1988 (CCAA), amended in 1992, requires all air districts in the state to endeavor to achieve and maintain state ambient air quality standards for ozone, carbon monoxide, sulfur dioxide, and nitrogen dioxide by the earliest practicable date. California's ambient air standards are generally stricter than national standards for the same pollutants. California also has established its own standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. California standards are also shown on Table 5.5-1.

Based on pollutant levels, the 1992 amendments to the CCAA divide ozone nonattainment areas into four categories—moderate, serious, severe, and extreme—to which progressively more stringent requirements apply. An extreme ozone nonattainment area is one in which ozone concentrations were greater than 0.20 parts per million (ppm) during 1989-91. The Basin is designated a "serious" area for carbon monoxide and nitrogen dioxide. Riverside and San Bernardino counties are designated "attainment" for state carbon monoxide standards. Fine particulate matter (PM10) is not currently addressed in the CCAA. The Basin is nearing attainment for sulfates and has met attainment goals for all other criteria pollutant standards. The 1988 CCAA, upon which the 1991 regional air quality management plan and the 1994 revisions were based, specified that attainment plans for areas which could not demonstrate attainment of state standards until after December 31, 1997, must include specified emission reduction strategies and meet milestones in implementing emission controls and achieving more healthful air quality.

Specific strategies for these nonattainment areas include (1) an indirect and area source control program, (2) best available retrofit control technology (BARCT) for existing sources, (3) a program to mitigate all emissions from new and modified permitted sources, (4) transportation control measures to attain a 1.5 average passenger vehicle ridership during weekday commute hours, and (5) significant

use of low-emission vehicles by fleet operators. The CCAA also includes several additional goals and requirements, including reducing districtwide emissions, vehicular trips, and vehicle miles traveled, as well as ranking control measures by priority and cost effectiveness, no net increase in vehicle emissions after 1997, and a reduction in overall population exposure to ambient pollutant levels in excess of the applicable standards by at least 50 percent of 1986-88 levels by December 31, 2000.

The CCAA provides air districts with new authority to regulate indirect sources. Each district plan is to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in districtwide emissions of each nonattainment pollutant or its precursors unless, despite the inclusion of all feasible measures in the plan and an expeditious adoption schedule, the area is not able to achieve the required 5 percent annual reduction. However, an air basin may use an alternative emission reduction strategy which achieves a reduction of less than 5 percent per year if it can be demonstrated that either of the following applies:

- The alternative emission reduction strategy is equal to or more effective than the 5 percent per year control approach in improving air quality; or
- That despite the inclusion of every feasible measure, and an expeditious adoption schedule, the air basin is unable to achieve the 5 percent per year reduction in emissions.

Regional Air Quality Planning

The SCAQMD and SCAG are responsible for formulating and implementing the AQMP for the Basin. Designated portions of the AQMP which are prepared to comply with federal and state standards are submitted to the ARB for incorporation in the SIP with plans and regulations from other air quality management and air pollution control districts in the state. Because air quality plans are prepared to meet CCAA requirements, as well as federal CAA requirements, they may be broader than federal requirements in certain respects.

Regional AQMPs were prepared for the Basin in 1979, 1982, 1989, 1991, and 1994. Each revision of the AQMP represents a snapshot in time, based on best available information. The 1994 Air Quality Management Plan, which contains measures intended to comply with the CAA and CCAA, was adopted by the SCAQMD Board on September 9, 1994, submitted to the ARB, and approved on November 15, 1994. The 1994 AQMP generally follows the structure of the last plan (1991) but like all new editions includes many enhancements. Previous versions of the AQMP have been submitted to EPA, which has approved portions of the plan for inclusion in the SIP for the Basin. However,

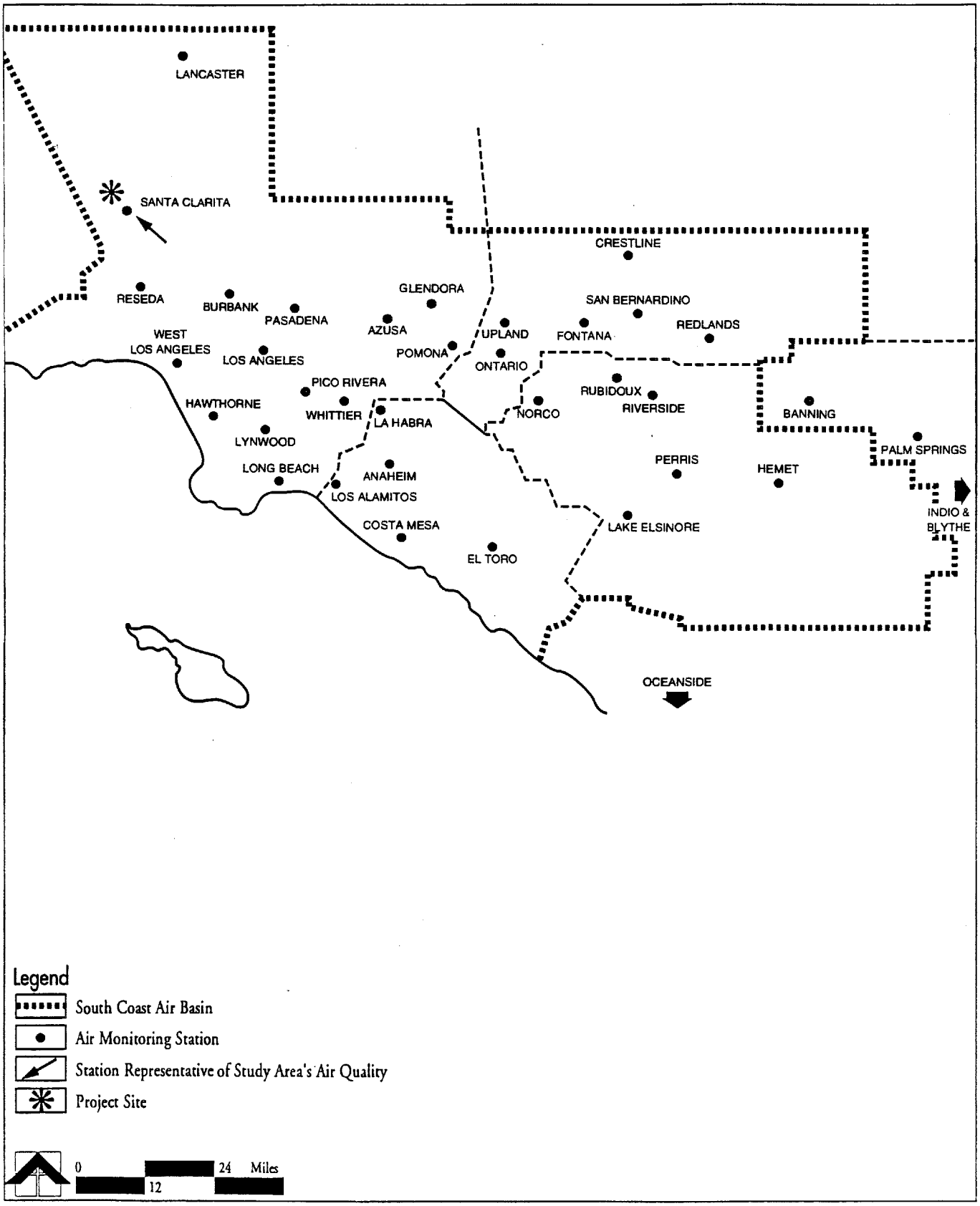
because the Basin does not have an approved plan that demonstrates attainment of all NAAQS by the CAA deadlines, and pursuant to a decision of the Ninth Circuit Court of Appeals (*Coalition for Clean Air v. United States EPA*, July 1, 1992), EPA was required to prepare a Federal Implementation Program (FIP) for the Basin. The final FIP was adopted in February 1995. Implementation of the FIP, however, has been postponed for 2 years until 1997, in order for the EPA to have sufficient time to review the California SIP submitted on November 15, 1994. The 1994 regional AQMP update is closely coordinated with the FIP proposed by the federal EPA last February. If EPA determines that SCAQMD's 1994 plan will adequately clean up pollution, EPA can substitute it for all or part of the federal plan.

Federal law requires only an ozone plan this year, giving the region until 1997 to submit a PM10 plan to achieve health standards for particulate. This will give SCAQMD additional time to fine tune nitrogen oxide control measures, necessary to control PM10, that rely on advanced technology, like clean fuels. In addition, revised conformity procedures have not been adopted to date. Until the conformity procedures for the 1994 AQMP are adopted, the 1991 Conformity Procedures will be used to make a AQMP conformity determination related to the proposed project. As required by the CCAA, the 1991 AQMP contains a number of indirect source measures, including a revision to the SCAQMD's Regulation XV, which requires that large employers in the basin submit plans specifying how they will achieve average ridership targets for their employees during peak rush hours. Regulation XV currently applies to employers of 100 or more persons; the AQMP proposes various extensions of Regulation XV, including lowering the threshold to employers of 50 or more persons. However, subsequent state legislation prohibits the SCAQMD from overriding the threshold from 100 until sometime after February 1997.

Setting

The proposed project is located in the north central portion of the South Coast Air Basin of California, a 6,600 square mile area encompassing Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties. Bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino and San Jacinto Mountains to the north and east, the South Coast Air Basin is an area of high air pollution potential.

The SCAQMD is responsible for monitoring air quality in the South Coast Air Basin and regulating emissions produced within its jurisdiction. The SCAQMD samples ambient air at numerous monitoring stations in the Basin. Locations of these stations are shown on Exhibit 5.5-1.



Michael Brandman Associates

exhibit **5.5-1**

SCAQMD Monitoring Stations

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: SCAQMD, 1992.

Ambient (background) air quality is described in terms of compliance with state and national standards. Ambient air quality standards (AAQS) are the levels of air pollutant concentrations considered safe to protect the public health and welfare. They are designed to protect people most sensitive to respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. National AAQS were established by the U.S. Environmental Protection Agency (EPA) in 1971 for six air pollution constituents. States have the option to add other pollutants, require more stringent compliance, or include different exposure periods.

Air Quality

The California Air Resources Board (CARB) is the state agency responsible for air quality regulation at the state level. CARB is required by the Clean Air Act and the United States Environmental Protection Agency (EPA) to designate areas of the state as attainment, nonattainment, or unclassified for any state standard. An attainment designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A nonattainment designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation(s) was caused by an exceptional event, as defined in the criteria.

The South Coast Air Basin is designated nonattainment for several pollutants. Criteria (i.e., hazardous, monitored) pollutants are described below.

- **Ozone**--(O_3) a colorless toxic gas that is the result of chemical reactions of nitrogen oxides (NOx), and reactive organic compounds (ROC), which are described below. The gas irritates the lungs and damages materials and vegetation. Levels of ozone exceed national and state standards throughout the Basin.

- **Carbon Monoxide**--Carbon monoxide (CO) is a colorless gas, produced almost entirely from automobiles, that interferes with the transfer of oxygen to the brain. Peak levels of carbon monoxide occur in winter throughout the Basin, and are highest where there is heavy traffic. National and state standards for carbon monoxide are exceeded in the more densely populated areas of Los Angeles County. The South Coast Air Basin is classified as a nonattainment area for the national carbon monoxide standards.

- **Nitrogen Dioxide**--Nitrogen dioxide is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of nitrogen dioxide occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations) in the vicinity. The national and state nitrogen dioxide standard is exceeded in Los Angeles County, the only area

TABLE 5.5-2

SUMMARY OF ANNUAL AIR QUALITY DATA
SANTA CLARITA AIR MONITORING STATION

Pollutant Standards[a]	1989	1990	1991	1992	1993
Ozone (O_3)					
State Standard (1-hr. avg., >0.09 ppm)[b]					
National Standard (1-hr. avg., >0.12 ppm)	0.25	0.23	0.24	0.22	0.22
Maximum Concentration	122	115	118	127	92
Number of Days State Standard Exceeded	71	62	65	71	44
Number of Days Federal Standard Exceeded					
Carbon Monoxide (CO)					
State Standard (1-hr./8-hr. avg. >20/9.1 ppm)					
Federal Standard (1-hr./8-hr. avg. >35/9.5 ppm)	12/5.4	11/4.	9/5.1	8/3.7	8/3.9
Maximum Concentration 8-hr. period	0	6	0	0	0
Number of Days State 1-hr. Standard Exceeded	0	0	0	0	0
Number of Days Federal 1-hr.Standard Exceeded		0			
Nitrogen Dioxide ($N0_2$)					
State Standard (1-hr. avg., >0.25 ppm)					
Federal Standard (0.0534 AAM in ppm)					
Maximum 1-hr. concentration	0.13[b]	0.15	0.17	0.11	0.13
Number of Days State Standard Exceeded	0	0	0	0	0
Percent Federal Standard Exceeded	0	0	0	0	0
Suspended Particulates (PM10[c])					
State Standard (24-hr. avg., >150 ug/m3)					
Federal Standard (24-hr. avg., >260 ug/m3)	100	93	81	84	75
Maximum 24-hr. Concentration	48	26	42	3	15
Percent Samples Exceeding State 24-hr. Standard	0	0	0	0	0
Percent Samples Exceeding Federal 24-hr. Standard					

[a] Pollutants shown are those monitored at this station.
[b] Less than 12 full months of data. May not be representative.

Source: California Air Resources Board Air Quality Data 1989, 1990, 1991, 1992, and 1993.

Southern California frequently experiences temperature inversions which inhibit pollutant dispersal. Inversions may be either ground-based or elevated. Ground-based inversions are most severe during clear, cold early winter mornings. At this time, the greatest pollution problems are from carbon monoxide (CO) and nitrogen oxides (NOx). High carbon monoxide concentrations occur on winter days with strong surface inversions and light winds. Carbon monoxide transport is extremely limited, and highest concentrations occur in close proximity to the source of emissions. Since carbon monoxide is produced almost entirely from automobiles, the highest concentrations are associated with areas of heavy traffic.

Elevated inversions act as a lid or upper boundary and restrict vertical mixing. Mixing heights for elevated inversions are lower in the summer and more persistent. The low summer inversions are partly responsible for the high levels of ozone experienced during the summer months.

During summer's longer daylight hours, sunshine provides the energy needed to fuel the photochemical reactions between NOx and reactive organic compounds (ROC) which form ozone. Formation of high levels of ozone requires ample sunlight, early morning stagnation in source areas, high surface temperatures, strong and low morning inversions, greatly restricted vertical mixing during the day, and daytime subsidence that strengthens the inversion layer. The most frequent ozone transport route is from source areas in coastal areas to receptor areas along the base of the San Gabriel and San Bernardino mountains. On the rare days with offshore flows, ozone transport is more limited, and highest concentrations occur in the western portion of the Basin.

High nitrogen dioxide (NO_2) levels usually occur during the autumn or winter on days with summer-like weather conditions. These conditions include low inversions, limited daytime mixing, and stagnant windflows. Although days are clear, sunlight is limited in duration and intensity. Photochemical reactions which would otherwise form ozone are incomplete.

Atmospheric particulates are made up of fine solids or liquids such as soot, dust, aerosols, fumes, and mists. A large portion of the total suspended particulate (TSP) matter in the atmosphere is finer than ten microns (PM10). As with ozone, a substantial fraction of PM10 forms in the atmosphere as a result of chemical reactions. Peak concentrations of both ozone and PM10 occur downwind of precursor emission sources.

Environmental Impacts

Threshold of Significance

Appendix G (Significant Effects) of the Guidelines to the California Environmental Quality Act (CEQA) states that a project would normally be considered to have a significant effect on air quality if the project violates any ambient air quality standard, contributes substantially to an existing air quality violation, or exposes sensitive receptors to substantial pollutant concentrations.

The SCAQMD April 1993 *CEQA Handbook* provides recommended air pollution thresholds in total pounds per day for criteria pollutants, for lead agencies (i.e., County of Los Angeles) to consider and use in determining whether a project's air quality impacts are significant. These thresholds in total pounds per day for criteria pollutants. These thresholds are listed below:

- 55 pounds per day of ROC
- 55 pounds per day of NOx
- 550 pounds per day of CO
- 150 pounds per day of PM10
- 150 pounds per day of SOx
- State 1-hour or 8-hour standard for CO

All project emissions associated with operation should be included when determining whether the project exceeds these thresholds. Projects in the Basin with daily operation-related emissions that exceed any of the above emission thresholds are considered by the SCAQMD to have a significant impact on air quality.

Additionally, the following significance thresholds for construction emissions have been established by the SCAQMD:

- 2.5 tons per quarter of ROC
- 2.5 tons per quarter of NOx
- 24.75 tons per quarter of CO
- 6.75 tons per quarter of PM10
- 6.75 tons per quarter of SOx

However, if the daily construction emissions exceed 75 lb/day for ROC, or 100 lb/day for NOx, or 550 lb/day for CO, or 150 lb/day for PM10, the project should also be considered significant.

Projects in the South Coast Air Basin with construction-related emissions in a quarterly period that exceed any of the emission thresholds should be considered to be significant.

The potential air quality impacts of the proposed project have been analyzed using the emission factors developed by the ARB. Emissions from the project fall into three major categories:

- Construction Emissions: Airborne dust and emissions from heavy equipment used during the construction phases of the proposed project.
- Operational Mobile Emissions: Vehicle emissions resulting from traffic traveling to and from the proposed project.
- Operational Stationary Emissions: Stationary emissions resulting from offsite electrical power generation associated with the various land uses of the project.

Construction Impacts

The site preparation (i.e., grading) for construction would produce two types of air contaminants: exhaust emissions from construction equipment and fugitive dust generated as a result of soil movement required for grading. These construction impacts could be expected during each phase of the four phase development, which is anticipated to last between one to two years. The emissions produced during grading and construction activities are short-term. Fugitive dust emissions could be troublesome to workers and nearby residents, depending upon prevailing wind conditions and the intensity of activities, even when mitigation measures are followed.

Emissions From Construction

Emissions from construction activities include those associated with the transport of workers and machinery to the site, emissions from the application of architectural coatings as well emissions produced onsite as the equipment is used. Exhaust emissions vary substantially from day to day, depending on the level of activity, and cannot be quantified without appropriate data on the numbers and types of equipment needed. Since specific data for construction equipment is not known for the project, standard default assumptions (including on-site construction equipment and workers travel, and daily duration of equipment operation) developed by the SCAQMD were used to calculate construction emissions. These assumptions are contained in Table 9-1 of the SCAQMD April 1993 *CEQA Air Quality Handbook.*

Table 5.5-3 lists the calculated emissions from construction equipment and workers' travel to and from the site for the worst-case scenario (i.e., the phase of development with the highest level of construction activity). Therefore, daily emissions for other phases of development would be equal to or less than the emissions shown in Table 5.5-3.

TABLE 5.5-3
MAXIMUM DAILY (PLANNING AREA A) CONSTRUCTION EMISSIONS (lbs/day)[1]

	Size	ROC	NOx	CO	PM10
SFR[2]	2.188 msf	80	1,042	227	74
MFR[3]	1.065 msf	31	457	99	32
Comm.	50 ksf	2	32	7	2
School	18 ksf	1	17	4	1
Grading		--	--	--	1,012
Total		114	1,548	337	1,121
SCAQMD Threshold		55	55	550	150
Significant Impact		Yes	Yes	No	Yes

1 Assumes 730 day (2 year) construction duration and includes emissions from construction equipment, construction workers' travel and fugitive dust emissions.
2 Avg. 3,500 sf for SFR
3 Avg. 1,500 sf for MFR

Source: Michael Brandman Associates 1993, South Coast Air Quality Management District, Table 9-1 of the *CEQA Air Quality Handbook 1993*.

Volatile organic compounds (VOC) and reactive organic compounds (ROC) from construction-related architectural coatings emissions were calculated, based on available design information as well as best-effort assumptions suggested by the District's staff (personal communications, Ms. Shalini George, September 13, 1993). Based on Table A.9-13, ESTIMATING EVAPORATIVE EMISSIONS FROM ARCHITECTURAL COATINGS AND BUILDING MATERIALS (pounds per day) in the SCAQMD 1994 *CEQA Air Quality Handbook*, VOC emissions associated with architectural coatings that would

be applied to the 3,000 single- and multi-family homes, commercial uses, and the club house and pro shop for the Swim and Tennis Club are calculated for the proposed project. The proposed residential use has a total of 611.5 acres, with lot size varying from 4,200 square feet to 1 acre, and building size varying from 1,250 to 5,000 square feet. The emission rate limit for non-mitigated emissions from architectural coatings (for 25 percent transfer efficiency of air atomized spray equipment) in Rule 1113 is 250 grams per liter, or 2.08 pounds per gallon. The VOC/ROC emitted, using Table A9-13-C, is 18.50 pounds for 1 mil thick architectural coatings on a 1,000 square feet area. The total thickness of the architectural coatings on exterior and interior walls was assumed to be 17.5 mils, based on recommendations in Table A.9-13. Therefore, the total non-mitigated VOC/ROC emissions associated with the 3,000 homes are approximately 5,652,660 pounds, or approximately 2,826 tons.

Similarly, the total unmitigated VOC/ROC emissions associated with construction of the commercial uses, two schools, fire station, maintenance building, and the pro shop/club house structures are approximately 84,823 pounds, or 42.4 tons. Therefore, total non-mitigated VOC/ROC emissions associated with constructions of the proposed project are approximately 5,737,483 pounds, or 2,868.4 tons. Because there are no data available for the time period that construction of these homes and commercial/recreational structures would take, no specific daily VOC/ROC emissions over a certain period of time can be calculated at this time.

As a mitigation measure, when a high-volume low-pressure spray (HVLP) with 65 percent transfer efficiency is used for architectural coatings application, VOC/ROC emissions would be reduced from the unmitigated levels. Based on data in Table A11-13 in the *CEQA Air Quality Handbook*, architectural coatings for the 3,000 homes would emit approximately 2,175,510 pounds, or 1,088 tons of VOC/ROC. This is approximately 62 percent reduction from the non-mitigated emissions. The VOC/ROC emissions from the commercial uses and the club house/pro shop structures would be reduced to 32,645 pounds, or 16.3 tons. This is approximately 92 percent reduction from the nonmitigated emissions. Total mitigated (65 percent transfer efficiency) VOC/ROC emissions associated with the proposed project are approximately 2,208,155 pounds, or 1,104 tons. This is almost 62 percent lower than the non-mitigated ROC emissions.

Further reduction of the architectural coatings-related VOC/ROC emissions can be achieved by using 100 percent transfer efficiency method, or hand application such as paint brush, hand roller, trowel, spatula, dauber, rag, or sponge. Mitigated VOC/ROC emissions in this case are 1,411,637 pounds (706 tons, 75 percent reduction from non-mitigated emissions) from the 3,000 homes and 21,183 pounds (10.6 tons, 75 percent reduction from non-mitigated emissions) from the commercial uses and club house/pro shop structures. Total mitigated (100 percent transfer efficiency) VOC/ROC

emissions associated with the proposed project are approximately 1,432,820 pounds, or 716.6 tons. This is almost 75 percent lower than the non-mitigated ROC emissions.

The development of Planning Area "A" will entail the most intense levels of development of all the project's phases because most units would be built during this phase than any other, the most grading would occur, the commercial uses would be built, and the project-related infrastructure would be constructed. Therefore, Planning Area A was used to represent a worst-case scenario for the calculation of construction emissions. This analysis assumes that the phase would take approximately 2 years (730 days) to construct. Again, this estimate of emissions represents a worst case scenario because actual construction would not likely occur seven days a week for two years. Regardless, of the potential for potentially overstating emissions, construction emissions associated with Planning Area A would represent the worst-case construction impact scenario.

As shown in Table 5.5-3, construction emissions would exceed SCAQMD's daily emissions thresholds for ROC, NOx, and PM10. This would be considered a significant unavoidable impact of the project.

Fugitive Dust Emissions

Heavy construction is a source of dust emissions that may have substantial temporary impact on local air quality. Building and road construction are the construction categories with the highest emissions potential. Construction emissions are associated with land clearing, blasting, ground excavation, cut and fill operations, and the construction of buildings. Dust emissions also vary substantially from day to day, depending on the level of activity, the specific operations, and weather conditions. A large portion of the emissions result from equipment travelling over unpaved roads at the construction site.

The EPA estimates that each acre of soil disturbed creates about 110 pounds of dust per workday during the construction life of any project. This value depends on soil moisture, silt content, wind speed, construction density, and many other factors. According to the methodology outlined in Table 9-2 of the SCAQMD 1993 *CEQA Air Quality Handbook*, the inhalable component of fugitive dust, PM10, accounts for 55 pounds per day for each acre disturbed. As described above, construction activity associated with Planning Area A would be more intensive than development of any other Planning Area. As discussed in Section 3.4, Project Characteristics, Planning Area A would consist of 443 acres. However, 50 acres would remain in a natural state while 392 acres would be developed. During the 2 year construction duration of Planning Area A, an average of 20 percent of the Planning Area (18.4 acres) would be under active construction. Therefore, using SCAQMD's methodology for estimating PM10 emissions and the same assumptions for calculating the worst case

impact scenario as described above, potential worst-case PM10 emissions associated with the proposed project would be 1,012 pounds per day which exceeds the SCAQMD recommended daily threshold.

The SCAQMD (Rule 403) requires that fugitive dust be controlled so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance offsite. Implementation of these dust suppression techniques as required by the SCAQMD can reduce the fugitive dust generation by 50 to 75 percent. However, even with the SCAQMD recommended mitigation measures included below, construction emissions would remain significant.

Operational Impacts: Stationary Sources

Operational emissions could be generated by both stationary and mobile sources associated with the proposed project. Project-related emissions from both stationary and mobile sources were quantified according to SCAQMD methods and/or use of ARB-approved models. Without mitigation, long-term stationary and mobile emissions can have significant adverse impacts on regional air quality. These emissions are discussed below.

Utility Emissions

Utility emissions related to the project, including those from natural gas consumed onsite and electricity generated offsite, were quantified as described in Appendix 9, Tables A9-11-A and A9-12-A of the SCAQMD 1993 *CEQA Air Quality Handbook*. Natural gas will be consumed onsite. Electricity supplied to the proposed project would most likely not be generated within the local vicinity. In fact, utility companies often receive power generated at various power plants throughout the nation. It is difficult to trace where the power which serves a particular area is generated and, furthermore, where the associated emissions from power generation to serve that area are being emitted. This is important to note because utility-related emissions do not necessarily increase the air pollutant levels within the same basin of the proposed project. For this reason, emissions from the power generated to serve a proposed project may not contribute to local, or even regional pollutant levels. They do, however, contribute on a regional scale to emission levels within the vicinities of the power generating facilities.

Utility, as well as other operational, emissions for the proposed project at buildout are summarized in Table 5.5-4. As indicated in Table 5.5-4, generation of energy required to serve the proposed

project could cause the emission of approximately 21 pounds per day of carbon monoxide, 103 pounds per day of nitrogen oxides (NOx), 7 pounds per day of sulfur oxides (SOx), 3 pounds per day of particulates, and 4 pounds per day of hydrocarbons. Utility-related emissions associated with the proposed project would not measurably increase pollutant levels, but would contribute on a project specific basis to regional increases in emissions from power generating facilities. These estimates do not take into account energy conservation control measures currently required in new development or new emission controls on electrical power generating equipment. While energy consumption of the proposed project would contribute to indirect emissions at regional power plants, these power plants are subject to the SCAQMD's Regulation XX (RECLAIM) for their SOx impacts and will be subject to future similar regulations for NOx and ROC, therefore mitigating these indirect impacts.

Operational Impacts: Mobile Sources

Regional Air Quality

Emissions resulting from vehicle usage were assessed with the California Air Resources Board (CARB) computer model, URBEMIS3 and EMFAC7EP, which was specifically designed to quantify the number of trips and associated emissions generated by a given land use. Input variables include the types and extent of the land uses, trip generation rates, speed, temperature, etc.

Based on the proposed land uses and trip generation data provided in the traffic analysis (Barton-Aschman Associates 1993), emissions were calculated for the proposed project (year 2010). The estimated operational emissions are summarized in Table 5.5-4 (computer output sheets are included in Technical Appendix E).

As indicated in Table 5.5-4, the proposed project could generate up to 5,176 pounds per day of carbon monoxide, 766 pounds per day of nitrogen oxides and 432 pounds per day of reactive organic gases. These amounts would exceed SCAQMD recommended daily thresholds. However, emissions of sulfur oxides and PM10 would be below SCAQMD thresholds. Because there would be exceedance of the SCAQMD's daily thresholds by three criteria pollutants from the project-related operations, the proposed project would result in significant air quality impacts without mitigation.

Future Cumulative (Building of County and City General Plans)/Non-Project Plus Project

For the significant cumulative impacts under the buildout scenario of the Los Angeles County General Plan and the City of Santa Clarita General Plan, the following mitigation measure to increase capacity on Copper Hill Drive was developed:

10. Prior to General Plan buildout (Year 2030), or as determined by the County of Los Angeles Public Works Department, Copper Hill Drive will be upgraded from a six-lane Major Arterial Highway to an eight-lane facility both north and south of Newhall Ranch Road. The northerly limit of this upgrading should be between Decoro Road and Newhall Ranch Road; the southerly limit should be between Avenue Scott and Newhall Ranch Road. These northerly and southerly limits should be defined by the locations of the principal east-west collector streets/driveways serving the major land uses adjacent to Copper Hill Drive between Decoro Road and Avenue Scott.

This improvement would be implemented through a B&T district, to which the project would contribute.

UNAVOIDABLE ADVERSE IMPACTS

Project

With the incorporation of mitigation measures project-related impacts at three of the seven significantly impacted intersections in the A.M. peak hour and four of the 11 intersections impacted during the P.M. Peak hour would be reduced to levels that are considered less than significant. Of the remaining intersections two of the seven impacted intersections impacted in the A.M. Peak hour and three of the 11 intersections impacted in the P.M. Peak Hour can be mitigated but not to a level of insignificance. The following intersections would have significant impacts that cannot be mitigated to a level that is considered less than significant: signif.

A.M. Peak

- I-5 Northbound ramps-Magic Mountain Parkway
- I-5 Southbound ramps-Magic Mountain Parkway

P.M. Peak

- Bouquet Canyon Road/Newhall Ranch Road
- Magic Mountain Parkway-Valencia Boulevard

- I-5 Ramps/Magic Mountain Parkway

In addition to the intersections identified above, the following intersections would be significantly impacted by the project and no feasible mitigation exists to mitigate the project's impacts:

A.M. Peak

- Seco Canyon Road-Decoro Drive
- Bouquet Canyon Road-Seco Canyon Road

P.M. Peak

- Seco Canyon Road-Decoro Drive
- Bouquet Canyon Road/Seco Canyon Road
- Bouquet Canyon Road/Valencia Boulevard-Soledad Canyon Road
- Magic Mountain Parkway-McBean Parkway

As a result, the proposed project would have significant unavoidable impacts at the above listed intersections.

The following Caltrans roadway segments would be unavoidably impacted:

- **Magic Mountain Parkway**, between I-5 and Tourney Road
- **SR-126/Newhall Ranch Road**, between Dickason Drive and McBean Parkway, and between McBean Parkway and Bouquet Canyon Road)

Cumulative

With the incorporation of cumulative mitigation measures, cumulative impacts at nine of the eleven significantly impacted intersections in the A.M. peak hour and five of the nine intersections impacted during the P.M. Peak hour would be reduced to levels that are considered less than significant. Of the remaining intersections one of the 11 impacted intersections impacted in the A.M. Peak hour and three of the nine intersections impacted in the P.M. Peak Hour can be mitigated but not to a level of insignificance. The following intersections would have cumulative significant impacts that cannot be mitigated to a level that is considered less than significant:

A.M. Peak

- Magic Mountain Parkway-Valencia Boulevard

P.M. Peak

- Magic Mountain Parkway-Valencia Boulevard
- Copper Hill Drive-Newhall Ranch Road
- Avenue Scott-McBean Parkway

In addition to the intersections identified above, the following intersections would have significant cumulative impact by the project and no feasible mitigation exists to mitigate the project's cumulative impacts:

A.M. Peak

- McBean Parkway-Valencia Boulevard

P.M. Peak

- McBean Parkway-Valencia Boulevard

As a result, the proposed project would have significant unavoidable cumulative impacts at the above mentioned intersections.

In addition, under the general plan buildout scenario, the following roadway segments would be unavoidably impacted:

- **McBean Parkway**, between Decoro Road and Newhall Ranch Road, between Avenue Scott and Magic Mountain Parkway, and between Valencia Blvd., and I-5
- **Bouquet Canyon**, between Newhall Ranch Road and Soledad Canyon Road
- **Newhall Ranch Road**, between Bouquet Canyon Road and McBean Parkway, and between McBean Parkway and Dickason Drive
- **Valencia Boulevard**, between Magic Mountain Parkway and McBean Parkway, and between McBean Parkway and I-5

5.5 AIR QUALITY

ENVIRONMENTAL SETTING

Regulatory Requirements

Air quality in the Basin is regulated by federal, state, and regional control authorities. The U.S. Environmental Protection Agency (EPA) is involved in local air quality planning through the federal Clean Air Act (CAA), as recently amended by the Clean Air Act Amendments of 1990 (the "1990 Amendments"). The EPA is responsible for setting and enforcing the national standards for atmospheric pollutants. The EPA enforces these national standards and also regulates emission sources that are under the exclusive authority of the federal government, such as aircraft and certain locomotives. At the state level, the Lewis-Presley Air Quality Management Act (originally adopted in 1976 and substantially amended in 1987) and the California Clean Air Act of 1988 (the Sher Bill, AB 2595) set air quality planning and regulatory responsibilities for the Basin. The California Air Resources Board (ARB), which became part of the California Environmental Protection Agency (Cal EPA), is charged with the responsibility for ensuring implementation of the California Clean Air Act (CCAA), responding to the CAA, coordinating efforts to attain and maintain ambient air quality standards, and conducting research into the causes of, and solutions to, air pollution problems. At the regional level, the SCAQMD and the Southern California Association of Governments (SCAG) have responsibility for preparing and periodically revising the Air Quality Management Plan (AQMP), which contains measures to meet state and federal requirements. 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 plans.

Federal Regulatory Requirements

The early federal legislative response to air quality concerns consisted of the Air Pollution Control Act of 1955, the Clean Air Act of 1963, and the Air Quality Act of 1967. The goal of the Clean Air Act (CAA) of 1970, as stated by Congress in the 1977 CAA Amendments, was "to protect and enhance the quality of the nation's air resources." The 1990 Amendments are extremely broad. One of the primary goals of the 1990 Amendments was an overhaul of the planning provisions for those areas not currently meeting National Ambient Air Quality Standards (NAAQS). The major titles of the 1990 Amendments address attainment of air quality standards, mobile source emissions, air toxics, acid rain, a new federal permit program, enforcement, and protection of stratospheric ozone. The

titles that most substantially affect the air quality analysis of the proposed project are Title I (attainment and maintenance provisions) and Title II (mobile source provisions).

Title I of the Clean Air Act Amendments of 1990

The goal of Title I is to attain federal air quality standards for six criteria pollutants: ozone (O_3), carbon monoxide (CO), fine particulate (PM10), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead (Pb). Federal standards, which are established by the EPA at levels to protect public health with an adequate margin of safety, are presented in Table 5.5-1, Ambient Air Quality Standards.

The 1990 Amendments divided the nation into five categories of planning regions, depending on the severity of their pollution, and set new timetables for attaining the air quality standards. The categories range from "marginal" to "extreme." Attainment deadlines are from 3 to 20 years, depending on the category. The South Coast Air Basin is the only region in the nation classified as an "extreme" ozone nonattainment area. For areas designated "extreme," Section 181 of the CAA sets the ozone attainment deadline as 20 years from the date of the CAA's enactment. Deadlines for attainment of carbon monoxide and PM10 standards are 2000 and 2005, respectively.

Title I also requires each nonattainment area to submit a comprehensive inventory of actual emissions as part of a State Implementation Plan (SIP) revision to demonstrate the means for achieving federal standards by the established deadlines. Each nonattainment area must achieve a 15 percent reduction from its actual 1990 emissions inventory within 6 years. Thereafter, each area must achieve a 3 percent annual reduction. The SCAQMD and ARB have a good record for providing the required SIP submittals in the allotted time frame. The Basin has been able to comply with all key actions required under Title I.

Provisions of Section 182 of the 1990 Clean Air Act Amendments relate to ozone nonattainment areas and Sections 186 and 187 relate to carbon monoxide nonattainment areas. These sections emphasize strategies for reducing vehicle miles travelled. Section 182 requires submission of a SIP revision "that identifies and adopts specific enforceable transportation control strategies and transportation control measures to offset any growth in emissions from growth in vehicle miles travelled or numbers of vehicle trips in such area" to meet statutory requirements for demonstrating periodic emissions reduction requirements. Section 187 makes the same basic requirement applicable to carbon monoxide nonattainment areas. Section 189 sets forth requirements for PM10 nonattainment areas.

TABLE 5.5-1

AMBIENT AIR QUALITY STANDARDS

Air Pollutant	California Concentration[a]	National[b] Primary(>)	National[b] Secondary(>)
Ozone	0.09 ppm, 1-hr. avg.	0.12 ppm, 1-hr. avg.	0.12 ppm, 1-hr. avg.
Carbon Monoxide	9.0 ppm, 8-hr. avg. 20 ppm. 1-hr. avg.	9.0 ppm, 8-hr. avg. 35 ppm, 1-hr. avg.	9.0 ppm, 8-hr. avg. 35 ppm, 1-hr. avg.
Nitrogen Dioxide	0.25 ppm, 1-hr. avg.	0.053 ppm, annual avg.	0.053 ppm, annual avg.
Sulfur Dioxide	0.05 ppm, 24-hr avg.[c] 0.25 ppm, 1-hr. avg.	0.03 ppm, annual avg. 0.14 ppm, 24-hr. avg.	0.50 ppm, 3-hr. avg.
Suspended Particulate Matter (PM 10)	30 ug/m^3 annual geometric mean 50 ug/m^3, 24-hr. avg.	50 ug/m^3, annual arithmetic mean 150 ug/m^3, 24-hr. avg.	50 ug/m^3, annual arithmetic mean 150 ug/m^3, 24-hr. avg.
Sulfates	25 ug/m^3, 24-hr. avg.		
Lead	1.5 ug/m^3, 30-day avg.	1.5 ug/m^3, calendar quarter	1.5 ug/m^3, calendar quarter
Hydrogen Sulfide	0.03 ppm, 1-hr. avg.		
Vinyl Chloride	0.010 ppm, 24-hr. avg.		
Visibility-Reducing Particles	In sufficient amount to reduce the prevailing visibility to less than 10 miles at relative humidity less than 70%, 1 observation		

[a] California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxides (1-hour), nitrogen dioxide, suspended particulate matter-PM10 visibility reducing particulates, are values that are not to be exceeded. The sulfur dioxide (24-hour), sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride standards are not to be equaled or exceeded.

[b] National standards, other than ozone and those based on annual averages or annual arithmetic means, are not to exceed more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentration above the standard is equal to or less than one.

[c] At locations where the state standards for ozone and/or total suspended particulate matter are violated. National standards apply elsewhere.

Note: ppm = parts per million by volume.
ug/m3 = micrograms per cubic meter.

Source: California Air Resources Board 1991.

Title II of the Clean Air Act Amendments of 1990

Title II of the 1990 Amendments, which contains provisions to control emissions from mobile sources, includes the following measures to reduce pollutants from mobile sources: (1) mandatory use of cleaner, reformulated gasoline in those cities with the most severe ozone problem, (2) use of cleaner fuels, such as methanol and natural gas, to meet particulate standards, and (3) requirements on auto manufacturers to reduce tailpipe emissions of hydrocarbons (HC) and oxides of nitrogen (NOx). Section 177 of Title II permits California to adopt stricter vehicle emission standards and allows other states to adopt California's stricter standards.

California Clean Air Act Requirements

The California Clean Air Act of 1988 (CCAA), amended in 1992, requires all air districts in the state to endeavor to achieve and maintain state ambient air quality standards for ozone, carbon monoxide, sulfur dioxide, and nitrogen dioxide by the earliest practicable date. California's ambient air standards are generally stricter than national standards for the same pollutants. California also has established its own standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. California standards are also shown on Table 5.5-1.

Based on pollutant levels, the 1992 amendments to the CCAA divide ozone nonattainment areas into four categories—moderate, serious, severe, and extreme—to which progressively more stringent requirements apply. An extreme ozone nonattainment area is one in which ozone concentrations were greater than 0.20 parts per million (ppm) during 1989-91. The Basin is designated a "serious" area for carbon monoxide and nitrogen dioxide. Riverside and San Bernardino counties are designated "attainment" for state carbon monoxide standards. Fine particulate matter (PM10) is not currently addressed in the CCAA. The Basin is nearing attainment for sulfates and has met attainment goals for all other criteria pollutant standards. The 1988 CCAA, upon which the 1991 regional air quality management plan and the 1994 revisions were based, specified that attainment plans for areas which could not demonstrate attainment of state standards until after December 31, 1997, must include specified emission reduction strategies and meet milestones in implementing emission controls and achieving more healthful air quality.

Specific strategies for these nonattainment areas include (1) an indirect and area source control program, (2) best available retrofit control technology (BARCT) for existing sources, (3) a program to mitigate all emissions from new and modified permitted sources, (4) transportation control measures to attain a 1.5 average passenger vehicle ridership during weekday commute hours, and (5) significant

use of low-emission vehicles by fleet operators. The CCAA also includes several additional goals and requirements, including reducing districtwide emissions, vehicular trips, and vehicle miles traveled, as well as ranking control measures by priority and cost effectiveness, no net increase in vehicle emissions after 1997, and a reduction in overall population exposure to ambient pollutant levels in excess of the applicable standards by at least 50 percent of 1986-88 levels by December 31, 2000.

The CCAA provides air districts with new authority to regulate indirect sources. Each district plan is to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in districtwide emissions of each nonattainment pollutant or its precursors unless, despite the inclusion of all feasible measures in the plan and an expeditious adoption schedule, the area is not able to achieve the required 5 percent annual reduction. However, an air basin may use an alternative emission reduction strategy which achieves a reduction of less than 5 percent per year if it can be demonstrated that either of the following applies:

- The alternative emission reduction strategy is equal to or more effective than the 5 percent per year control approach in improving air quality; or
- That despite the inclusion of every feasible measure, and an expeditious adoption schedule, the air basin is unable to achieve the 5 percent per year reduction in emissions.

Regional Air Quality Planning

The SCAQMD and SCAG are responsible for formulating and implementing the AQMP for the Basin. Designated portions of the AQMP which are prepared to comply with federal and state standards are submitted to the ARB for incorporation in the SIP with plans and regulations from other air quality management and air pollution control districts in the state. Because air quality plans are prepared to meet CCAA requirements, as well as federal CAA requirements, they may be broader than federal requirements in certain respects.

Regional AQMPs were prepared for the Basin in 1979, 1982, 1989, 1991, and 1994. Each revision of the AQMP represents a snapshot in time, based on best available information. The 1994 Air Quality Management Plan, which contains measures intended to comply with the CAA and CCAA, was adopted by the SCAQMD Board on September 9, 1994, submitted to the ARB, and approved on November 15, 1994. The 1994 AQMP generally follows the structure of the last plan (1991) but like all new editions includes many enhancements. Previous versions of the AQMP have been submitted to EPA, which has approved portions of the plan for inclusion in the SIP for the Basin. However,

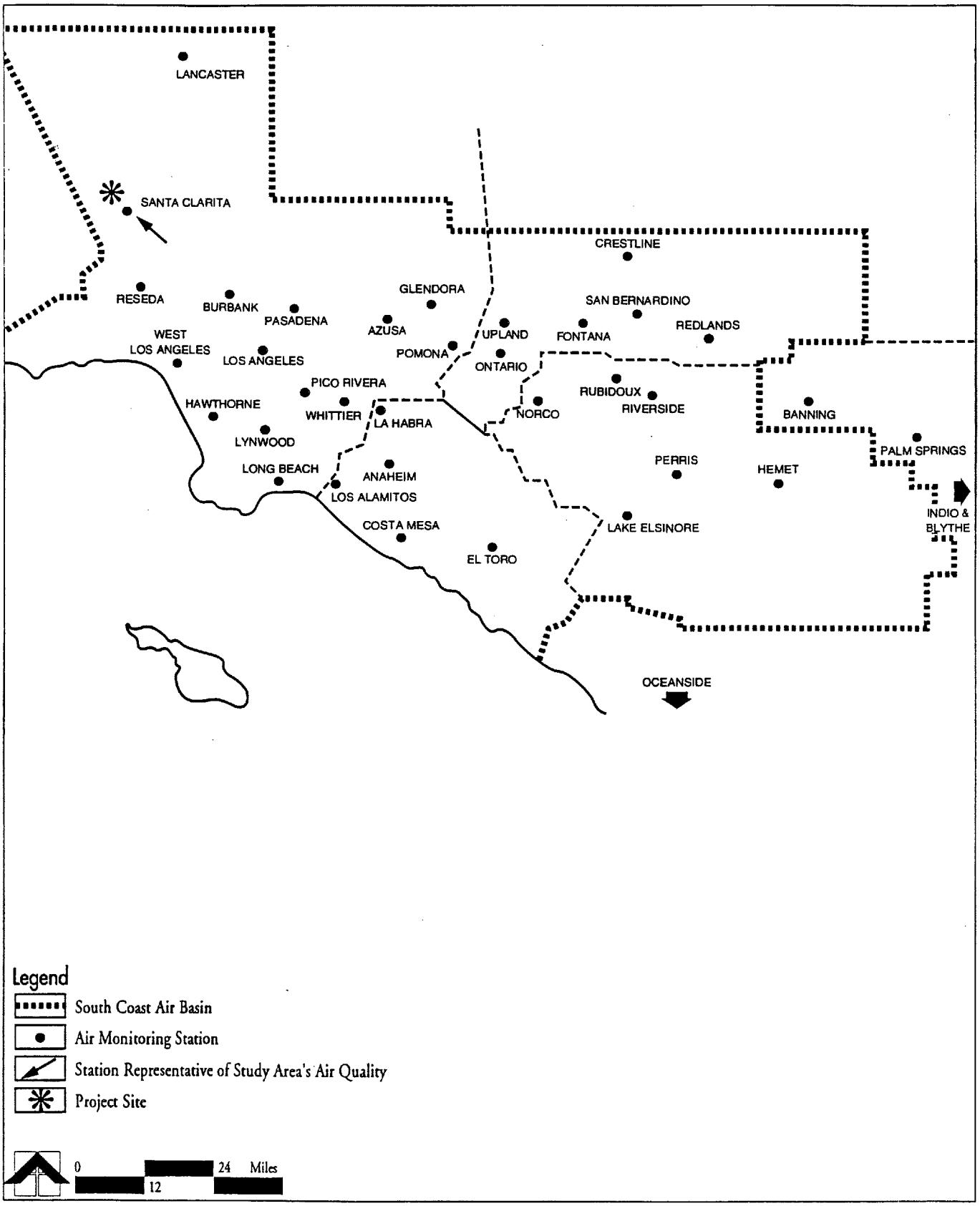
because the Basin does not have an approved plan that demonstrates attainment of all NAAQS by the CAA deadlines, and pursuant to a decision of the Ninth Circuit Court of Appeals (*Coalition for Clean Air v. United States EPA*, July 1, 1992), EPA was required to prepare a Federal Implementation Program (FIP) for the Basin. The final FIP was adopted in February 1995. Implementation of the FIP, however, has been postponed for 2 years until 1997, in order for the EPA to have sufficient time to review the California SIP submitted on November 15, 1994. The 1994 regional AQMP update is closely coordinated with the FIP proposed by the federal EPA last February. If EPA determines that SCAQMD's 1994 plan will adequately clean up pollution, EPA can substitute it for all or part of the federal plan.

Federal law requires only an ozone plan this year, giving the region until 1997 to submit a PM10 plan to achieve health standards for particulate. This will give SCAQMD additional time to fine tune nitrogen oxide control measures, necessary to control PM10, that rely on advanced technology, like clean fuels. In addition, revised conformity procedures have not been adopted to date. Until the conformity procedures for the 1994 AQMP are adopted, the 1991 Conformity Procedures will be used to make a AQMP conformity determination related to the proposed project. As required by the CCAA, the 1991 AQMP contains a number of indirect source measures, including a revision to the SCAQMD's Regulation XV, which requires that large employers in the basin submit plans specifying how they will achieve average ridership targets for their employees during peak rush hours. Regulation XV currently applies to employers of 100 or more persons; the AQMP proposes various extensions of Regulation XV, including lowering the threshold to employers of 50 or more persons. However, subsequent state legislation prohibits the SCAQMD from overriding the threshold from 100 until sometime after February 1997.

Setting

The proposed project is located in the north central portion of the South Coast Air Basin of California, a 6,600 square mile area encompassing Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties. Bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino and San Jacinto Mountains to the north and east, the South Coast Air Basin is an area of high air pollution potential.

The SCAQMD is responsible for monitoring air quality in the South Coast Air Basin and regulating emissions produced within its jurisdiction. The SCAQMD samples ambient air at numerous monitoring stations in the Basin. Locations of these stations are shown on Exhibit 5.5-1.



Michael Brandman Associates

exhibit **5.5-1**

SCAQMD Monitoring Stations

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: SCAQMD, 1992.

Ambient (background) air quality is described in terms of compliance with state and national standards. Ambient air quality standards (AAQS) are the levels of air pollutant concentrations considered safe to protect the public health and welfare. They are designed to protect people most sensitive to respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. National AAQS were established by the U.S. Environmental Protection Agency (EPA) in 1971 for six air pollution constituents. States have the option to add other pollutants, require more stringent compliance, or include different exposure periods.

Air Quality

The California Air Resources Board (CARB) is the state agency responsible for air quality regulation at the state level. CARB is required by the Clean Air Act and the United States Environmental Protection Agency (EPA) to designate areas of the state as attainment, nonattainment, or unclassified for any state standard. An attainment designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A nonattainment designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation(s) was caused by an exceptional event, as defined in the criteria.

The South Coast Air Basin is designated nonattainment for several pollutants. Criteria (i.e., hazardous, monitored) pollutants are described below.

- **Ozone**--(O_3) a colorless toxic gas that is the result of chemical reactions of nitrogen oxides (NOx), and reactive organic compounds (ROC), which are described below. The gas irritates the lungs and damages materials and vegetation. Levels of ozone exceed national and state standards throughout the Basin.

- **Carbon Monoxide**--Carbon monoxide (CO) is a colorless gas, produced almost entirely from automobiles, that interferes with the transfer of oxygen to the brain. Peak levels of carbon monoxide occur in winter throughout the Basin, and are highest where there is heavy traffic. National and state standards for carbon monoxide are exceeded in the more densely populated areas of Los Angeles County. The South Coast Air Basin is classified as a nonattainment area for the national carbon monoxide standards.

- **Nitrogen Dioxide**--Nitrogen dioxide is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of nitrogen dioxide occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations) in the vicinity. The national and state nitrogen dioxide standard is exceeded in Los Angeles County, the only area

which still exceeds this standard. The entire Basin is designated as a nonattainment area for both state and national nitrogen dioxide standards.

- **Total Suspended Particulates/Particulate Matter**--Particulate matter is composed of finely divided solids or liquids such as dust, soot, aerosols, fumes, and mists. PM10 includes only particulate matter of 10 microns or less in diameter and of concern because they are capable of penetrating the body's natural defense system and reaching the lungs. PM10 levels regularly exceed the national standard in Los Angeles County and the more stringent state PM10 standard. The entire Basin is designated as nonattainment for PM10 standards.

- **Sulfur Dioxide and Lead**--Sulfur dioxide and lead levels in all areas of the Basin are below national and state standards. The entire Basin is in attainment for these pollutants.

Local Air Quality

Setting

The project includes one of the dominate ridgelines that define the Santa Clarita Valley. The site is located in the northern portion of the valley and is adjacent to the Angeles National Forest. The Santa Clarita area is a suburban area facing rapid expansion due to its favorable land values and reasonable commute distances to metropolitan Los Angeles. The South Coast Air Quality Management District (SCAQMD) operates the Santa Clarita monitoring station, which provides the most accurate characterization of the baseline air quality in the study area due to its proximity to the project site. Table 5.5-2 summarizes the last 5 years of published data from the Santa Clarita monitoring station.

Air Quality

As shown in Table 5.5-2, ozone concentrations exceeded the state standard 92 days in 1993 at the Santa Clarita monitoring station. The highest ozone concentration measured at the station in 1993 was slightly more than twice the state standard of 0.09 parts per million (ppm). The highest ozone concentration measured at the Santa Clarita station (1988) was more than two and a half times the state standard.

Concentrations of nitrogen dioxide (NO2) at the Santa Clarita monitoring station were well below the state standard for last year. CO levels have remained safely below the 1-hour and 8-hour state

standards at the station. However, the 24-hour PM10 concentration exceeded the state standard in approximately 15 to 46 percent of the samples taken at the station in the past 4 years.

Climate

Regional Conditions

Meteorological conditions in the Basin, such as light winds and shallow vertical mixing, and topographical features, such as surrounding mountain ranges, hinder the dispersal of air pollutants. The strength and location of a semipermanent, subtropical high pressure cell over the Pacific Ocean primarily controls the climate of the Basin. Climate is also affected by the moderating effects of the nearby oceanic heat reservoir. Warm summers, mild winters, infrequent rainfall, moderate daytime onshore breezes, and moderate humidities characterize climatic conditions throughout most of the Basin.

Differences in terrain cause a number of micro-climates to exist within the Basin's overall climate. The pattern of mountains and hills is primarily responsible for the wide variations of rainfall, temperatures, and localized winds that occur throughout the region. Temperature variations have an important influence on wind flow in the Basin, dispersion along mountain ridges, vertical mixing, and photochemistry. The moderating marine influence decreases with distance from the ocean, resulting in monthly and annual temperature spreads that are greatest inland and smallest at the coast. Precipitation is highly variable seasonally. Summers are often completely dry, resulting in periods of 4 to 5 months without rain. In winter, occasional storms from high latitudes sweep across the coast, bringing rain. Annual rainfall is lowest in the coastal plain and inland valleys, higher in the foothills, and highest in the mountains.

Frequent temperature inversions in the Basin trap air pollutants in a limited atmospheric volume near the ground and hamper dispersion. In January, a surface inversion exists on 70 percent of the mornings. Average wind speed in the Basin is less than 5 miles per hour on 80 percent of the days during the summer smog season; this is a measure of daily air stagnation.

TABLE 5.5-2

SUMMARY OF ANNUAL AIR QUALITY DATA
SANTA CLARITA AIR MONITORING STATION

Pollutant Standards[a]	1989	1990	1991	1992	1993
Ozone (O_3)					
State Standard (1-hr. avg., >0.09 ppm)[b]					
National Standard (1-hr. avg., >0.12 ppm)	0.25	0.23	0.24	0.22	0.22
Maximum Concentration	122	115	118	127	92
Number of Days State Standard Exceeded	71	62	65	71	44
Number of Days Federal Standard Exceeded					
Carbon Monoxide (CO)					
State Standard (1-hr./8-hr. avg. >20/9.1 ppm)					
Federal Standard (1-hr./8-hr. avg. >35/9.5 ppm)	12/5.4	11/4.	9/5.1	8/3.7	8/3.9
Maximum Concentration 8-hr. period	0	6	0	0	0
Number of Days State 1-hr. Standard Exceeded	0	0	0	0	0
Number of Days Federal 1-hr.Standard Exceeded		0			
Nitrogen Dioxide ($N0_2$)					
State Standard (1-hr. avg., >0.25 ppm)					
Federal Standard (0.0534 AAM in ppm)					
Maximum 1-hr. concentration	0.13[b]	0.15	0.17	0.11	0.13
Number of Days State Standard Exceeded	0	0	0	0	0
Percent Federal Standard Exceeded	0	0	0	0	0
Suspended Particulates (PM10[c])					
State Standard (24-hr. avg., > 150 ug/m3)					
Federal Standard (24-hr. avg., >260 ug/m3)	100	93	81	84	75
Maximum 24-hr. Concentration	48	26	42	3	15
Percent Samples Exceeding State 24-hr. Standard	0	0	0	0	0
Percent Samples Exceeding Federal 24-hr. Standard					

[a] Pollutants shown are those monitored at this station.
[b] Less than 12 full months of data. May not be representative.

Source: California Air Resources Board Air Quality Data 1989, 1990, 1991, 1992, and 1993.

Southern California frequently experiences temperature inversions which inhibit pollutant dispersal. Inversions may be either ground-based or elevated. Ground-based inversions are most severe during clear, cold early winter mornings. At this time, the greatest pollution problems are from carbon monoxide (CO) and nitrogen oxides (NOx). High carbon monoxide concentrations occur on winter days with strong surface inversions and light winds. Carbon monoxide transport is extremely limited, and highest concentrations occur in close proximity to the source of emissions. Since carbon monoxide is produced almost entirely from automobiles, the highest concentrations are associated with areas of heavy traffic.

Elevated inversions act as a lid or upper boundary and restrict vertical mixing. Mixing heights for elevated inversions are lower in the summer and more persistent. The low summer inversions are partly responsible for the high levels of ozone experienced during the summer months.

During summer's longer daylight hours, sunshine provides the energy needed to fuel the photochemical reactions between NOx and reactive organic compounds (ROC) which form ozone. Formation of high levels of ozone requires ample sunlight, early morning stagnation in source areas, high surface temperatures, strong and low morning inversions, greatly restricted vertical mixing during the day, and daytime subsidence that strengthens the inversion layer. The most frequent ozone transport route is from source areas in coastal areas to receptor areas along the base of the San Gabriel and San Bernardino mountains. On the rare days with offshore flows, ozone transport is more limited, and highest concentrations occur in the western portion of the Basin.

High nitrogen dioxide (NO_2) levels usually occur during the autumn or winter on days with summer-like weather conditions. These conditions include low inversions, limited daytime mixing, and stagnant windflows. Although days are clear, sunlight is limited in duration and intensity. Photochemical reactions which would otherwise form ozone are incomplete.

Atmospheric particulates are made up of fine solids or liquids such as soot, dust, aerosols, fumes, and mists. A large portion of the total suspended particulate (TSP) matter in the atmosphere is finer than ten microns (PM10). As with ozone, a substantial fraction of PM10 forms in the atmosphere as a result of chemical reactions. Peak concentrations of both ozone and PM10 occur downwind of precursor emission sources.

Environmental Impacts

Threshold of Significance

Appendix G (Significant Effects) of the Guidelines to the California Environmental Quality Act (CEQA) states that a project would normally be considered to have a significant effect on air quality if the project violates any ambient air quality standard, contributes substantially to an existing air quality violation, or exposes sensitive receptors to substantial pollutant concentrations.

The SCAQMD April 1993 *CEQA Handbook* provides recommended air pollution thresholds in total pounds per day for criteria pollutants, for lead agencies (i.e., County of Los Angeles) to consider and use in determining whether a project's air quality impacts are significant. These thresholds in total pounds per day for criteria pollutants. These thresholds are listed below:

- 55 pounds per day of ROC
- 55 pounds per day of NOx
- 550 pounds per day of CO
- 150 pounds per day of PM10
- 150 pounds per day of SOx
- State 1-hour or 8-hour standard for CO

All project emissions associated with operation should be included when determining whether the project exceeds these thresholds. Projects in the Basin with daily operation-related emissions that exceed any of the above emission thresholds are considered by the SCAQMD to have a significant impact on air quality.

Additionally, the following significance thresholds for construction emissions have been established by the SCAQMD:

- 2.5 tons per quarter of ROC
- 2.5 tons per quarter of NOx
- 24.75 tons per quarter of CO
- 6.75 tons per quarter of PM10
- 6.75 tons per quarter of SOx

However, if the daily construction emissions exceed 75 lb/day for ROC, or 100 lb/day for NOx, or 550 lb/day for CO, or 150 lb/day for PM10, the project should also be considered significant.

Projects in the South Coast Air Basin with construction-related emissions in a quarterly period that exceed any of the emission thresholds should be considered to be significant.

The potential air quality impacts of the proposed project have been analyzed using the emission factors developed by the ARB. Emissions from the project fall into three major categories:

- Construction Emissions: Airborne dust and emissions from heavy equipment used during the construction phases of the proposed project.
- Operational Mobile Emissions: Vehicle emissions resulting from traffic traveling to and from the proposed project.
- Operational Stationary Emissions: Stationary emissions resulting from offsite electrical power generation associated with the various land uses of the project.

Construction Impacts

The site preparation (i.e., grading) for construction would produce two types of air contaminants: exhaust emissions from construction equipment and fugitive dust generated as a result of soil movement required for grading. These construction impacts could be expected during each phase of the four phase development, which is anticipated to last between one to two years. The emissions produced during grading and construction activities are short-term. Fugitive dust emissions could be troublesome to workers and nearby residents, depending upon prevailing wind conditions and the intensity of activities, even when mitigation measures are followed.

Emissions From Construction

Emissions from construction activities include those associated with the transport of workers and machinery to the site, emissions from the application of architectural coatings as well emissions produced onsite as the equipment is used. Exhaust emissions vary substantially from day to day, depending on the level of activity, and cannot be quantified without appropriate data on the numbers and types of equipment needed. Since specific data for construction equipment is not known for the project, standard default assumptions (including on-site construction equipment and workers travel, and daily duration of equipment operation) developed by the SCAQMD were used to calculate construction emissions. These assumptions are contained in Table 9-1 of the SCAQMD April 1993 *CEQA Air Quality Handbook.*

Table 5.5-3 lists the calculated emissions from construction equipment and workers' travel to and from the site for the worst-case scenario (i.e., the phase of development with the highest level of construction activity). Therefore, daily emissions for other phases of development would be equal to or less than the emissions shown in Table 5.5-3.

TABLE 5.5-3
MAXIMUM DAILY (PLANNING AREA A) CONSTRUCTION EMISSIONS (lbs/day)[1]

	Size	ROC	NOx	CO	PM10
SFR[2]	2.188 msf	80	1,042	227	74
MFR[3]	1.065 msf	31	457	99	32
Comm.	50 ksf	2	32	7	2
School	18 ksf	1	17	4	1
Grading		--	--	--	1,012
Total		114	1,548	337	1,121
SCAQMD Threshold		55	55	550	150
Significant Impact		Yes	Yes	No	Yes

1 Assumes 730 day (2 year) construction duration and includes emissions from construction equipment, construction workers' travel and fugitive dust emissions.
2 Avg. 3,500 sf for SFR
3 Avg. 1,500 sf for MFR

Source: Michael Brandman Associates 1993, South Coast Air Quality Management District, Table 9-1 of the *CEQA Air Quality Handbook 1993*.

Volatile organic compounds (VOC) and reactive organic compounds (ROC) from construction-related architectural coatings emissions were calculated, based on available design information as well as best-effort assumptions suggested by the District's staff (personal communications, Ms. Shalini George, September 13, 1993). Based on Table A.9-13, ESTIMATING EVAPORATIVE EMISSIONS FROM ARCHITECTURAL COATINGS AND BUILDING MATERIALS (pounds per day) in the SCAQMD 1994 *CEQA Air Quality Handbook*, VOC emissions associated with architectural coatings that would

be applied to the 3,000 single- and multi-family homes, commercial uses, and the club house and pro shop for the Swim and Tennis Club are calculated for the proposed project. The proposed residential use has a total of 611.5 acres, with lot size varying from 4,200 square feet to 1 acre, and building size varying from 1,250 to 5,000 square feet. The emission rate limit for non-mitigated emissions from architectural coatings (for 25 percent transfer efficiency of air atomized spray equipment) in Rule 1113 is 250 grams per liter, or 2.08 pounds per gallon. The VOC/ROC emitted, using Table A9-13-C, is 18.50 pounds for 1 mil thick architectural coatings on a 1,000 square feet area. The total thickness of the architectural coatings on exterior and interior walls was assumed to be 17.5 mils, based on recommendations in Table A.9-13. Therefore, the total non-mitigated VOC/ROC emissions associated with the 3,000 homes are approximately 5,652,660 pounds, or approximately 2,826 tons.

Similarly, the total unmitigated VOC/ROC emissions associated with construction of the commercial uses, two schools, fire station, maintenance building, and the pro shop/club house structures are approximately 84,823 pounds, or 42.4 tons. Therefore, total non-mitigated VOC/ROC emissions associated with constructions of the proposed project are approximately 5,737,483 pounds, or 2,868.4 tons. Because there are no data available for the time period that construction of these homes and commercial/recreational structures would take, no specific daily VOC/ROC emissions over a certain period of time can be calculated at this time.

As a mitigation measure, when a high-volume low-pressure spray (HVLP) with 65 percent transfer efficiency is used for architectural coatings application, VOC/ROC emissions would be reduced from the unmitigated levels. Based on data in Table A11-13 in the *CEQA Air Quality Handbook*, architectural coatings for the 3,000 homes would emit approximately 2,175,510 pounds, or 1,088 tons of VOC/ROC. This is approximately 62 percent reduction from the non-mitigated emissions. The VOC/ROC emissions from the commercial uses and the club house/pro shop structures would be reduced to 32,645 pounds, or 16.3 tons. This is approximately 92 percent reduction from the nonmitigated emissions. Total mitigated (65 percent transfer efficiency) VOC/ROC emissions associated with the proposed project are approximately 2,208,155 pounds, or 1,104 tons. This is almost 62 percent lower than the non-mitigated ROC emissions.

Further reduction of the architectural coatings-related VOC/ROC emissions can be achieved by using 100 percent transfer efficiency method, or hand application such as paint brush, hand roller, trowel, spatula, dauber, rag, or sponge. Mitigated VOC/ROC emissions in this case are 1,411,637 pounds (706 tons, 75 percent reduction from non-mitigated emissions) from the 3,000 homes and 21,183 pounds (10.6 tons, 75 percent reduction from non-mitigated emissions) from the commercial uses and club house/pro shop structures. Total mitigated (100 percent transfer efficiency) VOC/ROC

emissions associated with the proposed project are approximately 1,432,820 pounds, or 716.6 tons. This is almost 75 percent lower than the non-mitigated ROC emissions.

The development of Planning Area "A" will entail the most intense levels of development of all the project's phases because most units would be built during this phase than any other, the most grading would occur, the commercial uses would be built, and the project-related infrastructure would be constructed. Therefore, Planning Area A was used to represent a worst-case scenario for the calculation of construction emissions. This analysis assumes that the phase would take approximately 2 years (730 days) to construct. Again, this estimate of emissions represents a worst case scenario because actual construction would not likely occur seven days a week for two years. Regardless, of the potential for potentially overstating emissions, construction emissions associated with Planning Area A would represent the worst-case construction impact scenario.

As shown in Table 5.5-3, construction emissions would exceed SCAQMD's daily emissions thresholds for ROC, NOx, and PM10. This would be considered a significant unavoidable impact of the project.

Fugitive Dust Emissions

Heavy construction is a source of dust emissions that may have substantial temporary impact on local air quality. Building and road construction are the construction categories with the highest emissions potential. Construction emissions are associated with land clearing, blasting, ground excavation, cut and fill operations, and the construction of buildings. Dust emissions also vary substantially from day to day, depending on the level of activity, the specific operations, and weather conditions. A large portion of the emissions result from equipment travelling over unpaved roads at the construction site.

The EPA estimates that each acre of soil disturbed creates about 110 pounds of dust per workday during the construction life of any project. This value depends on soil moisture, silt content, wind speed, construction density, and many other factors. According to the methodology outlined in Table 9-2 of the SCAQMD 1993 *CEQA Air Quality Handbook*, the inhalable component of fugitive dust, PM10, accounts for 55 pounds per day for each acre disturbed. As described above, construction activity associated with Planning Area A would be more intensive than development of any other Planning Area. As discussed in Section 3.4, Project Characteristics, Planning Area A would consist of 443 acres. However, 50 acres would remain in a natural state while 392 acres would be developed. During the 2 year construction duration of Planning Area A, an average of 20 percent of the Planning Area (18.4 acres) would be under active construction. Therefore, using SCAQMD's methodology for estimating PM10 emissions and the same assumptions for calculating the worst case

impact scenario as described above, potential worst-case PM10 emissions associated with the proposed project would be 1,012 pounds per day which exceeds the SCAQMD recommended daily threshold.

The SCAQMD (Rule 403) requires that fugitive dust be controlled so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance offsite. Implementation of these dust suppression techniques as required by the SCAQMD can reduce the fugitive dust generation by 50 to 75 percent. However, even with the SCAQMD recommended mitigation measures included below, construction emissions would remain significant.

Operational Impacts: Stationary Sources

Operational emissions could be generated by both stationary and mobile sources associated with the proposed project. Project-related emissions from both stationary and mobile sources were quantified according to SCAQMD methods and/or use of ARB-approved models. Without mitigation, long-term stationary and mobile emissions can have significant adverse impacts on regional air quality. These emissions are discussed below.

Utility Emissions

Utility emissions related to the project, including those from natural gas consumed onsite and electricity generated offsite, were quantified as described in Appendix 9, Tables A9-11-A and A9-12-A of the SCAQMD 1993 *CEQA Air Quality Handbook*. Natural gas will be consumed onsite. Electricity supplied to the proposed project would most likely not be generated within the local vicinity. In fact, utility companies often receive power generated at various power plants throughout the nation. It is difficult to trace where the power which serves a particular area is generated and, furthermore, where the associated emissions from power generation to serve that area are being emitted. This is important to note because utility-related emissions do not necessarily increase the air pollutant levels within the same basin of the proposed project. For this reason, emissions from the power generated to serve a proposed project may not contribute to local, or even regional pollutant levels. They do, however, contribute on a regional scale to emission levels within the vicinities of the power generating facilities.

Utility, as well as other operational, emissions for the proposed project at buildout are summarized in Table 5.5-4. As indicated in Table 5.5-4, generation of energy required to serve the proposed

project could cause the emission of approximately 21 pounds per day of carbon monoxide, 103 pounds per day of nitrogen oxides (NOx), 7 pounds per day of sulfur oxides (SOx), 3 pounds per day of particulates, and 4 pounds per day of hydrocarbons. Utility-related emissions associated with the proposed project would not measurably increase pollutant levels, but would contribute on a project specific basis to regional increases in emissions from power generating facilities. These estimates do not take into account energy conservation control measures currently required in new development or new emission controls on electrical power generating equipment. While energy consumption of the proposed project would contribute to indirect emissions at regional power plants, these power plants are subject to the SCAQMD's Regulation XX (RECLAIM) for their SOx impacts and will be subject to future similar regulations for NOx and ROC, therefore mitigating these indirect impacts.

Operational Impacts: Mobile Sources

Regional Air Quality

Emissions resulting from vehicle usage were assessed with the California Air Resources Board (CARB) computer model, URBEMIS3 and EMFAC7EP, which was specifically designed to quantify the number of trips and associated emissions generated by a given land use. Input variables include the types and extent of the land uses, trip generation rates, speed, temperature, etc.

Based on the proposed land uses and trip generation data provided in the traffic analysis (Barton-Aschman Associates 1993), emissions were calculated for the proposed project (year 2010). The estimated operational emissions are summarized in Table 5.5-4 (computer output sheets are included in Technical Appendix E).

As indicated in Table 5.5-4, the proposed project could generate up to 5,176 pounds per day of carbon monoxide, 766 pounds per day of nitrogen oxides and 432 pounds per day of reactive organic gases. These amounts would exceed SCAQMD recommended daily thresholds. However, emissions of sulfur oxides and PM10 would be below SCAQMD thresholds. Because there would be exceedance of the SCAQMD's daily thresholds by three criteria pollutants from the project-related operations, the proposed project would result in significant air quality impacts without mitigation.

TABLE 5.5-4
PROJECT-RELATED OPERATIONAL EMISSIONS
(lbs/day)

Source/Land Use	Pollutant				
	CO	NOx	SOx	PM10	ROC
Electricity[a]	9	56	6	2	1
Natural Gas[a]	12	47	1	1	3
Vehicular Travel (by land use)					
Single-Family Residential	3,486	419	45	39	278
Multi-Family	868	118	13	11	79
Schools	130	20	2	7	12
Swim/Racket Club	61	10	1	3	5
Commercial	610	96	10	34	54
Total(s)	5,176	766	96	97	432
SCAQMD Threshold	550	55	150	150	55
Significant Impact	**Yes**	**Yes**	**No**	**No**	**Yes**

[a] Assumes 16.818 MkWh/yr of electricity and 17.51 mcf/mo of natural gas. Based on Tables A9-11-A, A9-11-B, A9-12-A and A9-12-B of Appendix 9, SCAQMD 1993 *CEQA Air Quality Handbook* (refer to Section 5.11 for additional detail on methodology).

Source: Michael Brandman Associates 1993.

Local Air Quality

The primary mobile source pollutant of local concern is carbon monoxide (CO). Carbon monoxide is a direct function of vehicle idling time, and, thus, traffic flow conditions. Carbon monoxide transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain meteorological conditions, CO concentrations around a congested roadway or intersection may reach unhealthful levels affecting local sensitive receptors (residents, school children, the elderly, hospital patients, etc.).

Localized CO emissions would be associated with the proposed project. The impact of the proposed project on local CO levels was assessed with the Caltrans CALINE4 Air Quality Model, which allows microscale CO concentrations to be estimated along each roadway corridor or intersection. This model is designed to identify localized concentrations of CO, often termed "hot spots." Like Urbemis3, CALINE4 is also based on EMFAC7D, which does not incorporate new mobile emission controls. Though the ARB has introduced several new versions of EMFAC since its introduction of version 7D, the ARB has not updated CALINE4.

Therefore, until such time as CALINE4 is updated, EMFAC version 7D is still appropriate for use. However, the SCAQMD recommends that for projects in the SCAB, a newer version of EMFAC, EMFAC7EP, be used. The SCAQMD 1993 *CEQA Air Quality Handbook* contains emission factors from EMFAC7EP that are appropriate for use in CALINE4. Consistent with SCAQMD guidelines, emission factors for input to CALINE4 were obtained from EMFAC7EP.

The location of the receptors and the results of the analysis are provided in Table 5.5-5. Computer readouts for the CALINE4 model appear in Appendix E. A brief discussion of input to the model follows. The analysis was performed for the worst-case wind angle and windspeed condition and is based upon the assumptions shown in Table 5.5-5.

- The future roadway system is assumed to be the full construction of the General Plan Circulation Element Roadway and include the circulation mitigation measures identified in Section 5.4, Traffic and Circulation.

- Intersections were selected for modeling based on the three intersections with the greatest change in LOS/ICU between the future without the project scenario and the future with the project scenarios. These intersections are: Newhall Ranch Road/Mc Bean Parkway, Copper Hill Drive/Mc Bean Parkway, and Copper Hill Drive/Newhall Ranch Road.

- Eight receptor locations within 5 and 15 meters of the roadway edge were modelled to determine carbon monoxide dispersion concentrations. It should be noted that while there are possibilities that pedestrians and people waiting for buses would be standing close to the curb side on affected roadways with relatively high concentrations of carbon monoxide, there are no significant health and safety impacts anticipated to these people from exposure of high CO levels for a short period of time. It is those people that would stay in their outdoor active living areas, such as backyards, for a prolonged period of time that are considered most impacted by high concentrations of CO. Therefore, receptor locations are selected to be at 5 and 15 meters from the roadway edge.

TABLE 5.5-5

MAXIMUM CARBON MONOXIDE CONCENTRATIONS[a]
(parts per million)

Intersection	Receptor Location/Distance From Intersection (m)	Carbon Monoxide Concentrations: Existing 1993 1-Hr.	Existing 1993 8-Hr.	Cumulative Future Without Project 1-Hr.	Cumulative Future Without Project 8-Hr.	Cumulative Future With Project 1-Hr.	Cumulative Future With Project 8-Hr.
McBean Parkway/ Newhall Ranch Road	NE 24[b]/31[c]	21.5*	12.5*	12.3	6.9	12.7	7.2
	NE 34[b]/41[c]	19.2	10.8*	11.4	6.3	11.8	6.5
	SE 28[b]/28[c]	21.5*	12.5*	12.7	7.2	13.2	7.5
	SE 38[b]/38[c]	19.3	10.9*	11.6	6.4	12.0	6.7
	SW 24[b]/28[c]	22.2*	12.9*	12.8	7.2	13.2	7.5
	SW 34[b]/38[c]	19.8	11.3*	11.7	6.5	12.0	6.7
	NW 24[b]/28[c]	22.5*	13.2*	12.7	7.2	13.2	7.5
	NW 34[b]/38[c]	19.8	11.3*	11.6	6.4	12.0	6.7
Copper Hill Drive/ McBean Parkway	NE 24	NM	NM	9.7	5.1	9.0	5.2
	NE 34	NM	NM	9.1	4.6	9.2	4.7
	SE 21	NM	NM	9.9	5.2	10.5	5.6
	SE 31	NM	NM	9.2	4.7	9.6	5.0
	SW 24	NM	NM	9.7	5.1	10.1	5.3
	SW 34	NM	NM	9.1	4.6	9.4	4.9
	NW 21	NM	NM	9.9	5.2	10.7	5.8
	NW 31	NM	NM	9.2	4.7	9.7	5.1
Copper Hill Drive/ Newhall Ranch Road	NE 28	NM	NM	13.7	7.9	14.9	8.7
	NE 38	NM	NM	12.3	6.9	13.2	7.6
	SE 31	NM	NM	12.7	7.2	13.1	7.4
	SE 41	NM	NM	11.7	6.5	12.1	6.7
	SW 28	NM	NM	13.8	7.9	15.0	8.8
	SW 38	NM	NM	12.4	7.0	13.3	7.6
	NW 34	NM	NM	12.5	7.0	13.1	7.4
	NW 44	NM	NM	11.6	6.4	12.0	6.7

[a] 1993 Background CO levels of 11 and 5.1 ppm have been added to the 1-hour and 8-hour average concentrations, respectively. 2000 background levels of 6.9 and 3.1 have been added to the 1-hour and 8-hour average concentrations, respectively. Projected future CO concentrations were taken from Table 5-2 and 5-3 in the SCAQMD *CEQA Handbook*.

[b] 1993 roadway geometrics.

[c] 2000 roadway geometrics.

* Existing exceedance of State CO Standard ("C0 hot spot")

NM This intersection does currently not exist.

Source: Michael Brandman Associates 1993.

- The calculations assume a meteorological condition of almost no wind (0.5 meters/second), a flat topographical condition between the source and receptor, and a mixing height of 700 meters.

- CO concentrations are calculated for the 1-hour averaging period, and then compared to the carbon monoxide 1-hour standards. CO 8-hour averages are extrapolated using techniques outlined in the California Department of Transportation Air Quality Technical Analysis Notes and compared to the carbon monoxide 8-hour standards.

- Concentrations are given in parts per million (ppm) at each of the receptor locations.

- Ambient (background) CO concentrations that represent the CO concentrations measured at the Santa Clarita monitoring station for 1992 are used for the project vicinity. The background concentration is 11 ppm for the 1-hour average and 5.1 ppm for the 8-hour average.

- The 2000 background concentration is 6.9 ppm for the 1-hour average and 3.1 ppm for the 8-hour average. These future ambient CO concentrations were taken from Tables 5-2 and 5-3 in the 1993 SCAQMD *CEQA Handbook*.

- The average speed for streets was assumed to be 35 miles per hour at all intersections modelled. Emission factors were obtained from EMFAC7EP results contained in Tables A9-5-J-2 and A9-5-J-6 in the SCAQMD 1993 *CEQA Air Quality Handbook*.

As indicated in Table 5.5-5, both the 1-hour and 8-hour CO standards are currently exceeded at the intersection of Mc Bean Parkway and Newhall Ranch Road. However, under both future scenarios, at all three intersections, there are no projected exceedances of either the 1-hour or 8-hour CO standards.

It is important to note that CO concentrations under both future scenarios are substantially lower at this and the other two intersections modelled. The reduction in future vehicle emissions is due in large part to the gradual introduction of engineering controls into the vehicle fleet mix, the use of reformulated fuels, alternative vehicle fuel programs, and inspection and maintenance programs. Because no exceedances of state and federal standards are anticipated from the implementation of the proposed project, no significant local CO hotspot impacts would result from the proposed project.

Consistency With the Air Quality Management Plan (AQMP)

Section 15125 of the state CEQA Guidelines requires that EIRs analyze and discuss any inconsistencies between the proposed project and applicable General Plans and regional plans. Specifically, the EIR

should discuss the project's consistency with the current AQMP. In addition, several of the underlying key assumptions for both the air quality plans should be included in the analysis as well:

- Assumptions such as the number and location of population, housing units, and employment from the Growth Management Chapter (GMC) in SCAG's 1994 Regional Comprehensive Plan and Guide (RCP&G).
- Assumptions concerning type, size, and location of transportation infrastructure from the Regional Mobility Chapter (RMC) in SCAG's 1994 RCP&G.
- Consistency with a local government's Air Quality Element or air quality-related policies in other General Plan elements, if the local government has adopted such policies.

The purpose of the consistency finding is to determine if a project is inconsistent with the assumptions and objectives of the regional air quality standards.

The SCAQMD adopted the 1994 Air Quality Management Plan (1994 AQMP) on September 9, 1994. The 1994 AQMP is then the regionally approved air quality plan used to meet California Environmental Quality Act (CEQA) Guidelines determinations that a project may have significant environmental effects if it is not consistent with locally adopted environmental plans. However, guidelines for the 1994 AQMP continued requirements for project conformity to the policies and measures contained in the 1989 and 1991 AQMPs.

SCAG guidelines set forth three criteria for demonstrating conformity of general development projects: job/housing balance or equivalent reduction in VMT; implementation of Transportation Demand Management (TDM) measures; and conformity with AQMP assumptions, including no significant impact on air quality, mitigation of air quality impacts, and analysis of air quality impacts on both a local and regional basis.

There will be long-term emission increases, with mitigation, from vehicle traffic associated with the project. In addition, cumulative operational emissions in the area will exceed SCAQMD thresholds. However, mitigation measures have been included in this project to reduce projected cumulative emissions.

Criterion 1: VMT Reduction or Jobs/Housing Balance

Under the SCAG guidelines, project sponsors may satisfy the first conformity criterion in either of two ways. The project must improve or have a neutral effect on the jobs/housing balance performance ratio for the subregion or contribute to SCAG's target reduction in VMT for the subregion. As discussed in Section 5.9, recent projections for growth in the Santa Clarita Valley by SCAG exceed the projections previously included in the adopted 1989 GMP. The most recent projections, which are contained in the 1994 Regional Comprehensive Plan and Guidelines (RCP&G), show the Santa Clarita Valley as continuing its jobs/housing imbalance. The Santa Clarita Valley is expected to continue to be housing rich. The RCP&G places less emphasis on conformance with the balance criteria in the 1989 GMP and, instead, emphasizes reduction of VMT.

According to the 1994 RCP&G, the 1990 existing average trip length is calculated to be 8.27 miles for all trips in the SCAG region. Although the project's location would suggest a longer average trip length, this figure was used as a reasonable estimate, since a more refined estimation is not available from SCAG or the AQMD. The 2010 baseline projection for average trip length is 9.59 miles. Reductions in average trip length would result in an overall reduction in VMT.

Within the project site, a 40,000-square-foot commercial center is proposed in an area that is currently designated for low-density residential development. To the south of the project site, cumulative approved development in the North River and surrounding area (within 2 miles) would provide approximately 811,000 square feet of industrial uses and 868,000 square feet of commercial uses. Buildout of the commercial uses would contribute to reduced VMT from the project site by: (1) providing needed services (grocery, shopping, necessities) within close proximity to the site and (2) providing employment opportunities for residents of the project. The 40,000-square-foot shopping center would be linked to onsite bike lanes and trails, but topographic change and distance would likely be a disincentive to using alternate modes of transportation. Another 300,000-square-foot commercial center has been approved within the East Copperhill/Duplex II project just southeast of the project site. Together, these commercial uses would help to eliminate shopping trips that would have otherwise gone to the City of Santa Clarita. This, however, is contingent upon the provision of the Copper Hill Bridge over San Francisquito Creek. The bridge is recommended by the county to be provided before more than about half of the project can be built.

Industrial uses, such as the Lockheed Aerospace Facility, located 1 mile south of the western edge of the project, and the Valencia Industrial Center, will provide employment opportunities in the area. While these opportunities would allow some employees to live close to where they work, it is not

certain how many project residents could work at these facilities. However, the project will provide for a full-range of housing types, from rental units to large-lot estate homes. This diversity could increase the likelihood that local employees could find an affordable place to live close to their workplace.

Besides the connection between jobs and housing, other measures, such as shuttles to the Metrolink station in Saugus, and the extension of bus service to the site, would also facilitate a reduction in VMT.

It should be noted that, in spite of the factors noted above, many residents of the project may commute to distant job centers outside of the Santa Clarita Valley, given the area's affordability of housing costs. Overall, however, it seems that a diverse mix of housing, commercial services, and employment opportunities would occur within 2 miles of the project site, which is substantially lower that the average trip length of 9.59 miles projected for 2010 by SCAG.

Criterion 2: TDM Implementation

The second conformity criterion requires that vehicle trips (VT) and VMT have been reduced to the "greatest extent feasible" by implementation of transportation demand management strategies. Trip reduction is complemented by transportation measures, programs, and demand strategies devised to give individuals additional incentives to reduce VT and VMT. As discussed under mitigation measures at the end of this section, several transportation demand management elements will be provided by the project. Integrated bike paths, an onsite commercial center, provisions for bus service, and shuttle service to the Metrolink station in Saugus are TDM measures that would help to reduce VT and VMT. While other measures, such as pocket commercial centers, could be required, these features are not expected to be feasible and would require redesigning the project. Because of the residential nature of the project, and the service-oriented nature of the onsite commercial center, the identified TDM measures would reduce VT and VMT.

Criterion 3: Conformity With AQMP Assumptions

To satisfy the third SCAG criterion necessary to demonstrate conformity with the AQMP, the environmental documentation for the project must demonstrate each of the following:

- That the project will not have a significant adverse impact on air quality in the long-term (5 years or longer).

- That land use, transportation, and energy conservation control measures shall be used to the extent possible to mitigate air quality impacts.
- That air quality impacts must be analyzed on both a local basis and on a regional basis.

Long-Term Air Quality

The environmental documentation must demonstrate that the project is (1) helping to implement the regional growth management policy through a reduction in VMT or improved jobs/housing balance, and (2) helping to reduce VMT/VT through the application of transportation demand management strategies to the project.

SCAG staff has indicated that this criterion also requires that the project be consistent with the goals, policies, and objectives of the AQMP, the Growth Management Chapter (GMC) and the Regional Mobility Chapter of the RCP&G. Specifically, SCAG staff has stated that such consistency is demonstrated if the housing and employment increases related to a project fall within growth projections in the GMC. The proposed project is requesting a 2,000-unit increase in the number of allowable units, which was not considered by the County of Los Angeles when it developed the growth estimates for the Santa Clarita Valley. Since a plan amendment would be needed to develop the additional 2,000 units, this component of the project could be considered inconsistent with the County's existing growth projections. However, the project could also be considered a portion of the overage that would be needed to meet growth projections as a result of projects and properties not developing or developing at lower densities. The Board of Supervisors must ultimately decide whether or not the project is consistent with growth projections. Compared to previously adopted regional growth estimates, and the SCAG 1994 RCP&G, the project represents a minor contribution to regional growth projected for the North Los Angeles subregion and Santa Clarita Valley (RSA 8). SCAG has adopted the growth projections contained in the 1994 RCP&G in June 1994.

Mitigation of Air Quality Impacts

Mitigation measures will be implemented to reduce, regional long-term and cumulative emissions within the project area and subregion. No other feasible measures have been identified besides significant redesigns of the project, which is analyzed in Section 6.8. Mitigation measures for improving air quality are provided in Sections 5.4 and 5.5 of this EIR. The project, however, will continue to have a significant impact on air quality.

Analysis of Air Quality Impacts

Total project operational emissions have been assessed on both a local and regional basis and would exceed SCAQMD thresholds of significance for CO, NOx and ROC. A portion of the project (approximately 1,000 units) was considered in previous assumptions for growth in the AQMP. The additional 2,000 units requested through the plan amendment would result in air quality emissions beyond those projected in the 1994 GMC of the RCP&G. These emissions would be mitigated, as noted previously, but would still result in significant project-specific and cumulative impacts to the air basin. In this regard, the project is not consistent with the AQMP.

Based on methodologies established by the ARB and SCAQMD, the assessment of local air quality impacts is based on changes in carbon monoxide concentrations at selected receptor sites. As indicated previously, the increase in CO emissions associated with development in the project area will not cause or contribute to an exceedance of the 1-hour or 8-hour federal or state CO standards in future years. Therefore, the project satisfies the third criterion of the SCAG Guidelines because the project does not cause or contribute to a new violation or increase the frequency or severity of any existing violation of the federal carbon monoxide standards. As stated above, the project is considered consistent with the AQMP.

Cumulative Impacts

Because the project would not cause any localized exceedances of the State CO 1-hour or 8-hour standard, the project would not contribute on a cumulative basis to localized air quality impacts.

However, project utility-related and vehicular operational emissions, together with emissions from existing and reasonably foreseeable future projects, would cumulatively contribute to existing and projected exceedances of national and state ambient air quality standards in the Basin. As indicated in Table 5.5-6, project contributions of all five criteria pollutants, when added to all related projects, results in a significant, cumulative impact on regional air quality.

Mitigation measures to reduce energy-related, operational and circulation-flow related emissions have been incorporated into this project (see Sections 5.4, Transportation and Circulation, and 5.10, Energy Consumption) to reduce adverse cumulative regional air quality impacts. In addition, as part of project approval for other related projects, mitigation measures will be required for the projects to reduce their contributions to regionally significant air quality impacts.

TABLE 5.5-6
CUMULATIVE OPERATIONAL EMISSIONS[a]
(lbs/day)

Source	Pollutant				
	CO	NOx	SOx	PM10	ROC
TDV Project Totals	5,176	766	96	97	432
Related Projects[b] (vehicular)					
SF Residential	23,760	2,108	236	198	1,845
MF Residential	12,611	1,119	125	105	980
Hotel	878	78	9	7	68
Commercial	14,019	1,457	165	4,360	1,145
Office	4,734	480	55	1,471	383
Industrial	1,942	199	23	614	158
School	233	21	2	2	18
Related Projects (utility)	90	875	54	19	77
Cumulative Total(s)	63,443	7,103	616	6,873	5,106
SCAQMD Threshold	550	55	150	150	55
Significant Impact	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

[a] Includes vehicular and utility emissions for the Tesoro del Valle project and cumulative projects (both County of LA and City of Santa Clarita) based on cumulative project data provided by Tables 4.3-2, 5.10-8 and 5.10-10 in this DEIR.

[b] Based on methodology of Tables A9-5-D, A9-5-F, A9-5-J-6, A9-11-A, A9-11-B, A9-12-A and A9-12-B of Appendix 9, SCAQMD 1993 *CEQA Air Quality Handbook*. Trip generation rates, by land use type, provided by the ITE, Trip Generation Manual, 5th Edition, January 1991.

Source: Michael Brandman Associates 1993.

Mitigation Measures

Construction Emissions

1. During clearing, grading, earth-moving, or excavation operations, fugitive dust emissions shall be controlled by regular watering, paving of construction roads, or other dust-preventive measures using the following procedures:

   - All material excavated or graded shall be sufficiently watered to prevent excessive amounts of dust. Watering, with complete coverage, shall occur at least twice daily, preferably in the late morning and after work is done for the day.

   - All clearing, grading, earth-moving, or excavation activities shall cease during periods of high winds (i.e., greater than 20 mph averaged over 1 hour).

   - All material transported offsite shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.

   - The area disturbed by demolition, clearing, grading, earth-moving, or excavation operations shall be minimized at all times.

2. After clearing, grading, earth-moving, or excavation operations and during construction activities, fugitive dust emissions shall be controlled using the following measures:

   - Portions of the construction site to remain inactive longer than a period of 3 months shall be seeded and watered until grass cover is grown.

   - All active portions of the construction site shall be watered to prevent excessive amounts of dust.

3. At all times, fugitive dust emissions shall be controlled using the following procedures:

   - Onsite vehicle speed shall be limited to 15 mph.

   - All onsite roads shall be paved as soon as feasible or watered periodically or chemically stabilized.

4. At all times during the construction phase, ozone precursor emissions from construction equipment shall be controlled using the following procedures:

   - Equipment engines shall be maintained in good condition and in proper tune according to manufacturer's specifications.

- During smog season (May through October), the construction period should be lengthened to minimize vehicles and equipment operating at the same time.

- Construction equipment should not be left idling for a period longer than 60 seconds.

5. Concurrent with an application for a grading permit, the applicant shall propose measures to suppress fugitive dust generated during construction activities. These measures shall be incorporated as conditions of grading permit approval. SCAQMD Rule 403 requires that fugitive dust be controlled so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance offsite.

Operational Emissions

Several project design features would help to reduce mobile, operational emissions. Bike paths located along onsite collector roads would connect to planned bike lanes along Copper Hill Drive and McBean Parkway, as well as provide dedicated travel paths onsite. These features would provide incentives for using bicycles, in addition to walking, as an alternative form of transit. Other project design features include the onsite retail commercial center which would provide needed services and limit the need for residents to travel into the City of Santa Clarita. Furthermore, numerous circulation enhancements designed to improve traffic flow and reduce idling emissions are provided as mitigation measures in Section 5.4, Transportation and Circulation. Implementation of these measures would further mitigate air quality impacts by reducing potential vehicular emissions.

The following additional measures would reduce long-term emissions.

6. During operation of the project, the following measures shall be implemented to reduce regional air emissions:

   - The Homeowner's Association will maintain a list of commuter carpool destinations to facilitate and coordinate carpooling from the project to employment centers and Metrolink stations. If sufficient ridership exists, a shuttle to Metrolink shall be established in conjunction with a local Transportation Management Agency or organization.

   - The project applicant shall coordinate with Santa Clarita Transit to provide public transit service to the southern portion of the site and the applicant shall provide adequate bus stops with shelter.

Unavoidable Adverse Impacts

The proposed project would contribute on a project-specific basis to short-term construction impacts (NOx, ROC, and PM10) that cannot be mitigated to a level below significance. Project operational emissions would also exceed SCAQMD recommended thresholds for CO, NOx and ROC and would be considered cumulatively significant. These impacts would be unavoidable even with implementation of all of the above mitigation measures. Regionally, cumulative impacts for PM10 remain significant because of the Basin's non-attainment status. Cumulative impacts for SOx would be significant because project-related emissions would exceed the SCAQMD's threshold. However, the proposed project would result in less-than-significant impacts for this pollutant after mitigation.

5.6 *NOISE*

ENVIRONMENTAL SETTING

General Noise Characteristics

Noise has long been an accepted part of urbanization and the urban environment. Noise, simply defined, is "unwanted sound". It is an undesirable by-product of transportation elements and commercial activities within the community that permeates man's environment and causes disturbance. The full effect of such noise on the individual and the community will vary with its duration, its intensity, and the tolerance level of the individual.

Community noise levels are measured in terms of the "A-weighted decibel," abbreviated dBA. A-weighting is a frequency correction that correlates overall sound pressure levels with the frequency response of the human ear. Additional units of measurement have been developed to evaluate the longer term characteristics of sound. The equivalent noise level (Leq) is a single-number representation of the fluctuating sound level in decibels over a specified period of time. It is a sound-energy average of the fluctuating level. A maximum permissible hourly noise level (L_{50}) is defined as the weighted noise level equaled or exceeded during 50 percent of a stated time period. For steady sources the L_{50} and Leq levels are virtually the same.

The Community Noise Equivalent Level (CNEL) is the noise and land use compatibility criteria most widely used in the State of California. The CNEL measurement represents an average of all measured noise levels obtained over a specified period of time. The CNEL scale represents a time-weighted 24-hour average noise level based on the A-weighted decibel. Time-weighted refers to the fact that noise that occurs during certain sensitive time periods is weighted (in calculations) more heavily. The CNEL scale includes an additional 5 dBA adjustment to sounds occurring in the evening (7 p.m. to 10 p.m.), and a 10 dBA adjustment to sounds occurring in the late evening and early morning hours (between 10 p.m. and 7 a.m.). It is important to note that an A-weighted noise level is a measure of the noise level at any point in time, while the CNEL is a measure of the noise exposure over a full day. Typical indoor and outdoor noise levels generated by various activities are listed in Exhibit 5.6-1.

Regulatory Noise Setting

State and local governments have established noise standards and guidelines to protect citizens from potential hearing damage and various other adverse physiological and social effects associated with noise. The applicable standards and guidelines for this study area are discussed below.

State of California

The State of California has adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles, freeway noise affecting classrooms, set standards for sound transmission control, occupational noise control, and identify noise insulation standards. The state has also developed land use compatibility guidelines for community noise environments.

In "Guidelines for the Preparation and Content of Noise Elements of the General Plan," (February 1976), the state Office of Noise Control provided guidance for the acceptability of projects within specific CNEL contours. Residential uses, churches, libraries and schools are normally unacceptable in areas exceeding 70 dBA CNEL, and conditionally acceptable between 60 and 70 dBA CNEL. Professional and commercial office buildings are normally unacceptable in areas exceeding 75 dBA CNEL, and conditionally acceptable between 67 and 77 dBA CNEL. However, the state stresses that these guidelines can be modified to reflect sensitivities of individual communities to noise. Exhibit 5.6-2 shows the acceptable noise levels for various land use categories.

County of Los Angeles

The County of Los Angeles does not set land use standards for noise in its Noise Element of the General Plan. However, County of Los Angeles has codified the "Noise Control Ordinance of the County of Los Angeles" (Ord. 11778 & 11773, 1978) has exterior noise standards as shown in Table 5.6-1.

The above noise level limits may not be exceeded for a cumulative period of more than thirty minutes in any hour. In the case of the existing ambient L_{50} exceeds these levels then the ambient L_{50} becomes the exterior noise levels. For events shorter than 30 minutes, higher noise limits are used for the exterior noise standards. For example, 5, 10, 15 dBA can be added to the above noise limits for events less than 15, 5 and 1 minutes, respectively. 20 dBA plus the above noise limits may not be exceeded for any period of time.

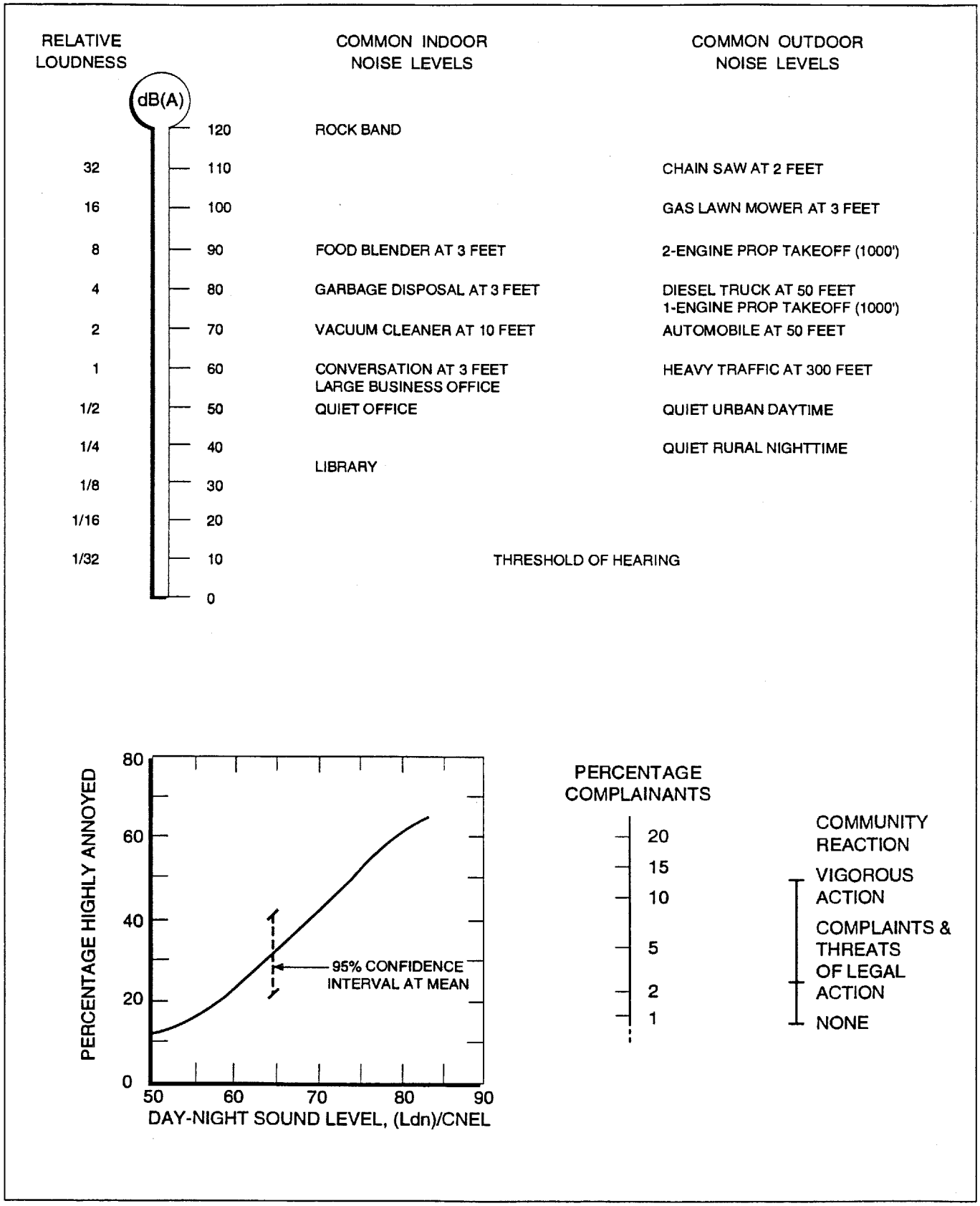


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exhibit **5.6-1**

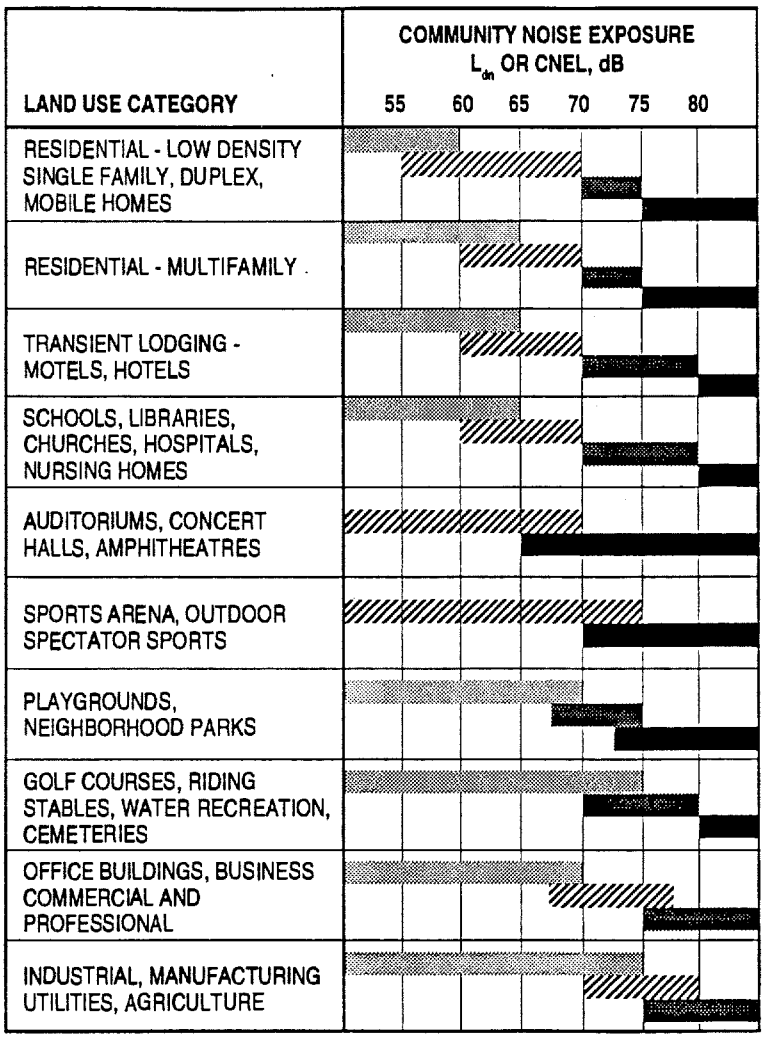
Community Reaction to Noise

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: "Impact of Noise on People" FAA, Office of Environmental Quality. May 1977.



LEGEND

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 construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken.

CONSIDERATIONS IN DETERMINATION OF NOISE-COMPATIBLE LAND USE

A. NORMALIZED NOISE EXPOSURE INFORMATION DESIRED

Where sufficient data exists, evaluate land use suitability with respect to a "normalized" value of CNEL or L_{dn}. Normalized values are obtained by adding or subtracting the constants described in Table 1 to the measured or calculated value of CNEL or L_{dn}.

B. NOISE SOURCE CHARACTERISTICS

The land use-noise compatibility recommendations should be viewed in relation to the specific source of the noise. For example, aircraft and railroad noise is normally made up of higher single noise events than auto traffic but occurs less frequently. Therefore, different sources yielding the same composite noise exposure do not necessarily create the same noise environment. The State Aeronautics Act uses 65 dB CNEL as the criterion which airports must eventually meet to protect existing residential communities from unacceptable exposure to aircraft noise. In order to facilitate the purposes of the Act, one of which is to encourage land uses compatible with the 65 dB CNEL criterion wherever possible, and in order to facilitate the ability of airports to comply with the Act, residential uses located in Community Noise Exposure Areas greater than 65 dB should be discouraged and considered located within normally unacceptable areas.

C. SUITABLE INTERIOR ENVIRONMENTS

One objective of locating residential units relative to a known noise source is to maintain a suitable interior noise environment at no greater than 45 dB CNEL of L_{dn}. This requirement, coupled with the measured or calculated noise reduction performance of the type of structure under consideration, should govern the minimum acceptable distance to a noise source.

D. ACCEPTABLE OUTDOOR ENVIRONMENTS

Another consideration, which in some communities is an overriding factor, is the desire for an acceptable outdoor noise environment. When this is the case, more restrictive standards for land use compatibility, typically below the maximum considered "normally acceptable" for that land use category, may be appropriate.

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exhibit **5.6-2**

Acceptable Noise Levels for Various Land Use Catergories

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: California Department of Health, Guidelines for the Preparation and Content of Noise Elements of The General Plan, February, 1976.

TABLE 5.6-1
EXTERIOR NOISE STANDARDS, L_{50}
County of Los Angeles

Noise Zone	Designated Noise Zone Land Use	Time Interval	Exterior Noise Level
I	Noise Sensitive Area	Anytime	45 (dBA)
II	Residential Area	10 p.m.-7 a.m.	45
		7 a.m.-10 p.m.	50
III	Commercial Area	10 p.m.-7 a.m.	55
		7 a.m.-10 p.m.	60
IV	Industrial Area	Anytime	70

Source: County of Los Angeles 1978.

In the County of Los Angeles "Noise Control Ordinance of the County of Los Angeles" (Ord. 11778 & 11773, 1978), it also has the following construction noise restrictions:

A. Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between weekday hours of 7 p.m. and 7 a.m., or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer is prohibited.

B. Noise Restrictions at Affected Structures. 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 the following schedule:

1. At Residential Structures.

a. Mobile Equipment. Maximum noise levels for non-scheduled, intermittent, short-term operation (less than 10 days) or of mobile equipment:

	Single-Family Residential	Multi-Family Residential	Semiresidential/ Commercial
Daily, except Sundays and legal holidays. 7 a.m. to 8 p.m.	75 dBA	80 dBA	85 dBA
Daily, 8 p.m. to 7 a.m. and all day Sunday and legal holiday	60 dBA	64 dBA	70 dBA

b. Stationary Equipment. Maximum noise level for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment:

	Single-Family Residential	Multi-Family Residential	Semiresidential/ Commercial
Daily, except Sundays and legal holidays. 7 a.m. to 8 p.m.	60 dBA	65 dBA	70 dBA
Daily, 8 p.m. to 7 a.m. and all day Sunday and legal holiday	50 dBA	55 dBA	60 dBA

2. At Business Structures.

a. Mobile equipment. Maximum noise levels for non-scheduled, intermittent, short-term operation of mobile equipment:

Daily, including Sunday and legal holidays, all hours: maximum of 85 dBA.

C. All mobile or stationary internal-combustion-engine powered equipment or machinery shall be equipped suitable exhaust and air-intake silencers in proper working order.

D. In case of a conflict between this noise ordinance and any other ordinance regulating construction activities, provisions of any specific ordinance regulating construction activities shall control.

The County has established Community Noise Guidelines which require a noise assessment for noise-sensitive projects that are within 700 feet of the mainline track of a railroad or within 400 feet of any other railroad line or projects that are within 1,000 feet of a major roadway and the line-of-sight (LOS) is unobstructed.

County of Los Angeles also has a noise policy regulating construction activities, such as construction hours limited to between the hours of 7 a.m. and 7 p.m. of any working day, except Sundays and holidays.

City of Santa Clarita

The City of Santa Clarita in its Municipal Code, Chapter 11.14, NOISE LIMITS, set exterior noise limits as follows:

It shall be unlawful for any person within the City to produce or cause or allow to be produced noise which is received on property occupied by another person within the designated region, in excess of the following levels, except as expressly provided otherwise herein (see Table 5.6-2).

TABLE 5.6-2
EXTERIOR NOISE LEVEL LIMITS
CITY OF SANTA CLARITA

Region[a]	Time	Sound Level, dBA
Residential zone	Day	65
Residential zone	Night	55
Commercial/Manufacturing	Day	80
Commercial/Manufacturing	Night	70

[a] At the boundary line between a residential property and a commercial/manufacturing property, the noise level of the quieter zone shall be used.

Source: City of Santa Clarita 1989.

The numerical limits given above shall be adjusted by the following corrections, where the following noise conditions exist (see Table 5.6-3).

TABLE 5.6-3
CORRECTIONS TO EXTERIOR NOISE LEVEL LIMITS
CITY OF SANTA CLARITA

Noise Conditions	Correction (in dBA)
a. Repetitive impulsive noise	-5
b. Steady whine, screech or hum	-5
The following corrections apply to day only	
c. Noise occurring more than 5 but less than 15 minutes per hour	-5
d. Noise occurring more than 1 but less than 5 minutes per hour	-10
e. Noise occurring less than 1 minute per hour	-20

Source: City of Santa Clarita, 1989

In the same Municipal Code, the City has the following requirements regarding construction and building:

> "It shall be unlawful for any person within the City to operate power construction tools or equipment in the performance of any outside construction or repair work on buildings, structures or projects in or adjacent to a residential area, except between the hours of 7 a.m. and 7 p.m. of any working day, except Sundays and holidays, unless performing emergency work, provided, however, that such construction, tools or equipment shall not reach a dB level of more than 35 dB for 25 percent of an hour at any receiving property line."

Although CNEL is used in the State of California for land use compatible noise regulation on new or renovated noise-sensitive structures, L_{50} is used in the Noise Ordinance of the County of Los Angeles

and in the City of Santa Clarita Municipal Code for specifying short term noise regulation standards. For planning purposes, the 24-hour average sound levels, CNEL, are roughly equivalent to Leq measurements plus 5 dBA when traffic is the dominant noise source, i.e., CNEL = Leq + 5 dBA (Office of Noise Control 1976:21). Because there is no practical method to predict an L_{50} noise level from a particular source in an area with many noise sources, Leq is a preferred substitute for L_{50} and is used in this noise study. This Leq noise level would represent the worst-case scenario for the study area.

Community Ambient Noise Degradation

In addition to the criteria discussed above, another consideration in defining impact criteria is based on the degradation of the existing noise environment. In the "Highway Design Manual, Chapter 1100, Highway Traffic Noise Abatement" published by the State of California Department of Transportation (Caltrans), a "substantial increase" in noise level is defined to be "the predicted design year noise level increases by 12 decibels over the ambient and the design year level equals or exceeds 65 dBA Leq" (Section 1102.3, Noise Reduction, page 1100-3). Also, in "Caltrans Noise Abatement Programs" from the same Highway Design Manual, Caltrans defines a "substantial increase in noise levels" to be 3 dBA from the reference (existing) level for community (Type II) and school noise abatement programs.

The Federal Transit Administration (FTA, formally Urban Mass Transportation Administration, or UMTA) noise impact criteria for transit projects are based on change in Leq or Ldn (Guidelines for Preparing Environmental Assessment," Circular UMTA C 5620.1, Department of Transportation, UMTA, Washington, D.C. 20590, October 16, 1979). Normally, an Leq measure should be used to characterize the noise conditions. When residential communities are of concern, the 24-hour averaged noise scale of CNEL can be used to characterize the noise environment. For areas that are not particularly sensitive to nighttime noise, Leq should be used. The noise impact is considered "generally not significant" if no noise-sensitive sites are located in the project area, or if increases in community noise level with the implementation of the project are expected to be 3 dBA or less at noise-sensitive locations, and the proposed project will not result in violations of local ordinances or standards. Noise-sensitive sites include residences, motels, hotels, public meeting rooms, auditoriums, schools, churches, libraries, hospitals, amphitheaters, parks, and other areas where quiet is essential. If the increase in noise exposure level is greater than 3 dBA, the significance of impact will depend on the ambient noise level and the presence of noise-sensitive sites. Noise impacts can be considered "possibly significant" if increases in noise exposure levels are expected to be no greater than 5 dBA with implementation of the project. Noise impacts can be considered "generally significant" if the

proposed project will cause noise standards or ordinances to be exceeded, or increases in the community noise levels by 6 to 10 dBA in built-up areas, or increases by 10 dBA or more in rural areas. CNEL is used in this report to assess highway traffic generated noise impacts, and Leq is used to assess short term noise events.

Existing Noise Levels

Noise CNEL from Existing Vehicular Traffic

The noise environment in the vicinity of the project site is determined primarily by traffic on adjacent roadways. To predict the increase in noise for future traffic, existing traffic noise levels were calculated for traffic along roadway segments in the project study area with the Federal Highway Administration's Highway Noise Prediction Model, FHWA-RD-77-108 (December 1978). Model input data included average daily traffic levels (provided by Barton-Aschman Associates, Inc., July 1993), day/night percentages of autos, medium and heavy trucks (Annual Average Daily Truck Traffic on the California State Highway System, Caltrans 1988), vehicle speeds, ground attenuation factors, and roadway widths. Table 5.6-4 lists the calculated distance from the roadway centerline to the existing CNEL levels (in dBA) at these segments of the roadway and the CNEL value at 50 feet from the centerline of the near travel lane for existing roadways in the project vicinity. The roadway noise levels presented assumes no natural or man-made shielding between the roadway and the noise receptor. It should be noted that walls typically constructed at the property boundary of residential land use would reduce noise levels below this level.

Data in Table 5.6-4 indicates that existing vehicular traffic noise levels along McBean Parkway are high, with the 70 and 65 dBA CNEL contours extending outside the roadway right-of-way, which is 50 feet from the roadway centerline. Most of the other roadway segments in the project study area have both 65 and 70 dBA CNEL contours confined within the roadway right-of-way, except along Seco Canyon Road, where the 65 dBA CNEL extends to 102 feet from the roadway centerline.

ENVIRONMENTAL IMPACTS

The potential noise impact of the project can be divided into short-term and long-term impacts. Short-term impacts would be due to noise generated by vehicles and equipment during the construction phases. Long-term impacts would be associated with future project-related noise impacts to the study area and noise impacts to the proposed project.

TABLE 5.6-4
CALCULATED EXISTING ROADWAY NOISE LEVELS

Roadway Segment	Distance From Roadway Centerline to CNEL (in feet)[a]			CNEL 50 ft. from Centerline of Near Travel Lane
	70 CNEL	65 CNEL	60 CNEL	
McBean Parkway				
Magic Mountain Parkway to Newhall Ranch Road	86	265	837	71.1
Newhall Ranch Road to Decoro Drive	54	161	506	68.9
Copper Hill Drive				
Haskill Canyon Road to Seco Canyon Road	< 50	< 50	56	59.0
Seco Canyon Road				
Decoro Drive to Copper Hill Drive	< 50	102	318	66.9
San Francisquito Canyon Road				
west of Seco Canyon Road	< 50	< 50	71	60.2

[a] Does not consider any obstructions to the noise path.
[b] Traffic noise levels within 50 feet of the roadway centerline calculated with this model are within the margin of errors, and require site-specific analysis.

Source: Michael Brandman Associates 1993.

Thresholds of Significance

The following thresholds have been developed through the noise ordinances of the County of Los Angeles and City of Santa Clarita to determine the significance of noise impacts:

- Project noise impacts are significant if they raise ambient levels from below to above the applicable criterion, which is 65 dBA CNEL for long term land use noise compatibility based on the State of California's guidelines.

- Generation of severe short term noise levels, i.e., noise levels in excess of L_{50} of 65 dBA daytime or L_{50} of 55 dBA nighttime at the nearest residential area, as defined

by the more stringent noise standard of the two between the City of Santa Clarita and County of Los Angeles Noise Ordinances.

- The noise impact is considered "generally not significant" if no noise-sensitive sites are located in the project area, or if increases in community noise level with the implementation of the project are expected to be 3 dBA or less at noise-sensitive locations, and the proposed project will not result in violations of local ordinances or standards. If the increase in noise exposure level is greater than 3 dBA, the significance of impact will depend on the ambient noise level and the presence of noise-sensitive sites. Noise impacts can be considered "possibly significant" if increases in noise exposure levels are expected to be no greater than 5 dBA with implementation of the project. Noise impacts can be considered "generally significant" if the proposed project will cause noise standards or ordinances to be exceeded, or increases in the community noise levels by 6 to 10 dBA in built-up areas, or increases by 10 dBA or more in rural areas.

Short-Term Construction Noise Impacts

Construction noise represents a short-term impact on ambient noise levels on and around the project area over the period of project construction. Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. The U.S. Environmental Protection Agency has found that the noisiest equipment types operating at construction sites typically range from 88 dBA to 91 dBA at 50 feet. Typical operating cycles may involve 2 minutes of full power, followed by 3 or 4 minutes at lower settings. Although noise ranges tend to be similar for all construction phases, the erection phase tends to be less noisy. Noise levels vary from 79 dBA to 88 dBA at 50 feet during the erection phase of construction.

Since noise from localized sources (such as construction activities) typically falls off by about 6 dBA with each doubling of distance from source to receptor, outdoor receptors within 100 feet of construction sites that have an uninterrupted view of the construction site would experience noise greater than 85 dBA when noise on the construction site exceeds 91 dBA. As such, construction activities would potentially cause a short-term annoyance to receptors adjacent to the project site. Although the impact may be adverse, due to the temporary nature of construction activities and because sensitive offsite uses are not close to the site boundaries, noise levels would be at a level that is considered less than significant.

Long-Term Noise Impacts from Vehicular Traffic

The noise environment in the vicinity of the project site is determined primarily by traffic on adjacent roadways. Future traffic noise levels (year 2000) were calculated for traffic along roadway segments in the project study area with the Federal Highway Administration's Highway Noise Prediction Model, FHWA-RD-77-108 (December 1978). Model input data included average daily traffic volumes (Barton Aschman Associates, Inc., July 1993), day/night percentages of autos, medium and heavy trucks (Annual Average Daily Truck Traffic on the California State Highway System, Caltrans 1988), vehicle speeds, ground attenuation factors, and roadway widths. Tables 5.6-5 and 5.6-6 indicate the without- and with-project noise scenarios, respectively, for the year 2000. The tables indicate distance from the roadway centerline to the CNEL levels (in dBA) at different roadway segments of the roadway and the CNEL value at 50 feet from the centerline of the near travel lane for existing roadways in the project vicinity. The roadway noise levels presented assume no natural or man-made shielding between the roadway and the noise receptor. It should be noted that, because most of the noise locations monitored are future roadways, the presence of walls or other shielding is difficult to determine. Thus, no shielding was assumed for the calculations.

Table 5.6-5 indicates that in the year 2000, along McBean Parkway between Magic Mountain Parkway and Newhall Ranch Road, traffic noise would decrease 1.1 dBA due to redistribution of the local traffic to new streets. Projected data also indicate that background traffic noise level increases over existing ones would be small and equal to or less than 1 dBA, except along Copper Hill Drive between Haskill Canyon Road, where the increase would be 3.1 dBA. However, the 65 dBA CNEL contour along this segment would be confined within the roadway right-of-way. Along new segments of Copper Hill Drive (between Seco Canyon Road and Newhall Ranch Road) and Newhall Ranch Road (west of Copper Hill Drive), traffic noise would be relatively high, with the 65 dBA CNEL extending outside roadway right-of-way. These traffic noise level changes would be due to area development and population growth, and would not be from implementation of the proposed project.

Data in Table 5.6-6 indicates that in the year 2000, project-related traffic noise increases along these roadway segments would all be small and less than 3 dBA, except along McBean Parkway between Decoro Drive and Copper Hill Drive, and along Copper Hill Drive between Dickason Road to Decoro Drive, where the traffic noise level increases would be 2.8 and 3.1 dBA, respectively. These larger traffic noise level increases would be marginally close to the 3 dBA reference level for finding of significant noise level increase. While the noise level increases would be close to what is considered significant, the receptors at the modeling locations would likely have much lower levels of noise due to standard noise mitigation techniques incorporated into new development, which is not considered

in the model results. For instance, screening walls, setbacks from roadways, and changes in topography would attenuate (or reduce) noise levels considerably. Since these developments are not constructed at this time, it is difficult to determine the exact impact on future sensitive receptors. However, considering the standard use of screening walls and setbacks from major roadways, impacts from the proposed project would be mitigated to less than significant levels.

TABLE 5.6-5

YEAR 2000 WITHOUT PROJECT TRAFFIC NOISE LEVELS

Roadway Segment	Distance from Roadway Centerline to CNEL (in feet) 70 CNEL	65 CNEL	60 CNEL	CNEL 50 Ft. from Centerline of Near Travel Lane of Roadway	Increase Over Existing Levels, dBA
McBean Parkway					
Magic Mountain Pkwy to Newhall Ranch Rd	68	208	654	70.0	-1.1
Newhall Ranch Road to Decoro Drive	55	165	519	69.0	0.1
Decoro Drive to Copper Hill Drive	< 50[b]	< 50	153	63.7	n/a[c]
Newhall Ranch Road					
west of Copper Hill Drive	129	405	1279	72.9	n/a
Copper Hill Drive					
Haskill Canyon Rd to Seco Canyon Rd	< 50	< 50	107	62.1	3.1
Seco Canyon Road to McBean Parkway	< 50	119	365	66.9	n/a
Dickason Road to Decoro Drive	< 50	151	470	68.0	n/a
Decoro Drive to Newhall Ranch Road	111	339	1069	71.6	n/a

[a] Does not consider any obstructions to the noise path.
[b] Traffic noise levels within 50 feet of the roadway centerline calculated with this model are within the margin of errors, and require site-specific analysis.
[c] Does not have existing traffic noise level to compare with.

Source: Michael Brandman Associates 1993.

TABLE 5.6-6

YEAR 2000 WITH PROJECT TRAFFIC NOISE LEVELS

Roadway Segment	Distance from Roadway Centerline to CNEL (in feet) 70 CNEL	65 CNEL	60 CNEL	CNEL 50 Ft. from Centerline of Near Travel Lane of Roadway	Increase Over Existing Levels, dBA
McBean Parkway					
Magic Mountain Parkway to Newhall Ranch Road	77	236	745	70.6	0.6
Newhall Ranch Road to Decoro Drive	68	208	656	70.0	1.0
Decoro Drive to Copper Hill Drive	< 50[b]	95	294	66.5	2.8
Newhall Ranch Road					
west of Copper Hill Drive	177	558	1764	74.3	1.4
Copper Hill Drive					
Haskill Canyon Rd to Seco Canyon Rd	< 50	55	166	64.0	1.9
Seco Canyon Road to McBean Parkway	< 50	144	447	67.8	0.9
Dickason Road to Decoro Drive	100	304	957	71.1	3.1
Decoro Drive to Newhall Ranch Road	159	493	1557	73.2	1.6

[a] Does not consider any obstructions to the noise path.

[b] Traffic noise levels within 50 feet of the roadway centerline calculated with this model are within the margin of errors, and require site-specific analysis.

Source: Michael Brandman Associates 1993.

Onsite proposed residential development and the elementary school along Copper Hill Drive would potentially be exposed to high traffic noise levels. Copper Hill Drive between Dickason Road and Decoro Drive would have the 70 and 65 dBA CNEL contours extending to 159 and 493 feet, respectively. In the case of any residential development or the elementary school be constructed within 493 feet from centerline of the roadway, the recommended 65 dBA CNEL outdoor noise level would be violated. Mitigation measures such as sound barrier walls should be utilized to mitigate the expected traffic noise impact along Copper Hill Drive. When outdoor noise levels have been reduced to 65 dBA CNEL or lower, normal building construction would provide sufficient outdoor-to-indoor

noise attenuation (12 dBA when windows are open, and 24 dBA when windows are closed, for buildings built in warm climates) to achieve the 45 dBA CNEL recommended by the State of California.

Along other new roadways within the project site, typical traffic noise levels in residential neighborhood would not be relatively low due to projected low traffic trips along these roadways. No significant traffic noise impact is anticipated along these onsite roadways.

CUMULATIVE IMPACTS

The projected year 2000 traffic volumes have included traffic from population growth and area development in the project vicinity. There would be no significant project-related offsite noise impacts anticipated. Onsite noise impacts would be limited to residential development and the elementary school located along Copper Hill Drive. However, new offsite residential development along major arterials in the project vicinity, such as McBean Parkway, Copper Hill Drive, and Newhall Ranch Road would potentially be exposed to high traffic noise levels. Sound barrier walls and/or building upgrades may be necessary to mitigate the anticipated excessive traffic noise. Further site-specific noise studies would be conducted to determine the necessary upgrades during the environmental review stage of the projects located along these roadways.

MITIGATION MEASURES

Offsite

a. Short-Term Construction Noise

The following mitigation measures should be implemented to minimize impacts of project-related noise in the vicinity of the proposed project site:

1. Construction activity shall be limited 7 a.m. to 7 p.m. Monday through Friday, unless a permit for each work has first been issued by the Director of Public Works, or no noise-sensitive receptors would be exposed to the construction noise.

2. Construction equipment and trucks shall be properly muffled.

b. Long-Term Traffic Noise

There would be no significant long-term offsite traffic noise impact. No mitigation measures would be necessary for existing offsite development.

Onsite

a. Short-Term Construction Noise

Since the project is a phased development, noise from construction of later phases would impact development completed in early phases. Therefore, construction noise mitigations recommended to avoid impact on existing offsite development shall apply to affected onsite development.

b. Long-Term Traffic Noise

1. Six-foot sound barrier walls shall be implemented for any residential structure and the elementary school (playground included) proposed within 493 feet of the centerline of Copper Hill Drive between Dickason Road and Decoro Drive. Landscaping shall be placed in front of walls to prevent graffiti.

2. For residential structures or classrooms within 159 feet of the Copper Hill Drive centerline, the State recommended 45 dBA CNEL interior noise level for noise-sensitive uses, even with the recommended six-foot sound barrier walls, may be exceeded depending on actual design of the buildings. Upgrades on building facade facing Copper Hill Drive may be necessary to mitigate the interior noise level to 45 dBA CNEL or below. Double-pane windows and weatherstripping or solid-core wood doors would help achieve this goal depending on each individual structure and distance from Copper Hill Drive travel lanes. Further site-specific noise study for each impacted residence or classroom shall be conducted to determine the necessary upgrades.

UNAVOIDABLE ADVERSE IMPACTS

There would be no project-related significant unavoidable adverse noise impact after implementation of the recommended mitigation measures for short-term and long-term noise events.

5.7 *AESTHETICS/VISUAL*

The methodology for assessing the visual resources for an area, as set forth by the Los Angeles County Regional Planning Department, is used in this analysis to ensure a comprehensive analysis of the project's impacts on the visual environment.

ENVIRONMENTAL SETTING

General Visual Characteristics

The project site is located in the foothills surrounding Santa Clarita, south of the Angeles National Forest. The site is characterized by several canyons and ridgelines vegetated with scrub chaparral, as well as the flat portions of San Francisquito Wash on the eastern portion of the project site. The majority of the site, to the west of the flat wash area, consists of moderately steep to steep ridgelines and canyons. A nearly contiguous ridgeline runs from the northeast to the southwest of the property dividing the San Francisquito Canyon watershed on the east from a series of smaller canyons on the west. Exhibit 5.7-1 illustrates an aerial view of the project site. Canyons on the west include: a tributary to Charlie Canyon, two tributaries to Tapia Canyon, an unnamed "blue-line" drainage, and Wayside Canyon. These drainages continue from the project site to Castaic Valley. The eastern canyons on the project site are tributary to San Francisquito Canyon. These canyons and the main ridgeline make up the western side of San Francisquito Canyon. General views of the site include several fire roads and fire breaks that have been graded to provide access through the site and assist fire crews in the event of a fire.

Dominant Visual Vegetation/Soil Communities

The dominant vegetation community on the project site is Chamise Chaparral. Exhibit 5.7-2 illustrates a typical view of this vegetation community. Chamise chaparral covers approximately 1,275 acres of the 1,800 acre site. This vegetation community exists primarily on the hillsides of the interior portions of the project site. The visual characteristics of this community are low lying shrubs 4-6 feet in height. The vegetation community is sporadic in density, with some dense areas and others scarcely vegetated. Colors are generally in the green and grey hues. Other dominate vegetation communities are: alluvial scrub (90 acres), coastal sage scrub (106 acres), and agricultural (111 acres). Three other significant vegetation communities exist on the site but do not makeup large amounts of the community on the site. These are: oak woodland (11 acres); Mainland Cherry forest (24 acres); and

Cottonwood/willow riparian/mulefat habitat (6 acres). Exhibit 5.3-1 (plant communities and sensitive species map) illustrates the locations of these vegetation communities.

Soils located on the project site are a mixture of sands, silts, and clayey loams. In general, vegetation covers most soil of the site, but in some chaparral areas, spotted vegetation provides a patchwork of visual discontinuity between vegetation and bare soil areas. On some open ridge lines, exposed soils from slope wash and erosion and lighter colored vegetation also contrasts with darker vegetated areas and provides an irregular visual pattern characteristic of open space/ridgeline areas.

VIEWS

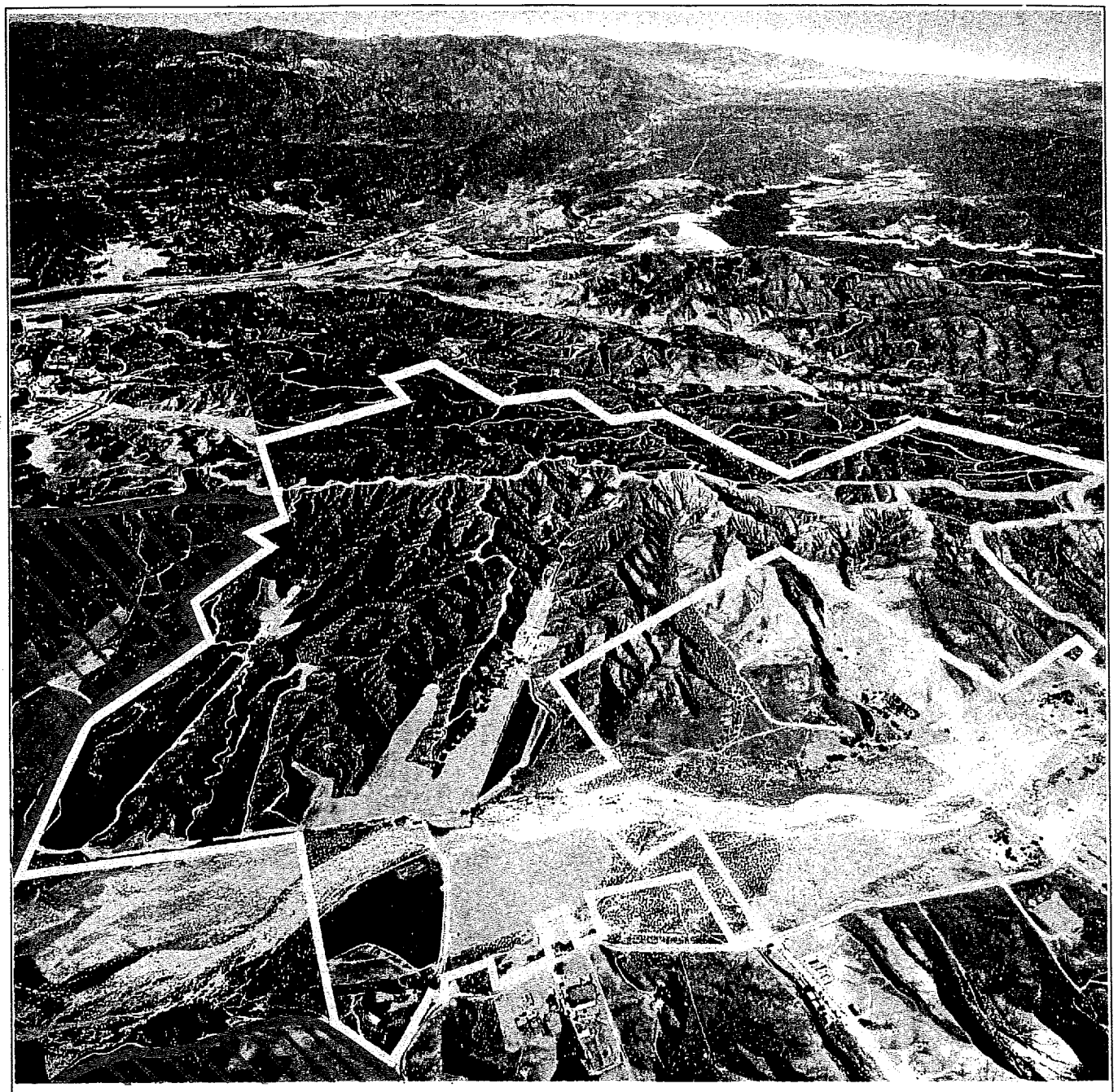
Views from the Project Site

Views from the project site fall within several major view sheds. The closest views available from the eastern portion of the site are of San Francisquito Canyon and the surrounding ridgelines. These views are generally of the undeveloped and rural portion of San Francisquito Canyon, where several ranches exist. This viewshed also includes portions of the Angeles National Forest, which can be seen from the site. In the upper elevations of the site (to the north), views of much of the Santa Clarita Valley can be seen, as well as the Angeles National Forest at higher elevations to the north. To the west, another viewshed exists from the project site. Views in this direction are of the several canyons (Bitter, Charlie) and the ridgeline that runs adjacent to Castaic Lake. Along this ridgeline, portions of Lake Hughes Road can be seen from the site. This viewshed consists primarily of undeveloped open space.

Views Into the Project Site

Several sensitive receptors are located in the area of the project site. Exhibit 5.7-3 provides a graphical illustration of the San Francisquito Canyon viewshed and photographic locations used in the viewpoint analysis (see below). These sensitive locations include: Lake Hughes Road, San Francisquito Canyon Road and Wash, residential development within the City of Santa Clarita, and portions of the Angeles National Forest. These areas were chosen for one or more reasons which include: their ability to view the site, their proximity to the site, and the types of viewers present at the locations (i.e., persons sensitive to the visual character of their surroundings).

The closest scenic highway, as designated by the Santa Clarita Valley Area Plan, is Lake Hughes Road, which is approximately 5 miles to the north of the project site. Lake Hughes Road is visible



Legend

Project Boundary

Related Projects

Michael Brandman Associates

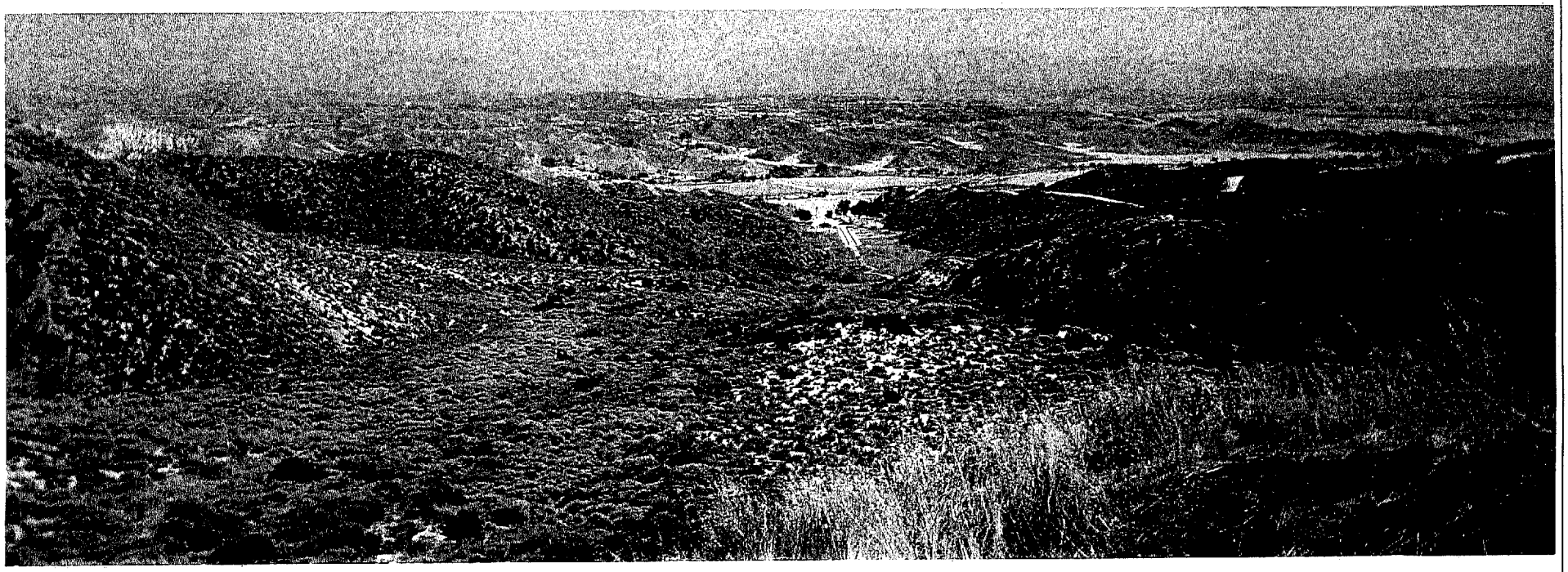
exhibit **5.7-1**

Aerial Photo #2

SEPT•24•1993

Tesoro del Valle

1627ER01



Looking east from west of main ranch house

exhibit **5.7-2**

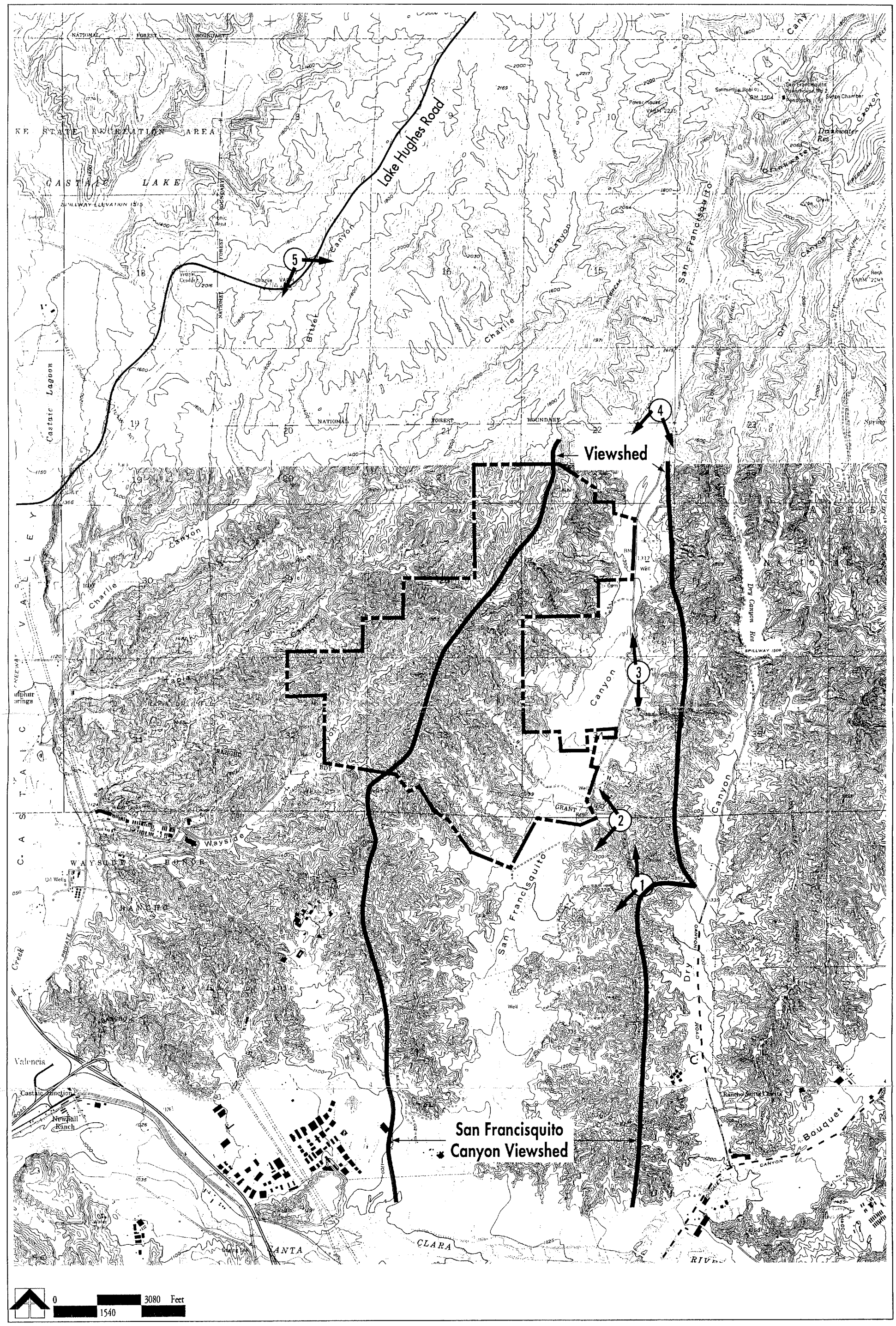
Chamise Chaparral Vegetation Community

Michael Brandman Associates

SEPT•24•1993

Tesoro del Valle

1627ER01



Michael Brandman Associates

exhibit **5.7-3**

Viewsheds and Photo Location Map

SEPT•24•1993

Tesoro del Valle

1627ER01

from the uppermost ridges (northern portion) of the project site. Lake Hughes Road only becomes a second priority scenic highway as the roadway enters the Angeles National Forest boundary, and from there northward. Lake Hughes Road intersects with the Golden State Freeway at the community of Castaic and travels northward by Castaic Lake and through the Angeles National Forest.

Another sensitive receptor to visual alterations of the landscape is the road and trail within San Francisquito Canyon. This trail is not incorporated into the County's trail network, and, therefore, is not officially a part of the Los Angeles County trail system. The trail is proposed for official recognition as part of the Santa Clarita Valley Area Plan Recreation element and is used by area residents for recreational pursuits. In addition, the trail is recognized by the City of Santa Clarita General Plan as a future trail of their regional trail network. San Francisquito Canyon Road and this trail have a views of the portions of the project site along their length.

Portions of the City of Santa Clarita have views of the project site. Hillside development along Tupelo Ridge Drive, which is located across San Francisquito Canyon from the site, has an uninterrupted view of the southern portion of the site. A similar view is available to viewers on the upper elevations of San Francisquito Canyon Road, along the portion adjacent to the City of Santa Clarita. To a much lesser extent, random views of the site can be seen from areas throughout Santa Clarita. However, these views are distant, are typically obstructed with topography and urban vegetation, and are not from a portion of Santa Clarita considered as a sensitive view point, such as a scenic highway.

Surrounding Areas

The project site is nestled between the expanding urban development from the City of Santa Clarita and unincorporated portions of Los Angeles County, and the open space of the Angeles National Forest and undeveloped Charlie, Tapia and Bitter Canyons.

Existing and approved development surrounds portions of the project. To the east, in unincorporated Los Angeles County, residential development exists in Dry Canyon on Seco Canyon Road (Ten. Tract 37539). This development is visually screened from the project site by the eastern ridgeline that makes up San Francisquito Canyon. A new development (Tract 46389) is currently under construction to the southeast of the proposed project. This development, which consists of 1,800 residences, commercial uses, a park site, and school uses, is sited between existing development on the ridgeline in the City of Santa Clarita and the bottom of San Francisquito Canyon. Tract 46389 is at a lower elevation than the proposed project and on the eastern side San Francisquito Canyon. As a result,

Planning Area A of the project is easily visible from this development. In addition, the Valencia Company's North River project, which is being developed in many individual tracts, is located to the south of the project site (see Related Projects, Section 4.2).

The Santa Clarita General Plan stresses the visual importance of the ridgelines within the Santa Clarita Valley. The plan recognizes that once ridgelines have been developed, they are irrevocably lost as a visual resource. The Plan states that San Francisquito Canyon provides local identity to the area community. Although San Francisquito Canyon Road is a transportation corridor, the General Plan states that it also acts as a scenic corridor for viewers traveling along the roadway.

ENVIRONMENTAL IMPACTS

Determination of the significance of a change in the visual and aesthetic character of a site and surrounding area is largely subjective. For the purposes of this analysis, an impact on the visual and aesthetic nature of the area is considered to be significant if the project would substantially alter the view from a designated scenic highway or if the project would substantially alter the existing visual character of the area from a sensitive view point or corridor.

General Visual Character

Implementation of the proposed project would result in substantial long-term changes to the visual and aesthetic character and topography of the project site. Portions of the main north/south ridgeline, tributary canyons, and east/west sub-ridgelines of San Francisquito Canyon would be graded to allow for the new residential planned community. Of the 1,800 acres site which is primarily open space, approximately 805 acres would be converted to urban uses and approximately 1,000 acres would be left in open space. A portion of this open space (219 acres) would be revegetated terrain, and 667 acres would be natural open space (SEA and natural areas) undisturbed by grading or development activities. The remaining 100 acres of the site would be devoted to parks, lakes, trails, etc.

The conceptual grading plan indicates that approximately 23 million cubic yards of earth will be graded during the development of the project over a 10 year period. Grading over the entire project would be balanced, with each phase of development being balanced except for Planning Area A. In order to prepare the site for development, ridges, sub-ridges, and tributary valleys to the western ridgeline of San Francisquito Canyon would be cut and filled, respectively. These areas would require revegetation to protect the integrity of the slopes. The slopes will be replanted with native vegetation,

which will reduce the visual impacts associated with cut and fill activities. Fill slopes would be contoured to match surrounding terrain and revegetated with native vegetation.

Prior to grading much of the onsite vegetation will be removed including: 807 acres of chaparral, 30 acres of coastal sage scrub, and 11 acres of alluvial scrub plant communities. To partially mitigate the impact of the removed vegetation, HRP LanDesign has developed a landscape master plan for revegetating the disturbed areas. At full maturity, this landscape vegetation will visually screen views of roadways, residential structures, and other urban development from many offsite viewpoints.

Use of native species in revegetated areas will reduce the "hard edge" of the project as it relates to offsite natural areas, thereby reducing the project's presence and providing a transition zone from natural to urban uses. Manufactured slopes will be vegetated with tree clusters at the top of slopes to screen and modulate views of the project. Street trees planted along project roadways will also help to reduce the streets', as well as onsite structures', visibility from offsite viewers. Finally, water tanks that are located in visible areas will be heavily screened with native or native compatible trees and large scale shrub masses.

Viewpoint Analysis

Five viewpoints were selected for a visual analysis of the proposed project. The criteria used for determining the location of viewpoints was based on the visibility of the project site from surrounding areas and the sensitivity of those areas to visual impacts. Four of the five view points were taken along San Francisquito Canyon Road within the canyon's viewshed. A fifth viewpoint was taken from Lake Hughes Road within the Angeles National Forest. Views from officially designated scenic highways are standard criteria for Los Angeles County visual impact analysis. Color photographs were shot from a 35 millimeter (mm) camera at each viewpoint with a 50 mm lens. The 50 mm lens is the closest approximation to true sight.

View from City of Santa Clarita and San Francisquito Canyon Road (Location 1)

Predevelopment

This view looks west from existing residential development located on Palmetto Ridge Road. Exhibit 5.7-4 illustrates this view. To a lesser extent, views from San Francisquito Canyon Road can view portions of the left of the photo, but most of the project site is blocked from terrain along the road. Foreground views from this perspective are of small rolling hills, which are vegetated with chaparral,

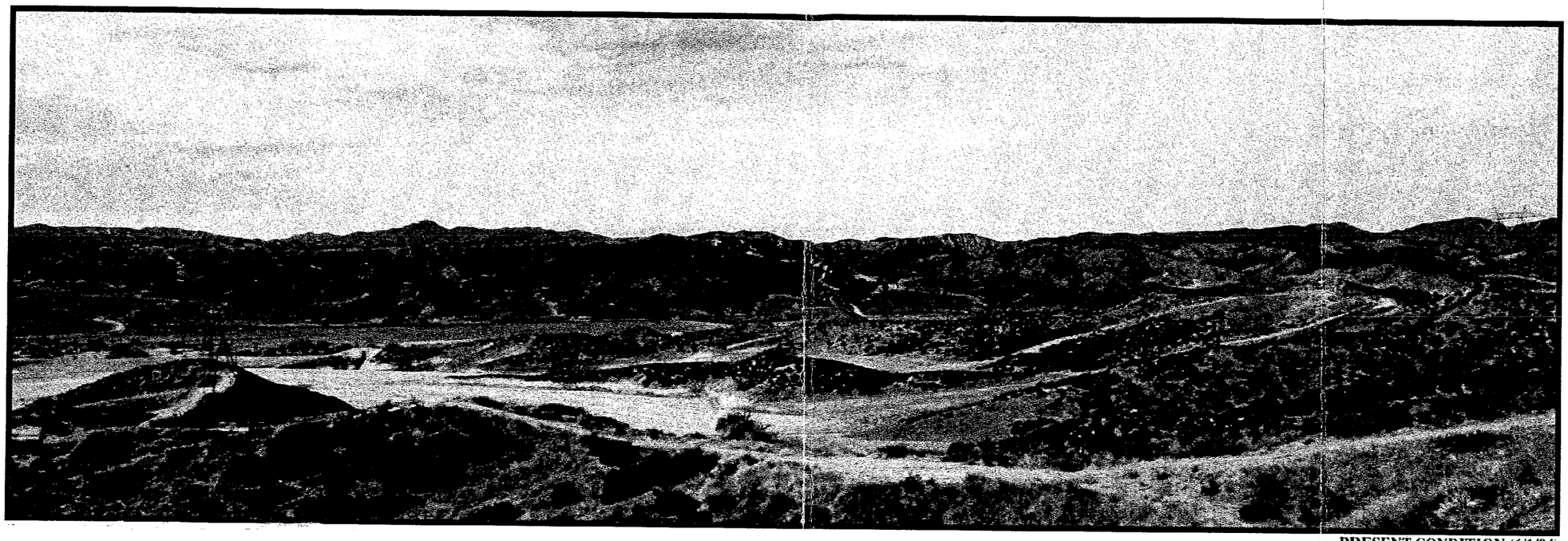
and flat grass land areas. The middle ground of this views shows the green vegetation following San Francisquito Creek and the open wash area. Transmission lines are present in the fore and middle ground views. Background views include the major ridgeline that defines San Francisquito Canyon, as well as several flat grass land areas that extend into the tributary canyons of San Francisquito Canyon. Peaks and canyons provide a irregular visual pattern in the fore and background views typical of the area. Distant views afford sights of mountain ridgelines and lighter colored unvegetated areas of hillsides.

Foreground views from this perspective include areas being graded for the construction of Tract 46389. Topographical relief along San Francisquito Canyon Road can also be seen in the right hand foreground.

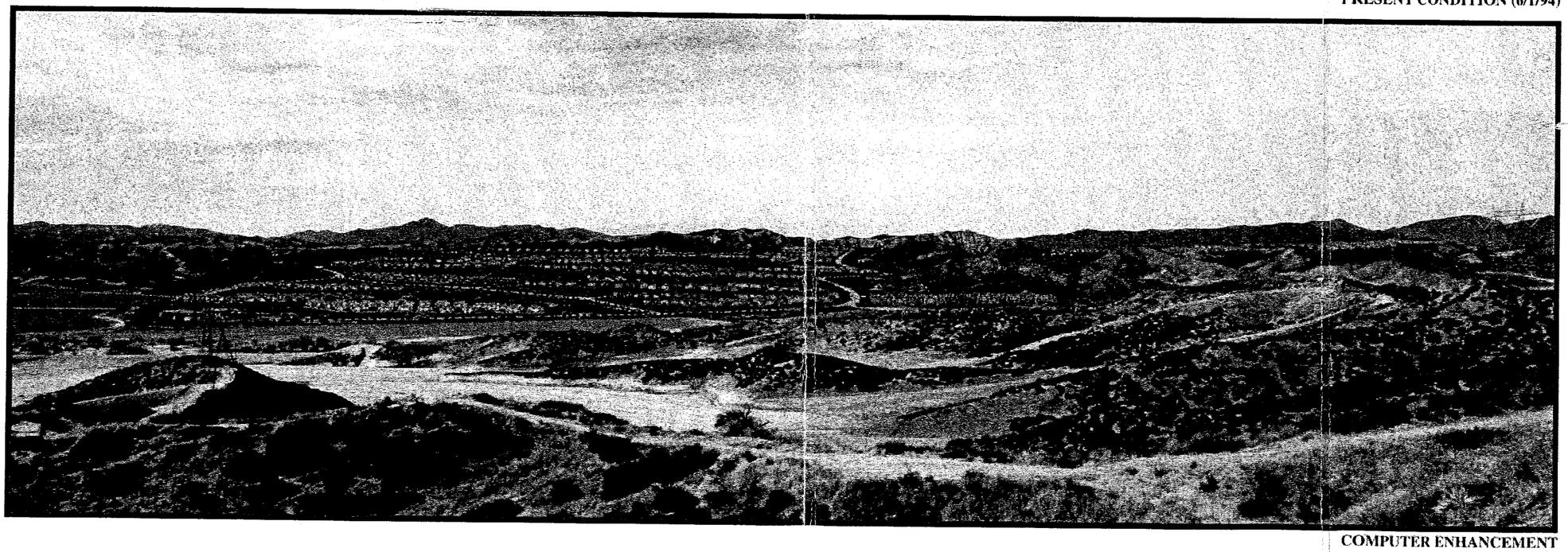
Postdevelopment

In the post development condition, views from this perspective would be substantially changed both from other unrelated development as well as the proposed project. As identified in the Los Angeles County Circulation Element, the extension of Copper Hill Drive will run down the center of the view. Copper Hill Drive would access Tract 46389 (1,800 units and 300,000 square feet of commercial), which is located in the foreground, and the roadway would continue through this view from center to left towards the City of Santa Clarita. The extension of Mc Bean Parkway would also be visible in the middle ground and intersect with Copper Hill Drive. These changes would result from other approved urban development in the area.

Planning Area A of the proposed project would be entirely visible from this prospective as shown in the computer simulation in Exhibit 5.7-4. Pre-development views of the ridges and valleys across San Francisquito Canyon would be graded by the project. The most extensive visual impact of the project from this prospective would be in the middle of the view. Ridgelines would be lowered a maximum of 145 feet, but an average of approximately 85 feet. Valleys would be filled with soil from ridgelines an average of approximately 65 feet. The topography of the site below the major ridgelines would change from random tributary ridgelines and canyons to relatively flat building areas. Existing open space would be altered into a urban environment. Although revegetation would help to lessen the impact of the project, the change from open space to urban uses and the alteration of topography would result in significant impacts to residents in the City of Santa Clarita residing along Tupelo Ridge Road and viewers traveling along San Francisquito Canyon Road, some of which would be traveling into the Angeles National Forest. Other cumulative development would minimize this



PRESENT CONDITION (6/1/94)



COMPUTER ENHANCEMENT

exhibit **5.7-4**

View Location #1
Pre-Development and Post-Development Computer Simulation

Michael Brandman Associates

JUN • 1995

1627ER01

Tesoro del Valle

SOURCE: Headrick Chase & Associates, 1995.

impact, but given the prominent view of the undeveloped site from this location, impacts would still be significant.

Portions of Planning Area B and C would also be visible from this prospective. The development would be visible on the right side of the photo view (see Exhibit 5.7-4). Because of the site line elevation, views of this portion of the development would be limited. Areas of cut and fill would be revegetated with natural vegetation in this area and would be mitigated from this prospective. Views toward the right hand side of the photo would show the roof tops of homes and urban vegetation, but this would be subordinate to the surrounding ridgelines and open space areas left undisturbed by the project. Since the impact in this area would not be a substantial alteration, the impact would not be considered significant.

View from San Francisquito Canyon Road (Location 2)

Predevelopment

Exhibit 5.7-5 shows this prospective of the project site from San Francisquito Canyon Road. At this location on San Francisquito Canyon Road, the elevation of the roadway is lower than most of the project site, so views are looking up toward the hillsides. This would also be a similar prospective of the site as seen from the extension of Mc Bean Parkway, north of Copper Hill Drive, however, the view would be closer to the site.

Currently an open grass field, San Francisquito Canyon Road, and rolling hillsides make up the foreground view of this photo. Power transmission lines along SCE's 300 foot easement are depicted as running toward the viewer. Middle ground views show a group of cottonwood trees located next to San Francisquito Creek. Background views show the rolling topography of the project site vegetated with chaparral species. Open grass lands contrast strongly with the vegetated slopes of the surrounding hillsides. The main ridgeline defining San Francisquito Canyon can be seen in the background.

Postdevelopment

After development, foreground views from this location would not be substantially altered. Alteration of middle ground views would also be limited due to the existing topography blocking portions of the development. Higher density residential uses, such as the townhomes and studio pad lots, and commercial uses would be visible to the left of center in the middle and backgrounds (see

Exhibit 5.7-5). Background topography would be altered to allow for development; existing topography would be smoothed out. Elevations on the site would still rise from the middle ground to the background views. Distant views of offsite ridge lines would not be altered after project implementation. Landscaping, once mature, would provide some visual screening of urban uses. Urban development, however, would make up a large portion of the field of view and consequently, significantly change the visual character from this prospective on San Francisquito Canyon Road. Because much of this development is already approved, the character of this view point would change regardless of project implementation. As a result, the project would not result in a significant impact from this viewpoint.

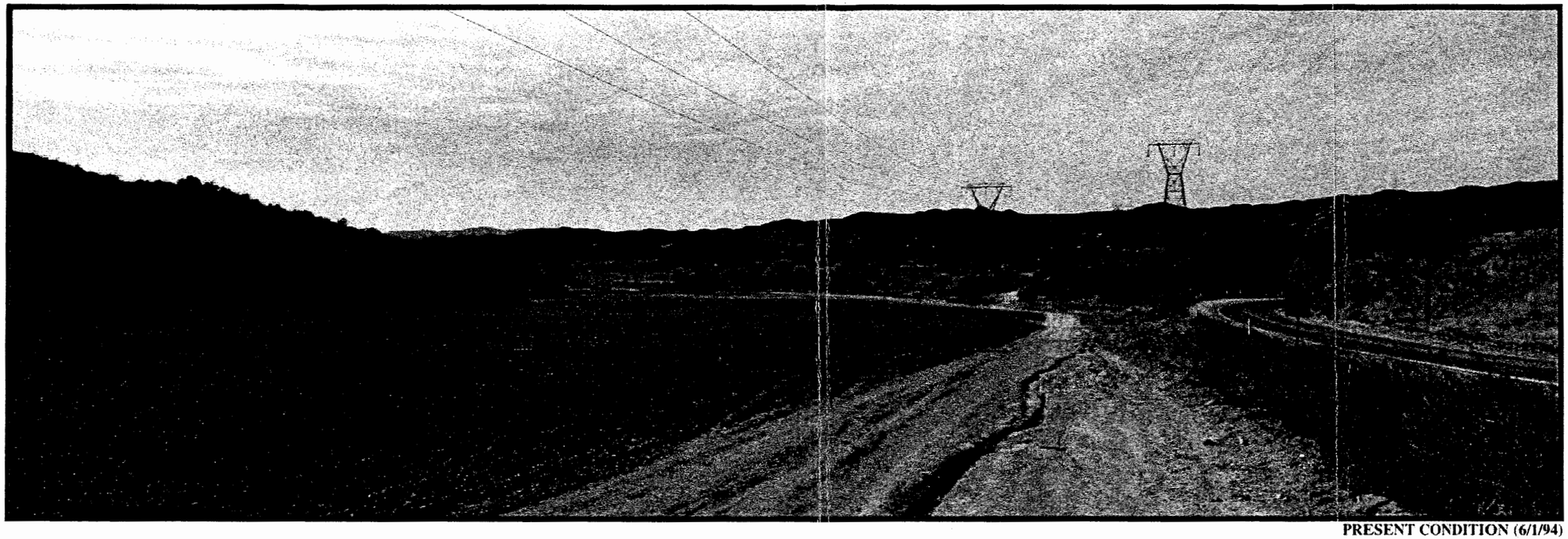
View from San Francisquito Canyon Road (Location 3)

Predevelopment

This view point is a typical view from San Francisquito Canyon Road as it runs parallel to the site. From this vantage point shown in Exhibits 5.7-6a and b, most of the project site is screened from view by topography and property owned by other parties. Center foreground views show the vegetation of San Francisquito Creek (SEA 19). Middle ground views are of hillsides and valleys tributary to the canyon. Background views illustrate the ridgeline that makes up the San Francisquito Canyon viewshed. Vegetation shown in the photo consists of various species including eucalyptus, oak trees, cottonwoods, riparian vegetation, and chaparral on the hillsides. Grasses exist along the roadside and in the open fields adjacent to the roadway.

Middle ground views to the left of the photo show the lower ridgelines in perspective view that are tributary to the main canyon. Foreground views show San Francisquito Canyon Road as it travels south parallel to the project site. The flat wash area of San Francisquito Canyon is also shown in the middle ground. Distant views on the left of the photo illustrate the mountainous terrain that makes up the Santa Clarita Valley.

Background views to the right of center show the numerous ridgelines branching from the main ridgeline on the west side of the canyon. Middle ground views are dominated by existing vegetation within the floodway of San Francisquito Creek. Powerline towers can be seen in the distance from this vantage point. To the far right hand side of the view, the beginning of the eastern portion of the canyon viewshed can be seen in the photo.



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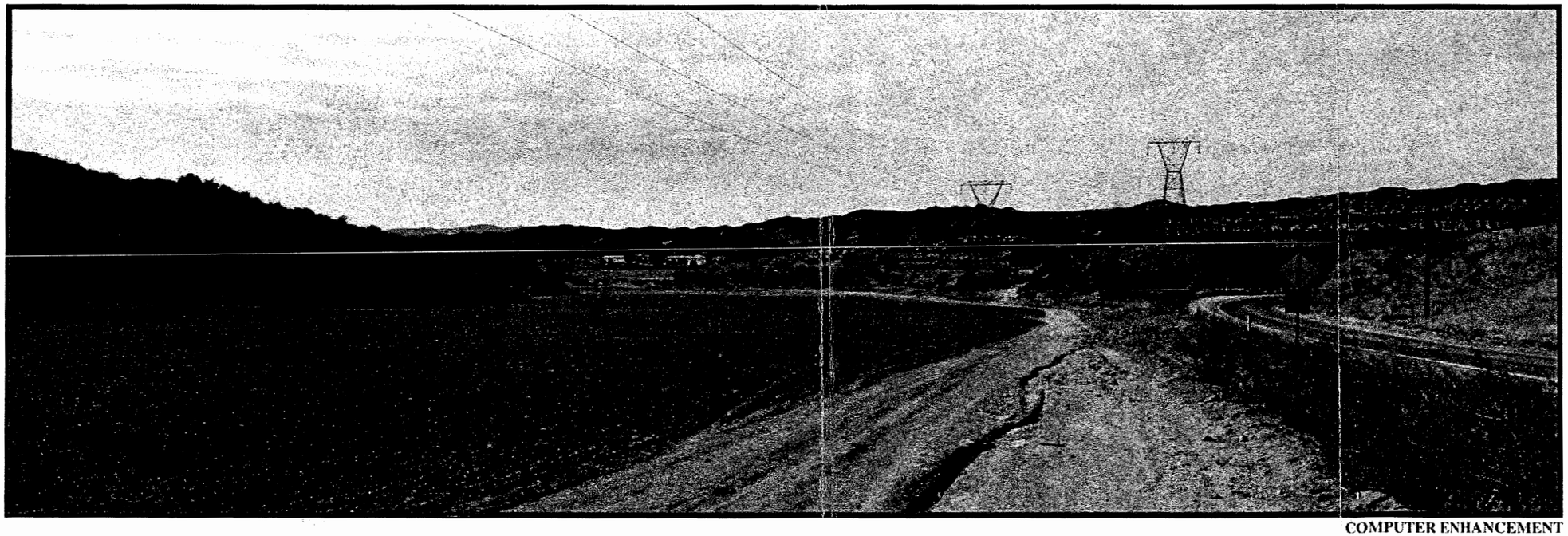

COMPUTER ENHANCEMENT

exhibit **5.7-5**

View Location #2
Pre-Development and Post-Development Computer Simulation

Michael Brandman Associates

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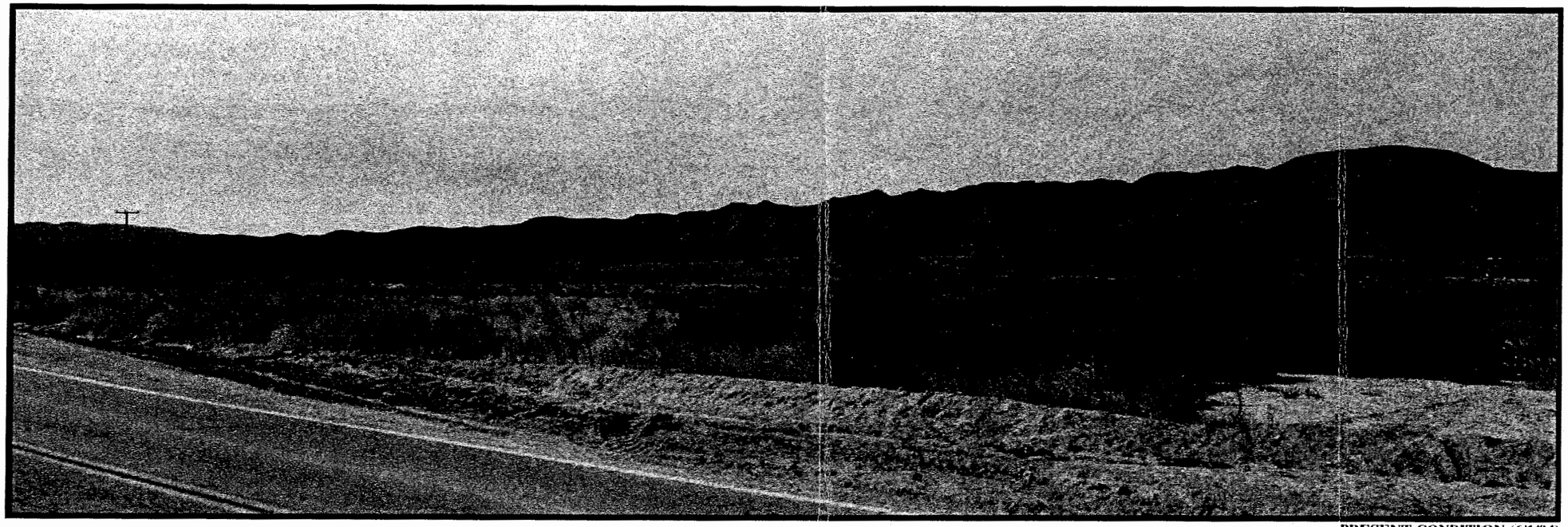
Tesoro del Valle

1627ER01

SOURCE: Headrick Chase & Associates, 1995.



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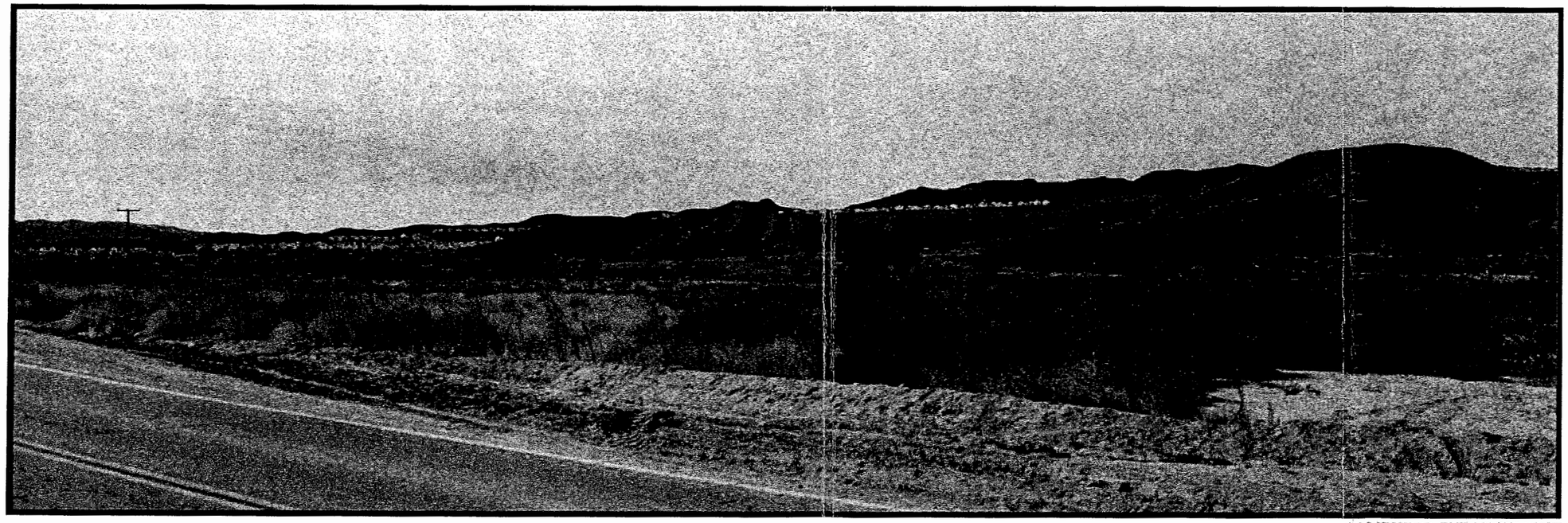


COMPUTER ENHANCEMENT

exhibit **5.7-6a**

View Location #3A
Pre-Development and Post-Development Computer Simulation

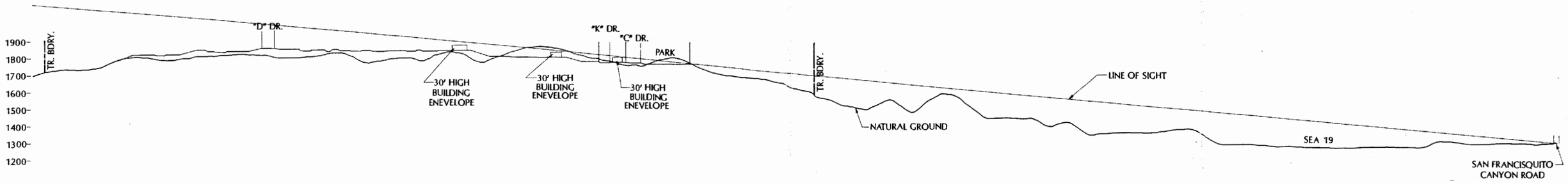
Michael Brandman Associates

JUN • 1995

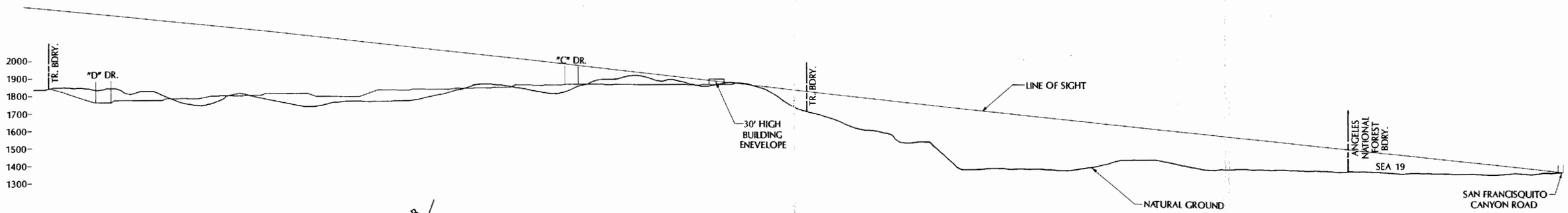
1627ER01

Tesoro del Valle

SOURCE: Headrick Chase & Associates, 1995.

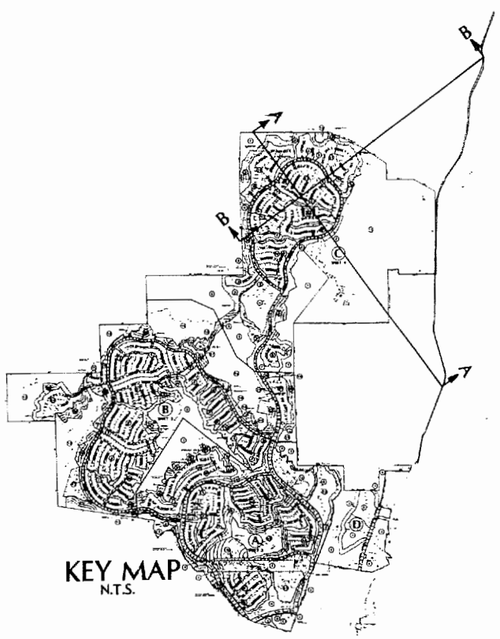


SECTION A–A



SECTION B–B

SCALE: 1" = 200'



KEY MAP
N.T.S.

Tesoro del Valle

CROSS SECTIONS

Michael Brandman Associates

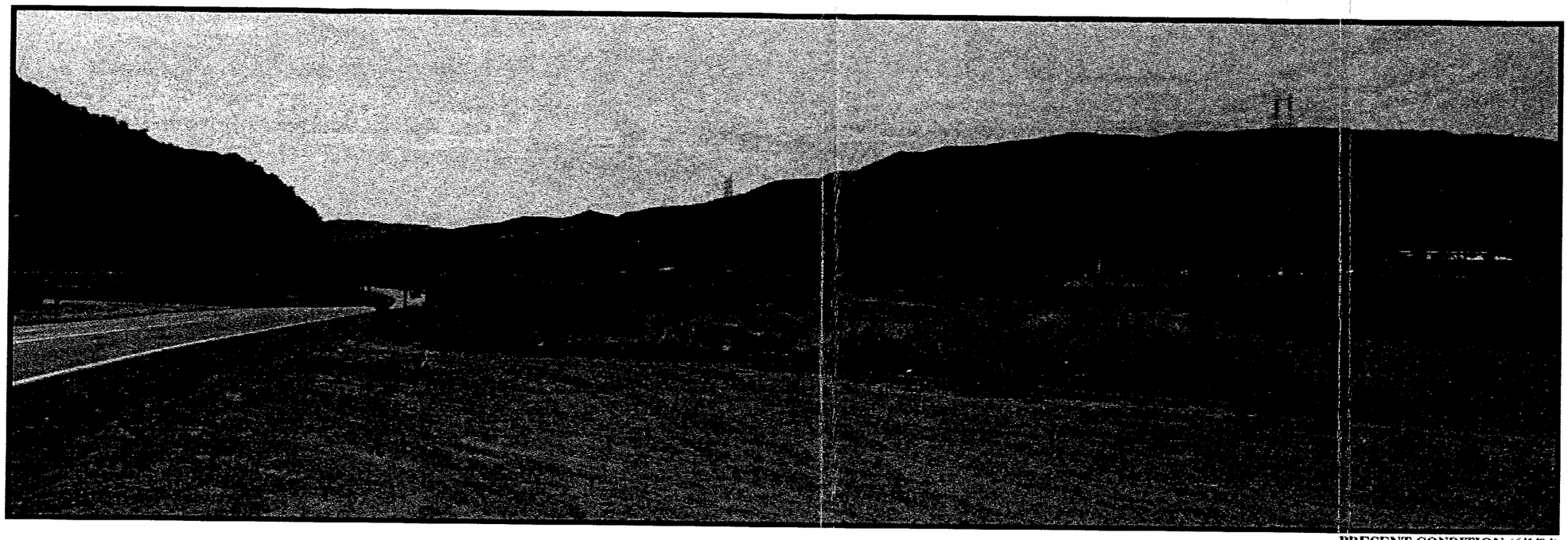
exhibit **5.7-7**

Cross Sections/View Locations 3&4

SEPT•24•1993 rev. 4/94 Tesoro del Valle

1627ER01

SOURCE: Hunsaker & Associates.



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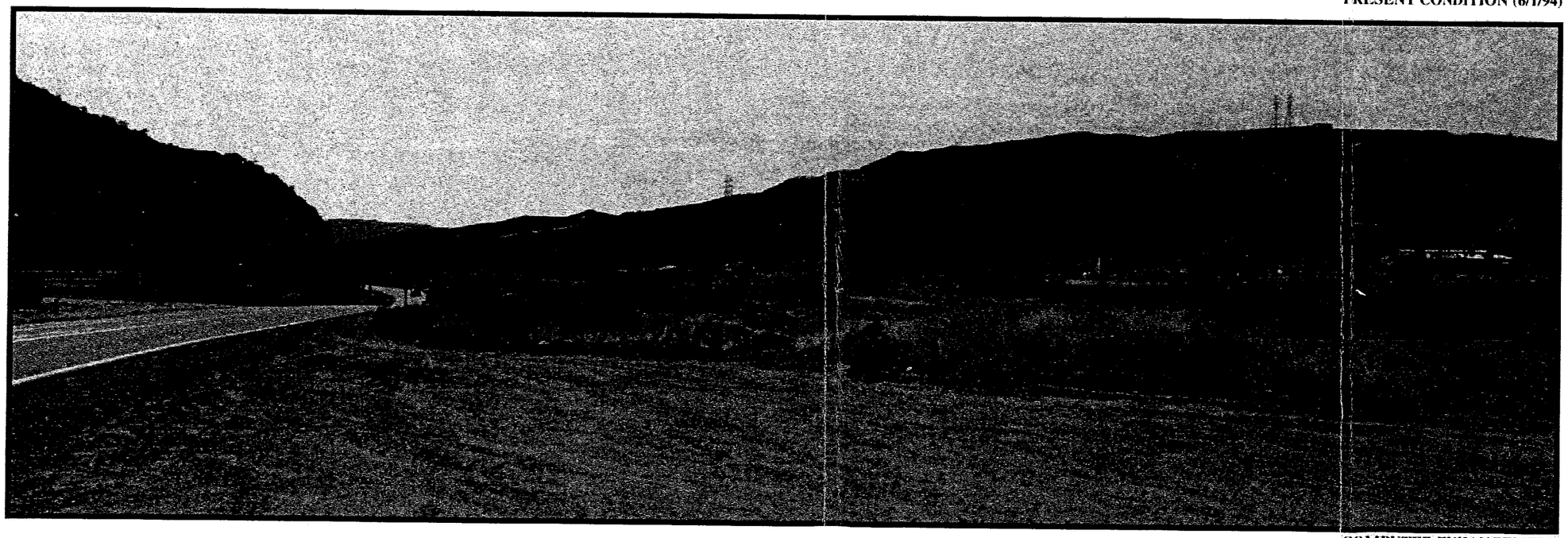

COMPUTER ENHANCEMENT

exhibit **5.7-8**

View Location #4
Pre-Development and Post-Development Computer Simulation

Michael Brandman Associates

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Tesoro del Valle

SOURCE: Headrick Chase & Associates, 1995.

Postdevelopment

Post development views along San Francisquito Canyon Road would be moderately affected. Because of the configuration of the project site, a large area of the site is protected from public views by private property owned by other located between the project site and the canyon road. This property results in "C" section in the project site boundaries. Being adjacent to the road, this property blocks much of the view of the development of the project site. Development of Planning Area A will still result in a substantial change in the visual character of the southeastern portion of the site as can be seen in the post development view to the left of center (Exhibit 5.7-6a). Development on other portions of the site will have the effect of minimizing the topographic variation on the western ridgeline of San Francisquito Canyon. Distant views of the ridgeline will change from variable topography to ridgeline development as shown in Exhibit 5.7-6b. In order to connect Planning Area A and Planning Area C, a ridgeline road will be graded, thereby lowering several ridgelines approximately 100 feet and filling canyons approximately 65 feet. As a result, the natural characteristic of this viewshed would be reduced for those who are traveling to and from the Angeles National Forest. However, views from San Francisquito Canyon Road will be partially blocked by hillsides not part of the project, as previously mentioned. Once graded slopes have been revegetated, the resultant effect will be a lower ridgeline and partial views of residential development, as shown in Exhibit 5.7-7. Although the development resulting from the project would be mitigated by landscaping and revegetation, the change from a non-urban hillside area to a residential ridgeline development would result in an adverse impact. In addition, this portion of the road acts as an entry route to the National Forest and is a visually dominant canyon, which is generally recognized as the significant feature of the area. Therefore, development of the project would result in a significant adverse impact to this view point.

View from San Francisquito Canyon Road within Angeles National Forest (Location 4)

Predevelopment

This perspective illustrates the view from San Francisquito Canyon Road within the National Forest (see Exhibit 5.7-8). Foreground views are dominated by San Francisquito Canyon Wash. Riparian vegetation, cottonwoods, and other various vegetation is clearly visible from the roadway. The significant ridgeline that constitutes the eastern side of San Francisquito Canyon can be seen in the background center of the photograph. From this viewpoint, the peripheral view of the ridgeline shows a gradually declining ridge toward the bottom of the canyon.

Several ranch style residences can be seen from this point on the canyon road. Powerline towers cross the view from right to left in the background and middle ground views. To the left of center, San Francisquito Canyon Road and the Angeles National Forest Boundary marker can be seen. Also to the left of center in the distance, the mountain ridgelines that make up the Santa Clarita Valley can be seen.

Postdevelopment

In the post development condition, views from this perspective would not be dramatically altered as shown in Exhibit 5.7-8. Areas of physical disturbance would include the ridge line in the center of the view and a estate sized lot at the foot of the hills on the left of the photo. The top of the ridgeline in the center of the photo would be slightly graded. A water tank would be visible from this perspective (see Exhibits 5.7-7 and 5.7-8). Mitigation incorporated into the project includes natural revegetation of graded slopes and landscaping to screen urban uses. After the vegetation is fully matured, grading impacts from this view would not attract interest. Viewers on San Francisquito Canyon Road exiting the National Forest would notice natural appearing slopes and portions of urban uses. Because only the tops of roofs and evergreen grove trees would be visible from this location, impacts would not be significant. In addition, mitigation will ensure that residential housing is not silhouetted against the skyline of the visible ridge.

Also visible from this location would be an estate lot accessed from San Francisquito Canyon Road. While some cut and fill would be necessary for this lot, the low density nature would blend in with other existing development within the canyon. The addition of landscaping and revegetation would reduce the impact of this part of the project to less than significant levels.

View from Lake Hughes Road Within the Angeles National Forest (Location 5)

This vantage point is from the edge of the right of way from Lake Hughes Road, a scenic highway, at a dirt turn-out. Only at this point along Lake Hughes Road is part of the project site visible from the road way edge. Viewers traveling on the road way, which is several feet lower than the edge of the road, only have a view of elevations above 1,800 feet mean sea level (MSL). Exhibit 5.7-9 provides a cross-section of the views toward the project site from this location. Because this view is from a scenic highway at an informal viewing point, this location was chosen for the visual analysis. Other points along the scenic highway have distant views east toward the site blocked by topography. Only quick glances can be had in that direction, and the only visible land areas are of the national forest to the north of the project and distant mountain ranges.

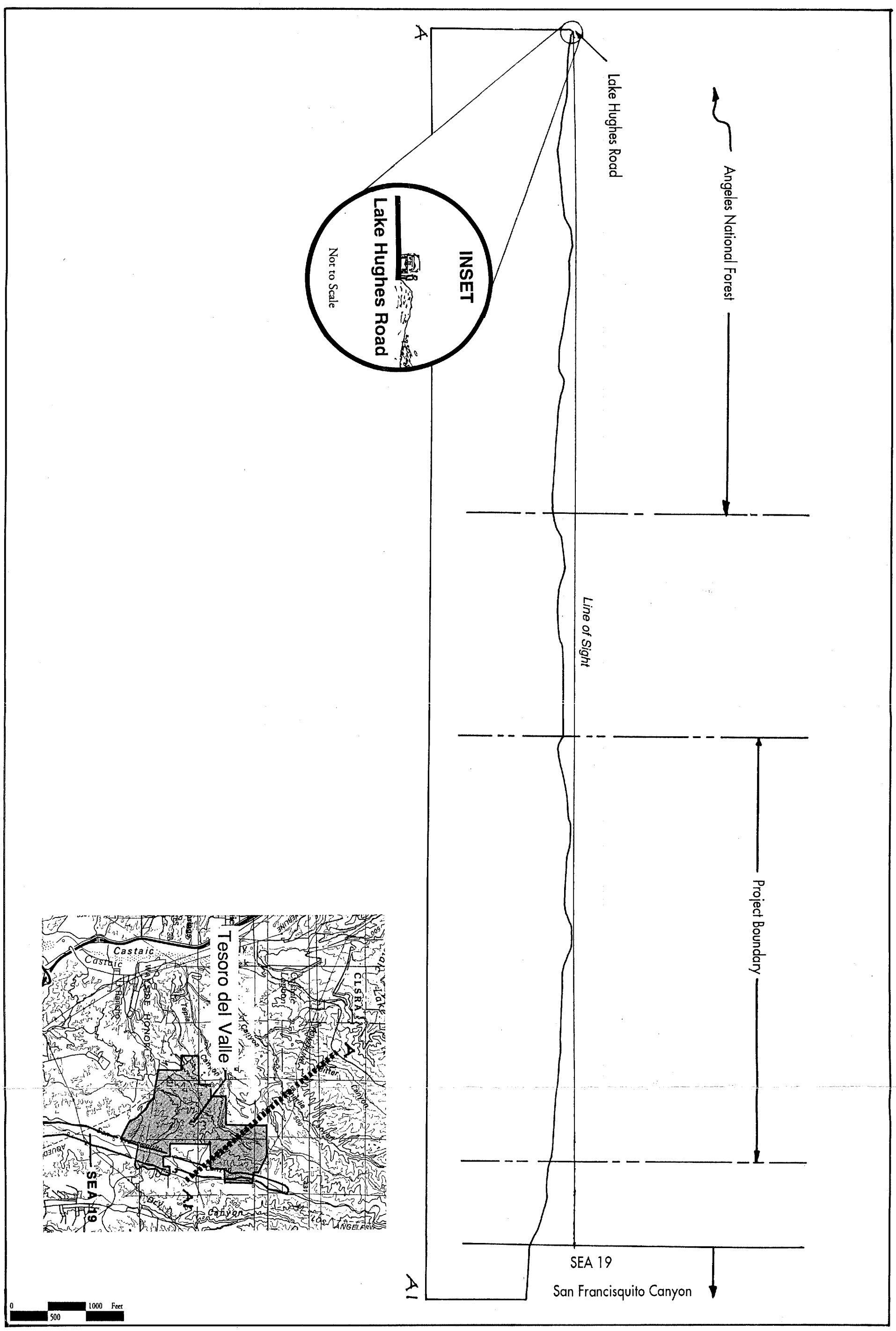

exhibit **5.7-9**

Cross-Section from Lake Hughes Road to Project Site

Michael Brandman Associates

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Tesoro del Valle

1627ER01

SOURCE: MBA

Predevelopment

Views from this perspective are primarily of open space within the Angeles National Forest. Ritter and Charlie Canyons can be seen in the fore- and middle grounds. Exhibit 5.7-10 shows views from this location. Tapia Canyon can be viewed from this location in the middle ground to the right of center in the photo. Vegetation is primarily chaparral. Grassland areas and bare soil provide a lighter contrast against the darker vegetation. SCE's easement with powerlines running along its length can be seen in the foreground on the right of the photo continuing through the center of the photo towards the northern edge of the project site. The Del Sur Ridgeline can be seen rising in the distant views.

Postdevelopment

In the post development condition, views from this location would not be substantially altered. Portions of the project site are visible from this location, however, due to the distance from the site and topographical features, views are limited. Development of the project would modify some slopes on the northern portion of the site (Planning Area C) visible from this location, however, after revegetation of graded slopes, the development would hardly be discernable due to the distance and natural vegetation proposed.

The dark ridgeline on the right of the photo is part of the project site, the general vicinity of Planning Area B. A hiking trail that is part of the project's natural open space area, as shown in Exhibit 3.4-1 (Conceptual Land Use Plan) would run along the ridgeline. All development in Planning Area B would be visually blocked by topography from this view point, and portions of the site that are visible in that direction would remain as undisturbed open space.

Because most of the site is not visible from Location 5, areas of disturbance would be revegetated, and views of the site are distant, adverse impacts from project implementation from this location would be insignificant.

CUMULATIVE IMPACTS

General Visual Character

Cumulative development within the same viewshed as the project site (i.e., generally within San Francisquito Canyon) would result in a change in character of the area. Presently, much of the area is open space. Future development would impact this character, regardless of the implementation of

the project. Planning Area A of the project is centrally located in the upper reaches of the urbanizing portion of San Francisquito Canyon. Currently this area is vacant land void of substantial amounts of development. As the proposed project would contribute to a substantial amount of the visual character change in San Francisquito Canyon (considered with other projects such as North River, East Copper Hill/Duplex II, etc.), the project's impacts would be considered cumulatively significant on the visual character of the area.

Viewpoints

Cumulative development would impact view locations 1 and 2. The North River and East Copper Hill/Duplex II projects would be viewed from these locations. Views from locations 3, 4, and 5 would be basically unaffected by cumulative development. View location 3 would have some distant views of development, but the distance from the location of the project site would not result in adverse impacts.

Cumulative development viewed from locations 1 and 2 would result in a significant change in character from rural uses and vacant land to urban residential and commercial development (TT 46389). The proposed project would cumulatively add to this change in character by developing a large portion of open space into a residential development. Because of the sensitive nature of these view points, the project's contribution to these impacts would be cumulatively significant.

MITIGATION MEASURES

Implementation of the proposed landscape master plan would reduce the adverse impacts of the proposed project on the visual environment. Graded areas would be revegetated and landscaping would buffer development from surrounding visual receptors. In addition, the following mitigation measure will be required.

1. Prior to final tract map approval, structures in the northernmost area of the development (Planning Area C) shall be set back a sufficient distance such that residential structures are not silhouetted against the skyline. This will reduce potential viewers on San Francisquito Canyon Road in the Angeles National Forest from seeing pronounced urban development on the ridgeline.

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exhibit **5.7-10**

View Location #5, Pre and Post Development

Tesoro del Valle

UNAVOIDABLE ADVERSE IMPACTS

The proposed project would result in significant impacts from 3 of the 5 viewpoint locations. Mitigation in the form of landscaping would not reduce impacts to less than significant levels. Development of the project would result in the irrevocable change of character in the site from open space to developed urban uses. The project would also add to the cumulative alteration of the character of the area, resulting in a significant impact that cannot be fully mitigated.

5.8 *LAND USE*

ENVIRONMENTAL SETTING

Existing Land Use

Onsite

The 1,795-acre project site has historically been host to agricultural and ranch uses with most of the site relatively untouched by urban influences (i.e., roads, infrastructure, buildings). Urban disturbance (ranch and agricultural uses) has been concentrated in the southeastern portion of the site (SWC of Section 34 and SEC of Section 33), where several dry crop fields and structures are located. As shown in Exhibit 5.8-1 (Aerial Oblique Photo), agricultural operations have been ongoing in five finger canyons that are tributary to San Francisquito Canyon and the flat wash area of San Francisquito Canyon. The agricultural fields have been dry farmed with alfalfa crops on an annual basis. Currently, about 110 acres of the site are used for agricultural purposes. Exhibit 5.8-2 provides an illustration of the location of agricultural uses and the Department of Conservation farmland designations for the site.

Ranch uses have been an integral part of the site's historic land use. A detailed description of the existing ranch is located in Section 5.12, Cultural Resources. Named Farmer John Ranch, ranching activities have been present on the site since the 1950s. Structures and other associated improvements for the ranch include: a single-family residence; swimming pool; tennis courts; horse corrals; equipment storage sheds; and caretaker's residence located adjacent to San Francisquito Canyon Road.

The remainder of the site has been predominantly undisturbed by urban uses. Fire roads have been graded along ridge lines to provide access through the site and assist fire crews in the event of a fire (see Exhibit 5.8-1). Due to the chaparral vegetation communities present within this geographical region, brush fires are a naturally reoccurring event. As a means for reducing the potential for an uncontrollable fire, the Los Angeles County Fire Department conducts focused burns on the site and surrounding areas approximately every 20 years. This procedure reduces the amount of fuel available for a fire and initiates a rebirth of the vegetation communities thereby allowing succession of species to occur.

Water and electrical public service uses also exist on the site. The Foothill Feeder is an underground aqueduct operated by the Metropolitan Water District (MWD) that transports water from Castaic Lake to metropolitan Los Angeles. The aqueduct is a 20-foot-six-inch inside diameter line approximately 200 feet beneath the surface. An easement for the pipeline diagonally bisects the western most finger of the site (see Exhibit 3.4-1, Conceptual Land Use Plan).

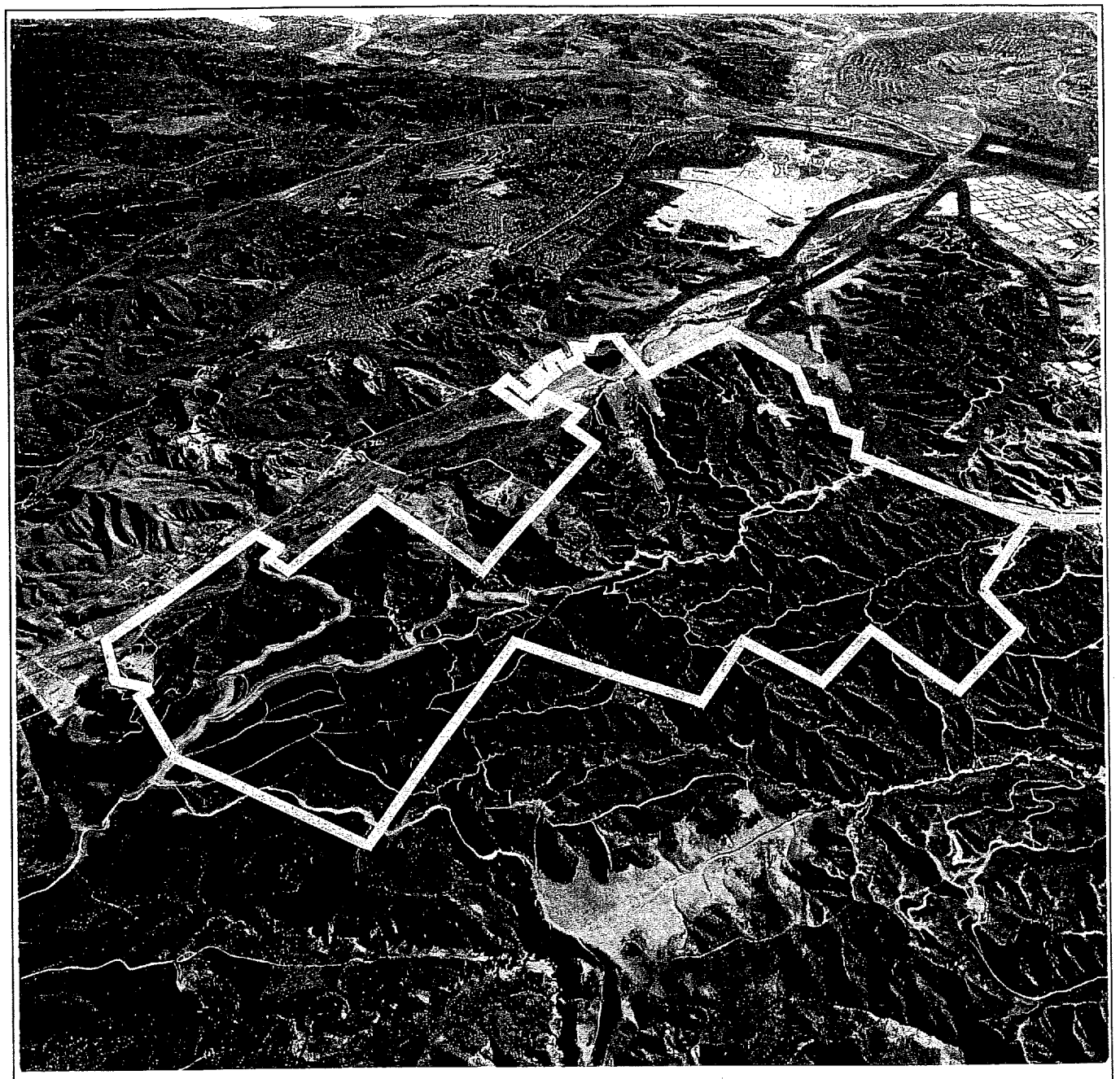
A 66-kv electrical transmission line, owned and operated by the Southern California Edison (SCE) Company, bisects the southern portion of the site in a east/west direction. The transmission line is run along two sets of towers within a 300-foot easement. The two lines are separated by approximately 170 feet.

Surrounding Uses

The project site is located in the northern most portion of the Santa Clarita Planning Area. Approximately ½ mile north of the project site is the Angeles National Forest, which is administered by the U.S. Department of Agriculture (USDA) Forest Service and contains approximately 651,874 acres. Land uses within the National Forest are very limited and consist primarily of natural open space. Recreation uses are permitted within the National Forest in certain areas. Lands within the forest play a role as habitat for many species of animals, including such endangered species as the unarmored threespine stickleback (UTS).

South of the National Forest and along San Francisquito Canyon are numerous rural residential properties and ranches. A number of these ranches dry-farm crops in the mouths of drainages that converge with San Francisquito Canyon and along alluvial terraces adjacent to the wash. Further south of the project in San Francisquito Canyon, residential land uses are scattered along the road. Horse stables and corrals are also common in San Francisquito Canyon. To the south of the intersection of San Francisquito Canyon Road and Seco Canyon Road are residential uses within the City of Santa Clarita. As depicted in Exhibits 4.3-1 and 5.8-1, existing or planned urban uses are located directly south of the project site. Six planned or approved residential developments, totaling approximately 3,100 units, are located to the south and east of the project site. (For additional discussion of these developments, see cumulative impacts at the end of this section.) The Lockheed Aerospace facility is located approximately 1 mile south of the western edge of the project site.

The City of Santa Clarita is located south of the project site. The nearest boundary of the City is located approximately 0.5 mile southeast of the site, at the intersection of San Francisquito Canyon and Tupelo Ridge Roads.



Legend

Project Boundary

Related Projects

Michael Brandman Associates

exhibit **5.8-1**

Aerial Photo #3

SEPT•24•1993

Tesoro del Valle

1627ER01

East of the project site, in Seco and Haskel Canyons, residential development is the predominant land use (see Exhibit 5.8-1). Development within this area comes within 500 feet of the Angeles National Forest boundary. Immediately east of the project site, and surrounded by the project's boundaries on three sides, is private land held by other owners. These properties separate the central portion of the project site from San Francisquito Canyon Road.

Property west of the project site primarily consists of privately held undeveloped lands within Los Angeles County. The closest urban development on the western side of the project site is the Peter J. Pitchess Honor Ranch prison facility. The facility consists of 2,800 acres and an inmate population of 10,000. The facility is located within Wayside Canyon, which also extends north into the project site.

Within the Angeles National Forest and north of the project site, the Castaic Lake State Recreation Area contains a lake used for water sports, fishing, and water storage. The location of Castaic Lake in relation to the project site is depicted in Exhibit 5.7-1 (oblique aerial). Access to Castaic Lake is provided by Lake Hughes Road, classified on the Santa Clarita Valley Area Plan as a Second Priority Scenic Study Route on the Scenic Highways Plan.

Agricultural Land

Approximately 110 acres of the 1,795-acre site are used for agricultural purposes. Historically, the finger canyons and open fields in San Francisquito Creek floodplain have been used to farm alfalfa, which was irrigated by two water wells during the 1950s. From the mid-1970s to 1987, this land on the southeastern side of the project site was leased by Boskovich Farms for cultivation of green onions, leeks, and radishes. Since that time, the agricultural land onsite has been cultivated with a winter wheat crop. These crops are "dry farmed." No irrigation is used (Geosoils 1992).

According to the most recent farmland maps from the State Department of Conservation (1992), the project site contains areas designated as Prime Farmlands, Farmland of Statewide Importance, Farmland of Local Importance, Grazing Lands and Other lands. Exhibit 5.8-2 illustrates these designations for the project site, as well as the locations of the existing farmable lands.

Land Use Plans

Los Angeles County General Plan

The General Plan provides land use guidance at two levels: (1) countywide and (2) local. The countywide elements set regional direction for land use decisions while Area Plans provide focused attention on a smaller scale.

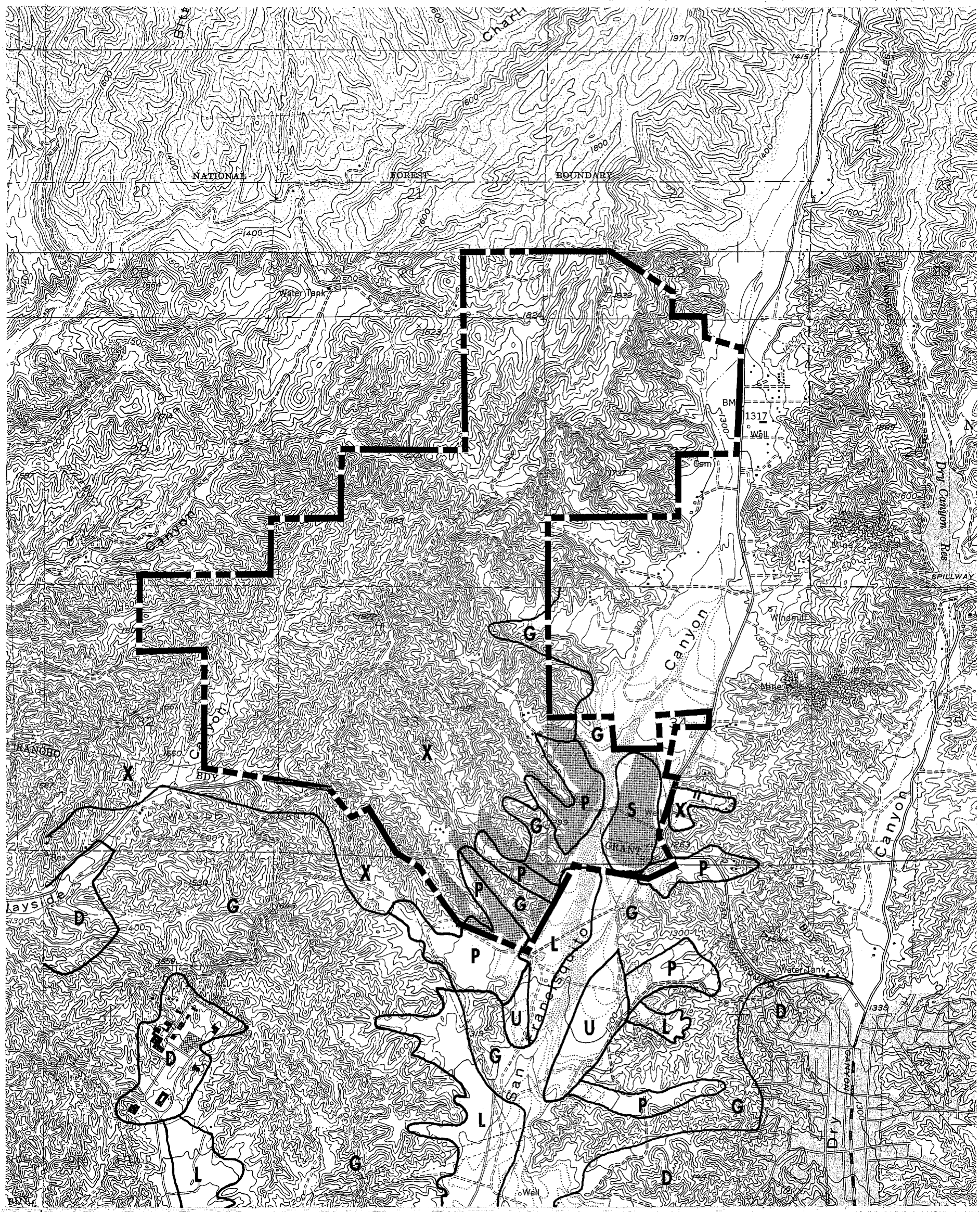
The Los Angeles County General Plan Land Use Element acts as the primary planning document that defines the allowable development and uses permitted for an area through the land use designations on the land use map and the standards associated with special management areas (e.g., Hillside Management Areas). The project site currently contains three designations: Low-Density Residential (1), Non-Urban Residential (R), and Significant Ecological Area (SEA). Table 5.8-1 provides an acreage breakdown of the current land use designations and the associated development densities. As depicted in Exhibit 5.8-3, the Low-Density Residential designation covers areas on the site that are relatively flat and that are located in the canyons tributary to San Francisquito Canyon. The majority of the site is Non-Urban Residential, which corresponds to the area of the site with the greatest topographical relief. The floodplain of San Francisquito Creek is designated as an SEA on the General Plan Land Use Policy Map.

Under the existing Countywide General Plan designations for the site, the project site could be developed up to a maximum of 1,730 units at the maximum density and up to 308 units at the low-density threshold (see Table 5.8-1). Based on the proposed land use plan and the existing Countywide General Plan designations, the applicant is requesting 1,270 additional units above the maximum-density threshold for the site and 2,692 additional units above the low-density threshold.

Santa Clarita Valley Area Plan

A component of the County of Los Angeles General Plan, the Santa Clarita Valley Area Plan, provides specific land use planning policies for unincorporated areas within the Santa Clarita Valley. This area-wide plan constitutes the primary tool for guiding decisions relative to local land use and development patterns.

The Santa Clarita Valley Area Plan covers the area bounded by the Angeles National Forest on the north, the Newhall area to the south, the Aqua Dulce area to the east and the Val Verde area to the west. The planning area encompasses both the City of Santa Clarita and unincorporated areas



Legend

Existing Agricultural Operations

Department of Conservation Farmland Designations

P	Prime Farmland	G	Grazing Land
S	Farmland of Statewide Importance	D	Urban and Built-Up Land
U	Unique Farmland	X	Other Land
L	Farmland of Local Importance		

0 1000 2000 Feet

Michael Brandman Associates

exhibit **5.8-2**

Agricultural Uses

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Tesoro del Valle

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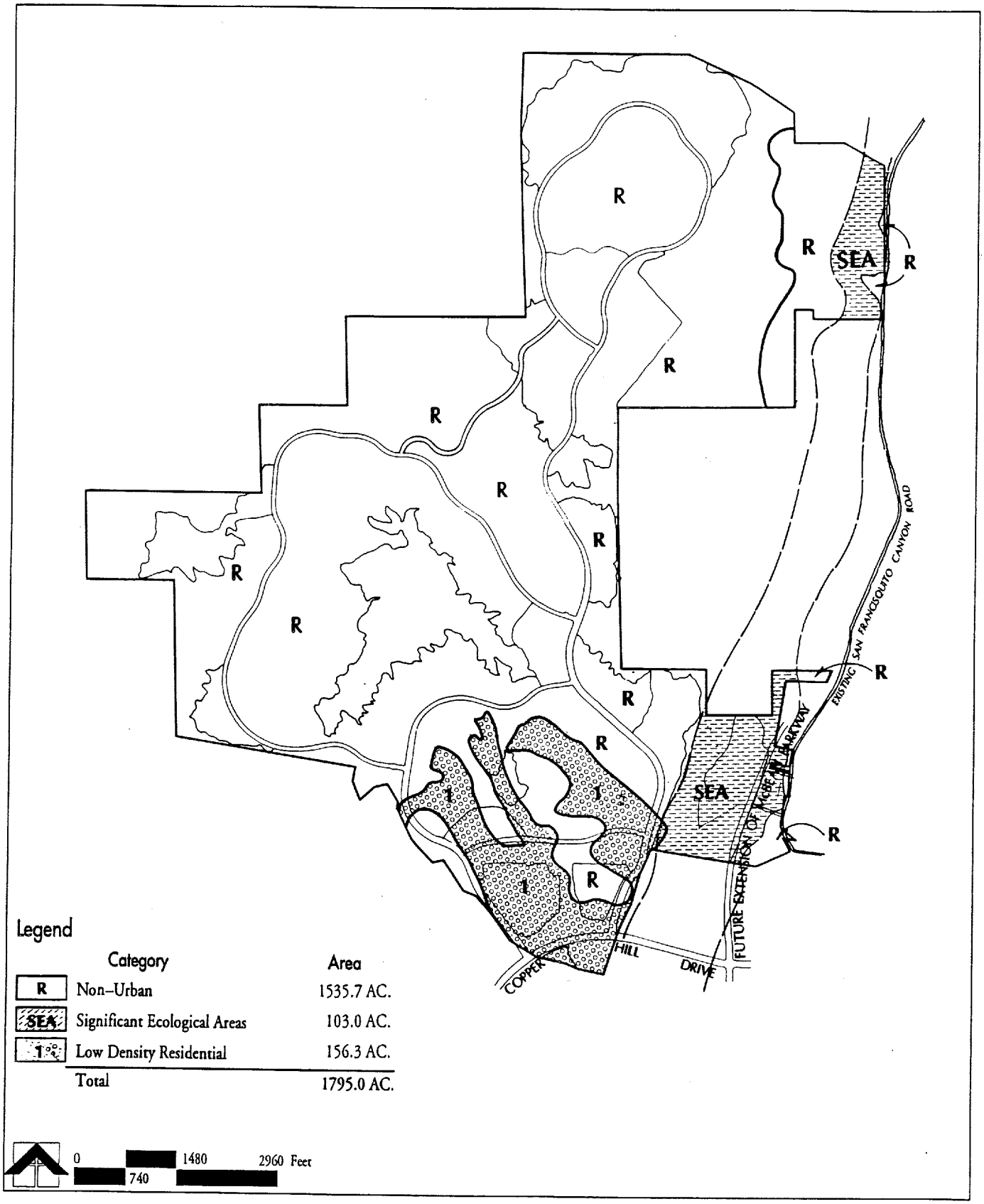

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exhibit **5.8-3**

General Plan Land Use Designations

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Tesoro del Valle

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SOURCE: Hunsaker & Associates, 1993.

surrounding the city. Land use policy within the City of Santa Clarita is governed by the City of Santa Clarita General Plan.

The Santa Clarita Valley Area Plan consists of 11 plan elements which include: Land Use, Housing, Community Revitalization, Community Design, Economic Development, Circulation, Public Services and Facilities, Environmental Resources Management, Noise, Safety, and Energy Conservation. Except for the land use element, these elements are discussed, depending on the issue, in the corresponding section of this document. For example, noise element policies are discussed within the Noise Section (Section 5.6).

TABLE 5.8-1

EXISTING COUNTYWIDE GENERAL PLAN LAND USE DESIGNATIONS

Land Use Designation	Slope Percentage	Area (AC±)	Low Threshold Density	Low Threshold Units	Maximum Density Density	Maximum Density Units
Non-Urban Residential (R)	0 - 24.99%	392.0	0.2	78	1.0	392
	25 - 49.99%	621.4	0.1	62	0.5	311
	50% - greater	563.1	N/A	0	0.05	28
Subtotal		1,576.5		140		731
SEA	0 - 24.99%	60.2	0.2	12	1.0	60
	25 - 49.99%	1.4	0.1	0	0.5	1
	50% - greater	0.6	N/A	0	0.05	0
Subtotal		62.2		12		61
Low-Density Residential (1)	0 - 24.99%	76.0	1.0	76	6.0	456
	25 - 49.99%	36.0	1.0	36	6.0	216
	50% - greater	44.3	1.0	44	6.0	266
Subtotal		156.3		156		938
Total		1,795.0		308		1,730

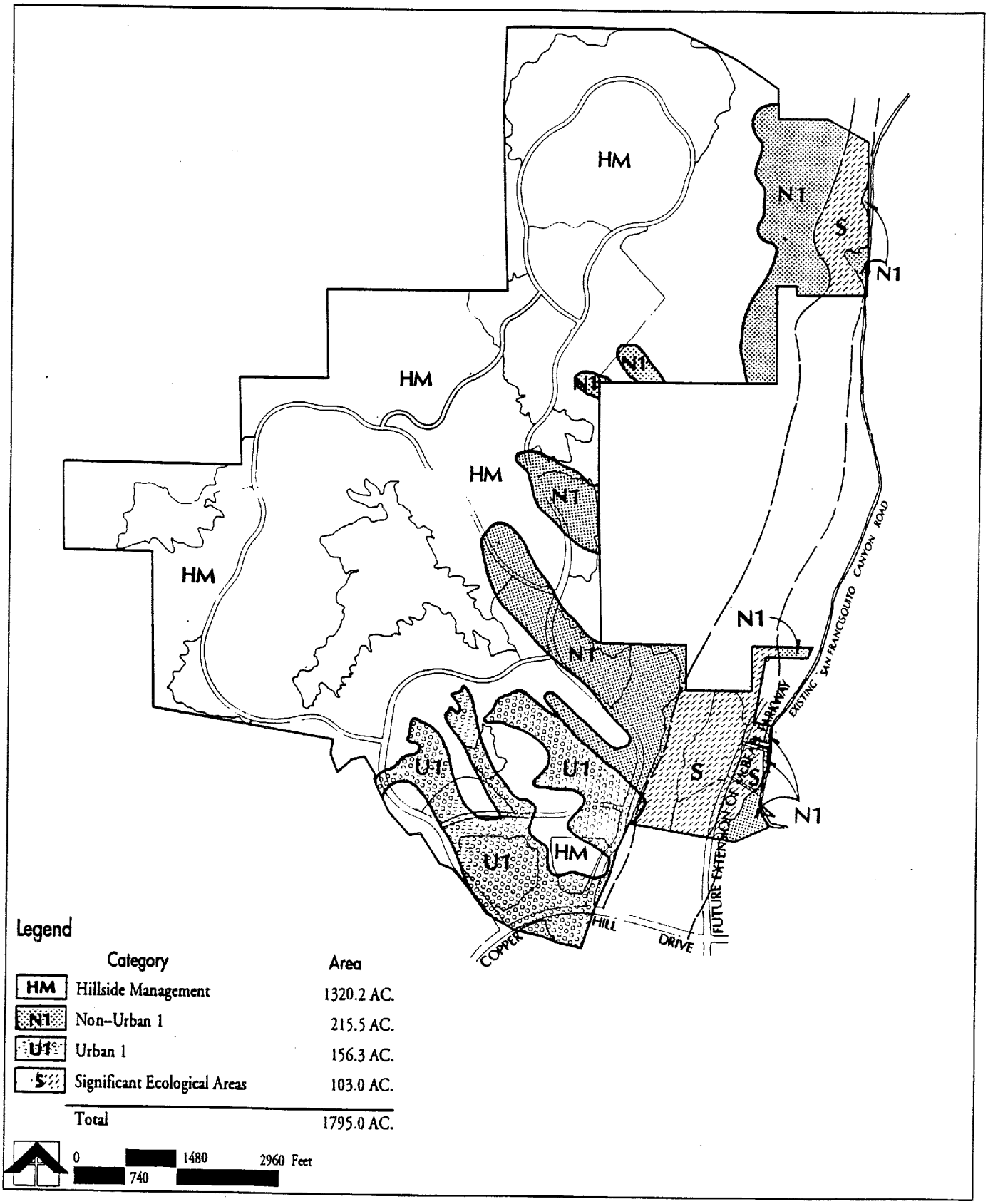
Source: Hunsaker and Associates 1994.

Under the Land Use element of the Area Plan, the following categories of policies have been developed:

- Accommodation of Projected Land Use and Urban Growth
- Pattern of Population and Land Use Distribution
- Costs of Population and Urban Growth
- Environmental Hazards and Constraints
- Environmental Sensitivities
- Land Use Compatibility
- Adequacy of Public Services
- Recycling and Revitalization of Land Uses
- Impact of Transportation on Future Land Use Patterns and Provision of Adequate Transportation Systems
- Resource Conservation
- Community Identity
- Lifestyle Options
- Equal Opportunity
- Implementation and Enforcement of the General Plan

In addition to the 11 general elements, the Area Plan also contains criteria and conditions for development of each potential land use allowed under the plan. The plan contains a development policy map with land use designations. This map graphically depicts the county land use policy and diagrams the general location, character, and intensity of development. The land use designations on the plan map are intended to be considered along with the goals and policies of the plan in guiding development in the area.

The Santa Clarita Valley Area Plan, originally adopted in 1984, underwent a comprehensive update in 1990. The Land Use Policy Map has been amended as recently as March 1992. As depicted in Exhibit 5.8-4, the map designates the site with the following categories: Urban 1, Non-Urban 1,



Michael Brandman Associates

exhibit **5.8-4**

Santa Clarita Area Plan Designations

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SOURCE: Hunsaker & Associates, 1993.

Hillside Management, and SEA/Floodway. The Area Plan designations correspond to similar land use designations in the General Plan. The SEA designation corresponds to the General Plan designation of SEA, while the Urban 1 and Non-Urban 1 designation corresponds to the Low-Density Residential designation. The Hillside Management designation corresponds to the Non-Urban Residential designation of the General Plan. Table 5.8-2 lists the land use designations for the project site in the Santa Clarita Valley Area Plan.

Under the existing Area Plan designations, the project site could be developed up to a maximum of 1,151 units at the maximum density and 333 units at the low threshold (see Table 5.8-2). Based on the proposed land use plan and the existing Area Plan designations, the applicant is requesting 1,849 additional units above the maximum density threshold for the site and 2,667 additional units above the low-density threshold.

The San Francisquito Canyon SEA (SEA 19) is defined as the floodplain of San Francisquito Creek in the Santa Clarita Area Plan. The land use policy map, which is illustrated in Exhibit 5.8-4, designates the SEA based on the calculated floodplain delineation performed by Los Angeles County (see related discussion in Section 5.2, Water Resources, Flooding). The policy map designates the floodplain and, correspondingly, the SEA as existing from one side of the bank of San Francisquito Canyon to the other. The Area Plan also contains guidelines on interpreting the land use policy map.

These guidelines state that the boundary of land use designations are intended to follow defined physical features, such as floodplain boundaries or the toe of slopes. The southern portion of the area designated as SEA on the policy map has been determined by the applicant's engineer to contain between 21.6 and 31.4 acres of land elevated above the floodplain and under agricultural cultivation. This area is located within the outer boundaries of the floodplain. While the "island" of agricultural land is technically outside the calculated floodplain, the County considers the area to be within the SEA. As a result, there is disagreement regarding the appropriate designation for the "island" area. This is an issue that needs to be resolved as part of the environmental review process.

TABLE 5.8-2

EXISTING LAND USE POLICY MAP SANTA CLARITA VALLEY AREA PLAN 1990 LAND USE DESIGNATIONS

Land Use Designation	Slope Percentage	Area (AC±)	Low Threshold Density	Low Threshold Units	Maximum Density Density	Maximum Density Units
HM	0 - 24.99%	291.5	0.2	58	0.5	146
	25 - 49.99%	437.9	0.1	44	0.5	219
	50% - greater	396.2	N/A	0	0.05	20
Subtotal		1,125.7		102		385
1/4 Mile in HM	0 - 24.99%	37.0	0.2	7	1.0	37
	25 - 49.99%	81.9	0.1	8	1.0	82
	50% - greater	75.7	N/A	0	0.05	4
Subtotal		194.5		15		123
N1	0 - 24.99%	136.6	0.2	19	0.5	48
	25-49.99%	50.2	0.1	5	0.5	24
	50% - greater	69.5	N/A	0	0.05	4
Subtotal		256.3		24		76
U1	0 - 24.99%	86.4	1.1	95	3.3	285
	25 - 49.99%	34.7	1.1	38	3.3	115
	50% - greater	35.2	1.1	39	3.3	116
Subtotal		156.3		172		516
S[1]	0 - 24.99%	60.2	0.2	12	0.5	30
	25 - 49.99%	1.4	0.1	0	0.5	1
	50% - greater	0.6	N/A	0	0.05	0
Subtotal		62.2		12		52
Total		1,795.0		333		1,151

[1] The SEA designation does not have allowed densities. Each development within an SEA is supposed to be designed according to the resources present in the SEA. Densities shown are for illustrative purposes and correspond with the densities allowed under the Hillside Management Designation.

Source: Hunsaker and Associates 1994.

The Santa Clarita Area Plan provides the following discussion for the Special Management Areas designated for the site:

A. Non-Urban Hillside Areas

1. Areas shown as Hillside Management Areas (HM) are generally those classified as "non-urban" on the Land Use Policy Map of the countywide Land Use Element where the slope typically exceeds 25 percent (for horizontal to one vertical).

2. Within these areas, it is intended that future development will occur in the most suitable and least environmentally sensitive areas, and will be designed in terms of scale and intensity in a manner compatible with the natural resource values and character of the area.

3. Approval of residential development proposals will be based upon the ability to mitigate natural hazards and provide for compatible hillside design. Development proposals in these designated hillside areas shall comply with the General Conditions of Development located elsewhere in this document and with the General Conditions for Development contained in the Countywide Chapters of the County General Plan.

B. Floodplain Management Areas

1. Floodways and floodplains identified by the County Engineer, the Flood Control District, or the U.S. Army Corps of Engineers, are designated as "Floodplain Management Areas."

2. Within the floodway, or watercourse itself, it is recommended that only certain extractive industrial (such as sand and gravel), agricultural, open space, light recreational and groundwater recharge uses be facilitated.

3. In surrounding floodplains, residential, commercial, or industrial uses can be facilitated providing appropriate flood protective measures are exercised, subject to approval by the Flood Control District and the County Engineer (as applicable). Such protective measures would require that the bottom elevation of the structure, or first floor, be at least 1 foot above the level of the "design flood." Any development or design feature which would increase the level of the design flood by more than 1 foot should be offset by approved stream improvements (costs to be incurred by the developer).

4. Wherever flood control measures are provided so as to eliminate the flood hazard to the satisfaction of the County Engineer and the Flood Control District, the Floodplain Management classification will be removed. Where this classification is removed the land use categories adjacent to the

Floodplain Management area will be extended into such area without the need for a plan amendment.

C. Significant Ecological Areas

1. Significant Ecological Areas (SEAs) are ecologically important or fragile land and water areas valuable as plant or animal communities. (Reference is made to the Countywide Chapters of the General Plan). SEAs have been designated for being one or more of the following:

   - A habitat for rare and endangered species of plants and animals.
   - A restricted natural community which is scarce on a regional basis.
   - A habitat of restricted distribution in the County.
   - A breeding or nesting ground, an unusual biotic community.
   - A site with critical wildlife and fish value.
   - A relatively undisturbed habitat.

2. Future additions and deletions to identified Significant Ecological Areas may be appropriate based on updated, more detailed biotic surveys.

3. Preservation techniques may include County land use regulations, density transfer, clustering, transfer of development rights, open space easements, deed restrictions, private land gifts, and/or public acquisition. Determination of specific protective mechanisms for each SEA requires individual site level analysis based on the resource present, specific biotic surveys to be included as part of the EIR process and review by the County Significant Ecological Area Technical Advisory Committee (SEATAC). The plan does not infer, however, that reasonable use of privately held lands within such areas shall be precluded without just compensation. Rather, the general conditions and standards specified elsewhere in this document are provided to guide specific land use decisions.

4. SEA Compatible Land Uses

   Within SEAs, the following activities are considered compatible by definition: regulated scientific study; passive recreation, including wildlife observation and photography; and limited picnicking, riding and hiking, and overnight camping. In addition, the following uses may be compatible as determined by a detailed biotic survey and such conditions as may be necessary to ensure protection of identified ecological resources:

   - Residential uses at densities compatible with the resource values present (not to exceed those specified by the Land Use Policy Map) and consistent with community character.

   - Commercial uses of a minor nature serving local residents and visitors.

- Where no alternative site or alignment is feasible, public and semi-public uses essential to the maintenance of public health, safety, and welfare.

- Agricultural uses compatible with the resource values present.

- Where compatible with identified biotic resources, extractive uses, including oil and gas recovery and rock, sand, and gravel quarrying.

5. SEA Design Compatibility Criteria

   Each development proposed within a designated SEA will be reviewed for compliance with the SEA design criteria set forth in the General Conditions for Development using the Performance Review Procedure set forth in the Countywide Chapters of the County General Plan.

City of Santa Clarita General Plan

The project also lies within the planning area defined in the General Plan of the City of Santa Clarita. The planning area is an informal boundary defined by jurisdictions to include areas that could affect a city. It should be noted that the project site is not located within the Sphere of Influence for the City of Santa Clarita. The Sphere of Influence defines the probable ultimate physical boundary of a jurisdiction. The sphere boundary is set by the Local Agency Formation Commission and land within a sphere boundary is eligible for annexation.

Accordingly, the City of Santa Clarita does not have jurisdiction over the project site, and the General Plan does not formally apply to the project site. A discussion of the Santa Clarita General Plan land use policies and designations related to the site are provided for information purposes.

The City of Santa Clarita General Plan designates the project site as Residential Estate (RE) and Significant Ecological Area (SEA). The RE designation permits a development density range of 0.0 to 0.5 units per acre. Based on the allowable density, the proposed project could develop a theoretical maximum of 900 dwelling units on the 795-acre site. The SEA designation is consistent with the Los Angeles County General Plan designation of areas within the floodplain of San Francisquito Canyon Creek.

Zoning

The project site is currently subject to the zoning standards of the County of Los Angeles. The entire property is currently zoned Heavy Agriculture (A-2-2). The Heavy Agriculture zone allows for agricultural and other uses including residential development up to one residential dwelling unit for every 2 acres of land. The existing zoning designations for the project site is depicted in Exhibit 5.8-5. Based on the existing zoning designation, the maximum theoretical allowable buildout of the project site based on site acreage alone would be approximately 900 dwelling units.

ENVIRONMENTAL IMPACTS

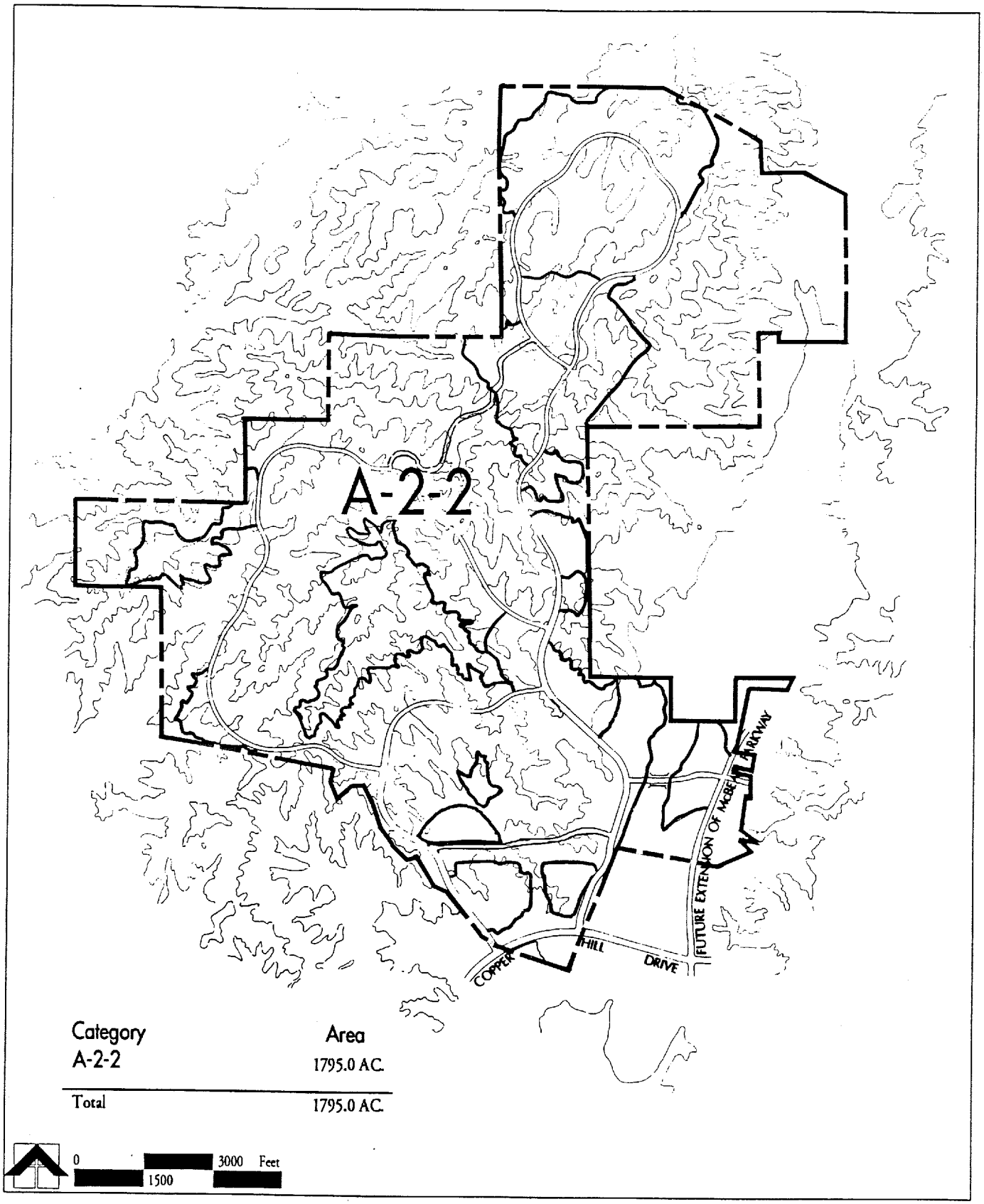
Threshold of Significance

Several criteria are defined below to assist in the determination of the significance of land use impacts in this EIR. First, if the project is incompatible with surrounding land uses, this incompatibility is considered a significant impact. The compatibility of a land use with another is determined based on the sensitivity of one land use to the performance characteristics, such as traffic generation, noise, appearance, etc., of the other use. Second, if the project results in the elimination of a substantial amount of important farmlands, this impact would be considered significant. Third, if the project is inconsistent with the goals of the Santa Clarita Valley Area Plan, this inconsistency would be considered a significant impact.

Land Use Compatibility

Onsite

With utility easements bisecting the site, several compatibility issues could be a concern. First, the MWD's aqueduct tunnel easement has proposed urban uses over it. The existing aqueduct is several hundred feet below ground, so rupture of the line is not anticipated. According to the MWD, development has occurred above the underground aqueduct in other areas with no compatibility conflicts (Salsman 1994). Although rupture of the line is possible, the likelihood of such an event is minimal. In addition, the depth of the line is several hundred feet below ground, so water conveyance could be ceased before damage is likely to occur on the surface. According to the applicant, the easement is only for "tunnel" rights, and the MWD has no control over uses that are placed on the easement. However, mitigation for the project will include submittal of development plans to the MWD for review and comment.



Michael Brandman Associates

exhibit **5.8-5**

Existing Zoning Designations

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Tesoro del Valle

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Second, Southern California Edison's easement also bisects the site. Potential conflicts with the development of the project adjacent to and on the easement include potential electromagnetic fields (EMF) and conflicts with SCE's policies regarding development in their easement.

EMF have much-debated health effects. Electric fields are produced in electrical lines, as a result of the amount of voltage applied to a conductor. Electric field strength falls off dramatically with distance, and many objects, including trees and houses shield electric fields. The predominant amount of residential exposure to electric fields is a result of household appliance use. Magnetic fields are a result of the strength of the movement (current) of electricity through a conductor. As with electric fields, magnetic fields drop with distance, however, they are not shielded by objects. The relationship between EMF exposure and health effects has yet to be scientifically proven; results are inconclusive. SCE currently is studying the effects of EMF exposure, but does not have a strict policy for setbacks from electrical transmission lines. As of 1992, the latest SCE policies regarding EMF are:[1]

- Provide comprehensive information to any customers requesting it
- Continue in-house research on both physical and biological effects of EMF
- Design all new transmission and distribution facilities to cancel EMF fields
- Prohibit active/neighborhood park uses under transmission lines owned by SCE

However, because the easement across the project site is on land owned by the applicant, SCE does not have control over the uses allowed in its easement. The easement does stipulate that no permanent structures, such as buildings or lakes, as proposed, can be placed within the easement. As a result, the project site plan was amended to avoid conflict with SCE's easement rights. The proposed lakes have been moved south out of the easement. In their place, the applicant proposes to locate several soccer fields for public recreational purposes. Since SCE does not own the land on which the transmission lines are located, the SCE policies regarding EMF do not have legal bearing over which uses the applicant proposes within the easement, as long as they are not structures. Because fields are proposed, there is no conflict between the project and SCE's policies.

Although the project does not conflict with SCE policy, a concern over EMF exposure could exist. Users of the fields would be exposed to varying levels of EMF. According to surveys performed by SCE, EMF levels in the vicinity of the soccer fields range from 1.7 to 9.5 milligauss (mG). In comparison to hair dryers which generate EMF levels of several thousand mG, the levels onsite are considered low. However, no scientific evidence has proven conclusively what level, if any, of EMF presents a danger to humans.

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[1] Phone conversation with Kurby Holte, July 1, 1993.

It should be noted that the proposed soccer fields would be used on an intermittent basis by various age groups. Much concern and scientific study on EMF have focused on long-term exposure to high levels of EMF, although recent studies have diverged from this line of thought.

Because of the scientific uncertainty of the effects of EMF, it cannot be determined whether the proposed recreational uses would cause any health risks to users. No policy concerning EMF has been developed by the County, so the project would be considered consistent with land use policy. It should be noted that in many areas, parks exist within utility rights-of-way.

To provide full disclosure to potential users, the applicant proposes to erect signs on the fields warning of the potential danger from EMF exposure. In addition, fencing will be placed around the soccer fields to prohibit children from climbing or approaching the electrical towers. The project will be further conditioned such that if conclusive evidence shows EMF exposure to be a concern with the proposed uses, the area within the easement will be prohibited from active recreational use and will remain as open space.

No other land use compatibility conflicts are anticipated.

Offsite

The southern portion of the project site would be entirely compatible with offsite planned and approved land uses, such as the North River project, and other proposed development. As shown in Table 3.4-3 (Residential Densities By Planning Area), the project site would be developed at a lower density per acre than all surrounding development. The project's density would be 1.7 dwelling units per acre compared to the 2.1 to 7.0 dwelling units per acre of surrounding tracts (for reference, see Table 4 of *Biota Report for the Proposed Tesoro del Valle (Formerly Clougherty Ranch) Project, Los Angeles County, California,* January 1993, located in Technical Appendix C). However, the proposed project would introduce substantially higher urban densities into San Francisquito Canyon, which has not experienced such development. The primary offsite sensitive uses or receptors would be the ranch style residences in San Francisquito Canyon to the east of the site, and open space and National Forest uses to the north and west of the project site.

Low density ranch developments along San Francisquito Canyon Road and in the canyon would be buffered from most of the project site because of open space and topography between the ranches and the developed areas of the project. Some significant visual impacts (discussed in Section 5.7) would occur to residences within the canyon, but this may not be considered a significant land use impact.

The point of primary impact would be the southern reaches of the project site where medium density residential land uses, such as apartments, would be located adjacent to San Francisquito Canyon Road/Mc Bean Parkway. Offsite uses in this location are limited to several large acre residences and stables. Although not incompatible, the increases in traffic, lights, noise, etc. could cause some conflicts between these uses. It is assumed, however, that most traffic generated in this area would be directed towards Mc Bean Parkway, south of Copper Hill, and little traffic would impact San Francisquito Canyon Road. Therefore, no significant impacts are anticipated. However, the compatibility of proposed land uses with surrounding development is an issue to be resolved.

Open space areas to the north and west of the project site have not experienced urban development. Because the project is buffered by other undeveloped lands north of the site, lot sizes are larger in the northern portion of the site, and a comprehensive landscape plan would be implemented, land use compatibility conflicts are not anticipated to occur with the national forest. Some additional use of the forest could be expected from the introduction of population with easy access to trails that lead to the forest. The placement of urban uses would also increase the risk of brush fires. While fire might impact the forest, fire prevention and suppression techniques required by the Fire Department should reduce the potential for uncontrolled burns to affect the forest. As a result, these land uses would be considered compatible.

In terms of other open space lands to the west, the same issues apply. Measures required to mitigate the project's impacts would minimize land use compatibility conflicts. No additional conflicts are anticipated.

Agricultural Land Conversion

Implementation of the proposed project would occur on approximately 110 acres of agricultural lands designated by the State Department of Conservation as Prime, Lands of Statewide Importance or, Lands of Local Importance. According to Appendix G Significant Effects of CEQA, a project would have a significant effect if the project would "convert prime agricultural land to non-agricultural use or impair the agricultural productivity of prime agricultural land." Implicit in this statement is that any land converted (even 1-acre) would be significant. The Department of Conservation considers prime agricultural lands as: "land which has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture supply needed to produce sustained yields of crops when treated and managed, including water management, according to current farm methods. The land must supported by developed irrigation water supply that is dependable and of adequate quality during the growing season. The land must

have been used for the production of irrigated crops at some time during the last two update cycles prior to the mapping date."

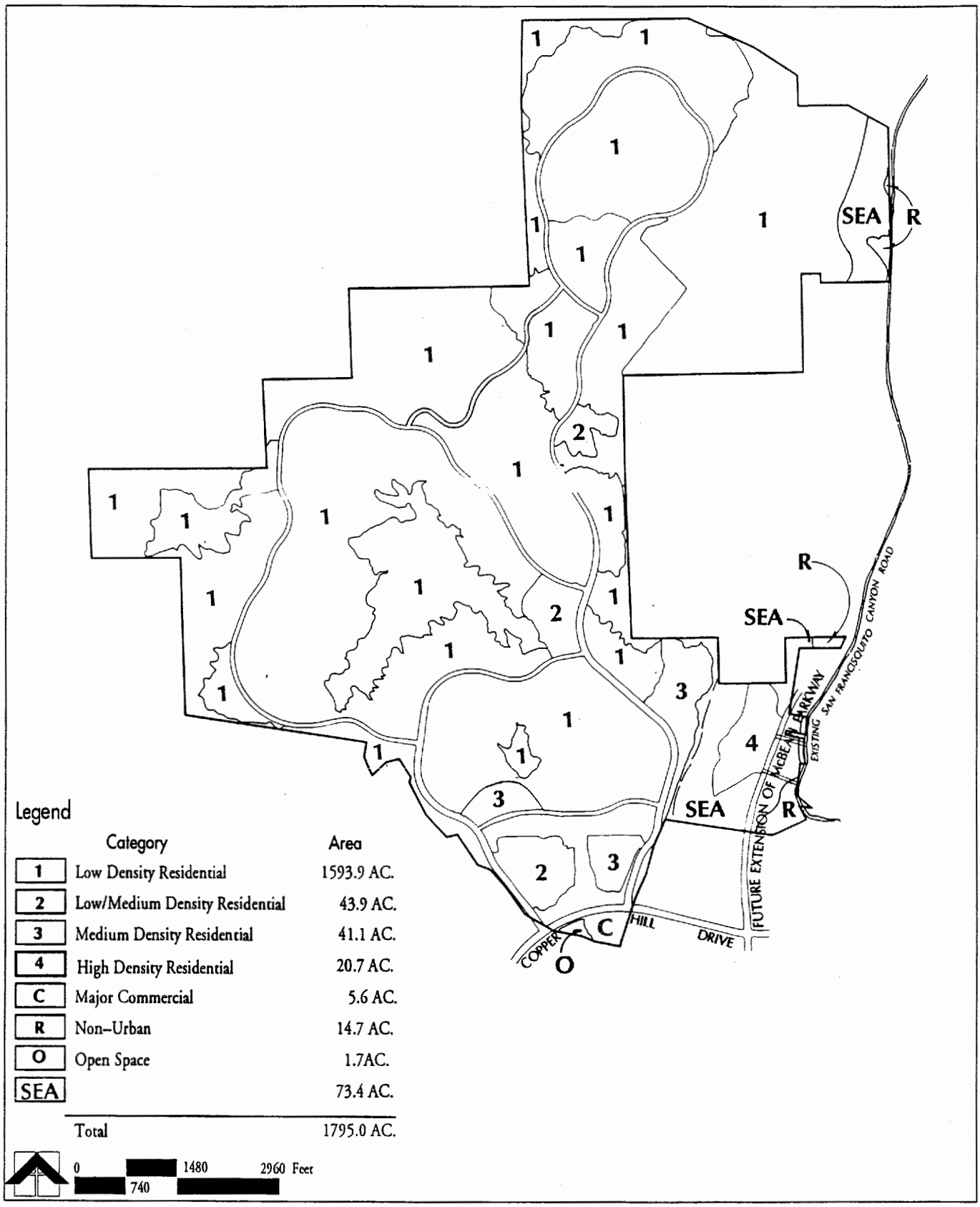
Although the project site does contain soils designated as prime on the most recent Department of Conservation maps, the department does not consider lands that are dry farmed, such as those on the project site, to be prime soils. Thus, without irrigation, the soils should not be classified as prime, which is also indicated by recent notes on Department of Conservation maps that show the onsite agricultural areas as going fallow. Because the soils are not prime and have been dry farmed for the past 6 years, the loss of 110 acres of agricultural lands would not be significant based on state standards. It should be noted that these soils have the capability to support the prime designation, but do not meet the classification of these soils. In addition to the loss of potentially prime soils, the conversion of 110 acres would include lands of statewide and local importance, but these would also not result in significant impacts.

Consistency with the General Plan

The existing General Plan land use designations for the site are non-urban residential, SEA, and low-density residential, and allow for development between 308 (the low-density threshold) and 1,730 residential units. The majority of the site is classified as non-urban residential, which corresponds to the Hillside Management designation in the Area Plan. The applicant has requested a General Plan amendment to change the Land Use Policy Map designations on the site to increase the portion of the site designated as urban to allow the development of approximately 3,000 residential units. Exhibit 5.8-6 illustrates the proposed general plan designations. A review of the consistency of the project and the general plan amendment requested with the goals of the Santa Clarita Valley Area Plan is provided below.

Santa Clarita Valley Areawide Plan

The Santa Clarita Area Plan Land Use Element addresses 14 policy areas that guide development in the Santa Clarita Area. The project applicant proposes to change the area plan designations for the site (described in Environmental Setting) to Low-density residential, low/medium density residential, medium density residential, high density residential, major commercial, non-urban, open space, and significant ecological area, as illustrated in Exhibit 5.8-7. The following is an analysis of the applicability of the policies and the consistency of the proposed project to these policies. It should be noted that the Santa Clarita Valley Area Plan policies are general by intent and subject to



Michael Brandman Associates

exhibit **5.8-6**

Proposed General Plan Land Use Designations

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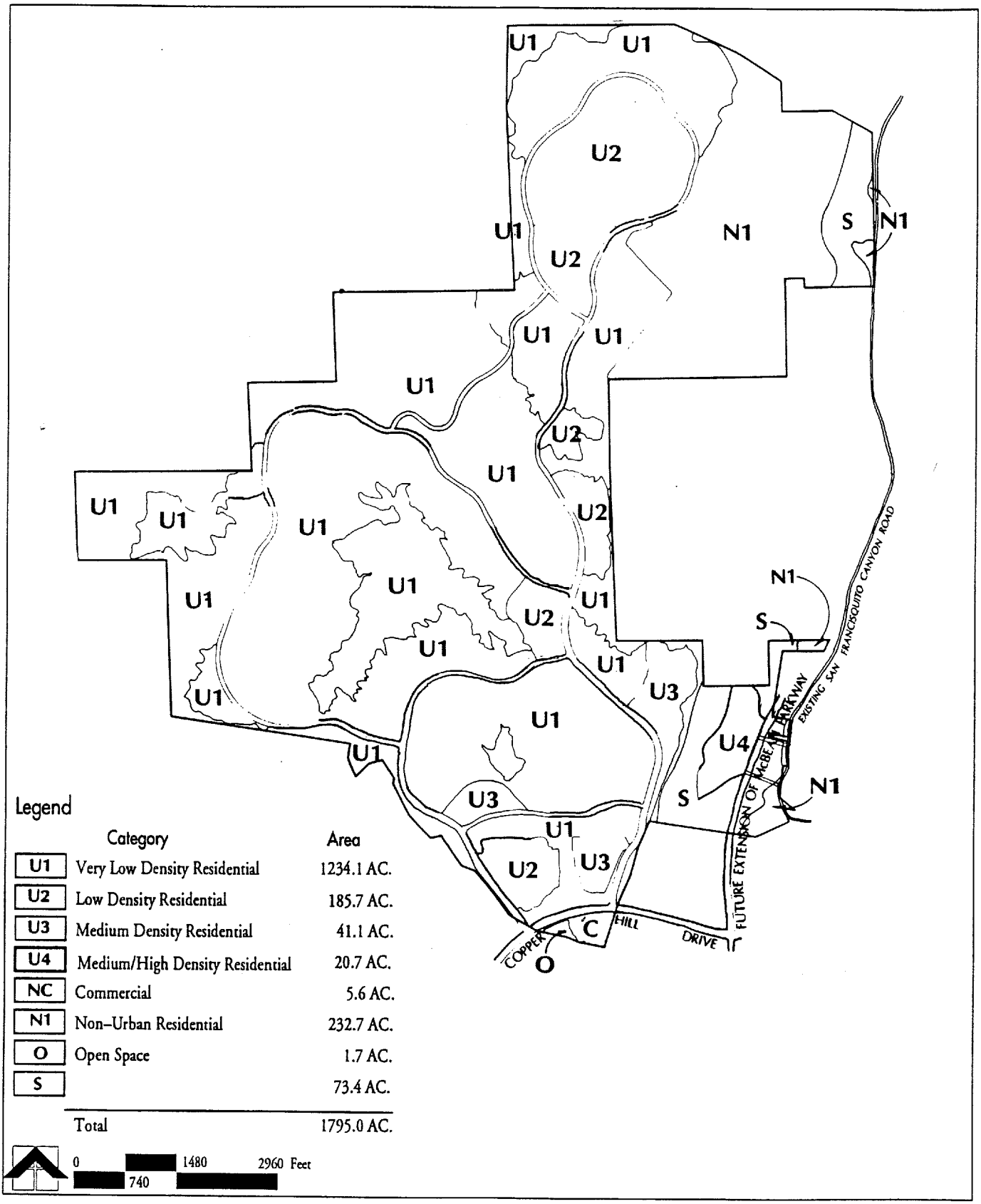
Tesoro del Valle

1627ER01

SOURCE: Hunsaker & Associates, 1993.



Michael Brandman Associates

exhibit **5.8-7**

Proposed Santa Clarita Valley Land Use Designations

SEPT•24•1993 rev. 4/94

Tesoro del Valle

1627ER01

SOURCE: Hunsaker & Associates, 1993.

interpretation. Discretionary review of the consistency of a project with the overall intent of the Area Plan will be conducted by the Board of Supervisors and the Regional Planning Commission.

Accommodation of Projected Land Use and Urban Growth

The following policies are summarized for this goal:

- Accommodate future growth by designating sufficient area for appropriate use and a reasonable excess to provide flexibility
- Monitor growth so that infrastructure capacity is not exceeded and growth does not result in significant negative environmental effects
- Provide for development that is consistent with the plan
- Promote a balanced community with a full range of services and a wide variety of housing
- Phase development to assure adequate infrastructure is available
- Maintain interaction between the City of Santa Clarita and the County

The first two policies of this goal are directed toward the County in its planning programs and are not directly applicable to the project. Presently, the proposed project is inconsistent with the land use designations for the site and is, therefore, inconsistent with the plan. However, with the requested plan amendment, the project would become consistent with the plan. The project includes commercial uses which, in conjunction with employment uses in the vicinity, will help to balance the community. The project would provide a range of housing types in close proximity to a substantial amount of commercial and industrial job-generating uses.

The project will be phased over a number of years, allowing necessary infrastructure to be provided to meet demands from the project. Specifically, adequate sewer, water, and storm drain facilities have been planned to meet the needs of the project. While mitigation measures have been proposed to mitigate project and cumulative roadway impacts, several intersections will operate at unacceptable levels of service. Finally, the City has been consulted on this project for several of the issues that relate to the City's jurisdiction.

Pattern of Population and Land Use Distribution

The following policies are summarized for this goal:

- Accommodate growth in a concentrated pattern
- Determine future growth by considering: sensitive environs, hazardous systems; infrastructure capacity, and need for project
- Concentrate land use growth in and adjacent to urban, suburban, and rural communities. Encourage development of bypassed lands appropriate for development
- Consider residential densities as averages to allow for clustering and density transfer
- Allow for density transfer to preserve hillsides, promote superior design, and allow flexibility
- Continue to implement General Plan amendment procedures
- Encourage and support a mix of housing types in urban areas

The policies of this goal relate to the location of needed development. The project is located immediately adjacent to existing and planned residential development. The project is an extension of the existing pattern of growth in the Santa Clarita Valley northward; however, the project would require a plan amendment to allow the requested densities. The project would not be concentrating growth; it would extend the urban boundary close to its limit at the Angeles National Forest boundary. Singular developments of 3,000 units cannot be accommodated extremely close to existing urban areas because of a lack of developable land to support such development. However, areas directly south of the project are currently under construction, bringing the urban boundary to the project's southern border.

The project has been designed to mitigate potential hazards, such as floods, landslides, and fires. Overall, the project would result in the direct loss of natural habitat, and includes multi-family housing within an area presently designated as SEA. Although the project applicant feels that the project has been designed and mitigated to reduce impacts to a minimum, the project would place a relatively high-density residential use directly adjacent to the SEA, which would have the secondary effect of increasing human activity adjacent to/within the SEA. This aspect of the project is considered insensitive to sensitive environs.

The applicant feels that the project has responded to the policy related to flexible design and density transfers by distributing the density of residential uses in the project in response to the characteristics of the site and surrounding areas. The project includes higher densities in the southern portion of the site consistent with the location of roadways and adjacent planned development. Lower densities are proposed in the northern portion of the site to promote compatibility with the Angeles National Forest to the north of the project site. A 50-foot buffer has been provided along the boundary of the SEA to minimize indirect impacts on the resources within the SEA. Open space areas within the project site were created to facilitate wildlife movement across the site and preserve natural habitat areas considered most sensitive.

In addition, the project provides a mix of housing types. The pattern of land uses on the project site may be found to be both consistent and inconsistent with these policies and the intent of this goal.

Costs of Population and Urban Growth

The following policies are summarized for this goal:

- Ensure costs of growth are borne by those who benefit
- Require that new development fund the entire cost of all infrastructure demand

This goal of the Santa Clarita Valley Area Plan states that it should be the County's policy to require all new development to fund necessary improvements in support of the operation of the project. As described in Section 3.4 Project Characteristics, utility and circulation improvements will be funded by the developer, except for gas and electricity lines which are provided by utility companies under regulations of the Public Utilities Commission. The project will also contribute to the cost of circulation improvements on a fair share basis. For these reasons, the project is considered consistent with this goal.

Environmental Hazards and Constraints

The following policies are summarized for this goal:

- Limit development in hazardous areas unless corrective measures are implemented
- Designate areas with excessive slope as Hillside Management Area and require performance standards to minimize hazards

- Designate floodways and floodplains as Floodplain Management Areas
- Institute measures in urban area to mitigate the impacts of environmental hazards

The proposed project is located within a Hillside Management Area and a floodway/floodplain management area. Because of these designations and natural conditions present at the site, measures have been included in the project, in the opinion of the applicant, to minimize and reduce the impacts of the project on the environment and any potential environmental hazards on the project and its residents. In terms of geological hazards, landslide and unstable areas will be mitigated through removal, setback, and avoidance.

Only a small portion of the project would encroach into the existing floodplain. The proposed bridge linking Planning Areas A and D would partially extend into the floodplain, but not the floodway. Only the embankments would actually be located within the floodplain. Protective stablization and rip-rap on slopes would inhibit erosion and undermining of the bridge. The design of the bridge would require approval from the Department of Public Works. The extention of the bridge through Area D ("HH Street") would cross again through the floodplain between Area D and San Francisquito Canyon Road on the east. This road would be built on embankment fills with culverts designed to convey drainage flows of the 100-year storm.

Environmental Sensitivities

The following policies are summarized for this goal:

- Direct future growth from areas with high environmental sensitivity, unless appropriate mitigation measures are implemented
- Minimize disruption of the environment, working with nature in the design of land uses so that they are compatible with environmental systems
- Designate SEAs and establish measures for their protection
- Permit appropriate uses that are compatible with the resource values present in SEAs
- Minimize environmental degradation by enforcing controls on pollutants (visual and noise)

The written policies of this goal intend to maintain and preserve the sensitive environmental resources existing within the Santa Clarita Valley. The project site includes lands that have been designated by

the County of Los Angeles General Plan and the Santa Clarita Valley Area Plan as Significant Ecological Areas. A large portion of the project site is characterized by moderate to steep topography which is sensitive to impacts from development.

The applicant is requesting that the project be found compatible with the resources of the SEA. However, the bridge crossing San Francisquito Wash, which is a requirement of the Fire Department, would encroach into the floodplain (i.e., the SEA boundaries). Moreover, increased human activity in the area could cause adverse effects on the SEA ecosystem, as previously documented in the Phase I SEA study for San Francisquito Canyon. Water quality and hydrology measures may reduce potential indirect impacts on resources in the SEA. While the project will affect natural habitat, more than 700 acres of natural open space areas have been designated to preserve sensitive resources.

Visual and noise impacts of the project are analyzed in Sections 5.7 Aesthetics, and 5.6, Noise, respectively. Through the incorporation of mitigation measures, environmental degradation would be minimized, as required by this policy.

Land Use Compatibility

The following policies are summarized for this goal:

- Encourage the appropriate mix of land use types to prevent disharmony. Uses should be integrated using appropriate buffering techniques to create a cohesive community.

- Pursue, in high noise zones, the implementation of noise abatement techniques to protect sensitive uses.

Land use compatibility policies have been prepared to minimize the conflicts with dissimilar uses. As illustrated in the Conceptual Land Use Plan (Exhibit 3.4-1), the proposed project consists of a variety of uses (residential, school, and recreation) that have been designed in such a way as to minimize conflicts. The proposed project does not include uses that create high noise levels, so land use/noise compatibility impacts would be avoided. Thus, the project would be consistent with this goal of the Area Plan.

Adequacy of Public Services

The following policies are summarized for this goal:

- Encourage development of convenient services that meet needs of the area. Services should be expanded commensurate with growth. Phasing of development should be timed to avoid gaps in service. Service facilities should be established in urban areas and in rural areas common facilities should be established in a central point.

- Encourage joint use of school playgrounds for community recreation.

The goal of this land use policy is to ensure adequate services exist for residents of the Santa Clarita Valley prior to the demand for the service. To accomplish this, the policy recommends phased developments, expanding facilities to adequate serve future growth, and the establishment of centralized rural facilities. The proposed project would be constructed in four phases. By phasing development, infrastructure can be built commensurate with growth. The project would not begin a new phase of development unless adequate services are available to accommodate the growth.

The use of school grounds for recreation activities is subject to the approval of the school district the project is annexed into. The project as proposed includes two school sites that could help meet community recreation needs.

The proposed project would be consistent with the policy of the plan to ensure adequate public services.

Recycling and Revitalization of Land Uses

The following policies are summarized for this goal:

- Promote the recycling of deteriorating urban areas.
- Promote maintenance and rehabilitation to prevent deterioration.
- Pursue the provision of necessary public facilities in revitalization areas.

This goal addresses existing developed areas and is not relevant to the proposed project.

Impacts of Transportation on Future Land Use Patterns and Provision of Adequate Transportation Systems

The following policies are summarized for this goal:

- Minimize travel time by concentrating facilities and intensifying land use densities, and establishing central shopping and industrial facilities.
- Encourage development of access throughout the valley by: (a) providing appropriate links from residential areas to major destination points (i.e., employment, shopping, recreation area); and (b) supporting public transportation within communities and from outlying areas. Emphasize service to those with highest need.
- Encourage development of transportation systems consistent with the plan.
- Encourage development of a public transportation system to meet resident requirements for access to public and private services.

The policies of this goal are to provide adequate transit systems consistent with the Area Plan and encourage the development of transit systems to reduce the impact of growth. The first policy encourages the centralization and densification of facilities. Because the project would expand the urban boundary, it would not be consistent, per se, with this policy. It should be noted, however, that the project would be providing a range of housing types in proximity to existing and future employment centers, and is adjacent to approved residential projects to the south.

The project will contribute a fair-share contribution to the cost of constructing offsite roadways serving the site, such as Copper Hill Drive. The project is located at Mc Bean Parkway and Copper Hill Drive, which provide an appropriate link to major destination points in the City of Santa Clarita. As described in Section 5.4, Transportation and Circulation, the project would include transit services to and from the project site. An extension of Santa Clarita transit line would provide public transportation to those who live on the project and link the project to the City and the many services available there. The project is considered to be both consistent and inconsistent with these policies.

Resource Conservation

The following policies are summarized for this goal:

- Promote public programs to encourage conservation of natural resources.

The project includes a proposal to dedicate open space lands, that are now privately owned and not accessible to the community, to a public agency for use as a public resource. Consequently, natural open spaces would exist in perpetuity for the general public to enjoy.

These areas would include portions of San Francisquito Canyon Creek, significant ridgelines with a hiking and equestrian trail network, and the preservation of approximately 20 acres of important habitats (oak tree woodlands, riparian, and cherry woodlands).

Community Identity

The following policies are summarized for this goal:

- Encourage development of distinct neighborhoods.
- Encourage appropriate aesthetic measures to distinguish different communities.

Tesoro del Valle has been designed to further the identity of the project as a independent community of the Santa Clarita Area. Specific design features, such as entry monumentation, contiguous clusters of equally sized lots, landscaping, and entry gates, will identify the project as a separate community and provide for community identity.

Lifestyle Options

The following policies are summarized for this goal:

- Promote the opportunity for a choice of living, working, recreation, and cultural pursuits for all ages, incomes and ethnic groups. This variety includes: housing densities, types, prices, rents, configurations, and sizes; employment opportunities; recreational activities; and cultural facilities.

The goal of this policy is to provide a range of opportunities for all types and economic classes of people living or working within the Santa Clarita Valley. The proposed project would further this goal in several ways. First, the project would provide a range of housing types, both multi-family and various sized single-family homes, within the project itself, as well as offering large lot homes in the Valley. Second, the project includes a range of recreational facilities (passive and active parks, trails, and sports club activities) for residents of the area and surrounding areas. The project would also retain cultural resources present at the site for the enjoyment and education of the public. Although the project would not generate a substantial amount of employment opportunities (due to the

residential nature of the project, most employment would be short-term construction jobs), the project is located in the vicinity of future employment centers. The project would be part of the regional projections for a continuing jobs/housing imbalance in the Santa Clarita Valley.

Equal Opportunity

The following policies are summarized for this goal:

- Promote efforts to provide all residents the opportunity to satisfy their needs for housing, employment, and physical and social services.

The proposed project would further this policy by providing additional housing variety to the Santa Clarita market, provide some employment opportunities (i.e., service jobs in the swim and racket club, landscape maintenance jobs, as well as other various opportunities), and expand the recreational resources available for area residents. In this respect, the project would be consistent with this policy.

Implementation and Enforcement of The General Plan

The following policies are summarized for this goal:

- Require adherence to the policies and programs of the General Plan Elements. Proposed amendments which deviate from the Plan's intent will be carefully weighed for appropriateness and impact. Plan flexibility is encouraged.

The consistency of the project with the goals of the area plan is addressed above.

Consistency with Special Management Areas Designations

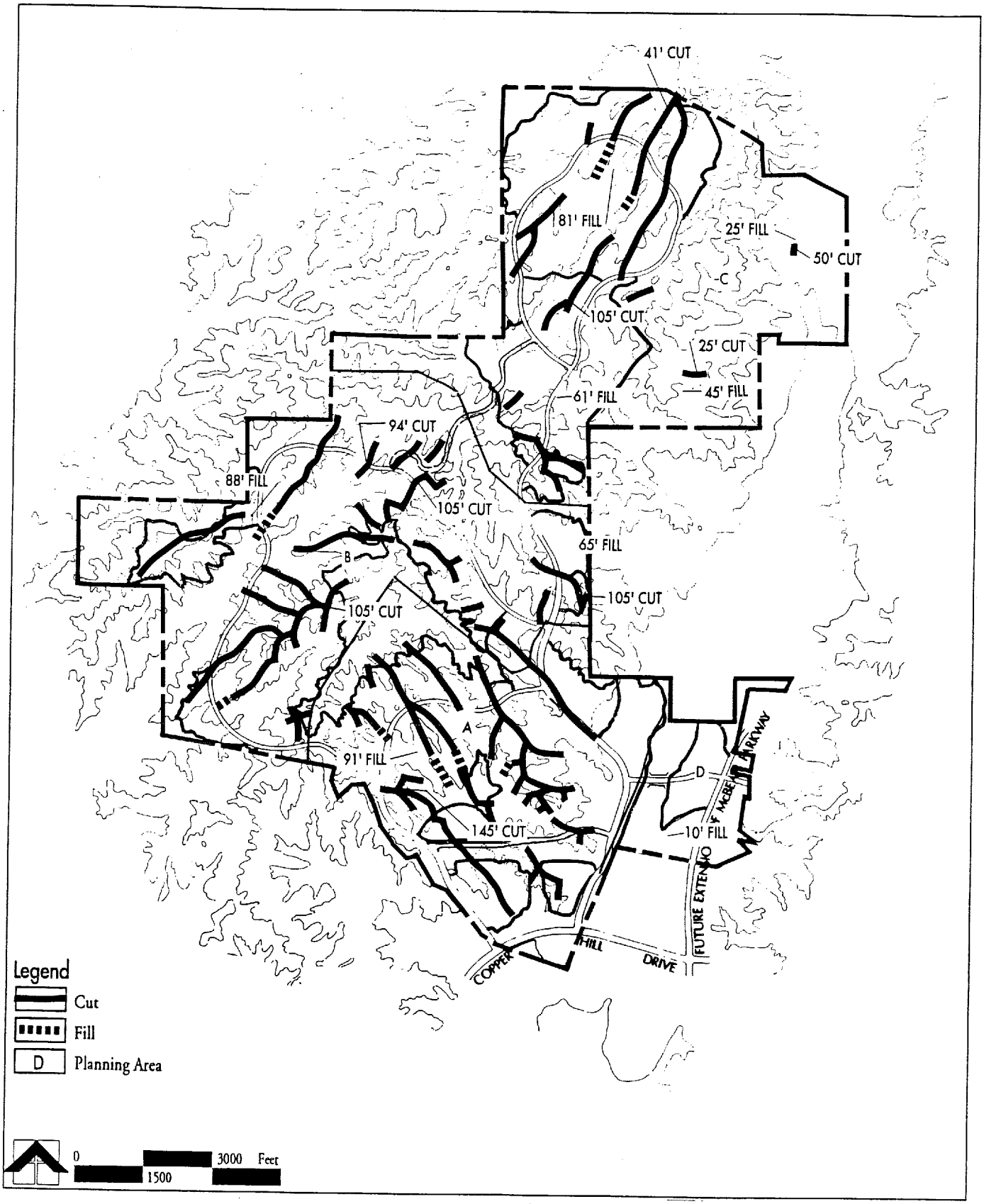
Three Special Management Areas have been designated for the site. In relation to the Non-Urban Hillside Area designation, the project is somewhat consistent. Some sensitive areas, such as rock outcroppings, oak trees, and other sensitive habitats, have been avoided in the project design; some multi-family residential units are proposed adjacent to the SEA (see discussion below). The land use plan distributes proposed uses in a manner that is mostly compatibility with offsite and onsite sensitive resources, for example, low densities near the Angeles Forest and higher densities near major arterials (Mc Bean Parkway and Copper Hill Drive). Design features and mitigation measures proposed for the project will mitigate natural hazards present at the site.

With regard to allowable densities in Non-Urban Hillsides, the project proposes densities in excess of that allowed under the plan and is, therefore, inconsistent at this time. Approval of the requested plan amendment would bring the project into consistency. Open space requirements of 70 percent would not be met, as only 56 percent of the project would fall into the open space categories identified in the General Plan. However, the requirements for nonurban hillsides would no longer be applicable with the requested General Plan Amendment.

It should be noted that the proposed project's designation as a hillside management area is due to the presence of moderately steep slopes (64 percent of the site is above 25 percent slope). Most of the flat developable areas are within the finger canyons tributary to San Francisquito Canyon. Otherwise, hills, subridgelines, a major ridgeline, and tributary canyons define most of the site. In order to develop the proposed project, a significant amount of grading of hillsides and ridgelines and filling of canyons will have to occur. Based on geology studies, any potential impacts associated with development of hillside areas on the site can be mitigated. Exhibit 5.8-8 illustrates the landform alteration associated with the proposed project. To feasibly implement the proposed project, the general topographic characteristics of the site will have to change from steep terrain to gradual topography conducive to the development of the project. Approximately 7,764 cubic yards of grading per unit would be required for the project. To the extent feasible, the proposed project seems to be consistent with the intent of preserving significant features, but many significant features (ridgelines and canyons) would be eliminated through the development of the site at the proposed density and intensity shown on the Conceptual Land Use Plan (Exhibit 3.4-1). Also, as discussed in Aesthetics/Visual (Section 5.7), some rooflines and graded areas of the project along ridgelines would be visible from offsite areas. This is considered a significant unavoidable impact.

In relation to Floodplain Management Areas, urban development is proposed outside the floodplain and no structures or non-recommended uses are proposed within the floodway. The only facilities proposed within the floodplain are roads and bridges which will be designed to withstand floods and flood change. Project design features would eliminate flood hazards to the site.

The Area Plan defines SEA No. 19 as the floodplain of San Francisquito Creek. The project contains approximately 29 acres of the floodplain in the northeastern corner of the site. No encroachment or development within the floodplain is proposed in this area. On the southern portion of the site, 74 acres of land is located within the outer boundaries of the floodplain. A 24.5-acre portion of this 74-acre area is elevated above the floodplain. This elevated area is currently under agricultural cultivation and is served by a road to San Francisquito Canyon Road. The project includes a proposal to build multi-family residential units on this 24.5-acre area. A 50-foot buffer containing native



Michael Brandman Associates

exhibit **5.8-8**

Landform Modification

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Hunsaker & Associates

vegetation is provided around this development area. One access road will connect this development area to San Francisquito Road, and a bridge will connect the area to the main portion of the development to the west. As this area is located outside the floodplain, development of this area is considered compatible with the SEA guidelines for development.

No concrete channelization or alteration of the main channel of San Francisquito Creek is proposed. However, an access road (HH Street) that would connect the multi-family development to San Francisquito Canyon Road and Planning Area A would encroach into the floodplain and 3.57 acres of slopes in Planning Area A would impact the floodplain. The roads will be designed to withstand floods, but would encroach into the SEA. Presently, these areas are disturbed by an existing road and agricultural uses. However, these access roads and slopes would affect this area of the SEA (see discussion in Section 5.3, Biological Resources, San Francisquito Canyon/SEA 19). There is disagreement between County staff and the applicant regarding whether the multi-family housing and access through the SEA is consistent with the resources present in the SEA. Final determination will be made by the Regional Planning Commission and the Board of Supervisors.

The proposed tract map includes an easement for a planned future extension of McBean Parkway north of Copper Hill Drive. This easement was placed on the map at the request of the County of Los Angeles Public Works Department. As mapped, this road extension would be located immediately east of Planning Area D and west of San Francisquito Canyon Road, but ultimately, the alignment will be determined by the IEC. This location is within the floodplain, but outside of the main channel of the creek. Construction of this road is not a part of the proposed project. As the preliminary alignment shown on the map is located within the boundary of the SEA, a separate study of alternative alignments will be required before a final alignment is set. As planned, the proposed project does not require the extension of McBean Parkway to provide access to Area D. During its review of the proposed project, the Significant Ecological Area Technical Advisory Committee (SEATAC) indicated a preference for an alignment of this road further east, outside of the boundary of the SEA.

The project as designed includes measures to reduce potential indirect impacts to the SEA, including a buffer containing native vegetation, with a width of not less than 50 feet, between proposed development on the east and west of the main channel of San Francisquito Creek on the southern portion of the site. In addition, a series of water quality control lakes designed to remove urban pollutants from nuisance and stormwater flows entering San Francisquito Creek are distributed throughout the project. These measures will help to mitigate potential indirect impacts and maintain the integrity of the SEA.

Zoning

The project applicant proposes to change the zoning of the project site from A-2-2, heavy agriculture to RPD (residential planned development), C-2 (neighborhood business), CR-DP (commercial recreation), R-3-24U (multi-purpose residence), and OS (open space), and maintain the existing zoning on a portion of the site. Table 5.8-3 provides a breakdown of the requested zoning for the project and Exhibit 5.8-9 illustrates the proposed designations.

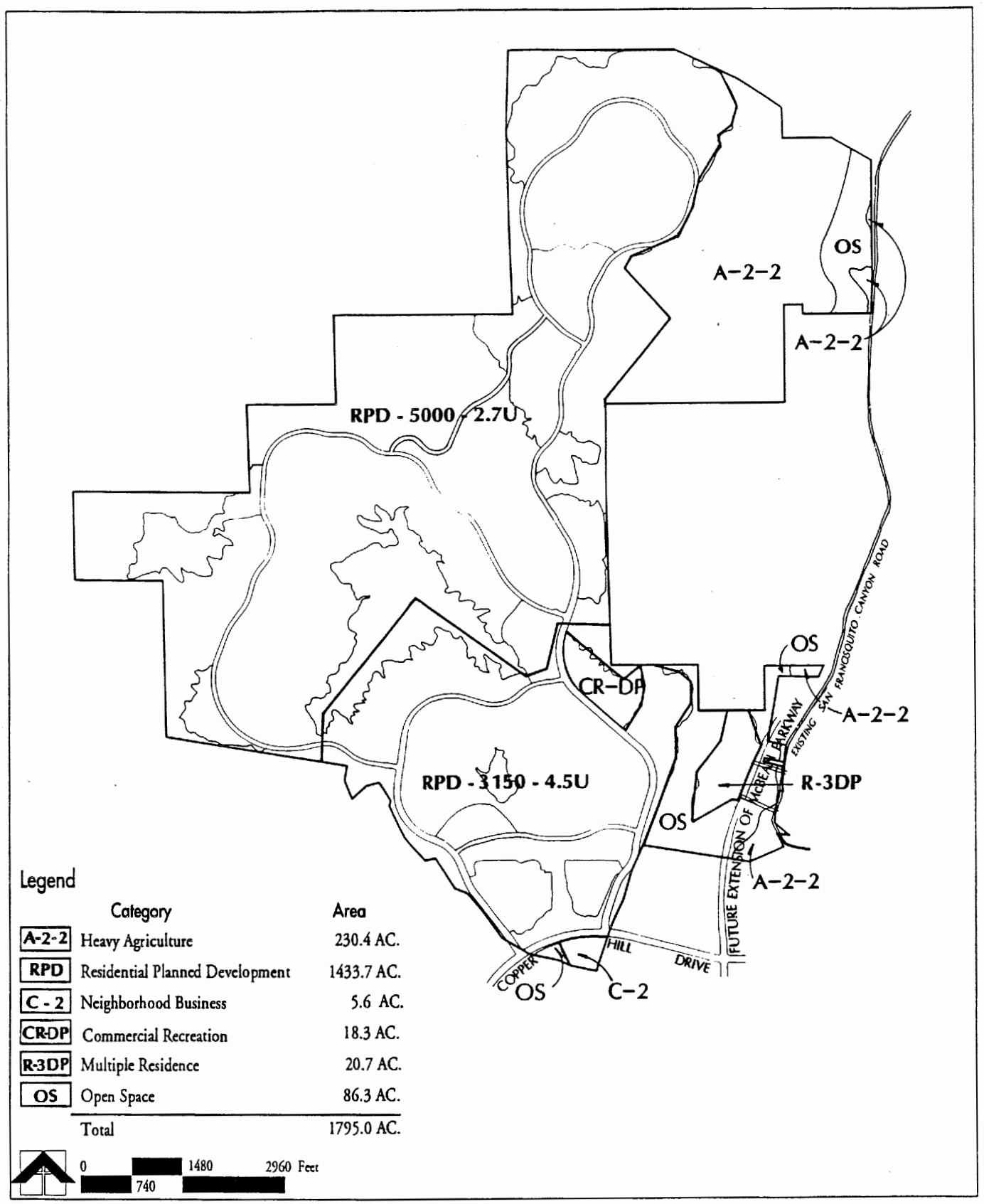
The majority of the project site is proposed to be zoned RPD or Residential Planned Development. The intent of this zone is to promote residential amenities beyond those expected under conventional development, to achieve greater flexibility in design, to encourage well planned neighborhoods though creative and imaginative planning as a unit and to provide for appropriate use of land which is sufficiently unique in its physical characteristics or other circumstances to warrant special methods of development. The implementation of this zone serves the purpose of reducing development problems in hillside areas and preserve areas of natural scenic beauty through the encouragement of integrated planning, integrated design and unified control of development.

TABLE 5.8-3
REQUESTED ZONING DESIGNATIONS

Land Use	Acreage
Heavy Agriculture	230.4
Residential Planned Development	1,433.7
Neighborhood Business	5.6
Commercial Recreation	18.3
Multiple Residence	20.7
Open Space	86.3
	1,795.0

Source: Hunsaker and Associates 1993.

The project proposes to use the flexibility of the RPD designation. As areas of sensitivity, such as the SEA (northern portion), rock outcroppings, oak woodlands, cherry forest, and other biological habitats, have been protected though the flexibility of this designation, the proposed project is



Michael Brandman Associates

exhibit **5.8-9**

Proposed Zoning

SEPT•24•1993 rev. 4/94

Tesoro del Valle

1627ER01

SOURCE: Hunsaker & Associates, 1993.

consistent in some ways with the proposed designation in areas where the designation is proposed. The design of residential communities in the proposed project would also provide creative interfaces between uses and the transition of densities to limit the impact of the project on undisturbed areas to the east and north of the project site.

The other zone designations proposed for the project site include Heavy Agriculture, Neighborhood Business (C-2), Commercial Recreation (C-R-DP), Multiple Residence (R-3-DP), and Open Space (OS). These designations correspond with undeveloped or estate development, the commercial center, the swim and racket club, multi-family residences in Planning Area D, and the SEA, respectively. The proposed uses and zone designations would be consistent with each other. However, the project proposes Multiple Residence adjacent to the SEA, which could be considered incompatible.

CUMULATIVE IMPACTS

Of the related projects identified in Section 4.3, five projects occur within close proximity to the site, while most do not. Each of the related projects has or will undergo its own consistency analysis with applicable plans and policies. As discussed in environmental impacts, the proposed project is expected to be consistent and compatible with the other proposed uses. The extent of development occurring in the immediate project area illustrates the expansion of urban development north of the City of Santa Clarita. While the proposed project would develop urban uses in close proximity to the National Forest and other natural open spaces, other development has been built closer to the National Forest boundary. The project can be considered an extension of the urban boundary that currently exists just south of the project's boundary. With the development of the project site, natural open space areas would be decreased incrementally. For additional discussion of open space loss, refer to Section 5.3, Biology.

Although not part of the project's circulation system (sufficient access could be provided by the existing San Francisquito Canyon Road), the future extension of Mc Bean Parkway north of Copper Hill is a reasonable foreseeable project. The specific alignment of this roadway is to be determined and would require approval by the Interdepartmental Engineering Committee (IEC) and SEATAC. When built, the roadway could result in significant impacts to the SEA, but the actual assessment will depend on its alignment. Because the project would connect to the extension only if it is built, the project's contribution to this cumulative impact is considered less than significant.

MITIGATION MEASURES

The project includes design features, such as a revegetation plan and a water quality system, that would facilitate the mitigation of land use compatibility conflicts/impacts. Presently, the project is inconsistent with several policies of the general plan, including increased densities beyond that allowed under the existing land use designations. With the approval of the requested plan amendment, the project would be brought into consistency with the general plan. In addition, the following land use compatibility mitigation measures are required:

1. Prior to issuance of grading permits, the grading, drainage, and landscape plans of the proposed project shall be submitted for review and approval by the Metropolitan Water District of Southern California.

2. No permanent structures shall be built within the Edison easement area.

3. Prior to any use of the soccer fields planned for the Edison easement on the site, signage shall be placed within the SCE easement area located in Planning Area A describing the potential for exposure to Electromagnetic fields (EMF) at that location. Signage shall be placed at the entrance/parking area for the proposed park uses and at regular intervals along the easement such that the signage is visible along the entire length of the easement.

4. If, at any time, the EMF exposure is scientifically proven to have adverse health effects on humans at the levels produced onsite, the portion of the project with soccer fields will be abandoned from recreational activities and shall remain in open space for perpetuity.

UNAVOIDABLE ADVERSE IMPACTS

With approval of the requested general plan amendment, most plan inconsistencies will be remedied. Whether the proposed multi-family housing is compatible with the resources present in the SEA remains an issue to be resolved. Incorporation of the identified mitigation measures would reduce land use compatibility conflicts with regard to EMF exposure.

5.9 *SOCIOECONOMICS*

This sections derives much of its information from a report prepared by Alfred Gobar Associates titled *Santa Clarita Valley Population and Housing Capacity Analysis*, July 1993. This report in its entirety is located in Technical Appendix G of this EIR. Summary and findings of the report are presented in this section. For a full explanation of the findings and methodology of the report, refer to the entire report in Technical Appendix G.

ENVIRONMENTAL SETTING

Population and Housing-Historical Trends

The geographical area that corresponds to the population and housing growth of the project area is considered to be the entire Santa Clarita Valley (Regional Statistical Area 8), which encompasses the City of Santa Clarita.

The Santa Clarita Valley continues to experience population growth and increase in number of occupied units despite the impact of the recession on housing development and sales throughout Southern California. One reason for this is Santa Clarita Valley's locational characteristics - an area in which affordable for-sale housing can be developed at locations within commute distance to job centers in Los Angeles County.

Specific changes in population, household population (total population change less change in group quarters population), and number of households in the study area between 1980 and 1990 are shown in Table 5.9-1. As of 1990 (the last census), the Santa Clarita Valley had a total population of 151,055, with 140,698 living in households, a total of 48,880 households, equating to 2.88 persons per household.

Household population increased by an average of 6,512 persons per year absorbing 2,432 units a year. The ratio of increase in household population to increase in number of households was 2.68 new residents per housing unit absorbed. Incremental household size, therefore, was 2.68 persons. The effect of the relatively small change in population per housing unit absorbed during the decade of the 1980s was a reduction in average household size from 3.08 persons per household in 1980 to 2.88 persons per household in 1990. The pattern of change in households in the study area between 1980 and 1990 by size of household is shown in Table 5.9-2.

TABLE 5.9-1

POPULATION AND HOUSING CHANGE, 1980-1990
SANTA CLARITA VALLEY RSA #8

	1980	1990	Change	% Change
Population	79,016	151,055	72,039	91
Household Population	75,578	140,698	65,120	86
Number of Households	24,563	48,880	24,317	99
Household Population Per Household	3.08	2.88	2.68	

Source: Alfred Gobar Associates 1993.

TABLE 5.9-2

CHANGE IN HOUSEHOLD SIZE 1980-1990

	Change in Households by Size					
	1980		1990		Change	
	Number	Percent	Number	Percent	Number	Percent
One Person	3,324	13.5	8,312	17.0	4,988	20.5
Two Persons	7,191	29.3	15,151	31.0	7,960	32.7
Three to Four Persons	10,089	41.1	19,344	39.6	9,255	38.1
Five-Plus Persons	3,963	16.1	6,073	12.4	2,110	8.7
Total	24,567	100.0	48,880	100.0	24,313	100.0
Median Incremental Size						1.90
Average Incremental Size						2.68

Source: Alfred Gobar Associates 1993.

During the decade of the 1980s, half of the change in household count in the study area was households smaller than 1.90 persons; i.e., the median incremental household size during the 1980's decade was 1.90 persons per household. Average incremental household size was 2.68 persons.

Decline in average household size is typical as suburban commuter areas mature. The same sorts of declines have been observed in areas with similar socio-demographic characteristics such as Thousand Oaks, Simi Valley, Escondido, Vallejo, Mission Viejo, Irvine, and Rancho Penasquitos.[1]

Population and Housing-Recent Trends

Since 1990, average household size has continued to decline as illustrated in Table 5.9-3. Projections for 1993 show an average household size of 2.81, which is down from the 1990 census figure of 2.88. As these statistics show a declining average household size, the need for additional housing units based on population increases can be interpreted to escalate. However, as shown in the following discussion, household sizes may fluctuate at any given point in time.

TABLE 5.9-3
POPULATION AND HOUSEHOLD SIZE, 1990-1993 CHANGE

	Estimated Change 1990-1993		
	1990	1993	Change
Population	151,055	172,611	21,556
Household Population	140,698	160,043	19,345
Number of Households	48,880	56,958	8,078
Household Population per Household	2.88	2.81	2.39

Source: Alfred Gobar Associates 1993.

Population and Housing-Future Projections

Population and housing projections for the Santa Clarita Valley are made by several agencies. The County of Los Angeles projects growth within the Santa Clarita Valley Area Plan, which was last updated in December 1990. Regional growth projections are the responsibility of the Southern California Association of Governments (SCAG). Both of these projections are provided for comparison and disclosure.

[1] Alfred Gobar Associates, *Long-Term Housing Demand Projections, Santa Clarita Valley*, January 1990.

Adopted population and housing projections in the Santa Clarita Area Plan (December 1990), prepared by the County of Los Angeles Regional Planning Department, show a population increase to 270,000 and 93,400 housing units in the year 2010. These projections were made as part of a comprehensive plan amendment initiated to accommodate growth by allowing for additional urban designated lands. This plan amendment was made before data from the 1990 census were available to verify growth projections. Considering the 1990 census as a baseline, the County of Los Angeles growth projections for the Santa Clarita Valley in 2010 allow for 118,945 additional residents and 44,520 additional residential units.

Projections for regional growth have been revised as part of the proposed Regional Comprehensive Plan (RCP) prepared by SCAG. The previously adopted growth projections are contained in the 1989 Growth Management Plan which was used by the South Coast Air Quality Management District as a basis for growth projections in the 1991 Air Quality Management Plan (AQMP). Both of these documents are strongly interrelated and used by other agencies, such as sanitation districts and water districts, to plan for growth.

The adopted SCAG RCP projects growth according to subregions of Southern California. The project site is located within the North Los Angeles County subregion, which covers the unincorporated areas of Santa Clarita Valley (RSA 8), and Palmdale and Lancaster (RSA 9). Table 5.9-4 provides the growth projections for the North Los Angeles subregion, as contained in the RCP. For comparative purposes, projections for the City of Santa Clarita are also provided. As shown in this table, population growth for the North Los Angeles subregion is projected by the SCAG RCP to be an additional 678,000 persons and 207,000 units.

TABLE 5.9-4

REGIONAL COMPREHENSIVE PLAN GROWTH ESTIMATES BY SUBREGION

	1990			2010		
Subregion	Pop	Hsg	Emp	Pop	Hsg	Emp
North Los Angeles	283,000	99,000	88,000	961,000	306,000	262,000
City of Santa Clarita	111,000	41,000	45,000	188,000	67,000	63,000

Source: Regional Comprehensive Plan 1994.

In addition to the growth projections in the RCP for each subregion, SCAG projects growth based on Regional Statistical Areas (RSAs). The Santa Clarita Valley is designated as RSA 8. Table 5.9-5 provides data from the 1990 census and the SCAG estimates for growth in RSA 8 until the year 2010.

TABLE 5.9-5
SCAG POPULATION AND HOUSEHOLD ESTIMATES
SANTA CLARITA VALLEY AREA (RSA 8)

	1990[1]	2010
Population	151,051	457,457
Households	48,883	134,689
Employment	51,596	111,249

Pop SCV .825 J/H BAL

1.05 JH BAL

[1] Source: 1990 Census - RSA 8.

Source: Southern California Association of Governments (Javier Minjares, pers. comm., March 29, 1994); Alfred Gobar Associates.

457,457 2010
- 172,611 1993
+ 284,846 POP.

In contrast to historic (1980-1990) and recent (1990-1993) trends in household size, which show a decreasing size, the future trends projected by SCAG for 2010 would ultimately require household size to increase to approximately 3.4. Based on SCAG's projections of population growth and housing absorption in Santa Clarita Valley and allowing for the implications of the SCAG projections with regard to increasing incremental household size, the known future supply of housing in Santa Clarita Valley (43,577 units) would, numerically, be just enough to match growth projections through the Year 2000 if all of the housing units in the entitlement process were to be built out. (See Technical Appendix G for a listing of future supply and calculation methodology). Full buildout of all projects currently being processed is not likely, as individual projects may be subject to processing, infrastructure, or financial restrictions.

Many large projects are designed for buildout periods that may extend through the year 2000. According to Alfred Gobar and Associates, and based on recent trends, incremental household size is likely to be in a range of 2.6 to 3.0 new persons per dwelling unit absorbed, implying that pending development would represent the capacity to accommodate between 35 and 40 percent of SCAG's

long-term projections of population growth for the study area for the interval from 1990 to 2010. As a practical matter, therefore, the competitive supply of housing in Santa Clarita Valley is likely to become restricted before the Year 2000, even on the basis of fairly conservative estimates of population growth and the impact of population growth on demand for housing as a function of change in average household size.

In contrast, population and housing projections in the Santa Clarita Area Plan (Dec. 1990), prepared by the Los Angeles County Regional Planning Department, show population increases to 270,000 in the year 2010 and 93,400 housing units in the year 2010. Population increases between 1990 and 2010 would therefore be 118,945 and housing would increase by 44,520 units during this same period.

Historically, the Los Angeles County Department of Planning has based projections for Santa Clarita Valley on assumed household sizes larger than the estimated household size documented to exist today.[1] These projections, for example, predict average household size in 2010 of 2.89 persons per household in the study area. The 1990 Census found that average household size in the study area had already declined from 3.08 persons per household in 1980 to 2.88 persons by April 1, 1990. A smaller household size than originally anticipated would result in an increase in projected housing requirements for the Santa Clarita area.

Employment

Existing employment data for the Santa Clarita area are available from SCAG, and projections are made by both the County of Los Angeles (Regional Planning Department) and SCAG. The latest year of available data is 1990. Table 5.9-6 provides the current (1990) and future (2010) employment statistics for the Santa Clarita Valley, as provided by the County and SCAG. As shown in Table 5.9-6, current employment in the Santa Clarita Valley is mostly centered around the City of Santa Clarita. However, SCAG's future projections show the proportion of future employment to be growing in the non-city portions of the Valley.

Jobs/Housing Balance

Based on SCAG's Regional Growth Management Plan and on the employment and housing statistics referred to above, Table 5.9-7 provides the 1984, existing and future jobs/housing balance projections

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1 Alfred Gobar Associates, *Santa Clarita Valley Population and Housing Capacity Analysis*, 1993.

for the Santa Clarita Valley. The projected (2010) future balance for the area is 1.14, according to the 1989 Regional Growth Management Plan and the target balance for the area is 1.30.

TABLE 5.9-6
EMPLOYMENT STATISTICS

	1990	2010
Santa Clarita Valley[1]	51,596	111,249[2]/111,000[3]

93,400 dwls 2010 co.
1.18 JH BAL

[1] Estimates for employment in 1990 include 45,000 jobs in the city and for 2010, 63,000 jobs in the city.

Note: SCAG and DRP estimates for 2010 differ, so both are shown.

Source: SCAG 1993[2], Department of Regional Planning 1990.[3]

TABLE 5.9-7
EXISTING AND PROJECTED FUTURE JOBS/HOUSING BALANCE

	1984	1990	2010
Santa Clarita Valley	0.80	1.05	0.84

Source: SCAG 1993 and Alfred Gobar Associates 1993.

The 1994 SCAG RCP provides projections for population, housing, and employment for the year 2010. For the North Los Angeles subregion (see Table 5.9-4), the projected RCP jobs/housing balance for 2010 is 0.86 compared to 0.94 for the City of Santa Clarita (ratios less than 1.0 are defined as housing rich; ratios greater than 1.0 are defined as jobs rich). For RSA 8, which includes the entire Santa Clarita Valley (City and County territory), the projected jobs/housing balance for 2010

is 0.83. These projections illustrate that over the next 15 to 20 years, the Santa Clarita area and North Los Angeles subregion are expected to continue to be housing rich. This is contrary to previous projections by SCAG in the 1989 GMP that showed the area to become employment rich.

In the 1989 Growth Management Plan, maintaining jobs/housing balance was considered critical to the achievement of regional air quality goals. Each subregion was assigned a specific target balance for future incremental growth depending on the area's characteristics. The 1994 SCAG RCP changes growth management emphasis from the jobs/housing balance approach to reducing vehicle miles traveled (VMT).

ENVIRONMENTAL IMPACTS

Threshold of Significance

The proposed project would result in a significant impact if it would exceed or result in a substantial increase in the amount of future population, housing or employment growth projections. The project would also have a significant impact if it were to substantially change the jobs/housing balance of the Santa Clarita Area away from the projected target.

Impact Analysis

Population and Housing

The proposed project, if implemented, would contribute 2,038 single-family and 962 multi-family units to the housing market in the Santa Clarita area at the time of buildout. A total of 3,000 units would be added to the Santa Clarita Housing market by the year 2000. This would represent an increase of approximately 2,000 units over levels allowed under the existing General Plan land use designations.

The proposed project would represent 7 percent of the housing units projected by the County of Los Angeles Department of Regional Planning estimates for 2010. An additional 207,000 housing units are projected by SCAG to be built in the North Los Angeles subregion by 2010, according to the 1994 RCP. In comparison, SCAG projects housing units in RSA 8 to increase by 85,806. The 3,000 units provided by the proposed project would represent 1.5 percent of the growth for the North Los Angeles subregion and 3 percent of the new units projected for the Santa Clarita Valley (RSA 8).

The project applicant is requesting an increase in the number of allowable units by 2,000 from the existing allowable density for the site. County estimates for growth in the Santa Clarita area are generally based on a mid-range of land use densities in the County's general plan. These estimates assume certain areas are not builtout while others would be buildout at lower densities than allowed in the general plan. Because the project would increase the allowable density beyond that currently allowed by existing land use designations the additional units attributable to the project could be considered inconsistent with County growth projections. However, since some projects that have been approved may never be built and others may be built at lesser densities, the additional units requested by this applicant could fall within the County's growth projections. Consequently, the project could be considered part of the overage units needed so that the projections are realized. Ultimately, it will be up to the Board of Supervisors to determine if the project is consistent with the County's growth projections.

County staff acknowledges that growth in the Santa Clarita area will continue and that County projections could require additional amendments (Stark 1994). With regard to regional growth projections in the SCAG RCP, the proposed project appears to be consistent with the projected trend for growth to continue in the Santa Clarita Valley and North Los Angeles subregion.

It should be noted that the County has not developed an official position regarding SCAG's new population projections for unincorporated areas in Los Angeles County at this writing (November 1994).

Assuming an average household size of 2.88 persons (1990 census), the housing generated by the proposed project would represent a population increase of 8,640 persons. Project population increases would be approximately 7 percent of the growth projected by the Department of Regional Planning, 3 percent of SCAG projected growth for RSA 8, and 1 percent of the growth for the north Los Angeles Subregion. As with housing growth, the population increase resulting from the project would only be a portion of regional growth anticipated for the Santa Clarita area. No significant impacts are anticipated.

As described in the Alfred Gobar report in Technical Appendix G, the number of units remaining to be built out in ongoing projects in the Santa Clarita Valley (3,633 units) is one year's absorption potential or less based on historic trends (U.S. Census) and future projections (SCAG). For additional discussion of methodology and sources, see Technical Appendix G, Chapter III. These units along with projects with recorded maps represent enough units to match absorption potential for approximately 1.2 to 1.8 years at anticipated levels of absorption. Combined, remaining units in

existing projects, projects with recorded maps, and approved projects represent between 4.75 and 7.00 years of absorption at historical rates of housing absorption in Santa Clarita Valley. Overall, including all pending projects, etc., the visible inventory of potential new housing development is 43,405 units or approximately 9.6 to 14.5 years of historical absorption.

Employment

Based on the commercial square footage of the proposed project and standard employment generation rates for commercial uses, the employment opportunities created by the proposed project can be projected and are shown in Table 5.9-8. A total of 151 jobs are anticipated to be created from employment opportunities resulting from the neighborhood commercial and club house uses present at the site. The proposed project would only represent a fraction of a percent of the future employment growth projected for the Santa Clarita Valley. Because of this small contribution, no significant impacts are anticipated.

Jobs/Housing Balance

With the addition of housing and employment generated by the project, the existing (1990) jobs/housing balance of the Santa Clarita Valley will decrease from 1.05 to 1.00. The provision of housing resulting from the proposed project will bring the area's job/housing balance towards an equal ratio; however, the area would still be well below the 1989 GMP target balance of 1.30 (additional jobs and housing between 1984-2010).

TABLE 5.9-8
PROJECTED EMPLOYMENT GENERATION

Use	Size	Generation Factor	Employment Generation
Commercial[1]	58,000 sq ft	2.61/1,000 sq ft	151 employees

[1] Uses both commercial recreation (club) and neighborhood commercial uses.
Source: Michael Brandman Associates 1993, SanDAG.

The proposed project would decrease SCAG's projected (1994) future jobs/housing ratio for RSA 8 from 0.84 to 0.81 due to the residential nature of the project. Irrespective of project implementation, the 1994 SCAG RCP projects that the Santa Clarita area and North Los Angeles subregion will continue to experience an imbalance of jobs and housing (i.e., the region will be housing rich). The proposed project would further this phenomenon because of its residential emphasis. Taken in context with cumulative and surrounding development, the project site is located within 2 miles of several existing and future employment centers. Through the provision of a full range of housing types, it is possible that housing opportunities could be provided onsite in close proximity to employment centers, which would have the effect of reducing commuting (VMT). However, it cannot be determined with any certainty whether future employees would actually choose to live in the area instead of commuting, but the opportunity would exist. It is also possible that persons living in the project area may choose to work at distant employment centers, and therefore, commute to work.

CUMULATIVE IMPACTS

As described above, the pending housing development calculated for the Santa Clarita Valley is approximately 43,405 units of cumulative impact. With the addition of the proposed project, cumulative housing would increase to 46,405, which is a 6.9 percent increase in cumulative housing. In addition, the Newhall Ranch Project would add an additional 24,700 units in the region by the year 2023. Assuming a fixed rate of construction, the Newhall Ranch Project would add approximately 988 units per year for 25 years. Thus, by the year 2010, 11,856 additional units would be generated by this project alone. Adding the Newhall Ranch Project onto other known development, the cumulative housing growth in the region by the year 2010 would be 58,261 units, or 130 percent of the growth projected by the Department of Regional Planning and 68 percent of the growth for RSA 8 projected by SCAG.

Assuming an average (and static) population increase of 2.88 persons per housing unit (1990 census), the population increase associated with cumulative projects and the proposed project is 167,792 persons. This represents 55 percent of the growth until 2010 as projected by SCAG for RSA 8 and 141 percent of the population growth projected by the Department of Regional Planning.

As described above, cumulative development could exceed the growth projections made by the County of Los Angeles and represent a substantial portion of growth projected by SCAG in the Regional Comprehensive Plan. While exceeding the growth projection would be considered a significant cumulative impact, the project's contribution to this impact could be considered less than significant considering SCAG's projections. It should be noted that pending cumulative development should

appropriately consist of a substantial amount of the growth projected by planning agencies because the planning and building process generally takes more than 10 years on larger projects.

MITIGATION MEASURES

Project

No measures have been identified.

Cumulative

Cumulative development would exceed county growth projections for the Santa Clarita Valley, which would be a significant impact. The project's contribution to this growth may not be considered a significant impact. However, a revision to the growth projections should be initiated.

UNAVOIDABLE ADVERSE IMPACTS

None, subject to making the appropriate findings based on the information provided.

5.10 *PUBLIC SERVICES AND UTILITIES*

Police/Sheriff Services

Environmental Setting

The Los Angeles County Sheriff's Department provides law enforcement services to the Santa Clarita Valley, including unincorporated areas and the City of Santa Clarita. Sheriff's services are contracted out to the City of Santa Clarita, which has specific units designated to patrol areas within the city. The project area is within the patrol area of the Santa Clarita Substation located at 23740 Magic Mountain Parkway in Valencia. The station serves an area of 656 square miles and a population of approximately 170,000 with a staff of 151 sworn officers. The current officer to population ratio is less than the desired ratio of one officer to 1,000 population. Calls are dispatched from the substation and emergency response time to the project site is approximately 6 to 10 minutes; longer than the 5- to 6-minute preferred response time (Rissler 1993).

Crimes for the project area are few compared to other urban areas of similar size. For the entire Santa Clarita area serviced by the Sheriff's Department, there were 16,792 crimes reported for a service population of 157,635 people. This was a drop of 17 percent from the 20,124 crimes reported in 1990. According to the Sheriff's Department, the principal crimes reported to the Sheriff's Department are shooting violations, unauthorized trash dumping, and minor burglaries. Also according to the Sheriff's Department, the Santa Clarita area is the third safest area in the county per 1,000 population (Edgington 1993).

The Santa Clarita substation has equipment and staffing assigned to the city and unincorporated portions of Santa Clarita. The Sheriff's Department currently has 14 patrol vehicles assigned to county areas and 32 vehicles assigned to the City of Santa Clarita. A total of 7 patrol sergeants and 93 deputies are assigned to the substation. For the San Francisquito Canyon area, the Sheriff's Department has one vehicle patrolling the area during the day shift, 7 days a week. Other patrol vehicles also enter the patrol area on an infrequent basis during calls for service or random patrols (Edgington 1993). According to the Sheriff's Department the adequacy of current staffing and equipment is below preferred levels, although the department does not have a standard to judge adequacy.

Traffic enforcement for the project area is primarily provided by the California Highway Patrol (CHP). The closest CHP station to the project site is at the Interstate 5/Highway 126 intersection.

Environmental Impacts

Threshold of Significance

The proposed project would result in a significant impact if the development would cause a substantial increase in calls for service, or a substantial delay in the average response time of the Sheriff's Department.

Impacts

The addition of 3,000 residential units would increase the service population of the Sheriff's Department by approximately 8,640 residents (assuming 2.88 residents/unit). With an increase in population, as well as additional commercial uses, demands placed on the Sheriff's Department would logically be increased as a result of additional calls for service. Assuming a desired officer to population ratio of 1:1,000, a total of nine additional officers would be required by this development alone.

According to the Sheriff's Department, manpower and equipment levels are currently less than adequate. No funding mechanism, other than tax revenues from the General Fund, has been established to enable the project to mitigate its impacts on Sheriff's Department staffing. While tax revenues could be used to increase the size of the police force, the budget for the Sheriff's Department is up to the discretion of the Board of Supervisors. In other words, funding for additional police needs is not guaranteed. As a result, the project's impacts on the Sheriff's Department is potentially significant should inadequate funding be allocated from the General Fund to the Sheriff's Department operating budget. Moreover, due to its location, the project site would also have a response time greater than what is recommended by the department.

In response to the county-circulated screencheck DEIR, the sheriff recommended that Copper Hill Drive be extended from the existing terminus of Seco Canyon Road (east) to Rye Canyon Road (west) prior to building the project. The recommended conditions of approval currently do not incorporate this recommendation; however, phasing of the project will eventually require the full connection to be in place. Since the sheriff's recommendation is not being followed, access may be considered a potentially significant short-term impact by that department.

The applicant also proposes to gate portions of the project to create a private residential community. These gates have the potential for impeding emergency service providers, such as the Sheriff's

Department, the Fire Department, and ambulance services. Unlike the Fire Department, which can carry keys on a fire truck, the responding Sheriff's unit cannot be determined. According to the Sheriff's Department, gated communities should be discouraged. However, it should be noted that gated communities do exist in many areas. Systems such as knock-boxes can be implemented to allow emergency service providers to access the gated portions of the project. Without an acceptable emergency entry system, the provision of gates would result in potential significant impacts due to the potential for increased response times or lack of emergency access.

Cumulative Impacts

Using a list of cumulative project's within the Sheriff's Department jurisdiction (see Section 4.3), a total of 40,218 residences, including Newhall Ranch and the proposed project, would increase the county's population in the Santa Clarita area by 115,828 people. Based on an officer to population ratio of 1:1,000, cumulative development would require 116 additional officers to be added to the department.

Cumulative development would result in a substantial increase in the resident population served by the Sheriff's Department. This increase would result in significant cumulative impacts to the Department. No funding mechanism, other than taxes, is established to mitigate the additional cumulative demands placed on the Sheriff's Department. However, the Department of Regional Planning is suggesting that a funding mechanism be pursued by the Sheriff's Department with approval by the Board of Supervisors. The Sheriff's Department is authorized to perform long-range planning in accordance with adopted projections. It is suggested that the Sheriff's Department conduct a study of various financing options which may be available to secure additional funding should it be determined that the Department's future allocation of General Fund monies is insufficient.

Mitigation Measures

1. The project developer shall consult with the Santa Clarita Sheriff's Department substation to identify measures such as knock-boxes that allow emergency access into gated portion of the project site.

2. During design and layout of buildings onsite, the following measures shall be included into the design: 1) proper lighting in open areas and parking lots; 2) visibility of doors and windows from the street and between buildings; 3) adequate parking spaces in parking lots to accommodate shoppers and employees; 4) building address numbers lighted and readily apparent from the street for emergency response agencies.

Unavoidable Adverse Impacts

The proposed project would require increases in the level of service provided by the Sheriff's Department. In order to meet the police protection requirements of the project and related projects, additional manpower, equipment and facilities will be required. Tax revenues collected from new development would contribute funding for additional services and equipment, but the provision of additional operating funds is at the discretion of the Board of Supervisors. Due to the uncertainty of funding, potentially significant impacts could occur. Access could be considered a short-term significant impact by the Sheriff's Department in the initial phases of development.

Fire Services

Environmental Setting

The Los Angeles County Fire Department provides fire protection and emergency medical response services to the project area. Due to the location of the project, fire protection requirements range from standard paramedic and fire suppression for residential and commercial uses to brush wildfire suppression. Wildfire suppression is also handled by the United States Forest Service.

Fire responses (i.e., type and amount of equipment) to calls for service depend on the type of call that is received. The proposed project would mostly likely result in a structural fire or paramedic response. Depending on location and types of land uses, paramedic responses can account for approximately 80 percent of the calls requesting service. According to Los Angeles County Fire Department standards, structural fires have a standard response force of 3 engines, a paramedic squad, and a ladder truck. In order to provide a response of three engines, three different stations in the Santa Clarita area would be required to serve the proposed project. These stations are Nos. 111, 76, and 73.

Station No. 111 is the closest station to the project site and is located at 26869 Seco Canyon Road, approximately 3 to 5 miles from the proposed development. According to the Fire Department, this station would have a response time of approximately 5 minutes (Scott 1993). Station 111 has one three-man engine and one two-man paramedic squad.

Station No. 76, located at 27223 Henry Mayo Drive (near I-5 and Highway 126), has a four-man engine and a hazardous material unit stationed at this location. Five of the staff at the station are certified hazardous materials specialists. The hazardous materials unit responds to less than

10 incidents per month, but each call encumbers the unit for 1 to 3 hours. This unit serves all of the Santa Clarita Valley for hazardous material responses. According to the Fire Department, Station 76 would have an approximate response time of 8 to 10 minutes to the project site (Sheets 1993).

Station No 73, located at 24875 San Fernando Road, would provide the truck units and possibly the third engine unit that would respond to a structural fire at the project site. The response time from Station 73 to the site would be approximately 8 minutes. Eleven men staff the station per shift and are assigned as follows: two 3-man engines, a 4-man truck, a 1-man water tender, and an assistant or battalion chief in a patrol vehicle. As additional equipment, this station has a foam unit that is located on the tender and requires tandem operation with an engine. According to the station's chief, Station 73 responds to a combined total of approximately 2,400 calls per year (Coe 1993).

In addition to these three stations, Stations 149, 124 and 107, located in the Santa Clarita area could have their engines potentially called for service to the project site.

The Los Angeles County Fire Department also has a fire camp with 4 fire crews, which consist of 12 fire laborers, located in San Francisquito Canyon. On a seasonal basis, the U.S. Forest Service operates a fire station on San Francisquito Canyon Road in the national forest. This station is staffed by 1 engine, and 7 fire fighters and is responsible for wildland fire service in the area. (City of Santa Clarita General Plan 1991).

The project site is in an area described by the County Forester Fire Warden as Fire Zone 4, which includes residential areas located in brush, open grassland, and hillside areas. Areas designated by the Forester Fire Warden as Zone 4 are considered to have a high fire potential.

Wildfire is a relatively common occurrence in chaparral habitats such as those found in the hills and valleys of Santa Clarita. Chaparral species have adapted to fire and more of less depend on periodic fire to maintain plant and animal diversity and vigor. With the expansion of urban development into the Chaparral ecosystem during this century, the frequency of fire events has diminished as a result of fire suppression activities at the onset of a fire. Fire suppression is required to keep the fire under control and prevent the loss of life and property.

During the spring of every year as brush and vegetation begins to lose moisture taken in during the winter, the forester fire warden examines the water content of vegetation to determine the beginning of the fire season. Historically, large fires tend to burn chaparral every 20 to 25 years (on average).

In more recent times, large fires are driven by strong, dry Santa Ana winds which are a common occurrence in Southern California.

When Chaparral species are younger, they are more succulent, with little to no dead or dying branches, less horizontal fuel continuity, high average fuel moisture, and as a result are usually more fire retardant. As these species reach 20+ years, the dead to live fuel ratio increases creating more available fuel to carry fire, they have less vigor (i.e., active growth), lower average fuel moisture in summer and fall, and of course, become more capable of carrying fire with very high intensities and energy release.

Several fire events have been documented by the County Forester/Fire Warden on the project site. As a current practice to lessen the amount of fuel available for wildfires, the forester purposely sets fires in certain areas during a controlled burn. This allows for the rejuvenation and succession of species, while avoiding the accumulation of dead brush that greatly adds to the fuel available for fires. The most recent fire on the project site was in late spring 1992 which burned chamise chaparral communities in the western part of the site. Other historical fires have also been documented for the site. As part of the controlled burn program, the forester has plans for additional burns for the site.

As the project site is within a hillside area which is especially prone to devastating fires, it is required to incorporate the Fire Protection Measures of the County of Los Angeles Hillside Design Guidelines. The following are the Fire Protection Requirements included in the Hillside Design Guidelines:

1. Brush and hazard areas will be cleared and maintained by the Homeowners Association as set forth under Landscape Guidelines and County Fire Code Section 11.502 and 11.503 and defined in the project's CC&R's.

2. Open space areas maintained by establishing a Homeowners Association or Maintenance District.

3. New planting featuring fire and drought resistant species.

4. Buildings should be setback a minimum of 20 feet from downslopes. Exceptions shall be considered for minimal downslopes, special building design features and/or lack of vegetative fuel.

5. Roofs, overhangs, and undersides of exposed balconies protected with fire resistant materials.

Environmental Impacts

Threshold of Significance

The proposed project would result in a significant impact if water pressures for fire flow are less than required, if fire access does not meet standards, if fire station proximity requirements are not met, if the project would result in additional service needs that could not be met by existing staffing and equipment levels, or if development of the project would result in unsafe wildfire conditions for urban uses.

Impacts

Implementation of the proposed project would result in the development of 1,800 acres of mostly vacant land into approximately 3,000 new single- and multi-family residences, two schools, a swim and racket club, and 5 acres of commercial uses.

Minimum fire flows will be determined by the fire warden when the tentative map or development plan gets approved by the county's subdivision committee. As described in Water Service (below), the Water Master Plan has been designed in order to ensure adequate fire flow to all uses within the site. This system includes five water tanks located throughout the site to provide water pressure and water storage. The following are fire flows are required for the project:

1. 1,250 gallons per minute (gpm) at 20 psi for a 2-hour duration for single-family residences, hydrant spacing shall be 600 feet.

2. 5,000 gpm at 20 psi for a 5-hour duration for commercial uses, hydrant spacing shall be 300 feet.

The project would also provide access to the site for the County Fire Department. Requirements as to street widths, clearance, fire hydrant locations, etc., will be finalized and approved by the Department during the subdivision committee review of the project. As a requirement of the Fire Department, secondary access points need to be included for each portion of a project. During the development of the project, secondary access to the northern portion of the project became a concern. An access road was originally proposed from Planning Area "C" to San Francisquito Canyon Road. To minimize impacts to San Francisquito Creek and avoid geologic hazards, this access was eliminated in the final design and an emergency access road design to public street standards was designed to

connect Planning Area C with Planning Area B at a different location than the main arterial road (see Exhibit 3.4-1).

Besides the second connection from Planning Area C to Planning Area B, additional emergency access has been a concern of the Fire Department. During the subdivision review process, the Fire Department has conditioned the project to provide a bridge across San Francisquito Creek, connecting Planning Areas A and D. This access road will provide access for the main portion of the development to San Francisquito Canyon Road/Mc Bean Parkway and vise versa. This access (Alternative Alignment 3) was originally considered a potential future connection along with several other access alternatives, all of which are discussed in Section 6.8. The remaining five alternatives have been identified as stub roads and could potentially connect to offsite properties in the future, if determined necessary by the fire department. Through the implementation of these access alternatives, adequate access to the site would be met and no significant impacts are anticipated. Mitigation measures identified for law enforcement impacts would also mitigate Fire Department impacts for emergency access to the gated portions of the site. By meeting the requirements of the Fire Department, emergency access to the site would be provided, and no significant impacts are anticipated.

With regard to fire station proximity requirements, the closest existing fire station is between 3 and 5 miles, depending on the location within the site. The project applicant proposes a fire station on the subject property, located in Planning Area B. With the provision of this station, the station proximity requirements of 1.5 miles for multi-family and 3 miles for single family residential would be met. Another potential location for a future fire station includes a site proposed by Paragon Davidon Builders east of the project. Either of these locations would meet the proximity requirements of the Fire Department.

In reviewing the proposed project, the Fire Department has stated that additional manpower, equipment, and facilities will be needed to serve this development (Rippens 1993). Limited tax revenues have restricted the Fire Department's ability to meet new growth needs in Santa Clarita. Although general plans for upgrading fire protection in this area have been developed, the Department will not be able to implement these plans without specific provisions for the necessary manpower, equipment, and facilities. As part of the county subdivision review process, the Fire Department will condition the project to mitigate the project's impacts, which includes the payment of fees to provide funds for fire protection facilities. With the payment of fees for facilities and the increased tax revenues generated by the project, project impacts on fire facilities and manpower would be reduced to less than significant levels.

The project would comply with the Fire Protection Requirements of the Hillside Design Guidelines, including those regarding landscaping, setbacks, open space, brush clearance, and construction materials. The following are guidelines relevant to fire protection:

- Building Setbacks. All residential units to be located on lots in hillside locations and on ridgelines shall be set back a minimum of 20 feet from the edge of all manufactured or natural downslopes, with minor exceptions.

- Exterior Materials. Exterior building material types shall be fire-resistant.

- Roofs. The look of natural materials is desirable for roofs, such as flat concrete, slate, copper and clay. All roof materials must be noncombustible. Asphalt, metal, concrete Spanish, composite and wood are not acceptable. (Title 24 Section 3202E requires that roofs shall be stopped at roof end.)

- Chimneys. Fireplaces must be equipped with an approved spark arrester. Flue pipes are required to be encased with a chimney enclosure of masonry or stucco, and supported by a foundation at grade when located on a exterior wall. Exposed metal flues are not acceptable.

In addition, the landscaping features of the project will reduce wildfire potential because high fire fuel chaparral and grasses will be eliminated through fuel modification zones and landscaping will have a low-fuel content and be maintained by the homeowners' association. The following are characteristics of the landscaping plan:

- All areas to be revegetated will be done so with native species, irrigated, and managed as to density and fuel moisture in the fire season. Preference will be given to fire resistant and low-fuel materials.

- The applicant will work with the Fire Department to create landscape plans that will preserve biologically sensitive species while incorporating fire fuel management programs. Most of the plant species specified on the revegetation plan will comply with fire and drought plantings. Natives will be irrigated to maintain the lowest possible "fuel moisture content."

Subsequent to the review of the proposed landscape plan by the Fire Department, specific recommendations on the type of landscape trees were provided. In order to mitigate potential fire hazard impacts, Fire Department recommendations will be incorporated as mitigation to the proposed project.

Cumulative Impacts

The development of the proposed project, along with other approved and planned projects in the immediate area, would require expansion of existing facilities and manpower. The County Fire Department periodically reviews the adequacy of existing staff and equipment to ensure that service levels remain constant. However, limited tax revenues have restricted the Fire Department's ability to meet new cumulative impacts of the proposed project and related projects, which would be cumulatively significant.

Mitigation Measures

Project

1. All nonresidential facilities shall incorporate sprinkler systems.

2. This property is located within the area described by the County Forester and Fire Warden as Fire Zone 4, and must comply with all applicable code and ordinance requirements for construction, access, water mains, fire hydrants, and brush clearance.

3. The project will provide water mains, fire hydrants, and fire flow as required by the County Forester and Fire Warden for all land shown on the map to be recorded.

4. Access shall comply with Section 10.207 of the County Fire Code, which requires all-weather access. All-weather access will be provided. Emergency access to the satisfaction of the Fire Department shall be provided.

5. Fire Department access shall be extended to within 150 feet of any portion of habitable structures to be built.

6. Where driveways extend further than 300 feet and are of single access design, turnarounds suitable for fire protection equipment use shall be provided and shown on the final map. Turnarounds shall be designed, constructed and maintained to insure their integrity for Fire Department use. All weather paving shall be used for roadways. Where topography dictates, turnarounds shall be provided for driveways that extend over 150 feet.

7. Provide Fire Department and county-approved street signs and building address numbers prior to occupancy.

8. Brush clearance shall comply with the Los Angeles County Fire Code, Division V, Section 11.501 through Section 11.529.

9. Prior to construction a fire hazard reduction and fuel management plan shall be developed, reviewed by the Fire Department, and implemented. The plan shall include the following components:

   - A revised landscape plan replacing eucalyptus, pines, junipers, and cypress with other native trees.
   - Use of low-fuel volume plants, including sumac, toyon, elderberry, holly leaf cherry, oak, sycamore, and california bay species.
   - Additional fuel modification zone with increased brush clearance for homes that face northeast open space areas.
   - Areas designated as open space shall not be utilized for equipment or vehicle storage or for access to the area of development. Such areas shall not be used for dumping of fill materials.

Project and Cumulative

10. The applicant shall be required to pay a fee of $0.18 per square foot of structure or the prevailing rate as determined by the County of Los Angeles Fee Program for Fire Stations for the Benefit of the Consolidated Fire Protection. This fee program provides for the expansion of fire protection facilities.

Unavoidable Adverse Impacts

By working with the Fire Department to establish appropriate mitigation measures and meeting all applicable codes and requirements, the risks associated with fire hazards will be reduced to a less than significant level. Additional manpower, equipment, and facilities will, however, need to be provided to meet the needs of the proposed project and related projects.

Schools

Environmental Setting

The vicinity of the project site is served by four school districts, including: Castaic Union Schools District, Saugus Union School District, William S. Hart Junior High School District, and William S. Hart Senior High School District. While the Castaic Union School District boundaries presently include a portion of the project site, elementary school service would be provided by the Saugus Union School District because most of the site lies within its boundaries. The project developer would

be required to annex the project site in its entirety into the Saugus Union School District. Because of the rapid growth of residential housing in the Santa Clarita area, schools districts within the valley have struggled to expand facilities to match the growth of the area. As a result, many schools have temporary classrooms and some schools consist entirely of portable class rooms.

The Saugus Union School District provides public education services for grades K-6 in the project area. Elementary schools in close proximity to the site are: the James Foster and Santa Clarita Elementary Schools. A third school, the Seco School, is a school made up of portable classrooms and is not considered a full fledged school. The Saugus Union School District is negotiating for a permanent school site in the area of Seco Canyon (Clark 1993). A fourth school, Emblem, currently has available capacity, but is not in close proximity to the site. Table 5.10-1 lists the various elementary schools in the Saugus Union School District, as well as their current enrollment and design capacities. Because of the size and location of the project, the exact schools that would serve the site are not known. Presently, Santa Clarita Elementary, located at 27177 Seco Canyon Road and Emblem, located at 22635 Espuella Street, have some capacity to serve additional students. However, at the time the first phase of the project is completed and ready for occupancy, it is not known if any capacity would be available.

TABLE 5.10-1
SAUGUS UNION SCHOOLS, 1992/93

School	Design Capacity	92/93 Enrollment
Bouquet Canyon	450	417
Cedarcreek	495	520
Emblem	535	680
Highlands	590	620
Rio Vista	590	623
Rosedell	710	735
Santa Clarita	535	670
Skyblue	475	574
James Foster	600	771
Charles Helmers	660	657
Totals	**5,640**	**6,267**

Source: Saugus Union School District, Recht Hausrath & Associates.

The William S. Hart School District is divided into a junior high school district and a senior high school district. The local junior high school that would serve the project site is the Arroyo Seco Junior High School, located at 27171 Vista Delgado Drive. Another junior high school, Sierra Vista, could also serve the project site. In terms of high schools, three schools could potentially serve students generated from the project. These schools are Canyon High School, Saugus High School and an as yet unnamed school temporarily being called Hart High School Number 4. The three of these schools could serve the site because in mid-1994 the boundaries of the high school service areas will be changing. As of the 1992/93 school year, the high school district is 35 percent over design capacity. With the opening of two schools in the 1993/1994 school year, the district will be approximately 4 percent over capacity. No other school openings are planned at this time.

Future projections of student populations and school capacities by the school district show a deficit in the amount of space needed to serve children. For the year 1998, which is the furthest school year projection made by the school district, the total student population is projected to be 13,393 students and 11,090 spaces available. Table 5.10-2 compares the current and future enrollments and design capacities of junior and high schools in the William S. Hart School District.

As shown in Table 5.10-2, current and projected enrollments at junior and high schools will exceed the design capacity of the schools. It is expected that some of these students would be located within trailers, but the school district would still be operating above capacity.

TABLE 5.10-2
SCHOOL PROJECTIONS

	Current Status	Future Status (1998)
Junior High Schools		
Enrollment	3,779	4,988
Capacity	2,960[1]	3,960
High Schools		
Enrollment	5,130	7,130
Capacity	6,819	8,405

[1] Capacity as of January 1995. Existing 1993 status is 2,960 students.

Source: William S. Hart School District 1993.

In 1991, the County of Los Angeles and the school districts of the Santa Clarita Valley passed a joint resolution regarding the mitigation of impacts from new development. The resolution provides that the county, prior to any legislative act to permit residential development in the Santa Clarita Valley, will require the developer to execute a standard agreement to provide payment for education facilities. The resolution prescribes that the fee of $2.65 per square foot of residential development will be increased each June, according to a prescribed consumer index.[1] This resolution, in effect, ensures that new development fully mitigates the impact resulting from the generation of students to the school districts in Santa Clarita Valley.

Environmental Impacts

Threshold of Significance

The proposed project would have a significant impact to education facilities if the students generated by the new development are in excess of the supply available.

Impacts

The implementation of the proposed project would result in an increase of residential units and commercial square footage. As shown in Table 5.10-3, student generation at buildout will total 793 elementary school children, 240 junior high school students, and 480 high school students. These factors assume the generation rates used by the affected school districts. Using conversion factors of 30 student per elementary class room and 32 students per junior or high school classroom (DMS 1995), the proposed project would generate the need for 27 elementary school rooms, 8 junior high rooms, and 15 high school rooms.

Compared to student projections, the proposed project would represent 20 percent of the 1,209 junior high student enrollment increase, and 24 percent of the 2,000 high school student increase projected for 1998. While the project would not be fully completed by this date, school district projections do not extend beyond that date.

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1 Letter from Michael Antonovich, Supervisor Fifth District, to Michael Mc Grath, Superintendent/Secretary to the Board, Newhall School District, dated September 20, 1993.

TABLE 5.10-3
PROJECT STUDENT GENERATION AT BUILDOUT[a]

	Elementary[b]	Junior[c]	High School[d]	Total
Single Family Residential (1,931 units)	579	154	309	
Multi Family (1,069 units)	214	86	171	
TOTAL	793	240	480	1,513

[a] Student generation is based on the residential portions of the project. It is assumed that employees of commercial uses (neighborhood and recreational) would originate from the project and local residents. Thus, employees would not be drawn to the area and little, if any, additional students would be generated from the proposed commercial uses. As a result, student generation from commercial uses is assumed to be negligible.

[b] Assumes student generation factors of .3 students/dwelling for SFR and .2 students/dwelling for multifamily residential.

[c] Assumes 0.08 students per dwelling.

[d] Assumes 0.16 students per dwelling.

Source: Michael Brandman Associates 1994.

The proposed project would represent a significant portion of growth anticipated by the Saugus Union and William S. Hart School District, both of which will be operating above capacity when the project is fully built, as well as during the initial phases of the project. Because of the overcrowded conditions and the inability of the school districts to match growth of the area, the proposed project is anticipated to have a significant impact.

The provision of two elementary school sites on the project site would more than satisfy the elementary school demands of the proposed project. One site would meet most of the demand, but the overflow would have to be accommodated offsite. During the approval of the proposed project, the developer will be required to sign an agreement to provide financing for educational facilities with the County of Los Angeles, pursuant to the resolution passed by the county and the school districts of Santa Clarita Valley. With such payment, the impacts from the project would be considered

mitigated to a less than significant level. Thus, significant impacts caused by the project would be mitigated to a less than significant level with project design features and established mitigation techniques.

Cumulative Impacts

Based on the cumulative project school demands calculated by the County's Development Monitoring System (March 1995), cumulative development including the proposed project would generate 12,030 elementary students (401 classrooms), 6,656 junior high students (208 classrooms), and 12,768 high school students (399 classrooms), assuming 30 students per junior and senior high classroom and 32 students per elementary classroom. Cumulative development would exceed student projections through the projected planning years of the respective districts. As a result, the cumulative impact would be significant and adverse.

Mitigation Measures

Project

The payment of school facility fees by the developer, consistent with the 1991 joint resolution between the County of Los Angeles and the school districts of the Santa Clarita Valley, will offset costs of constructing new school facilities for project-generated students. In addition, two elementary school sites are planned for the project site, which can be utilized for students generated by the project, as well as some other students from offsite areas. However, the availability of funding for the construction of the sites or the purchasing of the land must still be determined.

Cumulative

While each of the cumulative projects would be required to pay school facility fees, the phasing financing, and location of new school sites is to be determined. Because implementation of constructing new schools is complicated, any effort to accomplish this task must be undertaken by the affected school districts. The only cumulative measures that could facilitate the school districts would be to phase growth to meet the capacity requirements of the school districts. While the project would be phased, it is not known whether the school district can expand as rapidly as residential growth. No other measures have been identified.

Unavoidable Adverse Impacts

With the incorporation of the identified mitigation measures, as well as project design features and standard mitigation requirements, the significant project and cumulative impacts would be mitigated to a less than significant level.

Solid Waste Disposal

Environmental Setting

Solid waste disposal in the project area is provided by Santa Clarita Disposal, a private company serving the Santa Clarita area. Santa Clarita Disposal currently serves the San Francisquito Canyon area with both residential and commercial refuse pickup. Services are provided 1 day a week on a weekly basis. Recycling services are also provided by Santa Clarita Disposal, with a pickup once a week. Glass, aluminum and tin cans, plastic, and newspaper are all collected by Santa Clarita Disposal. No green waste (yard clippings) disposal services are currently provided by the company.

According to Santa Clarita Disposal, services can be expanded to adequately serve the proposed project (Sullivan 1993). Refuse collected by Santa Clarita Disposal is taken to Chiquita Landfill, which is operated by Laidlaw. On Saturdays, Santa Clarita Disposal transports refuse from the Santa Clarita area to the Palmdale landfill because Chiquita Landfill is closed.

Chiquita landfill has a remaining capacity of 3.2 million tons, as of June 1993, and has a closure date of November 1997. The landfill has a daily permitted capacity of 5,000 tons per day, and current volumes are approximately 1,200 tons per day. The operators of the landfill are currently seeking a new permit to expand the landfill by an additional 30 million tons. Depending on future refuse volumes, the landfill is expected to have adequate capacity well into the year 2000.

Environmental Impacts

Based on the land use make up of the proposed project, solid waste generation has been calculated in Table 5.10-4. Solid waste generated by the proposed project would represent 0.5 percent of the 1993 daily maximum waste disposal at the Chiquita Landfill and 0.13 percent of the daily permitted capacity. If the Chiquita landfill expansion does not occur, then in 1997 refuse disposal for the Santa Clarita area would have to be sent to another landfill.

TABLE 5.10-4
PROJECT SOLID WASTE GENERATION

Land Use	Generation Rate	Size	Waste Generation
Residential	4 lbs/day/unit	3,000 units	12,000 lbs/day
Commercial	5 lbs/day/1,000 sq ft	50,000 sf	250 lbs/day
School	7 lbs/day/1,000 sq ft	49,000 sf[a]	343 lbs/day
Swim/Racket Club	5 lbs/day/1,000 sq ft	9,000 sf	45 lbs/day
			12,638 lbs/day or 6.32 tons/day

[a] Assumes 35 sf/child and 700 children/school.

Source: County of Los Angeles Sanitation Districts 1993.

According to the project schedule, Phase I of the project would be completed in 1996, which is before the scheduled closure of the landfill, if the expansion is not approved. While the expansion is anticipated to be approved, a long-term solution for siting new landfills has not been found for Los Angeles County. For the Santa Clarita area, the proposed Elsmere Canyon landfill has not been approved, but could potentially become a landfill serving the area, as could the expansion of Sunshine Canyon landfill, which is undergoing permitting for an expansion. Rail haul of refuse to distant landfills is also an option for future disposal of trash. However, none of these options are certain. Without a successful means for disposing trash the project would increase the rate at which existing landfill space is being depleted. As a result, the project would add to the cumulative demand for solid waste disposal facilities from existing and proposed development throughout Los Angeles County.

Current state law (AB 939) has required local jurisdictions to reduce their solid waste volumes by 25 percent in 1995 and 50 percent in 2000. The proposed project would complete buildout near the time the 50 percent reduction is required. Although recycling of glass, metals, plastics, and newspaper would reduce the amount of waste generated by the project, green wastes, which are not currently collected, make up a large portion of the solid waste stream, especially from residential developments. Green waste consists of yard trimmings, grass clippings, and other plant materials. In addition to the green waste generated by residential units, the proposed 15 acres of onsite parks, open space areas, and fire management zones will also generate green waste. Because of the

reoccurring difficulty in located additional landfill space and the amount of waste generated by the project, mitigation would be required to reduce significant impacts.

Although not quantifiable, the resident population increase will also lead to a rise in the amount of household hazardous wastes generated by the project. Because of the limited facilities to dispose of this type of waste and their hazardous nature, increases in their production affect the county's ability to combat the problem of disposing the waste. Consequently, the project would adversely impact the county's abilities to dispose of household hazardous waste. Although the impact of the project would not be significant because of the common nature of these materials, mitigation will be required to ensure that the waste is disposed of properly.

Cumulative Impacts

Of the related projects listed in Section 4, most would generate waste that would require disposal in the Santa Clarita area. Table 5.10-5 calculates the refuse generated by the related projects.

TABLE 5.10-5
CUMULATIVE SOLID WASTE GENERATION

Land Use	Generation Rate	Size	Waste Generation
Residential	4 lbs/day/unit	14,338	57,352 lbs/day
Commercial	5 lbs/day/1,000 sf	1,736,000	8,680 lbs/day
Office	6 lbs/day/1,000 sf	1,813,000	10,878 lbs/day
Industrial	0.1 lbs/employee	1,452	145 lbs/day
Hotel	2 lbs/room	312	624 lbs/day
School	7 lbs/day/1,000 sf	23,100	162 lbs/day
			77,841 lbs/day or 38.9 tons/day
Project			6.32 tons/day

Source: County of Los Angeles Sanitation Districts 1993.

The proposed project, together with the related projects, is expected to generate approximately 90,479 pounds of solid waste per day or 45.2 tons per day. The proposed project would consist of 14 percent of the cumulative amount of solid waste generated by proposed, planned, and approved development. As mentioned under Environmental Impacts, the project would cumulatively add to the demand for solid waste disposal facilities in Los Angeles County. Because of the difficulty in finding additional means for disposing waste and the amount of cumulative solid waste generation, the proposed project's contribution to solid waste generation would result in significant cumulative impacts. In addition, the project would cumulatively impact the county's ability to dispose of household hazardous waste.

Mitigation Measures

In order to reduce the amount of solid and household hazardous waste generated by the proposed project and reduce significant cumulative and project impacts, the following mitigation measures are required:

Project and Cumulative

1. Upon incorporation of the Homeowners Association (HOA), the HOA shall designate one board member as the waste management coordinator. This board member will coordinate all waste management activities for the HOA, including recycling, composting, and household hazardous waste collection.

2. Upon occupancy of the project, the homeowners organization shall incorporate the recycling services provided by the local waste hauler into any occupied residence. Commercial and school uses shall also provide recycling collection facilities and obtain recycling services in order to promote reduction of waste traveling to local landfills.

Unavoidable Adverse Impacts

The proposed project will not significantly affect the lifespan of local landfills, but will result in significant cumulative impacts in terms of adding to the amount of solid and hazardous waste generated in the county.

Library Facilities

Environmental Setting

The project area is served by the Los Angeles County Public Library system. Valencia Library, located at 23743 W. Valencia Boulevard, Valencia, is approximately 4 miles from the project site and would serve the library needs of the proposed project. The facility is approximately 23,966 square feet and at capacity. According to the County Library, the library facilities and library material items (i.e., books, tapes, videos, maps, periodicals) in the Santa Clarita area are currently at 0.20 square feet per capita and 1.43 items per capita, respectively. These levels are below the county's planning standards of 0.35 square feet per capita for facilities and 2.0 items per capita. As a result, the Santa Clarita area is not presently considered to be adequately served with library services.

The County Public Library recently suffered a 50 percent budget reduction as a result of the State shift of property tax revenues from public libraries to schools. This reduction in revenue has forced the County Library to severely curtail hours of operation and to permanently close ten library facilities in the County. Previously, the Valencia Library, which is the main library serving the Santa Clarita area, was open seven days a week; however, the budget cuts reduced the service to four days a week for Fiscal Year 1993-1994.

In addition, the Valencia Library was heavily damaged from the Northridge earthquake and is currently undergoing restoration. It is anticipated that the library will reopen in December, 1994, on the limited four-day-per-week schedule. The only library service currently available in the Santa Clarita area is provided by small outlets located in Canyon Country and Newhall, both of which are quite distant from the project area.

Environmental Impacts

With an increase in population, the proposed project would increase the demands placed on the County Library system. Table 5.10-6 calculates the additional library space and library material items needed to adequately serve the proposed project's resident population. Factors used for this calculation are used by the County Library system for planning purposes.

TABLE 5.10-6
LIBRARY SERVICE IMPACTS

Item	Factor	Population Increase[1]	Impact
Library Facility	0.35 sf/capita	8,640	3,024 sq ft
Library Material Items	2.0/capita	8,640	17,280 items

[1] Assumes average household size of 2.88 persons.
Source: County of Los Angeles Public Library 1993.

As shown in Table 5.10-6, a total of 3,024 square feet of library facilities and 17,280 library material items are required to serve the project site based on the County Library's planning standards. The County Library has standard costs associated with constructing new facilities and purchasing new items. Current fees for new facility construction and furnishing are $220 per square foot and fees for additional items are $30 a piece. Based on the impacts of the project calculated on Table 5.10-6, the estimated cost of providing the additional building space and library materials would be approximately $665,280 in new facility construction and $518,400 in the purchasing of new materials for a total of $1,183,680. The demand created by the proposed project on the county's library services is considered to be a significant impact.

Cumulative Impacts

Cumulative impacts for library services have been calculated using the County's Development Monitoring System (March 1995). The cumulative service area used for this analysis is the area served by the Valencia Library. Based on the County's impact evaluation system, the total cumulative demand for library material items and library space is 346,146 items and 60,573 square feet of library space. The project's contribution to the cumulative demand is 5 percent. Given the lack of adequate library services in the Santa Clarita area, the total cumulative demand would significantly impact the library system. While each development would have to mitigate its impacts on the library system, the current financial situation of the library system results in less than adequate services. However, the project's contribution to cumulative impacts would be significant.

Mitigation Measures

In order to mitigate the project's significant impacts to the County Library services, the following mitigation measure is recommended by the County Library:

Project

1. Based on the recommendations of the County Public Library, the project developer should enter into an agreement with the County Library to specify methods of mitigation which could include the contribution of funds in order to compensate for the increase in population and resulting increased demand for library services, resulting from the project.

Cumulative

No additional measures have been identified.

Unavoidable Adverse Impacts

To reduce the significant project and cumulative impacts, mitigation has been identified by the County Library to reduce the level of impact to insignificance.

Parks and Recreation

Environmental Setting

The Los Angeles County Parks and Recreation Department maintains local parks in unincorporated areas and regional parks throughout the county to serve the recreational needs of county residents. There are presently no Los Angeles County neighborhood parks with playground facilities that serve the project area. Santa Clarita Park, located in the City of Santa Clarita, is the closest park to the project site. The park is located on Seco Canyon Road at Guadilamar Drive. Schools often are made available for community recreation after hours and act as a recreational resource for the community; however, the parks department does not formally recognize a school as a recreation facility. Arroyo Seco school located at Decoro Drive and Seco Canyon Road has recreational facilities available for the surrounding community.

In addition to local parks, there are several regional recreational facilities. The most notable is the Angeles National Forest, located approximately 0.5 miles north of the project site. San Francisquito Canyon Road currently provides access to the forest. Besides acting as an open space resource, the Angeles National Forest serves many valuable purposes and uses. Recreational activities such as camping, hiking, shooting, and horseback riding actively occur within the forest. Castaic Lake State Recreation Area, located within the forest, provides boating, fishing, camping and other recreational activities for the region. Also of regional significance are the Valencia Golf Course and Six Flags Magic Mountain, which are regional recreational resources.

The Los Angeles County recreation system also includes an extensive trail system. The trails are used for hiking, biking, and equestrian activities. Santa Clarita Valley Area Plan (SCVAP) includes a trails plan for the Santa Clarita area. The Los Angeles County Parks and Recreation Department recognizes the San Francisquito Canyon trail as a regional trail that is part of the county system. The San Francisquito Canyon trail is heavily used hiking and equestrian trail that travels along San Francisquito Creek. The SCVAP trails map identifies a future trail extending from the San Francisquito Canyon trail into the Angeles National Forest.

Environmental Impacts

Threshold of Significance

The proposed project would result in significant impacts if county park standards are not met by the project.

Impacts

Under the Los Angeles County General Plan and the Quimby Act, the Los Angeles County Department of Parks and Recreation requires a parkland dedication for all developments in the unincorporated areas of the county. Parkland dedication requirements are used as mitigation for impacts caused by increases in the population resulting from new housing units. Consequently, parkland requirements are determined by the amount and type of residential units.

As part of the standard Los Angeles County subdivision review process, the County Parks Department reviews projects and must approve the park space provisions before the project is sent to the decision making body. Park requirements can be satisfied by: the dedication of land, the payment of in lieu fees, the provision of amenities, or any combination of the three, as determined by the department.

Current requirements for park land dedication varies between requirements of the Quimby Act and the requirements of the Los Angeles County General Plan. The Quimby Act sets forth a goal of 3 acres of park per 1,000 residents, while the General Plan strives for a goal of 4 acres of parks for every 1,000 residents. Thus, there is some variability in the park land requirements of new development.

Using the amounts and types of units proposed for the project, the County Parks Department determined that the project would require between 25.67 and 34.22 acres of active park land depending on the standard used. In order for a park to be considered adequate by the County, a park must be at least 5 acres, where the park is adjacent to an elementary school, or 8 acres if it stands alone and be less than 3 percent slope (Reily 1993). Moreover, the department will not give Quimby credit to parks encumbered with joint use (i.e., retention basins, utility easements, or SEA areas). Current guidelines used by the county consider 8-acre sites as the preferable size. For projects with less than the required acreage, park fees must be paid to the parks department.

The conceptual land use plan calls for the provision of 40.0 acres of park lands; one 24-acre park in Planning Area A, within an SCE easement, one 7.0-acre park and one 8.3-acre park. Because the 24 acre park is within an easement, the department will not provide Quimby credit for the park acreage. Thus, only 15.3 acres of park land qualifies as park land credit. This is 10.37 acres less than the quimby requirements and 18.92 acres less than the General Plan requirements. Using a park department standard of $126,000 per acre for land in the Santa Clarita area, the fees for the deficit park land would be between $1,306,620 and $2,383,920. Based on preliminary contact with the parks department, 15 acres of park land would not be a sufficient amount of park land space of a development of this size (Reily 1993). Final determination of park sizes, amounts, payment of fees, or provision of amenities, lies with the parks department. With approval of the park obligations of the project, no significant impacts would result.

In addition to park facilities, the project also includes an extensive trail system that would be available for the project and County residents. These trails would further mitigate its impacts to the recreation needs of the project residents, although not officially acknowledged by the County Park and Recreation Department.

During the initial scoping and design process of the project, the County Parks Department and representatives from the Forest Service were consulted about the existing equestrian trail and the incorporation of onsite trails with the regional network. The primary concern of the Forest Service was that the extension of the trail in the creek be directed to higher elevations on the east side of San

Francisquito Canyon so that users to do not continue up the creek once in the forest, for that would impact populations of the unarmored threespine stickleback. The forest service also did not want to encourage access to the forest from trails at the north of the site. The Parks Department has required the tract to incorporate an equestrian trail system that meets these objectives. The proposed land use plan would accomplish these concerns and no significant impacts would occur.

The proposed project would introduce urban development adjacent to the San Francisquito Canyon trail. Although the project would not eliminate the trail, it would degrade the quality of the recreational experience offered by the trail. Given the level of cumulative development south of the project site and within San Francisquito Canyon, the project would not have a significant project impact.

Cumulative Impacts

Of the related projects listed in Section 4.3, 28 are within the County of Los Angeles and would require park dedication based on new residential units. A total of 123 acres of additional park land would be required by the related projects. Each of these project would be required to mitigate their individual impacts, as would the proposed project.

Mitigation Measures

In order to reduce significant impacts on recreational facilities to less than significant levels, the following measures are required:

1. Prior to construction, the park obligations of the proposed project (between 25.69 and 34.22 acres) will be met by the project applicant. The amount and type of obligation, whether land dedication, payment of fees, or provision of amenities, will be determined by the County Parks and Recreation Department prior to subdivision committee approval.

2. Prior to construction, a trail easement for the San Francisquito Canyon trail shall be dedicated to the County Parks and Recreation Department. The design of improvements shall be the responsibility of the Parks and Recreation Department. Unless otherwise determined by the department, the trail shall be improved prior to the completion of Planning Area A.

Unavoidable Adverse Impacts

No unavoidable adverse impacts on parks and recreation are anticipated with implementation of the identified mitigation measures.

Communication Services

Environmental Setting

Telephone service to the project area is provided by Pacific Bell Telephone Company. Telephone service is available from three locations to serve the site; at Rye Canyon Road at Castaic Road, McBean Parkway at Decoro Road; and San Francisquito Canyon Road west of Seco Canyon Road.

Environmental Impacts

Threshold of Significance

The proposed project would have a significant impact if it were to require the extension of existing lines through undisturbed areas or disrupt existing conditions for an extended period of time, and/or if the project would result in an increase in the demand for service such that service could not be provided.

Impacts

According to Pacific Bell, there will be no problems serving the site, nor will there be any adverse impacts on telephone service expected from implementation of the proposed project (Barrera 1993).

The project would require the extension of existing lines in the area to the project site. The most likely connection would be from the extension of McBean Parkway at Decoro Road. Since this roadway is planned and utility extensions are being planned as part of the extension, no adverse impacts are anticipated to telephone service or areas off site. Onsite service would occur in underground conduits along project roadways. No significant impacts are anticipated.

Cumulative Impacts

Of the related projects, 4 are within San Francisquito Canyon or surrounding area that require the extension of service. Cumulative impacts from the proposed project, together with the related projects, will not have a significant impact on the provision of communication service.

Mitigation Measures

No measures have been identified.

Unavoidable Adverse Impacts

No adverse impacts to communication systems are anticipated.

Electricity

Environmental Setting

Electrical service to the project area is provided by the Southern California Edison Company (SCE). SCE has numerous electrical transmission facilities in the project area. These facilities fall into two categories: local transmission lines and regional transmission lines. Local lines provide electrical service to urban development, while regional transmission lines conduct electricity between sources of electricity and distribution centers.

SCE has an existing 300-foot easement that bisects the site from east to west. The easement across the project site has two sets of towers. One tower carries a dual circuit 220 megawatt system and the other tower carries a dual circuit 660 megawatt system. Exhibit 3.4-1 illustrates the location of the SCE easement.

Local transmission lines for electrical service are located throughout the project area. An electrical substation is located at Rye Canyon Road and Newhall Ranch Road to the east of the project site. A main line is located at the intersection of McBean Parkway and Decoro Road. This line would be extended along the proposed extension of McBean Parkway to the intersection of McBean Parkway and Copper Hill Drive. The future extension of Copper Hill Drive west to Rye Canyon Road would also carry with it an extension of electrical service lines from the substation at Rye Canyon Road. Both of these power facilities would serve the project site. Currently, McBean Parkway is being

extended from Decoro Road and electrical service is included in that extension (Apple 1993). A minimal service electrical line is also located along San Francisquito Canyon Road, and primarily serves local residences and ranches. This line presently serves the two residences, which consume minor amounts of electricity, located at the site.

Environmental Impacts

Sufficient electrical facilities are currently planned to serve the project site. The extension of these facilities would occur in conjunction with other planned improvements so no additional offsite disturbance is expected as a result of providing electrical service to the site.

Using standard electrical consumption factors, Table 5.10-7 calculates the project's electrical consumption at buildout. As shown in the table, the project would consume approximately 18 million kilowatt hours per year (kWh/yr). As a regulated utility by the California Public Utility Commission (PUC), SCE has the responsibility to provide electrical service to all customers requesting service.

TABLE 5.10-7
PROJECT ELECTRICAL CONSUMPTION

Land Use	Consumption Rate	Size	Total Consumption
Single-Family Residential	5,627 kWh/yr/unit	1,927	10,843,000 kWh/yr
Multi Family Residential	5,627 kWh/yr/unit	1,073	6,038,000 kWh/yr
Commercial	13.6 kWh/sq ft/yr	50,000	680,000 kWh/yr
School	5.9 kWh/sq ft/yr	49,000	289,000 kWh/yr
Swim/Racket Club	10.5 kWh/sq ft/yr	9,000	95,000 kWh/yr
			17,945,000 kWh/yr

Source: Air Quality Handbook, SCAQMD 1993.

Energy Consumption of new buildings in California is regulated by the State Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations. The efficiency standards apply to new construction of both residential and nonresidential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building

efficiency standards are enforced through the local building permit process. The incorporation of these standards would reduce the level of energy consumption of the project and mitigate any potentially significant impacts. Because the project would increase the consumption of nonrenewable resources, the project would have adverse impacts on the supply of these resources. However, because the project only represents a small amount of the total global consumption, this adverse impact would not be significant.

A discussion of the compatibility of the proposed uses with the existing onsite utility easement and power lines is located within Section 5.8, Land Use Compatibility, Onsite.

Cumulative Impacts

SCE would provide electrical service to those projects listed in Section 4.3. Table 5.10-8 provides a calculation of the electrical demand generated by the related projects. In sum, the cumulative impacts to electrical consumption are 133,611,000 kWh of electricity per year. The proposed project represents 13 percent of the electricity to be consumed by the cumulative projects. As additional development occur, expansion of electrical service may be needed. However, no significant cumulative impacts are anticipated as a result of project implementation.

Mitigation Measures

Project and Cumulative

Title 24 energy standards would reduce the energy consumption of all new development. No additional mitigation measures have been identified.

Unavoidable Adverse Impacts

No unavoidable adverse impacts are anticipated.

TABLE 5.10-8
CUMULATIVE ELECTRICAL CONSUMPTION

Land Use	Consumption Rate	Size	Total Consumption
Residential	5,627 kWh/yr/unit	14,388	80,961,000 kWh/yr
Commercial	13.6 kWh/sf/yr	1,736,000	23,610,000 kWh/yr
Office	13.0 kWh/sf/yr	1,813,000	23,569,000 kWh/yr
Hotel[a]	10.0 kWh/sf/yr	156,000	1,560,000 kWh/yr
Industrial	4.0 kWh/sf/yr	943,000	3,772,000 kWh/yr
School[b]	6.0 kWh/sf/yr	23,100	139,000 kWh/yr
		Subtotal	133,611,000 kWh/yr
Project			17,945,000 kWh/yr
		TOTAL	151,556,000 kWh/yr

[a] Assumes 500 sf per room.

[b] Assumes 35 sf/child.

Source: Air Quality Handbook, SCAQMD 1993.

Natural Gas

Environmental Setting

The Southern California Gas Company supplies natural gas to the project area. The closest extension of a natural gas pipe line is a 4-inch line at Tupelo Ridge Drive and San Francisquito Canyon Road in the City of Santa Clarita. There are currently no plans to expand the capacity of this line. No natural gas is consumed on the project site.

Environmental Impacts

Using standard consumption factors, Table 5.10-9 provides the calculated natural gas consumption of the project. At full buildout, a total of 17.5 million cubic feet per month (cu ft/mo) will be consumed by the project.

TABLE 5.10-9
PROJECT NATURAL GAS CONSUMPTION

Land Use	Consumption Rate	Size	Total Consumption
Single-Family Residential	6,665 cu ft/mo/unit	1,927	12,843,455 cf/mo
Multi-Family Residential	4,105 cu ft/mo/unit	1,073	4,404,665 cf/mo
Commercial	2.9 cf/sq ft/mo	50,000	145,000 cf/mo
School	2.0 cf/sq ft/mo	49,000	98,000 cf/mo
Swim/Racket Club	4.8 cf/sq ft/mo	9,000	43,200 cf/mo
			17,534,000 cf/mo

Source: Southern California Gas Company.

As a public utility, the Gas Company is required by the Public Utilities Commission to provide service to all customers. According to the Gas Company, service to the site can be provided with minimal infrastructure improvements, such as line extensions and regulator stations (Whalen 1993). With the approval of the proposed project, installation of gas mains to the site will be needed. SCGC anticipates that the necessary lines can be extended to the project site with the extension of Copper Hill Drive, which will be required to access the site if the project is constructed. No significant adverse impacts on natural gas facilities or resources are expected from implementation of the proposed project.

Cumulative Impacts

Natural gas service to the proposed project and the related projects (see Section 4.3) would be provided by the Southern California Gas Company. Table 5.10-10 calculates the natural gas consumption that could be expected with the implementation of the related projects. A total of 91,106,000 cubic feet of natural gas would be consumed monthly by the cumulative projects. The proposed project would represent 19 percent of the cumulative natural gas consumption. Although additional development would likely require the expansion of gas distribution facilities, no significant adverse impacts are anticipated. It should be noted that the project would increase the consumption of nonrenewable resources, however, this would not be considered a significant impact.

TABLE 5.10-10
CUMULATIVE NATURAL GAS CONSUMPTION

Land Use	Consumption Rate	Size	Total Consumption
Single-Family Residential	6,665 cf/unit/mo	7,688	51,241,000 cf/mo
Multi-Family Residential	4,105 cf/unit/mo	6,650	27,298,000 cf/mo
Commercial	2.9 cf/sq ft/mo	1,736,000	5,034,000 cf/mo
Office	2.0 cf/sq ft/mo	1,813,000	3,626,000 cf/mo
Hotel	4.8 cf/sq ft/mo	156,000	749,000 cf/mo
Industrial	3.3 cf/sq ft/mo	943,000	3,112,000 cf/mo
School	2.0 cf/sq ft/mo	23,100	46,000 cf/mo
		Subtotal	91,106,000 cf/mo
Project			17,534,000 cf/mo
		TOTAL	108,640,000 cf/mo

Source: Southern California Gas Company.

Mitigation Measures

Title 24 energy conservation requirements will be required of all new structures as part of the standard construction procedure. No additional measures have been identified to further reduce the natural gas consumption of the project.

Unavoidable Adverse Impacts

No unavoidable adverse impacts are anticipated related to natural gas consumption.

Sewage

Environmental Setting

Sewage collection and treatment in the project area is accomplished in one of two ways. For small single units or developments, septic sewer systems are often used, although these systems are often constrained by soils and cannot be used on a large scale. The other method is through a sewage

treatment system. In the Santa Clarita area, sewage generated by urban development is processed by the Los Angeles County Sanitation Districts. The proposed project would utilize a sanitary sewer system.

At present, the project site is outside the service area of the Sanitation Districts. The project site would have to be annexed into the service boundaries of Districts Nos. 26 and 32, which jointly serve the Santa Clarita Area. Sanitation District Nos. 26 and 32 serve the Santa Clarita Valley with two water reclamation plants (WRPs), the Saugus WRP and the Valencia WRP. These facilities are interconnected to form a regional treatment system known as the Santa Clarita Valley Joint Sewerage System (SCVJSS). The Saugus WRP has a rated capacity of 5.6 million gallons per day (mgd). All solids, and any waste water flows which exceed the capacity of the Saugus WRP, are conveyed to the Valencia WRP for treatment. The Valencia WRP has a treatment capacity of 11 mgd, which includes a recent 3.5 mgd expansion that occurred in December of 1994. The treatment capacity for the SCVJSS is currently 16.6 mgd. According to the county's Development Monitoring System, the current flows to the SCVJSS are 14.89 mgd, resulting in 1.71 mgd of excess treatment capacity. The Sanitation District also has the capability to store excess flows beyond its peak treatment capacity and treat the sewage during non-peak periods. This process was used as recently as December of 1994 when treatment capacity was not able to keep up with flows. The process is accomplished with equalization tanks constructed by the District.

The second phase of the Valenica WRP expansion is a 2.5 mgd expansion planned to be online in 1998 and provide sufficient treatment capacity until 2002. After the completion of the expansion, the total treatment capacity of the SCVJSS will be 19.1 mgd. The practical site capacity for the SCVJSS is 28.10 mgd. The environmental impact of additional plant discharge has been evaluated in *Solids Processing Facility for Stage 4*, State Clearinghouse No. C06408211, dated February 1992.

The Sanitation Districts operate and maintain trunk lines in the Santa Clarita area. Local sewer lines, which are not maintained by the districts, convey wastewater from a development to the trunk lines. Three trunk lines could serve the project site (see Table 5.10-11).

Environmental Impacts

Threshold of Significance

The proposed project would be considered to have a significant impact if sewage flows from the project exceed the planned capacity of the SCVJSS or sewage generated by the project would exceed the capacity of the trunk sewer system.

TABLE 5.10-11
TRUNK SEWER LINES

Name	Size	Design Cap.	Peak Flow (mgd)	Year of Last Flow Measurement
Ave. Scott Trunk Sewer	21"	6.0 mgd	0.75 mgd	1992
Rye Cyn. Trunk Sewer	10"	2.3 mgd	0.4 mgd	1992
Bouquet Cyn. Relief Sewer	24"	12.5 mgd	6.0 mgd	1992

Source: County of Los Angeles Sanitation Districts 1992.

Impacts

Table 5.10-12 calculates the average daily sewage generated by the proposed project, based on generation factors supplied by the Sanitation Districts for each land use. A total of 0.72 million gallons per day (mgd) would be generated by the proposed uses. The flows generated by the project, as shown in Table 5.10-12, would consist of the average daily flows that would require treatment by the SCVJSS. The sewage generated by the proposed project would consist of 3.7 percent of the maximum capacity of the SCVJSS in the year 2002 and 5 percent of the existing daily flows of the both WRPs. The project's sewage generation plus the existing generation would total 15.61 mgd which is less than the capacity of 16.6 mgd. Since the project would only represent a small portion of the total demand of the SCVJSS and sewer connection fees paid by the developer would contribute the project's fare share towards the necessary future expansion of the system, no significant impacts are anticipated.

To determine the necessary sewer line capacities needed for the project, Sikand Engineering developed a sewer master plan for the project. As calculated, the project would generate maximum flows of 3.69 cubic feet per second (cfs). A flow of 3.69 cfs would exceed the capacity of local sewer lines, so the project would require the extension of lines to the district's treatment plant.

Four options exist to convey sewage generated by the project to the Sanitation District treatment system. Of the four systems, two would require disturbance of San Francisquito Creek's banks. For purposes of this environmental analysis, one of the four alternative systems is assumed to be used for the project. If one of the systems that requires disturbance of natural areas is to be used, separate environmental analysis would have to be performed.

TABLE 5.10-12
PROJECT SEWAGE GENERATION

Land Use	Generation Rate	Size	Total Generation
SF Resid.	260 gpd/unit	1,927 units	501,020 gpd
MF Resid.	156 gpd/unit	1,073 units	167,388 gpd
Commercial	325 gpd/1,000 sf	50,000 sf	16,250 gpd
School	20 gpd/student	1,400 students	28,000 gpd
Swim/Racket Club	125 gpd/1,000 sf	20,000 sf	2,500 gpd
		TOTAL	715,158 gpd/ 0.72 mgd

The proposed sewage conveyance system would require two pump stations located onsite, one to pump flows from the apartments in Planning Area D to the main pump station, and a main pump station to convey flows to a higher elevation where gravity flow lines exist. The main station would be located at the low point of Copper Hill Drive and transport flows to a high point on Copper Hill Drive, 6,200 feet southwesterly of the project site. From the high point, gravity flow lines would be constructed to convey flows along the future extension of Copper Hill Drive to the terminus of an existing trunk line north of Avenue Scott in Rye Canyon Road. According to Sikand Engineering, projected lack of adequate capacity in this trunk line resulting from related development would require the project applicant to construct a parallel trunk line all the way to District 32's treatment plant on the west side of Interstate 5. Because this system would be sufficient to convey the sewage generated

by the project to the Sanitation District's treatment plant and would be constructed by the project applicant, no significant impacts to the County sewage system are expected. Since the proposed conveyance system would follow existing rights-of-way, no significant secondary impacts are associated with this system.

Cumulative Impacts

The cumulative study area for sewage impacts is defined by the combined service boundaries of Sanitation District Nos. 26 and 32. Cumulative sewage generation has been calculated by the County's Development Monitoring System, and a further extrapolation has been performed to determine impacts at a horizon year 2000, at which point the proposed project is assumed to be fully constructed. Appendix E provides the methodology and detailed analysis of cumulative sewage calculations. Table 5.10-13 summarizes the cumulative sewage demand of the SCVJSS. Cumulative projects (pending, approved, and recorded maps) would theoretically generate a total of 10.98 mgd of sewage by the year 2010. In the year 2000, the related projects would generate 4.08 mgd of sewage, which when combined with the proposed project, would ~~total 4.8~~ mgd in the year 2000. The total demand (existing, plus project, plus cumulative) would be 19.69 in the year 2000. The planned capacity for the year 2000 is 19.1 mgd. Thus, a deficit of ~~0.59~~ mgd could potentially occur. However, the peak capacity of the SCVJSS is 25.1 mgd. Since the SCVJSS would likely need expansion beyond 19.1 before the year 2000, the additional cumulative sewage could be treated. The practical site capacity of the SCVJSS is 28.1 mgd. Cumulative demand, including the proposed project, by the year 2010 would generate 26.55 mgd, which is 1.55 mgd below the system's practical capacity. At this time, it is not known whether the Newhall Ranch Project discussed in Section 4.3 will connect to the SCVJSS, thus adding to the cumulative sewage flow to the system. Cumulative increases to the SCVJSS would be considered a significant cumulative impact. As a means to mitigate this impact, individual developments would be required to pay the Sanitation District connection fees to fund future expansions of the treatment system as has been done in the past. Since the present practical site capacity of the SCVJSS is 28.1 mgd, future expansions are feasible and could be met through the payment of fees which would offset impacts to the district. It should be noted that the Districts are presently updating the SCVJSS facilities plan to determine the future service needs and system expansion phasing to accommodate the growth projected by SCAG in the RCP.

TABLE 5.10-13
CUMULATIVE SEWAGE DEMAND

			Year 2000 Conditions[a]			Long-Term Future 2010 Conditions		
Land Use	Demand (mgd)	Existing Demand (mgd)[a]	Cumulative Demand (mgd)	Capacity (mgd)	Deficit[b] (mgd)	Demand	Capacity (mgd)	Surplus (mgd)
Buildout								
Project	0.72	0						
Related[c]	4.08	0						
Total	4.80	14.89	19.69	19.10	0.59	26.55	28.10	1.55

[a] Per County of Los Angeles DMS 3-28-95. Additional capacity beyond the 1997 capacity may be online by project buildout. Practical SCVJSS site capacity is 28.1

[b] The peak capacity of the SCVJSS is 25.1 mgd, thus sewage could be treated even with a deficit of capacity.

[c] Related project demand is estimated for the project buildout year (2000). See Appendix E for related projects calculations.

Source: Los Angeles County Sanitation District letter dated October 6, 1993, Appendix B.

It should also be noted that existing projections for future growth by the Sanitation District are based on projections of regional growth in the 1991 Air Quality Management Plan (AQMP), which is based on the 1989 Growth Management Plan. The project applicant is requesting a plan amendment to increase the allowable density of the site by approximately 2,000 units. The additional sewage demand created by the residential units above the existing allowed densities could be considered inconsistent with County growth estimates because the estimates are based on existing general plan land use designations. Therefore, other lands with entitlement for urban uses could be precluded from development in the future because of a lack of sewage capacity. This would be considered an adverse cumulative impact. However, it cannot be determined with any certainty if all areas with entitlements will ever be built, and thus require sewage treatment capacity. The Sanitation Districts have indicated that additional sewage generated by future development will be met by expansions of the system (Christensen 1994). The Sanitation Districts have indicated that they will update the planning for facilities based on the growth projected in the 1994 RCP.

It should also be noted that the population projections contained in the 1994 Regional Comprehensive Plan (RCP) and the 1994 AQMP were formally adopted by the Southern California Association of Governments and the South Coast Air Quality Management District in mid-1994. For additional discussions of regional growth projections, see Section 5.9.

Mitigation Measures

Payment of sewage connection fees to the Sanitation Districts and construction of new sewer lines to service the project would mitigate project and cumulative impacts to the wastewater treatment system.

Unavoidable Adverse Impacts

No significant unavoidable impacts on the sewage treatment and distribution system would result with the payment of sewage connection fees and the proposed development phasing plan.

Water

Environmental Setting

Potable water supply is provided to the Santa Clarita Area by one wholesale water agency, the Castaic Lake Water Agency (CLWA). Four local retail water purveyors contract with the CLWA to provide water service for domestic and other needs. The Valencia Water Company (VWC) is one of the four water purveyors in the area and would be the closest service area to the project site. The Newhall County Water District could also potentially serve the project site. Presently, the service areas for the CLWA and the VWC do not include the entire project site. A portion of the site is within the CLWA service area and none of the VWC's service area includes the project site.

Existing water supplies for the Valencia Water Company consist of groundwater resources and an entitlement from the State Water Project through the CLWA. Groundwater sources of water are obtained from wells operated by the VWC. State water entitlements through the CLWA provide an additional supply. According to the County, the total water supply available to the Valencia Water Company is 35,800 AF/Y.

The overall water use in the VWC service area is 17,655 AF/Y according to the Department of Regional Planning[1]. This is 18,145 AF/Y less than the supply of 35,800 AF/Y. Future water supplies can be increased by obtaining new groundwater resources or receiving additional water from the CLWA. There are two constraints on the CLWA's ability to increase water supply; the capacity of their water treatment facilities and the availability of water from their State Water Project entitlement along with other sources such as groundwater.

Existing water lines operated by the VWC are located approximately at the intersection of Copper Hill Drive and Seco Canyon Road.

Environmental Impacts

Threshold of Significance

The proposed project would result in a significant impact if water supplies were not available to meet the demand of the project, if water transmission facilities would require extensions through undisturbed areas, or if no water provider serves the development.

Impacts

Table 5.10-14 calculates the water demand of the proposed project. Calculations for open space water consumption were prepared by HRP landscape architects. Calculations for water used to maintain water levels within the lake system was based on information provided by the Limnion Corporation.

As shown in Table 5.10-14, total water consumption of the proposed project would be approximately 2,814 acre-feet per year. Of this amount, 1,345 acre-feet would be required for non-potable uses (i.e., maintain the water level of the lakes and irrigation of open space). The remaining 1,469 acre-feet of water would be used for potable water consumption. However, the project site is not within the service boundaries of the Valencia Water Company. According to Richard Hackney, the Valencia Water Company is not in the position to serve the project because the project lies partially outside of the Castaic Lake Water Agency Boundaries. Because the CLWA cannot serve areas outside of its service area, additional state water from the CLWA would not be available for Planning Area C to offset the proposed project's consumption if it remains outside of the service area.

[1] According to Development Monitoring System Report of March 1995.

A total of 2,814 acre-feet of CLWA supplies would be consumed by the project. The project's consumption is 15 percent of the water surplus available to the VWC. With the annexation of the project into the VWC service boundaries and the commitment of water supplies for the project, no significant impacts are anticipated.

TABLE 5.10-14
PROJECT ANNUAL WATER CONSUMPTION

Land Use	Consumption Rate (in AF)	Size	Total Consumption
SF Resid.	0.59/unit	1,927 units	1,137 AF
MF Resid.	0.25/unit	1,073 units	268 AF
Commercial	4.4/acre	5 acres	22 AF
School	0.03/student	1,400 students	42 AF
	Subtotal Urban Uses (potable water)		1,469 AF
Open Space[a]	variable	1,142 acres	1,160 AF
Water Quality Lakes[b]			185 AF
	Subtotal Non-potable Water		1,345 AF
	TOTAL		2,814 AF

[a] Includes Open space, landscaped areas and club use.
[b] Water consumption for lakes was determined from the projected water evaporation of each of the lakes during the summer months. Any water loss resulting from evaporation and seepage during the winter months would be offset by seasonal runoff draining into the lakes.

Sources: County of Los Angeles Development Monitoring System, HRP LanDesign 1993, and Limnion Corporation 1993.

Water Annexation Policies

Before the project site can be entirely served by the CLWA, part of the site would require annexation. The policies for annexation to the CLWA require that the applicant for any annexation (minimum of 250 acres) shall arrange for additional water supplies to be brought to the CLWA in the amount that the project's highest and best use would consumption in acre-feet, except for areas devoted to open space. The water must be either State Water or if from other sources, must be no more subject to loss or interruption than water of the SWP.

The objective of this policy is to avoid diversion of existing water allotments to an annexed area where the existing allotment may not be sufficient to serve further development within the Agency as, if and when such development may be approved by city/and or county planning agencies. An additional stipulation of the policy is that the agency shall experience no financial burden to the rest of the agency on account of the proposed annexation.

Besides the Agencies Board, annexations must be approved by the Director of Water Resources of the State of California and the relevant Local Agency Formation Commission (LAFCO) must process and approve changes in Agency boundaries to the extent required by California law.

In order to meet the requirements of annexation procedures, the CLWA is currently looking for water supplies to offset the consumption resulting from the portion of the project site proposed for annexation into its service boundaries.

Water distribution lines are currently located in close proximity to the project site. With the extension of Copper Hill Drive, water transmission lines could easily be extended to the project site, assuming that the VWC provides water service. No significant impacts are anticipated. If another water purveyor provides water supply to the project site, water transmission facilities would have to be extended and additional environmental analysis would be required.

Cumulative Impacts

Cumulative water impacts have been determined using the Department of Regional Planning's Development Monitoring System. According to the DMS analysis, cumulative water demand for the Valencia Water Company is 10,778 acre-feet per year, which includes the proposed project. Cumulative demand would represent 61 percent of existing demand, although existing plus cumulative

demand (17,655 AF + 10,778 = 28,433 AF) would be less than the water company's current supply of 35,800 acre-feet per year.

Mitigation Measures

The following mitigation measures would be required to mitigate significant impacts:

1. Prior to final recordation of the tentative tract map, the project applicant shall provide proof of available water supply sufficient to meet the projected demand of the project. If water service is provided by a water purveyor other than the Valencia Water Company, it is likely water transmission lines would require disturbance through natural areas. If this is to occur, further environmental analysis would be required.

Unavoidable Adverse Impacts

With the incorporation of identified mitigation measures, impacts to water services resulting from project implementation would be reduced to less than significant levels.

5.11 *CULTURAL RESOURCES*

This section consists of a summary of the Phase 2 *Historic Resources Investigation for the Proposed Tesoro Del Valle Development, Los Angeles County, California*, prepared by Cultural Resource Management Services in August of 1993. This report in its entirety is located in Technical Appendix H of this EIR. The Phase 2 investigation was prepared to further the recommendations presented in the Phase I investigation prepared by CRMS. The Phase 1 investigation included a literature search, field investigations, and description of onsite resources. The Phase 2 report contains a summary of the information and findings of the Phase I investigation, while providing additional information and analysis regarding the historic resources present at the project site. A structural engineering report assessing the damage to adobe structures from the 1994 Northridge earthquake is also located in Technical Appendix H.

ENVIRONMENTAL SETTING

Cultural History

In general, there are approximately seven historic periods that define the cultural history of the project area. These are the Prehistory, Spanish Occupation, Mexican California, American California, Commercial Development 1870s-1900s, Continuing Commercial Development 1900s-1960s, and Suburbia 1970-Present. A brief synopsis of these periods in provided below (a full discussion is located in Technical Appendix H):

- **Prehistory**--This period is divided into three broad sub-periods: the Paleoindian, Early, and Pacific. Paleoindian lifestyles were nomadic and ended about 10,000 years ago. During the early period, native peoples changed lifestyles from reliance on large game to exploiting small game and using plant resources (such as collecting seeds). No sites dating to these two periods are known to be located in the project area. During the Pacific period subsistence of native groups in California shifted from using a diversity of food items to use of a few major staple resources. In interior valleys, acorns, seeds and deer were some of the main resources of the area's inhabitants.

- **Spanish Occupation**--The Spanish occupation covered the period of 1769 to 1821. Prior to the Spanish arrival in 1769, a group similar to the chumash indians called the Tataviam, localized the project area and lived in villages up to 200 people. This group ate yucca buds, acorns, sage seeds, juniper, and other berries, small mammals, deer, and perhaps antelope. Several historical villages are known to exist in the region. By 1810, all of Tataviam had been baptized into the Mission and

numbers of these people dwindled due to disease. By 1916 there were no native speakers left.

The Spanish set up a mission in the Santa Clarita area in 1797 when father Fermin Francisco Lasuen established Mission San Fernando Rey. One of the reasons it is thought for the creation of this mission was to provide a waystation in the route of El Camino Real, which connected all the California missions. Missions attempted to be self-sustaining economic units supported by agriculture and stock raising.

- **Mexican California**--Mexican rule began in 1821 and continued until 1848. In 1839 with the mission system secularized, Rancho San Francisco was granted to Don Antonio del Valle. The Rancho included a southern portion of the project area and provided for a stable enterprise of crop and livestock production. In 1842 gold was discovered in Placerita Canyon, which was part of the Rancho.

- **American California**--This period ranged from 1848 to the 1870s. The discovery of gold was a prominent factor in the settlement of the Santa Clarita area, however, other entrepreneurial activities based on commercial ranching, agriculture and land development were the main stay of this period. Transportation was important during this period and San Francisquito Canyon was one of the passages that acted as a main route.

- **Commercial Development 1870s-1900s**--During this period the discovery of oil and the continued prominence of transportation dominated the development and lifestyle of the Santa Clarita area. Prior to 1876, stage coaches provided transportation service, but it was unreliable. In 1876, railroad service began, and the area was served daily by passenger and freight trains.

- **Continued Commercial Development 1900s-1960s**--During this period continued advances in transportation increased the traffic traveling through the Valley. In addition, ranch life was a major occupation of those who resided in the area. IN 1913, Harry Carey bought a portion of Rancho San Francisco from the Newhall Land and Farming Company, and created his ranch. Later in 1951 the ranch was sold to the Clougherty family. The Newhall area, which includes the project area, was frequently used during this period for shooting locations of movies. In the 1920s, water resource transportation and exploration was a dominant theme in the area. Between 1924 and 1926, St Francis dam was constructed in San Francisquito Canyon and had a capacity of approximately 38,000 acre-feet. In 1928, the dam broke and sent a wall of water down the canyon where it causes an estimated $10,000,000 in property.

- **Suburbia 1970s-Present**--Ranching and recreation continued as prominent activities in the area during the 1940s and 1950s. With the completion of the 405 Freeway, and later the 210 Freeway, travel became easy between the Santa Clarita Valley and urban Los Angeles. During the 1980s and 1990s, the Santa Clarita are became a bedroom community of Los Angeles resulting in numerous subdivisions and supporting commercial services.

Project Site Cultural Environmental Setting

General

Topographically, the area encompasses a section of rugged valley escarpment on the west side of San Francisquito Canyon. The project area straddles a divide. Most of the drainages in the project area except San Francisquito Canyon itself are low-ranked and have small catchment areas. In the project area away from San Francisquito Canyon there is a very little flat area that would lend itself to settlement.

The small catchment areas result in a paucity of water in watercourses except in the wettest seasons. No permanent water sources such as springs or seeps were noted. This situation is reflected in the relative paucity of plant and animal resources suitable for prehistoric exploitation. Although in pre-contact times the vegetation would have been dominated by native species, there is no indication that the overall biomass would have been higher. No outcrops of bedrock were noted in the project area.

Onsite Resources

Three onsite historical resource areas were identified and catalogued during the Phase 1 investigation for the proposed project. The locations of these sites is shown in Exhibit 5.11-1. Two of the sites, (LAN-2070H and LAN-2071H) are structures that define the existing ranch buildings and define what has been identified as a potential national historical district. The third site, LAN-2072H, is a debris scatter identified in the northern portion of the site.

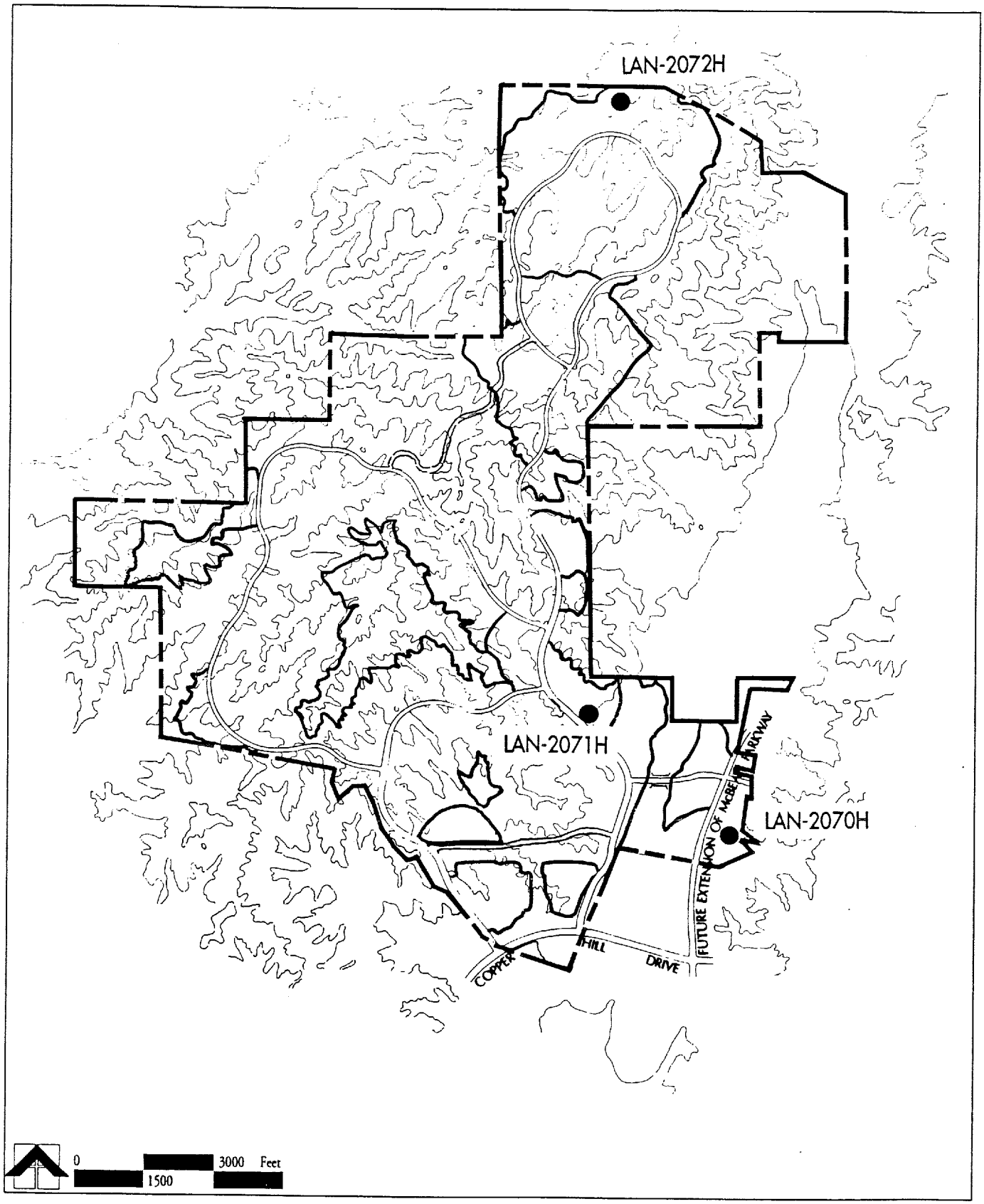
The Harry Carey Ranch may qualify for listing in the National Register of Historic Places as a district for its historical and architectural significance under Criteria A, B, and C (see threshold of significance below). District boundaries encompass the historic boundaries of the Harry Carey Ranch as defined by the contributing buildings, the sites of buildings no longer extant, but which are associated with the history of the ranch, and the related viewshed. The district contains 17 buildings and structures, of which nine contribute to the historical and architectural significance and eight do not contribute (see Table 5.11-1). Exhibit 5.11-2 illustrates the location of these structures. Contributing buildings were defined as those erected by the Careys during the period of significance and which were important to the historic associations of the ranch and/or which were constructed of adobe. Non-contributing features were defined as those erected after the period of significance or those which were built during the period of significance but are (a) considered secondary to the

historic themes represented by the ranch, (b) too altered since the period of significance, or (c) not constructed of adobe.

TABLE 5.11-1
CONTRIBUTING AND NON-CONTRIBUTING BUILDINGS AND STRUCTURES

Description	Date	C/NC
Main House (Building 5)	1932	C
Upper Garage (Building 7)	Ca. 1925	C
Lower Garage (Building 6)	Ca. 1934	C
Joe's Cabin (Building 4)	Ca. 1920	C
Bunkhouse (Building 2)	Ca. 1920	C
Smokehouse (Building 3)	Cas. 1920	C
Adobe Stable (Building 1)	Ca. 1920/40	C
Wood Stable (Building 8)	1925	C
Caretaker's House (Building 9A)	1937	C
Caretaker's Garage	Unknown	NC
Bunkhouse Garage	Unknown	NC
Swimming Pool	1946	NC
Cabana	1946	NC
Lean-to	Unknown	NC
Pump House in Field	Ca. 1929	NC
Caretaker's Well	Unknown	NC
Caretaker's Water Tank	Ca. 1937	NC

Key to Abbreviations:
Ca. = Circa
C = Contributing
NC = Non-contributing
Source: CRMS 1993.



Michael Brandman Associates

exhibit **5.11-1**

Location of Historic Resources

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Tesoro del Valle

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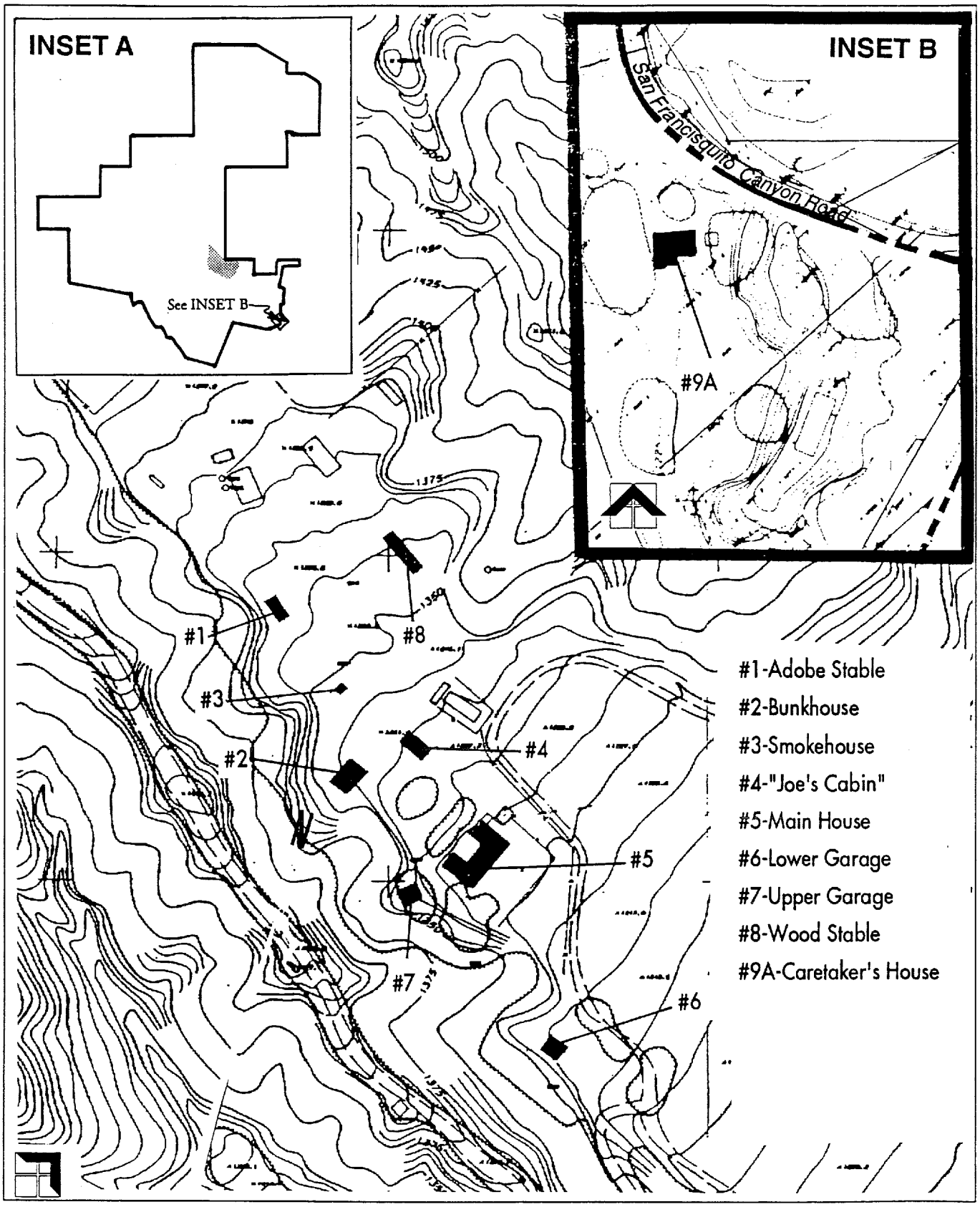

exhibit **5.11-2**

Michael Brandman Associates

Location and Identification of Contributing Historic Buildings

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Tesoro del Valle

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Eight of the contributing buildings are clustered on the gently sloping floor of a canyon, 0.6 mile west of San Francisquito Creek and open fields. These buildings include the main residence, guest and bunkhouses, and related outbuildings. The ninth contributing building, the caretaker's house, is located next to San Francisquito Canyon Road. Two of the contributing buildings, the main house and the caretaker's residence, appear to be eligible for listing in the register both individually and as contributors to a historic district. The remaining seven buildings appear to quality only as contributors to a district.

Non-contributing buildings and structures are mostly sited to the north of the main complex and in the vicinity of the caretaker's residence. They include a swimming pool and cabana, assorted ranch and water-related structures, and two garages. For a full description of these structures, refer to Technical Appendix H.

On January 17, 1994, the Northridge earthquake caused the subject property to experience severe ground shaking. As a result of the initial earthquake and its subsequent aftershocks, the adobe buildings located onsite were damaged to varying degrees. To assess the structural integrity of the buildings, the applicant directed R.C. Delphey Engineering, Inc., to inspect the buildings. A copy of the report is contained in Technical Appendix H. Six contributing buildings were inspected by the engineer, including the Caretaker's House (#9), the lower garage (#6), the main house (#5), the upper garage (#7), the bunkhouse (#2), and the adobe stable (#1). Of these six surveyed buildings, all but the main house and the adobe stable were found to be unsafe and recommended for demolition.

Offsite Resources

A historic cemetery (CA-LAN-1448H) adjacent to the northeastern boundary of the site has been previously recorded. Recorded by Blietz and Raab (1990), the cemetery is the Ruiz family cemetery and it contains approximately 50 graves, most of them with Hispanic names. The oldest marker dates to 1882. Several members of the Ruiz family killed in the dam disaster are buried in a family group. A number of headstones (small crosses cast of concrete) mark the graves of non-related people who were killed in the San Francisquito Dam disaster. One large stone was erected by the Newhall Cowboys in memory of the flood victim.

For a discussion of additional offsite resources, refer to Technical Appendix H.

ENVIRONMENTAL IMPACTS

Threshold of Significance

The proposed project would result in a significant impact if it would alter the characteristics of a nationally recognized historic structure, or if it would impact a significant archaeological resource. A national recognized resource is considered for this analysis to be a resource eligible for listing in the National Register, which would be considered significant by the National Historic Preservation Act of 1966, as amended through 1992, and under the CEQA. The following criteria provide a basis for judging the significance of a resource for the National Register:

> The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:
>
> a. That are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b. That are associated with the lives of persons significant in our past; or
>
> c. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> d. That have yielded, or may be likely to yield, information important in pre-history or history.

Methodology

Six research methods were utilized to gather historical data for the project site and surrounding area, as well as to provide a context for which to compare the significance of the resources present at the site. The methods used include: *Oral interviews* were conducted with present and past owners, relatives, and inhabitants of those who lived on the project site during its development; *Library Research* was undergone to review published sources of biographies, historical descriptions of the movie industry, architectural histories, magazines, and newspapers. The American Film Institute and the Academy of Motion Pictures were contacted for information on the career of Harry Carey. Southwest Building and Contractor was previewed to identify reference of the ranch and the Los Angeles Public Library's History Department was contacted for materials regarding adobe structures;

Tax Assessor's Files were consulted to verify ownership and attempt to determine when improvements were made; *Historical Photographs* were reviewed for data on the locations and appearance of buildings, and to identify damage caused by the 1928 flood; *The Gene Autry Western Heritage Museum* was contacted to review western motion pictures; and finally *Field Investigations* were performed to inspect and photograph structures and inventory artifacts at the archaeological site (LAN-2072).

Assessment of Significance

Historic Significance of the Ranch: Criteria A and B

The historic significance of the Harry Carey Ranch is derived from its close association with the life and work of Harry Carey, an actor whose career flourished during the silent films of the teens and '20s, and continued to thrive until his death in 1947. As a writer and co-director in collaboration with John Ford from 1917 to 1921, Carey contributed to the development of the western film and was a major influence on Ford's style as a director. Although best known for his westerns (such as "Straight Shooting [1917]), Carey was acclaimed for many of his nonwestern roles as well, and was nominated in 1940 for an Academy Award for his performance in "Mr. Smith Goes to Washington." The ranch was home to Harry Carey and his family throughout most of his career.

The historic significance of the Harry Carey Ranch also is derived from its role as an authentic re-creation of the west that Carey represented on the screen and as a magnet for those who portrayed the mythic west to the American public. It was a working, self-supporting ranch in contrast to the back lots and movie ranches of the studios. In its heyday, it provided the additional attractions of a wild west show and trading post complex with resident Navajo craftsmen. The Harry Carey Ranch became a gathering place for the actor cowboys, directors, writers, and producers who created the western movie; and for painters and writers who depicted the old west in art and literature.

A chronological account of the film career of Harry Carey and a discussion of his importance as a historical figure in the development of the western film is located in Technical Appendix H, Section 8.2. This detailed account is necessary because of the lack of a comprehensive published biography that could otherwise be summarized and cited. The association of the ranch with an important historical figure qualifies the ranch as significant under National Register criterion B.

An account of the history of the ranch during its occupation by Harry Carey also is provided in Technical Appendix H. This account contributes to the argument that the ranch is significant under

criterion B by documenting its association with Carey's life and career. It also supports the ranch's significance under National Register criterion A by documenting the important activities and events and their role in the broader patterns of western American history.

Architectural Significance

The Harry Carey Ranch meets criterion C for listing in the National Register of Historic Places in that it embodies the distinctive characteristics of a type, period, or method of construction. Specifically, it is significant as an example of adobe architecture from the Adobe Revival of the 1920s and 1930s. Although adobe is one of the oldest building materials to be used in California, relatively few adobe buildings have survived to today. Adobe has been favored during three historic periods in California's architectural history: the Spanish-Mexican Colonial era (dating from c. 1769 to c. 1835 for architectural purposes), the Monterey Colonial period (c. 1835 to c. 1875), and the Adobe Revival years (c. 1920 to c. 1946). Between the Monterey Colonial and Adobe Revival phases, Mission and Spanish Colonial Revivals took hold of the popular imagination, and laid the groundwork for the rekindling of interest in adobe construction.

Archaeological Resource Assessment

Archaeological Resources related to the Harry Carey Ranch would be limited to structures of ranch that are either buried or have been relocated. During the site investigations, no foundations or destroyed buildings were found. It is possible that remains from flood demolished structures of the historic ranch could be located under silt within the project area or downstream outside the project boundaries. Because of the devastating effects of the flood, the potential for locating or retrieving any of these structures is slight.

Archaeological site LAN-2072 is a historical debris scatter probably resulting from a single disposal incident ca. late 1950s-early 1960s. The debris includes various cans, bottles, pipe, a padlock, and lids. None of the items are heirlooms. Although the site might contain some subsurface deposits, any artifacts would probably not alter the observations made though a surface inventory. The site does not have the potential to yield important historic data and thus would not appear to meet the criteria for significance under CEQA (Appendix K) or the National Historic Preservation Act.

Impact Analysis

The proposed project would impact the Harry Carey Ranch, a potential historic district that encompasses two groups of buildings and structures (previously designated CA-LAN-2070 and 2071), as well as their historic setting. The foregoing historical and architectural evaluation of the resources indicates that the resources are significant as a district, because of their association with the life and work of Harry Carey; their role as an authentic re-creation of a working western ranch that served as a gathering place for actors, directors, writers, and artists who portrayed the mythic American west to the public; and their architectural value as a unique grouping of adobe buildings, which includes one outstanding example of Monterey Colonial Revival design executed in adobe.

The current proposed project plan would preserve one focal element of the district, the main house (Building 5). Due to the January 1994 earthquake, the caretaker's house (Building 9a) would be demolished because of its structural damage. The bunkhouse (Building 2) and "Joe's Cabin" (Building 4), which are contributing buildings, originally would have been preserved through integration with the proposed project design. However, due to structural damage, these buildings will also require demolition. These are the most significant adobe structures on the site. The remainder of the minor buildings and structures would be demolished for the placement of fill, road construction, and proposed uses. Thus, the proposed project plan would remove eight of nine contributing buildings from a group that appeared eligible for a National Register historic district. Two impacts are identified: loss of the individual buildings through demolition and loss of the historic district through removal of eight of its contributing elements.

The proposed site plan also would alter the historic setting of the district. Removal of the ranch outbuildings would change the historical character of the district from an agrarian to a suburban image. The individual setting of the main ranch house would be affected as well. At present and throughout history, there has been an unobstructed view of the main house from the public right of way profiled against the hills. Placement of the road in close proximity to the house would affect the view to and from the house.

Construction activity (use of heavy equipment, etc.) may affect the adobe building that is planned for preservation.

The change in occupation and use of the preserved building and the presence of the surrounding proposed development would also result in potential impacts through deterioration and vandalism unless a plan for preservation is developed and implemented.

The proposed project would not affect known significant archaeological resources.

Offsite resources are not anticipated to be directly affected by the project. The introduction of additional population into the area could result in indirect impacts from human presence, but, given the location and type of offsite resources, indirect impacts are not anticipated to be significant.

CUMULATIVE IMPACTS

Because the historic resources identified at the project site are limited to the site boundaries, the implementation of the related projects listed in Section 4.3, would not cumulatively affect the resources present at the site. The project site does not contribute to the context of offsite historic or archaeological resources; thus, the development of the project would not cumulatively impact any unknown offsite resources.

MITIGATION MEASURES

While avoidance of impacts is the preferred mitigation for significant historical resources, to do so would render the proposed project infeasible. As part of the federal review process for the project, the Army Corps of Engineers will require a cultural report to be completed for the project pursuant to Section 106 of the National Historic Preservation Act, as amended through 1992. This process requires consultation with the Advisory Council on Historic Preservation (ACHP) and the State Historic Preservation Office (SHPO) to develop a mitigation plan that reduces adverse effects on historic resources. The end product of the 106 process is a Memorandum of Agreement (MOA) among the Corps, SHPO, which also provides consultation on the significance of historic resources, and the ACHP, with the permit applicant signing as a concurring party. The MOA will stipulate the mitigation measures, which are expected to follow federal standards and guidelines. The following measures can be expected in the MOA:

- Historic American Building Survey (HABS) documenting buildings and removal of buildings. This shall include photographic documentation of the buildings.
- Implementation of an Interpretive Program-this program could include a detailed historic map of the ranch, placement of markers in locations of removed buildings, display of photographs and artifact exhibits in the retained historic structures, and slide shows of the ranch.
- Archaeological monitoring during construction in sensitive areas with proper recording, evaluation and recovery of significant resources, if present.

- Fencing of historic structures during grading to prevent accidental damage.
- Sensitive landscaping to reduce impacts on the setting of the ranch, such as the use of native species (Mainland cherry).
- Development of a preservation plan to retain the condition of buildings and prevent deterioration and vandalism.

The applicant's proposed project includes the preservation of one of the most significant historical structures and its integration into the project as a historical museum. The landscaping plan has been designed to complement the existing structure, which will be used to house artifacts and pictures of the ranch as it once existed. With the implementation of the measures identified during the Section 106 process and the measures identified by the applicant in the proposed project, impacts to historic resources would be mitigated to less than significant levels.

UNAVOIDABLE ADVERSE IMPACTS

With the incorporation of identified mitigation measures, significant impacts to the loss of the historic district would be mitigated to a level that is considered less than significant.

SECTION 6
ALTERNATIVES TO THE PROPOSED PROJECT

6.1 *INTRODUCTION*

The California Environmental Quality Act (CEQA) Guidelines require that an EIR describe a range of reasonable alternatives to the project, or alternative locations for the project, that could feasibly attain the general objectives of the project. The EIR must evaluate the comparative merits of the alternatives, including the specific alternative of "no-project." The discussion of project alternatives is supposed to focus on alternatives capable of avoiding or substantially eliminating any significant adverse environmental effects. An EIR must also identify an environmentally superior alternative. If the "no-project" alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative among the other alternatives.

The range of alternatives required in an EIR is governed by a "rule of reason" that requires an EIR to set forth only those alternatives necessary to permit a reasoned choice. The key issue is whether the selection and discussion of alternatives fosters informed public decision making and public participation.

In developing the proposed project, the applicant revised the conceptual site plan as a result of review by the County of Los Angeles SEATAC. The preliminary site plan for the project, which was reviewed by SEATAC (see Section 2.3, Project History), is shown in Exhibit 6.1-1. Through the SEATAC review process several other alternatives to the proposed project were developed. Comparing Exhibit 6.1-1 with the proposed Conceptual Land Use Plan (Exhibit 3.4-1), several changes, such as the elimination of the northern access road, realignment of the interior collector road, and changes in land uses, can be identified between the two plans.

The following is a description of the alternatives considered in this EIR, which have been limited to alternatives that would avoid or substantially lessen any of the significant effects of the project pursuant to Section 15126 (d) of the State CEQA Guidelines. Of these alternatives, the EIR examines in detail only those the Lead Agency determined could feasibly attain most of the basic project objectives. These alternatives include the no-project alternative, the existing General Plan alternative, two alternatives with reduced densities, alternatives for emergency secondary access, a balanced residential/commercial alternative, and a pedestrian-oriented alternative.

Suitable alternative sites that could meet most of the primary objectives of the project have not been identified in the Santa Clarita Valley. One of the objectives of the project applicant is to provide housing for projected growth in the Santa Clarita Valley by SCAG. Based on current projections of population growth and housing absorption and the known supply of housing units in proposed and approved projects, the supply of housing may be insufficient to meet the demands of forecasted growth in the Santa Clarita Valley (See Section 5.9 Socioeconomics for additional information).

As part of the process of updating the Santa Clarita Valley Area Plan in 1990, the Los Angeles County Board of Supervisors revised the land use policy map to accommodate the need for additional housing units. As part of this process, the availability of suitable land for development was considered. This review disclosed that little undeveloped flat land was available for development adjacent to existing urban areas in County jurisdiction, and, as such, the plan was amended to provide for the projected population of 270,000 for the year 2010.

A review of comparably sized private land holdings under County jurisdiction as well as in the City of Santa Clarita was conducted to determine if these sites could serve as alternative locations that could accommodate the proposed project. The only comparably sized land holdings identified in the Santa Clarita Valley identified included the following:

- The 1,290-acre Northlake property in the Castaic area to the west of the project site.
- The 1,901-acre North River properties in the Santa Clarita area immediately south of the proposed project site.
- The 1,296-acre Santa Fe property in Placerita Canyon to the south of the site.
- The 1,886-acre Stevenson Ranch property in the Santa Clarita area to the south of the project site.
- A 1,127-acre site in the Newhall area west of the I-5 freeway to the south of the project site made up of the 798-acre Westridge site and the 329-acre Magic Mountain Resort site.
- The 966-acre Porta Bella site in the City of Santa Clarita.

Each of these comparably sized sites are owned by others and each is the site of an approved or proposed development project. As a result, none of these sites are truly an alternative site for the proposed project. In addition, it should be noted that because development projects are either approved or proposed for all of these alternative sites, these sites could not meet most of the basic

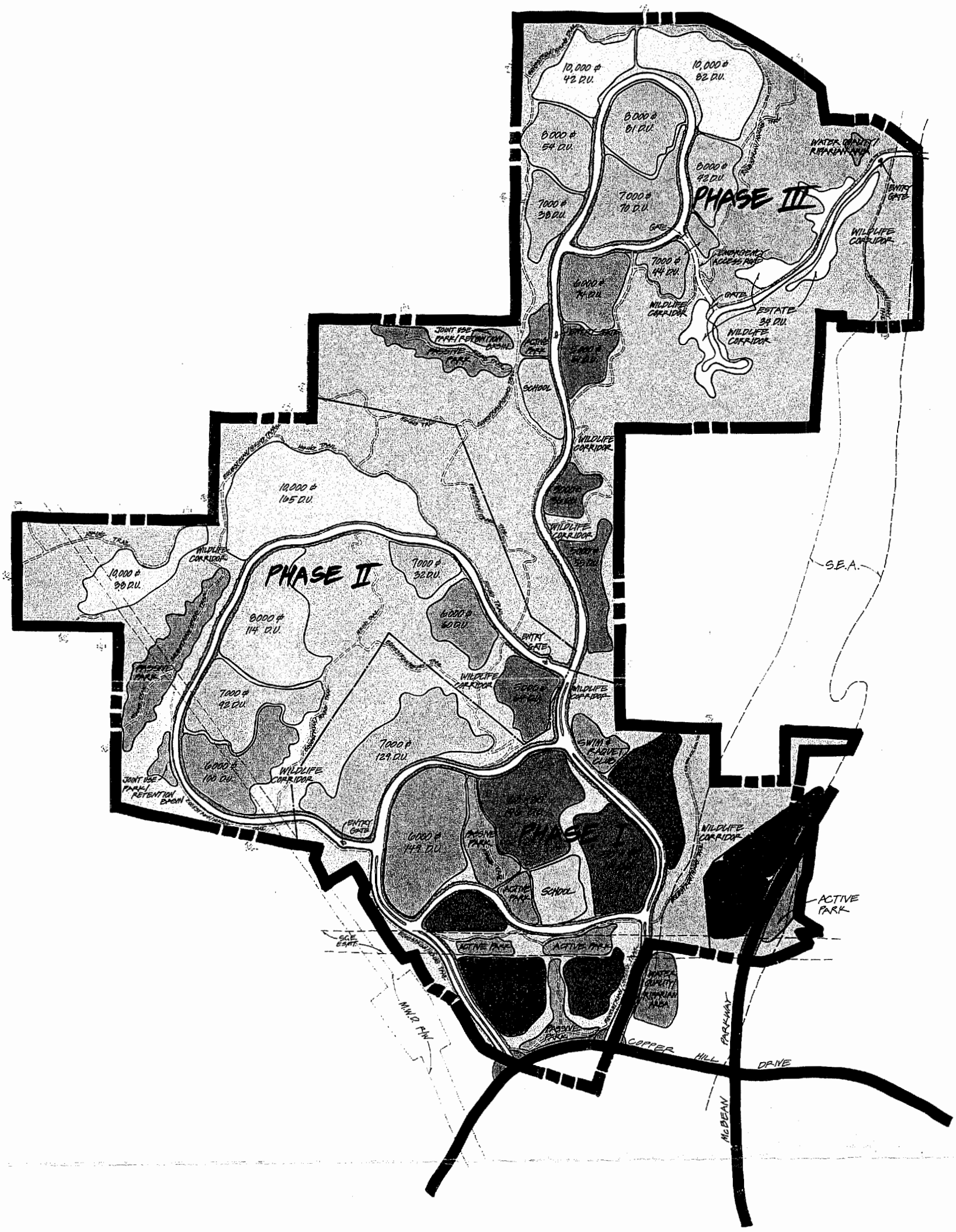


exhibit **6.1-1**

Preliminary Conceptual Land Use Plan

Michael Brandman Associates

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Hunsaker & Associates.

project objectives of the project applicant. County approval of any of these alternatives would rely on whether the required burden of proof for their need has been satisfied. Development of each of these sites was considered in the cumulative analysis of housing opportunities in the Santa Clarita Valley presented in Section 5.9, Socioeconomics. Based on this review, no comparably sized and available alternative sites were identified in the Santa Clarita Valley and no analysis of an alternative site is presented in this EIR.

6.2 *DESCRIPTION OF THE ALTERNATIVES CONSIDERED*

ALTERNATIVE 1: NO PROJECT

Purpose for Inclusion

The no project alternative is a CEQA required alternative that must be analyzed in every EIR. The no project alternative provides the decision makers with the information about the project site if no development were to occur.

The no-project alternative would assume no development occurs on the project site. Existing uses, including the ranch house, agricultural operations, house corrals, etc., would remain unchanged. Undeveloped ridgelines and canyons would remain in an open space condition as habitat and migration corridors for indigenous species of the Santa Clarita Valley. Sensitive species would not be affected by the development proposal. Significant Ecological Area (SEA) 19 would not be affected by development within the project site boundaries. Additionally, recreational uses (i.e., trails) would continue to function as such on the site.

ALTERNATIVE 2: EXISTING GENERAL PLAN

Purpose for Inclusion

This alternative provides a comparison for the decision maker and the public of the impacts of developing the subject site if no actions were requested to increase the allowable development on the site.

This alternative assumes development of the project site to the allowable densities under the 1990 Santa Clarita Valley Area Plan, which is approximately 1,000 residential units. Given the variety of land designations for residential uses in the general plan, some development of areas designated as

hillside management would be required in order to yield 1,000 units. Otherwise, a density transfer to flatter portions of the site, as encouraged by the hillside management guidelines, could be requested.

Under the existing area plan, urban densities (3.3 du/acre) would be allowed in the southern finger canyons tributary to San Francisquito Canyon. As allowed under the area plan, densities up to 6.6 du/acre can be developed in urban 1 areas with density transfers. These transfers are allowed so portions of a site that are steep or have sensitive resources can be preserved. Consequently, non-urban areas of the project site in the central and northern portions of the project site that would allow for the development of single-family residential units at a density of 1 du/2 acres, would be transferred to the urban area, as well as some of the hillside management area. Under this alternative, it is assumed that some of the hillside management areas would be developed with estate dwellings. It is assumed that no school uses would be part of this alternative. Additionally, in order to develop 1,000 units in and immediately around the portions of the site designated urban, it is assumed that the existing structures defining the ranch would have to be demolished or removed from the site.

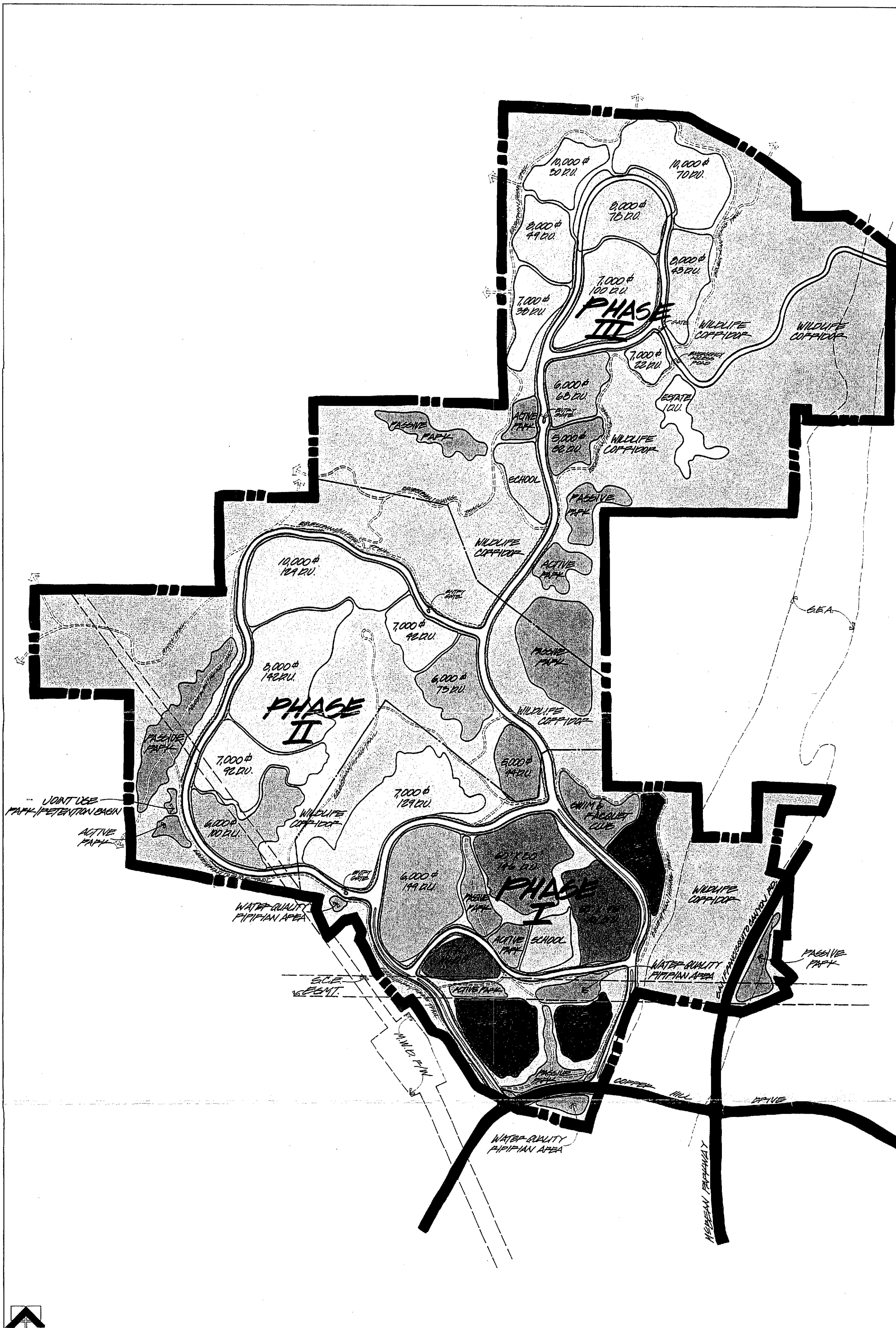
In terms of spatial distribution of this alternative, it is assumed that development of this alternative would generally be within Planning Area "A" of the proposed project, where the urban designations exist. Although some ridgelines would require grading to develop this alternative, grading would occur in a more limited area than with the proposed project. Under this alternative, most of the site (approximately 1,300 acres) would be left as undisturbed natural open space.

ALTERNATIVE 3: REDUCED DENSITY ALTERNATIVE

Purpose for Inclusion

This alternative was developed by the applicant to respond to several biological concerns raised by the Los Angeles County Significant Ecological Area Technical Advisory Committee (SEATAC) in its review of the initial conceptual plan for the project, although SEATAC found this design to be biologically unacceptable. Exhibit 6.2-1 illustrates this alternative. The most significant alterations made to the initial project design to address the concerns of the SEATAC included:

- The removal of development proposed in Planning Area D to the east of San Francisquito Creek.
- Including a 200-foot buffer from development for the SEA.



Michael Brandman Associates

exhibit **6.2-1**

Reduced Density Alternative

SEPT•24•1993

Tesoro del Valle

1627ER01

SOURCE: Hunsaker & Associates.

- Reconfiguring Phase II (Exhibit 6.2-1) to allow the collector road to become the edge of the development area.

- Increasing the densities to the west of San Francisquito Creek (e.g., substituting apartments for townhomes) to compensate for the units lost from the removal of development in Planning Area D.

With this reduced density alternative, areas of disturbance would avoid more sensitive areas and generally reduce the level of development across the site. A total of 976 of the 1,794 acre site would be developed with this alternative. This alternative would result in the construction of 2,644 dwelling units on 489 acres. In order to construct this alternative, a total of approximately 22.6 million cubic yards of cut and fill would be balanced on the site. As with the proposed project, this alternative would include both multi- and single- family residential uses.

Open space for this alternative would include 1,164 acres, which include natural open space areas of SEA 19 and a 200-foot buffer zone.

Two school sites, a swim and racket club, and approximately 40 acres of active parks would be developed under this alternative. Infrastructure improvements would be similar to the proposed project.

ALTERNATIVE 4: REDUCED DEVELOPMENT AREA ALTERNATIVE

Purpose for Inclusion

This alternative was included in the alternative analysis in order to compare a substantially reduced development footprint at a higher density. While the unit count of development is not drastically reduced (a 38 percent difference), the area of disturbance and development is concentrated in the southern portion of the site and avoids any development within San Francisquito Creek.

This alternative would consist of approximately 1,995 dwelling units, made up of both single family and multi-family residential. Exhibit 6.2-2 illustrates the conceptual plan of this alternative. Development of these units would cover 428 acres of the project site. Under this alternative only one school would be developed, the swim and racket club would remain and 24 acres of active parks would be developed. Grading for development would require the balancing of 18.8 million cubic yards of cut and fill. 1,273 acres of open space would be provided under this alternative.

In comparison to the original concept plan reviewed by SEATAC, impacts to SEA 19 would be substantially lessened under this alternative by avoiding a creek crossing at the northern portion of the site and eliminating Planning Area D from the project (formerly Phase IV located in the southeast portion of the site). While this alternative would eliminate development of the northern portion of the site, open space in the southern portion of the site preserved with the proposed project would be developed under this alternative. The majority of natural open space would exist in the northern half of the site, providing a more natural transition to the Angeles National Forest, with additional natural open space on the westernmost portion of the site.

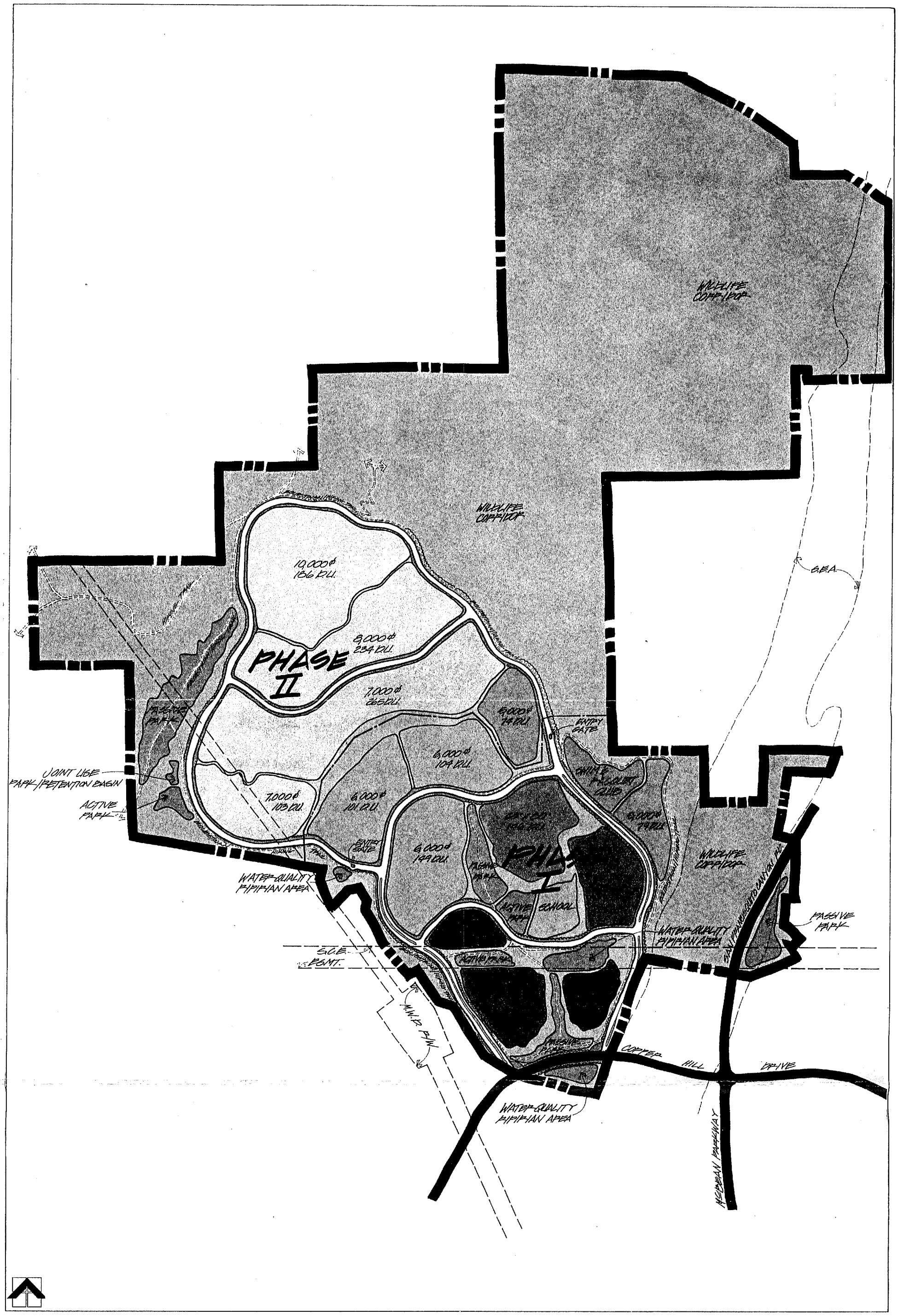
ALTERNATIVE 5: EMERGENCY ACCESS ALTERNATIVE

Purpose for Inclusion

The alternatives analyzed in this section are a result of the project applicant proposing several alternatives for future emergency access to the site to meet the concerns of the Fire Department. Six different alternatives have been identified by the applicant or the Department and one of those has been incorporated into the project design. The project has been conditioned by the fire, planning, and public works departments to include Alternative 3 (described below) as part of the project. The other five alternatives (1, 2, 4, 5, and 6) could be developed as future streets (see Exhibit 3.4-7). The fire department has required that stub roads be provided within the project site for future streets should these stub roads become necessary, or required, in the future. Because these access alternatives are reasonably foreseeable, they require environmental consideration under CEQA. However, since it is not known which of the five alternatives, if any, would be constructed in the future, they are considered within this document as alternatives. Future environmental study to determine the specific impacts of the roadways would be required once detailed alignments have been identified. The six alternatives, including the proposed bridge, are further described below.

Alternative 1: A stub road is proposed in Planning Area B to connect with a potential future development owned by Newhall Land and Farming to the south of the site. Presently, there are no immediate plans to develop this project; however, the stub road has been aligned to match a preliminary road configuration provided by the Newhall Land and Farming Company.

Alternative 2: This stub road in Planning Area A also would connect to land south of the project site owned by the Newhall Land and Farming Company.



Michael Brandman Associates

exhibit **6.2-2**

Reduced Development Area Alternative

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Tesoro del Valle

1627ER01

SOURCE: Hunsaker & Associates.

Alternative 3 (Proposed): This access would consist of a 250-foot bridge spanning the main channel of San Francisquito Creek. As proposed, the bridge would connect the main north/south collector in Planning Area A through Planning Area D to San Francisquito Canyon Road and the future extension of McBean Parkway. This access point would not require a connection through another land owner as would the other alternatives.

Alternative 4: This access alternative would connect the project site to the land owner to the east. No known development of this land is proposed at this time. The proposed alignment was determined according to topography to allow for the necessary grade change to support an emergency access road. The ultimate offsite alignment of the access road would be determined by the property owner once development is proposed for the site. It should be noted that this alignment would need to cross San Francisquito Creek at some point.

Alternative 5: The existing Southern California Edison (SCE) easement would be accessed with this alternative. The road proceeds from San Francisquito Canyon Road west past the project site, then south toward Tapia and Charlie canyons. The unimproved access road is used by the SCE to access its transmission lines that pass by the site and by a residence on the western side of San Francisquito Creek just off the project site boundaries. This access road uses an at-grade stream crossing to traverse the creek. This alternative would consist of a stub road that could be connected to the existing unimproved road. However, for emergency access purposes, the road would require paving and other improvements to ensure all-weather access.

Alternative 6: This stub road would connect to existing fire roads and trails on the project site. No specific development is anticipated in this area, but this stub road has been requested by the Fire Department to provide multiple options for offsite emergency access. The fire road connects to the same general fire road system that travels to Tapia Canyon discussed under Alternative 5.

As emergency access requirements have not been finalized, it is possible that further environmental review maybe required to ascertain the detailed impacts from the selection of any one alternative.

ALTERNATIVE 6: BALANCED RESIDENTIAL/COMMERCIAL PROJECT

Purpose for Inclusion

This alternative was considered in response to concerns raised by the Southern California Association of Governments (SCAG) regarding providing a balanced community (both housing and jobs). This

type of project, in theory, would reduce the amount of vehicular travel necessary for commuting to work and shopping.

In order to develop an alternative to support a large amount of commercial- and employment-generating uses, extensive grading beyond that presently proposed onsite would be required to create the necessary flat pads for commercial uses. To develop residential uses to balance the project, additional grading also would be likely in areas of the site previously left undisturbed.

This alternative was determined to be infeasible or environmentally inferior to the proposed project for several reasons. First, the project site is located in an area considered to be the urban boundary (with the National Forest being the ultimate boundary). Taking into consideration surrounding development, the proposed project site likely would not be able to support a significant amount of employment-creating uses. To the south of the project site, cumulative development in the North River and surrounding area (within 2 miles) would provide 811,000 square feet of industrial uses and 868,000 square feet of commercial uses. As these projects are closer to major roadways and residential populations, they would capture a major portion of the available market. Any commercial or industrial development would be isolated at the project site and would probably not have a sufficient market draw to be successful.

In addition, the environmental impacts associated with providing a large amount of commercial or industrial uses onsite would be far greater than the proposed project, requiring more extensive grading and additional infrastructure. Moveover, the costs associated with developing the site for commercial and industrial uses would be higher than other areas south of the site that are flatter. This type of development is not considered to be feasible given the constraints and location of the site, as well as surrounding development. Therefore, this alternative was not carried forward for consideration.

ALTERNATIVE 7: PEDESTRIAN ORIENTED DEVELOPMENT

Purpose for Inclusion

This alternative has been included for consideration to reflect a change in planning philosophy that the County of Los Angeles Regional Planning Department (RPD) is currently exploring. This change is a result of the continued effort on a regional scale to reduce automobile dependency and reduce the air quality degradation caused by an auto-dependent society. This policy change is consistent with, and supports the goals of, SCAG's Regional Comprehensive Plan and the Congestion Management Plan.

This alternative is considered in this EIR on a conceptual level for several reasons. First, the concept of pedestrian-oriented development includes several components, which will be described in detail below, that conflict with the current design standards of several County departments, including Fire and Public Works. The proposed project has undergone years of review and approval from these departments; thus, the design of the proposed project would require significant and fundamental changes to implement this alternative. Second, the limitations of the site preclude wide ranges of development styles. Steep topography, geologic constraints, and biological constraints, to name a few, limit the site's capacity to support various types and designs of urban development. Third, the density considered under this alternative is similar to that of Alternative 2, Existing General Plan; the resulting impacts of this alternative and Alternative 2 would, therefore, be very similar. Finally, the inherent market feasibility of this type of alternative is also questionable. As a result, the environmental analysis has been oriented to provide a general discussion of the benefits and drawbacks of this alternative.

The Pedestrian-Oriented Alternative is based on a planning doctrine that suggests that the placement of residential uses in close proximity to needed services will reduce the need of residents to use the automobile, and provide opportunities for residents to walk or bike to these services. Conventional suburban design (the type of development occurring over the last 20 years) has emphasized separation of uses, wide streets, and clearly defined boundaries between residential communities and employment centers. This conventional design has contributed to the traffic congestion and life styles readily apparent in Riverside, North Los Angeles County, and the Santa Clarita Valley. In contrast, a pedestrian-oriented development breaks the normal design barriers and locates services, such as grocery, dry cleaning, and neighborhood commercial uses, within 0.25 mile of all residential uses. In addition, street systems are narrow, generally grid patterned, and designed for the pedestrian instead of the automobile.

For purposes of analysis, the Pedestrian-Oriented Alternative is assumed to have the following characteristics. The density of development would be slightly greater than the Existing General Plan Alternative, but only so much as to equate the air quality emissions of the two alternatives. Approximately 1,000 to 1,200 units are assumed. The layout of development would be concentrated in the lower portions of the site where topographic variation is minimized. Development of this type onsite would require a significant amount of grading, possibly equal to that of the proposed project in order to keep terrain relatively flat to facilitate walking and provide sufficient building areas for higher density residential and commercial uses. Streets would be designed in a general grid pattern and would be reduced in size and capacity. Land uses onsite (residences, schools, parks, and

commercials) would be integrated as much as possible to reduce the need for driving. Walkways and bike paths would criss-cross the development.

6.3 *ANALYSIS OF THE NO-PROJECT ALTERNATIVE*

Under this alternative, the project site would remain in its present state. Existing ranch operations would continue, and no development of the existing natural open space areas would occur.

The existing environmental conditions of the site as described in Section 5 of this EIR would remain under this alternative. The majority of the project site remain as open space and provide habitat and movement corridors for wildlife. While impacts to earth resources from grading and use of the site for residential uses would not occur, potential hazardous material contamination of portions of the site would not be cleaned up (see Section 5.1, Earth Resources, Hazardous Materials). The quantity and quality of drainage volumes into San Francisquito Creek would not be changed. Traffic volumes, and associated air quality and noise emissions, would not increase with this alternative. The two residences generate mobile and area source emissions, totaling 0.54 pounds per day (ppd) of ROC, 0.5 ppd of NOx, 6.7 ppd of CO, and 0.04 ppd of PM10. These emissions are well below the SCAQMD's daily thresholds for criteria pollutants. The aesthetic character of the site would remain unchanged. No additional public services or facilities would be needed to serve the project site. Finally, the cultural resources existing on the site would not be affected.

Conclusion

For the reasons mentioned above, the no-project alternative is considered to be environmentally superior to the proposed project. It should be noted, however, that future development of the site under the existing General Plan would not be precluded for the site. Thus, the project site might not remain in its existing state.

This alternative has been rejected for consideration because it would not meet the objectives of the applicant, which include the development of the site for a residential planned community.

6.4 *ANALYSIS OF THE EXISTING AREA PLAN ALTERNATIVE*

Earth Resources

Development of this alternative would require grading of approximately 500 acres, less than half that required for the proposed project. Ridgeline and hillside grading would also be reduced in comparison to the proposed project. As with the proposed project, it is expected that all manufactured slopes will maintain 2:1 gradients. However, the depth of cut and fill slopes is expected to be reduced with this alternative. Thus, implementation of this alternative would result in substantially less landform alteration in comparison to the proposed project.

As with the proposed project, areas of slopewash, expansive soils, and ground settlement may present problems to future development. However, implementation of the mitigation measures outlined in Section 5.1 would reduce these potential impacts to a level considered less than significant for both the proposed project and this alternative.

Similar to the proposed project, provisions would be made to protect development in areas of known potential for shallow slumping and erosion. By eliminating development in the northeastern portion of the project site, implementation of the Existing Area Plan alternative would reduce impacts associated with landsliding to a level considered less than significant.

Impacts associated with seismicity would be similar for both the proposed project and this alternative. Reduction in development would not reduce the site's exposure to ground shaking. Additionally, because development areas of this alternative would correspond with areas of potential contamination as described in Section 5.1, the impacts associated with exposure to pollutants would be similar to those under the proposed project.

Water Resources

Less grading would be required under the Existing Area Plan alternative compared to the proposed project, thus less silt, trace metals, toxic chemicals and other construction related pollutants would be generated. As with the proposed project, this alternative would be subject to the requirements of the National Pollutant Discharge and Elimination System (NPDES) program's "general" permit for construction. Full compliance with local, state, and federal water quality standards during construction would reduce impacts to a level considered less than significant.

By eliminating development within the northern portion of the project site, implementation of this alternative would eliminate grading within the Tapia watershed and reduce grading within the Wayside and San Francisquito watersheds. Thus, impacts associated with alteration to drainage patterns, drainage volumes, and water quality would be reduced under this alternative.

As with the proposed project, impacts to the quality and quantity of groundwater are expected to be less than significant.

Biology

Plant communities that would be removed under this alternative include approximately 2.0 acres of alluvial scrub, (compared to 12 acres for the proposed project), one-half acre (the same as for the proposed project) of riparian woodland/mulefat scrub, three oak trees, 15 acres of Venturan coastal sage scrub (compared to 32 acres for the proposed project), approximately 200 acres of chamise chaparral (compared to 807 acres for the proposed project), 1.5 acres of mainland cherry forest (compared to 17 acres for the proposed project), approximately 70 acres of the agricultural areas on the site, and 10 acres of ruderal areas. The loss of alluvial scrub, riparian woodland, and oak trees would be considered significant impacts for the same reasons described under the proposed project and other alternatives. However, mitigation measures described under the proposed project for these resources would reduce impacts to a level less than significant.

Proposed natural open space areas include all of SEA No. 19, a 200-foot buffer zone along the SEA and the northern portion of the property.

Impacts related to habitat fragmentation, wildlife loss and displacement, and water quality would essentially be the same as for the proposed project; however, the amount of habitat loss would be less with this alternative. Implementation of proposed mitigation measures for water quality under the proposed project would reduce impacts on water quality and the unarmored threespine stickleback to a less than significant level.

The Existing Area Plan alternative preserves core habitat for all of the sensitive species known to occur onsite. Specifically, this alternative preserves San Francisquito Canyon Wash and an unimpeded habitat linkage for the unarmored threespine stickleback. In addition, this alternative would preserve more of the chaparral plant community onsite, which serves as habitat for many of the sensitive wildlife species on the site. Therefore, impacts on sensitive species as a result of implementation of this alternative are not expected to be significant.

With this alternative, no development would occur in the SEA or in the canyon bottom of San Francisquito Canyon and, therefore, the primary corridor value in the SEA and the canyon would be preserved. This project design also maintains all of the tributaries to San Francisquito Canyon for secondary corridor value except for four that are currently used for agricultural purposes in the proposed Phase I area. In addition, with this project design, preserved wildlife movement corridors would not intersect with roads to be constructed as part of the proposed project. With implementation of the mitigation measures described for the proposed project for impacts on wildlife movement corridors, impacts on wildlife movement as a result of this alternative would not be significant.

Traffic

The development of approximately 1,000 units represents a 66 percent decrease in comparison to the proposed project. No commercial or school uses would be developed under this alternative. Without a racket and swim club, traffic associated with these uses would not be generated. Daily traffic generated from the project site would be significantly decreased under this alternative. The number of intersections that would be significantly impacted would also be reduced with this alternative. Considering the operating characteristics of intersections in the study area, the addition of traffic from this alternative would likely impact those intersections (currently operating at LOS F) that cannot be mitigated within existing rights-of-way. As a result, this alternative would still cause significant unavoidable impacts, but the severity of the impacts would be considerably less than the proposed project.

Air Quality

Because long-term air quality is directly linked to the amount of traffic generated, the reduction in development from this alternative would also reduce emissions from the project. In terms of short-term impacts, the construction of any site larger than 17-acres would result in an unavoidable adverse impact from PM10 emissions under the significance thresholds set by the South Coast Air Quality Management District (SCAQMD). At least 150 acres of the site would require disturbance (assuming a density of 6.6 units/acre in urban areas) under this alternative, resulting in a significant unavoidable impact on short-term air quality. It is anticipated that other short-term construction emissions would also be significant based on SCAQMD thresholds. Estimated long-term total emissions are 270 ppd of ROC, 249 ppd of NOx, 3,323 ppd of CO, and 21 ppd of PM10. Emissions of ROC, NOx, and CO from this alternative would all exceed the SCAQMD's daily emission thresholds. Therefore, while this alternative would reduce impacts on air quality emissions from the proposed project, impacts would still be significant and unmitigatable to a less than significant level.

Noise

This alternative would generate substantially less traffic than the proposed project. As a result, noise levels would drop and impacts from vehicular traffic would decrease in adversity. As with the proposed project, no significant unavoidable impacts are anticipated.

Aesthetics

Development of the Existing Area Plan alternative would primarily concentrate development within the finger canyons of the southern portion of the site. Grading under this alternative would be minor in comparison to the proposed project, and the overall character of the site would not change substantially. Natural topography would continue to dominate the major portions of the site, and urban land uses would be primarily viewed from offsite areas south of the site, such as from view points 1 and 2, as identified in the visual analysis in Section 5.7, Aesthetics. With this alternative, development of the southern portion of the site, which is most visible to areas located immediately south of the site would still occur. Since the northern portion of the site would not be developed, there would be less of a change to the aesthetic character of the site from longer-range viewpoints. Because future development in the area surrounding southern portions of the site would change the existing character of the area, no significant aesthetic impacts area anticipated under this alternative. In comparison to the proposed project, visual impacts identified as significant would be avoided.

Land Use

Because this alternative considers development consistent with the Land Use Policy Map of the Area Plan, land use impacts are not anticipated to be significant. However, in order to feasibly develop 1,000 units, some areas designated hillside management would have to be built upon; or the allowable density transferred to the flatter portions of the site as encouraged by the General Plan. Land use designations for the site were defined during the update of the Area Plan to promote compatibility with future development to the south of the site, and the roadways planned for the area. This alternative would be more compatible with the designated sensitive resources on the site (SEA, Hillside Management, and natural open space areas) than the proposed project. This alternative would be generally consistent with the goals and objectives of the Area Plan.

Socioeconomics

Development of the general plan buildout alternative would provide approximately 1,000 units, compared to 3,000 units with the proposed project. With fewer units, this alternative would meet a smaller portion of the anticipated housing and population growth for the Santa Clarita area. Buildout of this alternative would not meet the projected demand for housing to the extent of the proposed project. As discussed in Section 5.9, Socioeconomics, based on current growth projections, the Area Plan does not provide sufficient opportunities for housing needed to meet projected demand. No significant impacts on the socioeconomic characteristics of the area would be avoided through the implementation of this alternative.

Public Services and Utilities

With an approximate 66 percent reduction in the amount of residential units and no commercial or school uses, the demands for public services and utilities would be reduced. Because of the current status of public services in the area, impacts to fire and police services would be cumulatively significant and additional services would be required. Approximately 66 percent fewer school children would be generated by this alternative, but because of the overburdened school system, these impacts would be significant. As with the proposed project, mitigation of impacts for this alternative could reduce significant impacts to a less than significant level. Less solid waste would be generated by this alternative, and mitigation measures identified for the proposed project would reduce the impacts of this alternative to less than significant levels. Impacts to library services would also be reduced under this alternative and mitigation would reduce impacts to less than significant levels. In terms of parks and recreation, the density of development and lack of open space that would be available for park land would not allow for the incorporation of park uses for this alternative. Thus, park fees would be required to mitigate the impact of the project and park space offsite would have to be developed in order to provide the acreage of park space per person specified in the General Plan.

In general, utility impacts would be reduced more than 60 percent under the Existing Area Plan alternative. Natural gas, electricity, and water consumption and sewage generation would be decreased by this amount.

Cultural Resources

Under the Existing Area Plan alternative, it is assumed that development of approximately 1,000 units would necessitate the removal of the structures that comprise the potential historical district identified

on the site. Since none of the existing structures would remain of the district, this would be considered a more adverse impact.

Conclusion

Although this alternative would generally result in less severe impacts than the proposed project, the project applicant's objectives of meeting housing demand and preserving historic resources would not be met.

6.5 *ANALYSIS OF REDUCED DENSITY ALTERNATIVE*

Earth Resources

The Reduced Density Alternative would require grading of approximately 976 acres, 13 percent (148 acres) less than required for the proposed project. In order to develop 2,644 residential lots, ridgeline and hillside grading would occur. As with the proposed project, the depth of cut and fill slopes in these areas would be expected to reach 150 feet and all manufactured slopes would maintain 2:1 gradients. Implementation of this alternative is expected to result in a similar level of land alteration as the proposed project.

Areas of slopewash, expansive soils, and ground settlement exist on the southern portion of the site. As with the proposed project, implementation of the mitigation measures outlined in Section 5.1 would reduce these potential impacts associated with slopewash, expansive soils, and ground settlement to a level considered less than significant for both the proposed project and this alternative. As with the proposed project, measures would be undertaken to protect development in areas of known potential for shallow slumping and erosion.

Impacts associated with seismicity would be similar for both the proposed project and this alternative. Reduction in development would not reduce the site's exposure to ground shaking. Additionally, because development areas of this alternative would correspond with areas of potential contamination as described in Section 5.1, the impacts associated with exposure to pollutants would be similar to those under the proposed project.

Water Resources

Because 13 percent less land area would be graded under the Reduced Density alternative compared to the proposed project, a corresponding reduction in the generation of silt, trace metals, toxic chemicals and other construction related pollutants is expected. As with the proposed project, this alternative would be subject to the requirements of the National Pollutant Discharge Elimination System (NPDES) program's "general" permit for construction, to mitigate these impacts.

The grading of 976 acres associated with this alternative would result in similar impacts to the Tapia, Wayside, and San Francisquito watersheds as the proposed project. Impacts associated with alteration to drainage patterns, drainage volumes, and water quality would be similar under this alternative compared to the proposed project. As with the proposed project, impacts to the quality and quantity of groundwater would be less than significant.

Biology

The Reduced Density alternative proposed grading would remove approximately 2.4 acres (compared to 12 acres for the proposed project) of alluvial scrub, or 3 percent of this plant community on the project site. However, because this particular plant community is unique and dwindling throughout the state, the loss of 2.4 acres is considered a significant impact.

Approximately one-half acre of cottonwood/willow riparian/mulefat scrub habitat (the same as the proposed project) would be removed with implementation of the Reduced Density alternative grading plan. This represents less than 8 percent of this plant community on the project site. Because of the continuing loss of this resource throughout the state, and its importance as habitat for a number of sensitive and non-sensitive wildlife species, the loss of a one-half acre of this plant community on the project site would be considered a significant impact.

The Reduced Density alternative would avoid impacts to oak woodland; however, the same 30 oak trees as in the proposed project would be removed with implementation of the Reduced Density alternative. None of the oaks to be removed are classified as heritage oaks. The removal of oak trees subject to the county oak tree ordinance is a significant impact requiring mitigation.

The Reduced Density alternative would remove approximately 36 acres of Venturan coastal sage scrub (compared to 32 acres for the proposed project), or 35 percent of this plant community on the project site. This impact would be considered significant.

The proposed grading for the Reduced Density alternative would involve the removal of approximately 739 acres of chamise chaparral (compared to 807 for the proposed project), or 58 percent of this plant community on the project site. Because this plant community is not a sensitive plant community and is abundant in the region, the removal of 739 acres would not be a significant impact.

Approximately 3 acres of mainland cherry forest (compared to 17 acres for the proposed project) would be removed with implementation of the Reduced Density alternative. Because the 3 acres that would be removed represents a remnant of the community and is very scattered, this impact is not considered significant.

The removal of approximately one-half acre of non-native grassland with the Reduced Density alternative amounts to about 1 percent of this plant community on the project site. This impact would not be considered significant because of the small amount that would be affected and because this plant community is abundant in the region.

The proposed grading with the Reduced Density alternative would involve the removal of approximately 73 acres (66 percent) of the agricultural areas (compared to 99 acres for the proposed project) and is not considered a significant biological impact because this is not a native plant community and is common in the region. The removal of approximately 6 acres (67 percent) of ruderal areas would not be considered a significant impact on plant communities. The removal of approximately 85 acres (71 percent) of disturbed/developed areas would not be considered a significant impact on plant communities. Within the disturbed/developed areas, 1.3 acres (100 percent) of the exotic tree association will be impacted. These non-native trees are not considered sensitive and their removal is not considered a significant impact on plant communities.

In addition to the preservation of 818 acres of natural habitat with this alternative, mitigation measures described under the proposed project for alluvial scrub, riparian woodland, oak trees, and coastal sage scrub would reduce impacts on these plant communities to a level less than significant.

Impacts on habitat fragmentation, wildlife loss and displacement, and water quality would essentially be the same as for the proposed project; however, the amount of habitat loss would be slightly less with this alternative. Implementation of proposed mitigation measures for water quality under the proposed project would reduce impacts on water quality and the unarmored threespine stickleback to a less than significant level.

With this alternative, the multi-family area shown as Planning Area D on the proposed site plan would not be developed. This area would be preserved as open space. As this area of the site is currently under agricultural cultivation, this change would not reduce any direct impacts of the project on natural habitat. Indirect impacts to the San Francisquito Canyon SEA associated with increased levels of human activity adjacent to the SEA would be reduced in comparison to the proposed project.

Impacts on special status plant and wildlife species as a result of implementation of the Reduced Density alternative would be essentially the same as those for the proposed project alternative. Findings on significance of these impacts are the same as those described for the proposed project plan.

With this alternative, no development would occur in the SEA or in the canyon bottom of San Francisquito Canyon and, therefore, the primary corridor value in the SEA and the canyon would be preserved. As with the proposed project design, the main ridgeline fuelbreak corridor will be interrupted by Planning Area C, but preserved in the central portion of the project site. With the alternative project design there are several places where natural habitat that could be used by wildlife as corridors are transected by proposed roads. In addition, the potential impacts on wildlife movement associated with the road crossing of San Francisquito Creek in Planning Area C shown with this alternative could be mitigated by implementing the measures provided in the proposed project for protection of water quality, and riparian revegetation measures, as well as by providing a bridge crossing to allow wildlife to pass under the road. The road connection could also be eliminated in favor of the secondary road connection between Planning Areas B and C, shown on the proposed project site plan. Overall, impacts on wildlife movement with this alternative would be similar to the impacts of the proposed project.

Proposed natural open space areas under this alternative include all of SEA No. 19 and a 200-foot buffer zone around the SEA. Mitigation measures can reduce any impacts on water quality to a less than significant level. Therefore, impacts on the San Francisquito Canyon and the overall integrity of SEA No. 19 would not be significant with this alternative or the proposed project.

Traffic

With 14 percent fewer residential units, the average daily traffic of this alternative would be approximately the same percentage lower than the amount generated by the proposed project. Project-related impacts of this alternative would more than likely result in significant impacts at several intersections (currently operating at LOS F) based on Los Angeles County standards. Even with

mitigation, it is anticipated that several intersections could not be mitigated within existing rights-of-way and this alternative would result in significant unavoidable impacts.

Air Quality

The Reduced Density alternative, air quality impacts would be roughly equivalent to those anticipated for both the construction and operation phases of the proposed project. The amount of acreage that would be disturbed under this alternative would be reduced relative to the acreage proposed to be disturbed under the project. However, construction impacts would still be significant due to the overall size of the acreage that would be exposed during construction.

This alternative assumes approximately the same mixture of uses as proposed by the project. The 2,644 dwelling units, two schools, and a Swim/Racket Club would generate total long-term emissions of 735 ppd of ROC, 689 ppd of NOx, 8,978 ppd of CO, and 65 ppd of PM10. Emissions of ROC, NOx, and CO from this alternative will also exceed the SCAQMD's daily emission thresholds. Therefore, operational emissions from utility consumption and vehicular trips would be considered significant.

Noise

Noise from mobile sources (i.e., motor vehicles) would be reduced under this alternative because of the reduced volume of traffic. Because the proposed project would not result in a significant unavoidable impact, this alternative would also have impacts that are less than significant.

Aesthetics

The Reduced Density alternative, as shown in Exhibit 6.2-2, would avoid development of residential land uses in the middle of the site where the bottom of the U-shaped portion of the site is located. In addition, the development of the multi-family area to the east of San Francisquito Creek (Area D on the proposed project site plan) would not occur with this alternative. Densities would be increased in the "Phase I" area of the site as a means for maintaining the units that would be lost by not developing the area on the east of the creek.

In general, the impact to the aesthetic character of the site would be substantially less with this alternative. Peripheral areas of the site that would be developed with the proposed project, but not with this alternative, such as the area to the east of the north/south collector road, and would reduce

impacts to viewers in offsite areas. Views from View point 1 would be essentially the same as those of the proposed project. Views from View point 2 under this alternative would have less substantial impacts than the proposed project because multifamily development within the creek would not occur. Therefore, views would not be impacted by urban development in close proximity to San Francisquito Road. Views from View point 3 would be reduced to less than significant levels. Views from points 4 and 5 would not change under this alternative. While this alternative would reduce several significant impacts, it would still result in significant aesthetic impacts.

Land Use

This alternative would require a general plan amendment in order for the alternative to be implemented. Existing areas of the site designated Hillside Management would still be developed under this alternative, and appropriate mitigation would be required to make the alternative consistent with the requirements of the Hillside Management Guidelines. In terms of the guidelines for development within the SEA and Floodplain designation, this alternative would avoid development in San Francisquito Creek and, therefore, be consistent with this resource area. In terms of consistency with the land use policies and objectives of the Santa Clarita Valley Area Plan, this alternative would be consistent with the plan. Agricultural lands present on the site would be developed under this alternative, but considering the relatively small amount of land lost, the impact would be less than significant. Land use compatibility of this alternative would be similar in nature to that associated with the proposed project. This alternative and the proposed project would result in similar land use impacts.

Socioeconomics

Development of the Reduced Density alternative would provide about 2,644 units, compared to the proposed project's 3,000 units. No significant impacts would be avoided through the implementation of this alternative. For this alternative, it is assumed that the commercial uses would generate the same number of employees as the proposed project. As a result, the jobs created by this alternative would not represent a significant impact. In terms of jobs/housing balance, this alternative would be beneficial by furthering additional jobs in the area, which is the goal of SCAG, but the impact would be minor.

Public Services and Utilities

With an approximate 14 percent reduction in the amount of residential units, the demands for public services and utilities would also be slightly reduced in comparison to the proposed project. Because of the constrained status of public services in the area, impacts to fire and police services would be cumulatively significant and additional services would be required. Approximately 14 percent fewer school children would be generated by this alternative. As with the proposed project, mitigation of impacts for this alternative could reduce significant impacts to less than significant levels. Less solid waste would be generated by this alternative, and mitigation measures identified for the proposed project would reduce the impacts of this alternative to less than significant levels. Impacts to library services would also be reduced under this alternative and mitigation would reduce impacts to less than significant levels. In terms of parks and recreation, this alternative would reduce the development footprint of the project and would increase the amount of park space provided in the site. This alternative would meet the park requirements for the size and type of development. As a result, significant impacts would be avoided.

In general, utility impacts would be reduced approximately 14 percent under the Reduced Density alternative in comparison to the proposed project. Natural gas, electricity, and water consumption and sewage generation would be decreased by this amount. The Reduced Density alternative would not significantly reduce water consumption, nor would the availability of water supplies be any more certain for this alternative in comparison to the proposed project.

Cultural Resources

Historic resources would be impacted with this alternative. Although several of the contributing structures of the potential historic district might not require demolition or relocation under this alternative, the whole of the district, which is made up of all the structures, would be disrupted, and as a result this alternative would have significant impacts. As with the proposed project, implementation of mitigation measures could reduce the level of significance to a level considered less than significant.

Conclusion

Although this alternative would generally result in less severe impacts than the proposed project, this alternative has been rejected for further consideration because it does not meet the project applicant's objectives of providing a full range of housing types to meet the demand in the Santa Clarita Valley.

6.6 *ANALYSIS OF REDUCED DEVELOPMENT AREA ALTERNATIVE*

This alternative considers a substantially reduced development in comparison to the proposed project. Approximately 2,000 units would be developed compared to the 3,000 units developed in the proposed project. Most of the northern portion of the site would be left in permanent natural open space, and development in the SEA would not occur as with the proposed project.

Earth Resources

Development of this alternative would require grading of approximately 428 acres, 684 acres less than required for the proposed project. Implementation of this alternative would, therefore, result in less grading than the proposed project. However, the depth of cut and fill slopes is expected to be 150 feet in areas where hillside grading would occur.

A greater level of compliance with the Los Angeles Hillside Grading Ordinance would be achieved under this alternative; ridgeline and hillside grading would be less than the proposed project. As with the proposed project, it is expected that all manufactured slopes will maintain 2:1 gradients.

As with the proposed project, areas of slopewash, expansive soils, and ground settlement may present problems to future development. However, implementation of the mitigation measures outlined in Section 5.1 will reduce these potential impacts to a level considered less than significant for both the proposed project and this alternative. Similar to the proposed project, provisions would be made to protect development in areas of known potential for shallow slumping and erosion.

The elimination of development in the northeastern portion of the project site would reduce impacts associated with landsliding to a level considered less than significant.

Impacts associated with seismicity would be similar for both the proposed project and this alternative. Reduction in development would not reduce the site's exposure to ground shaking. Additionally, because development areas of this alternative would correspond with areas of potential contamination as described in Section 5.1, the impacts associated with exposure to pollutants would be similar to those under the proposed project.

Water Resources

Significantly less grading would be required with this alternative compared to the proposed project, thus, there would be a corresponding reduction in silt, trace metals, chemicals and construction related pollutants during construction and operation of the project. As with the proposed project, this alternative would be subject to the requirements of the National Pollutant Discharge Elimination System (NPDES) program's "general" permit for construction. Full compliance with local, state, and federal water quality standards during construction would reduce impacts to a level considered less than significant.

By eliminating development within the northern portion of the project site, implementation of this alternative would eliminate grading within the Tapia watershed and reduce grading within the Wayside and San Francisquito watersheds. Thus, impacts associated with alteration to drainage patterns, drainage volumes, and water quality would be reduced under this alternative. As with the proposed project, impacts to the quality and quantity of groundwater are expected to be less than significant with the implementation of the mitigation measures proposed.

Biology

Grading to support this alternative would remove approximately 2.4 acres of alluvial scrub (compared to 10 acres for the proposed project) or 3 percent of this plant community on the project site. However, because this particular plant community is unique and dwindling throughout the state, the loss of 2.4 acres would be considered a significant impact, requiring mitigation.

Approximately one-half acre (the same as for the proposed project) of cottonwood willow riparian woodland/mulefat scrub combined would be removed with implementation of this alternative grading plan. This represents less than 8 percent of this plant community on the project site. The removal of a relatively small (one-half acre) area of this plant community is considered significant because of the regional scarcity of this plant community and the level of protection it is afforded pursuant to state and federal statutes and regulations.

Three oak trees subject to the County oak tree ordinance, less than the proposed project, would be removed with implementation of this alternative (tree numbers 6, 8 and 10). These trees are isolated and do not occur as part of a woodland habitat. None of the oaks to be removed are classified as heritage oaks. The removal of oak trees subject to the County oak tree ordinance is a significant impact requiring mitigation.

Grading proposed for this alternative would remove approximately 15 acres of Venturan coastal sage scrub (compared to 30 acres for the proposed project), or 14 percent of this plant community, on the project site. This impact is not considered significant because it does not represent a substantial loss of this habitat, and 86 percent of this community onsite would be preserved.

This alternative's grading would remove approximately 495 acres of chamise chaparral (compared to 795 acres for the proposed project), or 39 percent of this plant community on the project site. This plant community is not a sensitive plant community and is the most abundant (dominant) plant community in the Angeles National Forest north of the project site, and in private undeveloped lands to the east and west of the Tesoro del Valle project. Therefore, the removal of 495 acres would not represent significant impact on this plant community. In addition, 756 acres of the plant community would be preserved onsite.

Approximately 1.5 acres of mainland cherry forest would be removed (compared to 14 acres for the proposed project) with implementation of this alternative grading plan. Because the 1.5 acres that would be removed represents a remnant of the community, and because it is very scattered, this impact may be locally important, but would not be significant.

Non-native grassland does not occur within the proposed grading area, and therefore no impacts would result from this alternative.

The proposed grading would involve the removal of approximately 73 acres (65 percent) of the agricultural areas. This would not be a significant biological impact because this is not a native plant community and is common in the region. The removal of approximately 9.7 acres (23 percent) of ruderal areas would not be a significant impact on plant communities. The removal of approximately 59 acres (38 percent) of disturbed/developed areas would also not be a significant impact on plant communities. Within the disturbed/developed areas, 1.3 acres (100 percent) of the exotic tree association would be impacted. These non-native trees are not considered sensitive and their removal would not be a significant impact on plant communities.

In addition to the preservation of 1,027 acres of natural habitat with this alternative that represents 57 percent of the property, mitigation measures described under the proposed project for alluvial scrub, riparian woodland, and oak trees would reduce impacts on these plant communities to a level less than significant.

Impacts on habitat fragmentation, wildlife loss and displacement, and water quality would essentially be the same as for the proposed project; however, the amount of habitat loss would be somewhat reduced by this alternative. Implementation of proposed mitigation measures for water quality under the proposed project would reduce impacts on water quality and the unarmored threespine stickleback to a less than significant level.

This alternative would preserve core habitat for the all sensitive species known to occur onsite. Specifically, San Francisquito Canyon Wash and an unimpeded habitat linkage for the unarmored threespine stickleback. In addition, habitat preservation along San Francisquito Canyon Wash would retain the majority of the alluvial scrub and riparian habitat in the study area occupied by Nevin's bricklebush, and several sensitive wildlife species. Elimination development in the northern portion of the site would preserve habitat for the Peirson's morning glory, Bell's sage sparrow and California horned lark. The preservation of the tributary to Tapia Canyon would have the added benefit of preserving the known burrow location of the badger. Therefore, impacts on sensitive species as a result of implementation of this alternative would be less than the impacts associated with the proposed project.

With this alternative no development would occur in the SEA or in the canyon bottom of San Francisquito Canyon and, therefore, the primary corridor value in the SEA and the canyon would be preserved. This project design would also maintain all of the tributaries to San Francisquito Canyon for secondary corridor value except for four that are currently used for agricultural purposes in the proposed Planning Area A. In addition, with this project design, preserved wildlife movement corridors would not intersect with roads to be constructed as part of the proposed project. With implementation of the mitigation measures described in the proposed project for impacts on wildlife movement corridors, impacts on wildlife movement with this alternative would not be significant.

Proposed natural open space areas with this alternative would include all of SEA No. 19 and a 200-foot buffer zone around the SEA. Measures proposed to mitigate water quality impacts would result in any impact being less than significant. Therefore, impacts on the San Francisquito Canyon and the overall integrity of SEA No. 19 would not be significant under this alternative.

Traffic

With a 33 percent reduction in residential land uses, traffic generated by this alternative would be less than the proposed project. Project-related impacts for this alternative would likely result in significant impacts at several intersections (currently operating at LOS F), some of which could not be mitigated

within the existing rights-of-way. As a result, this alternative would have significant unavoidable impacts, even with mitigation, as would the proposed project. However, in relative terms, the reduced development would not generate as much traffic, and would, therefore, have substantially less adverse impacts.

Air Quality

Under the Reduced Development Area alternative, approximately 66 percent of the residential units, only one of the schools and none of the commercial uses proposed under the project would be built. Construction-related emissions would be reduced under this alternative. Because the development footprint of this alternative is substantially smaller that the footprint of the proposed project, the amount of acreage that would be disturbed under this alternative would be substantially reduced. However, construction impacts would still be significant due to the overall size of the acreage that would be exposed during construction.

In addition to the reductions in construction emissions which would occur under this alternative, operations emissions would also decrease relative to the proposed project. The 1,995 dwelling units, two schools, and a Swim/Racket Club are estimated to generate total long-term emissions of 553 ppd of ROC, 517 ppd of NOx, 6,756 ppd of CO, and 48 ppd of PM10. Emissions of ROC, NOx, and CO from this alternative will also exceed the SCAQMD's daily emission thresholds. Relative to the proposed project, this alternative would have reduced, but significant regional operational air quality impacts.

Noise

Noise from mobile sources (i.e., motor vehicles) would be reduced under this alternative because of the reduced volume of traffic. As with the proposed project, noise impacts would be less than significant.

Aesthetics

With reduced development in the northern portion of the site, aesthetic impacts would be avoided or substantially lessened with this alternative. View points from San Francisquito Canyon and within the National Forest would be reduced, if not eliminated, under this alternative. However, view points from southern areas, such as within the City of Santa Clarita and along portions of San Francisquito Canyon (View points 1 and 2) would be significantly impacted. While these impacts would be

significant, the development of this alternative would be more consistent with other proposed and approved development in the vicinity of Planning Area A. Thus, as the area becomes urbanized, the development of the project would be more characteristic of the area, and would not result in such a substantial change in character of the surrounding environment. With the implementation of a landscape plan such as the one proposed, impacts to the aesthetic environment, when taken into context with other surrounding development, would mitigate the significant impacts of this alternative.

Land Use

This alternative would still require a general plan amendment in order for the alternative to be implemented. Existing areas of the site designated Hillside Management would still be developed under this alternative, and appropriate mitigation would be required to make the alternative consistent with the requirements of the Hillside Management Guidelines. In terms of the guidelines for development within the SEA designation, this alternative would avoid development in the SEA and therefore be consistent with the requirements. Much of the northern portion of the site would be undeveloped and remain in a natural state. Agricultural lands present on the site would be developed under this alternative, but considering the relatively small amount of land lost, the impacts would be less than significant. Land use compatibility of this alternative would be similar to that of the proposed project, but this alternative would be more compatible with the Angeles National Forest to the north because of the large amount of permanent open space that would buffer the development in the project from the boundary of the forest.

Socioeconomics

With fewer residential units than the proposed project, this alternative would constitute an even smaller percentage of projected future housing and population growth in the Santa Clarita area. The housing units provided by this alternative would represent approximately two-thirds of one year's housing absorption for the Santa Clarita Valley, as determined by Alfred Gobar and Associates. Since it is assumed that this alternative would not provide employment opportunities resulting from commercial uses, the jobs/housing balance for the Santa Clarita area would be kept low and would not be increased as SCAG's target recommends. Implementation of this alternative would not substantially alter the jobs/housing balance of the area, as would the proposed project. Therefore, no significant reductions in impacts are anticipated under this alternative. This alternative would not meet the demand for housing in the area to the extent achieved by the proposed project.

Public Services and Utilities

With an approximate 33 percent reduction in the amount of residential units, the demands for public services and utilities would also be reduced, as for the proposed project. Because of the constrained status of public services in the area, impacts to fire and police services would be cumulatively significant and additional services would be required, as for the proposed project. Approximately 33 percent fewer school children would be generated by this alternative, but because of the overburdened school system, impacts would be significant. As with the proposed project, mitigation of school impacts for this alternative, could reduce significant impacts to less than significant levels. Less solid waste would be generated by this alternative, and mitigation measures identified for the proposed project would reduce the impacts of this alternative to less than significant levels. Impacts to library services would also be reduced under this alternative and mitigation would reduce impacts to less than significant levels. In terms of parks and recreation, this alternative would reduce the development footprint of the project and would increase the amount of park space provided in the site. This alternative would meet the park requirements for the size and type of development. As a result, significant impacts would be avoided.

In general, utility impacts would be reduced approximately 33 percent with this alternative. Natural gas, electricity, and water consumption and sewage generation would be decreased by this amount, as well.

Cultural Resources

Some of the contributing structures that define the historical district on the project site would require demolition or relocation for this alternative to be implemented. The loss of these contributing structures would break up the relation of the district and would, therefore, result in a significant impact. As with the proposed project, significant impacts resulting from project implementation could be mitigated to a less than significant level.

Conclusion

Although this alternative would generally result in less severe impacts than the proposed project, this alternative has been rejected for further consideration because it does not meet the project applicant's objectives of providing a full range of housing types to meet the demand in the Santa Clarita Valley.

6.7 *ANALYSIS OF THE EMERGENCY ACCESS ALTERNATIVE*

At the time of preparation of this draft EIR, none of the surrounding property owners have pending development applications. Emergency access alternatives 1 and 2 are based on a preliminary project design of a portion of the North River development, but at this time, it is unknown when the property will be developed. Alternative 3 is presently part of the proposed project and would connect two portions of the project site separated by San Francisquito Creek; thereby not requiring development of offsite property. The potential for alternatives 4, 5, and 6 to become secondary access points are unknown. These three access alternatives cross properties that are not close to any proposed development and are constrained by topography, sensitive habitats, and insufficient parcel size (i.e., not sufficient to warrant the cost incurred to develop). Thus, the most likely alternatives for additional emergency access would be 1, or 2.

ALTERNATIVES 1 AND 2

These two alignments would connect from one of the main collector roads in Planning Area A or B to a potential future development south of the project site. The impacts associated with constructing the stub roads onsite are evaluated in Sections 5.1 (Geology/Soils), 5.2 (Water), 5.3 (Biology), 5.5 (Air Quality, 5.7 (Aesthetics), and 5.10 (Public Services) of this document. Primarily, these onsite impacts would consist of impacts on natural open space and habitat (biology).

The access roads would provide emergency ingress/egress and would not be used on a daily basis for through traffic. As a result, offsite traffic impacts are not expected to occur because the roads would only be used during an emergency.

Impacts from construction of the offsite portions of the access road would have to be considered in a separate environmental analysis when these properties are proposed for development. However, the impacts of these offsite linkages are not expected to be significant.

ALTERNATIVE 3

This access road is considered part of the proposed project. This access would connect the main portion of the project site with San Francisquito Canyon Road and the future extension of McBean Parkway, both of which are master-planned highways. To cross San Francisquito Creek, a 250-foot bridge would completely span the narrowest portion of the main channel. As proposed by the applicant's engineer, no encroachment would occur into the floodway of San Francisquito Creek; the

bridge embankments would slightly encroach into the floodplain. Any disturbance created by bridge construction would be a component of development impacts of the project, described throughout Section 5.0.

Visually, the bridge crossing would introduce an above-grade structure to San Francisquito Wash, which is used by the community for recreation. Although this type of structure is not typical for the area as it exists today, if the project is developed, the character of the area would be changed from rural to urban and, thereafter, consistent with such a structure. In addition, the master-planned extension of Copper Hill Drive would require a bridge crossing of San Francisquito Creek. This structure would likely be more substantial than the 250-foot bridge proposed by the project, since a greater distance (approximately 1,600 feet) and a larger volume of traffic would have to be accommodated. Therefore, considering the ultimate disposition of the area in the vicinity of the project, the construction of a bridge would not result in a significant visual impact to the area.

No other impacts besides those discussed in Section 5.0 of the proposed project have been identified.

ALTERNATIVE 4

This alternative would connect Planning Area B to the property east of the project site. An existing ranch complex is located on this property, but no development plans are known to exist for this property. The proposed alignment would follow the existing natural topography onsite to the property boundary. However, a future access road through the adjacent property would be subject to appropriate environmental review, conducted by the property owner or developer at the time of development.

This alternative would require a third crossing of San Francisquito Creek (besides Copper Hill Drive) to access San Francisquito Canyon Road. While additional environmental analysis of a future crossing of the creek would be required if this alternative were implemented, it should be noted that unless a bridge structure is built (which would likely be financially cost-prohibitive), this type of crossing of SEA 19 would cumulatively affect the integrity of the SEA and the unarmored threespine stickelback.

This secondary access road would initially be very visible from San Francisquito Canyon Road. However, if this alignment is used, it would probably be in conjunction with the development of the adjacent property. As other development and roads are built in the project vicinity, this connection would not result in any significant visual impacts.

Any other offsite impacts associated with this alignment would be considered in the environmental documentation for future offsite development.

ALTERNATIVE 5

Alternative 5 would connect a stub road from the northernmost portion of Planning Area C to an existing fire break access road used by the Los Angeles Department of Water and Power. This alternative could either travel east to San Francisquito Canyon Road or west to Tapia and Charlie canyons. The more feasible of these alignments is the easterly connection to San Francisquito Canyon Road. The westerly alignment would travel a considerable distance through undeveloped offsite land before the road could join an existing roadway. Since the area to the west is mostly vacant and land-locked from adequate access, the possibility of development in this area is slight.

To the east, however, the existing unimproved access road could be improved to provide emergency access for the project. As the road currently exists, most of its alignment has already been disturbed by its grading and use. Additional disturbance (cut and fill) would likely be required to construct the road to the standards for an emergency access road. However, significant geological constraints exist in this area and could prohibit the construction of a road built to County standards. At present, the details (amount of additional grading/disturbance) of this roadway have not been determined and the use of this alternative for access is uncertain. Subsequent environmental analysis of the specific construction impacts of this road would be required if this alignment is selected for implementation. This alignment would require a second crossing of San Francisquito Creek and could, therefore, cause significant impacts to the SEA and the unarmored threespine stickelback.

This alignment would also be highly visible from San Francisquito Canyon Road and from areas within the Angeles National Forest, resulting in significant visual impacts.

No other impacts of this alternative have been identified.

ALTERNATIVE 6

This alternative would connect to existing fire roads in the proximity of the project. The extent and alignment of this alternative is completely unknown at this time. No known projects or properties likely to be developed are located in the area of this alignment. Implementation of this alternative would require further disturbance for grading and paving of the road, which would have impacts on the native habitat along the alignment. No studies have been prepared to identify what, if any,

sensitive species would be impacted by this alignment. Additional environmental analysis would be required to identify the impacts of this alternative if it is selected. Significant impacts could be anticipated from the construction of this road due to the topography and natural character of the area.

6.8 ANALYSIS OF THE PEDESTRIAN-ORIENTED ALTERNATIVE

The environmental impacts of this alternative would be similar to those of Alternative 2, Existing General Plan Alternative. From an earth resources standpoint, this alternative would probably mitigate its geotechnical impacts, but a significant amount of grading would be required and a large amount of soil would have to be exported offsite for use or disposal. In addition, manufactured slopes would also be excessively high since large lots would be required instead of smaller single-family lots. Water resource impacts would be similar, although the feasibility of water quality lakes to serve such a development pattern is unknown. Should they be infeasible, water quality impacts to San Francisquito Creek would be significant. The biological impacts of this alternative would be similar to or more adverse than the proposed project. Sensitive grading and project design would be replaced with grid patterned development, which typically requires more grading in hillside areas. Thus, a larger impact to plant and animal communities would result. The traffic impacts of this alternative would be less than the proposed project and Alternative 2. The reduction in impacts would result from an anticipated reduction of offsite trips for needed services. However, significant impacts would probably still occur and the cumulative traffic congestion would cause several area roadways to operate at unacceptable levels of service.

The air quality impacts of this alternative would be less than the proposed project for two reasons. First, the development intensity would be less, which would result in fewer vehicle trips and less air emissions. In addition, the pedestrian-oriented design would further reduce the need for residents to travel offsite for necessary services. An exact quantification of the reduction in air quality emissions is not feasible due to the lack of empirical data and an approved methodology from the Air Quality Management District for this type of design. This alternative would allow more residential development than Alternative 2, Existing General Plan, with a similar level of air emissions. This alternative would also be more consistent with the Air Quality Management Plan and the Regional Comprehensive Plan.

Noise from this alternative would be less than the proposed project because of a reduction in volume of traffic resulting from reduced density and improved community design.

The aesthetic impacts of this alternative would be similar to the proposed project. Significant impacts would occur from the southern viewpoints as the visual character of the site would be substantially changed. Impacts from San Francisquito Canyon would not be as adverse, since development would be concentrated in the southern section of the site and ridgeline development would not be as prominent. This alternative would be more adverse where development does occur because grading requirements would not allow the preservation of several major ridgelines.

In terms of land use, this alternative would require a General Plan amendment to be consistent with the land use designations and policies. This alternative would be more consistent with the policies and goals of the area plan than the proposed project.

Socioeconomic impacts of this alternative would be identical to Alternative 2, Existing General Plan. The public service and utility impacts would also be similar to Alternative 2, which has less adverse impacts than the proposed project.

This alternative would likely require complete demolition of the onsite cultural resources. As a result, these impacts would be more adverse.

Conclusion

Overall, the environmental impacts of this alternative would be reduced in comparison to the proposed project. The reduced development intensity would avoid many of the physical onsite impacts of the proposed project. However, the primary purpose of this alternative is to further reduce the air quality impacts of the project. Although the alternative would have some effect on reducing the adversity of air emissions, the degree of reduction is uncertain. This alternative would reduce trips internal to the site but would have no effect on work-related trips, which have the heaviest impact on air quality emissions due to the longer travel distances involved. Consequently, although daily trips would be somewhat less, total VMT would not be significantly reduced. As discussed in Section 6.4, Air Quality, even buildout of a project at existing General Plan densities would result in significant impacts.

Other factors must also be considered. In order for this alternative to be successful, this type of development would have to be marketable. The complicating factor for this type of development is that finding typical commercial uses (supermarkets, 7-Elevens, etc.) to locate in pocket neighborhood centers without heavy pass-by traffic is virtually impossible. Moreover, this type of development, while mitigating air quality impacts, would result in greater impacts to earth resources, water

resources, biological resources, and cultural resources. In consideration of all of these factors, this alternative may not be feasible nor environmentally superior to the proposed project or the other alternatives. The project applicant has indicated that this alternative is infeasible to implement.

6.9 *ENVIRONMENTALLY SUPERIOR ALTERNATIVE*

The no-project alternative is considered to be environmentally superior to the proposed project. As discussed in the introduction to this section, if the no-project alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative among the other alternatives.

Of the other alternatives considered in this EIR, the Reduced Development Area alternative is considered to be environmentally superior when compared to the proposed project. By limiting development to the southern portion of the site this alternative would preserve a greater portion of the site as undisturbed natural open space, which would benefit the adjacent SEA. A comparative analysis of the biological impacts of the proposed project, reduced density, and reduced development area is provided in Table 6.9-1, and a comparative analysis of the air quality impacts is provided in Table 6.9-2.

TABLE 6.9-1
ALTERNATIVES' BIOLOGICAL IMPACT COMPARISON

Biological Resource	Existing Acres	Proposed Project Impacts	Reduced Density Impacts	Reduced Development Impacts
Natural Plant Communities	1,511	871	801	515
Converted Habitats	284	209	195	143
TOTAL	1,795	1,080	996	658

Source: MBA 1993b, Sapphos 1993.

TABLE 6.9-2
AIR POLLUTANT EMISSIONS FOR PROJECT ALTERNATIVES

Alternative	ROC	NOx	CO	PM10
Proposed Project[a]	886	873	10,771	106
Alternative 1	0.5	0.5	6.7	0.04
Alternative 2	270	249	3,323	21
Alternative 3	735	689	8,978	65
Alternative 4	553	517	6,756	48
Alternative 6	--[b]	--	--	--

[a] Emission factors from the screening tables were used to estimate emissions associated with residential uses for strict comparison purposes.

Sources: Michael Brandman Associates 1995.

Population and housing projections produced since the Santa Clarita Valley Area Plan was updated in 1990 show a need for housing that cannot be met by the areas presently designated for residential development in the Area Plan. An objective of the project applicant is to provide additional housing to meet this demand. As the proposed project would meet this objective to a greater extent than the Reduced Development Area Alternative, the proposed project is preferred over this alternative by the applicant.

Of the alternative emergency access alignments, Alternative Alignments 1 and 2 would be considered environmentally superior to the other alternatives since they would connect to an area likely to be developed in the future.

SECTION 7
LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT

7.1 *GROWTH-INDUCING IMPACTS*

The California Environmental Quality Act (CEQA) identifies a project as growth-inducing (i.e., a project offsetting spatial, economic or population growth in a geographic area) if it is characterized by any one of the following criteria:

- Removal of an impediment to growth (e.g., establishment of an essential public service or the provision of new access to an area).
- Economic expansion or growth (e.g., changes in revenue base employment expansion, etc.).
- Establishment of a precedent setting action (e.g., an innovation, a radical change in zoning or general plan amendment approval).
- Development or encroachment in an isolated or adjacent area of open space (bein g distinct from an "infill" type of project).

Should a project meet any one of the above listed criteria, it can be considered growth-inducing. The growth-inducing impacts of the proposed project are evaluated below with regard to these four criteria.

The project site is located at the outskirts of urban development that is expanding from the City of Santa Clarita and within the County of Los Angeles. Services, such as water and sewer hook ups are presently limited within San Francisquito Canyon and could not support the type of project proposed. As described in Section 3.4, the proposed project would extend public utilities to the vicinity of the project boundaries in order to develop the site. In addition, roadways would be extended to provide access to the site, however, access alignments are part of the planned roadway network shown in the Circulation Element of the Area Plan, which is not part of the proposed project. As a result, the extension of planned roadways is not considered a growth inducing impact of the project. Public services, such as sewer and water, would be extended to the project site, but could be designed specifically for the proposed project without extra capacity for surrounding development. In addition, roadways within the site boundaries could be designed so that extensions to serve offsite properties would not be feasible. It should be noted that the stub roads for emergency access would not be designed for primary access and, therefore, would not result in a removal of an impediment to growth.

Consequently, project access or the extension of services would not remove an impediment to growth.

An additional factor to be considered is the location of the project relative to other areas available for growth. The Angeles National Forest is located approximately 0.5 mile north of the project site. The forest provides a barrier to further urban growth in San Francisquito Canyon to the north of the project area. There are small ranch properties located in San Francisquito Canyon to the east and north of the proposed project. The project provides no road or other infrastructure improvements directly to these sites that would represent the removal of an impediment to growth. Additional infrastructure improvements would be needed to allow for further growth on nearby properties in San Francisquito Canyon.

The project would add approximately 3,000 housing units and 151 jobs to the Santa Clarita Valley. The employment opportunities associated with the project are not substantial and will not create a demand for additional housing in the area. The project is planned to meet a projected demand for housing in the Santa Clarita Valley. No significant economic growth is anticipated to result from the project.

The project is a proposal to continue the pattern of residential development experienced in the area. The Santa Clarita Valley Area Plan states that continued residential development is expected within the Bouquet Planning Area within the constraints of the roadway network. The project includes residential development at a lower density than other residential development projects to the south of the project site. The project could be considered part of a recognized and planned pattern of growth and is not considered to be a precedent setting action. While the project will result in the development of an area that is currently open space, any growth inducing impact of this growth is limited by the topography of the surrounding areas, existing planned density, and the permanent open space resource of the Angeles National forest to the north of the project.

Although proposed stub roads could potentially provide access to adjacent properties, the size of these roads would not be sufficient to handle large-scale development and would only serve to accommodate existing plan densities and ensure good circulation planning.

Based on the characteristics of the project, and growth in the area, as described above, the project is not considered to be growth-inducing to adjacent properties.

7.2 *IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES*

The environmental changes produced by the implementation of the proposed project would occur mainly as a result of alterations to the physical environment. In order to develop the proposed project, existing open space that supports habitat for plant and animal species and that provides water infiltration from runoff would be irrevocably committed to urban uses. Portions of the project site would be retained in the natural condition, but a majority of the site would be disturbed as a result of the project. If the project is approved and subsequently implemented, the existing uses would be removed, new structures would be built, additional utilities would be built, and improvements would be made to the existing circulation system, all of which would comprise an urban infrastructure.

Commitment of resources during project construction include:

- Landfill space of removed vegetation
- Materials used in construction, such as glass, steel, concrete, and plastics
- Fossil fuels consumed during construction

Commitment of resources during project operation would include the following:

- Elimination of 690 acres of pervious surface for infiltration of moisture to the groundwater basin
- Electrical energy and natural gas for building operation
- Fossil fuels used by project-generated traffic
- Commitment of a natural site to urban uses
- Use of water resources to support urban uses

The proposed development of the site would preclude future development of the site during the reasonable life expectancy of buildings (i.e., 50 to 75 years).

7.3 *THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USE OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY*

The proposed project will commit land that is essentially undeveloped to urban uses. Development of this site for residential uses, in terms of an average 50- to 75-year life of structures, is a short-term use of the environment. Implementation of the project would, however, represent a relatively long-term commitment of urbanization since it is unlikely that the land would revert to open space.

The site is largely undeveloped at this time and the variety of native plant communities on the project site provide habitat for a number of wildlife species, including some species considered to be sensitive. Development of the site will contribute to the loss of open space and biological resources in the region. While the project includes many design features to avoid these impacts, the loss of this open space may effect the long-term productivity of the environment.

SECTION 8
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8.2 *PERSONS AND ORGANIZATIONS CONSULTED*

Federal Agencies

United States Fish and Wildlife Service
United States Department of Agriculture Forest Service
United States Army Corps of Engineers

State Agencies

California Regional Water Quality Board
California Department of Fish and Game
California Environmental Protection Agency

County Agencies

Los Angeles County Department of Public Works
Los Angeles County Fire Department, Forester/Fire Warden
Los Angeles County Parks and Recreation Department
Los Angeles County Sanitation Districts'
Los Angeles County Public Library
Los Angeles County Sheriff's Department
Los Angeles County Significant Ecological Area Technical Advisory Committee

City Agencies

City of Santa Clarita

Miscellaneous Agencies

Southern California Association of Governments
Castaic Lake Water Agency
Valencia Water Company
South Coast Air Quality Management District
William S. Hart School District
Saugus Union School District
Castaic School District
Santa Clarita Disposal
Southern California Edison
Southern California Gas Company
Pacific Bell
Stickleback Recovery Team

SECTION 9
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APPENDIX A
INITIAL STUDY

Sept. 1, 1992

Los Angeles County
DEPARTMENT OF
REGIONAL PLANNING
320 West Temple Street
Los Angeles
California 90012
974-6411
James E. Hartl, AICP
Planning Director

T.C. Collins & Assoc.
41 corporate Park, Suite 250
Irvine, CA 92714

RE: INITIAL STUDY DETERMINATION LETTER
PROJECT NO. 92-074

On Sept. 1, 1992 *, the staff of the Department of Regional Planning completed its review of the Environmental Questionnaire and other data regarding your project and made the following determination as to the type of environmental document required.*

( ) Use of previously prepared Environmental Document
( ) Categorical Exemption
( ) Negative Declaration
( ) Mitigated Negative Declaration
( ) Other: _____
*(X) **Environmental Impact Report (EIR)***

In order to commence the EIR process, a Notice of Preparation (NOP) must be circulated and the required fee paid. As such, please submit 25 *acceptable copies of the items on the attached list to accompany the NOP and a $5,000.00 processing fee.* ***NOTE: This must be done within 30 days from the above date or your file will be terminated.*** *Additional fees may be requested later to cover costs exceeding this amount.*

Subsequent to the NOP, you are required to submit two copies of a screencheck document in the form of a Draft EIR for staff review. Staff will review and require appropriate revision to your document to reflect the independent, impartial and factual analysis of the County. It is advisable that you achieve this objective early in the process to avoid unnecessary delays. When the Draft EIR is deemed complete you will be required to submit 50 or more copies for circulation. The EIR is to address at least the factors checked in the attached Initial Study. You or your consultant must contact staff for additional instruction/information received prior to commencing preparation of the Draft EIR.

If you have any questions regarding the above determination or environmental document preparation, please contact K. Manandhar RPA II *of the Impact Analysis Section at (213) 974-6461.*

Very truly yours,

DEPARTMENT OF REGIONAL PLANNING
James E. Hartl, AICP
Director of Planning

Frank Meneses
Section Head
Impact Analysis

JEH:FM:pr

Attachment

ITEMS NEEDED FOR NOTICE OF PREPARATION CIRCULATION

1. *A typewritten 8 1/2 x 11 sheet or sheets with the following information.*

   A. *Project number and name of project (if any).*

   B. *A complete and detailed description of the proposed project including projected amount of grading, size of project and off-site improvements required. (roads, sewer extensions etc.)*

   C. *An accurate description of the location of the project including address and a vicinity map (if in a rural or undeveloped area, project site should be plotted on a U.S.G.S. 15' or 7 1/2' topographical map identified by quadrangle name).*

   D. *Actions required to approve the project such as a plan amendment (including the appropriate local plan), zone change (from/to), Conditional Use Permit (purpose), oak tree permit (number of trees to be removed /total trees) parking permit (purpose), etc. Applicant should contact the Departmental Lead Section for data and/or confirmation of this information.*

   E. *Probable environmental effects of the project as summarized from the Initial Study.*

2. *Detailed Plot plan of the project or a tentative tract map or parcel map if it is a subdivision.*

3. *A 500-foot radius land use map of the subject property. Large area projects may require a larger radius. Staff may be contacted if clarification is required.*

4. *Any supplemental information to aid in reviewing the project must be approved by staff prior to submittal.*

Staff will review these items prior to circulation of the NOP. Inaccurate, self-serving, or poorly prepared submittals will result in delays and costs to the applicant. Questions should be directed to the Impact Analysis Section at (213) 974-6461.

PROJECT NUMBER: 92-074

STAFF USE ONLY

CASES: X

* * * * INITIAL STUDY * * * *

COUNTY OF LOS ANGELES
DEPARTMENT OF REGIONAL PLANNING

GENERAL INFORMATION

Map/Case Date: 4/23/92 Staff Member: Marandhar

Thomas Guide: p. 124 USGS Quad: Newhall

Location: West of San Francisquito Canyon Road

Description of Project: Initial Study for development of approximately 3000 dwelling units and other ancillary uses like a golf course, parks, schools and commercial uses.

The project requires the filing of a tract map, general plan amendment, zone change, CUP (Hillside & SEA), and an oak tree permit.

Gross Area: 1738 acres

Environmental Setting: The project site is on hilly terrain and consists of a major ridgeline with a series of canyons running perpendicular to the general alignment of the ridgeline. The site encompasses portions of the San Francisquito Canyon SEA and the buffer thereof. Blueline streambeds run along many of the canyon bottoms. The project area is susceptible to landslides and debris flows.

Zoning: A-2-2 General Plan: Non-urban, Low density residential, SEA

~~Community~~ SCV/Areawide Plan: Hillside Management N-1 (0.5 DU per acre) W/S - Floodway & SEA U-1 (1.1-3.3 DU/AC)

Major projects in area:

Project Numbers	Description	
88151/TR45440	363 UNITS ON 99.9 AC.	
88280/TR46564	318 SF ON 133 ac.	
88320/PM20175	43 INDUSTRIAL LOTS ON 206 ac.	APPROVED
88321/TR46389	865 SF, 536 MF ON 361 AC.	APPROVED
89129	ZONE CHANGE FROM A-2-5 TO RPD ON 248 AC.	

All above projects required plan amendments.

NOTE: For EIR's, above projects are not sufficient for cumulative analysis.

REVIEWING AGENCIES

Responsible Agencies

- [ ] None
- [ ] Regional Water Quality Control Board
  - [ ] Los Angeles Region
  - [ ] Labontan Region
- [ ] Coastal Commission
- [x] Public Works

Trustee Agencies

- [ ] None
- [x] State Fish and Game
- [x] State Parks
- [x] Army Corp
- [x] UCLA - Arch. Info

Special Reviewing Agencies

- [ ] None
- [ ] Topanga-Las Virgenes Conservation District
- [ ] Santa Monica Mountains Conservancy
- [ ] National Parks
- [x] National Forest
- [ ] Edwards Air Force Base
- [ ] _____

Regional Significance

- [ ] None
- [x] SCAG Criteria
- [x] Air Quality
- [x] Water Resources
- [ ] Santa Monica Mtns Area

IMPACT ANALYSIS MATRIX:

ANALYSIS SUMMARY (See individual pages for detail

CATEGORY	Factor	PAGE	No Impact/Insignificant Impact	Significant Impact	Potential Concern
NATURAL HAZARDS	Geotechnical	5		✓	SUSCEPTIBILITY TO L/SLIDES, LIQUEFIABLE AREA
	Flood	6		✓	BLUELINES, HIGH EROSION & MUDFLOW, 100-YR FLOOD AREA
	Fire	7		✓	FIRE ZONE 4, ACCESS
	Noise	8		✓	INCREASE IN NOISE LEVELS
NATURAL RESOURCES	Water Quality	9		✓	WATER QUALITY IMPACTS FROM CONSTRUCTION, RUNOFF
	Air Quality	10		✓	REGIONAL SIGNIFICANCE
	Biota	11		✓	IMPACTS ON BIOTIC RESOURCES, ESPECIALLY SEA-19
CULTURAL RESOURCES/ VISUAL	Cultural Resources	12		✓	POTENTIAL ARCHAEOLOGICAL RESOURCES
	Visual Qualities	13		✓	UNDISTURBED AREA, OUT-OF-CHARACTER GPA require
SERVICES	Traffic/Access	14		✓	TRAFFIC IMPACTS, INADEQUATE ACCESS
	Sewage Disposal	15		✓	NO SEWAGE INFRASTRUCTURE
	Education	16		✓	IMPACTS ON SCHOOL DISTRICTS & INDIVIDUAL SCHOOL
	Fire/Sheriff	17		✓	IMPACTS ON PROVISION OF FIRE & SHERIFF SERVICES
	Utilities	18		✓	PROJECT IN UNSERVICED AREA
OTHER	General	19		✓	CHANGE IN GENERAL AREA
	Environ. Safety	20	✓		

600 water services noise water AQ Bio cult aesthetics traffic/access sewer/septic " " " "

DETERMINATION: On the basis of this Initial Study, the Department of Regional Planning finds that this project qualifies for the following environmental document:

Preliminary	FINAL	
☐	☐	NEGATIVE DECLARATION, inasmuch as the proposed project will not have a significant effect on the environment.
☐	☐	NEGATIVE DECLARATION, inasmuch as the changes required for the project will reduce impacts to insignificant levels (see "Conditions", page 4).
☑	☐	ENVIRONMENTAL IMPACT REPORT, inasmuch as there is substantial evidence that the project may have a significant impact due to factors listed above as "significant".

☐ Determination appealed--see attached sheet.

Environmental Finding (Negative Declarations):

☐ ND An Initial Study was prepared on this project in compliance with the State CEQA Guidelines and the environmental reporting procedures of the County of Los Angele It was determined that this project will not exceed the established threshold criteria for any environmental/service factor and, as a result, will not have a significant effect on the physical environment.

☐ MND An Initial Study was prepared on this project in compliance with the State CEQA Guidelines and the environmental reporting procedures of the County of Los Angele It was originally determined that the proposed project may exceed established thr hold criteria. The applicant has agreed to modification of the project so that i can now be determined that the project will not have a significant effect on the physical environment. The modification to mitigate this impact(s) is identified the Acceptance Letter included as part of this Initial Study.

NOTE: Findings for Environmental Impact Reports will be prepared as a separate document following the public hearing on the project.

Reviewed by: Kishore Mananchar 9/31/92 Date: 8/27/92

PROJECT CHANGES/CONDITIONS

☐ Prior to ( ) recordation of the final map ( ) issuance of a building permit and as a means of mitigating potential environmental impacts, it must be demonstrated to the satisfaction of the Regional Planning Commission that sewer connection permits can be obtained from ( ) county Sanitation District No.___ ( ) Las Virgenes Municipal Water District or its legal successor that meet the requirements of the California Regional Water Quality Control Board pursuant to Division 7 of the Water Code.

☐ Prior to alteration of any streambeds, and as a means of mitigating potential environmental impacts, the applicant shall enter into an agreement with the California State Department of Fish and Game, pursuant to Sections 1601 through 1603 of the State Fish and Game Code.

☐ Prior to ( ) tentative approval ( ) scheduling before the Zoning Board ( ) scheduling before the Regional Planning Commission, and as a means of mitigating potential environmental impacts, the applicant shall submit an archaeology report for the entire project site (unless otherwise noted) prepared by a qualified archaeologist, and comply with mitigation measures suggested by the archaeologist and approved by the Department of Regional Planning.

☐ Prior to ( ) tentative approval ( ) scheduling before the Zoning Board ( ) scheduling before the Regional Planning Commission, and as a means of mitigating potential environmental impacts, the applicant shall agree to suspend construction in the vicinity of a cultural resource encountered during development of the site, and leave the resource in place until a qualified archaeologist can examine them and determine appropriate mitigation measures. The applicant shall agree to comply with mitigation measures recommended by the archaeologist and approved by the Department of Regional Planning.

☐ As a condition of ( ) final approval ( ) the grant ( ) approval of the zoning ordinance, and as a means of mitigating potential environmental impacts, the applicant shall dedicate to the County of Los Angeles, ( ) the right to prohibit construction over an area demarcated on the ( ) tentative map ( ) plot plan, ( ) construction of more than one residence of commercial unit and related accessory building on any one lot on the project site. A note to this effect shall be ( ) placed on final map or on the Grant Waiver ( ) recorded on the title

☐ Prior to ( ) tentative approval ( ) recordation of the final map ( ) scheduling before the Zoning Board ( ) scheduling before the Regional Planning Commission, and as a means of mitigating potential environmental impacts, the applicant shall drill and test flow a well(s) to the satisfaction of the Department of Public Works/Engineering Division. A warning note shall be ( ) placed on the final map and in the CC&Rs ( ) recorded on the title, indicating that the area has a limited groundwater supply and that water may not be available during periods of severe drought. A copy of the ( ) CC&Rs shall be submitted to the Department of Regional Planning and subsequently recorded with the final map ( ) title shall be submitted to the Department of Regional Planning for approval.

☐ As a condition of ( ) final approval ( ) the grant ( ) approval of the zoning ordinance, and as a means of mitigating potential environmental impacts, a warning note shall ( ) be placed in the CC&Rs ( ) recorded on the title, indicating that the area has a limited groundwater supply during periods of severe drought. A copy of the ( ) CC&Rs shall be submitted to the Department of Regional Planning for approval and subsequently recorded with the final map ( ) title shall be submitted to the Department of Regional Planning for approval.

☐ Prior to recordation of the final map, the subdivider shall be required to enter into an agreement with the County to pay to the County a sum not to exceed $3,500.00 per residential unit, and not to be less than $2,000.00 per residential unit for the purpose of contributing to the proposed Road Benefit District prior to occupancy or upon demand of payment by the County Road Commission. Security for the performance of said agreement shall be guaranteed by the filing of a bond by a duly authorized surety.

☐ Prior to scheduling for public hearing, and as a means of mitigating any environmental impacts associated with the distance of the project to the nearest fire station, the applicant shall agree to comply with recommendations of the County Forester and Fire Warden.

☐ _____

_____

_____

_____

_____

_____

☐ See attached paged for additional Project/Changes/Conditions

ENVIRONMENTAL ANALYSIS

1.0 Hazard Factors

1.1 Geotechnical

SETTING/IMPACTS:

	Y	N	
a.	☐	☑	Is the project site located in an active or potentially active fault zone?
b.	☐	☑	Is the project site located in an area containing a major landslide(s)? NOTE: The site is generally susceptible to landslides. Shallow surficial landslides and several small bedrock landslides (5-100 ac.) have occurred.
c.	☐	☑	Is the project site located in an area having high slope instability?
d.	☑	☐	Is the project site subject to high subsidence, high groundwater level, or hydrocompaction? Liquefiable area along San Francisquito Canyon
e.	☑	☐	Is the proposed project considered a sensitive use (school, hospital, public assembly site) located in close proximity to a significant geotechnical hazard?
f.	☐	☐	Other factors?

MITIGATION MEASURES:

Standard mitigation measures are: ☐ Building Ordinance No. 2225— Sections 308B, 309, 310 and 311 and Chapters 29 and 70.

Other considerations: ☐ Lot Size ☐ Project Design

CONCLUSION:

Considering the above information, could the project have a significant impact on, or be impacted by, geotechnical factors?

☑ Yes ☐ No

1.2 Flood

SETTING/IMPACTS:

	Y	N	
a.	☑	☐	Is a major drainage course, as identified on USGS quad sheets by a dashed line, located on the project site? At least seven blueline streambeds and San Francisquito channel.
b.	☑	☐	Is the project site located within or does it contain a floodway or floodplain? Bouquet Canyon flood boundaries, 100-yr. flood area
c.	☑	☐	Is the project site located in or subject to high mudflow conditions?
d.	☑	☐	Will the project contribute, or be subject to, high erosion and debris deposition from run-off?
e.	☐	☐	Other factors?

MITIGATION MEASURES:

Standard mitigation measures are:

☐ Building Ordinance No. 2225--Section 308A

☐ Flood Control District Drainage Concept

☐ Ordinance No. 12,114 (Floodways)

Other considerations: ☐ Lot Size ☐ Project Design

CONCLUSION:

Considering the above information, could the project have a significant impact on, or be impacted by, flood (hydrological) factors?

☑ Yes ☐ No

1.3 Fire

SETTING/IMPACTS

	Y	N	
a.	☑	☐	Is the project site located in a high fire hazard area (Fire Zone 4 or Quinton/Redgate fire classification)?
b.	☑	☐	Is the project site in a high fire hazard area and served by inadequate access due to length, width, surface material, turnarounds, or grade?
c.	MAYBE ☐	☐	Is the project site in a high fire hazard area and has more than 75 dwelling units on a single access? LAYOUT NOT FINALIZED
d.	☑	☐	Is the project site located in an area having inadequate water and pressure to meet fire flow standards?
e.	☐	☑	Is the project site located in close proximity to potential dangerous fire hazard conditions/uses (such as refineries, flammables, explosives manufacturing)?
f.	☑	☐	Does the proposed use constitute a potentially dangerous fire hazard condition/use?
g.	☐	☐	Other Factors? _____

MITIGATION MEASURES:

Standard mitigation measures are: ☐ Fire Ordinance No. 2947

☐ Water Ordinance No. 7834 ☐ Fire Prevention Manual Regulation No. 12

Other considerations: ☐ Project Design

CONCLUSION:

Considering the above information, could the project have a significant impact on, or be impacted by, fire hazard factors?

☑ Yes ☐ No

1.4 Noise

SETTING/IMPACT:

	Y	N	
a.	☐	☑	Is the project site located near a high noise source (airports, railroads, freeways, industry)?
b.	☑	☐	Will the project substantially increase ambient noise levels, including those associated with special equipment (such as air conditioning units) or parking areas associated with the project? Including temporary noise impacts from construction related activities.
c.	☑	☐	Is the proposed use considered sensitive (school, hospital, senior citizen facility)? Project proposes schools.
d.	☑	☐	Other factors? Rye Canyon facility about 1 mile southwest of site

MITIGATION MEASURES:

Standard mitigation measures are: ☐ Building Ordinance No. 2225--Chapter 35

☐ Noise Ordinance No. 11,778

Other considerations: ☐ Lot Size ☐ Project Design

☐ Compatible Use

CONCLUSIONS:

Considering the above information, could the project have a significant impact on, or be adversely impacted by, noise?

☑ Yes ☐ No

2.0 Natural Resources

2.1 Water Quality

SETTING/IMPACT:

	Y	N	
a.	☐	☑	Will the proposed project require the use of a private sewage disposal system? SEWER HOOKUPS ARE PLANNED
	☐	☐	If the answer is yes, is the project site located in an area having known septic tank limitations due to high groundwater or other geotechnical limitations?
	☐	☐	Is the project proposing on-site systems located in close proximity to a drainage course?
b.	☐	☑	Will the proposed project place industrial waste (corrosive or toxic materials) into a private sewage disposal system or a community system?
c.	☐	☑	Is the project site located in an area having known water quality problems and proposing the use of individual water wells?
d.	☑	☐	Other factors? Impacts from construction activities, grading, runoff on groundwater

MITIGATION MEASURES:

Standard mitigation measures are:

☐ Plumbing Code--Ordinance No. 2269

☐ Health Ordinance No. 7583--Chapter 5

☐ Industrial Waste Permit

Other considerations: ☐ Lot Size ☐ Lot Design

CONCLUSIONS:

Considering the above information, could the project have a significant impact on, or be impacted by, water quality problems?

☑ Yes ☐ No

2.2 Air Quality

SETTING/IMPACT:

	Y	N	
a.	☑	☐	Will the proposed project exceed the State's criteria for regional significance (generally (a) 500 dwelling units for residential uses or (b) 40 gross acres, 650,000 square feet of floor area, or 1,000 employees non-residential uses)? APPROX. 3,000 DWELLING UNITS, 15 AC. COMMERCIAL
b.	☐	☑	Is the proposal considered a sensitive use (schools, hospitals, parks) and located near a freeway or heavy industrial use?
c.	maybe ☐	☐	Will the project increase local emissions to a significant extent due to increased traffic congestion or use of a parking structure?
d.	☐	☑	Will the project generate or is the site in close proximity to sources which create obnoxious odors and/or hazardous emissions?
e.	☐	☐	Other factors:

MITIGATION MEASURES:

Standard mitigation measures are: ☐ Health and Safety Code, Section 40506

Other considerations: ☐ Project Design ☐ Air Quality Management Plan

CONCLUSIONS:

Considering the above information, could the project have a significant impact on, or be impacted by, air quality?

☑ Yes ☐ No

2.3 Biota

SETTING/IMPACTS

a. ☑ ☐ Is the project site located within a Significant Ecological Area or Significal Ecological Area Buffer?
SEA-19 and buffer

b. ☐ ☑ Does the project site contain a major riparian habitat?
But there are many riparian patches

c. ☑ ☐ Does the project site contain oak or other unique native trees?

d. ☐ ☐ Other factors?

MITIGATION MEASURES:

Other considerations: ☐ Lot Size ☐ Project Design

☑ Oak Tree Permit

CONCLUSIONS:

Considering the above information, could the project have a significant impact on biotic resources?

☑ Yes ☐ No

3.0 Cultural Resources/Visual

3.1 Archaeological/Historical/Paleontological

SETTING/IMPACTS

	Y	N	
a.	☑	☐	Is the project site in or near an area containing known archaeological resources or containing features (drainage course) spring, knoll, rock outcroppings, or oak trees) which indicate potential archaeological sensitivity?
b.	☐	☑	Does the project site contain rock formations indicating potential paleontological resources?
c.	☐	☑	Does the project site contain known historic structures or sites?
d.	☐	☐	Other factors?

MITIGATION MEASURES:

Other considerations: ☐ Lot Size ☐ Project Design

CONCLUSIONS:

Considering the above information, could the project have a significant impact on archaeological, historical, or paleontological resources?

☑ Yes ☐ No

3.2 Visual Qualities

SETTING/IMPACTS:

	Y	N	
a.	☐	☑	Is the project site substantially visible from or will it obstruct views along a scenic highway (as shown on the Scenic Highway Element) or located within a scenic corridor?
b.	☑	☐	Is the project substantially visible from or will it obstruct views from a regional riding or hiking trail? TRAIL IS PROPOSED ON THE PROPERTY
c.	☑	☐	Is the project site located in an undeveloped or undisturbed area which contains unique aesthetic features?
d.	☑	☐	Is the proposed use out-of-character in comparison to adjacent uses because of height, bulk, or other features?
e.	☐	☑	Will the project obstruct unique views from surrounding residential uses?
f.	☐	☑	Will the project create substantial sun shadow or glare problems?
g.	☐	☐	Other factors:

MITIGATION MEASURES

Other considerations: ☐ Lot Size ☐ Lot Design

☐ Compatible Use

CONCLUSION:

Considering the above information, could the project have a significant impact on scenic qualities.

☑ Yes ☐ No

4.0 Services

4.1 Traffic/Access

SETTING/IMPACTS:

	Y	N	
a.	☑	☐	Does the project contain 25 dwelling units, or more and located in an area with known congestion problems (mid-block or intersections)?
b.	MAYBE ☐	☐	Will the project result in any hazardous traffic conditions?
c.	☐	☑	Will the project result in parking problems with a subsequent impact on traffic?
d.	☑	☐	During an emergency (other than fire hazards), will inadequate access result in problems for emergency vehicles or residents/employees in the area?
e.	☐	☐	Other factors?

MITIGATION MEASURES:

Other considerations: ☐ Project Design

CONCLUSION:

Considering the above information, could the project have a significant impact on the physical environment due to traffic/access?

☑ Yes ☐ No

4.2 Sewage Disposal

SETTING/IMPACTS:

	Y	N	
a.	☐	☐	If served by a community sewage system, are there any known capacity problems at the treatment plant? SEWAGE INFRASTRUCTURE NON-EXISTENT
b.	☐	☐	Are there any known capacity problems in the sewer lines serving the project site?
c.	☐	☐	Other factors?

MITIGATION MEASURES:

Standard mitigation measures are:

☐ Plumbing Code--Ordinance No. 2269

☐ Sanitary Sewers and Industrial Waste Ordinance No. 6130

Other considerations:

CONCLUSION:

Considering the above information, could the project have a significant impact on the physical environment due to sewage disposal facilities?

☑ Yes ☐ No

4.3 Education

SETTING/IMPACTS:

	Y	N	
a.	☑	☐	Are there known capacity problems at the district level? SAUGUS UNION, CASTAIC UNION, W.S. HART UNION
b.	☐	☑	Are there known capacity problems at individual schools which will serve the project site?
c.	☐	☑	Are there any known student transportation problems?
d.	☐	☐	Other factors?

MITIGATION MEASURES:

Other considerations: ☐ SB 201 Funds ☐ Site Dedication

CONCLUSION:

Considering the above information, could the project have a significant impact on the physical environment due to educational facilities/services?

☑ Yes ☐ No

4.4 Fire/Sheriff Services

SETTING/IMPACTS:

	Y	N	
a.	☐	☑	Are there any known staffing or response time problems at the fire station or sheriff's substation serving the project site?
b.	☐	☑	Are there any special fire or law enforcement problems associated with the project or the general area?
c.	☑	☐	Other factors? Would approval of this project potentially impact fire and sheriff services provision significantly

MITIGATION MEASURES:

Other considerations: _____

CONCLUSION:

Considering the above information, could the project have a significant impact on the physical environment due to fire/sheriff services?

☑ Yes ☐ No

4.5 Utilities/Other Services

SETTING/IMPACTS:

	Y	N	
a.	☑	☐	Is the project site in an area known to have an inadequate water supply to meet domestic needs? Project is in an unserviced area.
b.	☑	☐	Is the project site in an area known to have an inadequate water supply and/or pressure to meet fire fighting needs?
c.	☑	☐	Are there any known problems with providing other utility services, such as electricity, gas, propane?
d.	☑	☐	Are there any known service problem areas?
e.	☐	☐	Other factors?

MITIGATION MEASURES:

Standard mitigation measures are:

☐ Plumbing Code (Ordinance No. 2269)

☐ Water Ordinance No. 7834

Other considerations: ☐ Lot Size ☐ Project Design

CONCLUSION:

Considering the above information, could the project have a significant impact on the physical environment due to utilities/services?

☑ Yes ☐ No

5.0 Other Factors

5.1 General Factors

SETTING/IMPACTS:

	Y	N	
a.	☐	☑	Will the project result in an inefficient use of energy resources?
b.	☑	☐	Will the project result in a major change in the pattern, scale, or character of the general area or community?
c.	MAYBE ☐	☐	Will the project result in a significant increase in light and/or glare?
d.	☐	☑	Will the project result in a significant reduction in the amount of agricultural land?
e.	☐	☐	Other factors? _____

MITIGATION MEASURES:

Standard mitigation measures are:

☐ State Administrative Code, Title 24, Part 5, T-20 (Energy Conservation)

Other considerations: ☐ Lot Size ☐ Project Design

☐ Compatible Use

CONCLUSION:

Considering the above information, could the project have a significant impact on the physical environment due to _____?

☑ Yes ☐ No

5.2 Environmental Safety

SETTING/IMPACTS:

	Y	N	
a.	☐	☑	Are any hazardous materials used, produced, or stored on-site?
b.	☐	☑	Are any hazardous wastes stored on-site?
c.	☐	☑	Are any pressurized tanks to be used on-site?
d.	☑	☐	Are any residential units, schools, or hospitals located within 500 feet?
e.	☐	☐	Other factors?

MITIGATION MEASURES:

CONCLUSION:

Considering the above information, could the project have a significant impact on public safety?

☐ Yes ☑ No

APPENDIX B
NOP RESPONSES

Michael Brandman Associates

Environmental Research ■ Planning and Processing ■ Resources Management

TESORO DEL VALLE EIR
Notice of Preparation Responses Received as of 4/01/93
30 day Comment Period: 1/19/93 - 2/19/93

Federal Agencies	Date of Letter
U.S. Fish and Wildlife Service	1/28/93
State Agencies	
Office of Planning and Research	2/08/93
Department of Transportation	2/17/93
Regional Agencies	
South Coast Air Quality Mgmt. District	2/08/93
Los Angeles County	
Dept. of Public Works	
Transportation Planning	2/10/93
Materials Engineering Division	2/18/93
Road/Sewer & Water Section	2/01/93
Drainage and Grading Section	1/20/93
Traffic and Lighting Division	2/02/93
Dept. of Parks and Recreation	2/23/93
Dept. of Health Services	2/12/93
Library	2/04/93
Fire Dept.	3/08/93
Other Local Agencies	
City of Santa Clarita	2/21/93

606 S. Olive Street, Suite 600, Los Angeles, CA 90014 (213) 622-4443 Fax: (213) 895-0959
Santa Ana • Los Angeles • San Diego • Honolulu

United States Department of the Interior

FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
CARLSBAD FIELD OFFICE
2730 Loker Avenue West
Carlsbad, California 92008

January 28, 1992

Mr. Paul McCarthy
LA County, Dept of Regional Planning
320 W. Temple Street
Los Angeles, CA 90012

Re: Notice of Preparation - Draft Environmental Impact Report for the Clougherty Ranch Project (Project No. 92-074), Santa Clarita, Los Angeles County, California

Dear Mr. McCarthy:

The Fish and Wildlife Service (Service) has reviewed the Notice of Preparation received January 21, 1993, regarding the referenced project. The proposed project could have significant impacts on the area's remaining natural drainage systems, riparian and wetland habitats, sensitive species, and wildlife movement and migratory corridors.

The primary concern of the Service is the protection of public fish and wildlife resources and their habitats. Our mandates require that we provide comments on any public notice issued for a Federal permit or license affecting the Nation's waters, in particular, U.S. Army Corps of Engineers (Corps) permits pursuant to section 404 of the Clean Water Act and section 10 of the River and Harbor Act of 1899.

The Service is also responsible for administering certain portions of the Endangered Species Act of 1973, as amended (Act). Section 7 of the Act requires Federal agencies to consult with the Service should they determine that their actions may affect any listed threatened or endangered species. Section 9 of the Act prohibits the "taking" of any federally listed endangered or threatened species. Taking included harm which may include destruction of necessary habitat or disruption of reproductive behavior.

Generally, the Service will need for analysis the following information:

1. A description of the proposed project, including all feasible alternatives and a no action alternative. This alternative analysis is important to the Service's evaluation of the project as feasible alternatives often have less impacts to biological resources.

2. Specific acreages and detailed descriptions of the amount and types of habitats that may be affected by the proposed project. Of particular concern will be the number of wetland, riparian, and riverine acres to be impacted. This number should be verified by the Corps and/or the Environmental Protection Agency. Maps and tables should be included in the draft Environmental Impact Statement to assist in evaluation of the project-related impacts.

3. Quantitative and qualitative information concerning fish and wildlife resources, including invertebrates, associated with each habitat type.

4. A list of Federal candidate, proposed or listed threatened or endangered species, State-listed species, and locally declining or sensitive species that are found at or near the project site. A detailed discussion of these species, focusing on their site-related distribution and abundance and the anticipated impacts of the project on these species should also be included.

5. An assessment of biological impacts, including direct, indirect, and cumulative impacts. All aspects of the project including future phases, should be included in this assessment. This also includes the effects of groundwater pumping and discharge on wetland and riparian vegetation and fragmentation of natural drainages on wildlife movement.

6. Specific mitigation plans to offset project-related impacts, including cumulative impacts of direct and indirect habitat losses. If necessary, adverse project-related impacts should be mitigated through the re-creation and/or revegetation of impacted habitat types. The objective of the mitigation plan should be to offset qualitative and quantitative project-induced loss of fish, wildlife, and invertebrate habitat values. Avoidance of the impacts through project modification is considered mitigation.

7. Identification of construction methods to be employed to prevent soil erosion, along with specific erosion and sedimentation control plans to be carried out throughout the life of the project.

8. A discussion concerning proposed open space and the continuation of that open space to existing and/or proposed adjacent open space to provide maximum wildlife use of the project site, including contiguous wildlife movement corridors along natural drainage systems.

We look forward to reviewing your draft Environmental Impact Report. Should you have any additional questions, please contact John Hanlon at (619) 431-9440.

Sincerely,

Jeffrey D. Opdycke
Field Supervisor

cc: CDFG, Region 5, Long Beach, CA (Attn: K. Toucher)
EPA, San Francisco, CA (Attn: C. Morris)
CE, Los Angeles, CA (Attn: D. Castanon)
Ventura Field Office, Ventura, CA (Attn: Cat Brown)

South Coast
AIR QUALITY MANAGEMENT DISTRICT
21865 E. Copley Drive, Diamond Bar, CA 91765-4182 (909) 396-2000

February 8, 1993

Mr. Paul McCarthy
Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012

Dear Mr. McCarthy:

Re: Notice of Preparation of a Draft Environmental Impact Report for the Santa Clarita Residential Development, Case No. 92-074

SCAQMD# LAC930126-02

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the Notice of Preparation for a Draft EIR for the residential development of approximately 3,000 dwelling units, 15 acres of commercial development, two school sites on 10 acres, and 1,083 acres of open space in Santa Clarita. As a responsible agency, SCAQMD reviews and analyzes environmental documents for projects that may generate significant adverse air quality impacts. In this capacity, SCAQMD advises lead agencies in addressing and mitigating the potential adverse air quality impacts caused by projects.

To assist the Lead Agency in the preparation of the air quality analysis for the EIR, the following is a summarization of key information for evaluating air quality impacts.

Baseline Information: Describe existing climate and air quality of the region and study area from the District Monitoring station located in the project source receptor area. Attached are Air Quality Data sheets for 1989, 1990 and 1991. The Santa Clarita Air Monitoring Station (Source/Receptor Area No. 13) provides the require data for the subject project.

Identify and quantify all project **Emission Sources**.

Compare and assess anticipated project emissions with the District's **Thresholds of Significance** and the existing air quality of the region and study area.

Identify and assess **Toxic Source Emissions** within the study area.

Assess **Cumulative Air Quality Impacts** from the regional area.

Assess **Consistency of the General Plan** with the AQMP.

Identify and quantify **Project Alternatives** that may attain goals of the project with substantially fewer or less significant impacts.

Identify **Mitigation Measures** necessary to reduce air quality impacts substantially.

For additional information please refer to the District's "Air Quality Handbook for Preparing Environmental Impact Reports" to assess and mitigate adverse air quality impacts. Attached is a list of potential mitigation measures to reduce air quality impacts.

Upon completion of the Draft Environmental Impact Report, please forward two copies to:

Office of Planning & Rules
South Coast Air Quality Management District
21865 Copley Drive
P O Box 4939
Diamond Bar CA 91765-0939

Attn: Local Government - CEQA

If you have any questions, please call me at (714) 396-3055

Sincerely,

Connie Day
Program Supervisor
Local Government - CEQA

CAD:MAG
Attachment
(d_nop/nop_scla.doc)

ATTACHMENT

POTENTIAL MITIGATION MEASURES

To reduce particulate emissions from paved and unpaved roads, construction activities, and agriculture operations:

MITIGATION MEASURES

- Use low emission mobile construction equipment (e.g., tractor, scraper, dozer etc.).
- Develop trip reduction plan to achieve 1.5 AVR for construction employees.
- Water site and clean equipment morning and evening.
- Spread soil binders on site, unpaved roads and parking areas.
- Apply District approved chemical soil stabilizers according to manufacturers specifications, to all inactive construction areas (previously graded areas which remain inactive for 96 hours).
- Reestablish ground cover on construction site through seeding and watering.
- Implement or contribute to an urban tree planting program to off-set the loss of existing trees at the construction site.
- Employ construction activity management techniques, such as: extending the construction period; reducing the number of pieces of equipment used simultaneously; increasing the distance between the emission sources; reducing or changing the hours of construction; and scheduling activity during off-peak-hours.
- Pave construction roads, and sweep streets if silt is carried over to adjacent public thoroughfares.
- Reduce traffic speeds on all unpaved road surfaces to 15 miles per hour or less.
- Require a phased-schedule for construction activities to minimize emissions.
- Suspend grading operations during first and second stage smog alerts.
- Suspend all grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour.
- Wash off trucks leaving the site.
- Maintain construction equipment engines by keeping them tuned.
- Use low sulfur fuel for stationary construction equipment.
- Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.
- Use low emission on-site stationary equipment.

To reduce automobile emissions by reducing the number of vehicles driven to a work site on a daily basis:

MITIGATION MEASURES

- Provide local shuttle and regional transit systems and transit shelters.
- Provide bicycle lanes, storage areas, and amenities.
- Ensure efficient parking management.
- Provide peripheral park-n-ride lots.
- Provide preferential parking to high occupancy vehicles and shuttle services.

To reduce automobile emissions by reducing the number of persons who must drive to a work site on a daily basis:

MITIGATION MEASURES

- Promote Transportation Management Associations (TMAs).
- Establish telecommuting programs, alternative work schedules, and satellite work centers.
- Work with cities/developers/citizens in the region to implement TDM goals.

To reduce vehicular emissions through traffic flow improvements:

MITIGATION MEASURES

- Configure parking to minimize traffic interference.
- Minimize obstruction of through-traffic lanes.
- Provide a flagperson to guide traffic properly and ensure safety at construction sites.
- Schedule operations affecting traffic for off-peak hours.
- Develop a traffic plan to minimize traffic flow interference from construction activities. Plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service.
- Schedule goods movements for off-peak traffic hours.
- Synchronize traffic signals.
- Provide adequate ingress and egress at all entrances to public facilities to minimize vehicle idling at curbsides.
- Provide dedicated turn lanes as appropriate.

To reduce the length of work trips while expanding the supply of affordable housing and creating an urban form that efficiently utilizes urban infrastructure and services:

MITIGATION MEASURES

- Achieve a job/housing balance compatible with the Regional Growth Management Plan.
- Encourage growth in and around activity centers, transportation nodes and corridors.

- Promote future patterns of urban development and land use, making better use of existing facilities, and promoting mixed use development involving commercial and residential uses.

To reduce stationary emissions of operation related activities:

MITIGATION MEASURES

- Require development practices which maximize energy conservation as a prerequisite to permit approval.
- Improve the thermal integrity of buildings, and reduce the thermal load with automated time clocks or occupant sensors.
- Introduce window glazing, wall insulation, and efficient ventilation methods.
- Introduce efficient heating and other appliances, such as water heaters, cooking equipment, refrigerators, furnaces and boiler units.
- Incorporate appropriate passive solar design, and solar heaters.
- Use devices that minimize the combustion of fossil fuels.
- Capture waste heat and reemploy it in nonresidential buildings.
- Landscape with native drought-resistant species to reduce water consumption and to provide passive solar benefits.

To protect sensitive land uses from major sources of air pollution:

MITIGATION MEASURES

- Integrate additional mitigation measures into site design such as the creation of buffer zones between a potential sensitive receptor's boundary and potential pollution source.
- Require design features, operating procedures, preventive maintenance, operator training, and emergency response planning to prevent the release of toxic pollutants.

1989 AIR QUALITY

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Source/ Receptor Area No.	Location of Air Monitoring Station	Suspended Particulates PM10[g]						Particulates TSP[h]			Lead[h]				Sulfate[h]	
				No. (%) Samples Exceeding Standard		Annual Averages [i]							Quarters/Months Exceeding Standard			No. (%) Samples Exceeding Standard
		Number of Samples	Max. Conc. in ug/m³ 24-hour	Federal >150 ug/m³ 24-Hour	State >50 ug/m³ 24-Hour	AAM Conc. ug/m³	AGM Conc. ug/m³	Number of Samples	Max. Conc. in ug/m³ 24-Hour	AGM Conc. ug/m³	Max. Mo. Conc. ug/m³	Max. Qtrly. Conc. ug/m³	Federal >1.5 ug/m³ Qrtly Avg.	State ≥1.5 ug/m³ Mo. Avg.	Max. Conc. in ug/m³ 24-Hour	State ≥25 ug/m³ 24-Hour
1	Los Angeles	58	137	0	33 (56.9)	61.1	56.0	61	217	107.4	0.17	0.12	0	0	23.0	0
2	W. Los Angeles	NM	NM	NM	NM	NM	NM	54	126	61.5	NM	NM	NM	NM	19.6	0
3	Hawthorne	55	133	0	24 (43.6)	49.7	44.9	60	370	80.3	0.13	0.07	0	0	22.6	0
4	Long Beach	59	119	0	26 (44.1)	50.5	46.5	61	195	82.3	0.11	0.08	0	0	20.0	0
5	Whittier	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
6	Reseda	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
7	Burbank	58	133	0	40 (68.9)	64.7	59.6	56	183	92.1	0.20	0.10	0	0	22.1	0
8	Pasadena	NM	NM	NM	NM	NM	NM	57	190	80.8	NM	NM	NM	NM	18.0	0
9	Azusa	59	172	1 (1.7)	35 (59.3)	60.7	54.1	57	341	110.9	NM	NM	NM	NM	16.9	0
9	Glendora	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10	Pomona	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
11	Pico Rivera	NM	NM	NM	NM	NM	NM	57	206	95.4	0.19	0.12	0	0	32.0	1 (1.8)
12	Lynwood	NM	NM	NM	NM	NM	NM	56	239	105.9	0.15	0.11	0	0	19.6	0
13	Santa Clarita	48	100	0	23 (47.9)	53.5	48.8	NM	NM	NM	NM	NM	NM	NM	NM	NM
14	Lancaster	56	110	0	25 (44.6)	47.0	43.0	60	154	72.6	NM	NM	NM	NM	17.0	0
16	La Habra	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
17	Anaheim	NM	NM	NM	NM	NM	NM	61	264	87.4	0.15	0.08	0	0	17.7	0
17	Los Alamitos	55	138	0	21 (38.2)	46.2	42.0	61	251	90.1	NM	NM	NM	NM	17.4	0
18	Costa Mesa	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
19	El Toro	60	88	0	20 (33.3)	41.7	38.1	61	208	89.1	NM	NM	NM	NM	16.5	0
22	Norco	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
23	Rubidoux	61	252	7 (11.5)	51 (83.6)	94.3	81.3	61	347	132.2	0.07	0.05	0	0	16.9	0
23	Riverside	NM	NM	NM	NM	NM	NM	59	277	114.7	0.07	0.06	0	0	16.6	0
24	Perris	59	187	1 (1.7)	39 (66.1)	61.4	52.2	58	303	98.4	NM	NM	NM	NM	15.9	0
25	Lake Elsinore	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
28	Hemet	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
29	Banning	60	194	2 (3.3)	20 (33.3)	47.2	37.1	60	464	75.1	NM	NM	NM	NM	13.8	0
30	Palm Springs	60	292	2 (3.3)	17 (28.3)	44.6	35.8	61	768	69.6	NM	NM	NM	NM	12.1	0
30	Indio	58	712	4 (6.9)	39 (67.2)	90.3	66.4	60	1465	136.5	NM	NM	NM	NM	18.3	0
32	Upland	NM	NM	NM	NM	NM	NM	58	292	98.7	0.11	0.08	0	0	13.9	0
33	Ontario	61	254	4 (6.6)	49 (80.3)	79.0	69.7	57	349	116.2	NM	NM	NM	NM	16.4	0
34	Fontana	61	227	2 (3.3)	47 (77.0)	77.1	68.5	61	333	128.6	NM	NM	NM	NM	14.9	0
34	San Bernardino	59	271	3 (5.1)	44 (74.6)	80.5	69.2	60	327	119.4	0.09	0.07	0	0	17.8	0
35	Redlands	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
37	Crestline	59	87	0	13 (22.0)	39.1	34.9	61	160	58.2	NM	NM	NM	NM	10.2	0

ug/m³ - Micrograms per cubic meter of air.

AGM - Annual Geometric Mean.

g) - PM10 suspended particulates samples were collected every 6 days using the size-selective inlet high volume sampler with quartz filter media (PM10 refers to fine particles with aerodynamic diameter of 10 micrometers or less).

h) - Total suspended particulates, lead, and sulfate were determined from samples collected every 6 days by the high volume sampler method, on glass fiber filter media. Federal TSP standard superceded by PM10 standard, July 1, 1987.

i) - Federal PM10 standard is AAM > 50 ug/m³; state standard is AGM > 30 ug/m³.

STATE OF CALIFORNIA PETE WILSON, *Governor*

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO, CA 95814

DATE: Feb 08, 1993

TO: Reviewing Agency

RE: L.A. COUNTY REGIONAL PLANNING's NOP for
92074 (TESORO DEL VALLE)
SCH # 93021007

Attached for your comment is the L.A. COUNTY REGIONAL PLANNING's Notice of Preparation of a draft Environmental Impact Report (EIR) for the 92074 (TESORO DEL VALLE).

Responsible agencies must transmit their concerns and comments on the scope and content of the EIR, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of this notice. We encourage commenting agencies to respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

L.A. COUNTY REGIONAL PLANNING
320 WEST TEMPLE STREET
LOS ANGELES, CA 90012

with a copy to the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the review process, call Tom Loftus at (916) 445-0613.

Sincerely,

Christine Kinne

Christine Kinne
Deputy Director, Permit Assistance

Attachments

cc: Lead Agency

NOP Distribution List

SCH# 93021006

S = sent by lead agency
X = sent by SCH

Resources Agency

- [ ] Judy Carpenter
Dept. of Boating & Waterways
1629 S Street
Sacramento, CA 95814
916/445-6281

- [ ] Gary L. Holloway
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219
415/904-5200

- [ ] Reed Holderman
State Coastal Conservancy
1330 Broadway, Suite 1100
Oakland, CA 94612
510/464-1015

- [X] Steve Oliva
Dept. of Conservation
801 K Street, MS-24-02
Sacramento, CA 95814
916/445-8733
  - ( ) Div. of Mines and Geology
  - ( ) Div. of Oil and Gas
  - ( ) Land Resources Protect. Unit

- [X] Douglas Wickizer
Dept. of Forestry
1416 Ninth Street, Room 1516-2
Sacramento, CA 95814
916/653-9451

- [X] Hans Kreutzberg
Office of Historic Preservation
P.O. Box 942896
Sacramento, CA 94296-0001
916/653-9107

- [X] Mike Doyle
Dept. of Parks and Recreation
P.O. Box 942896
Sacramento, CA 94296-0001
916/653-0547

- [ ] Anna Leena Bronson
Reclamation Board
1416 Ninth Street Room 706
Sacramento, CA 95814
916/653-9669

- [ ] Nancy Wakeman
S.F. Bay Conservation & Dev't. Comm.
30 Van Ness Avenue, Room 2011
San Francisco, CA 94102
415/557-3686

- [X] Nadell Gayou
Dept. of Water Resources
1416 Ninth Street, Room 449
Sacramento, CA 95814
916/653-6866

Fish and Game - *Regional Offices*

- [ ] Gary Stacey, Regional Manager
Department of Fish and Game
601 Locust
Redding, CA 96001
916/225-2300 (8-442)

- [ ] Jim Messersmith, Regional Manager
Department of Fish & Game
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670
916/355-0922 (8-438)

- [ ] B. Hunter, Regional Manager
Department of Fish and Game
P.O. Box 47
Yountville, CA 94599
707/944-5518

- [ ] G. Nokes, Regional Manager
Department of Fish and Game
1234 East Shaw Avenue
Fresno, CA 93710
209/222-3761 (8-421)

- [X] Fred A. Worthley, Jr., Reg. Manager
Department of Fish and Game
330 Golden Shore, Suite 50
Long Beach, CA 90802
213/590-5113 (8-635)

Independent Commissions

- [ ] John R. Nuffer
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814
916/654-3859

- [ ] William A. Johnson
Native American Heritage Comm.
915 Capitol Mall, Room 288
Sacramento, CA 95814
916/653-4082

- [ ] William Meyer
Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
415/703-1540 (8-597)

- [X] Betty Eubanks
State Lands Commission
1807 - 13th Street
Sacramento, CA 95814
916/322-2795

Business, Transportation, & Housing

- [ ] Sandy Hesnard
Caltrans - Division of Aeronautics
P.O. Box 942874
Sacramento, CA 94274-0001
916/324-1833

- [ ] Tom Micone
California Highway Patrol
Office of Special Projects
Planning and Analysis Division
2555 First Avenue
Sacramento, CA 95818
916/437-7222

- [X] Ron Helgason
Caltrans - Planning
P.O. Box 942874
Sacramento, CA 94274-0001
916/445-5570

Department of Transportation *District Contacts*

- [ ] Guy Luther
Caltrans, *District 1*
1656 Union Street
Eureka, CA 95501
707/445-6407

- [ ] Michelle Gallagher
Caltrans, *District 2*
P.O. Box 494040
Redding, CA 96049-4040
916/225-3259 (8-442)

- [ ] Jody Lonergan
Caltrans, *District 3*
703 B Street
Marysville, CA 95901
916/741-4277 (8-457)

- [ ] Gary S. Adams
Caltrans, *District 4*
P.O. Box 7310
San Francisco, CA 94120
415/557-9162 (8-597)

- [ ] Wayne Schnell
Caltrans, *District 5*
P.O. Box 8114
San Luis Obispo, CA 93403-8114
805/549-3683 (8-629)

- [ ] Moses Pacheco
Caltrans, *District 6*
P.O. Box 12616
Fresno, CA 93778
209/276-5989 (8-422)

- [X] Gary McSweeney
Caltrans, *District 7*
120 South Spring Street
Los Angeles, CA 90012
213/620-2376 (8-640)

- [ ] Harvey Sawyer
Caltrans, *District 8*
P.O. Box 231
San Bernardino, CA 92402
714/383-4808 (8-670)

- [ ] Lisa Flores
Caltrans, *District 9*
500 South Main Street
Bishop, CA 93514
619/872-0203 (8-627)

- [ ] Al Johnson
Caltrans, *District 10*
P.O. Box 2048
Stockton, CA 95201
209/948-7838 (8-423)

- [ ] Mike Owen
Caltrans, *District 11*
P.O. Box 85406
2829 Juan Street
San Diego, CA 92186-5406
619/688-6750 (8-631)

- [ ] Aileen Kennedy
Caltrans, *District 12*
2501 Pullman St.
Santa Ana, CA 92705
714/724-2239 (8-655)

Food and Agriculture

- [ ] Vashek Cervinka
Dept. of Food and Agriculture
1220 N Street
Sacramento, CA 95814
916/322-5227

Health & Welfare

- [ ] Quy Tu
Dept. of Health
601 N. 7th Street, PO Box 942732
Sacramento, CA 94234-7320
916/323-6111

- [ ] DHSTSCD: _____

State and Consumer Services

- [ ] Robert Sleppy
Dept. of General Services
400 P Street, Suite 5100
Sacramento, CA 95814
916/324-0214

Environmental Affairs

- [ ] Barbara Fry
Air Resources Board
2020 L Street
Sacramento, CA 95815
916/322-8267

- [X] Jeanie Agpoon
Calif. Waste Management Board
8800 Cal Center Drive
Sacramento, CA 95826
916/255-2439 916/255-2341

State Water Resources Control Board

- [ ] Allan Patton
State Water Resources Control Board
Division of Clean Water Programs
P.O. Box 944212
Sacramento, CA 94244-2120
916/739-4265

- [ ] Dave Beringer
State Water Resources Control Board
Delta Unit
P.O. Box 2000
Sacramento, CA 95812-2000
916/322-9870

- [X] Phil Zentner
State Water Resources Control Board
Division of Water Quality
P.O. Box 100
Sacramento, CA 95801
916/657-0912

- [ ] Mike Falkenstein
State Water Resources Control Board
Division of Water Rights
901 P Street, 3rd Floor
Sacramento, CA 95814
916/657-1377 (8-437)

- [X] APCD/AQMD: SOUTH COAST 33

Regional Water Quality Control Board

- [ ] NORTH COAST REGION (1)
1440 Guerneville Rd.
Santa Rosa, CA 95401
707/576-2220 (8-590)

- [ ] SAN FRANCISCO BAY REGION (2)
2101 Webster, Suite 500
Oakland, CA 94612
415/464-1255 (8-561)

- [ ] CENTRAL COAST REGION (3)
81 Higuera Street, Suite 200
San Luis Obispo, CA 93401-5427
805/549-3147 (8-629)

- [X] LOS ANGELES REGION (4)
1075 S. Broadway, Rm. 4027
Los Angeles, CA 90012
213/266-4460 (8-640)

- [ ] CENTRAL VALLEY REGION (5)
3443 Routier Road, Suite A
Sacramento, CA 95827-3098
916/361-5600
  - ( ) Fresno Branch Office
  3614 East Ashlan Avenue
  Fresno, CA 93726
  209/445-5116 (8-421)
  - ( ) Redding Branch Office
  415 Knollcrest Drive
  Redding, CA 96002
  916/224-4845 (ATS 441)

- [ ] LAHONTAN REGION (6)
2092 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150
916/544-3481
  - ( ) Victorville Branch Office
  15428 Civic Drive, Suite 100
  Victorville, CA 92392-2359
  619/241-6583

- [ ] COLORADO RIVER BASIN REGION (7)
73-271 Highway 111, Suite 21
Palm Desert, CA 92260
619/346-7491

- [ ] SANTA ANA REGION (8)
2010 Iowa Avenue, Suite 100
Riverside, CA 92507
714/782-4130 (8-632)

- [ ] SAN DIEGO REGION (9)
9771 Clairemont Mesa Blvd., Suite B
San Diego, CA 92124-1331
619/265-5114 (8-636)

- [X] OTHER: HCD

- [ ] OTHER: _____

3/2/92

Notice of Completion

Appendix F

Mail to: State Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 916/445-0613

See NOTE below
SCH # 93021007

Project Title: 92 074 (TESORO DEL VALLE)

Lead Agency: L.A. County Regional Planning
Contact Person:
Street Address: 320 W. Temple St.
Phone: (213) 974-6461
City: Los Angeles, CA Zip: 90012
County: Los Angeles

Project Location

County: Los Angeles
City/Nearest Community: SANTA CLARITA
Cross Streets: SAN FRANCISQUITO CYN ROAD
Total Acres: 1800
Assessor's Parcel No.
Section: Twp. Range: Base:
Within 2 Miles: State Hwy #: Waterways:
Airports: Railways: Schools:

Document Type

CEQA: [x] NOP [ ] Supplement/Subsequent [ ] Early Cons [ ] EIR (Prior SCH No.) [ ] Neg Dec [ ] Other [ ] Draft EIR

NEPA: [ ] NOI [ ] EA [ ] Draft EIS [ ] FONSI

Other: [ ] Joint Document [ ] Final Document [ ] Other

Local Action Type

[ ] General Plan Update
[x] General Plan Amendment
[ ] General Plan Element
[ ] Community Plan
[ ] Specific Plan
[ ] Master Plan
[ ] Planned Unit Development
[ ] Site Plan
[x] Rezone
[ ] Prezone
[x] Use Permit
[x] Land Division (Subdivision, Parcel Map, Tract Map, etc.)
[ ] Annexation
[ ] Redevelopment
[ ] Coastal Permit
[ ] Other OAK TREE PERMIT

Development Type

[x] Residential: Units 3000 Acres 1800
[x] Office: Sq.ft. Acres Employees
[ ] Commercial: Sq.ft. Acres Employees
[ ] Industrial: Sq.ft. Acres Employees
[ ] Educational
[ ] Recreational
[ ] Water Facilities: Type MGD
[ ] Transportation: Type
[ ] Mining: Mineral
[ ] Power: Type Watts
[ ] Waste Treatment: Type
[ ] Hazardous Waste: Type
[ ] Other:

Project Issues Discussed in Document

[x] Aesthetic/Visual
[ ] Agricultural Land
[x] Air Quality
[x] Archeological/Historical
[ ] Coastal Zone
[x] Drainage/Absorption
[ ] Economic/Jobs
[ ] Fiscal
[x] Flood Plain/Flooding
[x] Forest Land/Fire Hazard
[x] Geologic/Seismic
[ ] Minerals
[x] Noise
[ ] Population/Housing Balance
[x] Public Services/Facilities
[ ] Recreation/Parks
[x] Schools/Universities
[ ] Septic Systems
[x] Sewer Capacity
[ ] Soil Erosion/Compaction/Grading
[ ] Solid Waste
[ ] Toxic/Hazardous
[x] Traffic/Circulation
[ ] Vegetation
[x] Water Quality
[ ] Water Supply/Groundwater
[x] Wetland/Riparian
[ ] Wildlife
[ ] Growth Inducing
[ ] Landuse
[ ] Cumulative Effects
[ ] Other

Present Land Use/Zoning/General Plan Use

A-2-2 / URBAN NON URBAN / SEA

Project Description 2,027 SINGLE FAMILY UNITS
1,002 MULTI-FAMILY UNITS
2 SCHOOL SITES
1,083 ACRES OF OPEN SPACE

NOTE: Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. from a Notice of Preparatio or previous draft document) please fill it in.

Revised October 19

STATE OF CALIFORNIA—BUSINESS AND TRANSPORTATION AGENCY

PETE WILSON, *Governor*

DEPARTMENT OF TRANSPORTATION
DISTRICT 7, 120 SO. SPRING ST.
LOS ANGELES, CA 90012-3606
TDD (213) 897-6610

February 17, 1993

Mr. Paul Mc Carthy
Los Angeles County
Department of Regional Planning
320 West Temple Street
Los Angeles, CA 90012

IGR/CEQA 1043
Initial Study
Residential Devlpmt.
Co. of Los Angeles
Vic. LA-005-53.6

Dear Mr. Mc Carthy:

We have reviewed the above referenced document in regards to development of a residential community (Tesoro Del Valle), east of Route 005 and north of Soledad Canyon Road, in the County of Los Angeles.

Based on the information received, we have the following comment:

> Please provide a Traffic Study and Analysis, showing the effects of the project on the State Transportation System. Traffic volumes and Levels of Service must be provided for all effected intersections involving State Routes.

Should you have any questions please call me at (213) 897-1338.

Sincerely;

Wilford Melton

WILFORD MELTON
Senior Transportation Planner
IGR/CEQA Coordinator
Advance Planning Branch

CC: Mr. Jonathan Freeman
Michael Brandman Associates
606 South Olive Street, Suite 600
Los Angeles, CA 90014

JP

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

THOMAS A. TIDEMANSON, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

Date February 18, 1993

IN REPLY PLEASE REFER TO FILE P-4

Mr. Frank Meneses
Section Head, Impact Analysis Section
Department of Regional Planning
County of Los Angeles
320 West Temple Street
Los Angeles, CA 90012

Attention Paul McCarthy

Dear Mr. Meneses:

RESPONSE TO REVIEW OF ENVIRONMENTAL DOCUMENTS

Enclosed are comments from the following Divisions within this Department regarding Project No. 92-074:

- [x] Land Development - Drainage and Grading
- [x] Materials Engineering - Geology and Soils
- [x] Traffic and Lighting
- [ ] Waterworks and Sewer Maintenance
- [x] Waste Management
- [x] Other Road Sewer and Water Section, Transportation Planning Sect

If you have any questions regarding the comments, please contact the person listed on the enclosed comments. For additional information, please contact Ms. Clarice Nash at (818) 458-4334.

Very truly yours,

T. A. TIDEMANSON
Director of Public Works

MICHAEL H. NAGAO
Planning Division
Drainage Planning/Environmental Section

MA:aa
RPD

Enc.

February 18, 1993

TO: Brian Sasaki
Planning Division

Attention Clarice Nash

FROM: Victor C. Martinez
Materials Engineering Division

REVIEW OF ENVIRONMENTAL DOCUMENTS

The attached documents for the San Francisquito Canyon Project, No. 92-074, have been reviewed by the Materials Engineering Division.

Comments are attached.

If you have any questions, please contact Mr. Frederick Gharib at (818) 458-4925.

VCM:sm
ME-0/ME:EIR.074

Attach.

DEPARTMENT OF PUBLIC WO. .S
MATERIALS ENGINEERING DIVISION

DEVELOPMENT REVIEW SECTION
ENVIRONMENTAL DOCUMENTS REVIEW

	GEOTECHNICAL ENGINEER	ENGINEERING GEOLOGIST
PROJECT IDENTIFICATION 92-074		
LOCATION San Francisquito Canyon		
DATE RECEIVED 1-20-93 **DEADLINE** 2-10-93		
DATA REVIEWED Initial Study		
The proposed project has no significant effects on the checked environmental factor(s) from a geology and soils standpoint provided the appropriated ordinances and codes are followed.		
Review of the initial study/~~geotechnical report~~ indicates that the proposed project will have significant effects on the checked environmental factor(s) from a geology and/or soils standpoint. See discussion.	X	✓
The environmental document is inadequate from a geology and soils standpoint. See discussion.		
DATE REVIEW COMPLETED	2/11/93	2-9-93

DISCUSSION OF POTENTIALLY SIGNIFICANT EFFECTS AND/OR REPORT INADEQUACIES

Geology The initial study indicates that landslides and potentially liquefiable soils exist on the property.

Soils
Location of the project must be shown on a topographic map. Also the project must be shown on a geotechnical map. the geology must be described and mitigation measures, if any, indicated. The geotechnical hazards and the recommended mitigation measures must be included in the Environmental Impact Report.

Original to: **Planning Division or LDMA/Procession Center Section**
cc: Development Review Section File

Rev. 10/13/92
FORM NO. 9

February 1, 1993

TO: M. H. Nagao
Drainage Planning/Environmental Section
Planning Division

Attention Clarice Nash

FROM: T. W. Hoagland HW/for
Road/Sewer & Water Section
Land Development Division

NOTICE OF PREPARATION
PROJECT NUMBER 92-074

As requested, we reviewed the subject document. The following comments are provided for inclusion in your response to the Department of Regional Planning.

The scope of the project indicates that a comprehensive roadway network, sewer system and water supply system will be required for the development. However, the extent of the improvement will be determined when subsequent Conditional Use Permit, Tract Maps and/or Parcel Maps for the development of the site are submitted to this Section for review.

If you have any questions regarding this matter, please call Mr. Henry Wong at (818) 458-4910.

HW:gp
L-2/DISK1/92074

cc: Road Unit
Sewer Unit
Water Unit

48-0014 DPW 4/86

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

PUBLIC WORKS

☐ FINAL MAP REPORT

☐ LAND USE REPORT

Files Nos. 2-15.311 2-15.313 1.21

Review of NOP - PROJ # 90-07K
TESORO DEV. PROJ. DEVELOPMENT

Map or Transmittal Letter Date
1-20-95

Assignment No. _____

TO: PLANNING DIVISION

ATTN: CHARLES NASH

_____ 1. The Drainage and Grading Section has no requirements for this subdivision/application.

_____ 2. The subdivision/site is reasonably free of flood hazard.

_____ 3. Portions of the property are subject to sheet overflow, (and) ponding, ( ) and mudflows from steep hillsides.

_____ 4. Portions of the subdivision/site lying in and adjacent to ( ) steep hillsides, ( ) natural watercourses, ( ) _____ are subject to flood hazard because of ( ) tidal/wave action, ( ) overflow, ( ) erosion, ( ) mudflow and/or deposition of debris.

_____ 5. This project will not significantly affect the environment as far as the Section's interests are concerned, provided the appropriate ordinances and codes are followed.

_____ 6. Place a note of flood hazard on the final map/grant of waiver and submit engineering documentation to support those limits.

_____ 7. Dedicate to the City/County the right to restrict the erection of buildings in the flood hazard areas.

_____ 8. Adequate engineering documentation must be submitted showing that building sites are available and are free of flood hazard.

X 9. Provide a drainage concept prior to approval of the tentative map. Sufficient information must be submitted to the Department showing the extent of the drainage problem and proposed solution.

_____ 10. Provide improvements to eliminate the flood hazard. Improvements may include ( ) storm drains and/or channels, ( ) debris control facilities, ( ) vehicular access to structures, ( ) _____.

_____ 11. Dedicate fee title/an easement/future easement to the District/County of Los Angeles/City of _____ _____ providing adequate right of way for _____.

_____ 12. Show on the final map the Flood Control District's right of way for _____. A permit will be required for any construction affecting the District's right of way or facilities.

_____ 13. Approval of the _____ is recommended subject to conditions noted herein or shown on the returned map.

_____ 14. The recordation of this map will not unreasonably interfere with the free and complete exercise of the easement held by the District/County.

_____ 15. The _____ is unsatisfactory. Note the reasons stated herein or shown on returned map.

_____ 16. Proposed grading must be in compliance with Chapter 70 of the County Building Code.

Comments:

Development of the 1800 acre site will require the processing of a tentative tract map, and a drainage concept will be required by Public Works to assess potential flood hazards and the required drainage devices necessary to mitigate these hazards.

Information relative to the above comments may be obtained by contacting:

Engineering Investigator _____
Telephone (818) 458-4920

Approved by _____ Date of Report _____
Drainage and Grading Section

February 2, 1993

TO: John E. Engeman
Planning Division

FROM: Ken E. Weary
Traffic and Lighting Division

NOTICE OF PREPARATION (JANUARY 1993)
TESORO DEL VALLE
PROJECT NUMBER 92-074
SANTA CLARITA AREA

As requested, we reviewed the subject document. The project is located south of the Angeles National Forest and north of the City of Santa Clarita in unincorporated County area. The proposed development consists of 2,027 single-family units, 1,002 multi-family units, and two schools. We expect this project would generate approximately 28,300 vehicles trips per day.

We believe that a development of this magnitude could significantly impact the adjacent County roadways and intersections. A traffic study should be prepared to identify the traffic impacts and ensure that appropriate mitigation measures are proposed. The study should also address the cumulative impacts generated by this and nearby developments and include Levels of Service (LOS) analyses for affected intersections and freeway interchanges. Since this project is a General Plan Amendment, adequacy of the area circulation system and LOS analyses for area build out year should also be addressed. If traffic signals or other mitigation measures are warranted at the affected intersections, the developer should contribute to the cost. In addition, the developer should determine his proportionate share of signal or other mitigation costs and submit this information to this Department for review and approval. A copy of our Traffic/Access Guidelines is attached.

We recommend the City of Santa Clarita also review this project for impacts/mitigation within their jurisdiction.

If you have any questions, please contact Mr. James Chon of our Traffic Investigations and Studies Section at Extension 5909.

JHC:df
T-2/PN92-074

Attach.

cc: Carl L. Blum
Land Development

TRAFFIC/ACCESS GUIDELINES

Generally, the Department staff is concerned with adverse impacts on traffic when: (1) traffic generated by a project considered alone or cumulatively with other projects, if added to existing traffic volumes, exceeds the design capacity of an intersection or roadway, contributes to an unacceptable Level of Service (LOS), or exacerbates an existing congested condition; and/or (2) project generated traffic interferes with the existing traffic flow (e.g., due to the location of access roads, driveways, parking facilities); and/or (3) proposed access locations do not provide for adequate safety (e.g., due to limited visibility on curving roadways); and/or (4) nonresidential uses generate commuter or truck traffic through a residential area; and/or (5) project generated traffic significantly increases on a residential street and alters its residential character.

(Note: Access as associated with the use of emergency vehicles is discussed under "Fire Hazard".)

These guidelines provide an outline of the information generally to be included in the Draft Environmental Impact Report (EIR) you prepare or have prepared. Depending upon the specific concern(s) of the Department staff, all of the material listed may not be required. A traffic report should be prepared by a registered civil or traffic engineer. A traffic report is generally needed if a project generates over 500 trips per day unless other possible adverse impacts (see page 3) are identified.

PROJECT DESCRIPTION

Note: This information may be included in another section of the EIR (e.g., Section I-Project Description).

1. A description of the project, including those factors which quantify traffic generators, e.g., dwelling units, square feet of office space, persons to be employed, restaurant seats, acres of raw land, etc. For residential developments, the description should indicate the type of residence, e.g., one level or townhouse condominiums, and if its use is for families, adults, or retirees.

2. A plot plan showing proposed driveways, streets, internal circulation, and any parking facilities on the project site.

3. If it appears that the project's generated traffic alone or together with other projects in the area, could worsen the LOS of an intersection or roadway a "before" and "after" LOS analysis is necessary. The Intersection Capacity Utilization (ICU) or Critical Movement Analysis are two methods often used to assess existing and future LOS at intersections.

   If using the ICU method, a maximum of 1,600 vehicles per hour per lane should be used (dual left-turn lanes have a capacity of 2,880 veh/hr) and a ten percent yellow clearance cycle should be included. Intersection LOS analysis and calculation work sheets shall be included in the report for the following conditions: (a) existing traffic; (b) existing plus ambient growth to the year the project will be completed; (c) traffic in (b) plus project traffic; and (d) traffic in (c) plus the cumulative traffic of other known developments. The project's impact on two-lane roadways should also be analyzed if those two-lane roadways are the principal or only access to more fully developed Master Plan Highways.

   LOS C (volume to capacity ratio of 0.8) is considered acceptable. For most areas of the County, mid-range LOS D or volume to capacity ratio of 0.85 is the point beyond which mitigation measures are required. For roadways in a highly urbanized area, such as East Los Angeles, LOS D (volume to capacity ratio of 0.9) is the point beyond which mitigation measures are required.

   If it is assumed that new routes will alter traffic patterns, adequate backup including traffic distribution maps should be provided showing how and why these new routes will alter traffic patterns.

   Also, if it appears that the project's generated traffic, alone or with other projects in the area, could warrant traffic signals, signal warrant data should be provided.

4. Discuss other possible adverse impacts on traffic. Examples of these are: (1) the limited visibility of access points on curved roadways; (2) the need for pavement widening and left-turn lanes at access streets and driveways; and (3) the impact of increased traffic volumes on local residential streets.

11. Construct a grade separation.

12. Complete an alley to provide an alternate means of access.

13. Improve or construct alternate routes.

14. Complete proposed routes shown on the Los Angeles County Highway Plan.

15. Improve freeway interchanges (bridge widening, ramp modifications, etc.).

16. Transportation System Management

    a. Establish working hours which do not coincide with street peak-hour traffic.

    b. Encourage employee use of carpools and public transportation (specific measures must be indicated).

    c. Establish preferential parking for carpools.

    d. Restrict truck deliveries to Major and Secondary highways, and encourage delivery during the off-peak hours.

17. Contribute funds to a benefit district along with other developers to fund new routes in a region.

cs:8/91
T-2/WP/TAG

February 9, 1993

TO: Carl L. Blum
Planning Division

Attention Clarice Nash

FROM: Guita Sheik
Waste Management Division

INITIAL STUDY FOR
TESORO DEL VALLE PROJECT
PROJECT NO. 92-074
ADJACENT TO CITY OF SANTA CLARITA

We have reviewed the initial study for the proposed Tesoro Del Valle Project. The proposal consists of an 1,800 acre residential development located in the unincorporated western portion of Los Angeles County, adjacent to the City of Santa Clarita. The project consisting of four phases includes approximately 3,000 residential units on various sized lots, two schools, a park, and open spaces. In reference to Waste Management Division's area of responsibility, we offer the following comments:

1. Current estimates indicate that a shortfall in permitted daily land disposal capacity in Los Angeles County will occur within the next five years. As such, the proposal may adversely impact solid waste management in this County. The environmental analysis must identify what measures the project proponent will implement to mitigate the impact. These measures may include, but are not limited to, development of new or expansion of existing landfill sites, as well as implementation of waste reduction, recycling, and composting programs.

2. The California Solid Waste Refuse and Recycling Access Act of 1991, requires each jurisdiction to adopt an ordinance (by September 1, 1993), requiring each "development project" to provide for an adequate storage area for collection and removal of recyclable materials.

   The environmental analysis must discuss standards to provide adequate "waste storage area" for collection/storage of recyclable and green waste materials for this development.

3. The existing hazardous waste management (HWM) facilities in this County are inadequate to handle hazardous waste currently being generated. The proposed development may generate hazardous waste, including household hazardous waste, which could adversely impact existing HWM facilities. This issue should be addressed and mitigation measures provided.

4. The analysis should assess the impact of the quality of stormwater as the result of the project. Mitigation measures should be developed and incorporated into the project. The analysis should reference National Pollutant Discharge Elimination System (NPDES) Permit CA0061654, issued by the Regional Water Quality Control Board to the County and local cities. The analysis should indicate that the project proponent will implement all necessary measures to fully comply with all County requirements on stormwater quality management upon adoption of these requirements.

5. Should any operations at the subject facility require industrial wastewater discharge into the sewer system or storage of materials in underground tanks, this office must be contacted for issuance of necessary permits.

6. Any mitigation measure monitoring program performed by the Los Angeles County Department of Public Works, Waste Management Division will require a funding account to be established by the project proponent to pay for the required services. The amount of necessary funds will be determined at the time monitoring will be performed. Department of Public Works, Waste Management Division, must be contacted to establish the funding account.

Should you have any questions regarding this matter, please contact Ms. Guita Sheik at Extension 5183.

GS:jk
GUITA\TESORO
WM-2

February 10, 1993

TO: Michael H. Nagao
Drainage Planning/Environmental

FROM: Bruce E. Whitehead BEW 2/10
Transportation Planning

NOTICE OF PREPARATION OF A DRAFT EIR FOR TESORO DEL VALLE DEVELOPMENT PROJECT NO. 92-074

As requested, we have reviewed the Notice of Preparation for the subject project and offer the following comments:

We agree that an Environmental Impact Report and a detailed traffic study should be prepared for the project. The report must address the adequacy of the highway network to carry traffic volumes anticipated at build-out of the General Plan plus additional traffic resulting from density increases such as that proposed by the applicant. Mitigation measures, to include downscaling if necessary, should be proposed if adverse impact occurs.

Area transit operators should be consulted and the possibility of extending service to the development should be addressed.

The applicant has proposed a realignment of Copper Hill Drive at the southern portion of the tract. The applicant should be prepared to provide sufficient right of way and slope easement if this alignment is approved. The report should also address the impact of such alignment passing through the Significant Ecological Area (SEA) along San Francisquito Canyon. In addition, as required by the General Plan, the applicant should discuss different alternative alignments passing through the SEA and comparison of the impacts.

San Francisquito Canyon Road has been identified by the County as a future regional arterial between Elizabeth Lake Road and Copperhill Drive. Standards for this facility would require at least 2 lanes per direction. The applicant should be prepared to dedicate the necessary right of way and slope easements for preservation of the corridor.

Should you have any questions regarding the above matter, please contact Mr. Ghulam Dogar at Extension 4365.

GMD:nr
P-3:wp/25

cc: Planning (Whitehead)

COUNTY OF LC ANGELES • DEPARTMENT OF HEAL I SERVICES
PUBLIC HEALTH PROGRAMS AND SERVICES
ENVIRONMENTAL HEALTH/HEALTH FACILITIES
BUREAU OF ENVIRONMENTAL PROTECTION
2525 Corporate Place #150, Monterey Park, CA 91754-7631 • (213)881-4011

DHS

February 12, 1993

Paul McCarthy, Assistant Section Head
Department of Regional Planning
Impact Analysis Section
320 W. Temple Street
Los Angeles, CA 90012

Dear Mr. McCarthy:

SUBJECT: NOP - DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)
92-074 - WEST OF SAN FRANCISQUITO CYN RD, SANTA CLARITA

This is in response to your January 19, 1993 Notice of Preparation of a Draft Environmental Impact Report (DEIR) for the above referenced project.

This Bureau has reviewed the Initial Study, and we believe the DEIR should address the following:

SOLID WASTE DISPOSAL

- Address the impact on local refuse haulers and their ability to handle the additional refuse generated by the project.
- Address the impact on solid waste disposal facilities.
- Include a full discussion of source reduction, composting and recycling.

IMPACT ON LOCAL PUBLIC WATER SUPPLIES

- The developer must provide specific information relative to the provision of potable water and the disposal of sewage. If existing utilities are to provide these services, the impact then must be addressed.

If you have any questions or require further information, please let me know.

Very truly yours,

Jack Petralia

Jack Petralia, Director
Bureau of Environmental Protection

JP:kaj\EIR'S\92-074\W/oSanFrancisquitoCynRd

County of Los Angeles Public Library
7400 East Imperial Hwy., P.O. Box 7011, Downey, CA 90241-7011
(213) 940-8461, TELEFAX (213) 803-3032

Library

SANDRA R. REUBEN
County Librarian

PLEASE NOTE NEW
AREA CODE 310

February 4, 1993

Mr. Paul D. McCarthy
Assistant Section Head
Impact Analysis Section
Department of Regional Planning
320 West Temple Street
Los Angeles, CA 90012

Dear Mr. McCarthy:

NOTICE OF PREPARATION OF A
DRAFT ENVIRONMENTAL IMPACT REPORT
TESSORO DE VALLE
PROJECT NO. 92074

In response to your request for comments on the above-referenced project, following is our assessment of the impact of this project with regard to increased library services.

This area would be served by the Valencia Library, located at 23743 W. Valencia Boulevard, Valencia, approximately four miles from the project site. Based on the current Department of Regional Planning figure of an average of 2.88 persons per household for the Santa Clarita area, the construction of 3,029 residential units will result in an estimated population increase of 8,724 new residents. Based on this population increase and a planning standard of 2.0 items per capita, we estimate the need for 17,448 additional items. In addition, we estimate the need for an additional 3,053 square feet of library facility based on a planning standard of 0.35 square foot per capita. Currently, the square foot per capita ratio in the Santa Clarita Valley service area is 0.20, far below the Library's planning standard. In addition, the items per capita in the Santa Clarita Valley service area are currently 1.43, compared to the Library's 2.0 planning standard.

The cumulative effect of this development and the many others currently planned for and in progress in the Santa Clarita Valley create a very significant negative impact on the present library infrastructure which is inadequate to keep pace with the rapid growth occurring throughout this area. The County of Los Angeles Public Library does not have sufficient funds to provide current and projected required capital improvements; and, at present, there are no applicable fees established by the Board of Supervisors to minimize the impact upon the County Library as a result of new development. The County Library strongly encourages participation of the developer in

the funding mechanism for future library facilities by way of land or cash contribution toward the construction of new or expanded facilities and purchase of additional library materials.

Please let me know if you need any additional information. I can be reached at (310) 940-8450.

Very truly yours,

Fred Hungerford
Head, Staff Services

FH:SH:sh

c: David Flint
Evelyn MacMorres

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

(213) 881-2481

P. MICHAEL FREEMAN
FIRE CHIEF
FORESTER & FIRE WARDEN

MAR 29 1993

March 18, 1993

92074

Mr. Kishore Manandhar
Department of Regional Planning
Impact Analysis Section
320 West Temple Street
Los Angeles, CA 90012

Dear Mr. Manandhar:

SUBJECT: ENVIRONMENTAL IMPACT REPORT -- CITY OF SANTA CLARITA INITIAL STUDY FOR TESORO DEL VALLE CONCEPTION USE PLAN

FIRE PROTECTION AND EMERGENCY MEDICAL SERVICE AVAILABILITY

The subject development will receive fire protection and paramedic service from the County of Los Angeles Fire Department. Fire Station #111, located at 26829 Seco Canyon Road, Saugus, CA 91350-2217, is the jurisdictional engine company for this property.

It is approximately 2.9 miles from the point where San Francisquito Canyon Road abuts the southeast corner of the property. Response distances and times to various locations within the property cannot be estimated without a specific road plan.

Additional unimpeded access shall be provided to the northern and western portions of the property for emergency vehicles responding from other fire stations in the area.

Additional manpower, equipment, and facilities will be needed to serve this development. Limited tax revenues have restricted the Fire Department's ability to meet new growth needs. Although general plans for upgrading fire protection in the area have been developed, the Department will not be able to implement these plans without specific provision for the necessary manpower, equipment and facilities. Mitigation of this problem should be required prior to granting approval of this development. The Fire Department will work with the developer to establish appropriate mitigation arrangements for the proposed project.

SERVICE RESPONSIBILITY

Due to the fact that only limited information is available on this project at the present time, we are not able to respond completely as to how this project will affect our Department. We would like to reserve the right to respond further at a future date when more specific information is available.

The applicant shall participate in an appropriate financing mechanism to provide funds for fire protection facilities which are required by new commercial, industrial or residential development in an amount proportionate to the demand created by this project. The developer shall contact the County of Los Angeles Fire Department at (213) 881-2404 to discuss mitigation arrangements.

DESIGN AND CONSTRUCTION

This property is located within the area described by the Forester and Fire Warden as Fire Zone 4, and must comply with all applicable code and ordinance requirements for construction, access, water mains, fire hydrants, fire flows and brush clearance.

Fire flows of 1,250 gallons per minute at 20 pounds per square inch residual pressure for a two-hour duration will be required for the single-family residences. Hydrant spacing shall be 600 feet.

Fire flows of up to 5,00 gallons per minute at 20 pounds per square inch residual pressure for a five-hour duration may be required for the commercial uses in the project. Hydrant spacing shall be 300 feet.

Final fire flow will be based on the size of the building, its relationship to other the structures and property lines, and the type of construction used.

Fire Department requirements for access, fire flow and hydrants are addressed at the Los Angeles County Subdivision Committee meeting when approval for tentative subdivision maps are considered.

FORESTRY DIVISION

We have reviewed the Initial Study for the Tesoro del Valle Conception Use Plan located west of San Francisquito Road. The following analysis of information should be included in your Draft Environmental Impact Report:

We have not received an Oak Tree Permit application or report for review. An Oak Tree Permit is required for this project.

The flora and fauna analysis should address any rare, endangered, and/or sensitive species that exist on the project site. The preservation, relocation, and /or construction impacting any of these species should be fully explained in the Environmental Impact Report.

Due to the wildland fire hazard surrounding the project, we do not recommend using highly flammable and heavy fuel volume Eucalyptus, Pines, Junipers and Cypress plant species.

Appropriate soil erosion control structures and vegetative cover must be provided to prevent erosion. Plants suited to the climate of the area should be considered including drought tolerant (xeriphytic) species.

A fire hazard reduction/fuel management plan should be developed and implemented prior to construction.

Native/low fuel volume plants should be mandatory in the revegetative plan for this project in order to limit the potential threat of wildland fires.

The proposed project contains a SEA (Sensitive Ecological Area). Creative environmental design to protect and preserve this sensitive area is required.

If you have any additional questions, please contact this office at (213) 881-2481.

Very truly yours,

P. MICHAEL FREEMAN

Paul H. Rippens

BY
PAUL H. RIPPENS, CHIEF, FORESTRY DIVISION
PREVENTION BUREAU

PHR:rd

COUNTY OF LOS ANGELES
DEPARTMENT OF PARKS AND RECREATION

Rodney E. Cooper, Director

February 23, 1993

Mr. Paul McCarthy
Assistant Section Head, Impact Analysis
County of Los Angeles
Department of Regional Planning
320 West Temple Street
Los Angeles, CA 90010

Dear Mr. McCarthy:

NOTICE OF PREPARATION
TESORO DE VALLE (FORMERLY CLARITY RANCH)
PROJECT # 92074

The Department of Parks and Recreation has reviewed the above named document, our comments and concerns are as follows.

Park Facilities

To be in compliance with the Los Angeles County General Plan and the Quimby Ordinance, the proposed project will have a requirement for park facilities. Based on the proposal of 3,029 dwelling units, the preliminary estimate is for 27 to 36 acres of parkland. Location and design of the parks is subject to the approval of the North Region office of our Department. The contact person is Tom Reilly at (805) 257 - 3500. The Department will not give credits for parks planned as joint use (ie. retention areas), those within utility easements, or within SEA's, as shown on the Conceptual Land Use Plan.

Regional Hiking and Equestrian Trails

Any trails within the project should connect to established County trails such as the San Francisquito Trail. These planning efforts can be coordinated with David Palma, County Trails Coordinator at (213) 738 - 2973.

San Francisquito Canyon Significant Ecological Area (SEA #19)

The Department supports the original designation of SEA's within the County as preservation of unique and valuable segments of our landscape. In particular, SEA #19 has been identified as

containing habitat for the endangered species, the unarmored threespined stickleback (UTS). As proposed, project development will produce irreversible impacts on this regionally significant resource, SEA #19 and the UTS habitat.

If the project proceeds in this location, development should occur outside of the SEA, and a significant buffer distance (100 feet or more) should be established between the development and the SEA.

We appreciate the opportunity to review this document. If you have any questions, please call me at (213) 738 - 2972.

Sincerely,

Cynthia D'Agosta

Cynthia K. D'Agosta
Park Planning Assistant

JXP
ckd: 92074nop.doc

23920 Valenc Blvd.
Suite 300
City of Santa Clarita
California 91355

Phone
(805) 259-2489
Fax
(805) 259-8125

City of
Santa Clarita

February 21, 1993

Mr. Frank Meneses
Impact Analysis Section
County of Los Angeles
320 West Temple Street
Los Angeles, CA 90012

Re: Project No. 92-074: Tesoro del Valle (Clougherty Ranch Project), J-Blak Partnership.

Entitlements requested: General Plan Amendment; Zone Change; Tentative Tract Map(s); Conditional Use Permit; Oak Tree Permit.

Location: West side of San Francisquito Canyon Road at Copperhill Road, north and west of the Santa Clarita City boundary.

Dear Mr. Meneses:

Our staff has reviewed the Notice of Preparation (NOP) to prepare an Environmental Impact Report (EIR) for this project. At this time we would like to offer comments on the project and Draft EIR. The NOP and Initial Study indicate that the proposed project consists of approximately 1800 acres. 3029 residential units are proposed to be developed on 624 acres of the site, including 2027 single-family lots, 34 estate sized lots, 1002 multi-family homes, two school sites, 1083 acres of open space, and 91 acres of parks.

Santa Clarita supports the provision of a variety of housing types for all income levels to be in balance with employment opportunities in the Santa Clarita Valley. (Santa Clarita General Plan: Land Use and Housing Elements, Goals and Policies). However, we also consider that the environmental impacts of all housing projects must be carefully examined in any environmental document prepared for the project.

The following issues are of primary concern to the City of Santa Clarita and should be addressed in the Draft EIR:

- General Plan consistency
- Geological
- Biota/river impacts
- Visual impacts
- Traffic impacts

General Plan consistency: The City of Santa Clarita General Plan land use designation for the property is Residential Estate (RE), with a density range of 0.0 to 0.5 dwelling units per acre; Significant Ecological Area (SEA). The average density for this project as proposed is 1.7 dwelling units per acre, and exceeds that prescribed under the RE land use designation. The intent of the SEA designation is to identify areas of prime ecological importance, and ensure the continued

viability of the biota contained within the SEA through protection and preservation. Peripheral development in and adjacent to the floodway/floodplain of San Francisquito Creek may not be consistent with the intent of the SEA designation. The City land use designations for this project site are quite similar in nature to the County land use designations of Hillside Management, Non-urban 1, and Watershed/Significant Ecological Area. To preserve hillsides and sensitive habitats, the City of Santa Clarita General Plan Land Use Element policy 5.4 discourages the removal of the County's Hillside Management and SEA overlay designations. The Initial Study also indicates that 15 acres of commercial development is included, but this is not shown in the applicant's project description; please clarify this.

Geological impacts: At this time no active faults are known to exist on-site. A project of this size may require a geology report, and this should be determined as part of this investigation. The Initial Study identified landslides present, and high liquefaction potential due to soils and ground water. The project description indicates that approximately 26,000,000 cubic yards of grading, to be balanced on-site, will be required to implement the project. Of the 1800 acres on the project site, 1000 acres would be dedicated to open space (of which 690 acres would remain undisturbed by grading). However, the Initial Study makes no mention of this grading as a potential geological impact or air quality impact.

Biological/River Impacts: A biological study should be included as part of the project scope of work. We feel that this may be one of the most significant issues for this project, and should address potential impacts to plants, animals, habitat, and migration. This analysis should also determine if oak tree removals can be avoided. San Francisquito Creek and seven other blueline streams traverse the project site. Drainage impacts should be examined for potential on-site and off-site effects. The City of Santa Clarita typically supports the California Department of Fish and Game and The U.S. Army Corps of Engineers regarding development in or adjacent to waterways. Proposed grading and roadways may disrupt the direction and rate of flow, quality and quantity, ground water, surface runoff, erosion, natural habitats adjacent to the project site, and existing flood control infrastructure. The river and adjacent areas may be sensitive regarding archaeological and historical resources. An archaeological/historical survey of the site and adjacent properties should also be included in the Draft EIR with an evaluation of potential impacts.

Visual impacts: Visual impacts should be thoroughly examined considering that the project site and environs are rural in character with little to no development. The site is partially within San Francisquito Creek, exhibits slopes exceeding 10%, and is traversed and surrounded by significant ridgelines. (The project site exhibits four primary and two secondary significant ridgelines, so the City would consider this proposal as a Ridgeline and Hillside development project). As proposed, this project does not clearly demonstrate itself to be in compliance with the County's Hillside Management guidelines, and further study may be desirable. Adjacent property owners/residents may likely find this project obtrusive and disruptive to the aesthetic quality of San Francisquito Canyon.

Traffic impacts: Based upon a preliminary in-house review by our traffic engineering staff, we anticipate the following traffic volumes:

25,230 generated trips per day
1,981 generated trips per a.m.peak
2,609 generated trips per p.m. peak

These indicated trips may result in a significant impact on surrounding areas in both County and City jurisdictions, and a traffic study should be required for this purpose. We would like to recommend that the joint City/County traffic model be used for this purpose. The traffic consultant should also consult with the City Traffic Engineer prior to preparing the scope of work for the traffic study.

Additional comments: The applicant should be encouraged to continue applying the village concept and unit clustering in the design of this proposal to help avoid ridgelines and floodways. The design and location of the open space areas seem to provide some relief, and could be implemented in a recreation/conservation program for the project addressing several of our concerns.

A golf course (available to the general public) using reclaimed water is a worthwhile project, and a discussion of its feasibility in this location may be helpful. The City has no adopted policy regarding the development of golf courses. However, the City does promote public/private cooperation in developing park improvements, recreational services, and facilities (Goal 10, Santa Clarita General Plan). The City also seeks to provide, develop, and maintain parks with quality recreational facilities dispersed throughout the area (Goal 1, Santa Clarita General Plan). Use of reclaimed water at this site may also be of benefit in the DEIR. Golf courses should "use reclaimed water, where possible, for park irrigation purposes" (Policy 3.6, Recreation Element, Santa Clarita General Plan).

Thank you for the opportunity to review and comment on this proposed project. Please forward any additional information on this project to Jeff Chaffin, Assistant Planner, at telephone number (805) 255-4330. We look forward to working with you on this project.

Sincerely,

LYNN M. HARRIS
DEPUTY CITY MANAGER
COMMUNITY DEVELOPMENT

Donald M. Williams
Senior Planner

advance\tdvlaco.mjc

EXHIBIT D-8
TRANSIT IMPACT REVIEW WORKSHEET
Valid Through 12/1/93 (next CMP update)

EIR NOP COMMENT AND WORKSHEET COMPLETION DEADLINE: 5/31/93

Part A is completed and submitted to the transit operator upon the start of the EIR NOP comment period. If the transit operator comments on the project, they may use Part B of this worksheet to indicate responses. Comments are submitted to the person identified under Part A below by the end of the NOP comment period.

PART A: To be completed by Developer or Local Jurisdiction.

Jonathan Freeman
Name of Person Completing PART A.

Michael Brandman Associates
Jurisdiction/Company Name

606 S. Olive Street, Suite 600, Los Angeles, CA 90014
Address

(213) 622-4443
Telephone Number

PART B: To be completed by Transit Operator.

[illegible]
Name of Person Completing PART B.

[illegible]
Jurisdiction/Company Name

[illegible]
Address

[illegible]
Telephone Number

NOTE: The CMP requires consultation with transit operators through the Notice of Preparation (NOP) when a project prepares an EIR. Use of these worksheets, or similar, is suggested as a means to facilitate this communication.

PART A: To Be Completed by Developer or Local Jurisdiction.

DEVELOPMENT PROJECT DESCRIPTION

Local Jurisdiction Los Angeles County

Development Project Name Tesoro del Valle

1. Provide map of Development Project showing specific location and major streets.

2. Indicate development project type(s). Check more than one for mixed use projects.

- ☐ Commercial
- ☐ Hotel
- ☐ Industrial
- ☐ Office
- ☒ Single-Family Residential
- ☒ Multi-Family Residential
- ☐ Retail
- ☒ Other: School, Recreation

3. Indicate size for each use identified above:

_____ Property Acreage or Square Feet 3029 Dwelling Units

_____ Building Gross Square Feet (excluding parking structures/areas)

2 Other: Schools, One Swim and Racket Club

4. Provide trip generation and mode assignment information by time of day (if available).

See Attached Chart

	AM PEAK HOUR Specify ____	PM PEAK HOUR Specify ____	DAILY
Total Trips Generated			
Trips Assigned to Transit			

GROSS TRIP GENERATION ANALYSIS*
(Tesoro del Valle)

Project Phasing	Land-use Description	Units	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Average Daily
Phase 1 (1996):	Racquet Club	12 Courts	10	7	17	28	18	46	515
	Single Family	649 D.U.	125	355	480	426	229	655	6,198
	Townhouse	232 D.U.	14	111	125	109	60	169	1,856
		Phase 1 Total:	149	473	622	563	307	870	8,569
Phase 2 (1998):	1 Elementary School	715 Students	129	86	215	0	0	0	779
	Single Family	756 D.U.	145	414	559	497	267	764	7,220
	Townhouse	229 D.U.	14	110	124	108	59	167	1,832
		Phase 2 Total:	288	610	898	605	326	931	9,831
Phase 3 (2000):	1 Elementary School	715 Students	129	86	215	0	0	0	779
	Single Family	622 D.U.	120	340	460	408	220	628	5,940
	Apartment	541 D.U.	47	229	276	232	109	341	3,500
		Phase 3 Total:	296	655	951	640	329	969	10,219
		Project Total:	733	1,738	2,471	1,808	962	2,770	28,619

* Racquet club and elementary schools will generate 20 percent of trips external to the project site.

SUMMARY OF TRIP GENERATION RATES

Single-Family Detached Housing[1]:

ADT:	9.55 Trips/Dwelling Unit	(In:Out=50%:50%)
A.M. Peak Hour:	0.74 Trips/Dwelling Unit	(In:Out=26%:74%)
P.M. Peak Hour:	1.01 Trips/Dwelling Unit	(In:Out=65%:35%)

Townhouse/Condominiums[2]:

ADT:	8.00 Trips/Dwelling Unit	(In:Out=50%:50%)
A.M. Peak Hour:	0.54 Trips/Dwelling Unit	(In:Out=11%:89%)
P.M. Peak Hour:	0.73 Trips/Dwelling Unit	(In:Out=64%:36%)

Apartments[3]:

ADT:	6.47 Trips/Dwelling Unit	(In:Out=50%:50%)
A.M. Peak Hour:	0.51 Trips/Dwelling Unit	(In:Out=17%:83%)
P.M. Peak Hour:	0.63 Trips/Dwelling Unit	(In:Out=68%:32%)

Racquet Club[4]:

ADT:	42.90 Trips/Court	(In:Out=50%:50%)
A.M. Peak Hour:	1.40 Trips/Court	(In:Out=60%:40%)
P.M. Peak Hour:	3.86 Trips/Court	(In:Out=60%:40%)

Elementary School[5]:

ADT:	1.09 Trips/Student	(In:Out=50%:50%)
A.M. Peak Hour:	0.30 Trips/Student	(In:Out=60%:40%)
P.M. Peak Hour:	Not Applicable	Not Applicable

Notes:

(1) Source: Land Use Code 210, ITE Trip Generation Manual (5th Edition), 1991

(2) Source: Los Angeles County, Department of Public Works, Traffic and Lighting Department

(3) Source: Land Use Code 220, ITE Trip Generation Manual (5th Edition), 1991

(4) Source: Land Use Code 492, ITE Trip Generation Manual (5th Edition), 1991; in and out directional split is unavailable from ITE Trip Generation Manual, therefore, they are obtained from San Diego Association of Governments, Traffic Generators, January 1990

(5) Source: Land Use Code 520, ITE Trip Generation Manual (5th Edition), 1991

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PART A: To Be Completed by Developer or Local Jurisdiction (continued)

5. What assumptions/analyses were used to determine the number/percent of trips assigned to transit (as indicated in Question 4)? Attach any working papers/CEQA documents, if available, to document approach.

Not available at this time

6. Will the development project include any facilities and/or programs to encourage public transit use?

☒ Yes ☐ No

If yes, provide a complete listing below. Be sure to include not only the local jurisdiction's TDM Ordinance measures but also include other project specific (e.g., condition of approval) measures. Attach additional information as needed.

Specific improvements unknown at this time. We request suggestions for appropriate mitigation for transit impacts.

ONLY PHASE I AND IV HAVE DENSITIES HIGH ENOUGH TO SUPPORT TRANSIT. WE WOULD WANT TO WORK WITH DEVELOPER EARLY IN PROCESS TO ASSURE DESIGN PROVIDES GOOD PEDESTRIAN ACCESS BETWEEN EACH DWELLING UNIT (WHERE DENSITY EXCEED 5DU PER ACRE) AND NEAREST BUS STOP PLUS STREET DESIGN FOR EFFICIENT BUS ROUTING

8. Submit or(s) within 1 mile les.

Transit t

Santa Clarita Transit May 10, 1993

PART B: To Be Completed by Transit Operator(s)

TRANSIT OPERATOR REVIEW

1. Is proposed project transit use (Part A, questions 4 and 5), given measures encouraging transit use (Part A, question 6), consistent with current transit ridership in the area?

   ☐ Yes ☐ No ☐ No Opinion

2. Is project assigning trips to transit?

   ☐ Yes ☐ No

   If Yes, then complete Tables B-1 and B-2 and return Worksheet to Part A contact by the deadline date. Do not complete Table B-2 if there are no suggested improvements.

   If No, and the question 1 response is yes, then do not complete Tables B-1 and B-2 and return Worksheet to Part A contact by the deadline date.

Table B-1 Instructions. Complete Table B-1 below for current and planned transit services. Include local fixed-route bus service within a 1/4 mile radius and express bus and rail services within a 2 mile radius of the proposed development. You may identify services beyond the specified radii if you demonstrate that such services will be affected by the development. Make copies of this Table as needed for providing information on additional Lines/Routes.

Table B-1
TRANSIT SERVICE MATRIX

	Line/Route No. _____	Line/Route No. _____	Line/Route No. _____
New Trips Assigned AM Peak PM Peak Base			
Additional Capacity Needed AM Peak PM Peak Base			

Table B-2
TRANSIT IMPROVEMENTS

Improvements for Line/Route _____ Local Jurisdiction _____

Route is: ☐ Local fixed-route bus within 1/4 mile radius of development project.
☐ Express bus route within 2 mile radius of development project.
☐ Rail service within 2 mile radius of development project.

Transit operator may identify improvements for services beyond the specified radii if the operator can demonstrate that such services will be affected by the development. Make copies of this Table as needed for providing information on additional Lines/Routes.

Identify potential/desirable improvements below by filling in the improvement column and completing adjacent columns. Provide map of improvement location as needed.

-SUGGESTED IMPROVEMENTS-

Improvement (Fill in blanks below as needed.)	Priority	Estimated Cost ($000)	Is Improvement Already Planned?		Have Funds Been Allocated for Improvement?	
			Yes	No	Yes	No

APPENDIX C
COUNTY DEPARTMENT COMMENTS ON SCREENCHECK EIR

County of Los Angeles
Sheriff's Department Headquarters
4700 Ramona Boulevard
Monterey Park, California 91754-2169
(805) 255-1121

SHERMAN BLOCK, SHERIFF

May 13, 1994

Mr. Frank Meneses
Los Angeles County
Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012

Dear Mr. Meneses:

DRAFT ENVIRONMENTAL IMPACT REPORT
TESORO DEL VALLE, PROJECT NO. 92-074/TR. 51-644

The proposed Tesoro Del Valle project consisting of 3,000 multi-family and single family housing units, is located in the unincorporated area of Los Angeles County. The area is serviced by the Los Angeles County Sheriff's Department, Santa Clarita Valley Station, 23740 Magic Mountain Parkway, Valencia 91355.

The proposed project site is north of Seco Canyon Road, along the west side of San Francisquito Canyon Road, and is approximately 6-8 miles from the Santa Clarita Valley Station. It is anticipated that the average non-emergent response times to a request for service would be approximately 25-35 minutes. The response time under emergent circumstances would be approximately 6-10 minutes. All response times are only approximations and would be dependent on both the deployment of area radio cars and traffic conditions.

At present, all law enforcement services with the exception of traffic services (traffic enforcement and traffic accident investigation will be handled by the California Highway Patrol) are handled by the Los Angeles County Sheriff's Department.

Adding this project and other projects in progress, either proposed, approved or committed would significantly impact law enforcement services. This station serves an area of 656 square miles and a population of approximately 170,000 with a staff of 151 sworn officers. A desired officer-to-population ratio is one officer per 1,000 population. This station is currently operating at a less than desirable level.

Assuming a residential density of 2.75 persons per dwelling unit, your proposed project will generate a population of 8,250. Based on the above ratio of one officer per 1,000 population, this project would require an additional eight deputies.

It is highly recommended for the approval of this project that Copper Hill Drive be completed from its current terminus at Seco Canyon Road on the east and Rye Canyon Road on the west with the intersection being complete with McBean Parkway upon the start of build of this project.

The above recommendation is in order to expedite a quick evacuation of the area in the event of an emergency and also to avert any potential traffic congestion that might arise from the build out of this and other projects planned for the area.

For crime prevention purposes and for the security and safety of the future residents, the following measures should be implemented during site and building layout design:

- Proper lighting in open areas and parking lots;
- Visibility of doors and windows from the street and between buildings;
- Adequate parking spaces in the parking lots to accommodate shoppers and employees;
- The required building address numbers be lighted and readily apparent from the street for emergency response agencies.

Should you have further questions or need for consultation please contact my Community Relations Office, Deputy Patrick Rissler, at (805) 255-1121 ext. 358.

Sincerely,

SHERMAN BLOCK, SHERIFF

Michael I. Quinn, Captain
Santa Clarita Valley Station

SOLID WASTE MANAGEMENT

June 22, 1994

File No: 26-00.04-00
32-00.04-00

Mr. Frank Meneses, Section Head
Impact Analysis Section
Los Angeles County
Department of Regional Planning
320 W. Temple Street
Los Angeles, CA 90012

Dear Mr. Meneses:

Tesoro Del Valle Project

The County Sanitation Districts received a *Preliminary Draft Environmental Impact Report* for the subject project on May 9, 1994. We offer the following comments, corrections, and updated information:

1. Sewer System, page 3-15, first paragraph: The document states "onsite and offsite sewage collection facilities would be dedicated to the Sanitation Districts." According to current Districts' policy, developers who wish to connect to the Districts' sewerage system must construct any sewer lines which are necessary to convey wastewater generated by the proposed development(s) to the Districts' existing sewerage system. If it is determined that such a sewer line is of a regional nature, the Sanitation Districts may agree to assume ownership, operation and maintenance of the sewer line as long as it is constructed to Districts' specifications. Operation and maintenance of local sewers and laterals which connect to the Districts' trunk sewer lines are the responsibility of the local jurisdictions.

2. Responsible Agencies, page 3-18, fifth paragraph: District No. 29 should be replaced with District No. 26.

3. Related Projects, page 4-3, last paragraph: Not all related projects listed in this section have been annexed into Districts' service areas.

4. Sewage, page 5.10-31, second paragraph: The average daily flows should be updated from 14.89 mgd to 15.43 mgd.

5. Page 5.10-32, second paragraph: truck should be replaced with trunk.

6. Table 5.10-11 should be modified to read:

Name	Size	Design Capacity	Peak Flow	Last Measured
Avenue Scott Trunk Sewer	21"	6.0 mgd	.75 mgd	1992
Rye Canyon Trunk Sewer	10"	2.3 mgd	0.4 mgd	1992
Bouquet Canyon Relief Trunk Sewer	24"	12.5 mgd	6.0 mgd	1992

7. Table 5.10-12: Total Generation from Commercial should be changed from 14,157 gpd to 16,250 gpd, and the Swim/Racket Club Generation Rate should be changed from 68 gpd/1,000 sf to 125 gpd/1,000 sf, thereby changing the total figure from 711,925 gpd/0.71 mgd to 715,158 gpd/0.72 mgd. Flow figures throughout the document should be updated accordingly.

8. Cumulative Impacts, page 5.10-34, first paragraph: one should be replaced with are, treatmenting replaced with treatment.

9. Cumulative Impacts, page 5.10-34, paragraphs nos. 2, 3, and 4: The design capacity of Districts' wastewater conveyance and treatment facilities will be based on population forecasts adopted in the Southern California Association of Governments' (SCAG) 1994 Regional Comprehensive Plan (RCP). The RCP is in the process of being adopted as part of the 1994 South Coast Air Quality Management Plan (AQMP). The AQMP is jointly prepared by the South Coast Air Quality Management District (SCAQMD) and SCAG as a requirement of the Federal Clean Air Act (CAA). In order to conform with the AQMP, all expansions of Districts' facilities must be sized and service phased in a manner which will be consistent with the Growth Management element of the 1994 RCP. The Growth Management element contains a regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial which was prepared by SCAG. Specific policies included in the RCP which deal with the management and distribution of growth will be incorporated into the AQMP strategies to improve air quality in the South Coast Air Basin. The available capacity of Districts' conveyance and treatment facilities will, therefore, be limited to levels associated with approved growth identified in the adopted RCP. As such, this does not necessarily guarantee wastewater service for your development, however, the Districts do intend to provide this service to your development up to the levels which are legally permitted and to inform you of the currently existing capacity and any proposed expansion of Districts' facilities.

10. Cumulative Impacts, page 5.10-34, paragraphs nos. 2, 3, and 4: The Sanitation Districts are empowered by the California Health and Safety Code to charge a fee for the privilege of connecting to the Sanitation Districts' Sewerage System or increasing the existing strength and/or quantity of wastewater attributable to a particular parcel or operation already connected. This connection fee is required to construct an *incremental* expansion of the Sewerage System to accommodate the proposed project which will mitigate the impact of this project on the *present* Sewerage System. Payment of a connection fee will be required before a permit to connect to the sewer is issued. As stated in item no. 9, the Districts intend to provide service to projects or developments up to the levels which are legally permitted. Developments which exceed SCVJSS capacity will not be allowed to connect to the system. Therefore, use of connection fees for projects or developments which exceed system capacity cannot be considered as mitigation.

11. Cumulative Impacts, page 5.10-34, second paragraph: Under existing factors such as regulatory requirements, wastewater flow characteristics, and present treatment processes, the "practical capacity" of the SCVJSS is estimated to be 28.0 mgd. As these factors change in the future, the "practical capacity" of the SCVJSS may also change. It should also be noted that with adoption of the RCP growth figures, this 28.0 mgd capacity no longer will be sufficient to service projected flows. Therefore, major system expansions will be required. The Districts are currently updating the SCVJSS facilities plan to determine the future service needs and system expansion phasing.

12. Page 5.10-35, paragraph 1: (Christonson 1994) should be replaced with (Christensen 1994).

If you have any questions, please contact Darrell Hatch at (310) 699-7411, extension 2717, or the undersigned at extension 2722.

Very truly yours,

Charles W. Carry

Dainis Kleinbergs
Project Engineer
Financial Planning &
Property Management Section

DK:DH:rc

N:\ENVASSES\ENVASSZ\TESODELV.LTR

County of Los Angeles Public Library
7400 East Imperial Hwy., P.O. Box 7011, Downey, CA 90241-7011
(310) 940-8461, TELEFAX (310) 803-3032

SANDRA F. REUBEN
COUNTY LIBRARIAN

June 17, 1994

Frank Meneses
Section Head
Impact Analysis Section
Department of Regional Planning
320 West Temple St.
Los Angeles, California 90012

Dear Mr. Meneses:

PRELIMINARY DRAFT ENVIRONMENTAL IMPACT REPORT
PROJECT NO. 92-074/TR51644
TESORO DEL VALLE

In response to your request for comments on the above-referenced project, the following is our assessment of the impact of this project with regard to public library services.

The project area would be served by the Valencia Library, located at 23743 West Valencia Boulevard, Santa Clarita, which is located approximately four miles from the project site. Based on the current Department of Regional Planning figure of an average of 2.88 persons per household for the Santa Clarita area, the construction of 3,000 residential units will result in an estimated population increase of 8,640 new residents. Based on this population increase and a planning standard of 2.0 items per capita, we estimate the need for 17,280 additional items. In addition, we estimate the need for an additional 3,024 square feet of library facility based on a planning standard of 0.35 square foot per capita. Currently, the square foot per capita ratio in the Santa Clarita Valley service area is 0.20, far below the Library's planning standard. In addition, the items per capita in the Santa Clarita Valley Service area are currently 1.43. compared to the Library's 2.0 planning standard.

The cumulative effect of this development and the many others currently planned for and in progress in the Santa Clarita Valley creates a very significant negative impact on the present library infrastructure which is inadequate to keep pace with the rapid growth occurring throughout this area. The County of Los Angeles Public Library does not have sufficient funds to provide current and projected required capital improvements; and, at present, there are no applicable fees established by the Board of Supervisors to minimize the impact upon the County Library as a result of new development. The County Library strongly encourages participation of the developer in the funding mechanism for future library facilities by way of land or cash contribution toward the construction of new or expanded facilities and purchase of additional library materials.

Therefore, in order to mitigate the impact of this project, the County Library would request funding by the developers in order to offset the required increase in library infrastructure. The County Library is currently using a construction cost estimate of $220 per square foot and an average cost of $30 per item for materials. Using these cost estimates, we calculate the impact of the project, in terms of facility space requirements and additional library materials, to be $1,183,680.

In addition to the impact analysis outlined above, there are several points listed in the May 5, 1994, draft of the environmental impact report that require clarification or revision which are listed below.

Section 1, Page 1-3

Clarify the meaning of the phrase in the third paragraph "the project's impact on the library system is an area of controversy with County staff".

Section 1, Page 1-11

The mitigation measures listed for library services require revision. We recommend the following language be substituted: "Based on the recommendations of the County Public Library, the project developer is encouraged to enter into an agreement with the County Library to specify methods of mitigation which could include the contribution of funds to reduce the impact of the project to less than significant levels."

Section 5, Page 5.10-19

The second paragraph listed under the heading "Library Facilities, Environmental Setting" contains incorrect information. We recommend that the following language be substituted: "The County Public Library recently suffered a 50% budget reduction as a result of the State shift of property tax revenues from public libraries to schools. This massive reduction in revenue has forced the County Library to severely curtail hours of operation and to permanently close ten library facilities. Previously, the Valencia Library, which is the main library serving the Santa Clarita area, was open seven days a week; however, the budget cuts reduced the service to four days a week for Fiscal Year 1993-94."

In addition, the Valencia Library was heavily damaged from the Northridge earthquake and is currently undergoing restoration. It is anticipated that the library will reopen in December, 1994, on the limited four-day-per-week schedule. The only library service currently available in the Santa Clarita area is provided by small outlets located in Canyon Country and Newhall, both of which are quite distant from the project area.

Section 5, Page 5.10-20

The information in Table 5.10-6 and the paragraph that follows uses the term "book volumes". The correct term is "library material items" since the County Library offers materials in an extended range of formats besides books which include audio-tapes, video tapes, CD-ROM, microforms, maps, periodicals, and other items.

Section 5, Page 5.10-21

We would recommend that the paragraph under the heading "Mitigation Measures - Project" be revised as follows:

> "Based on the recommendations of the County Public Library, the project developer is encouraged to enter into an agreement with the County Library to specify methods of mitigation which could include the contribution of funds in order to compensate for the increase in population and resulting increased demand for library services resulting from the project."

If you have any questions or need additional information, please contact Stephanie Hampton at (310) 940-6992 or me at (310) 940-8450.

Very truly yours,

Fred Hungerford/jam

Fred Hungerford
Head, Staff Services

FH:jam\f

c: David Flint
Evelyn MacMorres
Stephanie Hampton

COUNTY OF LOS ANGELES
DEPARTMENT OF PARKS AND RECREATION

Rodney E. Cooper, Director

June 14, 1994

Mr. Frank Meneses, Section Head
Impact Analysis Section
Department of Regional Planning
County of Los Angeles
320 West Temple Street, Room 1354
Los Angeles, CA 90012

Dear Mr. Meneses:

Preliminary Draft Environmental Impact Report (PDEIR)
Tesoro Del Valle Project
Project 92074 Tentative Tract Map 51644

The Department of Parks and Recreation has reviewed the above named document, our comments and concerns are as follows.

San Francisquito Canyon/Significant Ecological Area (SEA #19)

The Department supports the designation of SEA's as preservation of unique and valuable resources of our landscapes within the County. Consequently, the Department is opposed to the proposed project's encroachment on Significant Ecological Area (SEA) #19. The local and regional significance of San Francisquito SEA #19 warrants protection from potential irreversible significant impacts. If the project must proceed, the Department recommends approval of a project that avoids development in the SEA.

The Department supports the recommendation made by the County Significant Ecological Areas Technical Advisory Committee (SEATAC) at the April 5, 1993 (Item 3) meeting. At that meeting, SEATAC recommended that Phase III of the proposed project be deleted. SEATAC also stated that Project Alternative #3, (reduced density) with no development in the SEA, would be commendable.

SEA #19 is critical habitat for the Unarmored Threespined Stickleback (UTS) and possesses two populations of the species. The need for protection of this species further supports the appropriateness of Project Alternative #3 as the preferred alternative.

The Draft EIR has identified Project Alternative #3 to be environmentally superior to the proposed project. This alternative is particularly sensitive to SEA #19 and includes a 200 foot buffer from the SEA to the development. Avoidance of development within the SEA would provide less of an impact on the

UTS and would minimize disturbance to the existing wildlife movement corridor. The Department supports this alternative because it is more environmentally sensitive to the valuable biological resources within the SEA.

Unarmored Threespined Stickleback (UTS) Habitat Fragmentation

The Preliminary Conceptual Land Use Plan (Exhibit 6.1-1) indicates that SEA #19 would be impacted by Phases III and IV. The proposed activity would cause significant impacts to the UTS. The UTS Revised Recovery Plan of 1985 states that urbanization presents a large number of threats to the UTS, (G.a. williamsoni), including increased public pressure for stream channelization and subsequent destruction of essential habitat. The UTS resides in SEA #19 and the downstream Santa Clara River (SEA #23). The upstream populations of the UTS within the San Francisquito Creek would be cut off from the downstream populations that inhabit the Santa Clara River. This kind of habitat fragmentation will diminish the viability of this already endangered species.

Local Park Land Requirement (Quimby)

The proposed project will have a local park land requirement of 25.67 acres. It should be clarified that the Department will not give Quimby credit to parks encumbered with joint-use (i.e. retention basins), utility easements, or SEA's designations. To receive full credit, local park land must consist of slopes which are 0 - 3%. It is the Department's policy to not accept or grant credit for any land in excess of 3% slope.

Park design requirements and what the Department will accept as park land dedication must be coordinated with Tom Reilly, Park Project Coordinator, at the Northeast Agency Regional Office in Castaic. He can be reached at (805) 294-3511.

Corrections to Park and Recreation Descriptions

Under Section 3, Parks and Recreation (page 3-5), the description of Active Parks should be corrected to "park facilities, such as benches, play grounds, multi-purpose fields,..."; "Minimum park acreage would be 5 acres, where the park is adjacent to an elementary school, or 8 acres if it stands alone.

Section 3, Parks and Recreation (p.3-6), fourth paragraph, indicates that a 15-acre recreation center would be developed for the exclusive use of project residents. Since this facility would not be available to the general public, it is not

guaranteed that the facility would be given acreage credit toward the satisfaction of the Quimby Park Land Requirement. Please contact Tom Reilly to clarify this issue.

Regional Riding and Hiking Trails

Corrections must be made in the Draft EIR, deleting all map references on exhibits and text stating that the County will maintain trails within the proposed project. The County will only accept easements and maintain trails that are designated on the Santa Clarita Valley Trails Master Plan.

Proper connections to the County trail system is required at the project boundaries. The San Francisquito Trail that runs parallel to San Francisquito Creek (SEA #19), is the only trail that the County will require as a dedication. Trail planning must be approved by Cynthia D'Agosta, Trails Planner. Please contact her at (213) 738-2973.

Hillside Management Area

Section 3, page 3-13 indicates that the proposed project is within a County designated Hillside Management Area. This designation creates a concern that development on the site be designed to conserve natural topographic features. Drastic regrading of prominent topographic resources (i.e. 556 acres of slopes greater than 50 percent) contributes to the cumulative impacts on the scenic quality of the area.

To remain consistent with the Hillside Management objectives, this project development plan should minimize grading, preserve natural scenic resources, and use innovative design approaches that utilize contour grading techniques.

The Department appreciates the opportunity to comment on this document. If you have any questions or need further information, please contact me at (213) 738-2972.

Sincerely,

Bertha Ruiz,
Park Planning Assistant

br:92074p.1

COUNTY OF LOS ANGELES • DEPARTMENT OF HEALTH SERVICES
PUBLIC HEALTH PROGRAMS AND SERVICES
ENVIRONMENTAL HEALTH
BUREAU OF ENVIRONMENTAL PROTECTION
2525 Corporate Pl. Rm. 150, Monterey Park, CA 91754-7631 • (213)881-4011

DHS

June 3, 1994

L.A. COUNTY

To: Frank Meneses
Head of Impact Analysis Section
Department of Regional Planning

From: Jack Petralia
Director of Environmental Protection

Subject: **PROJECT NO. 92-074 - TESORO DEL VALLE**

This is in response to your May 9, 1994 request for comments regarding the Preliminary Draft Environmental Impact Report (PDEIR) for the above project.

The is Bureau has reviewed the PDEIR and submits the following comment:

- The applicant indicates the project will be served by both a community sewer system and a public water supply system. Both systems are currently inadequate to service the project. If the project is to proceed, public sewer and water supply facilities must be provided.

If you have any questions or need additional information, please let me know.

j:92-074.com

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

(213) 881-2481

JUN 22 REC'D

P. MICHAEL FREEMAN
FIRE CHIEF
FORESTER & FIRE WARDEN

June 20, 1994

Mr. Frank Meneses
Department of Regional Planning
Impact Analysis Section
320 West Temple Street
Los Angeles, CA 90012

Dear Mr. Meneses:

SUBJECT: ENVIRONMENTAL IMPACT REPORT FOR TESORO DEL VALLE PROJECT TRACT #51644 PROJECT #92074

DESIGN AND CONSTRUCTION

There is no change regarding fire flow requirements as stated in our letter dated March 18, 1994.

Regarding access; on Page 5.10 - 7, first paragraph, line eight, the emergency public access road connecting Planning Area C with Planning Area B shall be a dedicated street designed to Public Works' standards.

On Page 3 - 13, last paragraph, line 5, stub roads referred to in this paragraph are to provide access to off-site properties as public streets designed to Public Works' standards.

An additional tap street shall be provided from Planning Area B northwesterly to connect to a road which will travel west to Tapia Canyon. Also, this will provide access from the proposed fire station site in the northerly portion of Planning Area B north and west to Tapia Canyon.

FORESTRY DIVISION

We have reviewed the Draft Environmental Impact Report for the Tesoro Del Valle project located two miles east of Interstate 5 and north of Seco Canyon Road in the unincorporated area of Los Angeles County, north of Santa Clarita.

Appropriate soil erosion control structures and vegetative cover must be provided to prevent erosion. Plants suited to the climate of the area should be considered including drought tolerant (xeriphytic) species.

Due to the wildland fire hazard surrounding the project, we do not recommend using highly flammable and heavy fuel volume Eucalyptus, Pines, Junipers and Cypress plant species. Specimen trees are allowed, but not with continuous crowns or within 100 feet of any structure.

In order to limit the potential threat of wildfire, native/low-fuel volume plants should be mandatory in the revegetative plan for this project.

The existing vegetation may be utilized to create a fire safe environment. Shrub species such as Sumac, Toyon, Elderberry, and Holly Leaf Cherry, as well as tree species such as Oak, Sycamore, and California Bay can be maintained in a fire safe condition provided they are not overtopping any structure.

A fire hazard reduction and a fuel management plan should be developed and implemented prior to construction. Homes that face the northeast open space areas will require additional fuel modification zones with increased brush clearance requirements.

Areas designated as open space shall not be utilized for equipment or vehicle storage or for access to the area of development. Such areas shall not be used for dumping of fill materials.

If you have any additional questions, please contact this office at (213) 881-2481.

Very truly yours,

Paul H. Rippens

PAUL H. RIPPENS, CHIEF, FORESTRY DIVISION
PREVENTION BUREAU

PHR:jmb

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

THOMAS A. TIDEMANSON, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

DATE June 7, 1994

IN REPLY PLEASE REFER TO FILE P-5

Mr. Frank Meneses
Section Head, Impact Analysis Section
Department of Regional Planning
County of Los Angeles
320 West Temple Street
Los Angeles, CA 90012-3828

Attention _____

Dear Mr. Meneses:

RESPONSE TO REVIEW OF ENVIRONMENTAL DOCUMENTS

Enclosed are comments from the following Divisions within this Department regarding Project No. 92-074, TR 51644, Tesoro Del Valle:

- [✓] Land Development - Drainage and Grading
- [✓] Materials Engineering - Geology and Soils
- [✓] Traffic and Lighting
- [ ] Waterworks and Sewer Maintenance
- [✓] Waste Management - Will be forwarded to you upon our receipt.
- [✓] Other Transportation Planning

If you have any questions regarding the comments, please contact the person listed on the enclosed comments. For additional information, please contact Ms. Clarice Nash at (818) 458-4334.

Very truly yours,

HARRY W. STONE
Acting Director of Public Works

Michael H. Nagao

MICHAEL H. NAGAO
Planning Division
Environmental/Floodways Section

FORM.36
P-4/my

Enc.

bc: Planning (Nagao)

June 7, 1994

TO: Michael H. Nagao
Environmental, (Road/Others)/Floodways

FROM: Barry S. Witler
Transportation Planning

SCREENCHECK ENVIRONMENTAL IMPACT REPORT
TESORO DEL VALLE PROJECT, TENTATIVE TRACT 51644

As requested, we reviewed the subject project. The following comments are provided for inclusion in your response to the Department of Regional Planning.

This project is proposing to take primary access from the future extension of Copper Hill Drive (a major highway), however the Interdepartmental Engineering Committee (IEC) has not yet approved a precise alignment for the extension of Copper Hill Drive. The preliminary alignment of Copper Hill Drive at the southern portion of the site appears to be similar to the alignment proposed by other developments in the area. The alignments of both Copper Hill Drive and San Francisquito Canyon Road (north of Copper Hill Drive) must be approved by the IEC.

We concur with the Significant Ecological Area Technical Advisory Committee (SEATAC) recommendation that McBean Parkway (actually San Francisquito Canyon Road), north of Copper Hill Drive be located outside of Significant Ecological Area No. 19.

The subject project will generate approximately 20,000 daily trips in excess of the traffic that would be generated by land use allowed under the General Plan. Based on the level of Service analysis in the report, certain roadway segments in the circulation system would operate at or over capacity at General Plan buildout without inclusion of the subject project. The additional traffic generated by the increase in the land use density will worsen this situation. Therefore, the project should propose measures to enhance the overall capacity of the circulation system commensurate with the volumes of unmitigated excess traffic.

If you have any questions regarding these comments, please contact Mr. Barry S. Witler at Extension 4351.

FA:nr
P-3:wp/TESORO

cc: Planning (Witler)

L265

OS ANGELES COUNTY LETTERGRAM

o: Frank Meneses, DRP From Barry S. Witter, DPW Date 10/11/94

ubject Tesoro Del Valle - Tract 51644 No.

arton-Ashman's Sept. 21, 1994 Memo. on "Tesoro Del Valle - Traffic Analysis Assuming General Plan Building" appears to reflect the results of modelling data supplied by our Dept. in an accurate manner. Our conclusion was that widening the segment of Copper Hill Dr. to 4 lanes/direction would mitigate most of the problems of the plan amendent density increase with the exception of McBean Parkway. McBean should also be widened but such a project is probably not feasible. The environmental document should reflect this conclusion. If any question, call me at (818) 458-4351.

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 1
To Frank Maneses	From Barry S. Witter
Co. DRP	Co. DPW
Dept.	Phone # (818) 458-4351
Fax # (213) 626-0434	Fax # (818) 457-1526

Date: MAY 31, 1994

To: Mr. Michael H. Nagao
Drainage Planning Section
Planning Division

Attention Clarice Nash

From: David Diotalevi
Drainage and Grading Section
Building and Safety/Land Development Division

REVIEW OF ENVIRONMENTAL DOCUMENTS

The attached documents for PM 92074/TR 51644, TESORO DEL VALLE have been reviewed by the Drainage and Grading Section.

Comments are attached.

If you have any questions, please contact James Bagnell at (818)-458-4921.

JCB:

Attach.

48-0014 DPW 4/86

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

☐ FINAL MAP REPORT

☒ LAND USE REPORT

Files Nos. 2-15.311 2-~~15.313~~ 1-21

Review of [illegible]

Map or Transmittal Letter Date

5-2-94

Assignment No. _____

TO: [illegible]

attn Chinue Nash

_____ 1. The Drainage and Grading Section has no requirements for this subdivision/application.

_____ 2. The subdivision/site is reasonably free of flood hazard.

_____ 3. Portions of the property are subject to sheet overflow, (and) ponding, ( ) and mudflows from steep hillsides.

_____ 4. Portions of the subdivision/site lying in and adjacent to ( ) steep hillsides, ( ) natural watercourses, ( ) _____ are subject to flood hazard because of ( ) tidal/wave action, ( ) overflow, ( ) erosion, ( ) mudflow and/or deposition of debris.

_____ 5. This project will not significantly affect the environment as far as the Section's interests are concerned, provided the appropriate ordinances and codes are followed.

_____ 6. Place a note of flood hazard on the final map/grant of waiver and submit engineering documentation to support those limits.

_____ 7. Dedicate to the City/County the right to restrict the erection of buildings in the flood hazard areas.

_____ 8. Adequate engineering documentation must be submitted showing that building sites are available and are free of flood hazard.

✓ 9. Provide a drainage concept prior to approval of the tentative map. Sufficient information must be submitted to the Department showing the extent of the drainage problem and proposed solution.

_____ 10. Provide improvements to eliminate the flood hazard. Improvements may include ( ) storm drains and/or channels, ( ) debris control facilities, ( ) vehicular access to structures, ( ) _____.

_____ 11. Dedicate fee title/an easement/future easement to the District/County of Los Angeles/City of _____ _____ providing adequate right of way for _____.

_____ 12. Show on the final map the Flood Control District's right of way for _____. A permit will be required for any construction affecting the District's right of way or facilities.

_____ 13. Approval of the _____ is recommended subject to conditions noted herein or shown on the returned map.

_____ 14. The recordation of this map will not unreasonably interfere with the free and complete exercise of the easement held by the District/County.

_____ 15. The _____ is unsatisfactory. Note the reasons stated herein or shown on returned map.

_____ 16. Proposed grading must be in compliance with Chapter 70 of the County Building Code.

Comments:

The drainage concept submitted to Public Works 3/24/94 was not approved.
An approved drainage concept may require revisions to environmental documents.

Information relative to the above comments may be obtained by contacting:

Engineering Investigator _____
Telephone (818) 458-4920

Approved by J. C. Bassell
Drainage and Grading Section

Date of Report May 31, 1994.

May 31, 1994

TO: Brian T. Sasaki
Planning Division

Attention Clarice Nash

FROM: Lynn D. Nicholson
Materials Engineering Division

REVIEW OF ENVIRONMENTAL DOCUMENTS

The attached documents for the San Francisquito Canyon project, No. 92074, have been reviewed by the Materials Engineering Division.

Comments are attached.

If you have any questions, please contact Mr. Fred Gharib at (818) 458-4925.

sm
ME-0/92074

Attach.

DEPARTMENT OF PUBLIC WORKS
MATERIALS ENGINEERING DIVISION

DEVELOPMENT REVIEW SECTION
ENVIRONMENTAL DOCUMENTS REVIEW

	GEOTECHNICAL ENGINEER	ENGINEERING GEOLOGIST
PROJECT IDENTIFICATION 92074		
LOCATION San Francisquito Canyon		
DATE RECEIVED 5-9-94 **DEADLINE** 5-31-94		
DATA REVIEWED Screencheck EIR dated 5-5-94		
The proposed project has no significant effects on the checked environmental factor(s) from a geology and soils standpoint provided the appropriated ordinances and codes are followed.	X	✓
Review of the initial study/geotechnical report indicates that the proposed project will have significant effects on the checked environmental factor(s) from a geology and/or soils standpoint. See discussion.		
The environmental document is inadequate from a geology and soils standpoint. See discussion.		
DATE REVIEW COMPLETED	5/26/94	5-23-94

DISCUSSION OF POTENTIALLY SIGNIFICANT EFFECTS AND/OR REPORT INADEQUACIES

Geology

Soils

Original to: Planning Division or
LDMA/Procession Center Section
cc: Development Review Section File

Rev. 10/13/92
FORM NO. 9

May 31, 1994

TO: Brian T. Sasaki
Planning Division

FROM: Ken E. Weary
Traffic and Lighting Division

SCREENCHECK ENVIRONMENTAL IMPACT REPORT
TESORO DEL VALLE
VESTING TENTATIVE TRACT NUMBER 51644
PROJECT NUMBER 92074
SANTA CLARITA

As requested, we have completed our review of the traffic study portion of the subject document. The proposed project is located west of San Francisquito Canyon Road and north of the future extension of Copper Hill Drive in an unincorporated portion of the County of Los Angeles.

The project proposes to construct 2,027 single-family units, 1,002 multi-family units, two schools, and a racquet club in three phases. We expect this project will generate approximately 28,000 vehicle trips per day upon completion of all three phases by the Year 2000.

Our May 23, 1994 comments (copy attached) are still valid and applicable to this project.

If you have any questions, please contact Myron Tucker of our Traffic Investigations and Studies Section at Extension 5909.

MT:df
T-2/TT51644

Attach.

cc: Carl L. Blum
Building and Safety/Land Development

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

THOMAS A. TIDEMANSON, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

JUN 23 REC'D

DATE JUNE 20, 1994

IN REPLY PLEASE REFER TO FILE P-5

Mr. Frank Meneses
Section Head, Impact Analysis Section
Department of Regional Planning
County of Los Angeles
320 West Temple Street
Los Angeles, CA 90012-3828

Attention _____

Dear Mr. Meneses:

RESPONSE TO REVIEW OF ENVIRONMENTAL DOCUMENTS

Enclosed are comments from the following Divisions within this Department regarding PROJECT No. 92-074/TR51644-TESORO DEL VALLE:

- [ ] Land Development - Drainage and Grading
- [ ] Materials Engineering - Geology and Soils
- [ ] Traffic and Lighting
- [ ] Waterworks and Sewer Maintenance
- [x] Waste Management
- [ ] Other _____

If you have any questions regarding the comments, please contact the person listed on the enclosed comments. For additional information, please contact Ms. Clarice Nash at (818) 458-4334.

Very truly yours,

HARRY W. STONE
Acting Director of Public Works

Michael H. Nagao

MICHAEL H. NAGAO
Planning Division
Environmental/Floodways Section

FORM.36
P-4/my

Enc.

bc: Planning (Nagao)

June 16, 1994

TO: Brian T. Sasaki
Planning Division

Attention Clarice Nash

CR

FROM: Thomas S. Brachko TB
Waste Management Division

SCREENCHECK ENVIRONMENTAL IMPACT REPORT (EIR)
TESORO DEL VALLE
PLANNED RESIDENTIAL DEVELOPMENT
SANTA CLARITA VALLEY

We have reviewed the Screencheck for the proposed 1,795-acre, 3,000-unit Tesoro Del Valle Residential Development located in unincorporated Santa Clarita Valley and provide the following comments:

1. The California Solid Waste Reuse and Recycling Access Act of 1991, as amended, requires each jurisdiction to adopt an ordinance by September 1, 1994, requiring each "development project" to provide an adequate storage area for collection and removal of recyclable materials.

   The EIR should discuss standards to provide adequate "waste storage areas" for collection/storage of recyclable and green waste materials for this project.

2. Should any operation within the subject development include the modification, removal, or installation of underground storage tanks and/or industrial waste control or disposal facilities, Waste Management Division must be contacted for required approvals and operating permits.

3. Any mitigation measure monitoring program performed by the Los Angeles County Department of Public Works (LACDPW), Waste Management Division will require a funding account to be established by the project proponent to pay for the required services. The amount of necessary funds will be determined at the time monitoring will be performed. The LACDPW, Waste Management Division, must be contacted to establish the funding account.

If you have any questions regarding these comments, please contact me at Extension 3567.

TB:jk
WM-2\TOM1\SCREEN

May 23, 1994

T-2

Mr. John Evans
T.C. Collins and Associates
3600 Birch Street, Suite 100
Newport Beach, CA 92660-2619

Dear Mr. Evans:

TRAFFIC STUDY (NOVEMBER 1993)
PROJECT NUMBER 92074
TESORO DEL VALLE
SANTA CLARITA

As requested, we have reviewed the traffic impact analysis of the Tesoro del Valle project prepared by Barton-Aschman Associates. The project is generally located west of San Francisquito Canyon Road and north of the future extension of Copper Hill Drive in an unincorporated area of the County of Los Angeles.

The project proposes to construct 2,027 single-family units, 1,002 multi-family units, two schools, and a racquet club in three phases. We expect this project will generate approximately 28,300 vehicle trips per day upon completion of all three phases by the Year 2000.

We agree with the study methodology and have the following comments regarding the proposed project's mitigation measures:

Phase I

Phase I, which is anticipated to be completed by the Year 1996, will occur west of the San Francisquito Creek and will consist of 649 single-family units, 232 multi-family units, and a racquet club.

Based on the traffic information contained in the study, Copper Hill Drive (two lanes, one in each direction) from Rye Canyon Road to the project's easterly access must be in place prior to the issuance of building permits for this Phase.

We agree with the study that the following County intersections will be significantly impacted with the development of this Phase. The following mitigation measures for these intersections should be the sole responsibility of this project. Detailed striping plans for these improvements should be prepared and submitted to this Department for review and approval.

mt

McBean Parkway/Newhall Ranch Road

North Approach - One right-turn lane, three through lanes, and one left-turn lane.

East Approach - One shared right-turn through lane, two through lanes, and two left-turn lanes.

South Approach - One free-flow right-turn lane, three through lanes, and two left-turn lanes.

West Approach - One right-turn lane, two through lanes, and two left-turn lanes.

Bouquet Canyon Road/Newhall Ranch Road

North Approach - One right-turn lane, three through lanes, and one left-turn lane.

East Approach - One right-turn lane, two through lanes, and two left-turn lanes.

South Approach - One shared right-turn through lane, two through lanes, and two left-turn lanes.

West Approach - One free-flow right-turn lane*, one through lane, and two left-turn lanes.

Bouquet Canyon Road/Soledad Canyon Road

North Approach - One free-flow right-turn lane*, three through lanes, and two left-turn lanes.

East Approach - One free-flow right-turn lane*, three through lanes, and two left-turn lanes.

South Approach - One right-turn lane, three through lanes, and one left-turn lane.

West Approach - One shared right-turn through lane, two through lanes, and two left-turn lanes.

*If free-flow right-turn lanes cannot be provided with adequate merge length, then dual right-turn lanes should be provided.

- Copper Hill Drive/Newhall Ranch Road
- Newhall Ranch Road/Dickason Drive
- Avenue Scott/McBean Parkway

Additionally, the project should contribute to the cost of modifying the traffic signals at the following locations:

- McBean Parkway/Decoro Drive
- McBean Parkway/Newhall Ranch Road

In a memo dated December 15, 1993 to you from Barton-Aschman Associates, Inc., 50,000 square feet of commercial development to be located on the south side of Copper Hill Drive west of the future extension of McBean Parkway is proposed to be included in the subject project and is not anticipated to add any additional external trips to the project. As discussed between your traffic consultants and my staff, we anticipate this project will generate approximately 2,979 additional vehicle trips per day. Therefore, we recommend further analysis of the traffic impacts caused by this commercial development.

The County Master Plan of Highways designates Copper Hill Drive west of the future extension of McBean Parkway as a Major Highway with an ultimate right of way width of 100 feet and San Francisquito Canyon Road as a Secondary highway with an ultimate right of way width of 80 feet. We recommend dedication of adequate road right of way and construction of adequate roadway improvements along the project frontages. In addition, we recommend this development be included in the Bouquet Canyon Bridge and Major Thoroughfare Benefit District.

We recommend the City of Santa Clarita and the State of California Department of Transporation also review this study for impacts/mitigations within their jurisdictions.

If you have any questions, please contact Mr. Myron Tucker of our Traffic and Lighting Division, Traffic Investigations and Studies Section, at (818) 458-5909.

Very truly yours,

HARRY W. STONE
Acting Director of Public Works

ORIGINAL SIGNED IN 5/24

CARL L. BLUM
Deputy Director

MT:df
PN92074

bc: Building and Safety/Land Development and Planning

IA Rec 9/7/94

23920 Valencia Blvd.
Suite 300
City of Santa Clarita
California 91355-2196

Phone
(805) 259-2489
Fax
(805) 259-8125

Post-it™ Fax Note 7671	Date 9-6-94	# of pages ▶ 4
To Frank Meneses	From Don Williams	
Co./Dept. LAC Reg. Plng	Co. Santa Clarita	
Phone #	Phone # 805-255-4343	
Fax # 213 626-0434	Fax # 805 259-8125	

May 25, 1994

Mr. Myron Tucker
County of Los Angeles
Traffic and Lighting Division
Traffic Investigation and Studies Section
P.O. Box 1460
Alhambra, CA 91802-1460

Re: Tesoro Del Valle
County of Los Angeles Project #92074

Dear Mr. Tucker:

As requested, the submitted November, 1993 draft traffic study for Tesoro Del Valle project conducted by Barton Aschman was reviewed. The following are our comments and concerns regarding the study from a traffic and transportation planning aspect:

The project is generally located west of San Francisquito Canyon Road and north of the future extension of Copper Hill Drive in the unincorporated area of the County of Los Angeles and northwest of the City of Santa Clarita. The project consists of 2,027 single-family units, 1,002 multi-family units, two schools, and a racquet club in three phases. The study indicates this project would generate approximately 27,000 trips per day with peak hour of 2,150, and 2,750 trips in a.m. and p.m. peak, respectively by the year 2000. This project is proposed in three phases, and to be completed by the years 1996, 1998, and 2000.

Phase I

Phase I, which is anticipated to be completed by the year 1996, will occur west of the San Francisquito Creek and will consist of 649 single-family units, 232 multi-family units, and a racquet club. This Phase is anticipated to generate approximately 8,200 trips per day and 600 and 850 in a.m. and p.m. peak, respectively.

Based on the traffic information contained in the study, Copper Hill Drive (two lanes, one in each direction) from Rye Canyon Road to the project's easterly access must be in place prior to the issuance of building permits for this Phase, by the County.

FILE COPY

PRINTED ON RECYCLED PAPER

The study indicates that the following City (or partial city shared) intersections will be significantly impacted with the development of this Phase:

- Bouquet Canyon Road/Newhall Ranch Road
- Bouquet Canyon Road/Soledad Canyon Road
- Magic Mountain Parkway/McBean Parkway

The following mitigation measures for these intersections should be the responsibility of this project:

Bouquet Canyon Road/Newhall Ranch Road (Partially City)

- North Approach - One right turn lane, three through lanes, and one left turn lane.
- East Approach - One right turn lane, two through lanes, and two left turn lanes.
- South Approach - One right turn lane, three through lanes, and two left turn lanes.
- West Approach - One free-flow right turn lane*, one through lane; and two left turn lanes.

Bouquet Canyon Road/Soledad Canyon Road (Partially City)

- North Approach - One free-flow right turn lane*, three through lanes, and two left turn lanes.
- East Approach - One free-flow right turn lane*, three through lanes, and two left turn lanes.
- South Approach - One right turn lane, three through lanes, and one left turn lane.
- West Approach - One shared right turn/through lane, two through lanes, and two left turn lanes.

Magic Mountain Parkway/McBean Parkway (Partially City)

No mitigations are proposed in the study!

*If free-flow right turn lanes cannot be provided with adequate merge length, then dual right turn lanes should be provided.

The study also indicates that the intersections of Bouquet Canyon Road/Soledad Canyon Road and Magic Mountain Parkway/McBean Parkway cannot be mitigated within the existing right-of-way. The developer should investigate the possibility of acquiring additional right-of-way necessary to mitigate the project's impacts, or propose other alternatives.

Phase II

Phase II, which will be completed by the year 1998, will occur west of the San Francisquito Creek and north of Copper Hill Drive and will consist of an additional 756 single-family units, an additional 229 multi-family units and an elementary school. Phases I and II are anticipated to generate approximately 17,400 trips per day with 1,350 and 1,800 trips per a.m. and p.m. peak, respectively.

The study indicates that Copper Hill Drive will require widening to four lanes (two in each direction) with construction of this Phase. Staff recommends that this improvement should be in place prior to the issuance of building permits for this Phase, by the County.

Also see Phase I.

Phase III

Phase III, which will be completed by the year 2000, will occur both east and west of the San Francisquito Creek and will consist of an additional 622 single-family units, 541 apartment units, and an additional elementary school. Again, all three Phases are anticipated to generate approximately 27,000 trips per day with 2,150 and 2,750 trips during the a.m. and p.m. peak, respectively.

The traffic study for this Phase included an evaluation based on the projected traffic volumes derived from the County of Los Angeles/City of Santa Clarita transportation model, which includes the following roadway improvements. Based on this information, the following improvements must be in place prior to the issuance of building permits for this Phase:

- Copper Hill Drive from the project's east access to Seco Canyon Road.
- McBean Parkway from Decoro Drive to Copper Hill Drive.
- Decoro Drive from McBean Parkway to Copper Hill Drive/Rye Canyon Road.
- Dickason Drive from the northerly terminus of Avenue Tibbitts to Copper Hill Drive.
- Avenue Scott from McBean Parkway to Rye Canyon Road.
- Newhall Ranch Road from McBean Parkway to Rye Canyon Road/Copper Hill Drive.

Staff recommends that Newhall Ranch Road, the portion of the roadway from Rye Canyon Road to the I-5 freeway, to be in place prior to the issuance of building permits by the County unless a supplemental traffic study submitted to the satisfaction of all involved agencies at that time indicates this portion of the road is not necessary with Phase III of this project.

We recommend the City of Santa Clarita and the State of California Department of Transportation also review these studies for impacts/mitigations within their jurisdictions.

If you have any questions, please contact Mr. James Chon of our Traffic and Lighting Division, Traffic Investigations and Studies Section, at (818) 458-5909.

Very truly yours,

HARRY W. STONE
Director of Public Works

CARL L. BLUM
Deputy Director

JHC:cr
TESOROS

Enc.

cc: Mr. Frank Meneses
Regional Planning
Mr. Tom Mitchell
Barton-Aschman Associates

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

HARRY W. STONE, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O.BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

DATE _____

IN REPLY PLEASE REFER TO FILE. P-5

Mr. Frank Meneses
Section Head, Impact Analysis Section
Department of Regional Planning
County of Los Angeles
320 West Temple Street
Los Angeles, CA 90012-3828

Attention _____

Dear Mr. Meneses:

RESPONSE TO REVIEW OF ENVIRONMENTAL DOCUMENTS

Enclosed are comments from the following Divisions within this Department regarding _____:

- [ ] Land Development - Drainage and Grading
- [ ] Materials Engineering - Geology and Soils
- [x] Traffic and Lighting
- [ ] Waterworks and Sewer Maintenance
- [ ] Waste Management
- [ ] Other _____

If you have any questions regarding the comments, please contact the person listed on the enclosed comments. For additional information, please contact Ms. Clarice Nash at (818) 458-4334.

Very truly yours,

HARRY W. STONE
Director of Public Works

MICHAEL H. NAGAO
Planning Division
Environmental/Floodways Section

MHN:my/form36

Enc.

bc: Planning (Nagao)

October 20, 1994

TO: Brian T. Sasaki
Planning Division

FROM: Ken E. Weary
Traffic and Lighting Division

TRAFFIC STUDY RECOMMENDATIONS
TESORO DEL VALLE
PROJECT NO. 92074
TENTATIVE TRACT NO. 51644
SANTA CLARITA

As requested by Frank Meneses of the Department of Regional Planning (see attached October 4, 1994 memo), a meeting was held with the traffic consultant and the project proponent for the subject project on October 12, 1994. As a result of that meeting, we have prepared the following summary and attached maps showing the differences in the traffic recommendations proposed by our Department and the City of Santa Clarita from those proposed in the traffic study for the subject project. We also have indicated the reason for these differences. It should be noted that the City of Santa Clarita comments are based on the May 25, 1994 memo from Rabie Rahmani of the City to Myron Tucker of our Division. We have not received any comments from the City on the additional traffic mitigation measures proposed in the supplemental traffic study dated July 14, 1994. Locations which require additional City comments are noted. The traffic consultant and project proponent have been advised of these recommendations, and we believe they generally concur with the proposed recommendations.

Phase I

Bouquet Canyon Road/Newhall Ranch Road

shared co-city

We recommended a free flow right-turn lane for the west approach. The City of Santa Clarita recommended the replacement of a shared through/right-turn lane with an exclusive right-turn lane and an additional through lane for the south approach. Both these lane configurations were recommended to be consistent with recommendations for previously approved tracts. Detailed striping plans for these improvements are currently under review by our Division. Also, one of these previously approved tracts is currently under construction.

Newhall Ranch Road/McBean Parkway

shared

We recommended an additional through lane for the east approach. For the south approach, we recommended an additional left-turn lane and through lane, and replacing the dual right-turn lanes with a free flow right-turn lane. These improvements were also conditions

of previously approved tracts. If this project wishes to be relieved of these conditions, we recommend a supplemental traffic study be submitted for our review and approval which includes traffic from related projects for 1996. The original traffic study submitted for this project did not include a cumulative analysis for Phases I or II. The only cumulative analysis included was for full project buildout in the Year 2000. We have discussed these additional requirements with John Evans, the project proponent, and Tom Mitchell of Barton-Aschman Associates.

It should also be noted, for Phase I, that neither our Division nor the City has commented on the intersections of Magic Mountain Parkway and the I-5 Northbound ramps and Magic Mountain Parkway and San Fernando Road. Both these locations are under the jurisdiction of the State of California Department of Transportation (Caltrans). CAL TRANS

Phase II

The City of Santa Clarita and Caltrans need to submit comments on the following intersections:

- Bouquet Canyon Road/Seco Canyon Road CITY
- Valencia Boulevard/Magic Mountain Parkway (joint jurisdiction with Caltrans) CITY

There are no discrepancies between the County's recommendations and those contained in the traffic study for the remaining intersections in this Phase.

Phase III - Project Only

In addition to those intersections indicated above, the City and Caltrans need to submit recommendations on the following intersections for this Phase:

- Decoro Drive/Seco Canyon Road CITY
- I-5 Northbound Ramps/Magic Mountain Parkway CAL TRANS

There are no discrepancies between the County's recommendations and those contained in the traffic study for the remaining intersections for this portion of Phase III.

Phase III - Cumulative Analysis

In addition to those intersections indicated above, the City and Caltrans need to submit recommendations for the following intersections for this portion of Phase III:

- McBean Parkway/Valencia Boulevard CITY
- Magic Mountain Parkway/Valencia Boulevard CAL TRANS CITY

McBean Parkway/Magic Mountain Parkway

For this intersection, we disagreed with the traffic study's recommendations for this portion of Phase III. Our recommendations were based on Phase II mitigation. The traffic study recommends combining a through lane and an exclusive right-turn lane into a shared through/right-turn lane for the east approach. Also, for the south approach, removing a through lane and changing a free flow right-turn lane into an exclusive right-turn lane. For the west approach, installing an additional through lane and changing a shared through/right-turn lane into a through lane and an exclusive right-turn lane. We do not believe any additional recommendations were necessary for this Phase and recommend maintaining the suggested lane configurations for Phase II as indicated in our August 30, 1994 memo.

Newhall Ranch Road/McBean Parkway CITY

For this intersection, we recommended adding a through lane and replacing dual right-turn lanes (recommended free flow right-turn lane for previous Phases) with an exclusive right-turn lane for the south approach. These recommendations were to be more consistent with recommended lane configurations for previous Phases.

Additionally, we have different recommendations than the traffic study for the following intersections as indicated in our August 30, 1994 memo:

- Copper Hill Drive/Decoro Drive
- Copper Hill Drive/Newhall Ranch Road
- Avenue Scott/McBean Parkway

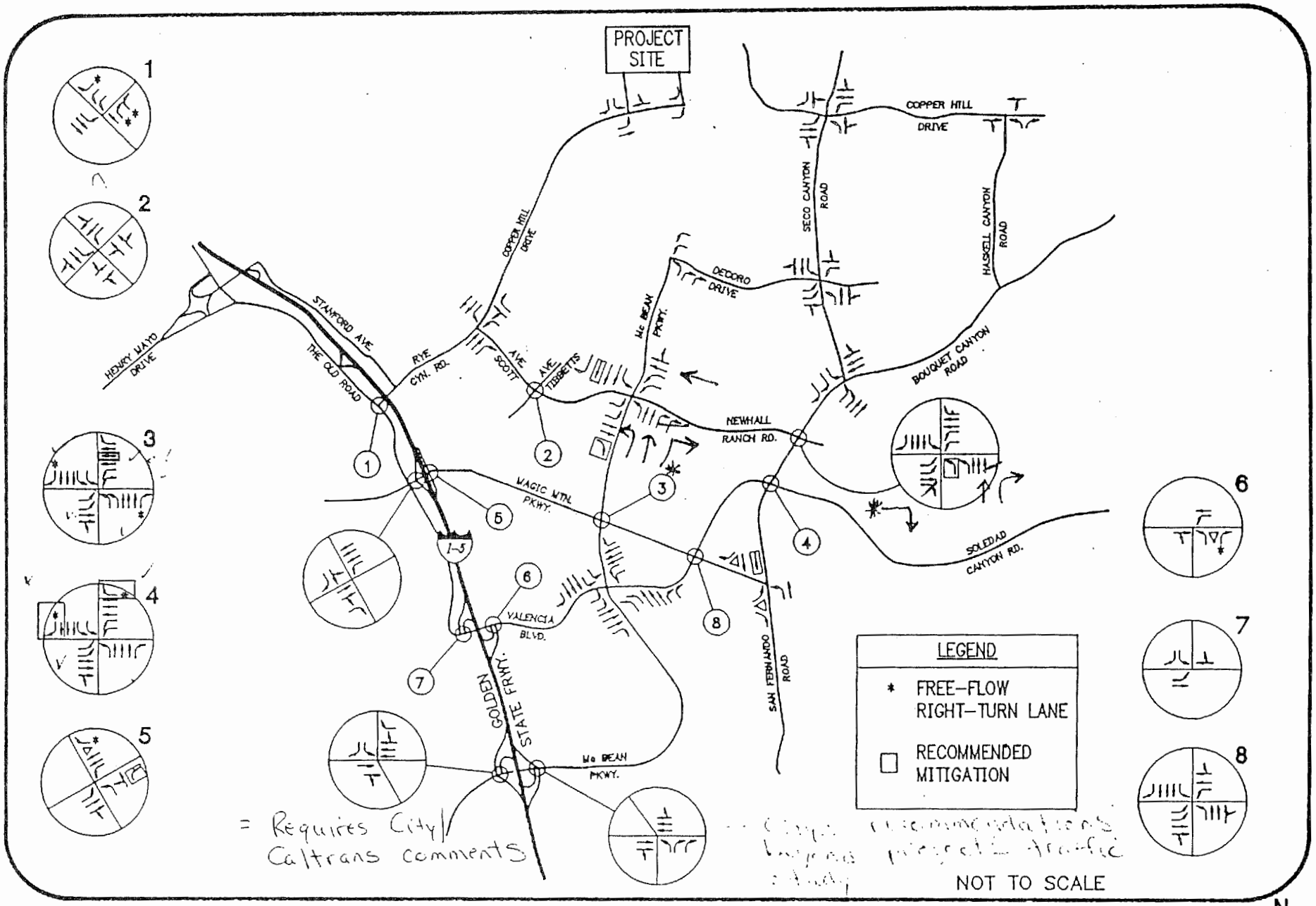
As indicated in our August 30, 1994 memo regarding this project, the County considers midrange Level of Service D (v/c greater than 0.85) to be the point beyond which mitigation is required. Therefore, we require mitigation to 0.85 for all intersections which are not currently constructed. The traffic study mitigated back to the preproject level only. For this reason, these intersections require additional mitigation beyond what was recommended in the traffic study.

If you have any questions, please contact Jane White of our Traffic Investigations and Studies Section at Extension 5909.

JJW:df
T-2/PN92074

Attach.

cc: Ronald J. Ornee
Building and Safety/Land Development
Traffic and Lighting (Traffic Design)



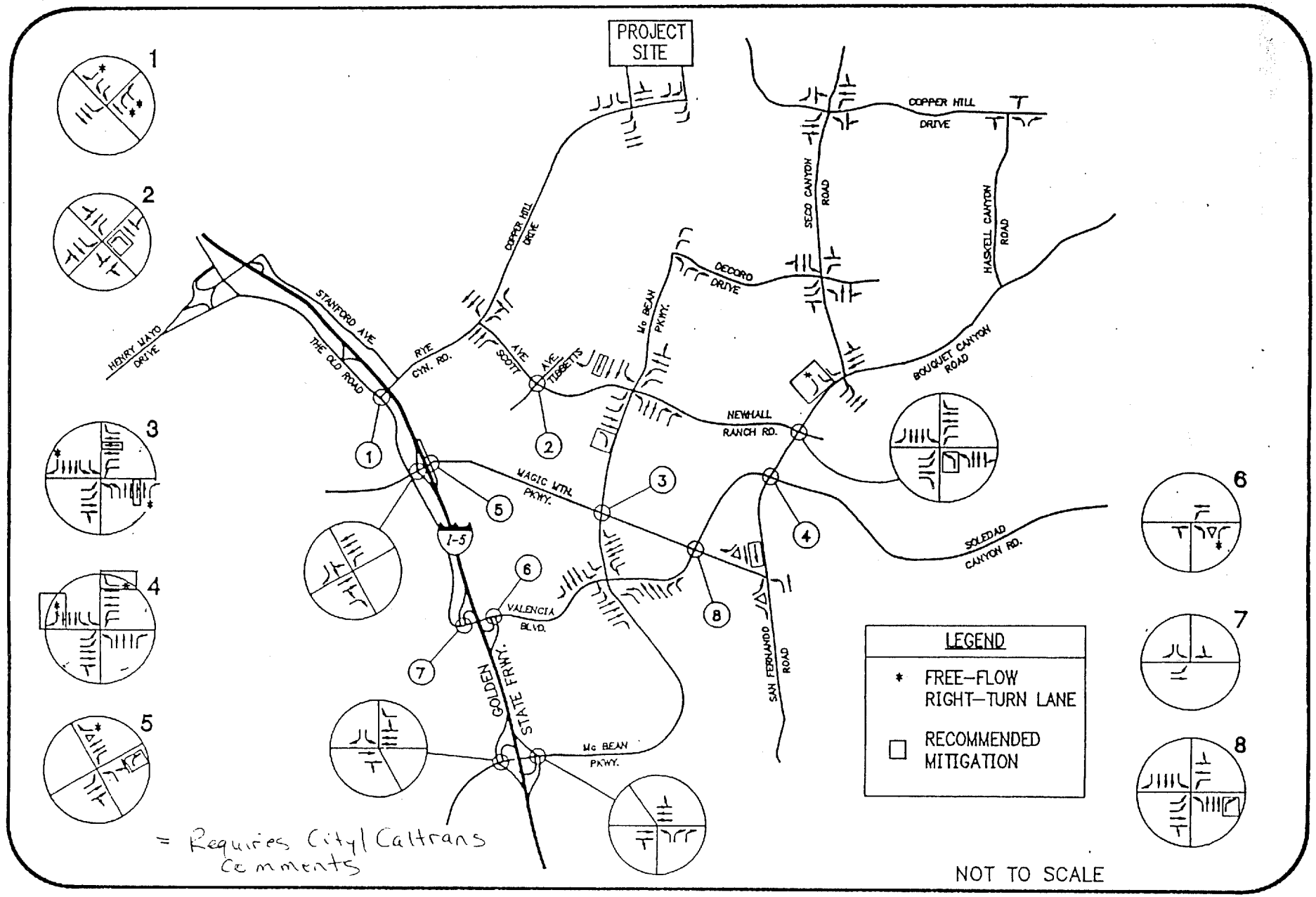
RECOMMENDED 1996 INTERSECTION CONFIGURATIONS WITH PROJECT PHASE I

Barton-Aschman Associates, Inc.

TESORO DEL VALLE

REVISED 7/14/94

FIGURE 17



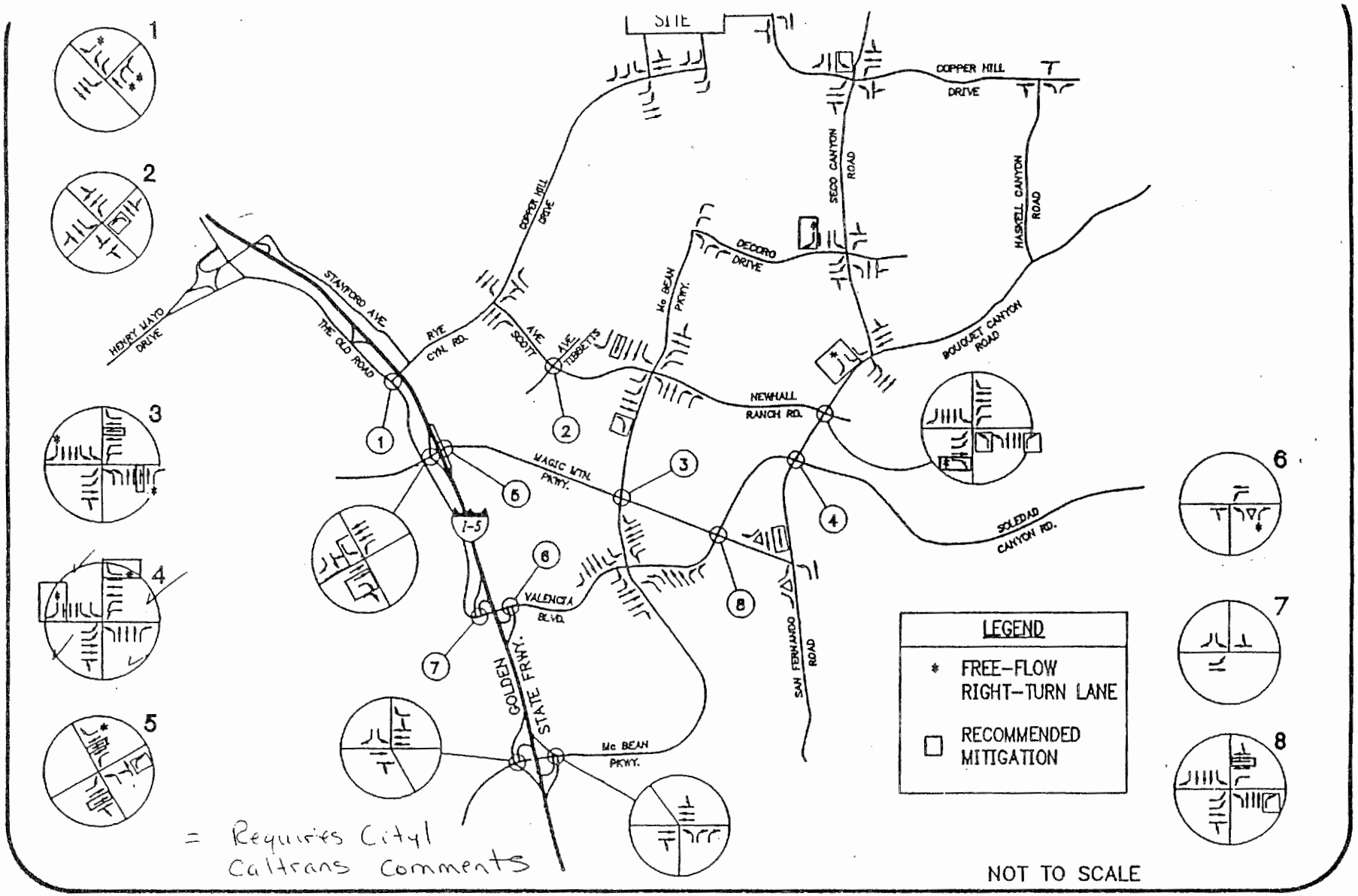
RECOMMENDED 1998 INTERSECTION CONFIGURATIONS WITH PROJECT PHASES I AND II

Barton-Aschman Associates, Inc.

TESORO DEL VALLE

REVISED 7/14/94

FIGURE 22



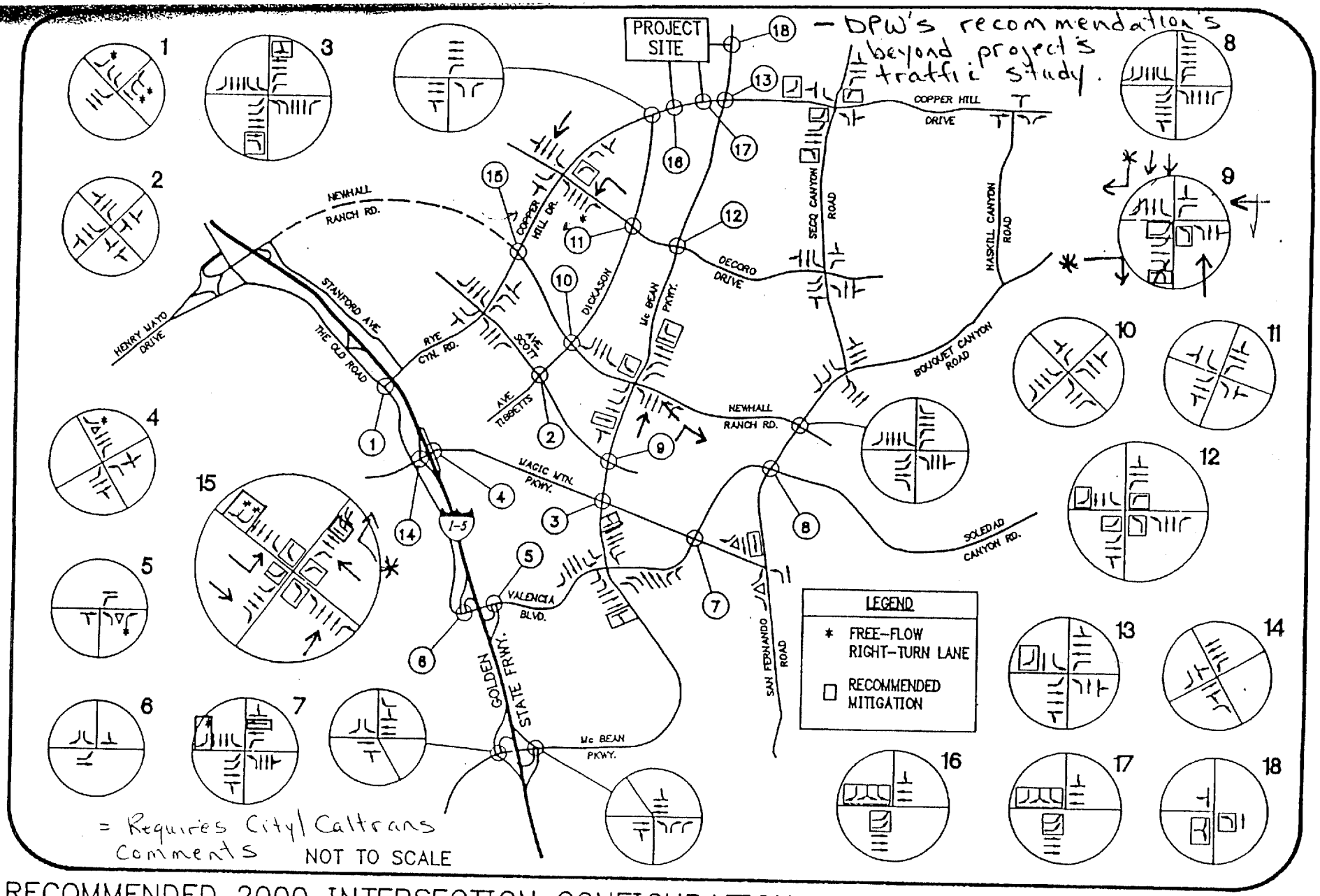
RECOMMENDED 2000 INTERSECTION CONFIGURATIONS WITH PROJECT PHASES I, II, AND III

Barton-Aschman Associates, Inc.

TESORO DEL VALLE

REVISED 7/14/94

FIGURE 27



RECOMMENDED 2000 INTERSECTION CONFIGURATIONS WITH PROJECT PHASES I, II, AND III WITH NEWHALL RANCH ROAD EXTENSION TO I-5

Barton-Aschman Associates, Inc.

TESORO DEL VALLE

APPENDIX D

DEVELOPMENT MONITORING SYSTEM PRINTOUTS

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WWWW    WW  W   W  WWW  WWWWW WWWWW WWWWW W   W


 WWW  W   W  WWW          WWW  W   W WWWWW
W   W WW  W W   W        W   W W   W   W
W   W W W W W   W        W   W W   W   W
WWWWW W W W WWWWW        W   W W   W   W
W   W W W W W   W        W   W W   W   W
W   W W  WW W   W   WW   W   W W   W   W
W   W W   W W   W   WW    WWW   WWW    W


:SSSS
```

URBAN SERVICES ANALYSIS

WATER CAPACITY ANALYSIS

PROJECT ID# TR 51644 03/28/95 CENSUS TRACT 920102

WATER AVAILABILITY EVALUATION
(ACRE-FEET/YEAR)

RETAILER	DEMAND EXISTING	DEMAND POTENTIAL RECD	DEMAND POTENTIAL APPR	DEMAND POTENTIAL PEND	DEMAND PROJ	DEMAND TOTAL	SUPPLY	POTENTIAL SIGNIFICANT IMPACT
VALENCIA WC	17655	513	6122	2663	1480	28433	35800	NO

CRITERIA

DEMAND FACTORS (AF/YR):		SF	MF	MH	COMMERCIAL (PER ACRE)	INDUSTRIAL (PER ACRE)
VALENCIA WC	-	0.60	0.29	0.09	2.23	1.74

URBAN SERVICES ANALYSIS

SEWER TREATMENT CAPACITY ANALYSIS
(MILLION GALLONS PER DAY)

PROJECT ID# TR 51644 03/28/95 CENSUS TRACT 920102

SEWER AGENCY	DEMAND EXISTING	POTENTIAL RECD	POTENTIAL APPR	POTENTIAL PEND	PROJ	TOTAL	SUPPLY	POTENTIAL SIGNIFICANT IMPACT
S. D. NO. 26&32	14.89	0.42	6.57	3.99	0.68	26.55	16.60	YES

.42
6.57
3.99
10.98

PLANNED EXPANSION

SEWER AGENCY	TOTAL CAPACITY (MGD)	COMPLETION EXPECTED	POTENTIAL SIGNIFICANT IMPACT
S. D. NO. 26&32			
FIRST STAGE:	19.10	1997	YES
PRACTICAL SITE CAPACITY:	28.10	N/A	NO

CRITERIA

GENERATION FACTORS (GAL/DAY):	SF	MF	MH	COMMERCIAL (PER ACRE)	INDUSTRIAL (PER ACRE)
S. D. NO. 26&32	260	156	156	2354	1603

URBAN SERVICES ANALYSIS

LIBRARY CAPACITY ANALYSIS

PROJECT ID# TR 51644 03/28/95 CENSUS TRACT 920102

LIBRARY	DEMAND EXISTING	POTENTIAL RECD	POTENTIAL APPR	POTENTIAL PEND	PROJ	TOT	SUPPLY	POTENTIAL SIGNIFICANT IMPACT
VALENCIA								
VOLUMES	173690	7758	75497	71201	18000	346146	155313	YES
SPACE (SQ FT)	30395	1357	13211	12460	3150	60573	23966	YES
AREA CLUSTER								
VOLUMES	307880	11179	119122	91494	18000	547675	260496	YES
SPACE (SQ FT)	53879	1956	20846	16011	3150	95842	33868	YES

* AREA CLUSTER IS THE GROUP OF LIBRARIES SERVING THE ENTIRE COMMUNITY.

CRITERIA

VOLUMES PER CAPITA: 2.00

SQUARE FOOT PER CAPITA: 0.35

URBAN SERVICES ANALYSIS

FIRE PROTECTION ANALYSIS

PROJECT ID# TR 51644 03/28/95 CENSUS TRACT 920102

RESPONSE DISTANCE EVALUATION (MILES)

STATION	MAXIMUM DISTANCE CRITERIA SF	MF	MH	APPROXIMATE DISTANCE	POTENTIAL SIGNIFICANT IMPACT
	3.0	1.5	N/A	UNK	YES IF > 1.5 MILES

TEACHING STAFF EVALUATION

SCHOOL DISTRICT	DEMAND EXISTING	DEMAND POTENTIAL RECD	DEMAND POTENTIAL APPR	DEMAND POTENTIAL PEND	DEMAND PROJ	DEMAND TOT	SUPPLY	POTENTIAL SIGNIFICANT IMPACT
Elementary:								
SAUGUS UNION	215.0	11.8	70.6	77.1	26.5	401.0	225.0	YES
Intermediate:								
WM. S. HART JR HI	121.2	3.9	42.9	32.6	7.3	207.9	155.0	YES
Secondary:								
WM. S. HART SR HI	207.4	8.5	98.7	69.8	14.1	398.5	272.0	YES

CRITERIA

SCHOOL DISTRICT	PUPIL:TEACHER RATIO	PUPIL:CLASSROOM RATIO
SAUGUS UNION	30.0	30.0
WM. S. HART JR HI	33.0	32.0
WM. S. HART SR HI	34.0	32.0

A. ERM NT SS IS

SCHOOL DISTRICT	DEMAND EXISTING	POTENTIAL RECD	POTENTIAL APPR	POTENTIAL PEND	PROJ	TOT	SUPPLY	POTENTIAL SIGNIFICANT IMPACT
Elementary:								
SAUGUS UNION	215.0	11.8	70.6	77.1	26.5	401.0	152	YES
Intermediate:								
WM. S. HART JR HI	125.0	4.0	44.2	33.6	7.5	214.3	108	YES
Secondary:								
WM. S. HART SR HI	220.4	9.0	104.9	74.1	15.0	423.4	203	YES

B. TEMPORARY (RELOCATABLE) CLASSROOMS

SCHOOL DISTRICT	STUDENT OVERLOAD	EXISTING CLASSROOMS	IMPACT	POTENTIAL CLASSROOMS	POTENTIAL SIGNIFICANT IMPACT
SAUGUS UNION	7469	62	YES	10	YES
WM. S. HART JR HI	3402	42	YES	0	YES
WM. S. HART SR HI	7053	69	YES	0	YES

APPENDIX E
CUMULATIVE SEWAGE CALCULATION

APPENDIX E
RELATED PROJECTS - SEWAGE DISPOSAL

The related project area for sewage service is defined by the boundary of Sanitation Districts 26 and 32. All projects with tentative maps, including residential, commercial, and industrial projects, are monitored by the Los Angeles County Department Monitoring System (DMS). These projects each fall into one of the following headings:

- Pending: Tentative map filed, but not approved.
- Approved: Tentative map approved, but not recorded.
- Recorded: Final map record, but not built.

The number of projects in each of these categories requires some adjustment to account for the socioeconomic variables that tend to influence general development in a given geographical area. Therefore, the following assumptions, which are based on actual records, have been incorporated into the analysis:[1]

Residential Development
1. 92.94 percent of pending projects become approved.
2. 95.37 percent of approved projects become recorded.
3. 100 percent of recorded projects are built.

Commercial Development
1. 97.27 percent of pending projects become approved.
2. 60.16 percent of approved projects become recorded.
3. 100 percent of recorded projects are built.

Industrial Development
1. 98.80 percent of pending projects become approved.
2. 44.56 percent of approved projects become recorded.
3. 100 percent of recorded projects are built.

The Urban Services Analysis (see Appendix D), dated March 28, 1995, was prepared by the Los Angeles County Department of Regional Planning incorporating DMS information. The analysis calculated related project demand by "discounting" projects by the appropriate percentages indicated above and then multiplying by Sanitation District generation factors for each land use. The analysis

[1] Per Bill Miller, Los Angeles County Department of Regional Planning, October 1993.