

Draft
Environmental Impact Report
SCH No. 2005051143
Volume I
Introduction – Section 4.4

MISSION VILLAGE

Prepared for:
Los Angeles County
Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012



Prepared by:
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OCTOBER 2010

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Project No. 04-181
Vesting Tentative Tract Map No. 61105
SEA Conditional Use Permit No. RCUP200500080
Oak Tree Permit No. ROAK200500032
Oak Tree Permit No. T200500043
Conditional Use Permit (Off-Site Improvements) RCUP200500081

Substantial Conformance Determinations for
Grading and Hillside Management Guidelines



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TABLE OF CONTENTS

Volume I

Section	Page
Introduction.....	I-1
Executive Summary.....	ES-1
1.0 Project Description	1.0-1
2.0 Environmental and Regulatory Setting	2.0-1
3.0 Cumulative Impact Analysis Methodology.....	3.0-1
4.0 Environmental Impact Analysis.....	4.0-1
4.1 Geotechnical and Soil Resources.....	4.1-1
4.2 Hydrology.....	4.2-1
4.3 Biota.....	4.3-1
4.4 Visual Qualities.....	4.4-1

Volume II

4.5 Traffic/Access.....	4.5-1
4.6 Noise.....	4.6-1
4.7 Air Quality.....	4.7-1
4.8 Water Service.....	4.8-1
4.9 Wastewater Disposal.....	4.9-1
4.10 Solid Waste Services.....	4.10-1
4.11 Sheriff Services.....	4.11-1
4.12 Fire Protection Services.....	4.12-1
4.13 Education.....	4.13-1
4.14 Parks and Recreation.....	4.14-1
4.15 Library Services.....	4.15-1
4.16 Agricultural Resources.....	4.16-1
4.17 Utilities.....	4.17-1
4.18 Mineral Resources.....	4.18-1
4.19 Environmental Safety.....	4.19-1
4.20 Cultural/Paleontological Resources.....	4.20-1
4.21 Floodplain Modifications.....	4.21-1
4.22 Water Quality.....	4.22-1
4.23 Global Climate Change.....	4.23-1
5.0 Project Alternatives.....	5.0-1
6.0 Significant Irreversible Environmental Changes.....	6.0-1
7.0 Growth-Inducing Impacts.....	7.0-1
8.0 List of EIR Preparers, and Organizations/Persons Consulted.....	9.0-1
9.0 References.....	10.0-1

LIST OF APPENDICES

Volume III

- Appendix I Initial Study/Notice of Preparation (NOP), and NOP Comment Letters
Initial Study/Notice of Preparation (NOP)
NOP Comment Letters
- Appendix 1.0 Project Description Documentation
Vesting Tentative Tract Map No. 61105
Newhall Ranch Fiscal Impact Analysis, September 2006
Selected Exhibits and Tables from the Newhall Ranch Specific Plan
- Appendix 2.0 Specific Plan Consistency Analysis, September 20, 2010
- Appendix 3.0 Cumulative Impact Analysis Methodology
Development Monitoring System Database
- Appendix 4.1 Geologic Reports
Geologic Report – Fault Investigation for Airport Mesa Area, Portion of Mesas
East VTTM 61105, Newhall Ranch
Geologic and Geotechnical Report, Review of Vesting Tentative Tract Map 61105

Volume IV

- Appendix 4.1 Geologic Reports (continued)
Geologic and Geotechnical Report, Review of Vesting Tentative Tract Map 61105
(continued)
Geologic and Geotechnical Report – Addendum No. 1, Response to Los Angeles
County Geologic Review Sheet
Geologic and Geotechnical Report – Addendum No. 2, Response to Los Angeles
County Geologic Review Sheet, January 26, 2005
Preliminary Geologic/Geotechnical Report, Review of Utility Corridor Plans
(30% Submittal), Utility Corridor Along Highway 126, Newhall Ranch
WRP Site to Travel Village, Castaic, May 25, 2007
Geologic and Geotechnical Report – Addendum No. 3, Response to Los Angeles
County Geologic Review Sheet, September 17, 2007
Geologic and Geotechnical Report – Addendum No. 4, Response to Los Angeles
County Geologic Review Sheet date January 16, 2008; March 13, 2008
Geologic and Geotechnical Report, Review Revised Vesting Tentative Tract Map
53108, December 21, 2009

Volume V

- Appendix 4.1 Geologic Reports (continued)
Leighton and Associates, Inc., Geotechnical Report, Off-Site Grading for
Proposed Southern California Edison Substation Alternatives, Responses
to County of Los Angeles, Department of Public Works Geologic and
Soils Engineering Review Sheets for TTM No. 61105 (Mission Village
Project), November 26, 2007

LIST OF APPENDICES (continued)

Volume V (continued)

- Appendix 4.1 Geologic Reports (continued)
- Leighton and Associates, Inc., Responses to County of Los Angeles, Department of Public Works Geologic and Soils Engineering Review Sheets for Leighton's Geotechnical Report Off-Site Grading for Proposed Southern California Edison Substation Alternatives, March 11, 2008
 - Leighton and Associates, Inc., 100-Scale Grading Plan Review of Offsite Grading for Proposed Southern California Edison Substation Alternatives 1 and 2 March 2010, Vesting Tentative Tract Map 61105, County of Los Angeles March 16, 2010
 - R.T. Frankian & Associates, Evaluation of Building Setbacks, Airport Mesa (Area E1), Vesting Tentative Tract 61105, Newhall Ranch, Los Angeles County, California. October 14, 2009
 - R.T. Frankian & Associates, 100-Scale Plan Review, Revised Vesting Tentative Tract Map No. 61105, Mission Village, Newhall Ranch, December 21, 2009
 - R.T. Frankian & Associates, Response to County of Los Angeles Review Sheets and Geotechnical Plan Review, Revised Vesting Tentative Tract Map No. 61105, Mission Village, Newhall Ranch. March 30, 2010
 - Geologic/Geotechnical Report – EIR-Level Review of Preliminary Grading Study for Western Access Roads to Proposed Mission Village Development (VTTM 61105)
 - Geologic and Geotechnical Report – Review of Revised VTTM 61105 (Dated 12/21/05) for Screencheck Purposes
 - Geologic/Geotechnical Evaluation for Environmental Impact Report, Vesting Tentative Tracted Map No. 61105, March 31, 2010
 - R.T. Frankian & Associates, *Response to County of Los Angeles Review Sheets and Geotechnical Plan Review, Revised Tentative Tract Map No. 61105, Mission Village, Newhall Ranch. April 29, 2010*
- Appendix 4.2 Hydrological Reports
- Drainage Concept for Mesas VTTM 61105
 - Flood Technical Report – Santa Clara River, February 2007
 - Drainage Concept Report for Mission Village Santa Clara River Bank Protection, July 2007

Volume VI

- Appendix 4.2 Hydrological Reports (continued)
- California Regional Water Quality Control Board, Los Angeles Region, Review of Newhall Ranch Specific Plan Subregional Stormwater Mitigation Plan Letter, May 2008
 - Request for Conditional Letter of Map Revision, July 2007
 - Balance Hydrologics, Inc., "Assessment of Potential Impacts Resulting From Cumulative Hydromodification Effects, Selected Reaches of the Santa Clara River, Los Angeles County, California," (October 2005)
 - Newhall Ranch Santa Clara River Phase I River Fluvial Study, March 2006

LIST OF APPENDICES (continued)

Volume VI (continued)

- Appendix 4.3 Biological Reports
California Native Plant Society, Inventory of Rare and Endangered Plants
California Natural Diversity Data Base
Compliance Biology, Inc., "Results of the Focused Western Spadefoot Toad Surveys on the Mission Village Project Site" (2006)
Entrix, Inc., "Focused Special-Status Aquatic Species Assessment – Santa Clara River, Mission Village Project, Newhall Ranch, California" (2006)
Impact Sciences, Inc., "Oak Tree Report: Mission Village VTTM 61105 Los Angeles County, California, March 2010 update" (2010)
Impact Sciences, Inc., "Mission Village VTTM 61105 Project Oak Tree Report, Los Angeles County, California" (2006)
Lemons, P., "Focused California Gnatcatcher Surveys for Mission Village, Los Angeles County, California" (January 26, 2008)
Dudek, "2007 Sensitive Plant Survey Results for the Newhall Ranch Specific Plan Area, Los Angeles County, California" (December 2007)
- Appendix 4.5 Traffic Analysis
Mission Village Revised Traffic Impact Analysis, Austin-Foust Associates, Inc., October 2010
Westside Roadway Santa Clarita Valley Phasing Analysis, Austin-Foust Associates, Inc., November 2006
Westside Santa Clarita Valley Phasing Analysis for the City of Santa Clarita, Austin-Foust Associates, Inc., July 2006

Volume VII

- Appendix 4.5 Traffic Analysis (continued)
Caltrans EIR/EIS Excerpts
City of Santa Clarita Department of Public Works and Los Angeles County Department of Public Works, Valencia B&T District Report Update, March 2008
City of Santa Clarita Transportation and Engineering Services, Via Princessa Bridge and Major Thoroughfare Construction Fee District Update Report, March 2002
- Appendix 4.6 Noise Calculations
Noise Measurement Output Data and Analysis
- Appendix 4.7 Air Quality Calculations
SCAQMD Santa Clarita Subregional Analysis, November 2004
Grading, Trenching, and Paving Emissions
Building Construction Emissions
Operational Emissions
CO Hotspots

LIST OF APPENDICES (continued)

Volume VII (continued)

- Appendix 4.7 Air Quality Calculations (continued)
Localized Significance Thresholds Analysis
Health Risk Assessment
- Appendix 4.8 Water Service Reports
SB 610 Water Supply Assessment
Water Supply Assessment Mission Village Vesting Tentative Tract Map No. 061105,
April 2010
2005 Urban Water Management Plan
Los Angeles Superior Court Decision on Riverpark
Santa Barbara Superior Court Decision on West Creek
Newhall Ranch Revised Additional Analysis, Vol VIII

Volume VIII

- Appendix 4.8 Water Service Reports (continued)
Nickel Water Contract Documentation
Nickel Environmental Documentation
The State Water Project Deliverability Reliability Report, Public Review Draft,
November 16, 2005
The State Water Project Deliverability Reliability Report 2005, Final April 2006
Water Supply Contracts Between the State of California Department of Water Resources
and CLWA including Amendment No. 18 (41,000 Acre-Feet Water Transfer)
Valencia Water Company Water Management Program Approved November 29, 2001,
and Related CPUC Decisions
2002 Point of Delivery Agreement (Semitropic Groundwater Banking Program),
February 13, 2004
California's Groundwater Bulletin 118, Update 2003, October 2003
CLWA Data Document Providing Economic Justification for Proposed Facility Capacity
Fees, April 19, 2003
2004 Santa Clarita Valley Water Report, Dated May 2005
2005 Santa Clarita Valley Water Report, Dated April 2006
Results of Laboratory Testing of Valencia Water Company Wells
CH2MHill Memorandum, Effect of Urbanization on Aquifer Recharge in the Santa
Clarita Valley, February 22, 2004
CH2MHill Final Report, Regional Groundwater Flow Model for the Santa Clarita Valley
(Model Development and Calibration), April 2004
CH2MHill, Calibration Update of the Regional Groundwater Flow Model for the Santa
Clarita Valley, Santa Clarita, California, August 2005
CH2MHill Final Report, Analysis of Perchlorate Containment in Groundwater Near the
Whittaker-Bermite Property, December 2004
CH2MHill Memorandum, Analysis of Near-Term Groundwater Capture Areas for
Production Wells Located near the Whittaker-Bermite Property,
December 21, 2004

LIST OF APPENDICES (continued)

Volume IX

- Appendix 4.8 Water Service Reports (continued)
- Analysis of Groundwater Basin Yield, Upper Santa Clara River Groundwater Basin, East Subbasin, Dated August 2005
 - Analysis of Groundwater Supplies and Groundwater Basin Yield Upper Santa Clara River Groundwater Basin, East Subbasin (2009 Basin Yield Update)
 - Draft EIR – Supplemental Water Project Transfer of 41,000 Acre-Feet of State Water Project Table A Amount, Dated June 2004
 - CLWA Draft Report, Recycled Water Master Plan, May 2002 and CLWA Resolution Regarding Availability of Recycled Water, Approved May 28, 2003
 - Impact and Response to Perchlorate Contamination, Valencia Water Company Well Q2, Dated April 2005
 - Groundwater Management Plan, Santa Clara River Valley Groundwater Basin, Dated December 2003
 - Memorandum of Understanding Between the Santa Clara River Valley Upper Basin Water Purveyors and United Water Conservation District, August 2001
 - Newhall Ranch Litigation, Statement of Decision, August 1, 2000

Volume X

- Appendix 4.8 Water Service Reports (continued)
- Slade, 2001 Update Report Hydrogeologic Conditions in the Alluvial and Saugus Formation Aquifer Systems, Dated July 2002
 - Interim Remedial Action plan, Dated December 2005
 - Valencia Water Company Letter to Impact Sciences, March 8, 2006
 - Luhdorf & Scalmanini Technical Memorandum: Evaluation of Groundwater Recharge Methods for the Saugus Formation in the Newhall Ranch Specific Plan Area, March 8, 2006
 - Luhdorf & Scalmanini Technical Memorandum: Potential Capture of Perchlorate Contamination, Valencia Water Company Wells E14-E17, April 26, 2006
 - Final Report, Reclaimed Water System Master Plan, CLWA, September 1993
 - CPUC Decision Dated November 29, 2001
 - CPUC Decision Dated October 16, 2003
 - CPUC Decision Dated August 24, 2006
 - 2003 Point of Delivery Agreement (Semitropic Groundwater Banking Program), February 13, 2004
 - CLWA Resolution Regarding Availability of Recycled Water, Approved May 28, 2003
 - CLWA Memorandum to Board of Directors, June 1, 2007
 - Monterey Settlement Agreement
 - Friends of the Santa Clara River v. Castaic Lake Water Agency*, 2003 WL 22839353 (*Friends II*)
 - DWR “News for Immediate Release,” April 18, 2006
 - DWR Notice to SWP Contractors, May 23, 2007
 - DWR Bulletin 132-04, *Management of the California State Water Project*, September 2005
 - DWR Bulletin 132-03, *Management of the California State Water Project*, December 2004
 - DWR Bulletin 132-02, *Management of the California State Water Project*, January 2004

LIST OF APPENDICES (continued)

Volume X (continued)

- Appendix 4.8 Water Service Reports (continued)
- DWR Bulletin 132-01, *Management of the California State Water Project*, December 2002
 - DWR Bulletin 132-06, *Management of the California State Water Project*, December 2007
 - DWR's "Notices to State Water Project Contractors" 2000 to 2006
 - Sacramento County Trial Court's Order (re: Monterey Settlement Agreement)
 - Judgment Granting Peremptory Writ of Mandate, October 25, 2002
 - DWR Brief in the 41K litigation
 - California Water Impact Network, et al. v. Castaic Lake Water Agency*, Appellate Court 2d Civil No. B177978 (Second District Court of Appeal's unpublished decision)
 - CalSim II: Simulation of Historical SWP-CVP Operations, Technical Memorandum, DWR Bay-Delta Office, November 2003
 - CalSimII Benchmark Studies
 - Musings On A Model: CalSim II In California's Water Community*, San Francisco Estuary and Watershed Science, Vol. 3, Issue 1 (March 2005), Article 1, by Inês C. Ferreira, *et al*
 - DWR letter to Mindy McIntyre, Planning and Conservation League, April 20, 2006
 - Order Granting Plaintiff's Application for Temporary Restraining Order, February 3, 2006
 - Order Granting Plaintiff's Motion for Preliminary Injunction, February 15, 2006
 - Governor Schwarzenegger's release issued July 17, 2007

Volume XI

- Appendix 4.8 Water Service Reports (continued)
- 2006 Santa Clarita Valley Water Report, May 2007
 - 2008 Santa Clarita Valley Water Report, April 2009
 - Statement of Decision, *California Water Network v. Castaic Lake Water Agency*, Los Angeles County Superior Court No. BS098724, filed April 2, 2007 ("Chalfant Decision")
 - California Water Impact Network, Inc. v. Castaic Lake Water Agency*, Second Appellate District, Division Five, Appellate Case No. B205622
 - Castaic Lake Water Agency Litigation Settlement Agreement
 - Order Granting Joint Motion for Court Approval, Good Faith Settlement Determination and Entry of Consent Order, July 13, 2007
 - Stipulation to Dismiss Plaintiffs' Claims and Defendants' Counterclaim, August 20, 2007
 - Carollo Engineers, Treatment of Perchlorate Contaminated Groundwater from the Saugus Aquifer, TM 3 Bench and Pilot Test Results, February 2004
 - DWR's 2009 Comprehensive Water Package, Special Session Policy Bills and Bond Summary, November 2009
 - DWR's Progress on Incorporating Climate Change into Management of California's Water Resources, July 2006
 - Emissions Pathways, Climate Change, Impacts on California, Katharine Hayhoe, et al., August 24, 2004
 - Pondering a Climate Conundrum in Antarctic, *Nature*, January 13, 2002

LIST OF APPENDICES (continued)

Volume XI (continued)

- Appendix 4.8 Water Service Reports (continued)
Buried Soil Cement Evaluation after 2004/05 Winter Storm, PACE, May 8, 2007
In Hot Water: Water Management Strategies to Weather the Effects of Global Warming, NRDC, July 2007
Minute Order and Statement of Decision for the 2005 UWMP
Janavs Decision
Retired Irrigated Farmland, Tentative Tract Map No. TR61105, 2008
Valencia Water Company, Well E-15 Water Quality Compliance Monitoring Results – 2006 to 2009
Progress Letter Report from Hassan Amini, Ph.D., Project Coordinator for AMEC Geomatrix, to DTSC, September 15, 2009
Letter from Hassan Amini, Ph.D., Project Coordinator for AMEC Geomatrix, to DTSC, June 8, 2009
CLWA News Release, September 14, 2009
CLWA Memorandum from Brian J. Folsom to CLWA Board of Directors, October 1, 2009
U.S. EPA, Perchlorate, and Region 9 Perchlorate Update
Biological Opinion for Delta smelt, 2008

Volume XII

- Appendix 4.8 Water Service Reports (continued)
Biological Opinion for Chinook salmon/sturgeon
Natural Resources Defense Council v. Kempthorne, 506 F.Supp.2d 322 (E.D. Cal. 2007) (“2007 Wanger decision”)
Pacific Coast Federation of Fishermen’s Associations, et al. v. Gutierrez, et al., No. 06-CV-00245-OWW-GSA (E.D. Cal. 2008) (“2008 Wanger decision”)
NOAA/NMFS release summarizing the 2009 Biological Opinion, June 4, 2009
DWR release responding to the 2009 Biological Opinion, June 4, 2009
SWP Contractors release concerning litigation filed challenging the 2009 Biological Opinion, August 6, 2009
Coalition for a Sustainable Delta/Kern County Water Agency release concerning the litigation filed challenging the 2009 BO, August 28, 2009
- Appendix 4.9 Wastewater Disposal
Wastewater Data
- Appendix 4.10 Solid Waste Services
Calculations Details
- Appendix 4.11 Sherriff Services
Written correspondence from Captain Patti A. Minutello, Los Angeles County Sheriff’s Department, Santa Clarita Valley Station, November 3, 2004
Written communication from E. Conley, Captain, Commander, Newhall Area Station, California Highway Patrol, November 14, 2004

LIST OF APPENDICES (continued)

Volume XII (continued)

Appendix 4.12 Fire Protection Services

Written correspondence, David R. Leininger, Chief, Forestry Division, Prevention Bureau, County of Los Angeles Fire Department, December 22, 2004

Appendix 4.13 Education

School Facilities Funding Agreement entered into between the Newhall District and Newhall on October 17, 1995

School Facilities Funding Agreement Between the Saugus Union School District and Newhall Land and Farming Company, Effective February 18, 1997

School Facilities Funding Agreement Between the William S. Hart Union High School District and The Newhall Land and Farming Company, Effective October 1998

Facilities Mitigation and Funding Agreement By and Between Newhall Land Development, LLC, and the Newhall School District, December 1, 2009

Agreement for the Advancement of School Facilities Funds to the Saugus Union School District by the Newhall Land and Farming Company, Effective October 17, 2000

School Facilities Funding Agreement entered into between the Newhall District and Newhall Land and Farming Company (Newhall School Funding Agreement), Effective January 22, 2010

Student Generation Calculations

Appendix 4.15 Library Services

Written correspondence from Malou Rubio, Head, Staff Services, County of Los Angeles Public Library, Library Headquarters, August 11, 2004

Written correspondence from Malou Rubio, Head, Staff Services, County of Los Angeles Public Library, Library Headquarters, June 28, 2004

E-mail correspondence from Malaisha Hughes, County of Los Angeles Public Library, Library Headquarters, January 21, 2005

Library Calculations

Volume XIII

Appendix 4.19 Environmental Safety

Phase I Environmental Site Assessment of Proposed The Mesas East, Valencia, California
Phase I Environmental Site Assessment of Entrada Development Tract Map No. 53295, Henry Mayo Drive and The Old Road, Valencia, California, March 2007 (part 1)

Volume XIV

Appendix 4.19 Environmental Safety (continued)

Phase I Environmental Site Assessment of Entrada Development Tract Map No. 53295, Henry Mayo Drive and The Old Road, Valencia, California, March 2007 (part 2)

Phase I Environmental Site Assessment of Entrada Development Tract Map No. 53295, Henry Mayo Drive and The Old Road, Valencia, California, March 2007 (part 3)

LIST OF APPENDICES (continued)

Volume XV

- Appendix 4.19 Environmental Safety (continued)
Phase I Environmental Site Assessment of Entrada Development Tract Map No. 53295,
Henry Mayo Drive and The Old Road, Valencia, California, March 2007 (part 4)
Phase I Environmental Site Assessment of Parcel Map No. 060678, Highway 126,
Valencia, California, September 2005 (part 1)

Volume XVI

- Appendix 4.19 Environmental Safety (continued)
Phase I Environmental Site Assessment of Parcel Map No. 060678, Highway 126,
Valencia, California, September 2005 (part 2)
Phase I Environmental Site Assessment of Parcel Map No. 060678, Highway 126,
Valencia, California, September 2005 (part 3)

Volume XVII

- Appendix 4.19 Environmental Safety (continued)
Phase I Environmental Site Assessment of Legacy Village Development Tract Map
VTTM 061996, Valencia, California, March 2007

Volume XVIII

- Appendix 4.19 Environmental Safety (continued)
Phase II Subsurface Investigation of Water Quality Basins, Entrada ME073-02 Basins,
Valencia, California, September 2006
BA Environmental, *Phase I Environmental Site Assessment of River Village Tentative Tract
Map No. 53108, Highway 126, Newhall Ranch, California, September 27, 2004*
BA Environmental, *Phase I Environmental Site Assessment Addendum Letter of Proposed
Water Tank Locations and Utility Corridor Easements Associated with the proposed
River Village Development, Tentative Tract Map No. 53108, Highway 126, Newhall
Ranch, California, September 28, 2004*
BA Environmental, Phase I Environmental Site Assessment of Proposed SCE Substation
Site and Soil Disposal Site, Valencia, California, May 2010
- Appendix 4.20 Cultural Resources
Phase I Archaeological Survey of the West Ranch Area
Backhoe Testing Near the Asistencia de San Francisco
- Appendix 4.21 Floodplain Modifications
PACE, Mission Village Flood Technical Report
ENTRIX, Focused Special-Status Aquatic Species Assessment

LIST OF APPENDICES (continued)

Volume XIX

- Appendix 4.21 Floodplain Modifications (continued)
Geosyntec Consultants, "Newhall Ranch Specific Plan Sub-Regional Stormwater Mitigation Plan" (April 2008)
Pacific Advanced Civil Engineering, Inc., "Newhall Ranch River Fluvial Study Phase 1, Final Draft" (March 2006; 2006a)
Pacific Advanced Civil Engineering, Inc., "Newhall Ranch River Fluvial Study Phase 2" (January 2008)
Philip Williams and Associates, Ltd., "Newhall Ranch Tributary Channel Design Guidelines" (November 20, 2008)

Volume XX

- Appendix 4.22 Water Quality
Mission Village Water Quality Technical Report, March 2010
Geosyntec, Newhall Ranch Specific Plan Sub-Regional Stormwater Mitigation Plan, April 2008
- Appendix 4.23 Global Climate Change
ENVIRON, Climate Change Technical Report: Mission Village, August 2010
GSI Water Solutions, Inc., "Technical Memorandum Regarding Potential Effects of Climate Change on Groundwater Supplies for Newhall Ranch Specific Plan, Santa Clarita Valley, California," March 18, 2008
Mission Village Sustainability Overview, 2010
Global Climate Change and Its Effects on Sensitive Biological Resources, July 2010
Global Climate Change and Its Effects on California Water Supplies, July 2010
- Appendix 5.0 Project Alternatives
Emissions Calculations

LIST OF FIGURES

Figure		Page
1.0-1	Regional Location	1.0-7
1.0-2	Project Vicinity Map	1.0-8
1.0-3	Project Boundary/Environmental Setting	1.0-9
1.0-4	Planning Areas of The Mesas	1.0-16
1.0-5	Mission Village Planning Areas	1.0-25
1.0-6	Neighborhood A Site Plan	1.0-26
1.0-7	Neighborhoods B & F Site Plan	1.0-27
1.0-8	Neighborhood C Site Plan	1.0-28
1.0-9	Neighborhood D Site Plan	1.0-29
1.0-10	Neighborhood E Site Plan	1.0-30
1.0-11	Mission Village Land Use Types	1.0-33
1.0-12	Typical Elevation – Single-Family Units	1.0-34
1.0-13	Typical Elevation – Multi-Family Units	1.0-37
1.0-14a	Conceptual Design Elements for the Village Center	1.0-38
1.0-14b	Conceptual Design Elements for the Village Center	1.0-39
1.0-15	Community Recreation Center	1.0-40
1.0-16	Community Park	1.0-41
1.0-17	Neighborhood Park	1.0-42
1.0-18	Spineflower Preserve	1.0-45
1.0-19	Mission Village Portion of the Newhall Ranch Specific Plan Master Trails Plan	1.0-46
1.0-20	Mission Village Trails Plan	1.0-49
1.0-21	Newhall Ranch Specific Plan Master Circulation Plan – Mission Village	1.0-50
1.0-22	Mission Village Circulation Plan	1.0-51
1.0-23	Commerce Center Bridge	1.0-54
1.0-24	Newhall Ranch Specific Plan Backbone Drainage Plan – Mission Village	1.0-55
1.0-25	Mission Village Drainage and Water Quality Plan	1.0-56
1.0-25a	Off-Site Improvements	1.0-57
1.0-26	Bank Stabilization Cross-Section	1.0-60
1.0-27	Examples of Bank Stabilization Techniques	1.0-63
1.0-28	Newhall Ranch Specific Plan Conceptual Backbone Water Plan – Mission Village	1.0-66
1.0-29	Mission Village Potable Water System	1.0-67
1.0-30	Mission Village Reclaimed Water System	1.0-68
1.0-31	Newhall Ranch Specific Plan Conceptual Backbone Sewer Plan – Mission Village	1.0-71
1.0-32	Mission Village Wastewater System – Scenario 1	1.0-72
1.0-33	Mission Village Wastewater System – Scenario 2	1.0-73
1.0-34	Mission Village Wastewater System – Scenario 3	1.0-74
2.0-1	Existing Land Use	2.0-7
2.0-2	Mineral Resources Zone including Plugged and Abandoned Oil Wells	2.0-8
2.0-3	On-Site Topography	2.0-11
2.0-4	Newhall Ranch Specific Plan, Existing Land Use Designations	2.0-16
3.0-1	Cumulative Impact Analysis Methodology	3.0-9

LIST OF FIGURES (Continued)

Figure		Page
4.2-1	Tributary Drainages	4.2-21
4.2-2	Mission Village Existing On- and Off-Site Drainage Areas	4.2-28
4.2-3	Existing Capital Floodplain Boundaries	4.2-29
4.2-4	Existing FEMA 100-yr Floodplain Boundaries	4.2-30
4.2-5	Mission Village Drainage and Water Quality Plan.....	4.2-33
4.3-1	Protected and Preserved Lands	4.3-9
4.3-2	Vicinity Map.....	4.3-18
4.3-3	Project Site Soils.....	4.3-19
4.3-4	Plant Communities and Land Uses at the Mission Village Project Site	4.3-48
4.3-4-A1	Plant Communities and Land Uses at the Mission Village Project Site	4.3-49
4.3-4-A2	Plant Communities and Land Uses at the Mission Village Project Site	4.3-50
4.3-4-A3	Plant Communities and Land Uses at the Mission Village Project Site	4.3-51
4.3-4-A4	Plant Communities and Land Uses at the Mission Village Project Site	4.3-52
4.3-4-A5	Plant Communities and Land Uses at the Mission Village Project Site	4.3-53
4.3-4-B1	Middle Canyon Spring - Existing Conditions.....	4.3-54
4.3-5	Potential Wildlife Movement Corridors.....	4.3-67
4.3-6	Special-Status Plant Species Locations.....	4.3-74
4.3-7	Jurisdictional Resources.....	4.3-137
4.3-8	Riparian Habitat Buffer.....	4.3-162
4.3-9	South Coast Wildlands Open Space Connectivity and Linkage	4.3-165
4.3-10	Airport Mesa Preserve Core Population	4.3-166
4.3-11	Impacted Jurisdictional Resources	4.3-261
4.3-11-A1	Impacted Jurisdictional Resources	4.3-262
4.3-11-A2	Impacted Jurisdictional Resources	4.3-263
4.3-11-A3	Impacted Jurisdictional Resources	4.3-264
4.3-11-A4	Impacted Jurisdictional Resources	4.3-265
4.3-11-A5	Impacted Jurisdictional Resources	4.3-266
4.3-12	Cumulative Individual Project Location Map	4.3-377
4.3-13	Consolidated Corps Projects (1988 and 2006).....	4.3-392
4.3-14	Consolidated Corps Permits, Acreage of Impacts and Mitigation (1988 to 2006)	4.3-393
4.3-15	Corps Permitted Activities by Types (1998-2006).....	4.3-394
4.3-16	Consolidated CDFG Streambed Projects (1983-2006).....	4.3-395
4.3-17	Consolidated CDFG Streambed Permits, Acreages of Impact and Mitigation (1988-2006).....	4.3-396
4.3-18	Consolidated CDFG Streambed Permits by Type (1983-2006).....	4.3-397
4.3-19	Santa Clara River Watershed - Existing Vegetation Types	4.3-420
4.3-20-A1	RMDP/SCP - Vegetation Communities and Land Covers	4.3-421
4.3-20-A2	RMDP/SCP - Vegetation Communities and Land Covers	4.3-422
4.3-20-B1	RMDP/SCP - Vegetation Communities and Land Covers	4.3-423
4.3-20-B2	RMDP/SCP - Vegetation Communities and Land Covers	4.3-424
4.3-20-C1	RMDP/SCP - Vegetation Communities and Land Covers	4.3-425
4.3-20-C2	RMDP/SCP - Vegetation Communities and Land Covers	4.3-426
4.3-20-D1	RMDP/SCP - Vegetation Communities and Land Covers	4.3-427
4.3-20-D2	RMDP/SCP - Vegetation Communities and Land Covers	4.3-428

LIST OF FIGURES (Continued)

Figure	Page
4.3-21	Santa Clara River Watershed - Existing Vegetation Types by General Physiognomic Category..... 4.3-429
4.3-22	Santa Clara River Watershed - Current Land Use Classifications 4.3-430
4.3-23	Wildlife Connectivity Crossings..... 4.3-453
4.3-24	Alternative 2 Impacts to RMDP/SCP Regional Wildlife Connectivity Corridors..... 4.3-454
4.3-25	RMDP/SCP Arroyo Toad Species Occurrences 4.3-461
4.3-26	RMDP/SCP - Listed and California Fully Protected Wildlife Species Occurrences..... 4.3-468
4.3-27	California Gnatcatcher Observations and Habitat within the Greater Newhall Ranch Region..... 4.3-473
4.3-28	Least Bell's Vireo Critical Habitat in Santa Clara River Critical Habitat Unit..... 4.3-484
4.3-29	Habitat in RMDP/SCP for Unarmored Threespine Stickleback 4.3-497
4.3-30	RMDP/SCP White-Tailed Kite Occurrences..... 4.3-504
4.3-31	RMDP Study Area 4.3-509
4.4-1	View Location Map 4.4-7
4.4-2	Existing Views – Viewpoints 1 & 2 4.4-8
4.4-3	Existing Views – Viewpoints 3 & 4 4.4-9
4.4-4	Existing Views – Viewpoints 5 & 6 4.4-12
4.4-5	Existing and Proposed Views – Viewpoint 1..... 4.4-21
4.4-6	Existing and Proposed Views – Viewpoint 2..... 4.4-22
4.4-7	Existing and Proposed Views – Viewpoint 3..... 4.4-23
4.4-8	Existing and Proposed Views – Viewpoint 4..... 4.4-26
4.4-9	Existing and Proposed Views – Viewpoint 5..... 4.4-27
4.4-10	Existing and Proposed Views – Viewpoint 6..... 4.4-28
4.5-1	Project Study Area..... 4.5-7
4.5-2	Existing Roadway System 4.5-20
4.5-3	Existing Intersection Lane Configurations – County Intersections 4.5-21
4.5-4	Existing Intersection Lane Configurations – City Intersections 4.5-22
4.5-5	AM Peak Hour Turning Movement Volumes – Existing Conditions (County Intersections)..... 4.5-23
4.5-6	PM Peak Hour Turning Movement Volumes – Existing Conditions (County Intersections)..... 4.5-24
4.5-7	AM Peak Hour Turning Movement Volumes – Existing Conditions (City Intersections)..... 4.5-25
4.5-8	PM Peak Hour Turning Movement Volumes – Existing Conditions (City Intersections).... 4.5-26
4.5-9	Roadway Classifications – On-Site..... 4.5-31
4.5-10	Intersection Lane Configurations – On-Site 4.5-32
4.5-11	Trip Distribution (%)..... 4.5-45
4.5-1a	Trip Distribution (%) Off-Site 4.5-46
4.5-12	ADT Volumes, Newhall Ranch Buildout Conditions – On-Site..... 4.5-63
4.5-13	Intersection Location Map – On-Site..... 4.5-64
4.5-14	AM Peak Hour Volumes, Newhall Ranch and Other Cumulative Development Buildout Conditions – On-Site..... 4.5-65
4.5-15	PM Peak Hour Volumes, Newhall Ranch and Other Cumulative Development Buildout Conditions – On-Site..... 4.5-66

LIST OF FIGURES (Continued)

Figure		Page
4.6-1	Noise Attenuation by Barriers and Elevation Differences	4.6-7
4.6-2	State Land Use Compatibility Guidelines for Noise.....	4.6-12
4.6-3	City of Santa Clarita Guidelines for Noise and Land Use Compatibility	4.6-17
4.6-4	On-Site Noise Contours	4.6-18
4.6-5	On-Site Noise Monitoring Locations	4.6-19
4.6-6	Noise Levels of Typical Construction Equipment	4.6-24
4.7-1	South Coast Air Basin	4.7-9
4.7-2	Dominant Wind Patterns in the Basin.....	4.7-30
4.8-1	Castaic Lake Water Agency Service Area.....	4.8-19
4.8-2	Valencia Water Company Service Area.....	4.8-22
4.8-2a	Santa Clara River Valley East Groundwater Basin – East Subbasin	4.8-23
4.8-3	Upper Santa Clara River Hydrologic Area	4.8-26
4.8-4	Municipal Alluvial Well Locations; Santa Clara River Valley, East Groundwater Subbasin	4.8-43
4.8-5	Saugus Well Locations; Santa Clara River Valley, East Groundwater Subbasin	4.8-48
4.8-6	Forecasted Two-Year Groundwater Capture Zones for Active Alluvial Production Wells Located Closest to the Whitaker-Bermite Property Santa Clarita, California	4.8-55
4.8-7	Forecasted Two-Year Groundwater Capture Zones for Active Saugus Production Wells Located Closest to the Whitaker-Bermite Property Santa Clarita, California	4.8-60
4.8-8	Principal State Water Program Facilities.....	4.8-69
4.8-9	Mission Village Potable Water System Infrastructure	4.8-114
4.8-10	Reclaimed Water Storage System.....	4.8-117
4.9-1	Existing Wastewater Treatment Facilities and Sanitation Districts	4.9-5
4.9-2	Mission Village Sewer Systems	4.9-14
4.10-1	Locations of Major Los Angeles County Landfill Sites	4.10-11
4.11-1	Sheriff/CHP Station Locations	4.11-5
4.12-1	Existing Fire Station Locations.....	4.12-5
4.12-2	Proposed Fire Station Locations	4.12-12
4.13-1	School District Boundaries	4.13-5
4.13-2	Planning Area School Boundary.....	4.13-12
4.13-3	Conceptual Site Plan - Newhall School District Elementary School	4.13-13
4.13-4	Conceptual Site Plan - Saugus Union School District Elementary School	4.13-16
4.14-1	County and State Park Facilities.....	4.14-9
4.14-2	Existing and Proposed City of Santa Clarita Parks.....	4.14-12
4.14-3	Los Angeles County Trails	4.14-17
4.14-4	City of Santa Clarita Backbone Trails.....	4.14-22
4.14-5	Mission Village Parks, Recreation Areas, and Trails	4.14-25
4.15-1	Library Locations.....	4.15-5
4.16-1	Current Agricultural Uses	4.16-7
4.16-2	On-Site Important Farmland	4.16-8
4.16-3	On-Site USDA Soil Suitability.....	4.16-9
4.18-1	Mineral Resources Zone	4.18-5
4.19-1	Plugged and Abandoned Oil Wells.....	4.19-11
4.19-2	Above-Ground Storage Tanks (ASTs).....	4.19-12
4.19-3	Soil Sample Locations	4.19-17

LIST OF FIGURES (Continued)

Figure		Page
4.21-1	Study Area Locations	4.21-7
4.21-2	Mission Village Tributaries	4.21-26
4.21-3a	Existing Conditions – Santa Clara River 2-year Flood Event	4.21-27
4.21-3b	Existing Conditions – Santa Clara River 5-year Flood Event	4.21-28
4.21-3c	Existing Conditions – Santa Clara River 10-year Flood Event	4.21-29
4.21-3d	Existing Conditions – Santa Clara River 20-year Flood Event	4.21-30
4.21-3e	Existing Conditions – Santa Clara River 50-year Flood Event	4.21-31
4.21-3f	Existing Conditions – Santa Clara River 100-year Flood Event	4.21-32
4.21-4	Habitats in the Santa Clara River.....	4.21-37
4.21-5	Bank Stabilization – Typical Cross Section	4.21-42
4.21-6	Location of Commerce Center Drive Bridge and Proposed Bank Stabilization.....	4.21-43
4.21-7a	Proposed Conditions – Area Inundated by 2-year Storm Event	4.21-50
4.21-7b	Proposed Conditions – Area Inundated by 5-year Storm Event	4.21-51
4.21-7c	Proposed Conditions – Area Inundated by 10-year Storm Event	4.21-52
4.21-7d	Proposed Conditions – Area Inundated by 20-year Storm Event	4.21-53
4.21-7e	Proposed Conditions – Area Inundated by 50-year Storm Event	4.21-54
4.21-7f	Proposed Conditions – Area Inundated by 100-year Storm Event	4.21-55
4.22-1	Project Location Map.....	4.22-31
4.22-2	Project Design Features.....	4.22-74
4.22-3	Examples of Bioretention Facilities	4.22-75
4.22-4	Conceptual Illustration of a Vegetated Swale.....	4.22-76
4.22-5	Conceptual Illustration of a Water Waste Basin.....	4.22-77
4.23-1	Carbon Dioxide and Methane concentrations have increased dramatically since the industrial revolution	4.23-5
4.23-2	Global warming trends and associated sea level rise and snow cover decrease	4.23-10
5.0-1	Alternative 3 – Expanded Spineflower Preserve.....	5.0-7
5.0-2	Alternative 4 – 20% Reduction in the Number of Dwelling Units.....	5.0-20
5.0-3	Alternative 5 – Cluster Alternative	5.0-33

LIST OF TABLES

Table	Page
ES-1	Summary of Environmental Impacts ES-7
ES-2	Summary of Significant Impacts and Mitigation Measures ES-10
1.0-1	Specific Plan/The Mesas Village – Mission Village Project..... 1.0-17
1.0-2	Future Agency Actions 1.0-20
1.0-3	Mission Village Tract Map Statistical Summary 1.0-32
2.0-1	Specific Plan/The Mesas Village – Mission Village Project..... 2.0-18
2.0-2	SCAG Regional Transportation Plan Goals and Compass Growth Vision Principles 2.0-19
3.0-1	DMS Build-Out Scenario – Santa Clarita Valley Planning Area With and Without Project 3.0-3
3.0-2	DMS Implementation 3.0-4
3.0-3	Cumulative Development Activity – Santa Clarita Valley Cumulative Build-Out Scenario 3.0-7
4.1-3	Seismic Force Design Factors and Coefficients..... 4.1-23
4.1-2	Soil Shrinkage and Bulking 4.1-29
4.2-1	Percent Imperviousness for Selected Land Uses 4.2-10
4.2-2	Existing Santa Clara River Conditions Discharge by Return Period 4.2-11
4.2-3	Existing Drainages and Runoff Discharge..... 4.2-25
4.2-4	Post-Development Drainages and Runoff Discharge – VTTM 66105..... 4.2-47
4.2-5	Comparison of Acreage and Discharge – Existing and Proposed Project VTTM 61105..... 4.2-48
4.3-1	Significant Biological Impacts—Newhall Ranch Specific Plan and WRP 4.3-11
4.3-2	Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into This EIR..... 4.3-24
4.3-3	Existing Vegetation Communities, Floristic Alliances and Associations, and Land Cover Types in the Project Area 4.3-46
4.3-4	Special-Status Plant Species Documented in the Project Area but Not Observed on or Adjacent to the Project Site..... 4.3-79
4.3-5	Special-Status Wildlife Species Observed on or Adjacent to the Project Site 4.3-87
4.3-6	Special-Status Wildlife Species Not Observed but with <i>Potential</i> to Occur on the Project Site 4.3-118
4.3-7	Special-Status Wildlife Species Not Expected or Rarely Occuring on the Project Site 4.3-125
4.3-8	Plant Community/Land Use Impact Summary 4.3-142
4.3-9	Significant Impact and Mitigation Summary 4.3-277
4.3-10	Total Conservation Area and Preserved Vegetation Communities, Floristic Alliances, Associations, and Land Cover Type 4.3-281
4.3-11	CDFG Jurisdictional Permanent Impacts Mitigation Ratios 4.3-347
4.3-12	Potential Plant Species for Vegetation Community Restoration in the River Corridor SMA/SEA 23 and Tributaries 4.3-348
4.3-13	City of Santa Clarita Consolidated Projects (Includes Individually Reviewed Projects) .. 4.3-372
4.3-14	Los Angeles County Consolidated Projects 4.3-378
4.3-15	City of Fillmore Consolidated Projects..... 4.3-387
4.3-16	City of Santa Paula Consolidated Projects 4.3-388
4.3-17	Ventura County Consolidated Projects 4.3-389
4.3-18	Summary of Total City/County/Caltrans Consolidated Projects 4.3-390
4.3-19	Federal Biological Opinion Summary, Santa Clara Watershed (19932006) 4.3-398
4.3-20	Recent CDFG Take Authorizations in Project Vicinity..... 4.3-406

LIST OF TABLES (Continued)

Table		Page
4.3-21	Individual Project Summary	4.3-407
4.3-22	Existing Vegetation Communities, Floristic Alliances and Associations, and Land Cover Types in Project Area.....	4.3-414
4.3-23	Summary of Cumulative Impacts to Vegetation and Land Covers in the Santa Clara River Watershed (GAP Data are Approximate)	4.3-432
4.3-24	Summary of Cumulative Impacts to Wildlife Guilds in the Santa Clara River Watershed (GAP Data are Approximate).....	4.3-444
4.3-25	Estimate of Least Bell's Vireo Territories by County	4.3-483
4.3-26	Summary of Cumulative Impacts to CNPS and Locally-Regulated Plant Species in the Santa Clara River Watershed	4.3-558
4.3-27	Summary of Cumulative Impact Determinations for Biological Resources	4.3-564
4.5-1	Defined Projects Included in the Cumulative Database.....	4.5-8
4.5-2	Level of Service of Arterial Roads	4.5-12
4.5-3	Level of Service Descriptions – Freeway Segments	4.5-13
4.5-4	ICU and LOS Summary – Existing Conditions.....	4.5-18
4.5-5	Freeway Volumes and V/C Ratios – Existing (2010) Conditions	4.5-28
4.5-6	Volume/Capacity Ratio Level of Service Ranges.....	4.5-34
4.5-7	LOS Criteria for Basic Freeway Segments.....	4.5-35
4.5-8	Arterial Intersection Performance Criteria.....	4.5-36
4.5-9	Freeway Mainline Performance Criteria	4.5-37
4.5-10	Mission Village Land Use and Trip Generation Summary.....	4.5-40
4.5-11	Project MXD Trip Generation/Internalization Estimate.....	4.5-41
4.5-12	Internal/External Trip Volumes and Percentages.....	4.5-43
4.5-13	Land Use and Trip Generation without Commerce Center Drive Extension	4.5-44
4.5-14	External Trip Totals With and Without Commerce Center Drive Extension	4.5-47
4.5-15	ICU and LOS Summary – Existing plus Ambient Conditions with and without Project....	4.5-49
4.5-16	ICU and LOS Summary – 2021 Cumulative Conditions With and Without Project.....	4.5-51
4.5-17	Project Only Peak Hour Volumes - State Highway System (Buildout Conditions)	4.5-54
4.5-18	Freeway Volumes and V/C Ratios – 2021 Conditions	4.5-55
4.5-19	Transit Trip Summary.....	4.5-58
4.5-20	ICU and LOS Summary – On-Site Intersections.....	4.5-61
4.5-21	ICU and LOS Summary - With Project Conditions with Mitigation	4.5-77
4.5-22	Land Use and ADT Summary – 2035 Buildout Cumulative Conditions.....	4.5-79
4.5-23	ICU and LOS Summary – Buildout Conditions with and without Project.....	4.5-81
4.5-24	Freeway Volumes and V/C Ratios – 2035 Valley Buildout Conditions	4.5-83
4.5-25	ICU and LOS Summary – 2035 Cumulative Conditions with Mitigation	4.5-89
4.5-26	ICU and LOS Summary – Existing plus Ambient plus Project With Mitigation (Condominium Scenario)	4.5-90
4.5-27	ICU and LOS Summary – Year 2021 Project Cumulative Conditions With Mitigation (Condominium Scenario)	4.5-91
4.5-28	ICU and LOS Summary – Long-Range (2035) Project Cumulative Conditions With Mitigation (Condominium Scenario).....	4.5-93
4.6-1	Outside to Inside Noise Attenuation (dB(A))	4.6-5
4.6-2	County of Los Angeles Exterior Noise Standards.....	4.6-10
4.6-3	County of Los Angeles Construction Equipment Maximum Noise Levels.....	4.6-11

LIST OF TABLES (Continued)

Table		Page
4.6-4	On-Site Noise Levels Under Proposed Project at Santa Clarita Valley Buildout.....	4.6-29
4.7-1	Average Monthly Temperatures and Precipitation for Newhall, California, 1989–1997	16
4.7-2	Ambient Air Quality Standards.....	20
4.7-3	Ambient Air Quality Standard Designations South Coast Air Basin (Los Angeles County).....	22
4.7-4	South Coast Air Basin (Los Angeles County) Maximum Ambient Pollutant Concentrations	23
4.7-5	South Coast Air Basin (Los Angeles County) Average Emissions by Major Source Category in 2008	24
4.7-6	2005 Annual Average Day Toxic Emissions for the South Coast Air Basin	26
4.7-7	Ambient Pollutant Concentrations, Santa Clarita/Placerita Monitoring Station and Nearest Monitoring Stations	31
4.7-8	SCAQMD Daily Construction Emission Thresholds.....	34
4.7-9	Localized Significance Thresholds for Proposed Project in Source Receptor Area 13.....	35
4.7-10	SCAQMD Daily Operation Emission Thresholds.....	36
4.7-11	Estimated Unmitigated Construction Emissions	41
4.7-12	Localized Significance Threshold Analysis – Maximum Unmitigated Impacts	43
4.7-13	Summary of Maximum Modeled Cancer Risks of Diesel Particulate Matter from Construction.....	45
4.7-14	Summary of Maximum Modeled Noncancer Health Impacts of Diesel Particulate Matter from Construction.....	45
4.7-15	Estimated Unmitigated Operational Emissions	49
4.7-16	Existing plus Ambient Conditions with Project Carbon Monoxide Concentrations.....	53
4.7-17	Comparison of Growth of VMT to Population Growth.....	82
4.8-1	Retail Water Service Connections.....	20
4.8-2	Groundwater Operating Plan for the Santa Clarita Valley	32
4.8-3	Historical Groundwater Production by the Retail Water Purveyors	33
4.8-4	Projected Groundwater Production (Normal Year).....	34
4.8-5	Pumping Rates Simulated for Individual Alluvial Aquifer Wells under the 2008 Groundwater Operating Plan	38
4.8-6	Pumping Rates Simulated for Individual Saugus Formation Wells under the 2008 Groundwater Operating Plan	41
4.8-7	Perchlorate Treatment Summary.....	61
4.8-8	Comparison of Basin Plan Mineral Groundwater Objectives with Mean Measured Values in Los Angeles County and SWP Water Quality at Castaic Lake	64
4.8-9	Average and Dry Period SWP Table A Deliveries from The Delta Under Current Conditions.....	71
4.8-10	Average and Dry Period SWP Table A Deliveries From The Delta Under Future Conditions.....	72
4.8-11	Summary of Current and Planned Water Supplies and Banking Programs	93
4.8-12	Projected Average/Normal Year Supplies and Demands	95
4.8-13	Projected Single-Dry Year Supplies and Demands.....	96
4.8-14	Projected Multiple-Dry Year Supplies and Demands	97
4.8-15	CLWA’s Projected Water Demands.....	103
4.8-16	Summary of Mission Village Water Demand	129

LIST OF TABLES (Continued)

Table		Page
4.8-17	Existing Plus Project Demand and Supply for the Santa Clarita Valley	131
4.8-18	Projected Average/Normal Year Supplies and Demands	133
4.8-19	Projected Single-Dry Year Supplies and Demands	135
4.8-20	Projected Multiple-Dry Year Supplies and Demands	137
4.8-21	Scenario 1: DMS Buildout Scenario Demand and Supply for the Santa Clarita Valley	139
4.8-22	Scenario 2: Santa Clarita Valley 2030 Buildout Scenario Water Supplies.....	142
4.8-23	Scenario 2: Santa Clarita Valley 2030 Buildout Scenario Water Demand and Supply.....	143
4.9-1	Mission Village Wastewater Generation	4.9-9
4.9-2	Cumulative Development Activity – Santa Clarita Valley Cumulative Buildout Scenario (Project Scenario)	4.9-18
4.9-3	Wastewater Generation Impact Analysis – SCV Cumulative Buildout Scenario	4.9-19
4.10-1	Existing Landfill Capacity and Regional Needs Analysis for Los Angeles County	4.10-12
4.10-2	Projected Daily Solid Waste Generation (No Recycling)	4.10-19
4.10-3	Cumulative Development Activity – Santa Clarita Valley Cumulative Build-Out Scenario	4.10-22
4.11-1	Cumulative Development Activity – Santa Clarita Valley Cumulative Buildout Scenario	4.11-19
4.12-1	Cumulative Development Activity – Santa Clarita Valley Cumulative Buildout Scenario	4.12-27
4.13-1	Existing Design Capacities and Enrollments for the Newhall District.....	4.13-4
4.13-2	Existing Design Capacity and Enrollments for the Saugus Union Elementary School District	4.13-6
4.13-3	Existing Design Capacity and Enrollments for the Hart District High Schools.....	4.13-7
4.13-4	Student Generation Rates	4.13-11
4.13-5	Summary of Cumulative Projects by School District – DMS Build-Out Scenario (Pending, Approved, and Recorded Projects)	4.13-19
4.13-6	Cumulative Development Activity – Santa Clarita Valley Cumulative Build-Out Scenario	4.13-21
4.13-7	Student Generation as a Result of Cumulative Projects	4.13-22
4.14-1	Existing and Proposed County Parks and Recreation Facilities in Portions of Park Planning Area 35A near Mission Village	4.14-7
4.14-2	Existing and Proposed City of Santa Clarita Parks	4.14-10
4.14-3	Existing and Proposed County Trails	4.14-15
4.14-4	Existing and Proposed City Trails	4.14-19
4.14-5	Mission Village Estimated Quimby Act Requirements	4.14-28
4.14-6	Estimated Quimby Credits.....	4.14-30
4.14-7	Cumulative Development Activity – Santa Clarita Valley Cumulative Buildout Scenario.....	4.14-35
4.15-1	DMS Build-Out Scenario – Santa Clarita Valley Planning Area With and Without Project	4.15-13
4.15-2	Cumulative Supply and Demand – DMS Build-Out Scenario	4.15-14
4.15-3	Cumulative Development Activity – Santa Clarita Valley Cumulative Build-Out Scenario	4.15-16
4.16-1	Project Site USDA Soil Suitability	4.16-5
4.17-1	Total Electricity Usage for Mission Village.....	4.17-11

LIST OF TABLES (Continued)

Table		Page
4.17-2	Total Natural Gas Usage for Mission Village	4.17-12
4.19-1	Magnetic Field Levels for Common Household Appliances.....	4.19-23
4.19-2	Typical Magnetic Field Levels for Electrical Power Lines	4.19-24
4.20-1	Paleontologic Sensitivity Classification.....	4.20-9
4.20-2	Paleontologic Potential by Geologic Formation	4.20-9
4.21-1	Discharge, Velocity, and Flow Area Changes by Cross-Section 2- and 100-Year Interval Storm Events.....	4.21-14
4.21-2	Estimated Annual Sediment Supply From Tributaries Located on the Mission Village Tract Map Site.....	4.21-24
4.21-3	Existing On-Site Drainages.....	4.21-25
4.21-4	Existing Conditions River Discharge Stations 32265 to 22195 Downstream of Castaic Creek Confluence.....	4.21-33
4.21-5	Summary of Dominant Wetland and Riparian Habitat Types in the River at the Specific Plan Site	4.21-35
4.21-6	Summary of Flood Disturbance Frequencies for Dominant Wetland and Riparian Habitat Types in the River.....	4.21-36
4.21-7	Summary of Aquatic Habitats in the Santa Clara River	4.21-38
4.21-8	Change in Acreage of Vegetation by Type Exposed to Velocities Greater than 4 Feet per Second by Return Period	4.21-60
4.22-1	2006 CWA Section 303(d) Listings for the Santa Clara River Main Stem	4.22-12
4.22-2	2010 CWA Section 303(d) List of Water Quality Limited Segments Being Addressed By EPA Approved TMDLs.....	4.22-13
4.22-3	TMDL Waste Load Allocations for MS4 and Stormwater Sources to Santa Clara River Reach 5	4.22-14
4.22-4	Beneficial Uses of Receiving Waters	4.22-30
4.22-5	Existing Modeled Pollutant Loads and Concentrations.....	4.22-37
4.22-6	Existing Modeled Metals.....	4.22-38
4.22-7	Average Wet Weather Monitoring Data for 2-Day Precedent Rainfall between 0.1 and 1.0 Inch	4.22-40
4.22-8	Average Wet Weather Monitoring Data for 2-Day Precedent Rainfall of > 1 Inch.....	4.22-41
4.22-9	Average Dry Weather Monitoring Data in the Santa Clara River.....	4.22-46
4.22-10	Beneficial Uses of Groundwaters	4.22-48
4.22-11	Groundwater Monitoring Data.....	4.22-52
4.22-12	Comparison of Mineral Basin Plan Objectives with Mean Measured Values in Los Angeles County	4.22-59
4.22-13	Comparison of Basin Plan Mineral Groundwater Objectives with Mean Measured Values in Los Angeles County and Anticipated Irrigation Water Quality	4.22-62
4.22-14	Mission Village Low Impact/Site Design BMPs	4.22-66
4.22-15	Project Drainage Areas and Treatment Control BMPs.....	4.22-73
4.22-16	Off-Site Project Component Drainage Areas and Treatment Control BMPs.....	4.22-74
4.22-17	SUSMP Requirements and Corresponding Project Design Features.....	4.22-94
4.22-18	LID Equivalency Calculations.....	4.22-103
4.22-19	Predicted Average Annual Stormwater Runoff Volumes.....	4.22-104
4.22-20	Predicted Average Annual TSS Concentration and Load.....	4.22-105

LIST OF TABLES (Continued)

Table	Page
4.22-21	Comparison of Predicted TSS Concentrations with Water Quality Criteria and Observed Concentrations in Santa Clara River Reach 5..... 4.22-105
4.22-22	Predicted Average Annual Total Phosphorus Concentration and Annual Load 4.22-106
4.22-23	Comparison of Predicted Total Phosphorus Concentration with Water Quality Criteria and Observed Concentrations in Santa Clara River Reach 5..... 4.22-107
4.22-24	Predicted Average Annual Nitrate-N + Nitrite-N Concentration and Load..... 4.22-107
4.22-25	Predicted Average Annual Ammonia-N Concentration and Load 4.22-108
4.22-26	Comparison of Predicted Nitrogen Compound Concentrations with Water Quality Criteria and Observed Concentrations in Santa Clara River Reach 5..... 4.22-108
4.22-27	Predicted Average Annual Dissolved Copper Concentration and Load..... 4.22-110
4.22-28	Predicted Average Total Lead Concentration and Annual Load..... 4.22-110
4.22-29	Predicted Average Annual Dissolved Zinc Concentration and Load 4.22-110
4.22-30	Predicted Average Annual Total Aluminum Concentration and Load 4.22-111
4.22-31	Comparison of Predicted Trace Metal Concentrations with Water Quality Criteria and Observed Concentrations in Santa Clara River Reach 5 4.22-112
4.22-32	Predicted Average Annual Chloride Concentration and Load 4.22-113
4.22-33	Comparison of Predicted Chloride Concentrations with Water Quality Objective, TMDL, and Observed Concentrations in Santa Clara River Reach 5..... 4.22-114
4.22-34	Indicator Bacteria TMDL Implementation Schedule and Tasks..... 4.22-119
4.22-35	Predicted Dry Weather Water Balance 4.22-134
4.22-36	Predicted Average Annual Combined Runoff Volume and Pollutant Loads for the NRSP, Legacy Village, Entrada, and Valencia Commerce Center Projects 4.22-139
4.22-37	Predicted Average Annual Combined Pollutant Concentrations for the Newhall Ranch Specific Plan, Legacy Village, Entrada, and Valencia Commerce Center Projects 4.22-140
4.22-38	Comparison of Predicted Pollutant Concentrations for the Newhall Ranch Specific Plan, Entrada, Legacy Village, and Commerce Center Projects with Water Quality Criteria and Observed Concentrations in Santa Clara River Reach 5..... 4.22-141
4.23-1	Kyoto Protocol Greenhouse Gases: GWP and Current Atmospheric Concentration..... 4.23-8
4.23-2	Estimated Residential Emissions 4.23-50
4.23-3	Estimated Water and Wastewater Emissions 4.23-56
4.23-4	Summary of Greenhouse Gas Emissions..... 4.23-61
4.23-5	Summary of Mission Village Global Climate Change Mitigation Measures..... 4.23-69
4.23-6	Compatibility with California Attorney General GHG Emission Reduction Strategies.... 4.23-70
4.23-7	Compatibility with Climate Action Team GHG Emission Reduction Strategies..... 4.23-83
5.0-1	Estimated Expanded Spineflower Preserve Alternative Operational Emissions Without Mitigation..... 5.0-12
5.0-2	Estimated Reduced Density Alternative Operational Emissions Without Mitigation..... 5.0-24
5.0-3	Alternatives Impact Comparison Matrix..... 5.0-41

INTRODUCTION

1. OVERVIEW

An environmental impact report (EIR) is an informational document that informs public agencies and the public of the significant environmental effects of a proposed project, identifies possible ways to minimize or mitigate the significant effects, and describes reasonable alternatives to the proposed project. This Introduction provides the reader with information regarding the (1) project background, (2) purpose of an EIR, (3) standards for assessing EIR adequacy, (4) format and content of this EI, (5) processing requirements for this EIR, and (6) other EIRs and documents incorporated by reference in this document. The public agency that has the principal responsibility for carrying out or approving a project is designated as the “lead agency.” For this project, the County of Los Angeles (County) is the lead agency. The EIR will be prepared in accordance with the requirements of the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., and the State CEQA Guidelines California Code of Regulations, title 14, section 15000 et seq.

2. PROJECT LOCATION, BACKGROUND, AND SUMMARY

The proposed Mission Village project is the first development phase within The Mesas portion of the Newhall Ranch Specific Plan, located in northern unincorporated Los Angeles County, within the Santa Clarita Valley Planning Area. The Mission Village tract map site is located south of the Santa Clara River and State Route 126 (SR-126), and west of Interstate 5 (I-5).

a. Newhall Ranch Planning and Environmental Review Process

By way of background, from 1996 through 1999, both the County's Regional Planning Commission and Board of Supervisors conducted numerous public hearings regarding the proposed development of the Newhall Ranch Specific Plan and Water Reclamation Plant (WRP), related project components, and environmental documentation. Following litigation and additional environmental analysis, the planning and environmental review process culminated in approval of the Newhall Ranch Specific Plan and WRP, and certification of the associated EIR.

b. Newhall Ranch Specific Plan

The Specific Plan will guide the long-term development of the 11,999-acre Newhall Ranch community,¹ comprising a broad range of residential, mixed-use, and non-residential land uses within five village

¹ The total acreage shown in the adopted Specific Plan (May 2003) is 11,963 acres. Since approval of the Specific Plan in May 2003, more recent project-specific information has been developed, which shows that the total gross acreage of the Specific Plan area is approximately 11,999 acres.

areas. The Specific Plan contains the land use plan, development regulations, design guidelines, and implementation program consistent with the goals, objectives, and policies of the Los Angeles County General Plan and Santa Clarita Valley Area Plan. The Specific Plan is regulatory in nature and serves as the zoning for the Newhall Ranch community.² Subsequent development plans and tentative subdivision maps must be consistent with the adopted General Plan, Area Plan, and Specific Plan.

As approved by the Board of Supervisors, the Specific Plan allows for the development of up to 21,308 dwelling units (including 423 second units);³ 629 acres of mixed-use development; 67 acres of commercial uses; 249 acres of business park land uses; 37 acres of visitor-serving uses; 1,014 acres of open space, including 181 acres of community parks and 833 acres in other open spaces; 5,157 acres in special management areas; 55 acres in 10 neighborhood parks; a 15-acre lake; a public trail system; 18-hole golf course; two fire stations; public library; an electrical substation; reservation of five elementary school sites, one junior high school site, and one high school site; 6.8-million-gallon-per-day (mgd) WRP; and other associated community facilities. The buildout of the Specific Plan is projected to occur over approximately 25 to 30 years, depending upon economic and market conditions.

c. Newhall Ranch Water Reclamation Plant

The WRP is an approved part of the Newhall Ranch Specific Plan. The WRP is located in one of the “business park” designations within the Riverwood Village Planning Area, near the western edge of the Specific Plan area, along the south side of SR-126, adjacent to the Santa Clara River, and near the Los Angeles/Ventura County boundary. The plant’s treatment capacity will be 6.8 mgd of wastewater generated by the Specific Plan, all of which would be treated at the WRP and, upon tertiary treatment, reclaimed for landscape irrigation purposes (except for wet winters when irrigation demands would be lower, requiring the discharge of unused reclaimed water to the Santa Clara River). A new sanitation district has been formed to maintain and operate the WRP within the Specific Plan site.

d. Certified Newhall Ranch Final EIR

The certified Newhall Ranch Specific Plan Program EIR and Final Additional Analysis (SCH No. 1995011015), together, constitute the final “program” environmental impact report for the Newhall Ranch Specific Plan, and the final “project” environmental impact report for construction and

² The Specific Plan was prepared pursuant to the provisions of the California Planning and Zoning Law, Title 7, Division 1, Chapter, Article 8, Government Code Sections 65450-65457. This law authorizes local jurisdictions, like the County, to adopt a Specific Plan by resolution. On May 27, 2003, the County's Board of Supervisors adopted a Resolution approving General Plan Amendments, Sub-Plan Amendments and the Newhall Ranch Specific Plan.

³ Excluding the 423 second units, the approved Specific Plan allows up to 20,885 dwelling units.

operation of the WRP. Both environmental documents will be collectively referred to as the “Newhall Ranch Specific Plan Program EIR” or the “Newhall Ranch Specific Plan Final EIR.”

e. Mission Village Project Draft and Final EIRs

Consistent with the provisions of CEQA, the County's Department of Regional Planning has determined that a tiered project EIR is required for the Mission Village proposed project. Therefore, the Mission Village Draft EIR will tier from the certified Newhall Ranch Specific Plan Final EIR in accordance with Public Resources Code section 21093(a) and *State CEQA Guidelines* section 15168(c). This Draft EIR focuses on the issues specific to the Mission Village proposed project, and incorporates by reference, as appropriate, the discussion, analysis, mitigation measures, and alternatives contained in the certified Newhall Ranch Specific Plan Final EIR in accordance with *State CEQA Guidelines* section 15385.

3. PURPOSE OF AN ENVIRONMENTAL IMPACT REPORT

As stated in section 15121(a) of the *State CEQA Guidelines*, an EIR is an informational document, which will inform public agency decision makers and the public of the significant environmental effects of a proposed project, identify possible ways to minimize or mitigate the significant effects, and describe reasonable alternatives to the project. While the information in an EIR does not control the public agency's ultimate discretion on the proposed project, the public agency must respond to each significant effect identified in the EIR by making findings under section 15091 of the *State CEQA Guidelines* and, if necessary, by making a statement of overriding considerations under section 15093 of the *State CEQA Guidelines*. (See *State CEQA Guidelines* section 15121(b).)

As stated in *State CEQA Guidelines* section 15120, an EIR must contain the information required by sections 15122 through 15131 of the *State CEQA Guidelines*, but the format of the document may vary. The required “contents” of an EIR include a table of contents or an index to assist readers in finding the analysis of different subjects and issues, and a brief summary of the proposed project and its consequences. (See *State CEQA Guidelines* sections 15122, 15123.) The summary must also identify each significant environmental effect, along with proposed mitigation measures and alternatives that would reduce or avoid the identified effects; areas of controversy known to the lead agency; and issues to be resolved. (See *State CEQA Guidelines* sections 15123(a), (b).)

In addition, an EIR must contain a description of both the proposed project and environmental setting. (*State CEQA Guidelines* sections 15124, 15125.) An EIR must also consider all phases of a project when evaluating its impact on the environment, including consideration and discussion of significant environmental effects; growth-inducing impacts; mitigation measures proposed to minimize significant effects; and alternatives to the proposed project. (*State CEQA Guidelines* sections 15126, 15127.)

An EIR also must contain a statement describing the project effects not found to be significant; discuss the cumulative impacts of a project; identify the agencies, organizations, and persons consulted in preparing the Draft EIR; and may include economic or social information, if applicable. (*State CEQA Guidelines* sections 15128–15131.)

As described in *State CEQA Guidelines* section 15132, a “Final” EIR must consist of the Draft EIR, or a revision of the Draft EIR; public comments on the Draft EIR (either verbatim or in summary); a list of persons, organizations and agencies commenting on the Draft EIR; the lead agency’s written responses to significant environmental points raised in the public review and consultation process; and any other information desired by the lead agency. In this regard, the “comments and responses” are a critical component of the Final EIR, because they bring focus to the environmental analysis of different subjects and issues. Another critical component is the appendices” to an EIR. CEQA encourages placement of technical supporting analyses and information in the appendices to an EIR. Pursuant to *State CEQA Guidelines* section 15147, the appendices may be prepared in volumes separate from the EIR, but must be readily available for agency and public review.

This EIR has been prepared by the County in accordance with the “purpose” and “content” requirements of the *State CEQA Guidelines*. Please refer to this EIR's **Table of Contents** to locate the required analysis of different subjects and issues.

4. EIR ADEQUACY

The standards for adequacy of an EIR, as defined in section 15151 of the *State CEQA Guidelines*, are as follows:

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

This EIR has been prepared by the County in accordance with the above legal standards for adequacy of an EIR under the *State CEQA Guidelines*.

5. CEQA REQUIREMENTS FOR TIERING

CEQA provides a lead agency with the flexibility to prepare different types of EIRs, and to employ different procedural means to focus environmental analysis on the issues appropriate for decision at each level of environmental review. (See Public Resources Code section 21093(a).) Section 15146 of the *State CEQA Guidelines* provides that the “degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR.”

As stated, the certified Newhall Ranch Specific Plan Final EIR addressed the Newhall Ranch Specific Plan at the “program” level of detail, acknowledging that further environmental review would be required in connection with preparation of project-specific tentative subdivision maps. The Newhall Ranch Specific Plan Program EIR also contained a separate project-level environmental analysis for the WRP, so the County could issue final approval of the WRP.

Because the Mission Village project implements a part of the Newhall Ranch Specific Plan, and because the certified Newhall Ranch Specific Plan Final EIR assessed the significant environmental effects associated with development of the entire Newhall Ranch Specific Plan area, this Draft EIR will be “tiered” from the certified Newhall Ranch Specific Plan Final EIR in accordance with Public Resources Code section 21093(a) and *State CEQA Guidelines* section 15168(c). Public Resources Code section 21093 encourages a lead agency to tier from a previously certified program EIR, whenever feasible. In this way, the Draft EIR can focus on site-specific issues relating to the proposed Mission Village project and allows the County, as the lead agency, to concentrate on issues, which are ripe for decision and exclude from consideration issues already decided or not ripe for decision. (See *State CEQA Guidelines* sections 15168(c), 15385.)

Pursuant to Public Resources Code section 21093(a), the tiering of an EIR is intended to “promote construction of needed housing and other development projects by (1) streamlining regulatory procedures; (2) avoiding repetitive discussions of the same issues in successive [EIRs]; and (3) ensuring that [EIRs] prepared for later projects which are consistent with a previously approved policy, plan, program or ordinance concentrate upon environmental effects which may be mitigated or avoided in connection with the decision on each later project.” The tiered or site-specific EIR may incorporate by reference discussions, mitigation measures and alternatives developed in the previously certified program EIR, and concentrate on the issues specific to the “project” analyzed in the tiered EIR, as identified in Public Resources Code section 21094 and *State CEQA Guidelines* sections 15168(c) and 15385.

Under *State CEQA Guidelines* section 15161, a “Project EIR” is typically prepared for a specific construction-level project, such as a tentative subdivision map. A Project EIR “should focus primarily on

the changes in the environment that would result from the development project ... [and] examine all phases of the project including planning, construction and operation.” In this instance, the Draft EIR for the Mission Village project includes, among other discretionary entitlements, tentative subdivision map approval. A list of all discretionary approvals and permits to be requested by the project applicant in connection with project approval is presented in **Section 1.0, Project Description**.

Consistent with the above legal principles, the County's Department of Regional Planning prepared an Initial Study/Notice of Preparation (IS/NOP), and determined that a tiered Project EIR is required for the Mission Village project. Pursuant to *State CEQA Guidelines* section 15168, the Draft EIR will be tiered from the certified Newhall Ranch Specific Plan Final EIR, including the adopted Mitigation Monitoring Plans for both the Newhall Ranch Specific Plan and WRP.

6. DRAFT EIR FORMAT AND CONTENT

Preliminary environmental review of the Mission Village project was conducted by the County's Department of Regional Planning. In the IS/NOP, the County determined that the proposed Mission Village project may have potentially significant effects on several environmental impact categories, including (a) hazards (geotechnical, flood and noise), (b) resources (water quality, air quality, biota, cultural resources, agricultural resources and visual resources/aesthetics), (c) services (traffic/access, sewage disposal, education, fire/sheriff and utilities), and (d) other categories (general, environmental safety/hazardous materials, land use and demand for new recreation facilities).

On May 24, 2005, the County circulated the IS/NOP to responsible agencies, trustee agencies, regional agencies, County reviewing agencies, and other agencies, organizations and interested persons for the 30-day review period required under CEQA. The IS/NOP requested that the agencies, organizations and others provide the County with specific details about the scope and content of the environmental information to be contained in this Draft EIR, as it related to each entity's area of statutory responsibility. The IS/NOP is found in **Appendix I** to this EIR.

In addition, to facilitate local participation, the County held a scoping meeting to present the Mission Village project and to solicit suggestions from the public and other agencies on the scope and content of this Draft EIR. The meeting took place at the Multi-Purpose Room of the Rancho Pico Junior High School, 26250 W. Valencia Boulevard, Stevenson Ranch, California, on June 9, 2005.

In response to the IS/NOP and scoping meeting, comment letters and other input were received from interested agencies, organizations and others, copies of which are presented in **Appendix I** to this EIR.

Based on the results of the County's IS/NOP and scoping efforts, the following topics will be evaluated in this EIR:

- | | |
|------------------------------------|--|
| 1. Geotechnical and Soil Resources | 13. Education |
| 2. Hydrology | 14. Parks and Recreation |
| 3. Biota | 15. Library Services |
| 4. Visual Qualities | 16. Agricultural Resources |
| 5. Traffic/Access | 17. Utilities |
| 6. Noise | 18. Mineral Resources |
| 7. Air Quality | 19. Environmental Safety |
| 8. Water Service | 20. Cultural/Paleontological Resources |
| 9. Wastewater Disposal | 21. Floodplain Modifications |
| 10. Solid Waste Services | 22. Water Quality |
| 11. Sheriff Services | 23. Global Climate Change |
| 12. Fire Protection Services | |

In addition to this Introduction and the Executive Summary that follows, this EIR is organized into 10 sections:

1. **Section 1.0, Project Description.** Contains detailed descriptions of the proposed project.
2. **Section 2.0, Environmental and Regulatory Setting.** Addresses the environmental and regulatory setting in which the project occurs.
3. **Section 3.0, Cumulative Impact Analysis Methodology.** Identifies the cumulative impact analysis and methodology used for the proposed project.
4. **Section 4.0, Environmental Impact Analysis.** Analyzes the existing conditions, project impacts, cumulative impacts, mitigation measures, and unavoidable significant impacts of the proposed project for the 23 environmental impact categories identified above.
5. **Section 5.0, Project Alternatives.** Identifies and analyzes project alternatives.
6. **Section 6.0, Significant Irreversible Environmental Changes.** Describes the significant irreversible environmental changes associated with the proposed project.
7. **Section 7.0, Growth-Inducing Impacts.** Identifies the project's growth-inducing impacts.

8. **Section 8.0, List of EIR Preparers, and Organizations and Persons Consulted.** Provides a list of EIR preparers, and a list of the organizations and persons consulted in preparing this EIR.
9. **Section 9.0, References.** Contains the list of documents cited in this EIR.

7. ENVIRONMENTAL REVIEW PROCESS FOR THE DRAFT EIR

The review process for the Draft EIR will include the procedural steps described below:

Public Notice/Public Review. The Los Angeles County Department of Regional Planning directed and supervised preparation of this Draft EIR. During the Draft EIR's preparation, many informal documentation reviews were held with County Department of Regional Planning staff, Department of Public Works staff, and other County agency staff (e.g., the Office of the Sheriff, the Fire Department). County policy provides that the Draft EIR be made available for a 30-day Los Angeles County internal agency review and comment period and, subsequently, an additional 45-day public review and comment period mandated by CEQA.

On file at the County of Los Angeles Department of Regional Planning is a copy of the Draft EIR, including appendices, and all reference materials. All comments concerning the adequacy of the Draft EIR must be addressed to:

Los Angeles County
Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012
Attention: Mr. Samuel Dea

Public hearing(s) will be held before the Los Angeles County Regional Planning Commission and the Board of Supervisors regarding the proposed project and the adequacy of the Draft EIR, at which time public comments will also be heard.

Responses to Comments/Final EIR. Following the 45-day public comment period and public hearing(s) on the Draft EIR, responses to comments will be prepared. These responses to comments, together with the Draft EIR, revisions to the Draft EIR, and other related materials, will be compiled into a Final EIR. As required by CEQA, the Regional Planning Commission will distribute responses to comments submitted by responsible public agencies to those agencies for review 10 days prior to consideration of the Final EIR.

Certification of the EIR/Project Consideration. The County Board of Supervisors will review and consider the Final EIR, which will be comprised of the Draft EIR and Final EIR. If the Board of Supervisors finds that the Final EIR reflects the County's independent judgment and has been prepared

in accordance with CEQA and the *State CEQA Guidelines*, the Board of Supervisors will certify the adequacy and completeness of the Final EIR. The Board's decisions on the Final EIR and proposed project will be accompanied by resolutions, findings and conditions, CEQA findings, and a mitigation monitoring plan.

8. INCORPORATION BY REFERENCE

As permitted in section 15150 of the *State CEQA Guidelines*, the Draft EIR has referenced technical studies, analyses, and reports. Information from the referenced documents has been briefly summarized in the appropriate section(s) of the Draft EIR. All referenced documents are available for public inspection and review upon request at:

Impact Sciences, Inc. 803 Camarillo Springs Road, Suite A-1 Camarillo, California 93012 Susan Tebo: (805) 437-1900	or	County of Los Angeles Department of Regional Planning 320 West Temple Street Los Angeles, California 90012 Samuel Dea: (213) 974-4808
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The *State CEQA Guidelines* sets forth three methods that may be used to incorporate data from other sources into an EIR: (1) use of an EIR appendix (*State CEQA Guidelines* section 15147); (2) citation to technical information (*State CEQA Guidelines* section 15148); and (3) incorporation by reference (*State CEQA Guidelines* section 15150). Information in an EIR appendix may include summarized technical data, maps, plot plans, diagrams, and similar information in sufficient detail to permit the public and reviewing agencies to make a full assessment of the proposed project's significant environmental effects. To achieve a balance between the highly technical analysis referenced in an EIR and an EIR's public information function, the *State CEQA Guidelines* allow technical analyses as appendices to the main body of the EIR. Appendices are prepared in volumes separate from the body of the Mission Village Draft EIR, but are readily available for public examination because they are part of the Draft EIR.

Source documents that are not project-specific have been cited in the Draft EIR. To keep the Draft EIR to a manageable length, such documents need not be included in the Draft EIR or EIR appendices.

All documents referenced in the Draft EIR are incorporated by reference and available for public inspection and review at the locations and addresses shown above.

EXECUTIVE SUMMARY

1. PURPOSE

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

2. BACKGROUND

In May 2003, the Board of Supervisors of the County of Los Angeles approved the Newhall Ranch Specific Plan and certified the Newhall Ranch Specific Plan Program Environmental Impact Report (EIR) as adequate under CEQA. The Specific Plan Program EIR identified and analyzed the existing conditions, potential impacts, and mitigation measures associated with development of the entire Newhall Ranch Specific Plan. The proposed Mission Village project is located within The Mesas Village area of the approved Specific Plan. This EIR has been prepared at the project level and tiers from the previously certified Specific Plan Program EIR, updating data and analysis where necessary and adding a level of detail appropriate for consideration of the Mission Village project.

3. SITE LOCATION AND DESCRIPTION

The Mission Village project site is located in unincorporated Los Angeles County within the Santa Clarita Valley Planning Area, and is within the approved Newhall Ranch Specific Plan boundary. The Santa Clarita Valley Planning Area is generally surrounded by the Los Padres and Angeles National Forest areas to the north; Agua Dulce and the Angeles National Forest to the east; the major ridgeline of the Santa Susana Mountains, which separates the Santa Clarita Valley from the San Fernando and Simi Valleys to the south; and the County of Ventura to the west. The tract map is located immediately southeast of the confluence of Castaic Creek and the Santa Clara River. The Santa Clara River forms the northern boundary of the project site with Travel Village RV Park, State Route (SR) 126, and Valencia Commerce Center off site and further to the north. The eastern site boundary abuts Six Flags Magic Mountain Theme Park and undeveloped land. Further to the east are an existing water reclamation plant (Valencia WRP); a California Highway Patrol station; and hotels, restaurants, and service stations

adjacent to Interstate 5 (I-5). The City of Santa Clarita is located further east of the project site, just beyond I-5. Undeveloped land outside of Newhall Ranch exists to the south of the site with the existing community of Westridge and the proposed Legacy Village (Stevenson Ranch Phase V) project further to the southeast and south, respectively. Undeveloped land within Newhall Ranch exists to the west of the project boundaries, with the proposed Landmark Village northwest of the confluence of Castaic Creek and the Santa Clara River.

4. PROJECT DESCRIPTION

The Mission Village tract map project is proposed on 1,261.8 acres of property located within the northeastern corner of Newhall Ranch in western unincorporated Los Angeles County, south of the Santa Clara River and SR-126, and west of I-5. An additional approximately 592.8 acres that also is part of the proposed project is outside the tract boundary and would be developed to provide several off-site project-related improvements. If the County grants the requested Project Approvals, 4,412 residences (382 single-family homes, and 4,030 multi-family units, including attached and detached condominiums, age qualified and apartment units),¹ 1,555,100 square feet of commercial/mixed-uses, an 9.5-acre elementary school, fire station, public library, bus transfer station, parks, public and private recreational facilities, trails, and road improvements would be permitted. Other land uses within the tract map site include a spineflower preserve in the northeastern portion of the site. Other facilities and infrastructure proposed on the tract map site include roads (including the Commerce Center Drive Bridge and southerly abutment), trails, drainage improvements, flood protection (including buried bank stabilization within and adjacent to the Santa Clara River), potable and reclaimed water systems, a sanitary sewer system, and dry utility systems. To facilitate development and operation of the project, the proposed project also includes several off-site, project-related components that would be implemented on the additional 592.3 acres of land. These project-related components are incorporated into this EIR and include:

- a. An utility corridor proposed along the south side of State Route (SR) 126 extending from the Valencia WRP (Plant 32) on the east to the proposed Newhall Ranch WRP on the west, which would serve to extend municipal services to the tract map site.
- b. To provide access, Magic Mountain Parkway will be extended from its existing terminus just east of the project boundary to provide a westward thoroughfare through the project site. Improvements also will be made to the existing roadway lying within VTTM 53295/Entrada, from The Old Road to the existing terminus. As part of the Magic Mountain Parkway improvements, Media Center Drive will also be re-aligned. Additionally, grading associated with the northerly extension of Westridge

¹ The 4,412 total residential dwelling units does not include the 73 second units that would be developed on the single family lots and authorized by the conditional use permit.

Parkway and southerly extension of Commerce Center Drive would be conducted off of the tract map site.

- c. Two water tanks (reclaimed and potable) on a single site are proposed. A portion of the tank site lies to the south of the tract map boundary. Additionally, a third would be constructed off site in the Westridge community south of the site adjacent to an existing water tank.
- d. Depending on the timing of other development projects, Southern California Edison may require construction of a 16 kV Substation to serve Mission Village. There are two alternative locations for the proposed substation, both outside the boundaries of Mission Village. Alternative one is located almost entirely within Newhall Ranch in the Potrero Valley portion of the approved Specific Plan with a portion of the grading encroaching into the Legacy Village project (VTTM 061996). Access to the site would be provided along the existing Newhall Ranch agriculture roads. The second alternative is located partially within the Potrero Valley portion of the approved Specific Plan and the Legacy Village (VTTM 061996) project site. Access to the site would be provided along the existing Newhall Ranch agriculture roads.

Electric service to Mission Village from the Electrical Substation would be provided through approximately 16,400 feet of temporary utility poles/lines that cross Newhall Ranch and that would be converted to permanent facilities during the buildout of Newhall Ranch. The utility poles/lines would be located along or near existing agricultural roads in order to take advantage of the area's existing topography and to minimize impacts.

- e. An off-site Water Quality Basin is proposed to the northeast of the project on 9 acres of land. The water quality basin is within the boundaries of Entrada; two debris basins would be constructed along the southerly tract boundary within VTTM 061996 (Legacy Village), which would be removed with construction of Legacy Village;

For purposes of this EIR, the "tract map site" refers to the proposed location of the Mission Village development site itself, and the "project site" refers to the tract map site and off site.

The project applicant is requesting approval of the following discretionary entitlements (Project Approvals) to allow for construction of the proposed Mission Village project site: (a) Vesting Tentative Tract Map No. 061105; (b) Significant Ecological Area (SEA) Conditional Use Permit No. RCUP200500080 for project-level development, including utilities within the Specific Plan's River Corridor Special Management Area (SMA)/SEA 23 boundaries; (c) Conditional Use Permit RCUP200500081 to authorize: (i) development of 73 second dwelling units, and (ii) grading associated with the extension of Westridge Parkway and the construction of off-site improvements, including the extension of Magic Mountain Parkway, a utility corridor, a water quality basin, an electrical substation, and water tanks; (d) Oak Tree Permit No. ROAK200500032 (project site); (e) Oak Tree Permit No. T200500043 (off-site extension of Magic Mountain Parkway); (f) Substantial conformance determination pertaining to Grading and Hillside Management Guidelines; (g) Parking Permit RPKT200500011; (h) Substantial conformance determination for setback standards; (i) Substantial conformance determination for off-site, reciprocal, and shared parking; and (j) Substantial conformance determination for proposed trails sections.

Additional ministerial actions, building plan review, and building permits, would be required by the County prior to actual grading and construction of these improvements.

5. TOPICS OF KNOWN CONCERN

Issues relative to the scope of the Mission Village EIR were identified by the County of Los Angeles through input received from state and local agencies, private organizations, and members of the public.

County Department of Regional Planning staff circulated an Initial Study and Notice of Preparation (NOP) on May 24 to June 23, 2005, in order to receive input from interested public agencies and private parties. A copy of the NOP is presented in **Appendix I** of this EIR, along with a copy of the Initial Study. Copies of all written letters submitted in response to the NOP are presented in **Appendix I** of this EIR. In addition to preparation and circulation of the NOP, the County held a Public Scoping Meeting on June 9, 2005, in nearby Stevenson Ranch, to present the proposed project to the public and to solicit comments from interested public agencies and the public on the content of the Draft EIR. The meeting was attended by approximately 20 people, including public agency representatives, private organizations, and members of the public.

In the comments submitted on the NOP and at the Public Scoping Meeting, several subject areas of concern were raised. These subject areas include biological resources in and adjacent to the Santa Clara River, bank stabilization, traffic effects on local roadways, air emissions from project traffic, water availability, and cumulative development in the Santa Clarita Valley. These concerns are addressed in this EIR under one or more of the topics shown below:

- | | |
|-------------------------------------|---|
| (1) Geotechnical and Soil Resources | (11) Sheriff Services |
| (2) Hydrology | (12) Fire Protection Services |
| (3) Biota | (13) Education |
| (4) Visual Qualities | (14) Parks and Recreation |
| (5) Traffic/Access | (15) Library Services |
| (6) Noise | (16) Agricultural Resources |
| (7) Air Quality | (17) Utilities |
| (8) Water Service | (18) Mineral Resources |
| (9) Wastewater Disposal | (19) Environmental Safety |
| (10) Solid Waste Disposal | (20) Cultural/Paleontological Resources |

(21) Floodplain Modifications

(23) Global Climate Change

(22) Water Quality

6. AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

Areas of controversy raised in the NOP comments concern the potential impacts of the Mission Village project on biological resources (including Santa Clara River resources), traffic and circulation, including air emissions, and public services, including water availability. Copies of all written comments submitted in response to the NOP are presented in **Appendix I** of this EIR.

Issues to be resolved include whether to approve the proposed project, whether or how to mitigate the identified significant project and cumulative impacts, and whether to select one of the project alternatives.

7. ALTERNATIVES

The certified Newhall Ranch Specific Plan Program EIR evaluated six on-site alternatives to the Specific Plan along with three alternative site locations. The nine alternatives evaluated were selected based on the significant impacts of the Specific Plan, the comments received in response to the Notice of Preparation, discussions with County staff and its Significant Ecological Area Technical Advisory Committee, discussions at 26 Community Task Force meetings, and discussions with members of the community and community groups.

The Specific Plan Program EIR concluded a reduced density 8,000-unit alternative was the environmentally superior alternative. However, the Board of Supervisors did not choose this alternative, and instead adopted the Newhall Ranch Specific Plan, as revised, along with the mitigation measures identified in both the Final EIR and Mitigation Monitoring Plan. As to the other alternatives, the Board found, generally, that the alternatives were infeasible because they too narrowly limited the range of housing opportunities and did not reflect the market conditions under which the Specific Plan would be developed, and also would not achieve many of the basic objectives of the Specific Plan. Consequently, in accordance with *State CEQA Guidelines* Section 15093, a Statement of Overriding Considerations was adopted to substantiate the Board's decision to reject the environmentally superior alternative because the benefits afforded by the Specific Plan outweighed the environmental effects identified in the Newhall Ranch Specific Plan Program EIR.

Several additional alternatives to those considered as part of the Newhall Ranch Specific Plan Program EIR were evaluated as part of the Mission Village Project EIR and are described below:

No Project/No Development Alternative – This alternative considered the circumstances under which the proposed project does not proceed. Here, the discussion compares the environmental effects of the property remaining in its current state against the environmental effects that would occur if the project were approved.

No Project/Future Development Alternative – This alternative considers the circumstances under which the proposed project is not approved and another development proposal based on the current land use designations and existing infrastructure support is approved.

Expanded Spineflower Preserve Alternative – The Expanded Spineflower Preserve Alternative would reduce the number of residential units proposed on the site by 214 single-family dwelling units and 1,208 multi-family dwelling units, along with a reduction of 697,000 square feet of commercial space when compared to the proposed project, for a total of 2,990 dwelling units and 858,000 commercial square feet, when compared to the proposed project. The Expanded Spineflower Preserve Alternative would retain the 9.5-acre elementary school, neighborhood park, library site, fire station, and some of the private recreation areas proposed as part of the proposed project, although construction of the Commerce Center Drive Bridge and extension roadway would be eliminated under this alternative, which would eliminate direct access from the project site to SR-126 and the Valencia Commerce Center and also eliminate the project's ability to connect the wastewater system to the Newhall Ranch WRP.

20 Percent Reduction in the Number of Dwelling Units – This alternative would reduce the number of residential units proposed on the site from 382 single-family and 4,030 multi-family to 306 single-family and 3,224 multi-family, when compared to the proposed project. No other changes to the project description are proposed. This alternative would result in fewer units developed with the remaining undeveloped acreage being used for open space. The development footprint of this Alternative is the same as the proposed project.

Cluster Alternative – The Cluster Alternative creates a smaller development footprint but retains all aspects of the proposed project development. This alternative would not reduce the number of residential units, commercial square footage or other improvements proposed by the project. The Cluster Alternative would retain the 9.5-acre elementary school, 20-acre public community park, 5-acre public neighborhood park, library and fire station. Bank stabilization would continue to be required as proposed by the project.

8. SIGNIFICANT IMPACTS/MITIGATION MEASURES

This EIR has been prepared to assess each potentially significant impact to the environment that could result with implementation of the proposed Mission Village project. For a detailed discussion regarding potential impacts, refer to **Section 4.0, Environmental Impact Analysis**, of this EIR.

A summary of the proposed project's significant impacts is provided in **Table ES-1, Summary of Environmental Impacts**. A more detailed summary can be found in **Table ES-2, Summary of Significant Impacts and Mitigation Measures**. Also provided in the summary table is a list of those mitigation measures previously adopted by the County as part of the Specific Plan approvals that are applicable to the Mission Village project, a list of the additional mitigation measures proposed by this EIR, and a determination of the level of significance of each impact after implementation of the identified Specific Plan and project-specific mitigation measures. The reader should note that only those Specific Plan mitigation measures applicable to the Mission Village project are shown on **Table ES-2**. For a complete listing of all Specific Plan mitigation measures and whether each measure is applicable to the proposed project, please refer to EIR **Sections 4.1 through 4.23** under the **Mitigation Measures** subsection.

Table ES-1
Summary of Environmental Impacts

Environmental Topic	Determination of Impact After Mitigation
Geotechnical and Soil Resources	With implementation of the identified mitigation measures, the proposed project's geologic, soil and geotechnical impacts would be mitigated to below a level of significance, and no unavoidable significant project or cumulative impacts would occur.
Hydrology	Implementation of the mitigation measures to the satisfaction of the LACDPW would reduce storm-related flooding, erosion, and sedimentation impacts to less than significant levels. Therefore, no significant unavoidable project or cumulative impacts are anticipated.
Biota	While the proposed project would not result in significant unavoidable impacts (after implementation of mitigation measures), the proposed project's contribution to cumulative impacts to coastal scrub would remain significant.
Visual Qualities	After implementation of the recommended mitigation measures, visual quality project and cumulative impacts would remain significant and unavoidable.
Traffic/Access	With implementation of the identified mitigation measures, the proposed project's traffic/access impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.

Environmental Topic	Determination of Impact After Mitigation
Noise	Mitigation measures recommended to reduce construction-related noise impacts would reduce the magnitude of those impacts; however, should pile driving be required to construct the Commerce Center Drive Bridge, and should the project applicant not find it feasible to complete the pile driving prior to occupancy of on-site noise-sensitive uses within 4,000 feet of the pile driving, an unavoidable significant construction noise impact would occur. No cumulative unavoidable impacts would occur.
Air Quality	No feasible mitigation exists that would reduce all of these emissions to below the SCAQMD's recommended thresholds of significance. The project's and cumulative condition construction-related emissions of VOCs, NO _x , PM ₁₀ , and PM _{2.5} and operation-related emissions of VOCs, NO _x , CO, PM ₁₀ , and PM _{2.5} are considered significant and unavoidable.
Water Service	With implementation of the identified mitigation measures, the proposed project's and cumulative water resources impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.
Wastewater Disposal	With implementation of the identified mitigation measures, the proposed project's and cumulative wastewater disposal impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.
Solid Waste Services	Even with mitigation, the project's solid and hazardous waste impacts would be considered significant and unavoidable. In addition, cumulative solid and hazardous waste impacts would be considered significant and unavoidable.
Sheriff Services	With implementation of the identified mitigation measures, the proposed project and cumulative Sheriff Services impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.
Fire Protection Services	With implementation of the identified mitigation measures, the proposed project and cumulative Fire Services impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.
Education	With implementation of the identified mitigation measures, the proposed project and cumulative education impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.

Environmental Topic	Determination of Impact After Mitigation
Parks and Recreation	With implementation of the identified mitigation measures, the proposed project and cumulative parks and recreation impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.
Library Services	With implementation of the identified mitigation measures, the proposed project and cumulative library services impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.
Agricultural Resources	The project-specific impacts resulting from the loss of prime agricultural land are considered significant and unavoidable. In addition, the cumulative conversion of prime agricultural land to non-agricultural uses constitutes a loss of an irreplaceable resource and is considered a significant and unavoidable cumulative impact.
Utilities	With implementation of the identified mitigation measures, the proposed project and cumulative utilities impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.
Mineral Resources	Impacts would be less than significant for both the project and cumulative conditions and no mitigation is necessary.
Environmental Safety	With implementation of the identified mitigation measures, the proposed project and cumulative environmental safety impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.
Cultural/Paleontological Resources	With implementation of the identified mitigation measures, the proposed project and cumulative cultural/paleontological resources impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.
Floodplain Modifications	With implementation of the identified mitigation measures, the proposed project and cumulative floodplain modification impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.
Water Quality	With implementation of the identified mitigation measures, the proposed project and cumulative water quality impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.
Global Climate Change	With implementation of the identified mitigation measures, the proposed project and cumulative climate change impacts would be mitigated to below a level of significance, and no significant unavoidable impacts would occur.

**Table ES-1
Summary of Significant Impacts and Mitigation Measures**

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES		
<p><i>Based on the analysis presented in the Geotechnical and Soil Resources section of this EIR, potential impacts associated with liquefaction and seismically induced settlement are considered less than significant. Due to the project's topography, low liquefaction potential, thin liquefiable layers and the use of certified compacted fill, there would be no significant impacts associated with lateral spreading or seismically induced settlement. Potential impacts resulting from the abandoned, on-site oil wells also are considered to be less than significant because of the method of abandonment, and the ability to respond to any leaks encountered during site grading.</i></p> <ul style="list-style-type: none"> • However, unless mitigated, specific project-related significant geologic, soil, and geotechnical impacts could occur in the following areas: • Ground rupture associated with faults along the Airport Mesa and Saddle and Del Valle Fault Zones; • Potential hazards due to the combination of dynamic compaction and differential settlement, along with differential materials response along cut/fill and bedrock/alluvium contacts; • Fifty-two landslide areas were identified on the site. Most of the land slide areas are concentrated on the eastern half of the project site; • Stability of the proposed cut and fill slopes, critical natural slopes and landslide areas; • Potential drainage and soil erosion concerns related to surface runoff from the project site during construction and operation of the Mission Village project; 	<p>SP 4.1-1 The standard building setbacks from ascending and descending man-made slopes are to be followed in accordance with Section 1806.4 of the Los Angeles County Building Code, unless superseded by specific geologic and/or soils engineering evaluations. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 44)</p> <p>SP 4.1-2 The existing Grading Ordinance for planting and irrigation of cut-slopes and fill slopes is to be adhered to for grading operations within the project site. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 44)</p> <p>SP 4.1-3 In order to safeguard against major seismic-related structural failures, all buildings within the project boundaries are to be constructed in conformance with the Los Angeles County Uniform Building Code, as applicable.</p> <p>SP 4.1-4 The location and dimensions of the exploratory trenches and borings undertaken by Allan E. Seward Engineering Geology, Inc. and R.T. Frankian & Associates are to be noted on all grading plans relative to future building plans, unless the trenches and/or borings are removed by future grading operations. If future foundations traverse the trenches or borings, they are to be reviewed and approved by the project Geotechnical Engineer. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 45.)</p> <p>SP 4.1-5 Not applicable.</p>	<p>With implementation of the identified mitigation measures, the proposed project's geologic, soil and geotechnical impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.</p>

Environmental Impact	Mitigation Measures		Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)			
<ul style="list-style-type: none"> • Expansive soils associated with changes from cut and fill of the project site; • Subsidence caused by shallow spread footing for foundation support; and • Soil corrosivity caused by the development of concrete pads on the project site. <p><i>Applicable mitigation measures to address these impacts were identified in the Newhall Ranch Specific Plan Program EIR. This EIR recommends additional mitigation measures specific to the Mission Village project site.</i></p> <p><i>In compliance with Section 111 of the Los Angeles County Building Code, and according to the project geotechnical consultant (R.T. Franklin and Associates), the site designated on the geologic/geotechnical maps, as shown on Appendix 4.1 is feasible for development, would be safe against hazards from landslide, settlement or slippage, and would not affect off-site property, provided the mitigation measures identified in this section are adopted and implemented during project construction.</i></p>	SP 4.1-6	Should any expansive soils be encountered during grading operations, they are not to be placed nearer the finished surface than 8 feet below the bottom of the subgrade elevation. This depth is subject to revision depending upon the expansive potential measured during grading. (R.T. Frankian & Associates, 19 September 1994, Appendix I)	With implementation of the mitigation measures set forth in the Geotechnical and Soil Resources section of this EIR, the proposed project would not result in significant unavoidable geologic, soil or geotechnical impacts.
SP 4.1-7	If expansive materials are encountered at subgrade elevation in cut areas, the soils are to be removed to a depth of 8 feet below the "finished" or "subgrade" surface and the excavated area backfilled with non-expansive, properly compacted soils. This depth is subject to revision depending upon the expansive potential measured during grading. (R.T. Frankian & Associates, 19 September 1994, Appendix I)		
SP 4.1-8	At the time of subdivision, which allows construction, areas subject to liquefaction are to be mitigated to the satisfaction of the project Geotechnical Engineer prior to site development. (R.T. Frankian & Associates, 19 September 1994, Appendix I)		
SP 4.1-9	Subdrains are to be placed in areas of high ground water conditions or wherever extensive irrigation is planned. The systems are to be designed to the specifications of the Newhall Ranch Specific Plan Geotechnical Engineer.		
SP 4.1-10	Subdrains are to be placed in the major and minor canyon fills, behind stabilization blankets, buttress fills, and retaining walls, and as required by the Geotechnical Engineer during grading operations. (R.T. Frankian & Associates, 19 September 1994, Appendix I)		
SP 4.1-11	Canyon subdrains may be installed in "V"-ditches or in a rectangular trench excavated to expose competent material or bedrock as approved by the Geotechnical Engineer.		

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>SP 4.1-12 The vertical spacing of subdrains behind buttress fills, stabilization blankets, etc., are to be a maximum of 15 feet. The gradient is to be at least 2 percent to the discharge end. (R.T. Frankian & Associates, 19 September 1994, Appendix I)</p> <p>SP 4.1-13 Geological materials subject to hydroconsolidation (containing significant void space) are to be removed prior to the placement of fill. Specific recommendations relative to hydroconsolidation are to be provided by the Newhall Ranch Specific Plan Geotechnical Engineer at the subdivision stage. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 44)</p> <p>SP 4.1-14 Proposed structures on ridgelines will have a minimum 20-foot horizontal setback from the margin of the bedrocks to prevent perched or ground water levels where relatively impermeable materials can block downward migration.</p> <p>SP 4.1-15 Subsurface exploration is required to delineate the depth and lateral extent of the landslides shown on the geologic map. This work shall be undertaken at the subdivision stage. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 15) Landslides must be mitigated through stabilization, removal, and/or building setbacks as determined by the Newhall Ranch Specific Plan Geotechnical Engineer, and to the satisfaction of the Los Angeles County Department of Public Works.</p> <p>SP 4.1-16 At the subdivision stage, the existence of landslides designated with "3" on Figure 4.1-2, Existing Landslide Areas (of the Newhall Ranch EIR), and within or adjacent to the development area is to be confirmed. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 15) If landslides are confirmed in these areas, they are to be mitigated through stabilization, removal, and/or building setbacks as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>SP 4.1-17 The existence, or lack thereof, of landslides on or adjacent to the roadway alignments for the extension of Magic Mountain Parkway and Valencia Boulevard will be evaluated by subsurface investigations at the subdivision stage. (Allan E. Seward Engineering Geology, Inc., 13 December 1995, p. 11) If landslides are confirmed in these areas, they are to be mitigated through stabilization, removal, and/or building setbacks as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.</p> <p>SP 4.1-18 The potential hazards associated with debris flow scars and other possible surficial failures located in proximity to the roadway alignments for the extension of Magic Mountain Parkway and Valencia Boulevard will be evaluated at the subdivision stage. (Allan E. Seward Engineering Geology, Inc., 13 December 1995, p. 11) These areas are to be mitigated as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.</p> <p>SP 4.1-19 Remove debris from surficial failures during grading operations prior to the placement of fill. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 16).</p> <p>SP 4.1-20 All soils and/or unconsolidated slopewash and landslide debris is to be removed prior to the placement of compacted fills. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 45)</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>SP 4.1-21 Cut-slopes, which will expose landslide material, are to undergo geologic and geotechnical evaluation at the subdivision stage to determine their stability and degree of consolidation. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 15) Several options are available to mitigate potential landslide failure in the proposed cut-slopes. Landslides may be stabilized with buttress fills or shear keys designed by the Newhall Ranch Specific Plan Geotechnical Engineer; landslide material can be entirely removed and replaced with a stability fill; or the slope can be redesigned to avoid the landslide. Landslides underlying cut pad or road areas may be removed or partially removed if the Newhall Ranch Specific Plan Geologist and Geotechnical Engineer conclude that the landslide is stable and sufficiently consolidated to build on. Landslides located on ascending natural slopes above proposed graded areas will also require evaluation for stability. Unstable landslides on natural slopes above graded areas will either require stabilization, removal, or building setbacks to mitigate potential hazards.</p> <p>SP 4.1-22 Not applicable.</p> <p>SP 4.1-23 Prior to construction of the road embankment located within landslide Qls II, a compacted fill shear key will be constructed at the property boundary. (R.T. Frankian & Associates, 19 September 1994, p. 6)</p> <p>SP 4.1-24 Landslides which will not affect the proposed grading concept are to be placed in Restricted Use Areas on the Final Maps. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 43)</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>SP 4.1-25 Surficial stability of cut-slopes designated with a “G” are to be fully evaluated at the subdivision stage, due to the possibility of wedge failures or surficial material in the slope. Corrective grading measures are to be presented in detail as mitigation at both the subdivision and Grading Plan stages of development. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, pp. 17, 43) <i>(The focused geotechnical studies prepared for the Mission Village project included the analysis of areas previously identified with a “G” in the Newhall Ranch Specific Plan Certified EIR. All proposed cuts were evaluated and, where necessary, focused mitigation measures were identified and included in the list of measures presented below to mitigate potential impacts).</i></p> <p>SP 4.1-26 Cut slopes designated as “P” are potentially unstable and are to be fully evaluated at the subdivision stage to ascertain whether they are stable as designed. Corrective grading measures are to be presented in detail as mitigation at both the subdivision and Grading Plan stages of development. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, pp. 17, 43) <i>(The focused geotechnical studies prepared for the Mission Village project included the analysis of areas previously identified with a “P” in the Newhall Ranch Specific Plan Certified EIR. All proposed cuts were evaluated and, where necessary, focused mitigation measures were identified and included in the list of measures presented below to mitigate potential impacts).</i></p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>SP 4.1-27 Cut-slopes designated with a “U” are to be further investigated at the subdivision stage to confirm underlying geologic conditions and slope stability. Corrective grading measures are to be presented in detail as mitigation at both the subdivision and Grading Plan stages of development. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, pp. 17, 43) <i>(The focused geotechnical studies prepared for the Mission Village project included the analysis of areas previously identified with a “U” in the Newhall Ranch Specific Plan Certified EIR. All proposed cuts were evaluated and, where necessary, focused mitigation measures were identified and included in the list of measures presented below to mitigate potential impacts).</i></p> <p>SP 4.1-28 Cut-slopes associated with the construction of the proposed extensions of Magic Mountain Parkway and Valencia Boulevard are to be further investigated at the subdivision stage to confirm the underlying geologic conditions and slope stability. Corrective measures are to be required if it is determined that the cut-slopes will not be stable. (Allan E. Seward Engineering Geology, Inc., 13 December 1995, pp. 11 & 12)</p> <p>SP 4.1-29 Orientations of the bedrock attitudes are to be evaluated by the Newhall Ranch Specific Plan Engineering Geologist to identify locations of required buttress fills. Buttress fill design and recommendations, if necessary, are to be presented as mitigation during the grading plan stage. (R.T. Frankian & Associates, 19 September 1994, Appendix I)</p> <p>SP 4.1-30 All fills, unless otherwise specifically designed, are to be compacted to at least 90 percent of the maximum dry unit weight as determined by ASTM Designation D 1557-91 Method of Soil Compaction. (R.T. Frankian & Associates, 19 September 1994, Appendix I)</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>SP 4.1-31 No fill is to be placed until the area to receive the fill has been adequately prepared and approved by the Geotechnical Engineer. (R.T. Frankian & Associates, 19 September 1994, Appendix I)</p> <p>SP 4.1-32 Fill soils are to be kept free of all debris and organic material. (R.T. Frankian & Associates, 19 September 1994, Appendix I)</p> <p>SP 4.1-33 Rocks or hard fragments larger than 8 inches are not to be placed in the fill without approval of the Geotechnical Engineer, and in a manner specified for each occurrence. (R.T. Frankian & Associates, 19 September 1994, Appendix I)</p> <p>SP 4.1-34 Rock fragments larger than 8 inches are not to be placed within 10 feet of finished pad grade or the subgrade of roadways or within 15 feet of a slope face. (R.T. Frankian & Associates, 19 September 1994, Appendix I)</p> <p>SP 4.1-35 Rock fragments larger than 8 inches may be placed in windrows, below the limits given above, provided the windrows are spaced at least 5 feet vertically and 15 feet horizontally. Granular soil must be flooded around windrows to fill voids between the rock fragments. The granular soil is to be wheel rolled to assure compaction. (R.T. Frankian & Associates, 19 September 1994, Appendix I)</p> <p>SP 4.1-36 The fill material is to be placed in layers which, when compacted, is not to exceed 8 inches per layer. Each layer is to be spread evenly and is to be thoroughly mixed during the spreading to insure uniformity of material and moisture. (R.T. Frankian & Associates, 19 September 1994, Appendix I)</p> <p>SP 4.1-37 When moisture content of the fill material is too low to obtain adequate compaction, water is to be added and thoroughly dispersed until the soil is approximately 2 percent over optimum moisture content. (R.T. Frankian & Associates, 19 September 1994, Appendix I)</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>SP 4.1-38 When the moisture content of the fill material is too high to obtain adequate compaction, the fill material is to be aerated by blading or other satisfactory methods until the soil is approximately 2 percent over optimum moisture content. (R.T. Frankian & Associates, 19 September 1994, Appendix I)</p> <p>SP 4.1-39 Where fills toe out on a natural slope or surface, a keyway, with a minimum width of 16 feet and extending at least 3 feet into firm, natural soil, is to be cut at the toe of the fill. (R.T. Frankian & Associates, 19 September 1994, Appendix I)</p> <p>SP 4.1-40 Where the fills toe out on a natural or cut slope and the natural or cut slope is steeper than 5 horizontal to 1 vertical, a drainage bench with a width of at least 8 feet is to be established at the toe of the fill. Fills may be placed over cut slopes if the visible contact between the fill and cut is steeper than 45 degrees. (R.T. Frankian & Associates, 19 September 1994, Appendix I)</p> <p>SP 4.1-41 When placing fills over slopes, sidewall benching is to extend into competent material, approved by the Geotechnical Engineer, with vertical benches not less than 4 feet. (R.T. Frankian & Associates, 19 September 1994, Appendix I) Competent material is defined as being free of loose soil, heavy fracturing, or compressive soils.</p> <p>SP 4.1-42 When constructing fill slopes, the grading contractor is to avoid spillage of loose material down the face of the slope during the dumping and compacting operations. (R.T. Frankian & Associates, 19 September 1994, Appendix I)</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>SP 4.1-43 The outer faces of fill slopes are to be compacted by backing a sheepsfoot compactor over the top of the slope, and thoroughly covering the entire slope surface with overlapping passes of the compactor. Compaction of the slope is to be repeated after each 4 feet of fill has been placed. The required compaction must be obtained prior to placement of additional fill. As an alternate, the slope can be overbuilt and cut back to expose a compacted core. (R.T. Frankian & Associates, 19 September 1994, Appendix I)</p> <p>SP 4.1-44 All artificial fill associated with past petroleum activities, as well as other existing artificial fill, are to be evaluated by the Newhall Ranch Specific Plan Geotechnical Engineer at the subdivision and/or grading plan stage. (Allan E. Seward Engineering Geology, 19 September 1994, Inc., p. 45) Unstable fills are to be mitigated through removal, stabilization, or other means as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.</p> <p>SP 4.1-45 Surface runoff from the future graded areas is not to run over any natural, cut, or fill slopes. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)</p> <p>SP 4.1-46 Runoff from future pads and structures is to be collected and channeled to the street and/or natural drainage courses via non-erosive drainage devices. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)</p> <p>SP 4.1-47 Water is not to stand or pond anywhere on the graded pads. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)</p> <p>SP 4.1-48 Oil and water wells that might occur on site are to be abandoned in accordance with state and local regulations. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 45)</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>SP 4.1-49 If any leaking or undocumented oil wells are encountered during grading operations, their locations are to be surveyed and the current well conditions evaluated immediately. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 21) Measures are to be taken to document the wells, abandonment, and remediate the well sites (if necessary) in accordance with state and local regulations.</p> <p>SP 4.1-50 The exact status and location of the Exxon (Newhall Land & Farming) oil well #31 will be evaluated at the subdivision stage. If necessary, the well will be abandoned in accordance with state and local regulations. (Allan E. Seward Engineering Geology, Inc., 13 December 1995, p. 12).</p> <p>SP 4.1-51 Survey control will be required to precisely locate the Salt Creek and Del Valle Faults at the subdivision stage. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 33).</p> <p>SP 4.1-52 Additional subsurface trenching will be performed within the Holser Structural Zone on Newhall Ranch during the subdivision stage to evaluate its existence. Within Potrero Canyon, additional subsurface evaluation will be performed during the subdivision stage to confirm that nontectonic alluvial movement was the cause of surface ground cracking during the January 17, 1994 earthquake, and to evaluate the potential for shallow-depth faults. (Allan E. Seward Engineering Geology, Inc. 19 September 1994, p. 42, as revised above.) <i>(Additional subsurface evaluations pertaining to Holzer Fault are not applicable for the Mission Village project site. This is due to the fact that the Holzer Fault is not located on the project site.</i></p> <p>SP 4.1-53 Precise Building Setback Zones for the Newhall Ranch Specific Plan site are to be defined at the subdivision stage.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>SP 4.1-54 Due to the potential activity of the Salt Creek and Del Valle Faults, site development is to remain outside of Building Setback Zones around fault traces, and the possible fault zone connecting them. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 42).</p> <p>SP 4.1-55 To minimize potential hazards from shattered ridge effects, structures, and storage tanks proposed on ridgelines are to have a minimum 20-foot setback from the margins of the bedrock. Designation of specific building setbacks will require evaluation at the subdivision stage. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 40) Building Setback Zones are to be identified on all site plans and tract maps for the site.</p> <p>SP 4.1-56 The potential for ground motion and ground failure associated with a seismic event in proximity to the planned roadway alignments of Magic Mountain Parkway and Valencia Boulevard will be evaluated at the subdivision stage. (Allan E. Seward Engineering Geology, Inc., 13 December 1995, p. 11) Mitigation to reduce associated significant impacts will also be identified at that time.</p> <p>MV 4.1-1 Future structures shall be designed according to standards applicable to Seismic Zone 4 of the Uniform Building Code.</p> <p>MV 4.1-2 Lots underlain by transitions between different material types (e.g., bedrock to fill, bedrock to alluvium, etc.) shall be over-excavated 5 feet to minimize potential adverse impacts associated with differential materials response.</p> <p>MV 4.1-3 Over-excavation of clay-rich bedding planes of the Saugus Formation or Pico Formation and subsequent placement of a certified fill cap shall be conducted to mitigate potential hazards from expansive material, and to reduce potential hazards from potential secondary seismogenic movement along bedding planes.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>MV 4.1-4 Due to the potential for primary ground surface rupture along the Airport Mesa and/or Saddle Faults, Fault Building Setback zones have been designated for the area within 50 feet of the map trace of the two faults.</p> <p>To reduce potential public health and safety impacts to a less than significant level, the following restrictions shall be applicable to these areas:</p> <ul style="list-style-type: none"> • No construction of habitable structures as defined in Appendix B of CDMG Special Publication 42, are allowed within the Fault Building Setback zone. • Pipelines, including gas, water, storm drain, and sewer, shall be constructed to allow for some flexure and emergency shut off valves shall be required for gas and water lines within these zones in case of possible ground deformation during an earthquake. • Site-specific recommendations shall be provided at the Grading Plan or Building Plan stages. <p>MV 4.1-5 If critical facilities or essential services buildings (e.g., hospitals, schools, fire stations, etc.) are to be developed within the area of the Airport Mesa or Saddle faults, a Building Setback of at least 50 feet from each side of the Airport Mesa or Saddle faults shall be maintained.</p> <p>MV 4.1-6 The project shall be designed in accordance will all applicable building codes and standards utilizing the appropriate geotechnical parameters as presented in the “Seismicity” section of the R.T. Frankian & Associates report entitled <i>Response to County of Los Angeles Review Sheets and Geotechnical Plan Review, Revised Vesting Tentative Tract Map No. 6110,5 (April 29, 2010)</i> to reduce seismic risk to an acceptable level as defined by CGS in Chapter 2 of SP 117a (CGS, 2008).</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>MV 4.1-7 The mitigation for liquefaction at the site will consist of a combination of ground motion and structural to reduce the risk to an acceptable level as defined by CGS in chapter 2 of SR 117a (CGS, 2008). The ground modification will consist of the removal of some of the soil material subject to liquefaction and/or elevating the site grades.</p> <p>MV 4.1-8 The recommendations identified in Table I, <i>Response to County of Los Angeles Review Sheets and Geotechnical Plan Review, Revised Vesting Tentative Tract Map No. 61105 (April 29, 2010)</i> prepared by R.T. Frankian & Associates, shall be incorporated into the project such that the analyzed cut-slopes, proposed grades, remedial grades and compacted fill slopes comply with Los Angeles County minimum requirements for gross stability under static and pseudostatic loading conditions and for surficial stability, as applicable.</p> <p>MV 4.1-9 All landslide removal bottoms shall be observed by the project engineering geologist and surveyed by the supervising civil engineer prior to the placement of engineered fill.</p> <p>MV 4.1-10 Where proposed pad grades occur near the basal Qt contact of the mesas and the basal Qt layer contains a high percentage of oversized (>8 inches) clasts, the Qt shall be removed (over-excavated) and replaced with suitable engineered fill. Stability fills are recommended for all proposed cut-slopes that expose Qt deposits in the slope face.</p> <p>MV 4.1-11 All slopewash in areas of proposed development shall be completely removed prior to the placement of engineered fill.</p> <p>MV 4.1-12 In proposed fill areas, all artificial fill impacting the proposed development shall be entirely removed prior to placement of compacted/certified fill material. If artificial fill is present below proposed cut grade elevations, it shall be completely removed and replaced with certified engineered fill.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>MV 4.1-13 Review of the tentative tract map design, the topographic base map and field mapping of the site indicates that where potential debris flow hazard exists the following mitigation measures shall be implemented (but not limited to) to mitigate the potential for debris flow hazard at these locations:</p> <ul style="list-style-type: none"> • Remove loose surficial material; • Construct diverter slough walls; • Construct impact walls; • Construct debris basins; • Control run-off; • Plant selective deep-rooted vegetation; and • Construct stability fills. <p>MV 4.1-14 As part of the project site grading, 48 of the landslides will be completely removed as part of the site grading. Of the remaining four landslides (Qls-XXXV, Qls-XXXVII, Qls-XLIII, and Qls-XLIV), three of the landslides (Qls-XXXV, Qls-XLIII, and Qls-XLIV) shall be partially removed until a stable configuration is achieved. The southern portion of the fourth landslide (Qls-XXXVII) shall be completely removed below the proposed building pad, and the northern portion (within the spineflower preserve) shall remain in place and be stabilized by a shear key and buttress fill slope. The remaining portion of this landslide will be placed within a Restricted Use Area.</p> <p>MV 4.1-15 All cut slopes shall be graded in accordance with the recommendations of the Project Geotechnical Consultant, as described in the Vesting Tentative Tract Map plan review reports.</p> <p>MV 4.1-16 The proposed fill slopes shall be graded in accordance with the recommendations of Project Geotechnical Consultant as described in the Vesting Tentative Tract Map plan review reports.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>MV 4.1-17 The grading adjacent to natural slopes shall be performed in accordance with the recommendations of the Project Geotechnical Consultant, as described in the Vesting Tentative Tract Map plan review reports. Where warranted for gross stability, Building Setbacks recommended in the plan review reports that exceed the setback standards set forth in the Los Angeles County/California Building Code shall be adhered to. The standard setbacks from grossly stable ascending and descending natural slopes provided in the Los Angeles County/California Building Code shall also be followed, where not superseded by the recommended Building Setbacks.</p> <p>MV 4.1-18 The debris flow hazard shall be further evaluated once a 40-scale rough grading plan has been developed for the project site. Appropriate mitigation measures, such as avoidance, debris basins, impact walls, etc., shall be provided for any additional debris flow areas identified on the rough grading plan.</p> <p>MV 4.1-19 Prior to placing compacted fill, the ground surface shall be prepared by removing non-compacted artificial fill (af), disturbed compacted fill soils (caf), loose alluvium, and other unsuitable materials. Areas that are to receive compacted fill shall be inspected by the project geologist/geotechnical engineer prior to the placement of fill.</p> <p>MV 4.1-20 All drainage devices shall be properly installed and inspected by the project geologist/geotechnical engineer and/or owner's representative(s) prior to placement of backfill.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>MV 4.1-21 Fill soils shall consist of imported soils or on-site soils free of organics, cobbles, and deleterious material provided each material is approved by the project geologist/geotechnical engineer. The project geologist/geotechnical engineer shall evaluate and/or test the import material for its conformance with the report recommendations prior to its delivery to the site. The contractor shall notify the project geologist/geotechnical engineer prior to importing material to the site.</p> <p>MV 4.1-22 Fill shall be placed in controlled layers (lifts), the thickness of which is compatible with the type of compaction equipment used. The fill materials shall be brought to optimum moisture content or above, thoroughly mixed during spreading to obtain a near uniform moisture condition and uniform blend of materials, and then placed in layers with a thickness (loose) not exceeding 8 inches. Each layer shall be compacted to a minimum compaction of 90 percent relative to the maximum dry density determined per the latest ASTM D1557 test. Density testing shall be performed by the project geologist/geotechnical engineer to verify relative compaction. The contractor shall provide proper access and level areas for testing.</p> <p>MV 4.1-23 Rocks or rock fragments less than 8 inches in the largest dimension may be utilized in the fill, provided they are not placed in concentrated pockets. Rocks larger than 4 inches shall not be placed within 3 feet of finish grade.</p> <p>MV 4.1-24 Rocks greater than 8 inches in largest dimension shall be taken off site, or placed in accordance with the recommendation of the Soils Engineer in areas designated as suitable for rock disposal.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>MV 4.1-25 Where space limitations do not allow for conventional fill compaction operations, special backfill materials and procedures may be required. Pea gravel or other select fill can be used in areas of limited space. A sand and Portland cement slurry (2 sacks per cubic-yard mix) shall be used in limited space areas for shallow backfill near final pad grade, and pea gravel shall be placed in deeper backfill near drainage systems.</p> <p>MV 4.1-26 The project geologist/geotechnical engineer shall observe the placement of fill and conduct in-place field density tests on the compacted fill to check for adequate moisture content and the required relative compaction. Where less than specified relative compaction is indicated, additional compacting effort shall be applied and the soil moisture conditioned as necessary until adequate relative compaction is attained.</p> <p>MV 4.1-27 The contractor shall comply with the minimum relative compaction out to the finish slope face of fill slopes, buttresses, and stabilization fills as set forth in the specifications for compacted fill. This may be achieved by either overbuilding the slope and cutting back as necessary, or by direct compaction of the slope face with suitable equipment, or by any other procedure that produces the required result.</p> <p>MV 4.1-28 Any abandoned underground structures such as cesspools, cisterns, mining shafts, tunnels, septic tanks, wells, pipelines or others not discovered prior to grading are to be removed or treated to the satisfaction of the Soils Engineer and/or the controlling agency for the project.</p> <p>MV 4.1-29 The contractor shall have suitable and sufficient equipment during a particular operation to handle the volume of fill being placed. When necessary, fill placement equipment shall be shut down temporarily in order to permit proper compaction of fills, correction of deficient areas, or to facilitate required field-testing.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>MV 4.1-30 The contractor shall be responsible for the satisfactory completion of all earthwork in accordance with the project plans and specifications.</p> <p>MV 4.1-31 Final reports shall be submitted after completion of earthwork and after the Soils Engineer and Engineering Geologist have finished their observations of the work. No additional excavation or filling shall be performed without prior notification to the Soils Engineer and/or Engineering Geologist.</p> <p>MV 4.1-32 Trench excavations to receive backfill shall be free of trash, debris or other unsatisfactory materials prior to backfill placement, and shall be inspected by the project geologist/geotechnical engineer.</p> <p>MV 4.1-33 Soils obtained from the excavation may be used as backfill if they are essentially free of organics and deleterious materials, unless otherwise indicated in the applicable geotechnical report.</p> <p>MV 4.1-34 Rocks generated from the trench excavation not exceeding 3 inches in largest dimension may be used as backfill material. However, such material may not be placed within 12 inches of the top of the pipeline. No more than 30 percent of the backfill volume shall contain particles larger than 1.5 inches in diameter, and rocks shall be well mixed with finer soil.</p> <p>MV 4.1-35 Soils (other than aggregates) with a Sand Equivalent (SE) greater than or equal to 30, as determined by ASTM D 2419 Standard Test Method or at the discretion of the engineer or representative in the field, may be used for bedding and shading material in the pipe zone areas. These soils are considered satisfactory for compaction by jetting procedures.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>MV 4.1-36 No jetting shall be permitted in utility trenches within the top 2 feet of the subgrade of concrete slabs-on-grade.</p> <p>MV 4.1-37 Trench backfill other than bedding and shading shall be compacted by mechanical methods as tamping sheepsfoot, vibrating or pneumatic rollers, or other mechanical tampers to achieve the density specified herein. The backfill materials shall be brought to optimum moisture content or above, thoroughly mixed during spreading to obtain a near uniform moisture condition and uniform blend of materials, and then placed in horizontal layers with a thickness (loose) not exceeding 8 inches. Trench backfills shall be compacted to a minimum compaction of 90 percent relative to the maximum dry density determined per the latest ASTM D1557 test.</p> <p>MV 4.1-38 The contractor shall select the equipment and process to be used to achieve the specified density without damage to the pipeline, the adjacent ground, existing improvements or completed work.</p> <p>MV 4.1-39 Observations and field tests shall be carried on during construction by the project geologist/geotechnical engineer to confirm that the required degree of compaction has been obtained. Where compaction is less than that specified, additional compaction effort shall be made with adjustment of the moisture content as necessary until the specified compaction is obtained. Field density tests may be omitted at the discretion of the engineer or his representative in the field.</p> <p>MV 4.1-40 Whenever, in the opinion of the project geologist/geotechnical engineer or the owner's Representative(s), an unstable condition is being created, either by cutting or filling, the work shall not proceed until an investigation has been made and the excavation plan revised, if deemed necessary.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>MV 4.1-41 Fill material within a trench shall not be placed, spread, or rolled during unfavorable weather conditions. When the work is interrupted by heavy rain, fill operations shall not be resumed until field tests by the project geologist/geotechnical engineer indicate the moisture content and density of the fill are as specified.</p> <p>MV 4.1-42 In order to provide a uniform firm bottom prior to placing fill, all unconsolidated alluvium, slopewash, colluvial soils and severely weathered terrace deposits and bedrock shall be removed from areas to receive fill. The estimated depths of removals (excluding landslides) are 5 to 22 feet, as shown on the Geologic Remediation Maps (Plates G7 to G11) contained in <i>Geologic and Geotechnical Report, Vesting Tentative Tract Map 61105</i> (July 22, 2004), as revised by Plates ES8-ES13 contained in the <i>Geologic and Geotechnical Report, Review of Revised Vesting Tentative Tract Map</i> (December 22, 2004), prepared by Seward, which is included in Appendix 4.1. The exact depth and extent of necessary removals will be determined in the field during the grading operations when observations and more location-specific evaluations can be performed. Removal depths for these areas are based on subsurface investigations, laboratory testing, proposed fill, depth use intended and analyses (including liquefaction and cyclic settlement analyses) as well as the geotechnical engineer's geologic and geotechnical judgment.</p> <p>MV 4.1-43 All existing uncertified fill (i.e., artificial fill) is considered unsuitable for support of proposed engineered fills and/or structures and must be removed and replaced with compacted fill. It is estimated that a maximum thickness of approximately 25 feet of artificial fill currently exists in the vicinity of proposed Lots 782 and 783 on the project site.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>MV 4.1-44 To protect against potential landslide activity, colluvium/slopes present within the canyon swales and on drainage sideslopes shall be removed to depths ranging from 10 to 60 feet. Removals at the locations of exploratory trenches shall be extended to the bottom of the trench backfill if the adjacent removal depths are shallower than the trench.</p> <p>MV 4.1-45 In areas to receive compacted fill where the surface gradient is steeper than 5:1, the soil mantle, colluvium and unsuitable material shall be removed and such areas benched horizontally into competent material in conjunction with fill placement.</p> <p>MV 4.1-46 After the ground surface to receive fill has been exposed, it shall be ripped to a minimum depth of 6 inches, brought to optimum moisture content or above and thoroughly mixed to obtain a near uniform moisture condition and uniform blend of materials, and then compacted to the required relative compaction per the latest ASTM D 1557 laboratory maximum density.</p> <p>MV 4.1-47 Ground water is not expected to impede the grading operations over the project site. Where recommended removals encounter groundwater, water levels will need to be controlled by providing an adequate excavation bottom slope and sumps for pumping water out as the excavation proceeds, or groundwater may be lowered by installing shallow dewatering well points prior to grading. Partial removals of soils above the water table and soil improvement below the water table (e.g., shallow compaction grouting) may be another option. Dewatering may be needed depending on the season when the removals are performed.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>MV 4.1-48 A minimum 5- to 8-foot-thick over-excavation shall be performed on all cut lots, and transitional lots (transitions between bedrock, fill, terrace deposits and alluvium) and a minimum 3-foot-thick over-excavation on streets. This over-excavation will provide a uniform base for structural support of buildings and traffic loads. If on a cut/fill transition lot the maximum depth of fill exceeds 15 feet, then the thickness of the fill cap shall be one-third of the deepest fill thickness below any proposed structure. If excavation of the native soils (i.e., bedrock) exposes high expansive materials, then the lot over-excavation shall be deepened to 8 feet. Cut and transition lots located in areas of steeply dipping bedrock will need to be over-excavated to a depth of 8 feet. If these lots are underlain by weak sheared bedding planes or shears they may require a deeper over excavation and need to be evaluated on a case-by-case basis during the grading operations. Lots potentially affected by the requirements have been identified in the Geologic Remediation Maps (Plates G7 to G11) included in the <i>Geologic and Geotechnical Report, Vesting Tentative Tract Map 61105</i> (July 22, 2004), as revised by Plates ES8-ES13 contained in the <i>Geologic and Geotechnical Report, Review of Revised Vesting Tentative Tract Map</i> (December 22, 2004), prepared by Seward, which is included in EIR Appendix 4.1.</p> <p>MV 4.1-49 All fill material shall be placed in uniform lifts not exceeding 8 inches in its loose state and compacted to a minimum of 90 percent relative compaction as determined based on the latest ASTM Test Designation D-1557.</p> <p>MV 4.1-50 For fills deeper than 40 feet, the portion of fill below 40 feet depth shall be compacted to a minimum of 93 percent relative compaction. To ensure compliance with this requirement, these areas shall be delineated at the Grading Plan stage.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>MV 4.1-51 Fill slope inclination shall not be steeper than 2:1. The fill material within approximately one equipment width (typically 15 feet) of the slope face shall be constructed with cohesive material obtained from on-site soils. The finished fill-slope face shall be constructed by over-building the slope and cutting back to the compacted fill material. Stability Fills are recommended where cut-slope faces will expose fill-over bedrock, alluvium-over-bedrock, or Quaternary Terrace Deposits over bedrock conditions. These fills shall be constructed with a keyway at the toe of the fill slope with a minimum equipment width but not less than 15 feet, and a minimum depth of 3 feet into the firm undisturbed earth. Following completion of the keyway excavations, the project engineering geologist shall observe and approve the keyway bottom prior to backfilling with Certified Engineered Fill.</p> <p>MV 4.1-52 Where fill slopes are constructed above natural ground with a gradient of 5:1 or steeper, all topsoil, colluvium, and unsuitable material shall be removed and a keyway shall be constructed at the toe of the fill slope with a minimum width of 15 feet, and a minimum depth of 3 feet into firm undisturbed earth. Following completion of the keyway excavations, the project Engineering Geologist/Geotechnical Engineer or his representative shall observe and approve the keyway bottom prior to backfilling with compacted fill.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>MV 4.1-53 Where fill slopes toe out on relatively level natural ground, the removals shall be performed to a minimum 1:1 projection from the toe of slope to the recommended removal depth. Where sliver fill-slopes are proposed, it is recommended that the slope be constructed with a minimum 15-foot-width Stability Fill throughout, which is keyed in at the toe of slope.</p> <p>MV 4.1-54 Excavations deeper than 3 feet shall conform to safety requirements for excavations as set forth in the State Construction Safety Orders enforced by the State Division of Industrial Safety, CAL OSHA. Temporary excavations 12 feet or lower shall be no steeper than 1:1. For excavations to 20 feet in height, the bottom 3.5 feet may be vertical and the upper portion shall be no steeper than 1.5:1. Excavations not complying with these requirements shall be shored.</p> <p>MV 4.1-55 Excavation walls in sands and dry soils shall be kept moist, but not saturated at all times.</p> <p>MV 4.1-56 The bases of excavations or trenches shall be firm and unyielding prior to foundations or utility construction. On-site materials other than topsoil or soils with roots or deleterious materials may be used for backfilling excavations. Densification (compaction) by jetting may be used for on-site clean sands or imported equivalent of coarser sand provided they have a Sand Equivalent greater than or equal to 30 as determined by ASTM D2419 test method.</p> <p>MV 4.1-57 Parameters for design of cantilever and braced shoring shall be provided at the grading plan stage.</p> <p>MV 4.1-58 If any leaking or undocumented oil wells are encountered during grading operations, their locations shall be surveyed and the current well conditions evaluated immediately. If potentially hazardous materials relating to operation of the oil wells are encountered during future grading operations, they shall be assessed and mitigated to the satisfaction of DOGGR before grading is permitted to continue.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>MV 4.1-59 To maintain appropriate long-term drainage and erosion control, the following points shall be adhered to in slope protection, landscaping, irrigation and modifications to slopes, pads and structures:</p> <ul style="list-style-type: none"> • All interceptor ditches, drainage terraces, down-drains, and any other drainage devices shall be maintained and kept clear of debris. A qualified Engineer shall review any proposed additions or revisions to these systems, to evaluate their impact on slope erosion. • Retaining walls shall have adequate freeboard to provide a catchment area for minor slope erosion. Periodic inspection, and if necessary, cleanout of deposited soil and debris shall be performed, particularly during and after periods of rainfall. • Slope surficial soils may be subject to water-induced mass erosion. Therefore, a suitable proportion of slope planting shall have root systems, which will develop well below 3 feet. Intervening areas can then be planted with lightweight surface plants with shallower root systems. All plants shall be lightweight and require low moisture. Any loose slough generated during the process of planting shall be properly removed from the slope face(s). • Construction delays, climate/weather conditions, and plant growth rates may be such that additional short-term erosion control measures may be needed; examples would be matting, netting, plastic sheets, deep (5 feet) staking, etc. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>MV 4.1-60 All possible precautions shall be taken to maintain moderate and uniform soil moisture. Slope irrigation systems shall be properly operated and maintained and system controls shall be placed under strict control.</p> <p>MV 4.1-61 Surface drainage control design shall include provisions for positive surface gradients to ensure that surface runoff is not permitted to pond, particularly above slopes or adjacent to building foundations or slabs. Surface runoff shall be directed away from slopes and foundations and collected in lined ditches or drainage swales, via non-erodible drainage devices, which shall discharge to paved roadways, or existing watercourses. If these facilities discharge onto natural ground, means shall be provided for control erosion and to create sheet flow.</p> <p>MV 4.1-62 Site grading shall be observed, particularly after heavy, prolonged rainfall, to identify erosion areas at an early stage. Maintenance work shall be done as soon as practical to repair these areas and prevent their enlargement.</p> <p>MV 4.1-63 Fill slopes, Buttress Fill and Stability Fills, as applicable, shall be provided with subsurface drainage as necessary for stability. Subdrains along the bottom of canyon fills shall be constructed.</p> <p>MV 4.1-64 Water should not be allowed to pond on future graded areas, or allowed to flow uncontrolled over natural or graded slopes. Surface drainage should be directed to terrace drains or debris basins. Debris material generated from erosion should be contained within site boundaries. All slope terrace drains should be kept clear of all debris to limit impounding or surface water. Graded slopes should be seeded with a deep-rooting, drought-resistant vegetation to minimize erosion.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.1 GEOTECHNICAL AND SOIL RESOURCES (CONTINUED)		
	<p>MV 4.1-65 All final grades shall be sloped away from the building foundations to allow rapid removal of surface water runoff. No ponding of water shall be allowed adjacent to the foundations. Plants and other landscaped vegetation requiring excessive watering shall be avoided adjacent to the building foundations. If such landscaping is installed, an effective water-tight barrier shall be provided to prevent water from affecting the building foundations.</p> <p>MV 4.1-66 Additional testing for expansive soils shall be performed at the grading plan stage and during finish grading so that appropriate foundation design recommendations for expansive soils, if applicable, can be made.</p> <p>MV 4.1-67 Pending additional testing, either Type I or II cement shall be used in concrete placed in contact with the ground. Mitigating recommendations against soil corrosivity shall be revised/expanded based on additional confirmatory tests that shall be performed at the Grading Plan stage. Final recommendations for concrete will be in accordance with the latest UBC requirements, and a corrosion specialist shall provide mitigating recommendations for potential corrosion of metals in contact with on-site soils.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.2 HYDROLOGY		
<p><i>Site clearing and grading operations within the Mission Village project site would have the potential to discharge sediment downstream during storm events. Temporary erosion control measures in disturbed areas of the project site during the construction phase are recommended to reduce this potential impact to less than significant levels.</i></p> <p><i>As to operational impacts, with implementation of the Specific Plan mitigation measures requiring the incorporation of certain project design features and additional mitigation specific to Mission Village, development of the proposed project would result in less than significant impacts on drainage patterns because development would not substantially alter existing drainage patterns, significantly modify a drainage channel, nor change the rate of flow, currents, or the course and direction of surface waters such that they would cause substantial erosion or siltation, or cause on-site or off-site flooding or mudflow. Once developed, the Mission Village project would reduce post-development storm water flows during a 50-year capital storm event, as compared to existing conditions. Specifically, the amount of discharge from the project site (including the tributary watershed in which the project site lies) would decrease from 5,682 cubic feet per second (cfs) to 4,862 cfs. This 14 percent reduction in rainfall runoff would be due to the reduction in erosive areas on the project site that contribute sediment and debris to the runoff. Mitigation requires that the proposed storm drainage improvements meet the flood control requirements of the Flood Control and Watershed Management Divisions of the Los Angeles County Department of Public Works, thereby reducing flood impacts to less than</i></p>	<p>Please refer to 4.22, Water Quality, of this summary table for a listing of Program EIR mitigation measures pertaining to hydrology.</p> <p>SP 4.2-1 All on- and off-site flood control improvements necessary to serve the Newhall Ranch Specific Plan are to be constructed to the satisfaction of the LACDPW, Flood Control Division.</p> <p>SP 4.2-2 All necessary permits or letters of exemption from the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and Game, and the Regional Water Quality Control Board for Specific Plan-related development are to be obtained prior to construction of drainage improvements. The performance criteria to be used in conjunction with 1603 agreements and/or 404 permits are described in Section 4.6, Biological Resources, Mitigation Measures 4.6-1 through 4.6-10 (restoration) and 4.6-11 through 4.6-16 (enhancement) (of the Newhall Ranch Specific Plan Program EIR).</p> <p>SP 4.2-3 All necessary streambed agreement(s) are to be obtained from the California Department of Fish and Game wherever grading activities alter the flow of streams under CDFG jurisdiction. The performance criteria to be used in conjunction with 1603 agreements and/or 404 permits are described in Section 4.6, Biological Resources, Mitigation Measures 4.6-1 through 4.6-10 (restoration) and 4.6-11 through 4.6-16 (enhancement) (of the Newhall Ranch Specific Plan Program EIR).</p>	<p>Implementation of the mitigation measures to the satisfaction of the LACDPW would reduce storm-related flooding, erosion, and sedimentation impacts to less than significant levels. Therefore, no significant unavoidable impacts are anticipated.</p>

Environmental Impact	Mitigation Measures		Level of Significance After Mitigation
4.2 HYDROLOGY (CONTINUED)			
<p><i>(continued) significant levels. Additionally, the proposed bank stabilization and bridge abutments within the river would not impede or redirect flood flows within the river and, therefore, would not cause a significant impact relative to flooding.</i></p> <p><i>None of the improvements proposed on the site would be subject to flood hazard: future inhabitable structures on the site would be a minimum of 1 foot above the 100-year flood hazard area. The proposed project would also not result in risk of loss, injury, or death due to flooding, mudflow, tsunami, or seiche.</i></p> <p><i>Project water quality impacts are discussed in this EIR in Section 4.22, Water Quality. Project impacts on biological resources in the Santa Clara River as a result of changes to river hydraulics associated with the proposed site grading, bank stabilization, and other floodplain modifications are addressed in this EIR in Section 4.21, Floodplain Modifications.</i></p>	SP 4.2-4	<p>Conditional Letters of Map Revision (CLOMR) relative to adjustments to the 100-year FIA floodplain are to be obtained by the applicant before the proposed drainage facilities are constructed. <i>(The proposed project has complied with this requirement. See Appendix 4.2)</i></p>	
	SP 4.2-5	<p>Prior to the approval and recordation of each subdivision map, a Hydrology Plan, Drainage Plan, and Grading Plan (including an Erosion Control Plan if required) for each subdivision must be prepared by the applicant of the subdivision map to ensure that no significant erosion, sedimentation, or flooding impacts would occur during or after site development. These plans shall be prepared to the satisfaction of the LACDPW.</p>	
	SP 4.2-6	<p>Install permanent erosion control measures, such as desilting and debris basins, drainage swales, slope drains, storm drain inlet/outlet protection, and sediment traps in order to prevent sediment and debris from the upper reaches of the drainage areas which occur on the Newhall Ranch site from entering storm drainage improvements. These erosion control measures shall be installed to the satisfaction of the LACDPW.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.2 HYDROLOGY (CONTINUED)		
	<p>SP 4.2-7 The applicant for any subdivision map permitting construction shall satisfy all applicable requirements of the NPDES Program in effect in Los Angeles County to the satisfaction of the LACDPW. These requirements currently include preparation of an Urban Storm Water Mitigation Plan (USWMP) containing design features and Best Management Practices (BMPs) appropriate and applicable to the subdivision. In addition, the requirements currently include preparation of a Storm Water Management Pollution Prevention Plan (SWPPP) containing design features and BMPs appropriate and applicable to the subdivision. The LACDPW shall monitor compliance with those NPDES requirements.</p> <p>MV 4.2-1 The on-site storm drains (pipes and reinforced concrete boxes) and open channels shall be designed and constructed to meet the storm flows, as required by the LACDPW.</p> <p>MV 4.2-2 Debris basins shall be constructed pursuant to LACDPW requirements to intercept storm flows from undeveloped areas before they discharge into the developed portions of the Mission Village tract map site.</p> <p>MV 4.2-3 Energy dissipaters consisting of either riprap or larger standard impact type energy dissipaters shall be installed along the Santa Clara River as required by LACDPW at outlet locations to reduce velocities of runoff into the channel to prevent erosion.</p> <p>MV 4.2-4 The project is required to comply with the RWQCB Municipal Permit (General MS4 Permit) Order No. 01-182, NPDES No. CAS004001 (amended September 14, 2006), and with the state's General Construction Activity Storm Water Permit, California State Water Resources Control Board Order No. 99-08-DWQ, National Pollutant Discharge Elimination System (NPDES) No. CAS000002, reissued on August 19, 1999, as amended and further modified by Resolution No. 2001-046 on April 26, 2001.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.2 HYDROLOGY (CONTINUED)		
	<p>MV 4.2-5 During all construction phases, temporary erosion control shall be implemented to retain soil and sediment on the tract map site as follows:</p> <ul style="list-style-type: none"> • Re-vegetate exposed areas as quickly as possible; • Minimize disturbed areas; • Divert runoff from downstream drainages with earth dikes, temporary drains, slope drains, etc.; • Reduce velocity through outlet protection, check dams, and slope roughening/terracing; • Implement dust control measures, such as sand fences, watering, etc.; • Stabilize all disturbed areas with blankets, reinforced channel liners, soil cement, fiber matrices, geotextiles, and/or other erosion resistant soil coverings or treatments; • Stabilize construction entrances/exits with aggregate underdrains with filter cloth or other comparable method; • Place sediment control BMPs at appropriate locations along the site perimeter and at all operational internal inlets to the storm drain system at all times during the rainy season (sediment control BMPs may include filtration devices and barriers, such as fiber rolls, silt fence, straw bale barriers, and gravel inlet filters, and/or with settling devices, such as sediment traps or basins; and/or • Eliminate or reduce, to the extent feasible, non-storm water discharges (e.g., pipe flushing, fire hydrant flushing, over-watering during dust control, vehicle and equipment wash down, etc.) from the construction site through the use of appropriate sediment control BMPs. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.2 HYDROLOGY (CONTINUED)		
	<p>MV 4.2-6 All necessary permits, agreements, and/or letters of exemption from the USACE and/or CDFG for project-related development within their respective jurisdictions must be obtained prior to issuance of grading permits.</p> <p>MV 4.2-7 By October 1st of each year, a separate erosion control plan for construction activities shall be submitted to the local municipality describing the erosion control measures that will be implemented during the rainy season (October 1 through April 15).</p> <p>MV 4.2-8 A final developed condition hydrology analysis (LACDPW Drainage Concept Report [DCR] and Final Design Report [FDR]) shall be prepared in conjunction with final project design when precise engineering occurs. This final analysis shall confirm that the final project design is consistent with this analysis. This final developed condition hydrology analysis shall confirm that the sizing and design of the water quality and hydrologic control BMPs control hydromodification impacts in accordance with the Newhall Ranch Sub-Regional Stormwater Mitigation Plan. All elements of the storm drain system shall conform to the policies and standards of the LACDPW, Flood Control Division, as applicable.</p> <p>MV 4.2-9 Ultimate project hydrology and debris production calculations shall be prepared by a project engineer to verify the requirements for debris basins and/or desilting inlets.</p> <p>MV 4.2-10 To reduce debris being discharged from the site, debris basins shall be designed and constructed pursuant to LACDPW Flood Control requirements to intercept flows from undeveloped areas entering into the developed portions of the site.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
<p>4.3 BIOTA</p> <p><i>The entire project site occupies 1,854.5 acres, including the 1,261.8-acre Mission Village tract map site and an additional 592.8 acres of off-site land primarily within the boundaries of the approved Specific Plan. The project site includes 277.9 acres of riparian vegetation, including 111.8 acres of riparian woodland (southern willow scrub, shrub tamarisk, and southern cottonwood-willow riparian) and 166.1 acres of other riparian vegetation communities. The project site includes 1,576.8 acres of upland vegetation communities and land covers, of which 1,430.4 acres occur outside the 100-year floodplain of the Santa Clara River. The project site includes 1.5 miles of the Santa Clara River mainstem; this represents 1.7 percent of the overall Santa Clara River mainstem (86 miles). The total Mission Village project area, inclusive of infrastructure improvements, includes approximately 5 miles of the Santa Clara River mainstem (6 percent of overall). The Mission Village project, including the necessary off-site project components, would result in the permanent conversion of, or temporary disturbance to, 1,493.1 acres of the following:</i></p> <ul style="list-style-type: none"> • 413.4 acres of California sagebrush scrub • 16.1 acres of California sagebrush scrub–Artemisia • 12.9 acres of California sagebrush scrub–black sage • 83.2 acres of California sagebrush scrub–California buckwheat. • 13.9 acres of California sagebrush scrub–undifferentiated chaparral • 127.0 acres of California sagebrush scrub–purple sage • 0.1 acre of disturbed California sagebrush scrub • 394.3 acres of disturbed lands • 219.9 acres of land currently used for agricultural purposes • 8.0 acres of developed land • 19.7 acres of river wash. 	<p>SP 4.6-1 The restoration mitigation areas located within the River Corridor SMA shall be in areas that have been disturbed by previous uses or activities. Mitigation shall be conducted only on sites where soils, hydrology, and microclimate conditions are suitable for riparian habitat. First priority will be given to those restorable areas that occur adjacent to existing patches (areas) of native habitat that support sensitive species, particularly Endangered or Threatened species. The goal is to increase habitat patch size and connectivity with other existing habitat patches while restoring habitat values that will benefit sensitive species.</p> <p>SP 4.6-2 A qualified biologist shall prepare or review revegetation plans. The biologist shall also monitor the restoration effort from its inception through the establishment phase.</p> <p>SP 4.6-3 Revegetation Plans may be prepared as part of a California Department of Fish and Game 1603 Streambed Alteration Agreement and/or an U.S. Army Corps of Engineers Section 404 Permit, and shall include:</p> <ul style="list-style-type: none"> • Input from both the Project proponent and resource agencies to assure that the Project objectives applicable to the River Corridor SMA and the criteria of this RMP are met. • The identification of restoration/mitigation sites to be used. This effort shall involve an analysis of the suitability of potential sites to support the desired habitat, including a description of the existing conditions at the site(s) and such base line data information deemed necessary by the permitting agency. 	<p>Implementation of the mitigation measures required by the Newhall Ranch Specific Plan Program EIR and the Specific Plan Resource Management Plan (RMP), as well as the additional mitigation measures required by this EIR, would mitigate project-specific impacts to less than significant levels. Due to the incorporation of additional mitigation measures required by this EIR, those project-level significant unavoidable impacts identified in the Newhall Ranch Specific Plan Program EIR (i.e., loss of sensitive animal species, coastal sage scrub, and wildlife habitat, and the increase in human and domestic animal presence) would be mitigated to less than significant.</p> <p>The Mission Village project would contribute to a significant unavoidable cumulative impact related to regional impacts to coastal scrub and San Fernando Valley spineflower individuals.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
<p><i>(continued)</i></p> <ul style="list-style-type: none"> • 28.8 acres of southern cottonwood-willow riparian forest • 66.1 acres of California annual grassland • 34.3 acres of undifferentiated chaparral • 7.8 acres of coast live oak woodland • 22.3 acres of big sagebrush scrub • 0.7 acre of southern willow scrub • 6.9 acres of arrow weed scrub • 5.6 acres of Mexican elderberry scrub • 2.6 acres chamise chaparral • 1.8 acres of chamise–hoaryleaf ceanothus chaparral • 1.9 acres of valley oak/grass • 1.6 acres of herbaceous wetlands • 1.8 acres of mulefat scrub • 1.1 acre of disturbed mulefat scrub • 0.6 acre of eriodictyon scrub • 0.1 acre of giant reed grassland • 0.5 acre of alluvial scrub. 	<p>SP 4.6-4 The revegetation effort shall involve an analysis of the site conditions such as soils and hydrology so that site preparation needs can be evaluated. The revegetation plan shall include the details and procedures required to prepare the restoration site for planting (i.e., grading, soil preparation, soil stockpiling, soil amendments, etc.), including the need for a supplemental irrigation system, if any.</p> <p>SP 4.6-5 Restoration of riparian habitats within the River Corridor SMA shall use plant species native to the Santa Clara River. Cuttings or seeds of native plants shall be gathered within the River Corridor SMA or purchased from nurseries with local supplies to provide good genetic stock for the replacement habitats. Plant species used in the restoration of riparian habitat shall be listed on the approved project plant palette (Specific Plan Table 2.6-1, Recommended Plant Species for Habitat Restoration in the River Corridor SMA) or as approved by the permitting state and federal agencies.</p> <p>SP 4.6-6 The final revegetation plans shall include notes that outline the methods and procedures for the installation of the plant materials. Plant protection measures identified by the project biologist shall be incorporated into the planting design/layout.</p> <p>SP 4.6-7 The revegetation plan shall include guidelines for the maintenance of the mitigation site during the establishment phase of the plantings. The maintenance program shall contain guidelines for the control of non-native plant species, the maintenance of the irrigation system, and the replacement of plant species.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
<p><i>(continued) Development of the proposed project would preclude landscape level or regional wildlife movement between the Santa Clara River and undeveloped lands to the south. Dead-End Canyon, Middle Canyon, and Magic Mountain Canyon would be developed and eliminated as potential wildlife movement corridors. Lion Canyon and Exxon Canyon would not be developed, but would become dead-ends and preclude movement between large habitat areas. Although the Mission Village portion of the Specific Plan area would be developed and affect local wildlife movement, regional habitat connectivity would be maintained. The conceptual regional open space plan developed by Penrod et al.,¹ provides for landscape-scale habitat connectivity between the Santa Susana Mountains to the south and the Los Padres National Forest to the north encompasses the High Country SMA/SEA 20 and the Salt Creek area and the Santa Clara River west of Mission Village. The High Country SMA/SEA 20 and Salt Creek area comprise an important part of the "least cost (best potential route) path" linkage design identified by Penrod et al.² They provide a key part of the east-west linkage that crosses I-5 and connects with the Angeles National Forest in the San Gabriel Mountains to the east and with Ventura County SOAR open space to the southwest. They also provide a significant part of the north-south linkage between the Santa Susana Mountains and the "Fillmore Greenbelt" to the northwest that further links up with the Los Padres National Forest and the Angeles National Forest to the north.</i></p>	<p>SP 4.6-8 The revegetation plan shall provide for monitoring to evaluate the growth of the developing habitat. Specific performance goals for the restored habitat shall be defined by qualitative and quantitative characteristics of similar habitats on the river (e.g., density, cover, species composition, structural development). The monitoring effort shall include an evaluation of not only the plant material installed, but the use of the site by wildlife. The length of the monitoring period shall be determined by the permitting State and/or Federal agency.</p> <p>SP 4.6-9 Monitoring reports for the mitigation site shall be reviewed by the permitting State and/or Federal agency.</p> <p>SP 4.6-10 Contingency plans and appropriate remedial measures shall also be outlined in the revegetation plan.</p> <p>SP 4.6-11 Habitat enhancement as referred to in this document means the rehabilitation of areas of native habitat that have been moderately disturbed by past activities (e.g., grazing, roads, oil and natural gas operations, etc.) or have been invaded by non-native plant species such as giant cane (<i>Arundo donax</i>) and tamarisk (<i>Tamarix</i> sp.).</p> <p>SP 4.6-12 Removal of grazing is an important means of enhancement of habitat values. Without ongoing disturbance from cattle, many riparian areas will recover naturally. Grazing except as permitted as a long-term resource management activity will be removed from the River Corridor SMA pursuant to the Long-Term Management Plan set forth in Section 4.6 of the Specific Plan EIR.</p>	

¹ K. Penrod et al., *South Coast Missing Linkages Project: A Linkage Design for the Santa Monica-Sierra Madre Connection* (Idyllwild, California: South Coast Wildlands, in cooperation with the National Park Service, Santa Monica Mountains Conservancy, California State Parks, and The Nature Conservancy, 2006).

² K. Penrod et al., *South Coast Missing Linkages Project: A Linkage Design for the Santa Monica-Sierra Madre Connection*.

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
<p>(continued) In approving the Specific Plan and Conditional Use Permit No. 94-087-(5), the Board of Supervisors found that the Specific Plan contained sufficient natural vegetative cover and open space to buffer critical resources in the River Corridor SMA/SEA 23 from the development shown in the Specific Plan. The Board of Supervisors further found that the Specific Plan incorporated extensive buffer areas to protect critical resources within the Santa Clara River. The Specific Plan's adopted Resource Management Plan requires a minimum 100-foot-wide setback adjacent to the Santa Clara River between (a) the river side of the top of bank stabilization and (b) development within certain specified land use designations (including those of the Mission Village project site). This requirement may be modified if the Planning Director, in consultation with the County staff biologist, determines that a smaller buffer would adequately protect the riparian resources within the River Corridor SMA/SEA 23, or that a 100-foot-wide setback is infeasible for physical infrastructure planning. Again, these buffer criteria are consistent with the Buffer Study³ and CDFG recommendations described below in Subsection 9(b)(1)(b)(2)(c).</p> <p>Significant impacts associated with the Specific Plan would occur with respect to the loss of mulefat scrub, coast live oak woodland, coastal sage scrub, Mexican elderberry scrub, southern willow scrub, southern cottonwood willow riparian forest, great basin scrub, scalebroom scrub, valley freshwater marsh, wildlife habitat, special-status bird nests, special-status plant species, protected oaks, special-status wildlife species, and California Department of Fish and Game (CDFG) and U.S. Army Corps of Engineers (Corps) jurisdictional resources. Significant indirect impacts</p>	<p>SP 4.6-13 To provide guidelines for the installation of supplemental plantings of native species within enhancement areas, a revegetation plan shall be prepared prior to implementation of mitigation (see guidelines for revegetation plans above). These supplemental plantings will be composed of plant species similar to those growing in the existing habitat patch (see Specific Plan Table 2.6-1).</p> <p>SP 4.6-14 Not all enhancement areas will necessarily require supplemental plantings of native species. Some areas may support conditions conducive for rapid "natural" reestablishment of native species. The revegetation plan may incorporate means of enhancement to areas of compacted soils, poor soil fertility, trash or flood debris, and roads as a way of enhancing riparian habitat values.</p> <p>SP 4.6-15 Removal of non-native species such as giant cane (<i>Arundo donax</i>), salt cedar or tamarisk (<i>Tamarix</i> sp.), tree tobacco (<i>Nicotiana glauca</i>), castor bean (<i>Ricinus communis</i>), if included in a revegetation plan to mitigate impacts, shall be subject to the following standards:</p> <ul style="list-style-type: none"> • First priority shall be given to those habitat patches that support or have a high potential for supporting sensitive species, particularly Endangered or Threatened species. • All non-native species removals shall be conducted according to a resource agency approved exotics removal program. • Removal of non-native species in patches of native habitat shall be conducted in such a way as to minimize impacts to the existing native riparian plant species. 	

³ Impact Sciences, North Valencia Annexation Buffer Study, prepared for Newhall Land and Farming Company. April 28, 1997.

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
<p><i>(continued) would occur with respect to increased light and glare, increased non-native plant species, and increased human and domestic animal presence.</i></p> <p><i>The direct and indirect impacts associated with development and operation of the Mission Village project are consistent with the findings of the Newhall Ranch Specific Plan Program EIR (March 1999)⁴ and Revised Additional Analysis (May 2003).⁵</i></p> <p><i>The Mission Village Biological Resources Technical report was reviewed by the Significant Environmental Area Technical Advisory Committee (SEATAC) on three separate occasions: January 29, 2007, September 10, 2007, and April 7, 2008. This EIR section reflects comments received from the SEATAC.</i></p>	<p>SP 4.6-16 Mitigation banking activities for riparian habitats will be subject to State and Federal regulations and permits. Mitigation banking for oak resources shall be conducted pursuant to the Oak Resources Replacement Program. Mitigation banking for elderberry scrub shall be subject to approval of plans by the County Forester.</p> <p>SP 4.6-17 Access to the River Corridor SMA for hiking and biking shall be limited to the river trail system (including the Regional River Trail and various Local Trails) as set forth in this Specific Plan.</p> <ul style="list-style-type: none"> • The River trail system shall be designed to avoid impacts to existing native riparian habitat, especially habitat areas known to support sensitive species. Where impacts to riparian habitat are unavoidable, disturbance shall be minimized and mitigated as outlined above under Mitigation Measures SP 4.6-1 through SP 4.6-8. • Access to the River Corridor SMA will be limited to daytime use of the designated trail system. • Signs indicating that no pets of any kind will be allowed within the River Corridor SMA, with the exception that equestrian use is permitted on established trails, shall be posted along the River Corridor SMA. • No hunting, fishing, or motor or off-trail bike riding shall be permitted. • The trail system shall be designed and constructed to minimize impacts on native habitats. 	

⁴ County of Los Angeles, *Environmental Impact Report (EIR) for the Newhall Ranch Specific Plan and Water Reclamation Plant* (1999).

⁵ Impact Sciences, Inc., *Revised Additional Analysis to the Newhall Ranch Specific Plan and Water Reclamation Plant Final Program EIR, Volume VIII* (2003).

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-18 Where development lies adjacent to the boundary of the River Corridor SMA a transition area shall be designed to lessen the impact of the development on the conserved area. Transition areas may be comprised of Open Area, natural or revegetated manufactured slopes, other planted areas, bank areas, and trails. Exhibits 2.6-4, 2.6-5, and 2.6-6 indicate the relationship between the River Corridor SMA and the development (disturbed) areas of the Specific Plan. The SMAs and the Open Area as well as the undisturbed portions of the development areas are shown in green. As indicated on the exhibits, on the south side of the river the River Corridor SMA is separated from development by the river bluffs, except in one location. The Regional River Trail will serve as transition area on the north side of the river where development areas adjoin the River Corridor SMA (excluding Travel Village).</p> <p>SP 4.6-19 The following are the standards for design of transition areas:</p> <ul style="list-style-type: none"> • In all locations where there is no steep grade separation between the River Corridor SMA and development, a trail shall be provided along this edge. • Native riparian plants shall be incorporated into the landscaping of the transition areas between the River Corridor SMA and adjacent development areas where feasible for their long-term survival. Plants used in these areas shall be those listed on the approved plant palette (Specific Plan Table 2.6-2 of the Resource Management Plan [Recommended Plants for Transition Areas Adjacent to the River Corridor SMA]). • Roads and bridges that cross the River Corridor SMA shall have adequate barriers at their perimeters to discourage access to the River Corridor SMA adjacent to the structures. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-19 (continued)</p> <ul style="list-style-type: none"> • Where bank stabilization is required to protect development areas, it shall be composed of ungrouted rock, or buried bank stabilization as described in Section 2.5.2.a, except at bridge crossings and other locations where public health and safety requirements necessitate concrete or other bank protection. • A minimum 100-foot-wide buffer adjacent to the Santa Clara River should be required between the top river side of bank stabilization and development within the Land Use Designations Residential Low Medium, Residential Medium, Mixed-Use and Business Park unless, through Planning Director review in consultation with the staff biologist, it is determined that a lesser buffer would adequately protect the riparian resources within the River Corridor, or that a 100-foot-wide buffer is infeasible for physical infrastructure planning. The buffer area may be used for public infrastructure, such as flood control access; sewer, water, and utility easements; abutments; trails and parks, subject to findings of consistency with the Specific Plan and applicable County policies. <p>SP 4.6-20 The following guidelines shall be followed during any grading activities that take place within the River Corridor SMA:</p> <ul style="list-style-type: none"> • Grading perimeters shall be clearly marked and inspected by the project biologist prior to grading occurring within or immediately adjacent to the River Corridor SMA. • The project biologist shall work with the grading contractor to avoid inadvertent impacts to riparian resources. <p>SP 4.6-21 Upon final approval of the Newhall Ranch Specific Plan, the Special Management Area designation for the River Corridor SMA shall become effective. The permitted uses and development standards for the SMA are governed by the Development Regulations, Chapter 3 of the Specific Plan.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-22 Upon completion of development of all land uses, utilities, roads, flood control improvements, bridges, trails, and other improvements necessary for implementation of the Specific Plan within the River Corridor in each subdivision allowing construction within or adjacent to the River Corridor, a permanent, non-revocable <i>conservation and public access easement</i> shall be offered to the County of Los Angeles pursuant to Mitigation Measure 4.6-23, below, over the portion of the River Corridor SMA within that subdivision.</p> <p>SP 4.6-23 The River Corridor SMA <i>Conservation and Public Access Easement</i> shall be offered to the County of Los Angeles prior to the transfer of the River Corridor SMA ownership, or portion thereof to the management entity described in Mitigation Measure 4.6-26, below.</p> <p>SP 4.6-24 The River Corridor SMA <i>Conservation and Public Access Easement</i> shall prohibit grazing, except as a long-term resource management activity, and agriculture within the River Corridor and shall restrict recreation use to the established trail system.</p> <p>Agricultural land uses and grazing for purposes other than long-term resource management activities within the River Corridor shall be extended in the event of the filing of any legal action against Los Angeles County challenging final approval of the Newhall Ranch Specific Plan and any related project approvals or certification of the Final EIR for Newhall Ranch. Agricultural land uses and grazing for purposes other than long-term resource management activities within the River Corridor shall be extended by the time period between the filing of any such legal action and the entry of a final judgment by a court with appropriate jurisdiction, after exhausting all rights of appeal, or execution of a final settlement agreement between all parties to the legal action, whichever occurs first.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-25 The River Corridor SMA conservation and public access easement shall be consistent in its provisions with any other conservation easements to state or federal resource agencies which may have been granted as part of mitigation or mitigation banking activities.</p> <p>SP 4.6-26 Prior to the recordation of the River Corridor SMA <i>Conservation and Public Access Easement</i> as specified in Mitigation Measure 4.6-23, above, the land owner shall provide a plan to the County for the permanent ownership and management of the River Corridor SMA, including any necessary financing. This plan shall include the transfer of ownership of the River Corridor SMA to the Center for Natural Lands Management, or if the Center for Natural Lands Management is declared bankrupt or dissolved, ownership will transfer or revert to a <i>joint powers authority</i> consisting of Los Angeles County (4 members), the City of Santa Clarita (2 members), and the Santa Monica Mountains Conservancy (2 members).</p> <p>SP 4.6-26a Two types of habitat restoration may occur in the High Country SMA: (1) riparian revegetation activities principally in Salt Creek Canyon; and (2) oak tree replacement in, or adjacent to, existing oak woodlands and savannahs.</p> <ul style="list-style-type: none"> • Mitigation requirements for riparian revegetation activities within the High Country SMA are the same as those for the River Corridor SMA and are set forth in Mitigation Measures 4.6-1 through 4.6-11 and 4.6-13 through 4.6-16, above. • Mitigation requirements for oak tree replacement are set forth in Mitigation Measure 4.6-48, below. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-27 Removal of grazing from the High Country SMA except for those grazing activities associated with long-term resource management programs, is a principal means of enhancing habitat values in the creeks, brushland, and woodland areas of the SMA. The removal of grazing in the High Country SMA is discussed below under (b)4 Long Term Management. All enhancement activities for riparian habitat within the High Country SMA shall be governed by the same provisions as set forth for enhancement in the River Corridor SMA. Specific Plan Table 2.6-3 of the Resource Management Plan provides a list of appropriate plant species for use in enhancement areas in the High Country SMA.</p> <p>SP 4.6-28 Not applicable.</p> <p>SP 4.6-29 Not applicable.</p> <p>SP 4.6-30 Not applicable.</p> <p>SP 4.6-31 Not applicable.</p> <p>SP 4.6-32 Not applicable.</p> <p>SP 4.6-33 Not applicable.</p> <p>SP 4.6-34 Grading perimeters shall be clearly marked and inspected by the project biologist prior to impacts occurring within or adjacent to the High Country SMA.</p> <p>SP 4.6-35 The project biologist shall work with the grading contractor to avoid inadvertent impacts to biological resources outside of the grading area.</p> <p>SP 4.6-36 Not applicable.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-37 The High Country SMA shall be offered for dedication in three approximately equal phases of approximately 1,400 acres each proceeding from north to south, as follows:</p> <ol style="list-style-type: none"> 1. The first offer of dedication will take place with the issuance of the 2,000th residential building permit of Newhall Ranch; 2. The second offer of dedication will take place with the issuance of the 6,000th residential building permit of Newhall Ranch; and 3. The remaining offer of dedication will be completed by the 11,000th residential building permit of Newhall Ranch. 4. The Specific Plan applicant shall provide a quarterly report to the Departments of Public Works and Regional Planning, which indicates the number of residential building permits issued in the Specific Plan area by subdivision map number. <p>SP 4.6-38 Prior to dedication of the High Country SMA, a <i>conservation and public access easement</i> shall be offered to the County of Los Angeles and a conservation and management easement offered to the Center for Natural Lands Management. The High Country SMA <i>Conservation and Public Access Easement</i> shall be consistent in its provisions with any other <i>conservation easements</i> to state or federal resource agencies, which may have been granted as part of mitigation or mitigation banking activities.</p> <p>SP 4.6-39 The High Country SMA conservation and public access easement shall prohibit grazing within the High Country, except for those grazing activities associated with the long-term resource management programs, and shall restrict recreation to the established trail system.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-40 The High Country SMA conservation and public access easement shall be consistent in its provisions with any other conservation easements to state or federal resource agencies which may have been granted as part of mitigation or mitigation banking activities.</p> <p>SP 4.6-41 The High Country SMA shall be offered for dedication in fee to a <i>joint powers authority</i> consisting of Los Angeles County (4 members), the City of Santa Clarita (2 members), and the Santa Monica Mountains Conservancy (2 members). The <i>joint powers authority</i> will have overall responsibility for recreation within and conservation of the High Country.</p> <p>SP 4.6-42 An appropriate type of service or assessment district shall be formed under the authority of the Los Angeles County Board of Supervisors for the collection of up to \$24 per single family detached dwelling unit per year and \$15 per single family attached dwelling unit per year, excluding any units designated as Low and Very Low affordable housing units pursuant to Section 3.10, Affordable Housing Program of the Specific Plan. This revenue would be assessed to the homeowner beginning with the occupancy of each dwelling unit and distributed to the <i>joint powers authority</i> for the purposes of recreation, maintenance, construction, conservation and related activities within the <i>High Country Special Management Area</i>.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-43 Suitable portions of <i>Open Area</i> may be used for mitigation of riparian, <i>oak resources</i>, or elderberry scrub. Mitigation activities within <i>Open Area</i> shall be subject to the following requirements, as applicable.</p> <ul style="list-style-type: none"> • River Corridor SMA Mitigation Requirements, including: Mitigation Measures 4.6-1 through 4.6-11 and 4.6-13 through 4.6-16; and • High Country SMA Mitigation Requirements, including: Mitigation Measures 4.6-27, 4.6-29 through 4.6-42, and • Mitigation Banking – Mitigation Measure 4.6-16. <p>SP 4.6-44 Drainages with flows greater than 2,000 cfs will have soft bottoms. Bank protection will be of ungrouted rock, or buried bank stabilization as described in Section 2.5.2.a, except at bridge crossings and other areas where public health and safety considerations require concrete or other stabilization.</p> <p>SP 4.6-45 The precise alignments and widths of major drainages will be established through the preparation of drainage studies to be approved by the County at the time of subdivision maps which permit construction.</p> <p>SP 4.6-46 While <i>Open Area</i> is generally intended to remain in a natural state, some grading may take place, especially for parks, major drainages, trails, and roadways. Trails are also planned to be within <i>Open Area</i>.</p> <p>SP 4.6-47 At the time that final subdivision maps permitting construction are recorded, the <i>Open Area</i> within the map will be offered for dedication to the Center for Natural Lands Management. Community Parks within <i>Open Area</i> are intended to be public parks. Prior to the offer of dedication of <i>Open Area</i> to the Center for Natural Lands Management, all necessary <i>conservation and public access easements</i>, as well as easements for infrastructure shall be offered to the County.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-47a Mitigation Banking will be permitted within the River Corridor SMA, the High Country SMA, and the <i>Open Area land use designations</i>, subject to the following requirements:</p> <ul style="list-style-type: none"> • Mitigation banking activities for riparian habitats will be subject to state and federal regulations, and shall be conducted pursuant to the mitigation requirements set forth in Mitigation Measure 4.6-1 through 4.6-15 above. • Mitigation banking for oak resources shall be conducted pursuant to 4.6-48, below. • Mitigation banking for elderberry scrub shall be subject to approval of plans by the County Forester. <p>SP 4.6-48 Standards for the restoration and enhancement of oak resources within the High Country SMA and the Open Area include the following (oak resources include oak trees of the sizes regulated under the County Oak Tree Ordinance, Southern California black walnut trees, and mainland cherry trees/shrubs):</p> <ul style="list-style-type: none"> • To mitigate the impacts to oak resources that may be removed as development occurs in the Specific Plan Area, replacement trees shall be planted in conformance with the oak tree ordinance in effect at that time. • Oak resource species obtained from the local gene pool shall be used in restoration or enhancement. • Prior to recordation of construction-level final subdivision maps, an oak resource replacement plan shall be prepared that provides the guidelines for the oak tree planting and/or replanting. The Plan shall be reviewed by the Los Angeles Department of Regional Planning and the County Forester and shall include the following: site selection and preparation, selection of proper species including sizes and planting densities, protection from herbivores, site maintenance, performance standards, remedial actions, and a monitoring program. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-48 (continued)</p> <ul style="list-style-type: none"> • All plans and specifications shall follow County oak tree guidelines, as specified in the County Oak Tree Ordinance. <p>SP 4.6-49 To minimize the potential exposure of the development areas, Open Area, and the SMAs to fire hazards, the Specific Plan is subject to the requirements of the Los Angeles County Fire Protection District (LACFPD), which provides fire protection for the area. At the time of final subdivision maps permitting construction in development areas that are adjacent to Open Area and the High Country SMA, a wildfire fuel modification plan shall be prepared in accordance with the fuel modification ordinance standards in effect at that time and shall be submitted for approval to the County Fire Department.</p> <p>SP 4.6-50 The wildfire fuel modification plan shall depict a fuel modification zone the size of which shall be consistent with the County fuel modification ordinance requirements. Within the zone, tree pruning, removal of dead plant material and weed and grass cutting shall take place as required by the fuel modification ordinance.</p> <p>SP 4.6-51 In order to enhance the habitat value of plant communities that require fuel modification, fire retardant plant species containing habitat value may be planted within the fuel modification zone. Typical plant species suitable for Fuel Modification Zones are indicated in Specific Plan Table 2.6-5 of the Resource Management Plan. Fuel modification zones adjacent to SMAs and Open Areas containing habitat of high value such as oak woodland and savannas shall utilize a more restrictive plant list, which shall be reviewed by the County Forester.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-52 The wildfire fuel modification plan shall include the following construction period requirements: (a) a fire watch during welding operations; (b) spark arresters on all equipment or vehicles operating in a high fire hazard area; (c) designated smoking and non-smoking areas; and (d) water availability pursuant to the County Fire Department requirements.</p> <p>SP 4.6-53 If, at the time any subdivision map proposing construction is submitted, the County determines through an Initial Study, or otherwise, that there may be Rare, Threatened or Endangered, plant or animal species on the property to be subdivided, then, in addition to the prior surveys conducted on the Specific Plan site to define the presence or absence of sensitive habitat and associated species, current, updated site-specific surveys for all such animal or plant species shall be conducted in accordance with the consultation requirements set forth in Mitigation Measure 4.6-59 within those areas of the Specific Plan where such animal or plant species occur or are likely to occur.</p> <p>The site-specific surveys shall include the unarmored three-spine stickleback, the arroyo toad, the Southwestern pond turtle, the California red-legged frog, the southwestern willow flycatcher, the least Bell's vireo, the San Fernando Valley spineflower and any other Rare, Sensitive, Threatened, or Endangered plant or animal species occurring, or likely to occur, on the property to be subdivided. All site-specific surveys shall be conducted during appropriate seasons by qualified botanists or qualified wildlife biologists in a manner that will locate any Rare, Sensitive, Threatened, or Endangered animal or plant species that may be present. To the extent there are applicable protocols published by either the United States Fish and Wildlife Service or the California Department of Fish and Game, all such protocols shall be followed in preparing the updated site-specific surveys.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-53 (continued)</p> <p>All site-specific survey work shall be documented in a separate report containing at least the following information: (a) project description, including a detailed map of the project location and study area; (b) a description of the biological setting, including references to the nomenclature used and updated vegetation mapping; (c) detailed description of survey methodologies; (d) dates of field surveys and total person-hours spent on the field surveys; (e) results of field surveys, including detailed maps and location data; (f) an assessment of potential impacts; (g) discussion of the significance of the Rare, Threatened or Endangered animal or plant populations found in the project area, with consideration given to nearby populations and species distribution; (h) mitigation measures, including avoiding impacts altogether, minimizing or reducing impacts, rectifying or reducing impacts through habitat restoration, replacement or enhancement, or compensating for impacts by replacing or providing substitute resources or environments, consistent with CEQA (<i>State CEQA Guidelines</i> Section 15370); (i) references cited and persons contacted; and (j) other pertinent information, which is designed to disclose impacts and mitigate for such impacts."</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-54 Prior to development within or disturbance to occupied unarmored threespine stickleback habitat, a formal consultation with the USFWS shall occur.</p> <p>SP 4.6-55 Prior to development or disturbance within wetlands or other sensitive habitats, permits shall be obtained from pertinent federal and state agencies and the Specific Plan shall conform to the specific provisions of said permits. Performance criteria shall include that described in Mitigation Measures 4.6-1 through 4.6-16 and 4.6-42 through 4.6-47 for wetlands, and Mitigation Measures 4.6-27, 4.6-28, and 4.6-42 through 4.6-48 for other sensitive habitats.</p> <p>SP 4.6-56 All lighting along the perimeter of natural areas shall be downcast luminaries with light patterns directed away from natural areas.</p> <p>SP 4.6-57 Where bridge construction is proposed and water flow would be diverted, blocking nets and seines shall be used to control and remove fish from the area of activity. All fish captured during this operation would be stored in tubs and returned unharmed back to the river after construction activities were complete.</p> <p>SP 4.6-58 To limit impacts to water quality the Specific Plan shall conform with all provisions of required NPDES permits and water quality permits that would be required by the State of California Regional Water Quality Control Board.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-59 Consultation shall occur with the County of Los Angeles (County) and California Department of Fish and Game (CDFG) at each of the following milestones:</p> <ol style="list-style-type: none"> 1. Before Surveys. Prior to conducting sensitive plant or animal surveys at the Newhall Ranch subdivision map level, the applicant, or its designee, shall consult with the County and CDFG for purposes of establishing and/or confirming the appropriate survey methodology to be used. 2. After Surveys. After completion of sensitive plant or animal surveys at the subdivision map level, draft survey results shall be made available to the County and CDFG within sixty (60) calendar days after completion of the field survey work. 3. Subdivision Map Submittal. Within thirty (30) calendar days after the applicant, or its designee, submits its application to the County for processing of a subdivision map in the Mesas Village or Riverwood Village, a copy of the submittal shall be provided to CDFG. In addition, the applicant, or its designee, shall schedule a consultation meeting with the County and CDFG for purposes of obtaining comments and input on the proposed subdivision map submittal. The consultation meeting shall take place at least thirty (30) days prior to the submittal of the proposed subdivision map to the County. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-59 (continued)</p> <p>4. Development/Disturbance and Further Mitigation. Prior to any development within, or disturbance to, habitat occupied by Rare, Threatened, or Endangered plant or animal species, or to any portion of the Spineflower Mitigation Area Overlay, as defined below, all required permits shall be obtained from both USFWS and CDFG, as applicable. It is further anticipated that the Federal and State permits will impose conditions and mitigation measures required by federal and state law that are beyond those identified in the Newhall Ranch Final EIR (March 1999), the Newhall Ranch DAA (April 2001) and the Newhall Ranch Revised DAA (2002). It is also anticipated that conditions and mitigation measures required by federal and state law for project-related impacts on Endangered, Rare or Threatened species and their habitat will likely require changes and revisions to Specific Plan development footprints, roadway alignments, and the limits, patterns, and techniques associated with project-specific grading at the subdivision map level.</p> <p>SP 4.6-60 If at the time subdivisions permitting construction are processed, the County determines through an Initial Study that there may be elderberry scrub vegetation on the property being subdivided, then a site-specific survey shall be conducted to define the presence or absence of such habitat and any necessary mitigation measures shall be determined and applied.</p> <p>SP 4.6-61 Not Applicable.</p> <p>SP 4.6-62 Not Applicable.</p> <p>SP 4.6-63 Riparian resources that are impacted by buildout of the Newhall Ranch Specific Plan shall be restored with similar habitat at the rate of 1 acre replaced for each acre lost.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-64 Not Applicable.</p> <p>SP 4.6-65 In order to facilitate the conservation of the spineflower on the Newhall Ranch Specific Plan site, the applicant, or its designee, shall, concurrent with Specific Plan approval, agree to the identified special study areas shown below in Figure 2.6-8, Spineflower Mitigation Area Overlay. The applicant, or its designee, further acknowledges that, within and around the Spineflower Mitigation Area Overlay (Figure 2.6-8), changes will likely occur to Specific Plan development footprints, roadway alignments, and the limits, patterns and techniques associated with project-specific grading at the subdivision map level. The applicant, or its designee, shall design subdivision maps that are responsive to the characteristics of the spineflower and all other Endangered plant species that may be found on the Specific Plan site.</p> <p>SP 4.6-66 Direct impacts to known spineflower populations within the Newhall Ranch Specific Plan area shall be avoided or minimized through the establishment of one or more on-site preserves that are configured to ensure the continued existence of the species in perpetuity. Preserve(s) shall be delineated in consultation with the County and CDFG, and will likely require changes and revisions to Specific Plan development footprints for lands within and around the Spineflower Mitigation Area Overlay (Figure 2.6-8). Delineation of the boundaries of Newhall Ranch spineflower preserve(s) for the entire Specific Plan area shall be completed in conjunction with approval of the first Newhall Ranch subdivision map filed in either the Mesas Village, or that portion of Riverwood Village in which the San Martinez spineflower population occurs.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-66 (continued)</p> <p>A sufficient number of known spineflower populations shall be included within the Newhall Ranch spineflower preserve(s) in order to ensure the continued existence of the species in perpetuity. The conservation of known spineflower populations shall be established in consultation with the County and CDFG, and as consistent with standards governing issuance of an incidental take permit for spineflower pursuant to Fish and Game Code Section 2081, subdivision (b).</p> <p>In addition to conservation of known populations, spineflower shall be introduced in appropriate habitat and soils in the Newhall Ranch preserve(s). The creation of introduced populations shall require seed collection and/or top soil at impacted spineflower locations and nursery propagation to increase seed and sowing of seed. The seed collection activities, and the maintenance of the bulk seed repository, shall be approved in advance by the County and CDFG.</p> <p>Once the boundaries of the Newhall Ranch spineflower preserve(s) are delineated, the project applicant, or its designee, shall be responsible for conducting a spineflower population census within the Newhall Ranch spineflower preserve(s) annually for 10 years. (These census surveys shall be in addition to the surveys required by Mitigation Measure 4.6-53, above.) The yearly spineflower population census documentation shall be submitted to the County and CDFG, and maintained by the project applicant, or its designee. If there are any persistent population declines documented in the annual population census reports, the project applicant, or its designee, shall be responsible for conducting an assessment</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-66 (continued)</p> <p>of the ecological factor(s) that are likely responsible for the decline, and implement management activity or activities to address these factors where feasible. In no event, however, shall project-related activities jeopardize the continued existence of the Newhall Ranch spineflower populations. If a persistent population decline is documented, such as a trend in steady population decline that persists for a period of 5 consecutive years, or a substantial drop in population is detected over a 10-year period, spineflower may be introduced in consultation with CDFG in appropriate habitat and soils in the Newhall Ranch preserve(s), utilizing the bulk spineflower seed repository, together with other required management activity or activities. These activities shall be undertaken by a qualified botanist/biologist, subject to approval by the County and CDFG. The project applicant, or its designee, shall be responsible for the funding and implementation of the necessary management activity or activities, including monitoring, as approved by the County and CDFG.</p> <p>Annual viability reports shall be submitted to the County and CDFG for 10 years following delineation of the Newhall Ranch spineflower preserve(s) to ensure long-term documentation of the spineflower population status within the Newhall Ranch preserve(s). In the event annual status reports indicate the spineflower population within the Newhall Ranch preserve(s) is not stable and viable 10 years following delineation of the spineflower preserve(s), the project applicant, or its designee, shall continue to submit annual status reports to the County and CDFG for a period of no less than an additional five years.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-67 Indirect impacts associated with the interface between the preserved spineflower populations and planned development within the Newhall Ranch Specific Plan shall be avoided or minimized by establishing open space connections with Open Area, River Corridor, or High Country land use designations. In addition, buffers (i.e., setbacks from developed, landscaped, or other use areas) shall be established around portions of the delineated preserve(s) not connected to Open Area, the River Corridor or the High Country land use designations. The open space connections and buffer configurations shall take into account local hydrology, soils, existing and proposed adjacent land uses, the presence of non-native invasive plant species, and seed dispersal vectors.</p> <p>Open space connections shall be configured such that the spineflower preserves are connected to Open Area, River Corridor, or High Country land use designations to the extent practicable. Open space connections shall be of adequate size and configuration to achieve a moderate to high likelihood of effectiveness in avoiding or minimizing indirect impacts (e.g., invasive plants, increased fire frequency, trampling, chemicals, etc.) to the spineflower preserve(s). Open space connections for the spineflower preserve(s) shall be configured in consultation with the County and CDFG. Open space connections for the spineflower preserve(s) shall be established for the entire Specific Plan area in conjunction with approval of the first Newhall Ranch subdivision map filed in either the Mesa Village, or that portion of the Riverwood Village in which the San Martinez spineflower location occurs.</p> <p>For preserves and/or those portions of preserves not connected to Open Area, River Corridor, or High Country land use designations, buffers shall be established at variable distances of between 80 and 200 feet from the edge of development to achieve a moderate to high likelihood of effectiveness in avoiding or minimizing indirect impacts (e.g., invasive plants,</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
<p>4.3 BIOTA (CONTINUED)</p>	<p>SP 4.6-67 (continued)</p> <p>increased fire frequency, trampling, chemicals, etc.) to the spineflower preserve(s). The buffer size/configuration shall be guided by the analysis set forth in the "Review of Potential Edge Effects on the San Fernando Valley Spineflower," prepared by Conservation Biology Institute, January 19, 2000, and other sources of scientific information and analysis, which are available at the time the preserve(s) and buffers are established. Buffers for the spineflower preserve(s) shall be configured in consultation with the County and CDFG for the entire Specific Plan area. Buffers for the spineflower preserve(s) shall be established in conjunction with approval of the first Newhall Ranch subdivision map filed in either the Mesa Village, or that portion of the Riverwood Village in which the San Martinez spineflower location occurs.</p> <p>Roadways and road rights-of-way shall not be constructed in any spineflower preserve(s) and buffer locations on Newhall Ranch unless constructing the road(s) in such location is found to be the environmentally superior alternative in subsequently required tiered EIRs in connection with the Newhall Ranch subdivision map(s) process. No other development or disturbance of native habitat shall be allowed within the spineflower preserve(s) or buffer(s).</p> <p>The project applicant, or its designee, shall be responsible for revegetating open space connections and buffer areas of the Newhall Ranch spineflower preserve(s) to mitigate temporary impacts due to grading that will occur within portions of those open space connections and buffer areas. The impacted areas shall be reseeded with a native seed mix to prevent erosion, reduce the potential for invasive non-native plants, and maintain functioning habitat areas within the buffer area. Revegetation seed mix shall be reviewed and approved by the County and CDFG.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-68 To protect the preserved Newhall Ranch spineflower populations, and to further reduce potential direct impacts to such populations due to unrestricted access, the project applicant, or its designee, shall erect and maintain temporary orange fencing and prohibitive signage around the Newhall Ranch preserve(s), open space connections and buffer areas, which are adjacent to areas impacted by proposed development prior to and during all phases of construction. The areas behind the temporary fencing shall not be used for the storage of any equipment, materials, construction debris, or anything associated with construction activities.</p> <p>Following the final phase of construction of any Newhall Ranch subdivision map adjacent to the Newhall Ranch spineflower preserve(s), the project applicant, or its designee, shall install and maintain permanent fencing along the subdivision tract bordering the preserve(s). Permanent signage shall be installed on the fencing along the preservation boundary to indicate that the fenced area is a biological preserve, which contains protected species and habitat, that access is restricted, and that trespassing and fuel modification are prohibited within the area. The permanent fencing shall be designed to allow wildlife movement.</p> <p>The plans and specifications for the permanent fencing and signage shall be approved by the County and CDFG prior to the final phase of construction of any Newhall Ranch subdivision map adjacent to a Newhall Ranch spineflower preserve(s).</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-69 Indirect impacts resulting from changes to hydrology (i.e., increased water runoff from surrounding development) at the interface between spineflower preserve(s) and planned development within the Newhall Ranch Specific Plan shall be avoided or mitigated to below a level of significance.</p> <p>Achievement of this standard will be met through the documented demonstration by the project applicant, or its designee, that the storm drain system achieves pre-development hydrological conditions for the Newhall Ranch spineflower preserve(s). To document such a condition, the project applicant, or its designee, shall prepare a study of the pre- and post-development hydrology, in conjunction with Newhall Ranch subdivision maps adjacent to spineflower preserve(s). The study shall be used in the design and engineering of a storm drain system that achieves pre-development hydrological conditions. The study must conclude that proposed grade changes in development areas beyond the buffers will maintain pre-development hydrology conditions within the preserve(s). The study shall be approved by the Planning Director of the County, and the resulting conditions confirmed by CDFG.</p> <p>The storm drain system for Newhall Ranch subdivision maps adjacent to any spineflower preserves must be approved by the County prior to the initiation of any grading activities.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-70 Consistent with the Spineflower Mitigation Area Overlay reflected in Mitigation Measure 4.6-65, direct impacts to known Newhall Ranch spineflower populations associated with proposed road construction or modifications to existing roadways shall be further assessed for proposed road construction at the Newhall Ranch subdivision map level, in conjunction with the tiered EIR required for each subdivision map. To avoid or substantially lessen direct impacts to known spineflower populations, Specific Plan roadways shall be redesigned or realigned, to the extent practicable, to achieve the spineflower preserve and connectivity/preserve design/buffer standards set forth in Mitigation Measures 4.6-66 and 4.6-67. The project applicant, or its designee, acknowledges that that road redesign and realignment is a feasible means to avoid or substantially lessen potentially significant impacts on the now known Newhall Ranch spineflower populations. Road redesign or alignments to be considered at the subdivision map level include:</p> <ul style="list-style-type: none"> (a) Commerce Center Drive; (b) Magic Mountain Parkway; (c) Chiquito Canyon Road; (d) Long Canyon Road; (e) San Martinez Grande Road; (f) Potrero Valley Road; (g) Valencia Boulevard; and (h) Any other or additional roadways that have the potential to significantly impact known Newhall Ranch spineflower populations. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-70 (continued)</p> <p>Roadways and road rights-of-way shall not be constructed in any spineflower preserve(s) and buffer locations on Newhall Ranch, unless constructing the road(s) in such location is found to be the environmentally superior alternative in subsequently required tiered EIRs in connection with the Newhall Ranch subdivision map(s) process.</p> <p>SP 4.6-71 Consistent with the Spineflower Mitigation Area Overlay reflected in Mitigation Measure 4.6-65, direct impacts to known Newhall Ranch spineflower populations shall be further assessed at the Newhall Ranch subdivision map level, in conjunction with the required tiered EIR process. To avoid or substantially lessen impacts to known spineflower populations at the subdivision map level, the project applicant, or its designee, may be required to adjust Specific Plan development footprints, roadway alignments, and the limits, patterns and techniques associated with project-specific grading to achieve the spineflower preserve and connectivity/preserve design/buffer standards set forth in Mitigation Measures 4.6-66 and 4.6-67 for all future Newhall Ranch subdivision maps that encompass identified spineflower populations.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-72 A Fire Management Plan shall be developed to avoid and minimize direct and indirect impacts to the spineflower, in accordance with the adopted Newhall Ranch Resource Management Plan (RMP), to protect and manage the Newhall Ranch spineflower preserve(s) and buffers.</p> <p>The Fire Management Plan shall be completed by the project applicant, or its designee, in conjunction with approval of any Newhall Ranch subdivision map adjacent to a spineflower preserve.</p> <p>The final Fire Management Plan shall be approved by the County of Los Angeles Fire Department through the processing of subdivision maps.</p> <p>Under the final Fire Management Plan, limited fuel modification activities within the spineflower preserves will be restricted to selective thinning with hand tools to allow the maximum preservation of Newhall Ranch spineflower populations. No other fuel modification or clearance activities shall be allowed in the Newhall Ranch spineflower preserve(s). Controlled burning may be allowed in the future within the Newhall Ranch preserve(s) and buffers, provided that it is based upon a burn plan approved by the County of Los Angeles Fire Department and CDFG. The project applicant, or its designee, shall also be responsible for annual maintenance of fuel modification zones, including, but not limited to, removal of undesirable non-native plants, revegetation with acceptable locally indigenous plants and clearing of trash and other debris in accordance with the County of Los Angeles Fire Department.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-73 At the subdivision map level, the project applicant, or its designee, shall design and implement project-specific design measures to minimize changes in surface water flows to the Newhall Ranch spineflower preserve(s) for all Newhall Ranch subdivision maps adjacent to the preserve(s) and buffers, and avoid and minimize indirect impacts to the spineflower. Prior to issuance of a grading permit for each such subdivision map, the project applicant, or its designee, shall submit for approval to the County plans and specifications that ensure implementation of the following design measures:</p> <ul style="list-style-type: none"> (a) During construction activities, drainage ditches, piping or other approaches will be put in place to convey excess storm water and other surface water flows away from the Newhall Ranch spineflower preserve(s) and connectivity/preserve design/buffers, identified in Mitigation Measures 4.6-66 and 4.6-67; (b) Final grading and drainage design will be developed that does not change the current surface and subsurface hydrological conditions within the preserve(s); (c) French drains will be installed along the edge of any roadways and fill slopes that drain toward the preserve(s); (d) Roadways will be constructed with slopes that convey water flows within the roadway easements and away from the preserve(s); (e) Where manufactured slopes drain toward the preserve(s), a temporary irrigation system would be installed to the satisfaction of the County in order to establish the vegetation on the slope area(s). This system shall continue only until the slope vegetation is established and self sustaining; 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-73 (continued)</p> <ul style="list-style-type: none"> (f) Underground utilities will not be located within or through the preserve(s). Drainage pipes installed within the preserve(s) away from spineflower populations to convey surface or subsurface water away from the populations will be aligned to avoid the preserve(s) to the maximum extent practicable; and (g) Fencing or other structural type barriers that will be installed to reduce intrusion of people or domestic animals into the preserve(s) shall incorporate footing designs that minimize moisture collection. <p>SP 4.6-74 A knowledgeable, experienced botanist/biologist, subject to approval by the County and CDFG, shall be required to monitor the grading and fence/utility installation activities that involve earth movement adjacent to the Newhall Ranch spineflower preserve(s) to avoid the incidental take through direct impacts of conserved plant species, and to avoid disturbance of the preserve(s). The biological monitor will conduct biweekly inspections of the project site during such grading activities to ensure that the mitigation measures provided in the adopted Newhall Ranch Mitigation Monitoring Program (Biota section) are implemented and adhered to.</p> <p>Monthly monitoring reports, as needed, shall be submitted to the County verifying compliance with the mitigation measures specified in the adopted Newhall Ranch Mitigation Monitoring Program (Biota section).</p> <p>The biological monitor will have authority to immediately stop any such grading activity that is not in compliance with the adopted Newhall Ranch Mitigation Monitoring Program (Biota section), and to take reasonable steps to avoid the take of, and minimize the disturbance to, spineflower populations within the preserve(s).</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-75 The following measures shall be implemented to avoid and minimize indirect impacts to Newhall Ranch spineflower populations during all phases of project construction:</p> <ul style="list-style-type: none"> (a) Water Control. Watering of the grading areas would be controlled to prevent discharge of construction water into the Newhall Ranch preserve(s) or on ground sloping toward the preserve(s). Prior to the initiation of grading operations, the project applicant, or its designee, shall submit for approval to the County an irrigation plan describing watering control procedures necessary to prevent discharge of construction water into the Newhall Ranch preserve(s) and on ground sloping toward the preserve(s). (b) Storm Water Flow Redirection. Diversion ditches would be constructed to redirect storm water flows from graded areas away from the Newhall Ranch preserve(s). To the extent practicable, grading of areas adjacent to the preserve(s) would be limited to spring and summer months (May through September) when the probability of rainfall is lower. Prior to the initiation of grading operations, the project applicant, or its designee, would submit for approval to the County a storm water flow redirection plan that demonstrates the flow of storm water away from the Newhall Ranch spineflower preserve(s). (c) Treatment of Exposed Graded Slopes. Graded slope areas would be trimmed and finished as grading proceeds. Slopes would be treated with soil stabilization measures to minimize erosion. Such measures may include seeding and planting, mulching, use of geotextiles and use of stabilization mats. Prior to the initiation of grading operations, the project applicant, or its designee, would submit for approval to the County the treatments to be applied to exposed graded slopes that would ensure minimization of erosion. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-76 In conjunction with submission of the first Newhall Ranch subdivision map in either Mesas Village or that portion of Riverwood Village in which the San Martinez spineflower location occurs, the project applicant, or its designee, shall reassess project impacts, both direct and indirect, to the spineflower populations using subdivision mapping data, baseline data from the Newhall Ranch Final EIR and data from the updated plant surveys (see, Specific Plan EIR Mitigation Measure 4.6-53).</p> <p>This reassessment shall take place during preparation of the required tiered EIR for each subdivision map. If the reassessment results in the identification of new or additional impacts to Newhall Ranch spineflower populations, which were not previously known or identified, the mitigation measures set forth in this program, or a Fish and Game Code Section 2081 permit(s) issued by CDFG, shall be required, along with any additional mitigation required at that time.</p> <p>SP 4.6-77 Direct and indirect impacts to the preserved Newhall Ranch spineflower populations shall require a monitoring and management plan, subject to the approval of the County. The applicant shall consult with CDFG with respect to preparation of the Newhall Ranch spineflower monitoring/management plan. This plan shall be in place when the preserve(s) and connectivity/preserve design/buffers are established (see Mitigation Measures 4.6-66 and 4.6-67). The criteria set forth below shall be included in the plan.</p> <p>Monitoring. The purpose of the monitoring component of the plan is to track the viability of the Newhall Ranch spineflower preserve(s) and its populations, and to ensure compliance with the adopted Newhall Ranch Mitigation Monitoring Program (Biota section).</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-77 (continued)</p> <p>The monitoring component of the plan shall investigate and monitor factors such as population size, growth or decline, general condition, new impacts, changes in associated vegetation species, pollinators, seed dispersal vectors, and seasonal responses. Necessary management measures will be identified. The report results will be sent annually to the County, along with photo documentation of the assessed site conditions.</p> <p>The project applicant, or its designee, shall contract with a qualified botanist/biologist, approved by the County, with the concurrence of CDFG, to conduct quantitative monitoring over the life of the Newhall Ranch Specific Plan. The botanist/biologist shall have a minimum of three years experience with established monitoring techniques and familiarity with Southern California flora and target taxa. Field surveys of the Newhall Ranch spineflower preserve(s) will be conducted each spring. Information to be obtained will include: (a) an estimate of the numbers of spineflowers in each population within the preserve(s); (b) a map of the extent of occupied habitat at each population; (c) establishment of photo monitoring points to aid in documenting long-term trends in habitat; (d) aerial photographs of the preserved areas at five-year intervals; (e) identification of significant impacts that may have occurred or problems that need attention, including invasive plant problems, weed problems and fencing or signage repair; and (f) overall compliance with the adopted mitigation measures.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-77 (continued)</p> <p>For a period of three years from Specific Plan re-approval, all areas of potential habitat on the Newhall Ranch site will be surveyed annually in the spring with the goal of identifying previously unrecorded spineflower populations. Because population size and distribution limits are known to vary depending on rainfall, annual surveys shall be conducted for those areas proposed for development in order to establish a database appropriate for analysis at the project-specific subdivision map level (rather than waiting to survey immediately prior to proceeding with the project-specific subdivision map process). In this way, survey results gathered over time (across years of varying rainfall) will provide information on ranges in population size and occupation. New populations, if they are found, will be mapped and assessed for inclusion in the preserve program to avoid impacts to the species.</p> <p>Monitoring/Reporting. An annual report will be submitted to the County and CDFG by December 31st of each year. The report will include a description of the monitoring methods, an analysis of the findings, effectiveness of the mitigation program, site photographs, and adoptive management measures, based on the findings. Any significant adverse impacts, signage, fencing or compliance problems identified during monitoring visits will be reported to the County and CDFG for corrective action by the project applicant, or its designee.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-77 (continued)</p> <p>Management. Based on the outcome of ongoing monitoring and additional project-specific surveys addressing the status and habitat requirements of the spineflower, active management of the Newhall Ranch spineflower preserve(s) will be required in perpetuity. Active management activities will be triggered by a downward population decline over 5 consecutive years, or a substantial drop in population over a 10-year period following County re-approval of the Specific Plan. Examples of management issues that may need to be addressed in the future include, but are not limited to, control of exotic competitive non-native plant species, herbivory predation, weed control, periodic controlled burns, or fuel modification compliance.</p> <p>After any population decline documented in the annual populations census following County re-approval of the Specific Plan, the project applicant, or its designee, shall be responsible for conducting an assessment of the ecological factor(s) that are likely responsible for the decline, and implement management activity or activities to address these factors where feasible. If a persistent population decline is documented, such as a trend in steady population decline persistent for a period of 5 consecutive years, or a substantial drop in population detected over a 10-year period, spineflower may be introduced in appropriate habitat and soils in the Newhall Ranch preserve(s), utilizing the bulk spineflower seed repository, together with other required management activity or activities. In connection with this monitoring component, the project applicant, or its designee, shall contract with a qualified botanist/biologist, approved by the County, to complete: (a) a study of the breeding and pollination biology of the spineflower, including investigation into seed physiology to assess parameters that may be important as</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-77 (continued)</p> <p>management tools to guarantee self-sustainability of populations, which may otherwise have limited opportunity for germination; and (b) a population genetics study to document the genetic diversity of the Newhall Ranch spineflower population. The criteria for these studies shall be to develop data to make the Newhall Ranch spineflower management program as effective as possible. These studies shall be subject to approval by the County's biologist, with the concurrence of CDFG. These activities shall be undertaken by a qualified botanist/biologist, subject to approval by the County with the concurrence of CDFG. The project applicant, or its designee, shall be responsible for the funding and implementation of the necessary management activity or activities, as approved by the County and CDFG.</p> <p>The length of the active management components set forth above shall be governed by attainment of successful management criteria set forth in the plan rather than by a set number of years.</p> <p>SP 4.6-78 To the extent project-related direct and indirect significant impacts on spineflower cannot be avoided or substantially lessened through establishment of the Newhall Ranch spineflower preserve(s), and other avoidance, minimization, or other compensatory mitigation measures, a translocation and reintroduction program may be implemented in consultation with CDFG to further mitigate such impacts. Direct impacts (i.e., take) to occupied spineflower areas shall be fully mitigated at a 4:1 ratio. Impacts to occupied spineflower areas caused by significant indirect effects shall be mitigated at a 1:1 ratio.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)	<p>SP 4.6-78 (continued)</p> <p>Introduction of new spineflower areas will be achieved through a combination of direct seeding and translocation of the existing soil seed bank that would be impacted by grading. Prior to any development within, or disturbance to, spineflower populations, on-site and off-site mitigation areas shall be identified and seed and top soil shall be collected. One-third of the collected seed shall be sent to the Rancho Santa Ana Botanical Garden for storage. One third of the seed shall be sent to the USDA National Seed Storage Lab in Fort Collins, Colorado for storage. One third shall be used for direct seeding of the on-site and off-site mitigation areas.</p> <p>Direct seeding. Prior to the initiation of grading, the project applicant, or its designee, shall submit to the County a program for the reintroduction of spineflower on Newhall Ranch. The reintroduction program shall include, among other information: (a) location map with scale; (b) size of each introduction polygon; (c) plans and specifications for site preparation, including selective clearing of competing vegetation; (d) site characteristics; (e) protocol for seed collection and application; and (f) monitoring and reporting. The program shall be submitted to CDFG for input and coordination. The project applicant, or its designee, shall implement the reintroduction program prior to the initiation of grading. At least two candidate spineflower reintroduction areas will be created within Newhall Ranch and one candidate spineflower reintroduction area will be identified off site. Both on-site and off-site reintroduction areas will be suitable for the spineflower in both plant community and soils, and be located within the historic range of the taxon. Success criteria shall be included in the monitoring/management plan, with criteria for the germination, growth, and production of viable seeds of individual plants for a specified period.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-78 (continued)</p> <p>Although the reintroduction program is experimental at this stage, the County considers such a program to be a feasible form of mitigation at this juncture based upon available studies. Botanists/biologists familiar with the ecology and biology of the spineflower would prepare and oversee the reintroduction program.</p> <p>Translocation. Prior to the initiation of grading, the project applicant, or its designee, shall submit to the County a translocation program for the spineflower. Translocation would salvage the topsoil of spineflower areas to be impacted due to grading. Salvaged spineflower soil seed bank would be translocated to the candidate spineflower reintroduction areas. The translocation program shall include, among other information: (a) location map with scale; (b) size of each translocation polygon; (c) plans and specifications for site preparation, including selective clearing of competing vegetation; (d) site characteristics; (e) protocol for topsoil collection and application; and (f) monitoring and reporting. The translocation program shall be submitted to CDFG for input and coordination. Translocation shall occur within the candidate spineflower reintroduction areas on site and off site. Successful criteria for each site shall be included in the monitoring/management plan/with criteria for the germination and growth to reproduction of individual plants for the first year a specified period.</p> <p>Although the translocation program is experimental at this stage, the County considers such a program to be a feasible form of mitigation at this juncture based upon available studies. Botanists/biologists familiar with the ecology and biology of the spineflower would prepare and oversee the translocation program.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>SP 4.6-79 Not applicable.</p> <p>SP 4.6-80 Not applicable.</p> <p>MV 4.3-1 Temporary impacts from construction activities in the riverbed shall be restricted to the following areas of disturbance: (1) an 85-foot-wide zone that extends into the river from the base of the riprap or gunite bank protection where it intercepts the river bottom; (2) 100 feet on either side of the outer edge of a new bridge or bridge to be modified; (3) a 60-foot-wide corridor for utility lines; (4) 20-foot-wide temporary access ramps; and (5) 60-foot roadway width temporary construction haul routes. The locations of these temporary construction sites and the routes of all access roads shall be shown on maps submitted with the sub-notification letter submitted to the Corps and CDFG for individual project approval. Any variation from these limits shall be submitted, with a justification for a variation for Corps and CDFG approval. The construction plans should indicate what type of vegetation, if any, would be temporarily disturbed or removed and the post-construction activities to facilitate revegetation of the temporarily impacted areas. The boundaries of the construction site and any temporary access roads within the riverbed shall be marked in the field with stakes and flagging. No construction activities, vehicular access, equipment storage, stockpiling, or significant human intrusion shall occur outside the work area and access roads.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-2 Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities that result in any disturbance to the banks or wetted channel, aquatic habitats within construction sites and access roads, as well as all aquatic habitats within 300 feet of construction sites and access roads, shall be surveyed by a qualified biologist for the presence of the unarmored threespine stickleback, arroyo chub, and Santa Ana sucker. The Corps and CDFG shall be notified at least 14 days prior to the survey and shall have the option of attending. The biologist shall file a written report of the survey with both agencies within 14 days of the survey and no later than 10 days prior to any construction work in the riverbed. If there is evidence that fish spawn has occurred in the survey area, then surveys shall cease unless otherwise authorized by USFWS. If surveys determine that gravid fish are present, that spawning has recently occurred, or that juvenile fish are present in the proposed construction areas, all activities within aquatic habitat will be suspended. Construction within aquatic habitats shall only occur when it is determined that juvenile fish are not present within the project area.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-3 Conduct focused surveys for California red-legged frogs. Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities, all construction sites and access roads within the riverbed as well as all riverbed areas within 1,000 feet of construction sites and access roads shall be surveyed at the appropriate season for California red-legged frogs. The applicant shall contract with a qualified biologist to conduct focused surveys for California red-legged frogs. If detected in or adjacent to the project area, no work will be authorized within 500 feet of occupied habitat until the applicant provides concurrence from the USFWS to CDFG and Corps. If present, the applicant shall implement measures required by the USFWS Biological Opinion for California red-legged frog that either supplement or supercede these measures. If present, the applicant shall develop and implement a monitoring plan that includes the following measures in consultation with the USFWS and CDFG.</p> <p>(1) The applicant shall retain a qualified biologist with demonstrated expertise with California red-legged frogs to monitor all construction activities in potential red-legged frog habitat and assist the applicant in the implementation of the monitoring program. This person will be approved by the USFWS prior to the onset of ground-disturbing activities. This biologist will be referred to as the authorized biologist hereafter. The authorized biologist will be present during all activities immediately adjacent to or within habitat that supports populations of California red-legged frogs.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-3 (continued)</p> <ul style="list-style-type: none"> (2) Prior to the onset of construction activities, the applicant shall provide all personnel who will be present on work areas within or adjacent to the project area the following information: <ul style="list-style-type: none"> a. A detailed description of the California red-legged frogs, including color photographs; b. The protection the California red-legged frog receives under the Endangered Species Act and possible legal action that may be incurred for violation of the Act; c. The protective measures being implemented to conserve the California red-legged frogs and other species during construction activities associated with the proposed project; and d. A point of contact if California red-legged frogs are observed. (3) All trash that may attract predators of the California red-legged frogs will be removed from work sites or completely secured at the end of each work day. (4) Prior to the onset of any construction activities, the applicant shall meet on site with staff from the USFWS and the authorized biologist. The applicant shall provide information on the general location of construction activities within habitat of the California red-legged frogs and the actions taken to reduce impacts to this species. Because California red-legged frogs may occur in various locations during different seasons of the year, the applicant, USFWS, and authorized biologist will, at this preliminary meeting, determine the seasons when specific construction activities would have the least adverse effect on California red-legged frogs. The goal of this effort is to reduce the level of mortality of California red-legged frogs during construction. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-3 (continued)</p> <ul style="list-style-type: none"> (5) Work areas will be fenced in a manner that prevents equipment and vehicles from straying from the designated work area into adjacent habitat. The authorized biologist will assist in determining the boundaries of the area to be fenced in consultation with the USFWS/CDFG. All workers will be advised that equipment and vehicles must remain within the fenced work areas. (6) The authorized biologist will direct the installation of the fence and conduct a minimum of three nocturnal surveys to move any California red-legged frogs from within the fenced area to suitable habitat outside of the fence. If California red-legged frogs are observed on the final survey or during subsequent checks, the authorized biologist will conduct additional nocturnal surveys if he or she determines that they are necessary in concurrence with the USFWS/CDFG. (7) Fencing to exclude California red-legged frogs will be at least 24 inches in height. (8) The type of fencing must be approved by the authorized biologist and the USFWS/CDFG. (9) Construction activities that may occur immediately adjacent to breeding pools or other areas where large numbers of California red-legged frogs may congregate will be conducted during times of the year (fall/winter) when individuals have dispersed from these areas. The authorized biologist will assist the applicant in scheduling its work activities accordingly. (10) If California red-legged frogs are found within an area that has been fenced to exclude California red-legged frogs, activities will cease until the authorized biologist moves the California red-legged frog(s). 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-3 (continued)</p> <ul style="list-style-type: none"> (11) If California red-legged frogs are found in a construction area where fencing was deemed unnecessary, work will cease until the authorized biologist moves the California red-legged frogs. The authorized biologist in consultation with USFWS/CDFG will then determine whether additional surveys or fencing are needed. Work may resume while this determination is being made, if deemed appropriate by the authorized biologist and USFWS. (12) Any California red-legged frogs found during clearance surveys or otherwise removed from work areas will be placed in nearby suitable, undisturbed habitat. The authorized biologist will determine the best location for their release, based on the condition of the vegetation, access to deep perennial pools, soil, and other habitat features and the proximity to human activities. Clearance surveys shall occur on a daily basis in the work area. (13) The authorized biologist will have the authority to stop all activities until appropriate corrective measures have been completed. (14) Staging areas for all construction activities will be located on previously disturbed upland areas, if possible, designated for this purpose. All staging areas will be fenced. (15) To ensure that diseases are not conveyed between work sites by the authorized biologist or his or her assistants, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force (DAPTF 2009) will be followed at all times. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-4 Focused surveys for arroyo toad shall be conducted. Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities, all construction sites and access roads within the riverbed as well as all riverbed areas within 1,000 feet of construction sites and access roads shall be surveyed at the appropriate season for arroyo toad. The applicant shall contract with a qualified biologist to conduct focused surveys for arroyo toad. If detected in or adjacent to the project area, no work will be authorized within 500 feet of occupied habitat until the applicant provides concurrence from the USFWS to CDFG and the Corps. The applicant shall implement measures required by the USFWS Biological Opinion that either supplement or supercede these measures. If arroyo toads are determined to be present, the applicant shall develop and implement a monitoring plan that includes the following measures in consultation with the USFWS and CDFG:</p> <p>(1) The applicant shall retain a qualified biologist with demonstrated expertise with arroyo toads to monitor all construction activities in potential arroyo toad habitat and assist the applicant in the implementation of the monitoring program. This person will be approved by the USFWS prior to the onset of ground-disturbing activities. This biologist will be referred to as the authorized biologist hereafter. The authorized biologist will be present during all activities immediately adjacent to or within habitat that supports populations of arroyo toad.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-4 (continued)</p> <ul style="list-style-type: none"> (2) Prior to the onset of construction activities, the applicant shall provide all personnel who will be present on work areas within or adjacent to the project area the following information: <ul style="list-style-type: none"> a. A detailed description of the arroyo toad, including color photographs; b. The protection the arroyo toad receives under the Endangered Species Act and possible legal action that may be incurred for violation of the Act; c. The protective measures being implemented to conserve the arroyo toad and other species during construction activities associated with the proposed project; and d. A point of contact if arroyo toads are observed. (3) All trash that may attract predators of the arroyo toad will be removed from work sites or completely secured at the end of each work day. (4) Prior to the onset of any construction activities, the applicant shall meet on site with staff from the USFWS and the authorized biologist. The applicant shall provide information on the general location of construction activities within habitat of the arroyo toad and the actions taken to reduce impacts to this species. Because arroyo toads may occur in various locations during different seasons of the year, the applicant, USFWS, and authorized biologists will, at this preliminary meeting, determine the seasons when specific construction activities would have the least adverse effect on arroyo toads. The goal of this effort is to reduce the level of mortality of arroyo toads during construction. The parties realize that, if arroyo 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-4 (continued)</p> <p>(4) (con'td)</p> <p>toads are present, complete prevention of all mortality is likely not possible because some arroyo toads may occur anywhere within suitable habitat during any given season; the detection of every individual over large areas is impossible because of the small size, fossorial habits, and cryptic coloration of the arroyo toad.</p> <p>(5) Where construction can occur in habitat where arroyo toads are widely distributed, work areas will be fenced in a manner that prevents equipment and vehicles from straying from the designated work area into adjacent habitat. The authorized biologist will assist in determining the boundaries of the area to be fenced in consultation with the USFWS/CDFG. All workers will be advised that equipment and vehicles must remain within the fenced work areas.</p> <p>(6) The authorized biologist will direct the installation of the fence and conduct a minimum of three nocturnal surveys to move any arroyo toads from within the fenced area to suitable habitat outside of the fence. If arroyo toads are observed on the final survey or during subsequent checks, the authorized biologist will conduct additional nocturnal surveys if he or she determines that they are necessary in concurrence with the USFWS/CDFG.</p> <p>(7) Fencing to exclude arroyo toads will be at least 24 inches in height.</p> <p>(8) The type of fencing must be approved by the authorized biologist and the USFWS/CDFG.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-4 (continued)</p> <ul style="list-style-type: none"> (9) Construction activities that may occur immediately adjacent to breeding pools or other areas where large numbers of arroyo toads may congregate will be conducted during times of the year (fall/winter) when individuals have dispersed from these areas. The authorized biologist will assist the applicant in scheduling its work activities accordingly. (10) If arroyo toads are found within an area that has been fenced to exclude arroyo toads, activities will cease until the authorized biologist moves the arroyo toads. (11) If arroyo toads are found in a construction area where fencing was deemed unnecessary, work will cease until the authorized biologist moves the arroyo toads. The authorized biologist in consultation with USFWS/CDFG will then determine whether additional surveys or fencing are needed. Work may resume while this determination is being made, if deemed appropriate by the authorized biologist and USFWS. (12) Any arroyo toads found during clearance surveys or otherwise removed from work areas will be placed in nearby suitable, undisturbed habitat. The authorized biologist will determine the best location for their release, based on the condition of the vegetation, soil, and other habitat features and the proximity to human activities. Clearance surveys shall occur on a daily basis in the work area. (13) The authorized biologist will have the authority to stop all activities until appropriate corrective measures have been completed. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-4 (continued)</p> <ul style="list-style-type: none"> (14) Staging areas for all construction activities will be located on previously disturbed upland areas designated for this purpose. All staging areas will be fenced within potential toad habitat. (15) To ensure that diseases are not conveyed between work sites by the authorized biologist or his or her assistants, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force (DAPTF 2009) will be followed at all times. (16) Drift fence/pitfall trap surveys will be implemented in toad sensitive areas prior to construction in an effort to reduce potential mortality to this species. Prior to any construction activities in the project area, silt fence shall be installed completely around the proposed work area and a qualified biologist should conduct a preconstruction/clearance survey of the work area for arroyo toads. Any toads found in the work area should be relocated to suitable habitat. The silt fence shall be maintained for the duration of the work activity. (17) The applicant shall restrict work to daylight hours, except during an emergency, in order to avoid nighttime activities when arroyo toads may be present on the access road. Traffic speed should be maintained at 15 mph or less in the work area. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-5 Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities, all construction sites and access roads within the riverbed as well as all riverbed areas within 500 feet of construction sites and access roads shall be surveyed at the appropriate season for southwestern pond turtle. Focused surveys shall consist of a minimum of four daytime surveys, to be completed between April 1 and June 1. The survey schedule may be adjusted in consultation with CDFG to reflect the existing weather or stream conditions. The applicant shall develop a Plan to address the relocation of southwestern pond turtle. The Plan shall include but not be limited to the timing and location of the surveys that would be conducted for this species; identify the locations where more intensive efforts should be conducted; identify the habitat and conditions in the proposed relocation site(s); the methods that would be utilized for trapping and relocating individuals; and provide for the documentation/recordation of the numbers of animals relocated. The Plan shall be submitted to CDFG for approval 60 days prior to any ground-disturbing activities within potentially occupied habitat.</p> <p>If southwestern pond turtles are detected in or adjacent to the project, nesting surveys shall be conducted.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)	<p>MV 4.3-5 (continued)</p> <p>Focused surveys for evidence of southwestern pond turtle nesting shall be conducted in, or adjacent to, the project when suitable nesting habitat exists within 1,300 feet of occupied habitat in an area where project-related ground disturbance will occur (e.g., development, ground disturbance). If both of those conditions are met, a qualified biologist shall conduct focused, systematic surveys for southwestern pond turtle nesting sites. The survey area shall include all suitable nesting habitat within 1,300 feet of occupied habitat in which project-related ground disturbance will occur. This area may be adjusted based on the existing topographical features on a case-by-case basis with the approval of CDFG. Surveys will entail searching for evidence of pond turtle nesting, including remnant eggshell fragments, which may be found on the ground following nest depredation.</p> <p>If a southwestern pond turtle nesting area would be adversely impacted by construction activities, the applicant shall avoid the nesting area. If avoidance of the nesting area is determined to be infeasible, the authorized biologist shall coordinate with CDFG to identify if it is possible to relocate the pond turtles. Eggs or hatchlings shall not be moved without written authorization from CDFG.</p> <p>The qualified biologist shall be present during all activities immediately adjacent to or within habitat that supports populations of southwestern pond turtle. Clearance surveys for pond turtles shall be conducted within 500 feet of potential habitat by the authorized biologist prior to the initiation of construction each day. The resume of the proposed biologist will be provided to CDFG for approval prior to conducting the surveys.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-6 Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities, all construction sites and access roads within the riverbed as well as all riverbed areas within 300 feet of construction sites and access roads shall be surveyed at the appropriate season for two-striped garter snake and south coast garter snake. Focused surveys shall consist of a minimum of four daytime surveys, to be completed between April 1 and September 1. The survey schedule may be adjusted in consultation with CDFG to reflect the existing weather or stream conditions. If located, the species will be relocated to suitable pre-approved locations identified in the two-striped garter snake and/or south coast garter snake Relocation Plan.</p> <p>The applicant shall develop a Plan to address the relocation of two-striped garter snake and south coast garter snake. The Plan shall include but not be limited to the timing and location of the surveys that would be conducted for each species, identify the locations where more intensive efforts should be conducted, identify the habitat and conditions in the proposed relocation site(s), identify the methods that would be utilized for trapping and relocating the individual species, and provide for the documentation/recordation of the species and number of animals relocated. The Plan shall be submitted to CDFG for approval 60 days prior to any ground-disturbing activities, within potentially occupied habitat.</p> <p>The qualified biologist shall be present during all activities immediately adjacent to or within habitat that supports populations of two-striped garter snake and/or south coast garter snake. Clearance surveys for garter snakes shall be conducted within 200 feet of potential habitat by the authorized biologist prior to the initiation of construction each day. The resume of the proposed biologists will be provided to CDFG for approval prior to conducting the surveys.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-7 Prior to construction the applicant shall develop a relocation plan for coast horned lizard, silvery legless lizard, coastal western whiptail, rosy boa, San Bernardino ringneck snake, and coast patch-nosed snake. The Plan shall include but not be limited to the timing and location of the surveys that would be conducted for each species; identify the locations where more intensive efforts should be conducted; identify the habitat and conditions in the proposed relocation site(s); the methods that would be utilized for trapping and relocating the individual species; and provide for the documentation/recording of the species and number of the animals relocated. The Plan shall be submitted to CDFG for approval 60 days prior to any ground disturbing activities within potentially occupied habitat.</p> <p>The Plan shall include the specific survey and relocation efforts that would occur for construction activities that occur both during the activity period of the special status species (generally March to November) and for periods when the species may be present in the work area but difficult to detect due to weather conditions (generally December through February). Thirty days prior to construction activities in coastal scrub, chaparral, oak woodland, riparian habitats, or other areas supporting these species qualified biologists shall conduct surveys to capture and relocate individual coast horned lizard, silvery legless lizard, coastal western whiptail, rosy boa, San Bernardino ringneck snake, and coast patch-nosed snake in order to avoid or minimize take of these special-status species. The plan shall require a minimum of three (3) surveys conducted during the time of year/day when each species is most likely to be observed. Individuals shall be relocated to nearby undisturbed areas with suitable habitat. If construction is scheduled to occur during the low activity period (generally December through February) the surveys shall be conducted prior to this period if possible and</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-7 (continued)</p> <p>exclusion fencing shall be placed to limit the potential for re-colonization of the site prior to construction. The qualified biologist will be present during ground-disturbing activities immediately adjacent to or within habitat that supports populations of these species. Clearance surveys for special-status reptiles shall be conducted by a qualified biologist prior to the initiation of construction each day.</p> <p>Results of the surveys and relocation efforts shall be provided to CDFG in the annual mitigation status report. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.</p> <p>MV 4.3-8 During any stream diversion or culvert installation activity, a qualified biologist(s) shall be present and shall patrol the areas within, upstream, and downstream of the work area. The biologists shall inspect the diversion and inspect for stranded fish or other aquatic organisms. Under no circumstances shall the unarmored threespine stickleback be collected or relocated, unless USFWS personnel or their agents implement this measure. Any event involving stranded fish shall be recorded and reported to CDFG and USFWS within 24 hours.</p> <p>MV 4.3-9 Temporary bridges, culvert crossings, or other feasible methods of providing access across the river shall be constructed outside of the winter season and not during periods when spawning is occurring. Prior to the construction of any temporary or permanent crossing of the Santa Clara River, the applicant shall develop a Stream Crossing and Diversion Plan. The plan shall include the following elements: the timing and methods for pre-construction aquatic species surveys; a detailed description of the diversion methods (e.g., berms shall be constructed of on-site alluvium materials of low silt content, inflatable dams, sand bags, or other approved</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-9 (continued)</p> <p>materials); special-status species relocation; fish exclusion techniques, including the use of block netting and fish relocation; methods to maintain fish passage during construction; channel habitat enhancement, including the placement of vegetation, rocks, and boulders to produce riffle habitat; fish stranding surveys; and the techniques for the removal of crossings prior to winter storm flows. The Plan shall be submitted to the USFWS and CDFG for approval at least 30 days prior to implementation.</p> <p>If adult special-status fishes are present and spawning has not occurred, they shall be relocated prior to the diversion or crossing. Block nets of 0.125-inch woven mesh will be set upstream and downstream. On days with possible high temperature or low humidity (temperatures in excess of 80° F), work will be done in the early morning hours, as soon as sufficient light is available, to avoid exposing fishes to high temperatures and/or low humidity. If high temperatures are present, the fishes will be herded to downstream areas past the block net. Once the fishes have been excluded by herding, a USFWS staff member or his or her agents shall inspect the site for remaining or stranded fish. A USFWS staff member or his or her agents shall relocate the fish to suitable habitat outside the project area (including those areas potentially subject to high turbidity). During the diversion/relocation of fishes, the USFWS or his or her agents shall be present at all times.</p> <p>MV 4.3-10 Installation of bridges, culverts, or other structures shall not impair the movement of fish and aquatic life. Bottoms of temporary culverts shall be placed at or below channel grade. Bottoms of permanent culverts shall be placed below channel grade. Culvert crossings shall include provisions for a low flow channel where velocities are less than 2 feet per second to allow fish passage.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-11 a. Stream diversion bypass channels:</p> <p>Stream diversion bypass channels will be constructed when the active wetted channel is within the work zone. Diversion bypass channels will be built in accordance with MV 4.3-9 and in consultation with CDFG/USFWS. Equipment shall not be operated in areas of ponded or flowing water unless authorized by CDFG/USFWS.</p> <p>The diversion channel shall be of a width and depth comparable to the natural river channel. In all cases where flowing water is diverted from a segment of the stream channel, the bypass channel will be constructed prior to the diversion of the active stream. The bypass channel will be constructed prior to diverting the stream, beginning in the downstream area and continuing in an upstream direction. Where feasible and in consultation with CDFG/USFWS, the configuration of the diversion channel will be curved (sinuous) with multiple sets of obstructions (<i>i.e.</i>, boulders, large logs, or other CDFG/USFWS-approved materials) placed in the channel at the point of each curve (<i>i.e.</i>, on alternating sides of the channel). If emergent aquatic vegetation is present in the original channel, the applicant will transplant suitable vegetation into the diversion channel and on the banks prior to or at the time of the water diversion. A qualified restoration ecologist will supervise the construction of the diversion channels on site. The integrity of the channel and diversion shall be maintained throughout the intended diversion period. Channel bank or barrier construction shall be adequate to prevent seepage into or from the work area.</p> <p>Construction of diversion channels shall not occur if surveys determine that gravid fish are present, spawning has recently occurred, or juvenile fish are present in the proposed construction areas.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)	<p>MV 4.3-11 (continued)</p> <p>At the conclusion of the diversion, either at the commencement of the winter season, or the completion of construction, the applicant will coordinate with CDFG/USFWS to determine if the diversion should be left in place or the stream returned to the original channel. If CDFG/USFWS determine the stream should be diverted to the original channel, the original channel will be modified prior to re-diversion (<i>i.e.</i>, while dry) to construct curves (sinuosity) into that channel, including the placement of obstructions (<i>i.e.</i>, boulders, large logs, or other CDFG/USFWS-approved materials). The original channel will be replanted with emergent vegetation as the diversion channel was planted. If the diversion channel is abandoned, the boulders will remain in place.</p> <p>b. Dewatering:</p> <p>Construction dewatering in close proximity to stream flow shall implement the following:</p> <p>Assess local stream and groundwater conditions, including flow depths, groundwater elevations, and anticipated dewatering cone of influence (radius of draw down).</p> <p>Assess surface water elevations upstream, adjacent to, and downstream of the extraction points, to assess any critical flow regimes susceptible to excessive draw down and therefore fish stranding issues.</p> <p>Assess surface water elevations downstream of the discharge locations (if discharge is proposed to the flowing stream) to assess any flow regimes and overbank areas that may be susceptible to flooding and therefore fish stranding at the cessation of discharge. Discharge locations shall also be assessed for potential channel bed erosion from dewatering discharge, and appropriate BMPs must be implemented to prevent excessive erosion or turbidity in the discharge.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-11 (continued)</p> <p>The information above shall be summarized and provided in a plan approved by CDFG and Corps.</p> <p>Fish shall be excluded from any artificial flowing channels from dewatering discharge. Methods to ensure separation may include, but are not limited to: block netting at the confluence; creation of a physical drop greater than 4 inches at the confluence; or maintaining a velocity range unsuitable for fish passage, such as a berm at the confluence with small diameter pipes for discharge.</p> <p>MV 4.3-12 Slow-moving water habitats shall be constructed upstream and downstream of any river crossing or bridge construction area to provide refuge for special-status fishes during construction. Where feasible and in consultation with CDFG and USFWS, the applicant shall enhance slow-moving water habitats for each linear foot disturbed by hand-excavating shallow side channels and placing multiple sets of obstructions (<i>e.g.</i>, boulders, large logs, or other CDFG- and USFWS-approved materials) in the channel.</p> <p>MV 4.3-13 Water containing mud, silt, or other pollutants from construction activities shall not be allowed to enter a flowing stream or be placed in locations that may be subject to normal storm flows during periods when storm flows can reasonably be expected to occur.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-14 Thirty days prior to construction activities, a qualified biologist shall conduct a pre-construction survey for mountain lion natal dens. The survey area shall include the construction footprint and the area within 2,000 feet of the project disturbance boundaries. Should an active natal den be located, the applicant shall cease work within 2,000 feet and inform CDFG within 24 hours. No construction activities shall occur in the 2,000-foot buffer until a qualified biologist in consultation with CDFG establishes an appropriate setback from the den that would not adversely affect the successful rearing of the cubs. No construction activities or human intrusion shall occur within the established setback until the cubs have been successfully reared or the cats have left the area.</p> <p>MV 4.3-15 Within 30 days of ground-disturbing activities associated with construction or grading that would occur during the nesting/breeding season of native bird species potentially nesting on the site (typically March through August in the project region, or as determined by a qualified biologist), the applicant shall have weekly surveys conducted by a qualified biologist to determine if active nests of bird species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code are present in the disturbance zone or within 300 feet (500 feet for raptors) of the disturbance zone. The surveys shall continue on a weekly basis, with the last survey being conducted no more than 7 days prior to initiation of disturbance work. If ground-disturbing activities are delayed, then additional pre-disturbance surveys shall be conducted such that no more than 7 days will have elapsed between the survey and ground-disturbing activities.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)	<p>MV 4.3-15 (continued)</p> <p>If active nests are found, clearing and construction within 300 feet of the nest (500 feet for raptors) shall be postponed or halted, at the discretion of the biologist in consultation with CDFG, until the nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting. In the event that golden eagles establish an active nest in the River Corridor SMA/SEA 23, the buffers will be established in consultation with CDFG. Potential golden eagle nesting will be reported to CDFG within 24 hours. Limits of construction to avoid an active nest shall be established in the field with flagging, fencing, or other appropriate barriers, and construction personnel shall be instructed on the sensitivity of nest areas. The biologist shall serve as a construction monitor during those periods when construction activities will occur near active nest areas to ensure that no inadvertent impacts to these nests occur. Results of the surveys shall be provided to CDFG in the annual mitigation status report.</p> <p>For listed riparian songbirds (least Bell's vireo, southwestern willow flycatcher, yellow-billed cuckoo) USFWS protocol surveys shall be conducted. If active nests are found, clearing and construction within 300 feet of the nest shall be postponed or halted, at the discretion of the biologist in consultation with CDFG and USFWS, until the nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting. If no active nests are observed, construction may proceed. If active nests are found, work may proceed provided that construction activity is located at least 300 feet from active nests (or as authorized through the context of the Biological Opinion and 2081b Incidental Take Permit). This buffer may be adjusted provided noise levels do not exceed 60 dB(A) hourly L_{eq} at the edge of the nest site as determined by a qualified biologist in coordination with a qualified acoustician.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-15 (continued)</p> <p>If the noise meets or exceeds the 60 dB(A) L_{eq} threshold, or if the biologist determines that the construction activities are disturbing nesting activities, the biologist shall have the authority to halt the construction and shall devise methods to reduce the noise and/or disturbance in the vicinity. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nest site and the construction activities, and working in other areas until the young have fledged. If noise levels still exceed 60 dB(A) L_{eq} hourly at the edge of nesting territories and/or a no-construction buffer cannot be maintained, construction shall be deferred in that area until the nestlings have fledged. All active nests shall be monitored on a weekly basis until the nestlings fledge. The qualified biologist shall be responsible for documenting the results of the surveys and the ongoing monitoring and for reporting these results to CDFG and USFWS.</p> <p>For coastal California gnatcatcher, the applicant shall conduct USFWS protocol surveys in suitable habitat within the project area and all areas within 500 feet of access or construction-related disturbance areas. Suitable habitats, according to the protocol, include "coastal sage scrub, alluvial fan, chaparral, or intermixed or adjacent areas of grassland and riparian habitats." A permitted biologist shall perform these surveys according to the USFWS' (1997a) Coastal California Gnatcatcher Presence/Absence Survey Guidelines. If a territory or nest is confirmed, the USFWS and CDFG shall be notified immediately. If present, a 500-foot disturbance-free buffer shall be established and demarcated by fencing or flagging. No project activities may occur in these areas unless otherwise</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-15 (continued)</p> <p>authorized by USFWS and CDFG. Construction activities in suitable gnatcatcher habitat will be monitored by a full-time qualified biologist. The monitoring shall be of a sufficient intensity to ensure that the biologist could detect the presence of a bird in the construction area.</p> <p>MV 4.3-16 Thirty days prior to construction activities in grassland, scrub, chaparral, oak woodland, riverbank, and agriculture habitats, or other suitable habitat a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for San Diego black-tailed jackrabbit and San Diego desert woodrat.</p> <p>If San Diego black-tailed jackrabbits are present, non-breeding rabbits shall be flushed from areas to be disturbed. Dens, depressions, nests, or burrows occupied by pups shall be flagged and ground-disturbing activities avoided within a minimum of 200 feet during the pup-rearing season (February 15 through July 1). This buffer may be reduced based on the location of the den upon consultation with CDFG. Occupied maternity dens, depressions, nests, or burrows shall be flagged for avoidance, and a biological monitor shall be present during construction. If unattended young are discovered, they shall be relocated to suitable habitat by a qualified biologist. The applicant shall document all San Diego black-tailed jackrabbit identified, avoided, or moved and provide a written report to CDFG within 72 hours. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-16 (continued)</p> <p>If active San Diego desert woodrat nests (stick houses) are identified within the disturbance zone or within 100 feet of the disturbance zone, a fence shall be erected around the nest site adequate to provide the woodrat sufficient foraging habitat at the discretion of the qualified biologist in consultation with CDFG. Clearing and construction within the fenced area will be postponed or halted until young have left the nest. The biologist shall serve as a construction monitor during those periods when disturbance activities will occur near active nest areas to ensure that no inadvertent impacts to these nests will occur. If avoidance is not possible, the applicant will take the following sequential steps: (1) all understory vegetation will be cleared in the area immediately surrounding active nests followed by a period of one night without further disturbance to allow woodrats to vacate the nest, (2) each occupied nest will then be disturbed by a qualified wildlife biologist until all woodrats leave the nest and seek refuge off site, and (3) the nest sticks shall be removed from the project site and piled at the base of a nearby hardwood tree (preferably a coast live oak or California walnut). Relocated nests shall not be spaced closer than 100 feet apart, unless a qualified wildlife biologist has determined that a specific habitat can support a higher density of nests. The applicant shall document all woodrat nests moved and provide a written report to CDFG.</p> <p>All woodrat relocation shall be conducted by a qualified biologist in possession of a scientific collecting permit.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-17 Thirty days prior to construction activities in grassland, scrub, chaparral, oak woodland, riverbank, and agriculture habitats, or other suitable habitat a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for American badger.</p> <p>If American badgers are present, occupied habitat shall be flagged and ground-disturbing activities avoided within 50 feet of the occupied den. Maternity dens shall be avoided during the pup-rearing season (February 15 through July 1) and a minimum 200 foot buffer established. This buffer may be reduced based on the location of the den upon consultation with CDFG. Maternity dens shall be flagged for avoidance, identified on construction maps, and a qualified biologist shall be present during construction. If avoidance of a non-maternity den is not feasible, badgers shall be relocated either by trapping or by slowly excavating the burrow (either by hand or mechanized equipment under the direct supervision of the biologist, removing no more than 4 inches at a time) before or after the rearing season (February 15 through July 1). Any relocation of badgers shall occur only after consultation with CDFG. A written report documenting the badger removal shall be provided to CDFG within 30 days of relocation.</p> <p>Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-18 No earlier than 30 days prior to the commencement of construction activities, a pre-construction survey shall be conducted by a qualified biologist to determine if active roosts of special-status bats are present on or within 300 feet of the project disturbance boundaries. Should an active maternity roost be identified (in California, the breeding season of native bat species is generally from April 1 through August 31), the roost shall not be disturbed and construction within 300 feet shall be postponed or halted, until the roost is vacated and juveniles have fledged. Surveys shall include rocky outcrops, caves, structures, and large trees (particularly trees 12 inches in diameter or greater at 4.5 feet above grade with loose bark or other cavities). Trees and rocky outcrops shall be surveyed by a qualified bat biologist (i.e., a biologist holding a CDFG collection permit and a Memorandum of Understanding with CDFG allowing the biologist to handle bats). If active maternity roosts or hibernacula are found, the rock outcrop or tree occupied by the roost shall be avoided (i.e., not removed) by the project. If avoidance of the maternity roost must occur, the bat biologist shall survey (through the use of radio telemetry or other CDFG approved methods) for nearby alternative maternity colony sites. If the bat biologist determines in consultation with and with the approval of CDFG that there are alternative roost sites used by the maternity colony and young are not present then no further action is required.</p> <p>If a maternity roost will be impacted by the project, and no alternative maternity roosts are in use near the site, substitute roosting habitat for the maternity colony shall be provided on, or in close proximity to, the project site no less than three months prior to the eviction of the colony. Large concrete walls (e.g., on bridges) on south or southwestern slopes that are retrofitted with slots and cavities are an example of structures that may provide alternative potential roosting</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-18 (continued)</p> <p>habitat appropriate for maternity colonies. Alternative roost sites must be of comparable size and proximal in location to the impacted colony. CDFG shall also be notified of any hibernacula or active nurseries within the construction zone.</p> <p>If non-breeding bat hibernacula are found in trees scheduled to be removed or in crevices in rock outcrops within the grading footprint, the individuals shall be safely evicted, under the direction of a qualified bat biologist, by opening the roosting area to allow airflow through the cavity or other means determined appropriate by the bat biologist (e.g., installation of one-way doors). In situations requiring one-way doors, a minimum of one week shall pass after doors are installed and temperatures should be sufficiently warm for bats to exit the roost because bats do not typically leave their roost daily during winter months in southern coastal California. This action should allow all bats to leave during the course of one week. Roosts that need to be removed in situations where the use of one-way doors is not necessary in the judgment of the qualified bat biologist in consultation with CDFG shall first be disturbed by various means at the direction of the bat biologist at dusk to allow bats to escape during the darker hours, and the roost tree shall be removed or the grading shall occur the next day (<i>i.e.</i>, there shall be no less or more than one night between initial disturbance and the grading or tree removal). These actions should allow bats to leave during nighttime hours, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight.</p> <p>If an active maternity roost is located on the project site, and alternative roosting habitat is available, the demolition of the roost site must commence before maternity colonies form (<i>i.e.</i>, prior to March 1) or after young are flying (<i>i.e.</i>, after July 31) using the exclusion techniques described above.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-19 Any special-status species bat day roost sites found by a qualified biologist during pre-construction surveys conducted per MV 4.3-18, to be directly (within project disturbance footprint) or indirectly (within 300 feet of project disturbance footprint) impacted are to be mitigated with creation of artificial roost sites. The project applicant shall establish (an) alternative roost site(s) within suitable preserved open space located at an adequate distance from sources of human disturbance.</p> <p>MV 4.3-20 Thirty days prior to construction activities, a qualified biologist shall conduct CDFG protocol surveys to determine whether the burrowing owl is present at the site. The surveys shall consist of three site visits and shall be conducted in areas dominated by field crops, disturbed habitat, grasslands, and along levee locations, or if such habitats occur within 500 feet of a construction zone. If located, occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFG verifies through non-invasive methods that either the birds have not begun egg-laying and incubation or that juveniles from the occupied burrows are foraging independently and are capable of independent survival. If the burrowing owl is detected but nesting is not occurring, construction work can proceed after any owls have been evacuated from the site using CDFG-approved burrow closure procedures and after alternative nest sites have been provided in accordance with the CDFG Staff Report on Burrowing Owl Mitigation (10-17-95).</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-20 (continued)</p> <p>Unless otherwise authorized by CDFG, a 500-foot buffer, within which no activity will be permissible, will be maintained between project activities and nesting burrowing owls during the nesting season. This protected area will remain in effect until August 31 or at CDFG's discretion and based upon monitoring evidence, until the young owls are foraging independently.</p> <p>Results of the surveys and relocation efforts shall be provided to CDFG in the annual mitigation status report.</p> <p>MV 4.3-21 Waste and recycling receptacles that discourage foraging by wildlife species adapted to urban environments shall be installed in common areas and parks throughout the Mission Village site.</p> <p>MV 4.3-22 All oaks that will not be removed that are regulated under CLAOTO with driplines within 50 feet of land clearing (including brush clearing) or areas to be graded shall be enclosed in a temporary fenced zone for the duration of the clearing or grading activities. Fencing shall extend to the root protection zone (i.e., the area at least 15 feet from the trunk or 5 feet beyond the drip line, whichever distance is greater). No parking or storage of equipment, solvents, or chemicals that could adversely affect the trees shall be allowed within 25 feet of the trunk at any time. Removal of the fence shall occur only after the project arborist or qualified biologist confirms the health of preserved trees.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-23 Mitigation Measures SP 4.6-1 through SP 4.6-16 specify requirements for riparian mitigation conducted in the High Country SMA/SEA 20, Salt Creek area, and Open Area. The applicant will prepare and implement a plan for mitigation of both riparian and upland habitats (such as riparian adjacent big sagebrush scrub), and incorporates these Mitigation Measures (SP 4.6-1 through SP 4.6-16). A Comprehensive Mitigation Implementation Plan (CMIP) has been developed by Applicant that provides an outline of mitigation to offset impacts. The CMIP demonstrates the feasibility of creating the required mitigation acreage to offset project impacts (see MV 4.3-31). However, the CMIP does not identify mitigation actions specifically for impacts to waters of the United States. But since these waters are a subset of CDFG jurisdiction, the applicable Corps mitigation requirements would be met or exceeded.⁶</p> <p>Detailed riparian/wetland mitigation plans, in accordance with the CMIP, shall be submitted to, and are subject to the approval of, the Corps and CDFG as part of the sub-notification letters for individual projects. Individual project submittals shall include applicable CMIP elements, complying with the requirements outlined below. The detailed wetlands mitigation plan shall specify, at a minimum, the following: (1) the location of mitigation sites; (2) site preparation, including grading, soils preparation, irrigation installation, (2a) the quantity (seed or nursery stock) and species of plants to be planted (all species to be native to region); (3) detailed procedures for creating additional vegetation communities;</p>	

⁶ For detailed information concerning the Corps compensatory mitigation program for impacts to waters of the United States, please reference Appendix 11.0 of the Section 404(b)1 Alternatives Analysis, included in Appendix F1.0 of the Final EIS/EIR.

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-23 (continued)</p> <p>(4) methods for the removal of non-native plants; (5) a schedule and action plan to maintain and monitor the enhancement/restoration area; (6) a list of criteria by which to measure success of the mitigation sites (<i>e.g.</i>, percent cover and richness of native species, percent survivorship, establishment of self-sustaining native plantings, maximum allowable percent of non-native species); (7) measures to exclude unauthorized entry into the creation/enhancement areas; and (8) contingency measures in the event that mitigation efforts are not successful. The detailed wetlands mitigation plans shall also classify the biological value (as "high," "moderate," or "low") of the vegetation communities to be disturbed as defined in these conditions, or may be based on an agency-approved method (<i>e.g.</i>, Hybrid Assessment of Riparian Communities [HARC]). The biological value shall be used to determine mitigation replacement ratios required under MV 4.3-31 and MV 4.3-39.</p> <p>The detailed wetlands mitigation plans shall provide for the 3:1 replacement of any Southern California black walnut to be removed from the riparian corridor for individual projects. The plan shall be subject to the approval of the CDFG and the Corps and approved prior to the impact to riparian resources. MV 4.3-33 describes that the functions and values will be assessed for the riparian areas that will be removed, and MV 4.3-31 and MV 4.3-39 describe the replacement ratios for the habitats that will be impacted.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-24 Approximately 616.3 acres of coastal scrub shall be preserved on site within Open Area and/or off site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village. This measure ensures that preserved areas will be part of a greater managed preserved system of numerous natural vegetation communities meant to support both common and special-status wildlife species. These areas support the same types of habitat that would be lost through construction and would be further enhanced through management and monitoring activities.</p> <p>MV 4.3-25 Prior to ground disturbance, construction, or site preparation activities, the applicant shall retain the services of a qualified biologist to conduct pre-construction surveys for western spadefoot toad within all portions of the project site containing suitable breeding habitat. Surveys shall be conducted during a time of year when the species could be detected (e.g., the presence of rain pools). If western spadefoot toad is identified on the project site, the following measures will be implemented:</p> <p>(1) Under the direct supervision of the qualified biologist, western spadefoot toad habitat shall be created within suitable natural sites on the Specific Plan site outside of the proposed development envelope. The amount of occupied breeding habitat to be impacted by the project shall be replaced at a 2:1 ratio. The actual relocation site design and location shall be approved by CDFG. The location shall be in a suitable habitat as far away as feasible from any of the homes and roads to be built. The relocation ponds shall be designed such that they only support standing water for several weeks following seasonal rains in order that aquatic predators (e.g., fish, bullfrogs, and crayfish) cannot become established.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-25 (continued)</p> <p>(1) (cont'd)</p> <p>Terrestrial habitat surrounding the proposed relocation site shall be as similar in type, aspect, and density to the location of the existing ponds as feasible. No site preparation or construction activities shall be permitted in the vicinity of the currently occupied ponds until the design and construction of the pool habitat in preserved areas of the site has been completed and all western spadefoot toad adult, tadpoles, and egg masses detected are moved to the created pool habitat.</p> <p>(2) Based on appropriate rainfall and temperatures, generally between the months of February and April, the biologist shall conduct pre-construction surveys in all appropriate vegetation communities within the development envelope. Surveys will include evaluation of all previously documented occupied areas and a reconnaissance-level survey of the remaining natural areas of the site. All western spadefoot adults, tadpoles, and egg masses encountered shall be collected and released in identified/created relocation ponds described above.</p> <p>(3) The qualified biologist shall monitor the relocation site for five years, involving annual monitoring during and immediately following peak breeding season such that surveys can be conducted for adults as well as for egg masses and larval and post-larval toads. Further, survey data will be provided to CDFG by the monitoring biologist following each monitoring period and a written report summarizing the monitoring results will be provided to CDFG at the end of the monitoring effort. Success criteria for the monitoring program shall include verifiable evidence of toad reproduction at the relocation site.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-26 Prior to ground disturbance, vegetation clearing, construction, or site preparation activities, a qualified biologist shall be retained to conduct a Worker Environmental Awareness Program (WEAP) for all construction/contractor personnel. A list of construction personnel who have completed training prior to the start of construction shall be maintained on site and this list shall be updated as required when new personnel start work. No construction worker may work in the field for more than five days without participating in the WEAP. The qualified biologist shall provide ongoing guidance to construction personnel and contractors to ensure compliance with environmental/permit regulations and mitigation measures. The qualified biologist shall perform the following:</p> <ul style="list-style-type: none"> • Provide training materials and briefings to all personnel working on site. The material shall include but not be limited to the identification and status of plant and wildlife species, significant natural plant community habitats (e.g., riparian), fire protection measures, and review of mitigation requirements. • A discussion of the federal and state Endangered Species Acts, Bald and Golden Eagle Protection Act, Migratory Bird Treaty Act, other state or federal permit requirements and the legal consequences of non-compliance with these acts. • Attend the pre-construction meeting to ensure that timing/location of construction activities do not conflict with other mitigation requirements (e.g., seasonal surveys for nesting birds, pre-construction surveys, or relocation efforts). 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)	<p>MV 4.3-26 (continued)</p> <ul style="list-style-type: none"> • Conduct meetings with the contractor and other key construction personnel describing the importance of restricting work to designated areas. Maps showing the location of special-status wildlife or populations of rare plants, exclusion areas, or other construction limitations (e.g., limitations on nighttime work) will be provided to the environmental monitors and construction crews prior to ground disturbance. This applies to preconstruction activities, such as site surveying and staking, natural resources surveying or reconnaissance, establishment of water quality BMPs, and geotechnical or hydrological investigations. • Discuss procedures for minimizing harm to or harassment of wildlife encountered during construction and provide a contact person in the event of the discovery of dead or injured wildlife. • Review/designate the construction area in the field with the contractor in accordance with the final grading plan. • Ensure that haul roads, access roads, and on-site staging and storage areas are sited within grading areas to minimize degradation of vegetation communities adjacent to these areas (if activities outside these limits are necessary, they shall be evaluated by the biologist to ensure that no special-status species habitats will be affected). • Conduct a field review of the staking (to be set by the surveyor) designating the limits of all construction activity. • Flag or temporarily fence any construction activity areas immediately adjacent to riparian areas. • Ensure and document that required pre-construction surveys and/or relocation efforts have been implemented. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-26 (continued)</p> <ul style="list-style-type: none"> To reduce the potential for the spread of New Zealand mud snails and weeds (including weed seeds) during project preconstruction and construction, all heavy equipment proposed for use on the project site shall be verified cleaned (including wheels, tracks, undercarriages, and bumpers, as applicable) before delivery to the project site. Equipment must be documented as mud snail and weed free upon delivery to the project site initial staging area, including: (1) vegetation clearing equipment (skid steer loaders, loaders, dozers, backhoes, excavators, chippers, grinders, and any hauling equipment, such as off-road haul trucks, flat bed, or other vehicles); (2) earth-moving equipment (scrapers, dozers, excavators, loaders, motor-graders, compactors, backhoes, off-road water trucks, and off-road haul trucks); and (3) all project-associated vehicles (including personal vehicles) that, upon inspection by the monitoring biologist, are deemed to present a risk for spreading mud snails or weeds. Equipment shall be cleaned at existing construction yards or at a wash station. The biological monitor shall document that all construction equipment (as described above) has been cleaned prior to working within the project work site. Any equipment/vehicles determined to not be free of mud snails and weeds shall immediately be sent back to the originating construction yard for washing, or wash station where rinse water is collected and disposed of in either a sanitary sewer or other legal point of disposal. Equipment/vehicles moved from the site must be inspected, and re-washed as necessary, prior to re-engaging in construction activities in the project work area. A written daily log shall be kept for all vehicle/equipment washing that states the date, time, location, type of equipment washed, methods used, and location of work; 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-26 (continued)</p> <ul style="list-style-type: none"> • Be present during initial vegetation clearing and grading. • Submit to the CDFG an immediate report (within 72 hours) of any conflicts or errors resulting in impacts to special-status biological resources. <p>MV 4.3-27 The Draft RMDP Slender Mariposa Lily Mitigation and Monitoring Plan (Dudek 2007) shall be revised and submitted to CDFG for review and approval prior to ground disturbance to occupied habitat. Upon approval, the plan will be implemented by the applicant or its designee. The revised plan will demonstrate the feasibility of enhancing or restoring slender mariposa lily habitat in selected areas to be managed as natural open space (i.e., the Salt Creek area or High Country SMA/SEA 20, spineflower preserves, or River Corridor SMA/SEA 23) without conflicting with other resource management objectives. Habitat replacement/enhancement will be at a 1:1 ratio (acres restored/enhanced to acres impacted).</p> <p>The revised plan will describe habitat improvement/restoration measures to be completed prior to introducing slender mariposa lily. Habitat improvement/restoration will be based on native occupied slender mariposa lily habitat. The revised plan will specify: (1) the location of mitigation sites (may be selected from among 559 acres of suitable mitigation land in the High Country SMA/SEA 20 and Salt Creek area identified in the Draft Newhall Ranch Mitigation Feasibility Study (Dudek 2007); (2) a description of "target" vegetation (native shrubland or grassland) to include estimated cover and abundance of native shrubs and grasses in occupied slender mariposa lily habitat on Newhall Ranch land (either at sites to be destroyed by construction or at sites to be preserved); (3) site preparation</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-27 (continued)</p> <p>measures to include topsoil treatment, soil decompaction, erosion control, temporary irrigation systems, or other measures as appropriate; (4) methods for the removal of non-native plants (e.g., mowing, weeding, raking, herbicide application, or burning); (5) the source of all plant propagules (seed, potted nursery stock, <i>etc.</i>), the quantity and species of seed or potted stock of all plants to be introduced or planted into the restoration/enhancement areas; (6) a schedule and action plan to maintain and monitor the enhancement/restoration areas, to include at minimum, qualitative annual monitoring for revegetation success and site degradation due to erosion, trespass, or animal damage for a period no less than two years; (7) as needed where sites are near trails or other access points, measures such as fencing, signage, or security patrols to exclude unauthorized entry into the restoration/enhancement areas; and (8) contingency measures such as replanting, weed control, or erosion control to be implemented if habitat improvement/restoration efforts are not successful.</p> <p>Habitat restoration/enhancement will be judged successful when (1) percent cover and species richness of native species reach 50 percent of their cover and species richness at undisturbed occupied slender mariposa lily habitat at reference sites; and (2) the replacement vegetation has persisted at least one summer without irrigation. At that point slender mariposa lily propagules (seed or bulbs) will be introduced onto the site.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-27 (continued)</p> <p>The revised plan will specify methods to collect propagules and introduce slender mariposa lily into these mitigation sites. Introductions will use source material (seeds or bulbs) from no more than 1.0 mile distant, similar slope exposures, and no more than 500 ft. elevational difference from the mitigation site, unless otherwise approved by CDFG. Bulbs may be salvaged and transplanted from slender mariposa lily occurrences to be lost; alternately, seed may be collected from protected occurrences, following CDFG-approved seed collection guidelines (<i>i.e.</i>, MOU for rare plant seed collection). No bulbs will be translocated into areas within 300 feet of proposed or existing development. The Applicant or its designee will monitor the reintroduction sites for no fewer than five additional years to estimate slender mariposa lily survivorship (for bulbs) or seedling establishment (for seeded sites).</p> <p>Annual monitoring reports will be prepared and submitted to CDFG and will be made available to the public to guide future mitigation planning for slender mariposa lily. Monitoring reports will describe all restoration/enhancement measures taken in the preceding year; describe success and completion of those efforts and other pertinent site conditions (erosion, trespass, animal damage) in qualitative terms; and describe mariposa lily survival or establishment in quantitative terms.</p> <p>A minimum of 133 acres of slender mariposa lily cumulative occupied area will be conserved and managed in the RMDP and SCP project boundaries. Of these 133 acres, approximately 103 acres of slender mariposa lily cumulative occupied area will be conserved and managed in the RMDP and SCP project boundary in the High Country SMA/SEA 20 and Salt Creek area, and 2 acres occur within the River Corridor SMA/SEA 23 and/or proposed spineflower preserves. Additional</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-27 (continued)</p> <p>cumulative occupied area will be conserved and managed in the San Martinez Grande Canyon area at a 1:1 ratio (acres conserved and managed to acres impacted) based on impacts to cumulative occupied area within the Entrada planning area, as a means to ensure regional biodiversity of the species. Up to an additional 28 acres of slender mariposa lily cumulative occupied area can be conserved and managed in the San Martinez Grande Canyon area for this purpose.</p> <p>MV 4.3-28 The Oak Resource Replacement Plan to be prepared (as described in Newhall Ranch Specific Plan Program EIR Mitigation Measure SP 4.6-48) shall include measures to create, enhance, and/or restore 9.7 acres of coast live oak woodland and valley/oak savannah within the High Country SMA/SEA 20. The plan shall be subject to the requirements outlined in SP 4.6-48.</p> <p>The applicant shall prepare an Oak Resource Management Plan that incorporates the findings of the Draft Newhall Ranch Mitigation Feasibility Report (Dudek 2007) and areas identified (in the technical report) as being suitable for oak woodland enhancement and creation shall be used as mitigation. Other mitigation sites may be used upon approval by the County. The plan shall be reviewed by the County Forester. The plan shall include the following: (1) site selection and preparation; (2) selection of proper species, including sizes and planting densities; (3) protection from herbivores; (4) site maintenance; (5) success criteria; (6) remedial actions; and (7) a monitoring program.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-29 The project applicant will retain a qualified biologist to develop an Exotic Wildlife Species Control Plan and implement a control program for bullfrog, African clawed frog, and crayfish. The program will require the control of these species during construction within the River corridor and modified tributaries (bridges, diversions, bank stabilization, drop structures). The Plan shall include a description of the species targeted for eradication, the methods of harvest that will be employed, the disposal methods, and the measures that would be employed to avoid impacts to sensitive wildlife (e.g., stickleback, arroyo toad, nesting birds) during removal activities (i.e., timing, avoidance of specific areas). Annual monitoring shall occur for the first five years after construction of project facilities. Monitoring will be conducted within sentinel locations along the River Corridor SMA/SEA 23 and where the project provides potential habitat for these species (e.g., future ponds and water features). Control shall be conducted within project facilities where monitoring results indicate that exotic species have colonized an area. After the first 5 years, the NLMO or other entity will be responsible for controlling exotic aquatic species.</p> <p>MV 4.3-30 In order to reduce impacts to biological resources from grading and construction activities, all related activities will be conducted to facilitate the escape of animals to natural areas. Construction and grading activities will begin in disturbed areas in order to avoid stranding animals in isolated patches of vegetation. Trenches will be covered at night or escape routes provided to prevent animals from falling into and being trapped in trenches. If escape routes are provided in lieu of covering trenches, the excavations will be inspected by a qualified biologist prior to restart of work.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-31 The permanent removal of existing habitats in Corps and/or CDFG jurisdictional areas in the Santa Clara River and tributaries shall be replaced by creating habitats of similar functions and values/services (see MV 4.3-33) on the project site, or as allowed under MV 4.3-39. The riparian habitat mitigation will meet CDFG mitigation requirements listed in Table 4.3-11, consistent with success criteria for mitigation in MV 4.3-36.</p> <p>MV 4.3-32 Creation of new vegetation communities and restoration of impacted vegetation communities shall occur at suitable sites in or adjacent to jurisdictional areas or in areas where bank stabilization would occur. Locations where the excavation of uplands for bank protection/stabilization results in creation of new, unvegetated riverbed or other disturbance shall receive the highest level of priority for vegetation community restoration. Restoration sites may also occur at locations outside the riverbed where there are appropriate hydrologic conditions to create a self-sustaining riparian vegetation community and where upland and riparian vegetation community values are absent or very low. All sites shall contain suitable hydrological conditions and surrounding land uses to ensure a self-sustaining functioning riparian vegetation community. Candidate restoration sites shall be described in the annual mitigation status report (see MV 4.3-43). Sites will be approved when the detailed wetlands mitigation plans are submitted to the Corps and CDFG as part of the sub-notification letters submitted for individual projects. Status of the sites will be addressed through agency review of the annual mitigation status report and mitigation accounting form. Each mitigation plan will include acreages, maps, and site specific descriptions of the proposed revegetation site, including analysis of soils, hydrologic suitability, and present and future adjacent land uses.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
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4.3 BIOTA (CONTINUED)

**Table 4.3-11
CDFG Jurisdictional Permanent Impacts Mitigation Ratios**

Ratios Listed by Vegetation Types & Quality				
Vegetation Community	Veg Code/ID	HIGH Reach Value*	MEDIUM Reach Value**	LOW Reach Value***
		(Mit. Ratio)	(Mit. Ratio)	(Mit. Ratio)
Southern Cottonwood-Willow Riparian Forrest	SCRWF	4:1	3:1	2:1
Southern Willow Scrub	SWS	3:1	2.5:1	2:1
Oak Woodland (Coast Live, Valley)	CLOW/VOW	3:1	2.5:1	2:1
Big Sagebrush Scrub	BSS	2.5:1	2:1	1.5:1
Mexican Elderberry Scrub	MES	2.5:1	2:1	1.5:1
Cismontane Alkaline Marsh	CAM	2.5:1	2:1	1.5:1
Coastal and Valley Fresh Water Marsh	CFWM	2:1	1.5:1	1:1
Mulefat Scrub	MFS	2:1	1.5:1	1.25:1
Arrowweed Scrub	AWS	2:1	1.5:1	1:1
California Sagebrush scrub, and CSB-dominated habitats	CSB, CSB-A, -BS, -CB, -CHP, and -PS	2:1	1.5:1	1:1
Herbaceous Wetland	HW	1.5:1	1.25:1	1:1
River Wash, emergent veg.	RW	1.5:1	1.25:1	1:1
Chaparral, Chamise Chaparral	CHP, CC	1.5:1	1.25:1	1:1
Coyote Brush Scrub	CYS	1.5:1	1.25:1	1:1
Eriodictyon Scrub	EDS	1.5:1	1.25:1	1:1
California Grass Lands	CGL	1:1	1:1	1:1
Agricultural/Disturbed/Developed	AGR/DL/DEV	1:1	1:1	1:1

Notes:

* HIGH reach value indicates a portion of the Santa Clara River or main tributary that scored above 0.79 Total Score utilizing the HARC methodology described in **Section 4.2, Geomorphology and Riparian Resources**, of the Draft RMDP-SCP EIS/EIR.

** MEDIUM reach value indicates a portion of the Santa Clara River or main tributary that scored between 0.4 and 0.79 Total Score utilizing the HARC methodology described in **Section 4.2**.

*** LOW reach value indicates a portion of the Santa Clara River or main tributary that scored below 0.4 Total Score utilizing the HARC methodology described in **Section 4.2**.

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	MV 4.3-33 Replacement vegetation communities shall be designed to replace the functions and values of the vegetation communities being removed. The replacement vegetation communities shall have similar dominant trees and understory shrubs and herbs (excluding exotic species) to those of the affected vegetation communities (see Table 4.3-12 for example of recommended plant species for the River Corridor SMA/SEA 23 and tributaries). In addition, the replacement vegetation communities shall be designed to replicate the density and structure of the affected vegetation communities once the replacement vegetation communities have met the mitigation success criteria.	

**Table 4.3-12
Potential Plant Species for Vegetation Community Restoration in the River Corridor SMA/SEA 23 and Tributaries**

Trees	
red willow	<i>Salix laevigata</i>
arroyo willow	<i>Salix lasiolepis</i>
Fremont cottonwood	<i>Populus fremontii</i>
black cottonwood	<i>Populus balsamifera</i> ssp. <i>Trichocarpa</i>
western sycamore	<i>Platanus racemosa</i>
Shrubs	
Mulefat	<i>Baccharis salicifolia</i>
sandbar willow	<i>Salix exigua</i>
arrow weed	<i>Pluchea sericea</i>
Herbs	
Mugwort	<i>Artemisia douglasiana</i>
western ragweed	<i>Ambrosia psilostachya</i>
Cattail	<i>Typha latifolia</i>
Bulrush	<i>Scirpus americanus</i>
prairie bulrush	<i>Scirpus maritimus</i>

Note: This is a recommended list. Other species may be found suitable based on site conditions and state and federal permits.

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-34 Average plant spacing shall be determined based on an analysis of vegetation communities to be replaced. The applicant shall develop plant spacing specifications for all riparian vegetation communities to be restored. Plant spacing specifications shall be reviewed and approved by the Corps and CDFG when restoration plans are submitted to the agencies as part of the sub-notification letters submitted to the Corps and CDFG for individual projects or as part of the annual mitigation status report and mitigation accounting form.</p> <p>MV 4.3-35 If at any time prior to CDFG/Corps approval of the restoration area, the site is subject to an act of God (flood, fires, or drought), the applicant shall be responsible for replanting the damaged area. The site will be subject to the same success criteria as provided for MV 4.3-36. Should a second act of God occur prior to CDFG/Corps approval of the restoration area, the applicant shall coordinate with the CDFG/Corps to develop an alternative restoration strategy(ies) to meet success requirements. This may include restoration elsewhere in the River corridor or tributaries.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-36 The revegetation site will be considered "complete" upon meeting all of the following success criteria. In a sub-notification letter, the applicant may request modification of success criteria on a project by project basis. Acceptance of such request will be at the discretion of CDFG and the Corps.</p> <ol style="list-style-type: none"> 1. Regardless of the date of initial planting, any restoration site must have been without active manipulation by irrigation, planting, or seeding for a minimum of three years prior to Agency consideration of successful completion. 2. The percent cover and species richness of native vegetation shall be evaluated based on local reference sites established by CDFG and the Corps for the plant communities in the impacted areas. 3. Native shrubs and trees shall have at least 80 percent survivorship after two years beyond the beginning of the success evaluation start date. This may include natural recruitment. 4. Non-native species cover will be no more than 5 percent absolute cover through the term of the restoration. 5. Giant reed (<i>Arundo donax</i>), tamarisk (<i>Tamarix ramosissima</i>), perennial pepperweed (<i>Lepidium latifolium</i>), tree of heaven (<i>Ailanthus altissimus</i>), pampas grass (<i>Cortaderia selloana</i>) and any species listed on the California State Agricultural list, or Cal-IPC list of noxious weeds will not be present on the revegetation site as of the date of completion approval. 6. Using the HARC assessment methodology, the compensatory mitigation site shall meet or exceed the baseline functional scores of the impact area in Corps' jurisdictional waters, as described in the Conceptual Mitigation Plan⁷ for Waters of the United States. 	

⁷ For detailed information concerning the Corps compensatory mitigation program for impacts to waters of the United States, please reference Appendix 11.0 of the Section 404(b)1 Alternatives Analysis, included in Appendix F1.0 of the Final EIS/EIR.

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-37 Temporary irrigation shall be installed as necessary for plant establishment. Irrigation shall continue as needed until the restoration site becomes self sustaining regarding survivorship and growth. Irrigation shall be terminated in the fall to provide the least stress to plants. Following irrigation termination, the irrigation piping will be removed where not destructive to the established plants.</p> <p>MV 4.3-38 In areas where invasive exotic plant species control is authorized by CDFG in lieu of creating or restoring other riparian habitat mitigation (MV 4.3-31), removal areas shall be kept free of exotic plant species for 5 years after initial treatment. In areas where extensive exotic removal occurs, revegetation with native plants or natural recruitment shall be documented.</p> <p>MV 4.3-39 The exotics control program may utilize methods and procedures in accordance with the provisions in the Upper Santa Clara River Watershed Arundo/Tamarisk Removal Plan Final Environmental Impact Report, dated February 2006, or the applicant may propose alternative methods and procedures for Corps and CDFG review and approval pursuant to a sub-notification letter. By example: a 10-acre site occupied by 10% exotic species will be credited for 1 acre of mitigation.</p> <p>MV 4.3-40 All native riparian trees with a 3-inch diameter at breast height (dbh) or greater in temporary construction areas shall be replaced using 1- or 5-gallon container plants, containered trees, or pole cuttings in the temporary construction areas in the winter following the construction disturbance. The growth and survival of the replacement trees shall meet the performance standards specified in MV 4.3-36. In addition, the growth and survival of the planted trees shall be monitored until they meet the self-sustaining success criteria in accordance with the methods and reporting procedures specified in MV 4.3-36, MV 4.3-42, and MV 4.3-43.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-41 Vegetation communities temporarily impacted by the proposed project shall be revegetated as described in MV 4.3-31. Large trunks of removed trees may also remain on site to provide habitat for invertebrates, reptiles, and small mammals or may be anchored within the project site for erosion control. To facilitate restoration, mulch, or native topsoil (the top 6- to 12-inch deep layer containing organic material), may be salvaged from the work area prior to construction. Following construction, salvaged topsoil shall be returned to the work area and placed in the restoration site. Within one year, the project biologist will evaluate the progress of restoration activities in the temporary impact areas to determine if natural recruitment has been sufficient for the site to reach performance goals. In the event that native plant recruitment is determined by the project biologist to be inadequate for successful habitat establishment, the site shall be revegetated in accordance with the methods designed for permanent impacts (i.e., seeding, container plants, and/or a temporary irrigation system may be recommended). This will help ensure the success of mitigation areas. The applicant shall restore the temporary construction area per the success criteria and ratios described in MV 4.3-23, MV 4.3-31, and MV 4.3-36. Annual monitoring reports on the status of the recovery or temporarily impacted areas shall be submitted to the Corps and CDFG as part of the annual mitigation status report (MV 4.3-42 and MV 4.3-43).</p> <p>MV 4.3-42 To provide an accurate and reliable accounting system for mitigation, the applicant shall file a mitigation accounting form annually with the Corps and CDFG by April 1.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-43 An annual mitigation status report shall be submitted to the Corps and CDFG by April 1 of each year until satisfaction of success criteria identified in MV 4.3-36. This report shall include any required plans for plant spacing, locations of candidate restoration and weed control sites or proposed "in-lieu fees," restoration methods, and vegetation community restoration performance standards. For active vegetation community creation sites, the report shall include the survival, percent cover, and height of planted species; the number by species of plants replaced; an overview of the revegetation effort and its success in meeting performance criteria; the method used to assess these parameters; and photographs. For active exotics control sites, the report shall include an assessment of weed control; a description of the relative cover of native vegetation, bare areas, and exotic vegetation; an accounting of colonization by native plants; and photographs. The report shall also include the mitigation accounting form (see MV 4.3-42), which outlines accounting information related to species planted or exotics control and mitigation credit remaining. The annual mitigation and monitoring report shall document the current functional capacity of the compensatory mitigation site using the HARC assessment methodology, as well as documenting the baseline functional scores of the impact site in jurisdictional waters of the United States.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-44 Require focused surveys for the spring snail (<i>Pyrgulopsis castaicensis</i> n. sp.) by a qualified biologist prior to the commencement of grading/construction activities in any drainage area supporting perennial flow. Any individuals of the <i>Pyrgulopsis castaicensis</i> n. sp. found within the Middle Canyon drainage shall be relocated to appropriate habitat within Middle Canyon Spring. If <i>Pyrgulopsis castaicensis</i> n. sp. are discovered during aquatic and semi-aquatic pre-construction surveys in any other perennial flowing water, the applicant shall consult with CDFG prior to initiating disturbance of the area. A report documenting the number of <i>Pyrgulopsis castaicensis</i> n. sp. located, the conditions of the area, and where the species has been relocated to, if applicable, shall be submitted to CDFG within 60 days following the relocation.</p> <p>MV 4.3-45 An Integrated Pest Management (IPM) plan that addresses the use of pesticides (including rodenticides and insecticides) on site will be prepared prior to the issuance of building permits for the initial tract map. The IPM will implement appropriate Best Management Practices to avoid and minimize adverse effects on the natural environment, including vegetation communities, special-status species, species without special status, and associated habitats, including prey and food resources (e.g., insects, small mammals, seeds). Potential management practices include cultural (e.g., planting pest-free stock plants), mechanical (e.g., weeding, trapping), and biological controls (e.g., natural predators or competitors of pest species, insect growth regulators, natural pheromones, or biopesticides), and the judicious use of chemical controls, as appropriate (e.g., targeted spraying versus broadcast applications). The IPM will establish management thresholds (i.e., not all incidences of a pest require management);</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-45 (continued)</p> <p>prescribe monitoring to determine when management thresholds have been exceeded; and identify the most appropriate and efficient control method that avoids and minimizes risks to natural resources. Preparation of the covenants, conditions, and restrictions (CC&Rs) for each tract map shall include language that prohibits the use of anticoagulant rodenticides in the project site.</p> <p>MV 4.3-46 The Natural Lands Management Organization (NLMO) shall fund or otherwise coordinate the regular removal of trash and debris from riparian habitats on or adjacent to the project site. The removal of trash shall be conducted in a manner as to not disturb sensitive habitats.</p> <p>MV 4.3-47 Each tract map Home Owners' Association shall supply educational information to future residents regarding pets, wildlife, and open space areas. The material shall discuss the presence of native animals (e.g., coyote, bobcat, mountain lion), indicate that those native animals could prey on pets, indicate that no actions shall be taken against native animals should they prey on pets allowed outdoors, indicate that residents should not feed wildlife intentionally or unintentionally by leaving pet food outside, and indicate that pets must be leashed while using the designated trail system and/or in any areas within or adjacent to open space. Control of stray and feral cats and dogs will be conducted in open space areas on an as-needed basis by the NLMO(s) or the Newhall Ranch <i>joint powers authority</i> (JPA) managing the River Corridor SMA/SEA 23, High Country SMA/SEA 20, or Salt Creek area or by the HOAs managing the Open Areas. Feral cats and dogs may be trapped and deposited with the local Society for the Prevention of Cruelty to Animals or the Los Angeles County Department of Animal Control.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-48 Upon completion of landscaping within a development area, quarterly monitoring shall be initiated for Argentine ants along the urban–open space interface at sentinel locations where invasions could occur (e.g., where moist microhabitats that attract Argentine ants may be created). A qualified biologist shall determine the monitoring locations. Ant pitfall traps will be placed in these sentinel locations and operated on a quarterly basis to detect invasion by Argentine ants. If Argentine ants are detected during monitoring, direct control measures will be implemented immediately to help prevent the invasion from worsening. These direct controls may include but are not limited to nest/mound insecticide treatment, or available natural control methods being developed. A general reconnaissance of the infested area would also be conducted to identify and correct the possible source of the invasion, such as uncontrolled urban runoff, leaking pipes, or collected water. Monitoring and control of Argentine ants would occur for a 5-year period. After the first 5 years, the NLMO or other entity will be responsible for controlling Argentine ants.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-49 Thirty days prior to construction activities, a qualified biologist shall conduct a preconstruction survey for ringtail. The survey area shall include suitable riparian and woodland habitat (southern coast live oak riparian forest, southern cottonwood-willow riparian forest, southern willow scrub, coast live oak woodland, valley oak woodland, and mixed oak woodland) within the construction disturbance zone and a 300-foot buffer around the construction site. Should the ringtail be observed in the breeding and rearing period of February 1 through August 31, no construction-related activities shall occur within 300 feet of the occupied area for the period of February 1 through August 31 or until the ringtail has been determined by a qualified biologist (in consultation with CDFG) to no longer occupy areas within 300 feet of the construction zone and/or that construction activities would not adversely affect the successful rearing of young. If the ringtail is observed within the construction disturbance zone or in the 300-foot buffer around the construction site in the nonbreeding/rearing period of September 1 through January 31, and avoidance is not possible, denning ringtail shall be safely evicted under the direction of a qualified biologist (as determined by a Memorandum of Understanding with CDFG). All activities that involve the ringtail shall be documented and reported to CDFG.</p> <p>MV 4.3-50 Any Southern California black walnut and mainland cherry trees or shrubs outside riparian areas greater than 1 inch dbh shall be replaced in the ratio of at least 2:1. Multi-trunk trees/shrub dbh shall be calculated based on combined trunk dbh. Mitigation shall be deemed complete when each replacement tree attains at least 1 inch in diameter 1 foot above the base.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-51 Bridges over the Santa Clara River shall be designed to minimize impacts to natural areas and riparian resources from associated lighting and stormwater runoff. All lighting will be designed to be directed away from natural areas (pursuant to SP-4.6-56) using shielded lights, low sodium-vapor lights, bollard lights, or other available light and glare minimization methods. Bridges will be designed to minimize normal vehicular lighting from trespassing into natural areas using side walls a minimum of 24 inches high. All stormwater from the bridges will be directed to water treatment facilities for water quality treatment.</p> <p>MV 4.3-52 Construction plans shall include necessary design features and construction notes to ensure protection of vegetation communities and special-status plant and aquatic wildlife species adjacent to construction. In addition to applicable erosion control plans and performance under SCAQMD Rule 403d dust control (SCAQMD 2005), the project stormwater pollution prevention plan (SWPPP) shall include the following minimum BMPs. Together, the implementation of these requirements shall ensure protection of adjacent habitats and wildlife species during construction. At a minimum, the following measures/restrictions shall be incorporated into the SWPPP, and noted on construction plans where appropriate, to avoid impacting special-status species during construction:</p> <ul style="list-style-type: none"> • Avoid planting or seeding invasive species in development areas within 200 feet of native vegetation communities. • Provide location and details for any dust control fencing along project boundaries (MV 4.3-53). • Vehicles shall not be driven or equipment operated in areas of ponded or flowing water, or where wetland vegetation, riparian vegetation, or aquatic organisms may be destroyed, except as otherwise provided for in the 404 Permit or 1603 Agreement. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-52 (continued)</p> <ul style="list-style-type: none"> • Silt settling basins installed during the construction process shall be located away from areas of ponded or flowing water to prevent discolored, silt-bearing water from reaching areas of ponded or flowing water during normal flow regimes. • If a stream channel has been altered during the construction and/or maintenance operations, its low flow channel shall be returned as nearly as practical to pre-project topographic conditions without creating a possible future bank erosion problem or a flat, wide channel or sluice-like area. The gradient of the streambed shall be returned to pre-project grade, to the extent practical, unless it represents a wetland restoration area. • Temporary structures and associated materials not designed to withstand high seasonal flows shall be removed to areas above the high water mark before such flows occur. • Staging/storage areas for construction equipment and materials shall be located outside of the ordinary high water mark. • Any equipment or vehicles driven and/or operated within or adjacent to the stream shall be checked and maintained daily, to prevent leaks of materials that could be deleterious to aquatic life if introduced to water. • Stationary equipment such as motors, pumps, generators, and welders which may be located within the riverbed construction zone shall be positioned over drip pans. No fuel storage tanks shall be allowed in the riverbed. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-52 (continued)</p> <ul style="list-style-type: none"> • No debris, bark, slash sawdust, rubbish, cement or concrete or washing thereof, oil, petroleum products, or other organic material from any construction, or associated activity of whatever nature, shall be allowed to enter into, or be placed where it may be washed by rainfall or runoff into, watercourses included in the permit. When construction operations are completed, any excess materials or debris shall be removed from the work area. • No equipment maintenance shall be done within or near any stream where petroleum products or other pollutants from the equipment may enter these areas with stream flow. • The operator shall install and use fully covered trash receptacles to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Trash will be regularly picked up in construction areas. • The operator shall not permit pets on or adjacent to the construction site. • No guns or other weapons are allowed on the construction site during construction, with the exception of the security personnel and only for security functions. No hunting shall be authorized/permitted during construction. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-53 Development areas shall have dust control measures implemented and maintained to prevent dust from impacting vegetation communities and special-status plant and aquatic wildlife species. Dust control shall comply with SCAQMD Rule 403d (SCAQMD 2005). Where construction activities occur within 100 feet of known special-status plant species locations, chemical dust suppression shall not be utilized. Where determined necessary by a qualified biologist, a screening fence (i.e., a 6-foot-high chain link fence with green fabric up to a height of 5 feet) shall be installed to protect special-status species locations. See MV 4.3-65 for dust control requirements related to spineflower preserves.</p> <p>MV 4.3-54 Permanent fencing shall be installed along all River Corridor SMA/SEA 23 trails adjacent to the Santa Clara River, or other sensitive resources, in order to minimize impacts associated with increased human presence on protected vegetation communities and special-status plant and wildlife species. The fencing will be split rail to avoid inhibiting wildlife movement. Viewing platforms will be located in land covers currently mapped as agriculture, disturbed land, or developed land.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-55 To protect Middle Canyon Spring and to reduce potential direct impacts to any special-status species that may be located within the spring complex due to unrestricted access, the project applicant or its designee shall avoid all construction-related activities within the Middle Canyon Spring complex and erect and maintain temporary orange fencing and prohibitive signage around the Middle Canyon Spring prior to and during all phases of construction within 200 feet of the spring and, if applicable, around the Middle Canyon drainage within 100 feet of flowing water. A qualified biologist will be present to monitor construction activities within 200 feet of the spring and, if applicable, around the Middle Canyon drainage within 100 feet of flowing water. The areas behind the temporary fencing shall not be used for the storage of any equipment, materials, construction debris, or anything associated with construction activities. Any upslope runoff from construction areas will be directed away from the Middle Canyon Spring.</p> <p>Following the final phase of construction of any Newhall Ranch subdivision tract adjacent to Middle Canyon Spring, the project applicant or its designee shall install and maintain permanent fencing along the subdivision tract bordering the spring. Permanent signage shall be installed on the fencing along the spring boundary to indicate that the fenced area is a biological preserve that contains protected species and habitat. No trail shall be constructed that passes within 100 feet of the Middle Canyon Spring (see Figure 4.3-4B above).</p> <p>a. The Commerce Center Drive Bridge will be designed to minimize secondary impacts associated with lighting and water quality impacts through the installation of indirect and downcast lighting, and routing of stormwater to water quality treatment facilities.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-56 A Middle Canyon Spring Habitat Management Plan will be developed that details the measures to be implemented to maintain the populations of the spring snail (<i>Pyrgulopsis castaicensis</i> n. sp.) and Newhall sunflower species. The plan shall be subject to the approval of CDFG and implemented by the Applicant prior to disturbance within 100 feet of flowing water in Middle Canyon Creek and/or 200 feet of Middle Canyon Spring.</p> <p>MV 4.3-57 Plant palettes proposed for use on landscaped slopes, street medians, park sites, and other public landscaped and fuel modification zone (FMZ) areas within 200 feet of native vegetation communities shall be reviewed by a qualified restoration specialist to ensure that the proposed landscape plants will not naturalize and require maintenance or cause vegetation community degradation in the open space areas (River Corridor SMA/SEA 23, High Country SMA/SEA 20, Salt Creek area, and natural portions of the Open Area). Container plants to be installed within public areas within 200 feet of the open space areas shall be inspected by a qualified restoration specialist for the presence of disease, weeds, and pests, including Argentine ants. Plants with pests, weeds, or diseases shall be rejected. In addition, landscape plants within 200 feet of native vegetation communities shall not be on the Cal-IPC California Invasive Plant Inventory (most recent version) or on the list of Invasive Ornamental Plants listed in Appendix B of the Spineflower Conservation Plan (SCP). The current Cal-IPC list can be obtained from the Cal-IPC web site (http://www.cal-ipc.org/ip/inventory/index.php). Landscape plans will include a plant palette composed of native or non-native, non-invasive species that do not require high irrigation rates. Except as required for fuel modification, irrigation of perimeter landscaping shall be limited to temporary irrigation (i.e., until plants become established).</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-58 A final SCP shall be adopted and implemented after approval by CDFG, including the permanent dedication of preserves (see draft in Appendix 4.3). The proposed spineflower preserve areas shall be offered to CDFG as a permanent conservation easement within one year after issuance of the requested 2081 Permit to ensure long-term protection. The conservation easement shall be to CDFG and contain appropriate funding and restrictions to help ensure that the spineflower preserve lands are protected in perpetuity.</p> <p>MV 4.3-59 The spineflower preserves shall be managed by Applicant and their preserve manager(s) and/or natural lands management organization(s) (NLMO). Applicant shall submit a statement of qualifications for their proposed preserve manager(s)/NLMO(s) for approval by CDFG. Applicant will fund in full all implementation of spineflower preserve management as described in the SCP and all mitigation measures listed in this document.</p> <p>MV 4.3-60 Spineflower preserve temporary fencing shall be shown on construction plans and installed prior to initiating construction clearing and grubbing activities within 500 feet of spineflower preserves, including the buffers. The spineflower preserve manager or a qualified biologist shall monitor fence installation. Clearing for fence installation shall be minimized to what is necessary to install the fence and, where possible, shall leave the roots of native plants in place to allow regrowth. As necessary, native vegetation will be restored and weed management will be performed following fence installation to ensure temporarily cleared native plant areas do not become weed dominated after installation. General project clearing and grubbing within 500 feet of the fence may commence upon verification by the spineflower preserve manager or the qualified biologist that protective fencing is in place and is adequate. Appropriate BMPs shall be installed at the edge of development manufactured slopes when the spineflower preserve is within 500 feet and down-slope of proposed development.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-61 Construction documents shall indicate that the grading contractor is responsible for protecting spineflower preserves during construction work. The construction documents shall indicate that the contractor is responsible for informing all employees and subcontractors of the environmentally sensitive areas and the proper conduct of work when working near (e.g., within 500 feet) of these areas. The construction documents shall require a pre-construction meeting to perform an "environmental education session" with the grading contractor/contractor's employees, subcontractors, and equipment operators prior to commencing construction work within 500 feet of the spineflower preserves. The environmental education session shall be conducted by the spineflower preserve manager or a qualified biologist and focus on informing workers of the location and sensitivity of the spineflower and the requirements for protecting it. The construction documents shall indicate that the grading contractor shall be responsible for mitigating any impacts to spineflower preserves due to the negligence of the grading contractor/contractor's employees, subcontractors, or equipment operators. If accidental trespass into a spineflower preserve occurs during construction, the violation shall be documented by the preserve manager and immediately reported to CDFG. Follow-up action will be taken in accordance with the Section 2081 of the Fish and Game Code, Incidental Take Permit issued by CDFG.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-62 Construction plans shall include necessary design features and construction notes to demonstrate consistency of development in the vicinity of spineflower preserves with the Spineflower Conservation Plan (SCP). In addition to applicable erosion control plans and performance under SCAQMD Rule 403d dust control (SCAQMD 2005), the project stormwater pollution prevention plan (SWPPP). Together, the implementation of these requirements shall ensure that spineflower preserve populations are protected during construction. At a minimum, the following measures/restrictions shall be incorporated into the SWPPP and noted on construction plans, where appropriate, to avoid impacting spineflower preserves during construction:</p> <ul style="list-style-type: none"> • Avoid planting or seeding invasive species in development areas during construction phases. • Do not use erosion control devices that may contain weeds, such as hay bales, etc., within 200 feet of spineflower preserves, or anywhere upstream of spineflower preserves. • Do not windrow or stockpile soil within 200 feet of spineflower preserve boundaries or anywhere upstream of spineflower preserves. • Do not locate staging areas, maintenance, or concrete washout areas within 500 feet (unless otherwise authorized by CDFG, and no closer than 200 feet in any instance), where adjacent to or anywhere upstream of spineflower preserves. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-62 (continued)</p> <ul style="list-style-type: none"> • Do not store toxic compounds, including fuel, oil, lubricants, paints, release agents, or any other construction materials that could damage spineflower habitat if spilled near spineflower preserve areas, or anywhere upstream of spineflower preserves, or along spineflower preserve boundaries. • Provide location and details for any fencing for temporary and permanent access control along preserve boundaries (per MV 4.3-64 for temporary fencing and MV 4.3-69 for permanent fencing). • Provide location and details for any dust control fencing along preserve boundaries (per MV 4.3-65). • Provide location and details for any stormwater run-on controls/BMPs coming from development area to spineflower preserve (per MV 4.3-71 and MV 4.3-72). <p>MV 4.3-63 The spineflower preserve manager or qualified biologist shall review construction plans and specifications, SWPPP, and, where appropriate, erosion control plans and implementation of SCAQMD Rule 403d dust control measures (SCAQMD 2005) prior to construction within 500 feet of spineflower preserves for compliance with the Spineflower Conservation Plan and associated permits and project-related environmental documents. A copy of the SWPPP and associated monitoring reports will be provided to CDFG.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-64 Spineflower preserves shall be protected prior to clearing and during construction with temporary construction fencing as described in MV 4.3-60. Openings shall be included in the fence when located within wildlife corridors and vegetation community connectivity areas to allow for the safe passage of wildlife. The spineflower preserve manager or a qualified biologist shall indicate the location and width of each of these openings. The fencing shall be three-strand non-barbed wire fence or bright orange ultraviolet stabilized polyethylene construction “snow” fencing, attached to metal t-posts that extend at least 4 feet above grade or equivalent. Protective fencing shall be maintained in good condition until completion of project construction. Where construction activities occur within 500 feet of a spineflower preserve, the spineflower preserve manager or qualified biologist shall review fencing weekly during construction monitoring visits and note any fencing that is in need of repair. Repairs shall be completed within three working days of notification by the spineflower preserve manager or qualified biologist.</p> <p>MV 4.3-65 Development areas shall have dust control measures implemented and maintained to prevent dust from impacting vegetation within the spineflower preserve areas. Dust control shall be implemented during construction in compliance with SCAQMD Rule 403d (SCAQMD 2005). Where construction activities occur within 100 feet of a spineflower location, chemical dust suppression shall not be utilized. Where determined necessary by the spineflower preserve manager or qualified biologist, a screening fence (i.e., a 6-foot-high chain link fence with green fabric up to a height of 5 feet) shall be installed to protect spineflower locations.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-66 The spineflower preserve manager or qualified biologist shall perform weekly construction monitoring for all construction activities within 500 feet of spineflower preserve areas. The spineflower preserve manager's or qualified biologist's construction monitoring tasks shall include reviewing and approving protective fencing, dust control measures, and erosion control devices before construction work begins; conducting a contractor education session at the preconstruction meeting; reviewing the site weekly (minimum) during construction to ensure the fencing, dust control, and BMP measures are in place and functioning correctly and that work is not directly or indirectly impacting spineflower plants; and quarterly monitoring shall be initiated for Argentine ants along the construction–open space interface at sentinel locations where invasions could occur (<i>e.g.</i>, where moist microhabitats that attract Argentine ants may be created). A qualified biologist shall determine the monitoring locations. Ant pitfall traps will be placed in these sentinel locations and operated on a quarterly basis to detect invasion by Argentine ants. If Argentine ants are detected during monitoring, direct control measures will be implemented immediately to help prevent the invasion from worsening. These direct controls may include but are not limited to nest/mound insecticide treatment, or available natural control methods being developed. A general reconnaissance of the infested area would also be conducted to identify and correct the possible source of the invasion, such as uncontrolled urban runoff, leaking pipes, or collected water. Each site visit shall be followed up with a summary monitoring report sent electronically to Applicant indicating the status of the site. Monthly monitoring reports, as needed, shall be submitted to CDFG and the County of Los Angeles). Monitoring reports shall include remedial recommendations and issue resolution discussions when necessary.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-67 Plant palettes proposed for use on landscaped slopes, street medians, park sites, and other landscaped and FMZ areas within 200 feet of a spineflower preserve shall be reviewed and approved within 30 days by the spineflower preserve manager or qualified biologist and CDFG to ensure that the proposed landscape plants will not naturalize and require maintenance or cause vegetation community degradation in the spineflower preserve and buffer areas. Container plants to be installed within public areas within 200 feet of the spineflower preserves shall be inspected by the spineflower preserve manager or qualified biologist for the presence of disease, weeds, and pests, including Argentine ants. Plants with pests, weeds, or diseases shall be rejected. In addition, for public areas within 200 feet of spineflower preserves, landscape plants shall not be on the Cal-IPC California Invasive Plant Inventory (most recent version) or on the list of Invasive Ornamental Plants listed in Appendix B of the SCP. The current Cal IPC list can be obtained from the Cal-IPC web site (http://www.cal-ipc.org/ip/inventory/index.php).</p> <p>MV 4.3-68 All portions of the spineflower preserves shall be closed, with the exception of pre-identified existing dirt roads and utility easements. The pre-identified existing dirt roads and utility easement access roads shall function as access routes for the spineflower preserve manager, spineflower preserve maintenance personnel, utility personnel, and emergency services vehicles only (e.g., police, fire, and medical). No other vehicle or foot traffic, including nature or recreational trails, will be permitted in the preserve, including the buffer. The dirt roads shall be gated and locked at the outside edges of the buffer zone. Signs discouraging unauthorized access shall be posted. The only persons or entities issued gate keys shall be the spineflower preserve managers and their employees, easement holding utility companies, emergency services, the Applicant, and CDFG.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-69 Fencing shall be installed along the outside edge of the spineflower preserve and buffer areas adjacent to proposed developments, parks, golf courses, or other “active land uses” to prevent unauthorized access. Specific areas that are adequately protected by steep terrain (1.5:1 or steeper) and/or dense vegetation may not require fencing but would require signage. The determination of the need for fencing in these areas shall be subject to the approval of the spineflower preserve manager or qualified biologist. If monitoring determines that slope and/or vegetation is not effective at deterring unauthorized access, additional fencing may be required to be added by the spineflower preserve manager or qualified biologist. Fencing is not required in areas bordered by large parcels of conserved natural open space areas or the Santa Clara River riparian corridor, as installing fencing in these areas would be unnecessary and damaging to existing vegetation and wildlife corridors.</p> <p>Fencing must extend a minimum of 4 feet above grade and include wood-doweled split rail fencing, exterior grade heavy-duty vinyl three-railed fencing, three-strand non-barbed wire, or approved alternate. Fencing installed adjacent to native vegetation communities and natural open space areas will allow for the passage of animals.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-70 Outdoor all-weather signs measuring approximately 12 by 16 inches shall be posted on all spineflower preserve access gates and along spineflower preserve fencing at approximately 800 feet on center, except adjacent to road crossings, where signs will be posted. The placement will take topography into account, emphasizing placement on ridgelines where signs will be visible to emergency fire personnel and others. Signs shall state in English and Spanish that the area is a biological preserve that hosts a state-listed endangered and federal candidate plant species and that trespassing is prohibited (in accordance with Newhall Ranch Specific Plan Program EIR Mitigation Measure SP 4.6-68). Signs shall indicate that fuel modification and management work is not allowed within the spineflower preserve (including buffer areas). The signage shall state that people who do not abide by these rules or who damage the protected species will be subject to prosecution, including fines and/or imprisonment. All signage shall include emergency contact information and shall be reviewed and approved by the spineflower preserve manager or qualified biologist.</p> <p>MV 4.3-71 Storm drain outfalls from proposed development areas shall only be installed uphill from spineflower preserve areas where necessary to retain pre-construction hydrological conditions within the spineflower preserves, sustain existing riparian and wetland vegetation communities, and/or allow for the restoration of currently disturbed areas to native riparian/alluvial vegetation communities. When located in a spineflower preserve area, storm drains must meet the following criteria:</p> <ul style="list-style-type: none"> • Storm drains must not impact spineflower either directly or indirectly, and • Under no circumstances shall storm drains daylight onto steeply sloped areas or other areas that would cause erosion. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-72 Any surface water entering a spineflower preserve area from development areas during construction is required to pass through BMP measures, which will be described in the SWPPP. Storm drain outlets must contain hydrologic controls (e.g., adequate energy dissipaters) to prevent downstream erosion and stream channel down-cutting. Additionally, storm drain outlets must be designed based on pre- and post-construction hydrological studies (in accordance with Newhall Ranch Specific Plan Program EIR Mitigation Measure SP 4.6-69). Storm drains and permanent structural BMPs shall be designed by a licensed civil engineer. Requirements of MV 4.3-62 and MV 4.3-71, where applicable, shall be incorporated into the facility design and shall be subject to approval by the spineflower manager or qualified biologist. Long-term maintenance of storm drain BMPs will be the responsibility of the designated maintenance entity.</p> <p>MV 4.3-73 Disturbed portions (<i>i.e.</i>, agricultural lands, disturbed lands, and developed lands) of the spineflower preserves, including buffers, will be restored through revegetation with native plant communities. In summary, areas that have greater than 30 percent relative cover by weeds will be restored to have relative cover comparable to that of existing occupied spineflower habitat. Habitat restoration and enhancement plans (including restoration plans) for areas within the preserves shall be prepared at the direction of the preserve manager by a qualified biologist and submitted to the County and CDFG for approval prior to implementation. In addition, Cal-IPC List A and B plants that are present within the spineflower preserve will be controlled. Restoration and enhancement efforts within the spineflower preserve areas shall be in conformance with the Spineflower Conservation Plan and will not include permanent irrigation.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-74 In the event that a spineflower preserve, or buffer, or a portion of a spineflower preserve, or buffer burns in a wildfire or suffers from mass movements (<i>e.g.</i>, landslides, slope sloughing, or other geologic events), the spineflower preserve manager and the Applicant shall promptly review the site and determine what action, if any, should be taken. The primary anticipated post-fire spineflower preserve management activity involves monitoring the site and controlling annual weeds that may invade burned areas following a fire event, especially when such weeds (that were not previously present or not present in similar densities) exceed the 30 percent maximum threshold (see MV 4.3-73). If fire-control lines or other forms of bulldozer damage occur in the spineflower preserves, these areas will be repaired and revegetated to pre-burn conditions or better. An emergency fire response plan will be prepared (in accordance with Mitigation Measure SP-4.6-72) prior to the establishment of the spineflower preserves and approved by CDFG and Los Angeles County Fire Department. The preserve manager will contact the Los Angeles County Fire Department at least once every 5 years to review the plan and consult with them on implementation of the plan.</p> <p>The same methods will be applied to mass-movement, landslide, or slope-sloughing types of events. This measure shall be implemented in conformance with the Spineflower Conservation Plan.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-75 Focused surveys for the undescribed species of everlasting (a special-status plant species) shall be conducted by a qualified botanist prior to the commencement of grading/construction activities wherever suitable habitat (primarily river terraces) could be affected by direct, indirect, or secondary construction impacts. The surveys shall be conducted no more than one year prior to commencement of construction activities within suitable habitat, and the surveys shall be conducted at a time of year when the plants can be located and identified. Should the species be documented within the project boundary, avoidance measures shall be implemented to minimize impacts to individual plants wherever feasible. These measures shall include minor adjustments to the boundaries/location of haul routes and other project features. If, due to project design constraints, avoidance of all plants is not possible, then further measures, described in MV 4.3-76, shall be implemented to salvage seeds and/or transplant individual plants. All seed collection and/or transplantation methods, as well as the location of the receptor site for seeds/plants (assumed to be within preserved open space areas of Newhall Ranch along the Santa Clara River), shall be coordinated with CDFG prior to impacting known occurrences of the undescribed everlasting.</p> <p>MV 4.3-76 For any individual project, or any phase of an individual project, to be located where undescribed everlasting plants may occur, the Applicant shall prepare and implement an Undescribed Everlasting Mitigation and Monitoring Plan prior to the issuance of grading permits.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)	<p>MV 4.3-76 (continued)</p> <p>The Plan shall provide for replacement of individual plants to be removed at a minimum 1:1 ratio, within suitable habitat at a site where no future construction-related disturbance will occur. The plan shall specify the following: (1) the location of the mitigation site in protected/preserved areas within the Specific Plan site; (2) methods for harvesting seeds or salvaging and transplantation of individual plants to be impacted; (3) measures for propagating plants (from seed or cuttings) or transferring living specimens from the salvage site to the introduction site; (4) site preparation procedures for the mitigation site; (5) a schedule and action plan to maintain and monitor the mitigation area; (6) the list of criteria and performance standards by which to measure the success of the mitigation site (below); (7) measures to exclude unauthorized entry into the mitigation areas; and (8) contingency measures such as erosion control, replanting, or weeding to implement in the event that mitigation efforts are not successful. The performance standards for the Undescribed Everlasting Mitigation and Monitoring Plan shall be the following:</p> <ul style="list-style-type: none"> (a) Within four years after reintroducing the undescribed everlasting to the mitigation site, the extent of occupied acreage and the number of established, reproductive plants will be no smaller than at the site lost for project construction. (b) Non-native species cover will be no more than 5 percent absolute cover through the term of the restoration. (c) Giant reed (<i>Arundo donax</i>), tamarisk (<i>Tamarix ramosissima</i>), perennial pepperweed (<i>Lepidium latifolium</i>), tree of heaven (<i>Ailanthus altissimus</i>), pampas grass (<i>Cortaderia selloana</i>), and any species listed on the California State Agricultural list (CDFA 2009) or Cal-IPC list of noxious weeds (Cal-IPC 2006, 2007) will not be present on the revegetation site as of the date of completion approval. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-77 A cowbird trapping program shall be implemented once vegetation clearing begins and maintained throughout the construction, maintenance, and monitoring period of the riparian restoration sites. A minimum of five traps shall be utilized, with at least one trap adjacent to the project site and one or two traps located at feeding areas or other CDFG-approved location. The trapping contractor may consult with CDFG to request modification of the trap location(s). CDFG must approve any relocation of the traps. Traps will be maintained beginning each year on April 1 and concluding on/about November 1 (may conclude earlier, depending upon weather conditions and results of capture). The trapping contractor may also consult CDFG on a modified, CDFG-approved trapping schedule modification. The applicant shall follow CDFG and USFWS protocol. In the event that trapping is terminated after the first few years, subsequent phases of the development will require initiation of trapping surveys to determine whether re-establishment of the trapping program is necessary.</p> <p>MV 4.3-78 Bridge and culvert designs, where practicable, shall provide roosting habitat for bats. A qualified biologist shall work with the project engineer in identifying and incorporating structures into the design that provide suitable roosting habitat for bat species occurring in the project area. The final design of the roosting structures would be chosen in consultation with CDFG.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.3 BIOTA (CONTINUED)		
	<p>MV 4.3-79 To preclude the invasion of Argentine ants into the spineflower preserves and their associated buffers, controls will be implemented using an integrated pest management (IPM) approach in accordance with the approved SCP. The controls include (1) providing "dry zones" between urban development and spineflower populations; (2) building dry areas such as parking lots and roadways next to preserve boundaries, and sloping these areas away from the spineflower preserves; (3) constructing pedestrian pathways next to preserves out of decomposed granite or other gravel to minimize the holding of moisture; (4) ensuring that landscape container plants installed within 200 feet of spineflower preserves are ant free prior to installation; (5) maintaining natural hydrological conditions in the spineflower preserves, including the buffers, through project design features; and (6) using drought-resistant plants in FMZs and minimizing irrigation to the extent feasible.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.4 VISUAL QUALITIES		
<p><i>The Mission Village project would significantly alter the visual characteristics of the Santa Clara River/SR-126 visual corridor, the Interstate 5 (I-5) visual corridor, Airport Mesa, and the scenic vistas visible from various vantage points surrounding the project site. While the Mission Village project, for the most part, is not removing or replacing prominent visual features, the images of residential development, roadways, bridges, and other human activity would be a significant change from the existing site characteristics, which could be viewed as a substantial adverse effect. Such development would also introduce sources of outdoor illumination that do not presently exist. Outdoor lighting, such as streetlights and traffic signals, are essential safety features in development projects that include construction of new streets and intersections, and such lighting cannot be eliminated if the proposed project is implemented. Chapters 3 and 4 of the Specific Plan contain Development Regulations and Design Guidelines, respectively, that apply to the Mission Village project. These regulations and guidelines address grading, lighting, fencing, landscaping, signage, architecture, and site planning for subsequent subdivisions within the Newhall Ranch Specific Plan. Despite such features, the identified significant visual impacts would still result from the change in the visual character of the site from rural to urban. There is no feasible mitigation beyond that already adopted as part of the Newhall Ranch Specific Plan Program EIR to reduce the identified impacts to a level below significant. Consequently, such significant visual impacts would remain significant and unavoidable, as found in the Newhall Ranch Specific Plan Program EIR.</i></p>	<p>SP 4.7-1</p> <p>In conjunction with the development review process set forth in Chapter 5 of the Specific Plan, all future subdivision maps and other discretionary permits which allow construction shall incorporate the Development Guidelines (Specific Plan, Chapter 3) and Design Guidelines (Specific Plan, Chapter 4), and the design themes and view considerations listed in the Specific Plan. (<i>Mission Village Vesting Tentative Tract Map 61105 and the applicable related discretionary permits incorporate the Specific Plan Development and Design Guidelines consistent with the requirements of the Specific Plan and this mitigation measure.</i>)</p> <p>SP 4.7-2</p> <p>In design of residential tentative tract maps and site planning of multifamily areas and Commercial and Mixed-Use land use designations along SR-126, the following Design Guidelines shall be utilized:</p> <ul style="list-style-type: none"> • Where the elevations of buildings will obstruct the views from SR-126 to the south, the location and configuration of individual buildings, driveways, parking, streets, signs and pathways shall be designed to provide view corridors of the river, bluffs, and the ridge lines south of the river. Those view corridors may be perpendicular to SR-126 or oblique to it in order to provide for views of passengers within moving vehicles on SR-126. • The Community Park between SR-126 and the Santa Clara River shall be designed to promote views from SR-126 of the river, bluffs, and ridge lines to the south of the river. (This requirement is not applicable to Mission Village.) • Residential site planning guidelines set forth in Section 4.3.1, Residential and Architectural Guidelines, set forth [in] Section 4.4.1, Residential, shall be employed to ensure that the views from SR-126 are aesthetically pleasing and that views of the river, bluffs, and ridge lines south of the river are preserved to the extent practicable. 	<p>After implementation of the recommended mitigation measures, visual quality impacts would remain significant and unavoidable.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.4 VISUAL QUALITIES (continued)		
	<p>SP 4.7-2 (continued)</p> <ul style="list-style-type: none"> • Mixed-Use and the Commercial site planning guidelines set forth in Section 4.3.2 and Architectural Guidelines set forth Section 4.4.2 shall be incorporated to the extent practicable in the design of the Riverwood Village Mixed-Use and Commercial land use designations to ensure that the views from SR-126 are aesthetically pleasing and to preserve views of the river, bluffs, and ridge lines south of the river. (This requirement is not applicable to Mission Village.) • Landscape improvements along SR-126 shall incorporate the Landscape Design guidelines, set forth in Section 4.6 in order to ensure that the views from SR-126 are aesthetically pleasing and to preserve views of the river, bluffs, and ridge lines south of the river. <i>(This requirement is not applicable to Mission Village.)</i> <p><i>(To the extent the requirements of this mitigation measure apply to the Mission Village project, the Mission Village site plan has been designed to retain view corridors consistent with the measure's requirements.)</i></p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS		
<p><i>This section presents an analysis of the impacts of the proposed project relative to traffic/access. The analysis presented here is based upon the traffic technical report prepared for the proposed Mission Village project by Austin-Foust Associates, Inc., dated October 1, 2010, which is included in its entirety in Appendix 4.5 of this EIR.</i></p> <p>a. Construction Impacts</p> <p><i>During construction of the Mission Village project, trucks to deliver construction equipment and building supplies and to haul away demolition debris potentially would disrupt traffic on local roadways resulting in a short-term impact that could adversely affect regional or local roadway operations. With implementation of traffic management controls for construction vehicles where necessary, no significant traffic impacts associated with construction of the project would occur.</i></p> <p>b. Operational Impacts</p> <p><i>At project buildout, which is anticipated in Year 2021, Mission Village would generate approximately 58,000 average daily vehicle trips. Consistent with County of Los Angeles, City of Santa Clarita, and Caltrans traffic impact analysis guidelines, the impacts of the proposed project relative to the capacity of the surrounding roadways were analyzed under three different scenarios: (1) existing plus ambient plus project conditions; (2) 2021 project buildout cumulative conditions; and (3) long-range (2035) cumulative conditions.</i></p> <p><i>Under existing plus ambient plus project conditions, the project plus ambient traffic would result in significant impacts at the Commerce Center Drive and SR-126 intersection. Mitigation is proposed that would reduce the identified impact to a level below significant.</i></p>	<p>SP 4.8-1</p> <p>The applicants for future subdivision maps which permit construction shall be responsible for funding and constructing all on-site traffic improvements except as otherwise provided below. The obligation to construct improvements shall not preclude the applicant’s ability to seek local, state, or federal funding for these facilities. <i>(All on-site traffic improvements included as part of the Mission Village project will be funded and/or constructed by the project applicant.)</i></p> <p>SP 4.8-2</p> <p>Prior to the approval of each subdivision map which permits construction, the applicant for that map shall prepare a transportation performance evaluation which shall indicate the specific improvements for all on-site roadways which are necessary to provide adequate roadway and intersection capacity as well as adequate right-of-way for the subdivision and other expected traffic. Transportation performance evaluations shall be approved by Los Angeles County Department of Public Works according to standards and policies in effect at that time. The transportation performance evaluation shall form the basis for specific conditions of approval for the subdivision. <i>(This EIR, Section 4.5, provides the required transportation performance evaluation and, in combination with Project Description, Section 1.0, indicates the on-site roadway improvements necessary to provide adequate capacity.)</i></p>	<p>With implementation of the identified mitigation measures, the proposed project’s traffic/access impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS (CONTINUED)		
<p><i>Under 2021 project buildout cumulative conditions, the project, in combination with cumulative traffic, would result in significant impacts at the following intersections (the applicable jurisdiction is listed in parenthetical):</i></p> <ul style="list-style-type: none"> • I-5 SB Ramps & Henry Mayo Drive (SR-126) (Caltrans/County); • I-5 SB Ramps & Valencia Boulevard (Caltrans/County); • The Old Road & Rye Canyon Road (County); • The Old Road & McBean Parkway (County); • McBean Parkway & Magic Mountain Parkway (City); • McBean Parkway & Newhall Ranch Road (City); • Orchard Village Road & McBean Parkway (City); • Bouquet Canyon Road & Newhall Ranch Road (City); and, • Commerce Center Drive & SR-126 (County). <p><i>Mitigation in the form of roadway capacity improvements is proposed that would reduce the identified impacts to a level below significant.</i></p> <p><i>Lastly, under long-range (2035) cumulative conditions, the project would contribute to significant long-term cumulative impacts at the following intersections:</i></p> <ul style="list-style-type: none"> • I-5 SB Ramps & SR-126 (Caltrans/County); • The Old Road & I-5 SB Ramps (Caltrans/County); • I-5 SB Ramps & Magic Mountain Parkway (Caltrans/County); • I-5 NB Ramps & Magic Mountain Parkway (Caltrans/City); • I-5 SB Ramps & Valencia Boulevard (Caltrans/County); • I-5 SB Ramps & McBean Parkway (Caltrans/County); 	<p>SP 4.8-3 The applicants for future subdivisions shall provide the traffic signals at the 15 locations labeled “B” through “P” in Figure 4.8-17 [of the Newhall Ranch Specific Plan Final EIR] as well as any additional signals warranted by future subdivision design. Signal warrants shall be prepared as part of the transportation performance evaluations noted in Mitigation Measure 4.8-2 [of the Newhall Ranch Specific Plan Final EIR]. [Ten (10) intersections located within the Mission Village site will be signalized intersections, including the three (3) intersections depicted as signalized by Specific Plan Figure 4.8-17: Commerce Center Drive and “A” Street, Commerce Center Drive and Magic Mountain Parkway, and Magic Mountain Parkway and “A” Street. This EIR, Section 4.5, in combination with the traffic analysis presented in EIR Appendix 4.5, provides the required signal warrants.]</p> <p>SP 4.8-4 All development within the <i>Specific Plan</i> shall conform to the requirements of the Los Angeles County Transportation Demand Management (TDM) Ordinance</p> <p>SP 4.8-5 The applicants for all future subdivision maps which permit construction shall consult with the local transit provider regarding the need for, and locations of, bus pull-ins on highways within the <i>Specific Plan</i> area. All bus pull-in locations shall be approved by the Department of Public Works, and approved bus pull-ins shall be constructed by the applicant.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS (CONTINUED)		
<ul style="list-style-type: none"> • I-5 SB Ramps/Marriott Way & Pico Canyon Road (Caltrans/County); • I-5 NB On/Off & Lyons Avenue (Caltrans/City); • The Old Road & Rye Canyon Road (County); • The Old Road & Magic Mountain Parkway (County); • The Old Road & McBean Parkway (County); • Tourney Road & Magic Mountain Parkway (City); • McBean Parkway & Magic Mountain Parkway (City); • McBean Parkway & Newhall Ranch Road (City); • Wiley Canyon Road & Lyons Avenue (City); • Orchard Village Road & Wiley Canyon (City); • Orchard Village Road & McBean (City); • Valencia Boulevard & Magic Mountain Parkway (City); • Bouquet Canyon Road & Newhall Ranch Road (City); and • Commerce Center Drive & SR-126 (County/Caltrans). <p>Mitigation in the form of capacity improvements is proposed that would reduce the project's contribution to the identified impacts to a level below significant.</p> <p>No significant impacts would occur to Congestion Management Program (CMP) intersections or CMP freeway segments, or to the Interstate 5 (I-5) mainline. With respect to transit, the project potentially would increase demand for transit ridership beyond the capacity of existing services, thereby resulting in a potentially significant impact. Mitigation is proposed that would reduce the identified impacts to a level below significant.</p>	<p>SP 4.8-6</p> <p>Prior to the recordation of the first subdivision map which permits construction, the applicant for that map shall prepare a transportation performance evaluation which shall determine the specific improvements needed to each off-site arterial and related costs in order to provide adequate roadway and intersection capacity for the expected Specific Plan and General Plan buildout traffic trips. The transportation performance evaluation shall be based on the Master Plan of Highways in effect at that time and shall be approved by the Los Angeles County Department of Public Works. The applicant shall be required to fund its fair share of improvements to these arterials, as stated on Table 4.8-18 [of the Newhall Ranch Specific Plan Final EIR]. The applicants' total funding obligation shall be equitably distributed over the housing units and non-residential building square footage (i.e., Business Park, Visitor-Serving, Mixed-Use, and Commercial) in the <i>Specific Plan</i>, and shall be a fee to be paid to the County and/or the City at each building permit. For off-site areas within the County unincorporated area, the applicant may construct improvements for credit against or in lieu of paying the fee. (This mitigation measure may or may not be applicable depending upon approval of other Newhall Ranch Specific Plan subdivisions in process.)</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS (CONTINUED)		
	<p>SP 4.8-7 Each future performance evaluation which shows that a future subdivision map will create significant impacts on SR-126 shall analyze the need for additional travel lanes on SR-126. If adequate lane capacity is not available at the time of subdivision, the applicant of the subdivision shall fund or construct the improvements necessary to serve the proposed increment of development. Construction or funding of any required facilities shall not preclude the applicant's ability to seek state, federal, or local funding for these facilities. <i>(The future performance evaluation presented in this EIR, Section 4.5, determined that the Mission Village project would cause significant impacts at the Chiquito Canyon Road/SR-126 intersection under the Stage 1 plus Related Projects scenario, and at the Commerce Center Drive/SR-126 intersection at buildout, and that the project would be responsible for its fair-share of improvements to these intersections.)</i></p> <p>SP 4.8-8 Project-specific environmental analysis for future subdivision maps which allow construction shall comply with the requirements of the CMP in effect at the time that subdivision map is filed. <i>(The future performance evaluation presented in this EIR, Section 4.5, complies with the requirements of the Congestion Management Program presently in effect.)</i></p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS (CONTINUED)		
	<p>SP 4.8-9 Prior to the recordation of the first subdivision map which permits construction, the applicant for that map shall prepare a transportation evaluation including all of the Specific Plan land uses which shall determine the specific improvements needed to the following intersections with SR-126 in the City of Fillmore and community of Piru in Ventura County: "A," "B," "C," "D," and "E" Streets, Old Telegraph, Olive, Central, Santa Clara, Mountain View, El Dorado Road, and Pole Creek (Fillmore), and Main/Torrey and Center (Piru). The related costs of those intersection improvements and the project's fair share shall be estimated based upon the expected Specific Plan traffic volumes. The transportation performance evaluation shall be based on the Los Angeles County Master Plan of Highways in effect at that time and shall be approved by the Los Angeles County Department of Public Works. The applicant's total funding obligation shall be equitably distributed over the housing units and non-residential building square footage (i.e., Business Park, Visitor Center, Mixed Use, and Commercial) in the <i>Specific Plan</i>, and shall be a fee to be paid to the City of Fillmore and the County of Ventura at each building permit. <i>(This mitigation measure may or may not be applicable depending upon approval other Newhall Ranch Specific Plan subdivisions in process.)</i></p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS (CONTINUED)		
	<p>SP 4.8-10 The Specific Plan is responsible to construct or fund its fair-share of the intersections and interchange improvements indicated on Table 4.8-18 [of the Newhall Ranch Specific Plan Final EIR]. Each future transportation performance evaluation required by Mitigation Measure 4.8-2 [of the Newhall Ranch Specific Plan Final EIR] which identifies a significant impact at these locations due to subdivision map-generated traffic shall address the need for additional capacity at each of these locations. If adequate capacity is not available at the time of subdivision map recordation, the performance evaluation shall determine the improvements necessary to carry Specific Plan generated traffic, as well as the fair share cost to construct such improvements. If the future subdivision is conditioned to construct a phase of improvements which results in an overpayment of the fair-share cost of the improvement, then an appropriate adjustment (offset) to the fees paid to Los Angeles County and/or City of Santa Clarita pursuant to Mitigation Measure 4.8-6, above, shall be made. <i>(The transportation performance evaluation presented in this EIR, Section 4.5, fulfills the requirements of this Specific Plan mitigation measure relative to Mission Village.)</i></p> <p>SP-4.8-11 The applicant of the Newhall Ranch Specific Plan shall participate in an I-5 developer fee program, if adopted by the Board of Supervisors for the Santa Clarita Valley. <i>(The Board of Supervisors has not adopted a developer fee program for the Santa Clarita Valley. However, the applicant currently is in negotiations with Caltrans regarding a funding agreement.)</i></p> <p>SP-4.8-12 The applicant of the Newhall Ranch Specific Plan shall participate in a transit fee program, if adopted for the entire Santa Clarita Valley by Los Angeles County and City of Santa Clarita. <i>(The applicant will be required to pay the applicable transit fees in place at the time of map recordation.)</i></p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS (CONTINUED)		
	<p>SP-4.8-13 Prior to the approval of each subdivision map which permits construction, the applicant for that map shall prepare a traffic analysis approved by the Los Angeles County Department of Public Works. The analysis will assess project and cumulative development (including an existing plus cumulative development scenario under the County’s Traffic Impact Analysis Report Guidelines [TIA] and its Development Monitoring System [DMS]). In response to the traffic analysis, the applicant may construct off-site traffic improvements for credit against, or in lieu of paying, the mitigation fees described in Mitigation Measure 4.8-6 [of the Newhall Ranch Specific Plan Final EIR]. If future subdivision maps are developed in phases, a traffic study for each phase of the subdivision map may be submitted to determine the improvements needed to be constructed with that phase of development. <i>(The traffic analysis presented in this Section 4.5 fulfills the requirements of this Specific Plan mitigation measure.)</i></p> <p>MV 4.5-1 28. The Old Road & McBean Parkway - Consistent with the milestones established in the most current County Department of Public Works (DPW) approved Westside Roadway Phasing Analysis, the project applicant shall stripe a third southbound through lane and a westbound right-turn lane at the intersection. Detailed signing and striping plans and traffic signal plans shall be submitted to the County Department of Public Works for review and approval. <i>(The Mission Village project’s fair-share responsibility for the improvements identified in this mitigation measure is 27% in the cumulative condition. This fair-share information is provided to facilitate any future action by the Project applicant to seek participatory funding from other development unrelated to the Mission Village project. Please refer to EIR Appendix 4.5, AFA Traffic Impact Analysis, Appendix J, for fair-share calculations.)</i></p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS (CONTINUED)		
	<p>MV 4.5-2 94. Commerce Center Drive & SR-126 - The project applicant shall reconstruct the existing intersection as a grade-separated interchange prior to issuance of building permits for the 2,780th residential unit and 935,000 square feet of non-residential commercial uses (or an equivalent traffic-generating combination thereof), or as otherwise provided in the most current County DPW approved Westside Roadway Phasing Analysis, whichever would require reconstruction of the intersection first. Detailed signing and striping plans and traffic signal plans shall be submitted to the County Department of Public Works for review and approval. <i>(The Mission Village project's fair-share responsibility for the improvements identified in this mitigation measure is 44.8% in the cumulative condition. This fair-share information is provided to facilitate any future action by the Project applicant to seek participatory funding from other development unrelated to the Mission Village project. Please refer to EIR Appendix 4.5, AFA Traffic Impact Analysis, Appendix J, for fair-share calculations.)</i></p> <p>MV 4.5-3 7. I-5 Southbound Ramps & SR-126 - Consistent with the milestones established in the most current County DPW approved Westside Roadway Phasing Analysis, the project applicant shall fund its fair share of the cost to stripe a fourth westbound through lane. (Project Share = 14.3 percent) Please refer to EIR Appendix 4.5, AFA Traffic Impacts Analysis, Appendix J, for fair-share calculations.)</p> <p>MV 4.5-4 12. I-5 Southbound Ramps & Valencia Boulevard - Consistent with the milestones established in the most current County DPW approved Westside Roadway Phasing Analysis, the project applicant shall fund its fair share of the cost to re-stripe the second westbound free-flow right-turn lane to a third westbound through lane/shared free-flow right-turn lane. (Project Share = 7.5 percent)</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS (CONTINUED)		
	<p>MV 4.5-5 25. The Old Road & Rye Canyon Road - Consistent with the milestones established in the most current County DPW approved Westside Roadway Phasing Analysis, the project applicant shall fund its fair share of the cost to: (i) add a second northbound through lane and a second southbound left-turn lane; and (ii) convert the northbound and westbound free-flow right-turn lanes to conventional right-turn lanes with overlap phasing. (Project Share = 7.1 percent)</p> <p>28. The Old Road & McBean Parkway - The project's compliance with mitigation MV 4.5-1 would mitigate the project's contribution to the identified significant impact and no further mitigation is required.</p> <p>45. McBean Parkway/Magic Mountain Parkway -The improvements recommended to mitigate the project's identified significant impacts at this intersection are to re-stripe for a third eastbound through lane and add a right-turn overlap phase for a westbound right-turn lane. These improvements are located within and will be constructed through the Valencia B&T District. Therefore, the project's identified impacts will be reduced to a level below significant through the B&T District and no further mitigation is required.</p> <p>48. McBean Parkway/Newhall Ranch Road - The improvements recommended to mitigate the project's identified significant impacts at this intersection are: (i) Re-stripe for a fourth westbound through lane; and (ii) Reconstruct the northbound approach to remove the pork-chop island and reconfigure as conventional dual right-turn lanes. These improvements are located within and will be constructed through the Valencia B&T District. Therefore, the project's identified impacts will be reduced to a level below significant through the B&T District and no further mitigation is required.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS (CONTINUED)		
	<p>55. Orchard Village & McBean Parkway – The improvements recommended to mitigate the project's identified significant impacts at this intersection are: (i) add a separate southbound left-turn lane; (ii) add a separate southbound through lane; (iii) add a separate southbound right-turn lane; and (iv) reconfigure the existing southbound right-turn lane as a shared left-turn through lane, as identified in the mitigation for the Hospital expansion project. These improvements are located within and will be constructed through the Valencia B&T District. Therefore, the project's identified impacts will be reduced to a level below significant through the B&T District and no further mitigation is required.</p> <p>66. Bouquet Canyon Road & Newhall Ranch Road –The improvement recommended to mitigate the project's identified significant impacts at this intersection is to stripe a third eastbound through lane while maintaining three eastbound left-turn lanes and two eastbound right-turn lanes. This improvement is located within and will be constructed through the Valencia B&T District. Therefore, the project's identified impacts will be reduced to a level below significant through the B&T District and no further mitigation is required.</p> <p>94. Commerce Center Drive & SR-126 - The project's compliance with Mitigation MV 4.5-2 would mitigate the project's contribution to the identified significant impact and no further mitigation is required.</p> <p>MV 4.5-6 Applicable transit mitigation fees shall be paid by the project applicant at the time of building permit issuance, unless modified by an approved transit mitigation agreement.</p> <p>MV 4.5-7 Prior to the commencement of project construction activities, the project applicant shall institute construction traffic management controls in accordance with the California Department of Transportation (Caltrans) traffic manual. These traffic management controls shall include measures determined on the basis of site-specific conditions including, as appropriate, the use of construction signs (e.g., "Construction Ahead") and delineators, and private driveway and cross-street closures.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS (CONTINUED)		
	<p>MV 4.5-8 Traffic signals shall be installed at the following intersections within the project site. The design and construction of the traffic signals shall be the sole responsibility of the project. The signals shall be in place to the satisfaction of the County Department of Public Works. Detailed signing and striping plans and traffic signal plans shall be submitted to Public Works for review and approval:</p> <ul style="list-style-type: none"> • B Street at Magic Mountain Parkway; • A Street at Magic Mountain Parkway; • Commerce Center Drive at A Street; • KK Drive/HH Street at Magic Mountain Parkway; • II Drive at Magic Mountain Parkway; • Westridge Parkway at Magic Mountain Parkway; • Commerce Center Drive at Magic Mountain Parkway; • Commerce Center Drive at DD Drive; • Commerce Center Drive at GG Street; and • Westridge Parkway at QQ Street (Fire Station Signal). <p>MV 4.5-9 The project applicant, or the current owner of the development, shall monitor the following intersections for the installation of traffic signals once the Mission Village elementary school is opened and every year thereafter for up to five years after the certificate of occupancy of the last residential unit of Mission Village (excluding age restricted/qualified residential units and residential units within the Saugus School District) is issued and the full planned occupancy of 900 students for the school is reached (or fewer students if official documentation from the Newhall School District shows no increase in student enrollment for five consecutive school years):</p> <ul style="list-style-type: none"> • A Street at B Street/CC Drive; • Q1 Street at A Street; and • HH Street/R Street at A Street. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS (CONTINUED)		
	<p>MV 4.5-9 (continued) The referenced monitoring shall include the submittal of annual traffic signal warrant analyses to the County Department of Public Works for review and approval. At the time, if any, traffic signals are warranted, the applicant shall enter into a secured agreement/bond with Public Works to guarantee the installation of traffic signals, design the necessary striping and signal plans, and construct the signals to the satisfaction of Public Works. Any security for the traffic signal construction submitted will be returned once the construction is completed to the satisfaction of Public Works or at the expiration of the referenced monitoring program.</p> <p>MV 4.5-10 The project shall install a traffic signal at the following location after detailed signing and striping plans and traffic signal plans have been reviewed and approved by the County Department of Public Works:</p> <ul style="list-style-type: none"> • Westridge Parkway at Old Rock Road.\ <p>MV 4.5-11 Prior to recordation of the first tract map in Mission Village, a revised Westside Roadway Phasing Analysis (RPA), prepared and submitted by the project applicant, shall be reviewed and approved by the County Department of Public Works (DPW). This RPA shall update the previously approved RPA and identify the necessary improvements and residential unit thresholds (timing requirements) for those improvements for Mission Village based on then-current phasing assumptions. The revised RPA shall include actual traffic counts on newly constructed roadways and/or at intersections where traffic mitigation measures have been carried out. Subsequent updates of the RPA shall be prepared based on the following development thresholds:</p> <ol style="list-style-type: none"> i) 3,176 residential units and 13.17 million square feet non-residential uses; ii) 6,066 residential units and 14.87 million square feet non-residential uses; 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS (CONTINUED)		
	<p>MV 4.5-11 (continued)</p> <ul style="list-style-type: none"> iii) 14,515 residential units and 16.00 million square feet non-residential uses; iv) 21,373 residential units and 17.65 million square feet non-residential uses; v) 25,001 residential units and 19.78 million square feet non-residential uses; and vi) 27,615 residential units and 22.08 million square feet non-residential uses. <p>In addition, the applicant shall submit to DPW for review and approval an annual report, due January 30th for the prior year, identifying the number and type of residential and commercial building permits issued for Mission Village (and any other development within the Westside Santa Clarita area). The purpose of this annual report will be to track development progress against the thresholds identified in the AFA Traffic Impact Analysis and the then-current RPA.</p> <p>7. I-5 SB Ramps & Henry Mayo Drive (SR-126) - The project's compliance with mitigation MV 4.5-3 would mitigate the project's contribution to the identified significant impact and no further mitigation is required.</p> <p>MV 4.5-12 9. The Old Road & I-5 SB Ramps – Consistent with the milestones established in the most current County DPW approved Westside Roadway Phasing Analysis, the project applicant shall fund its fair share of the cost to: (i) add a second northbound right-turn lane; (ii) add a second southbound left-turn lane; (iii) add a third southbound through lane; and (iv) convert the shared westbound left/right-turn lane to a second westbound left-turn lane and add a right-turn lane. (Project Share = 1.4 percent. Please refer to EIR Appendix 4.5, AFA Traffic Impacts Analysis, Appendix J, for fair-share calculations.)</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS (CONTINUED)		
	<p>MV 4.5-13 10. I-5 SB Ramps & Magic Mountain Parkway – Consistent with the milestones established in the most current County DPW approved Westside Roadway Phasing Analysis, the project applicant shall fund its fair share of the cost to re-stripe the shared southbound left-turn/through lane to a left-turn lane and the first southbound right-turn lane to a shared through/left-turn lane (Project Share = 19.7 percent)</p> <p>MV 4.5-14 11. I-5 NB Ramps & Magic Mountain Parkway – Consistent with the milestones established in the most current County DPW approved Westside Roadway Phasing Analysis, the project applicant shall fund its fair share of the cost to re-stripe the shared northbound through/right-turn lane to a shared left-turn/through/right-turn lane. (Project Share = 17.6 percent)</p> <p>12. I-5 SB Ramps & Valencia Boulevard - The project's compliance with mitigation MV 4.5-4 would mitigate the project's contribution to the identified significant impact and no further mitigation is required.</p> <p>MV 4.5-15 14. I-5 SB Ramps & McBean Parkway - Consistent with the milestones established in the most current County DPW approved Westside Roadway Phasing Analysis, the project applicant shall fund its fair share of the costs to add a second southbound left-turn lane. (Project Share = 12.6%.)</p> <p>MV 4.5-16 16. I-5 SB/Marriott & Pico Canyon Road/Lyons Avenue - Consistent with the milestones established in the most current County DPW approved Westside Roadway Phasing Analysis, the project applicant shall fund its fair share of the costs to add: (i) a left-turn phase for the westbound left-turn lane (can be protected/permissive configuration); and (ii) right-turn overlap phasing for the northbound right-turn lane. (Project Share = 4.7% percent.)</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS (CONTINUED)		
	<p>17. I-5 NB On/Off Ramps & Lyons Avenue -The improvements recommended to mitigate the project's identified significant impacts at this intersection are: (i) re-stripe the third westbound through lane to a right-turn lane; and (ii) re-stripe the second westbound through lane to a shared through/right-turn lane. These improvements are located within and will be constructed through the Via Princessa B&T District. Therefore, the project's identified impacts will be reduced to a level below significant through the B&T District and no further mitigation is required.</p> <p>MV 4.5-17 25. The Old Road & Rye Canyon Road – Consistent with the milestones established in the most current County DPW approved Westside Roadway Phasing Analysis, and in addition to compliance with mitigation MV 4.5-5, the project applicant shall fund its fair share of the costs to: (i) add a third northbound through lane; (ii) add a third southbound through lane; and (iii) add a second and third westbound left-turn lane. (Project Share = 7.1 percent) (Note: This mitigation is supplemental to mitigation MV 4.5-5.)</p> <p>MV 4.5-18 26. The Old Road & Magic Mountain Parkway - Consistent with the milestones established in the most current County DPW approved Westside Roadway Phasing Analysis, the project applicant shall fund its fair share of the cost to add right-turn overlap phasing for the southbound right-turn lane. (Project Share = 21.1)</p> <p>28. The Old Road & McBean Pkwy – The project's compliance with mitigation MV 4.5-1 would mitigate the project's contribution to the identified significant impact and no further mitigation is required.</p> <p>37. Tourney & Magic Mountain Parkway - The improvement recommended to mitigate the project's identified significant impacts at this intersection is to stripe a fourth eastbound through lane. This improvement is located within and will be constructed through the Valencia B&T District. Therefore, the project's identified impacts will be reduced to a level below significant through the B&T District and no further mitigation is required.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS (CONTINUED)		
	<p>45. McBean Parkway & Magic Mountain Parkway - The improvements recommended to mitigate the project's identified significant impacts at this intersection are to re-stripe for a third eastbound through lane and add a right-turn overlap phase for a westbound right-turn lane. These improvements are located within and will be constructed through the Valencia B&T District. Therefore, the project's identified impacts will be reduced to a level below significant through the B&T District and no further mitigation is required.</p> <p>48. McBean Parkway & Newhall Ranch Road - The improvements recommended to mitigate the project's identified significant impacts at this intersection are: (i) Re-stripe for a fourth westbound through lane; and (ii) Reconstruct the northbound approach to remove the pork-chop island and reconfigure as conventional dual right-turn lanes. These improvements are located within and will be constructed through the Valencia B&T District. Therefore, the project's identified impacts will be reduced to a level below significant through the B&T District and no further mitigation is required.</p> <p>51. Wiley Canyon & Lyons - The improvement recommended to mitigate the project's identified significant impacts at this intersection is to re-stripe the eastbound right-turn lane to a third through lane (shared through/right-turn lane). This improvement is located within and will be constructed through the Via Princessa B&T District. Therefore, the project's identified impacts will be reduced to a level below significant through the B&T District and no further mitigation is required.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS (CONTINUED)		
	<p>51. Wiley Canyon & Lyons - The improvement recommended to mitigate the project's identified significant impacts at this intersection is to re-stripe the eastbound right-turn lane to a third through lane (shared through/right-turn lane). This improvement is located within and will be constructed through the Via Princessa B&T District. Therefore, the project's identified impacts will be reduced to a level below significant through the B&T District and no further mitigation is required.</p> <p>54. Orchard Village & Wiley Canyon - The improvement recommended to mitigate the project's identified significant impact at this intersection is to stripe a northbound right-turn lane. This improvement is located within and will be constructed through the Via Princessa B&T District. Therefore, the project's identified impacts will be reduced to a level below significant through the B&T District and no further mitigation is required.</p> <p>55. Orchard Village & McBean Parkway - The improvements recommended to mitigate the project's identified significant impacts at this intersection are: (i) add a separate southbound left-turn lane; (ii) add a separate southbound through lane; (iii) add a separate southbound right-turn lane; and (iv) reconfigure the existing southbound right-turn lane as a shared left-turn through lane, as identified in the mitigation for the Hospital expansion project. These improvements are located within and will be constructed through the Valencia B&T District. Therefore, the project's identified impacts will be reduced to a level below significant through the B&T District and no further mitigation is required.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.5 TRAFFIC/ACCESS (CONTINUED)		
	<p>57. Valencia Boulevard & Magic Mountain Parkway - The improvement recommended to mitigate the project's identified significant impacts at this intersect is to add a second westbound left-turn lane by removing or relocating the existing east leg raised median. These improvements are located within and will be constructed through the Valencia B&T District. Therefore, the project's identified impacts will be reduced to a level below significant through the B&T District and no further mitigation is required.</p> <p>66. Bouquet Canyon Road & Newhall Ranch Road - The improvement recommended to mitigate the project's identified significant impacts at this intersection is to stripe a third eastbound through lane while maintaining three eastbound left-turn lanes and two eastbound right-turn lanes. This improvement is located within and will be constructed through the Valencia B&T District. Therefore, the project's identified impacts will be reduced to a level below significant through the B&T District and no further mitigation is required.</p> <p>94. Commerce Center Drive & SR-126 - The project's compliance with mitigation MV 4.5-2 would mitigate the project's contribution to the identified significant impact and no further mitigation is required.</p> <p>MV 4.5-19 State Highways. The applicant shall work cooperatively with Caltrans to determine and provide transportation mitigation needed on State Highway facilities. The applicant shall construct mitigation improvements or pay an equitable share for mitigation projects to the satisfaction of Caltrans. The applicant shall enter into a traffic mitigation agreement with Caltrans before or within six months of certification of the EIR.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.6 NOISE		
<p><i>Development of the Mission Village site over an approximate 96-month period would involve clearing and grading of approximately 29.5 million cubic yards of earthen material and up to 372,000 cubic yards for the SCE substations in a balanced cut and fill operation, and the building of the proposed improvements. These activities involve the temporary use of heavy equipment, smaller equipment, and motor vehicles, which generate both steady state and episodic noise. This noise would primarily affect the occupants of on-site uses constructed in the earlier phases of the development, as well as residents of the off-site Westridge development, resulting in potentially significant impacts that would be mitigated to a level below significant. While this construction activity noise could be audible to occupants of Travel Village when construction activities would occur on the northwestern portion of the site, the increased noise levels would not exceed the applicable thresholds of significance and, therefore, would not result in significant impacts.</i></p> <p><i>Daytime pile driving in the Santa Clara Riverbed, should it occur during the construction of the proposed Commerce Center Drive Bridge, would be audible to occupants of on-site uses constructed prior to the bridge, and to the occupants of Travel Village and nearby non-residential uses, including visitors and employees of Magic Mountain Theme Park. The potential range of significant noise impacts from this activity for sensitive receptors would be approximately 4,000 feet from the pile-driving site for a period of approximately 9–12 months during the later phases of the construction, assuming no attenuation by</i></p>	<p>SP 4.9-1 All construction activity occurring on the Newhall Ranch Specific Plan site shall adhere to the requirements of the “County of Los Angeles Construction Equipment Noise Standards,” County of Los Angeles Ordinance No. 11743, Section 12.08.440 as identified in [Specific Plan Program EIR] Table 4.9-3.</p> <p>SP 4.9-2 Limit all construction activities near occupied residences to between the hours of 6:30 AM and 8:00 PM, and exclude all Sundays and legal holidays pursuant to County Department of Public Works, Construction Division standards.</p> <p>SP 4.9-3 When construction operations occur adjacent to occupied residential areas, implement appropriate additional noise reduction measures that include changing the location of stationary construction equipment, shutting off idling equipment, notifying adjacent residences in advance of construction work, and installing temporary acoustic barriers around stationary construction noise sources.</p> <p>SP 4.9-4 Locate construction staging areas on site to maximize the distance between staging areas and occupied residential areas.</p> <p>SP 4.9-5 Where new single-family residential buildings are to be constructed within an exterior noise contour of 60 dB(A) CNEL or greater, or where any multi-family buildings are to be constructed within an exterior noise contour of 65 dB(A) CNEL or greater, an acoustic analysis shall be completed prior to approval of building permits. The acoustical analysis shall show that the building is designed so that interior noise levels resulting from outside sources will be no greater than 45 dB(A) CNEL. <i>(The noise impacts analysis presented in this EIR Section 4.6, and the information contained in Appendix 4.6, provide the acoustical analysis required by this mitigation measure.)</i></p>	<p>Mitigation measures recommended to reduce construction-related noise impacts would reduce the magnitude of those impacts; however, should pile driving be required to construct the Commerce Center Drive Bridge, and should the project applicant not find it feasible to complete the pile driving prior to occupancy of on-site noise-sensitive uses within 4,000 feet of the pile driving, an unavoidable significant construction noise impact would occur.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.6 NOISE (CONTINUED)		
<p><i>terrain, structures, or vegetation. Noise-sensitive receptors proposed on the site within this 4,000-foot range could include persons that would reside in apartments, condominiums, and single-family residences constructed prior to the bridge. Off-site sensitive receptors within this 4,000-foot range would include occupants of the eastern half of Travel Village. Although mitigation is proposed, should pile driving be necessary in connection with bridge construction, the potentially significant noise impacts attributable to pile driving would be significant and unavoidable. Pile driving noise impacts on future residents of Landmark Village, should Landmark Village be constructed before the Commerce Center Drive Bridge, would be less than significant.</i></p> <p><i>Although the piles would be driven into alluvial deposits, which tend to have a dampening effect on vibrations, vibration from the pile driving would result in potentially significant impacts to surrounding inhabitants and to those non-residential uses that may employ vibration-sensitive equipment.</i></p> <p><i>Because project construction activities could cause noise and vibration levels at nearby existing and future receptors to exceed the Noise Ordinance standards, construction noise and vibration impacts are considered significant without mitigation.</i></p> <p><i>After project completion, traffic along Commerce Center Drive and Magic Mountain Parkway would cause significant noise impacts at several future on-site single-family and multi-family residences that would back onto these roadways. Lots 85,86, and 87 planned for single-family residences, and 468 and 512, planned for apartment/condominiums, would also experience significant noise impacts. There is also potential for some multi-family residences in lots designated Mixed Use</i></p>	<p>SP 4.9-6 For single-family residential lots located within the 60 dB(A) CNEL or greater noise contour, an acoustic analysis shall be submitted prior to tentative approval of the subdivision. The acoustic analysis shall show that exterior noise in outdoor living areas (e.g., back yards, patios, etc.) will be reduced to 60 dB(A) CNEL or less. <i>(The noise impacts analysis presented in this EIR Section 4.6, and the information contained in Appendix 4.6, provide the acoustical analysis required by this mitigation measure.)</i></p> <p>SP 4.9-7 For multi-family residential lots located within the 65 dB(A) CNEL or greater noise contour, an acoustic analysis shall be submitted prior to tentative approval of the subdivision. The acoustic analysis shall show that exterior noise in outdoor living areas (e.g., back yards, patios, etc.) will be reduced to 65 dB(A) CNEL or less. <i>(The noise impacts analysis presented in this EIR Section 4.6, and the information contained in Appendix 4.6, provide the acoustical analysis required by this mitigation measure.)</i></p> <p>SP 4.9-8 For school sites located within the 70 dB(A) CNEL or greater noise contour, an acoustic analysis shall be submitted prior to tentative approval of the subdivision. The acoustic analysis shall show that noise at exterior play areas will be reduced to 70 dB(A) CNEL or less. <i>(The noise impacts analysis presented in this EIR Section 4.6, and the information contained in Appendix 4.6, provide the acoustical analysis required by this mitigation measure.)</i></p> <p>SP 4.9-9 All residential air conditioning equipment installed within the Newhall Ranch Specific Plan site shall adhere to the requirements of the County of Los Angeles Residential Air Conditioning and Refrigeration Noise Standards, County of Los Angeles Ordinance No. 11743, Section 12.08.530.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.6 NOISE (CONTINUED)		
<p><i>Commercial (such as Lot 512) to experience significant noise impacts from traffic along these roadways, depending upon their location and orientation within each lot. Noise levels would be reduced to less than significant through the incorporation of mitigation measures.</i></p> <p><i>Traffic volumes along Westridge Parkway through the project site would be less than half of those along Magic Mountain Parkway and Commerce Center Drive (individually) and, as a result, noise levels along Westridge Parkway would not result in significant noise impacts on future on-site noise-sensitive receptors along this roadway or to residential land use located to the south near the Westridge Parkway and Valencia Boulevard intersections.</i></p> <p><i>Noise from the adjacent Magic Mountain Theme Park would be audible to receptors on the eastern edge of Mission Village. The theme park is operational year-round with most activity taking place during the summer months. With a few exceptions, the park closes by 10:00 PM, but may remain open as late as 1:00 AM. Noise monitoring along the eastern edge of the Mission Village site demonstrates that noise levels from the theme park on the developed portion of the project site would be less than 60 dB(A) L_{eq} and not incompatible with the land uses proposed along the eastern portion of the site. As a result, noise impacts from activities at the theme park would be less than significant.</i></p> <p><i>Periodic fireworks displays are expected to continue at the theme park. These displays occur predominantly during holidays and at Thanksgiving and Christmas. With the exception of the display on July 4th, which typically lasts 15 minutes, the displays last between 1 and 2 minutes. All displays occur before 10:00 PM. Fireworks are an impulsive noise source, which means, under Section 12.08.190 of the County's Noise Ordinance, that it is of short duration, usually less than one second and of high intensity,</i></p>	<p>SP 4.9-10 All stationary and point sources of noise occurring on the Newhall Ranch Specific Plan site shall adhere to the requirements of the County of Los Angeles Ordinance No. 11743, Section 12.08.390 as identified in [Specific Plan Program EIR] Table 4.9-2, County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources.</p> <p>SP 4.9-11 Loading, unloading, opening, closing, or other handling of boxes, crates, containers, building materials, garbage cans or similar objects between the hours of 10:00 PM and 6:00 AM in such a manner as to cause a noise disturbance is prohibited in accordance with the County of Los Angeles Ordinance No. 11743, Section 12.08.460.</p> <p>SP 4.9-12 Loading zones and trash receptacles in commercial and Business Park areas shall be located away from adjacent residential areas, or provide attenuation so that noise levels at residential uses do not exceed the standards identified in Section 12.08.460 of the Ordinance No. 11743.</p> <p>SP 4.9-13 Where residential lots are located with direct lines of sight to the Magic Mountain Theme Park, an acoustic analysis shall be submitted to show that exterior noise on the residential lots generated by activities at the park do not exceed the standards identified in Section 12.08.390 of the Ordinance No. 11743 as identified in Table 4.9-2, County of Los Angeles Exterior Noise Standards for Stationary and Point Noise Sources. <i>(The noise impacts analysis presented in this EIR Section 4.6, and the information contained in Appendix 4.6, provide the acoustical analysis required by this mitigation measure.)</i></p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.6 NOISE (CONTINUED)		
<p><i>with an abrupt onset and rapid decay. As a result, potential noise impacts attributable to the fireworks displays are considered less than significant.</i></p> <p><i>Post-project buildout mobile source noise levels at Travel Village from traffic along SR-126 would exceed 70.0 dB(A) Community Noise Equivalent Level (CNEL) at locations where recreational vehicles are inhabited. Pursuant to Mitigation Measure 4.9-14 from the Newhall Ranch Specific Plan Program EIR, the project applicant is required to construct a noise abatement barrier to reduce noise levels at Travel Village to 70 dB(A) CNEL or less. This wall will be built as part of the proposed Landmark Village project as Landmark Village traffic will contribute to Travel Village noise levels exceeding 70 dB(A) CNEL several years prior to Mission Village traffic.</i></p>	<p>SP 4.9-14 After the time that occupancy of uses on the Newhall Ranch Specific Plan site occurs, AND when noise levels at Travel Village reach 70 dB(A) CNEL at locations where recreational vehicles are inhabited, the applicant shall construct a noise abatement barrier to reduce noise levels at Travel Village to 70 dB(A) CNEL or less. <i>(The noise impacts analysis presented in this EIR Section 4.6 determined that Year 2013 roadway noise levels at Travel Village would exceed 70 dB(A) CNEL with project build out. This mitigation measure may or may not be applicable depending upon approval of other Newhall Ranch Specific Plan subdivisions in process.</i></p> <p>SP 4.9-15 Despite the absence of a significant impact, applicants for all building permits of Residential, Mixed-Use, Commercial, and Business Park land uses (Project) shall pay to the Santa Clara Elementary School District, prior to issuance of building permits, the Project’s pro rata share of the cost of a sound wall to be located between SR-126 and the Little Red School House. The Project’s pro rata share shall be determined by multiplying the estimated cost of the sound wall by the ratio of the project’s estimated contribution of average daily trips on SR-126 (ADT) at the Little Red School House (numerator) to the total projected cumulative ADT increase at that location (denominator).⁸ The total projected cumulative ADT increase shall be determined by subtracting the existing trips on SR-126⁹ from the projected cumulative trips as shown in Table 1 of Topical Response 5 – Traffic Impacts to State and Local Roads in Ventura County after adding the total Newhall Ranch ADT traveling west of the City of Fillmore. <i>(The applicant will pay its pro-rata fee prior to the issuance of building permits in accordance with this mitigation measure.)</i></p>	

⁸ Cost of Sound Wall X (Project ADT on SR-126 @ LRSH*/Total Projected Cumulative ADT Increase on SR-126 @ LRSH*) * LRSH = Little Red School House.

⁹ 25,165 ADT using linear extrapolation from Table 1 of Topical Response 5 – Traffic Impacts to State and Local Roads in Ventura County.

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.6 NOISE (CONTINUED)		
	<p>SP 4.9-16 Despite the absence of a significant impact, the applicant for all building permits of Residential, Mixed-Use, Commercial and Business Park land uses (Project) shall participate on a fair-share basis in noise attenuation programs developed and implemented by the City of Moorpark to attenuate vehicular noise on SR-23 just north of Casey Road for the existing single-family homes which front SR-23. The mitigation criteria shall be to reduce noise levels to satisfy State noise compatibility standards. The Project's pro rata share shall be determined by multiplying the estimated cost of attenuation by the ratio of the project's estimated contribution of average daily trips on SR-23 (ADT) north of the intersection of SR-23 and Casey Road (numerator) to the total projected cumulative ADT increase at that location (denominator).¹⁰ The total projected cumulative ADT increase shall be determined by subtracting the existing trips on SR-23 north of Casey Road¹¹ from the projected cumulative trips as shown in Topical Response 5 – Traffic Impacts of the Program EIR to State and Local Roads in Ventura County after adding the total Newhall Ranch ADT traveling south of the City of Fillmore. <i>(The applicant will pay its pro-rata fee prior to the issuance of building permits in accordance with this mitigation measure.)</i></p>	

¹⁰ Cost of mitigation x (Project ADT on SR-23 north of Casey Road/Total Projected cumulative ADT Increase on SR-23 north of Casey Road).

¹¹ ADT using linear extrapolation from Table 1 of Topical Response 5 – Traffic Impacts to State and Local Roads in Ventura County.

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.6 NOISE (CONTINUED)		
	<p>SP 4.9-17 Prior to the approval of any subdivision map which permits construction within the Specific Plan area, the applicant for that map shall prepare an acoustical analysis assessing project and cumulative development (including an existing plus project analysis, and an existing plus cumulative development analysis including the project). The acoustical analysis shall be based upon state noise land use compatibility criteria and shall be approved by the Los Angeles County Department of Health Services. <i>(The noise impacts analysis presented in this EIR Section 4.6, and the information contained in Appendix 4.6, provide the acoustical analysis required by this mitigation measure.)</i></p> <p>In order to mitigate any future impacts resulting from the project's contribution to significant cumulative noise impacts to development in existence as of the adoption of the Newhall Ranch Specific Plan and caused by vehicular traffic on off-site roadways, the applicant for building permits of Residential, Mixed-Use, Commercial, Visitor Serving and Business Park land uses shall, prior to issuance of building permits, pay a fee to Los Angeles County, Ventura County, the City of Fillmore or the City of Santa Clarita. The amount of the fee shall be the project's fair-share under any jurisdiction-wide or Santa Clarita Valley-wide noise programs adopted by any of the above jurisdictions. <i>(The proposed Mission Village project would contribute to a significant cumulative noise impact to the Travel Village Recreational Vehicle Park; however, the project would not contribute to significant cumulative noise impacts to other development in existence as of the adoption of the Newhall Ranch Specific Plan and caused by vehicular traffic on off-site roadways. Mitigation Measure SP 4.9-14 requires that the project applicant construct a noise abatement barrier to reduce noise levels at Travel Village to 70 dB(A) CNEL or less.</i></p> <p><i>Because the noise abatement barrier would mitigate the identified significant impact, no further mitigation is required. In addition, the</i></p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.6 NOISE (CONTINUED)		
	<p>SP 4.9-17 (continued)</p> <p><i>mitigation measure is not applicable because neither Los Angeles County nor the City of Santa Clarita has adopted a countywide or citywide noise program.)</i></p> <p>MV 4.6-1 The project applicant, or its designee, shall not undertake construction activities that can generate noise levels in excess of the County’s <i>Noise Ordinance</i> on Sundays or legal holidays.</p> <p>MV 4.6-2 When construction operations occur in close proximity to on- or off-site occupied residences, and if it is determined by County staff during routine construction site inspections that the construction equipment could generate a noise level at the residences that would be in excess of the <i>Noise Ordinance</i>, the project applicant, or its designee, shall implement appropriate additional noise reduction measures. These measures shall include, among other things, changing the location of stationary construction equipment, shutting off idling equipment, notifying residents in advance of construction work, and installing temporary acoustic barriers around stationary construction noise sources.</p> <p>MV 4.6-3 To the extent feasible, the project developer shall utilize cast-in-drilled-hole piles in lieu of pile driving if residential units are constructed within 4,000 feet of the Commerce Center Drive Bridge prior to any pile-driving activity.</p> <p>Pile drilling is an alternate method of pile installation where a hole is drilled into the ground up to the required elevations and concrete is then cast into it. The estimated noise level of pile drilling at 50 feet is 80 to 95 dB(A) L_{eq} compared to 90 to 105 dB(A) L_{eq} of conventional pile driving.¹² Therefore, pile drilling generally produces noise levels approximately 10 to 15 decibels lower than pile driving.</p>	

¹² U.S. Environmental Protection Agency, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, December 1971.

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.6 NOISE (CONTINUED)		
	<p>MV 4.6-4 If pile driving is necessary for the Commerce Center Drive Bridge construction, the project applicant shall, to the extent feasible, reduce the level of vibration impact by:</p> <ul style="list-style-type: none"> • identifying all uses in the vicinity that may be adversely affected by the vibrations, including Travel Village, residences built in earlier phases of Mission Village, non-residential land uses that may use vibration-sensitive equipment, etc.; and • installing seismographs at the aforementioned sensitive locations to ensure that Section 12.08.560 of the County's <i>Noise Ordinance</i> is not exceeded, and/or that the pile driving would not cause structural damage or adversely affect vibration-sensitive equipment; and • adjusting vibration amplitudes of the pile driving on the conditions of the affected structures, the sensitivity of equipment, and/or human tolerance. <p>MV 4.6-5 To mitigate the noise impacts on Lots 85, 86, and 87 (Area A2) (single-family residential) that back onto Commerce Center Drive from traffic on the proposed Commerce Center Drive extension through the site, the project applicant shall, prior to occupancy, construct a 5-foot solid wall along the rear lot lines of these lots. The wall may be constructed of 3/8 or 5/8-inch Plexiglas or other material of similar acoustic performance, and shall be continuous with no breaks or gaps.</p> <p>MV 4.6-6 To mitigate the noise impacts on Lot 468 (Area D1) (apartment/condominium) from traffic on the proposed Commerce Center Drive extension through the site, the project applicant shall, prior to occupancy, construct a 5-foot berm/solid wall along the property line that abuts Commerce Center Drive. Alternatively, the project applicant shall place planned frequent use areas in the interior of the lot and separated from the roadway by structures.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.6 NOISE (CONTINUED)		
	<p>MV 4.6-7 To mitigate the noise impacts on Lot 508 (Mixed Use Commercial) from traffic on the proposed Commerce Center Drive extension through the site, the project applicant shall place planned frequent use areas for the residential component if any in the interior of the lot and separated from the roadway by structures. Alternatively, if residential uses are proposed, the project applicant shall construct a 5-foot berm/solid wall along the property line that abuts Commerce Center Drive.</p> <p>MV 4.6-8 To mitigate the noise impacts on Lot 512 (Mixed Use Residential/Commercial) from traffic on the proposed Magic Mountain Parkway extension through the site, the project applicant shall place planned frequent use areas for the residential component in the interior of the lot and separated from the roadway by structures. Alternatively, the project applicant shall construct a 5-foot berm/solid wall along the property line that abuts Commerce Center Drive.</p> <p>MV 4.6-9 When the final plans for the Mixed-use Residential/Commercial lots are complete showing the locations and orientations of the residences within the lots are complete, acoustic analyses shall be conducted by a qualified acoustic consultant to ensure that interior noise levels of any residences within the commercial lots can be feasibly reduced to 45 dB(A).</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.6 NOISE (CONTINUED)		
	<p>MV 4.6-10 All residences located within Mixed-Use Residential/Commercial areas and within 200 feet of the centerlines of Commerce Center Drive and/or Magic Mountain Parkway shall incorporate the following roadway noise-reducing measures into the exterior wall that faces onto those roadways:</p> <ul style="list-style-type: none"> (a) All windows, both fixed and operable, shall consist of either double-strength glass or double-paned glass. All windows facing sound waves generated from the mobile source noise shall be manufactured and installed to specifications that prevent any sound from window vibration caused by the noise source. (b) Doors shall be solid core and shall be acoustically designed with gasketed stops and integral drop seals. (c) If necessitated by the architectural design of a structure, special insulation or design features shall be installed to meet the required interior ambient noise level. <p>The specifications in this measure shall be refined when the final plans showing the locations and orientations of the residences within the lots along Commerce Center Drive and Magic Mountain Parkway are completed. Interior noise levels of all residences within lots designated for Mix Use shall not exceed of 45 dB(A) CNEL.</p> <p>MV 4.6-11 Air conditioning units shall be installed to serve all living areas of all residences located with direct lines of sight to Commerce Center Drive and/or Magic Mountain Parkway so that windows may remain closed without compromising the comfort of the occupants.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.6 NOISE (CONTINUED)		
	<p>MV 4.6-12 If residential lots abut portions of commercial lots where delivery truck/garbage truck activities would occur, a method of noise attenuation shall be specified by a qualified acoustic consultant that reduces noise to a level within normally acceptable levels identified in the applicable compatibility guidelines.</p> <p>MV 4.6-13 All HVAC units within commercial lots adjacent to residential uses shall be enclosed so that noise levels from the units are no greater than 60 dB(A) at the property line when in proximity to single-family residences, and no greater than 65 dB(A) at the property line when in proximity to multi-family residences (apartments and condominiums).</p> <p>MV 4.6-14 Balconies with direct lines of sight to Commerce Center Drive and/or Magic Mountain Parkway shall be discouraged from exposure to exterior noise levels greater than the 60 dB(A) CNEL standard for single-family residences or the 65 dB(A) CNEL standard for multi-family residences through architectural or site design. Alternatively, balconies shall be enclosed by solid noise barriers, such as 3/8-inch glass or 5/8-inch Plexiglas to a height specified by a qualified noise consultant that results in noise levels within normally acceptable levels identified in the applicable compatibility guidelines.</p> <p>MV 4.6-15 Prior to all home sales and rentals within Mission Village, the project applicant, or its designee, shall inform prospective buyers and renters that fireworks displays periodically occur at Magic Mountain Theme Park and that instantaneous noise levels at the eastern boundary of Mission Village could exceed 90 dB(A) for the duration of the displays. The disclosure statement shall include information on the current permits to conduct fireworks displays on the theme park, including dates of the fireworks, estimated times, and durations.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.7 AIR QUALITY		
<p><i>Implementation of the Mission Village project would generate both construction and operational air pollutant emissions. Construction-related emissions would be generated by on-site stationary sources, on- and off-road heavy-duty construction vehicles, and construction worker vehicles. Operation-related emissions would be generated by on-site and off-site stationary sources and by mobile sources. During project construction, emissions of volatile organic compounds (VOC), oxides of nitrogen (NO_x), respirable particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}) would exceed the thresholds of significance recommended by the South Coast Air Quality Management District (SCAQMD). The analysis of localized significance threshold (LST) impacts suggests that PM₁₀ emissions would exceed the limitations in SCAQMD Rule 403 and that the nitrogen dioxide (NO₂) concentrations would exceed the LST thresholds. At project buildout, operational emissions of VOC, NO_x, PM₁₀, and PM_{2.5} would exceed SCAQMD thresholds, primarily due to emissions from mobile sources and use of consumer products.</i></p>	<p>SP 4.10-1 The Specific Plan will provide Commercial and Service Uses in close proximity to residential subdivisions. <i>(Mission Village provides commercial uses in close proximity to residential subdivisions).</i></p> <p>SP 4.10-2 The Specific Plan will locate residential uses in close proximity to Commercial Uses, Mixed-Uses, and Business Parks. <i>(Mission Village locates residential uses in close proximity to Commercial Uses and Mixed Uses).</i></p> <p>SP 4.10-3 Bus pull-ins will be constructed throughout the Specific Plan site. <i>(Mission Village provides for bus stops at designated locations).</i></p> <p>SP 4.10-4 Pedestrian facilities, such as sidewalks, and community regional, and local trails, will be provided throughout the Specific Plan site. <i>(Pedestrian facilities, such as sidewalks, bike paths, and trails, will be constructed throughout Mission Village, with future connections to other on-site and off-site future developments and designated trails).</i></p> <p>SP 4.10-5 Roads with adjacent trails for pedestrian and bicycle use will be provided throughout the Specific Plan site connecting the individual Villages and community. <i>(Roads with adjacent trails for pedestrian and bicycle use will be provided throughout the Mission Village site with future connections to future developments within Newhall Ranch).</i></p>	<p>No feasible mitigation exists that would reduce all of these emissions to below the SCAQMD’s recommended thresholds of significance. The project’s construction-related emissions of VOCs, NO_x, PM₁₀, and PM_{2.5} and operation-related emissions of VOCs, NO_x, CO, PM₁₀, and PM_{2.5} are considered significant and unavoidable.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.7 AIR QUALITY (CONTINUED)		
<p><i>Population growth attributed to the project is consistent with the approved Newhall Ranch Specific Plan and therefore is within growth forecasts contained in the 2004 Regional Transportation Plan (2004 RTP) prepared by the Southern California Association of Governments (SCAG). The 2004 RTP forms the basis for the land use and transportation control portions of the 2007 Air Quality Management Plan (2007 AQMP). Because the project is within the growth forecasts for the region, it would, consequently, be consistent with the 2007 AQMP, indicating that it would not jeopardize attainment of state and federal ambient air quality standards in the Santa Clarita Valley or throughout the South Coast Air Basin (SoCAB).</i></p> <p><i>A health risk assessment also was prepared to evaluate the potential effects of project-related exposures to diesel particulate matter emitted by construction equipment. The assessment determined that the maximum anticipated cancer risks associated with the construction of the proposed project are 3.4, 1.2, and 0.3 in 1 million at maximally impacted residential, workplace, and student receptors, respectively. These cancer risk levels are below the threshold of significance of 10 in 1 million. The assessment also determined that the potential chronic health hazard impacts would be well below the adopted significance threshold. As to operational impacts, the proposed project would not result in substantial emissions of toxic air contaminants and, therefore, no significant impacts would occur. Therefore, potential health impacts associated with the construction and operation of the proposed project are less than significant.</i></p>	<p>SP 4.10-6 The applicant of future subdivisions shall implement all rules and regulations adopted by the Governing Board of the SCAQMD which are applicable to the development of the subdivision (such as Rule 402 - Nuisance, Rule 403 - Fugitive Dust, Rule 1113 - Architectural Coatings) and which are in effect at the time of development. The purpose of Rule 403 is to reduce the amount of particulate matter entrained in the ambient air as a result of man-made fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 applies to any activity or man-made condition capable of generating fugitive dust such as the mass and remedial grading associated with the project as well as weed abatement and stockpiling of construction materials (i.e., rock, earth, gravel). Rule 403 requires that grading operations either (1) take actions specified in Tables 1 and 2 of the Rule for each applicable source of fugitive dust and take certain notification and record keeping actions; or (2) obtain an approved Fugitive Dust Control Plan.</p> <p>A complete copy of the SCAQMD's Rule 403 Implementation Handbook, which has been included in Appendix 4.10 [of the <i>Newhall Ranch Specific Plan Program EIR</i>], provides guideline tables to demonstrate the typical mitigation program and record keeping required for grading operations (Tables 1 and 2 and sample record keeping chart). The record keeping is accomplished by on-site construction personnel, typically the construction superintendent.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.7 AIR QUALITY (CONTINUED)		
<p>Mitigation measures would be implemented that would reduce construction-related and operational-related emissions to the maximum extent feasible. However, no feasible mitigation exists that would reduce the project's construction-related emissions of VOC, NO_x, PM₁₀, or PM_{2.5} to below the SCAQMD's recommended thresholds of significance. Additionally, no feasible mitigation exists to reduce the project's operational emissions of VOC, NO_x, PM₁₀, or PM_{2.5} to less-than-significant levels. Therefore, the project's construction-related and operation-related emissions would be considered significant and unavoidable.</p> <p>The relevant SCAQMD's criteria were used to assess cumulative air quality impacts. Based on this analysis, cumulative air quality impacts would be significant given the cumulative project thresholds of significance found in the SCAQMD's California Environmental Quality Act (CEQA) Air Quality Handbook,¹³ and the fact that the project-specific impacts, even with all feasible mitigation, would represent a cumulatively considerable contribution to poor air quality in the SoCAB.</p> <p>All source materials cited and summarized in this section are incorporated by reference. Copies of these documents are available for public inspection and review at the County of Los Angeles (County) Department of Regional Planning, 320 South Temple Street, Los Angeles, California.</p>	<p>SP 4.10-6 (continued)</p> <p>Each future subdivision proposed in association with the Newhall Ranch Specific Plan shall implement the following if found applicable and feasible for that subdivision:</p> <ol style="list-style-type: none"> Apply non-toxic soil stabilizers according to manufacturers' specification to all inactive construction areas (previously graded areas inactive for 10 days or more). Replace groundcover in disturbed areas as quickly as possible. Enclose, cover, water twice daily, or apply non-toxic soil binders according to manufacturers' specifications, to exposed piles (i.e., gravel, sand, dirt) with 5 percent or greater silt content. Water active sites at least twice daily. Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph. Monitor for particulate emissions according to district-specified procedures. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer) in accordance with the requirements of CVC Section 23114. 	<p>Cumulative Impacts</p> <p>While the proposed project is consistent with regional growth projections, the project's mitigated construction- and operational-related VOC, NO_x, CO, PM₁₀, and PM_{2.5} emissions exceed the SCAQMD's recommended daily emission thresholds of significance for these pollutants. In addition, because the Basin is already in nonattainment for ozone (VOC and NO_x as ozone precursors), PM₁₀, PM_{2.5}, and CO (Los Angeles County), any increases in these emissions by the project are considered significant and unavoidable cumulative air quality impacts.</p>

¹³ The CEQA Air Quality Handbook is in the process of being revised. As of April 2010, the SCAQMD has revised portions of the handbook, revised the air quality significance thresholds, and added a new procedure referred to as "localized significance thresholds."

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.7 AIR QUALITY (CONTINUED)		
	<p>SP 4.10-6 (continued)</p> <p>Paved Roads</p> <ul style="list-style-type: none"> h. Sweep paved streets at the end of the day if visible soil material is carried onto adjacent public paved roads (recommend water sweepers with reclaimed water). i. Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip. <p>Unpaved Roads</p> <ul style="list-style-type: none"> j. Apply water three times daily, or non-toxic soil stabilizers according to manufacturers' specifications, to all unpaved parking or staging areas or unpaved road surfaces. k. Reduce traffic speeds on all unpaved roads to 15 mph or less. l. Pave construction roads that have a traffic volume of more than 50 daily trips by construction equipment, 150 total daily trips for all vehicles. m. Pave all construction access roads at least 100 feet on to the site from the main road. n. Pave construction roads that have a daily traffic volume of less than 50 vehicular trips. <p>These measures control PM₁₀ emissions and would also control PM_{2.5} emissions. The effectiveness of these measures at reducing PM₁₀ emissions ranges from 7 to 92.5 percent. For the purposes of this impact analysis, and to be consistent with URBEMIS2002 methodology, it is assumed that implementation of these measures would reduce PM_{2.5} and PM₁₀ emissions by a maximum of 68 percent.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.7 AIR QUALITY (CONTINUED)		
	<p>SP 4.10-7 Prior to the approval of each future subdivision proposed in association with the <i>Newhall Ranch Specific Plan</i>, each of the construction emission reduction measures indicated below (and in Tables 11-2 and 11-3 of the SCAQMD's <i>CEQA Air Quality Handbook</i>, as amended) shall be implemented if found applicable and feasible for that subdivision:</p> <p>On-Road Mobile Source Construction Emissions</p> <ol style="list-style-type: none"> a. Configure construction parking to minimize traffic interference. b. Provide temporary traffic controls when construction activities have the potential to disrupt traffic to maintain traffic flow (e.g., signage, flag person, detours). c. Schedule construction activities that affect traffic flow to off-peak hours (e.g., between 7:00 PM and 6:00 AM and between 10:00 AM and 3:00 PM). d. Develop a trip reduction plan to achieve a 1.5 average vehicle ridership (AVR) for construction employees. e. Implement a shuttle service to and from retail services and food establishments during lunch hours. f. Develop a construction traffic management plan that includes the following measures to address construction traffic that has the potential to affect traffic on public streets: <ul style="list-style-type: none"> • Rerouting construction traffic off congested streets; • Consolidating truck deliveries; and • Providing temporary dedicated turn lanes for movement of construction trucks and equipment on and off of the site. g. Prohibit truck idling in excess of 2 minutes. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.7 AIR QUALITY (CONTINUED)		
	<p>SP 4.10-7 (continued)</p> <p>Off-Road Mobile Source Construction Emissions</p> <ul style="list-style-type: none"> h. Use methanol-fueled pile drivers. i. Suspend use of all construction equipment operations during second stage smog alerts. j. Prevent trucks from idling longer than 2 minutes. k. Use electricity from power poles rather than temporary diesel-powered generators. l. Use electricity from power poles rather than temporary gasoline-powered generators. m. Use methanol- or natural gas-powered mobile equipment instead of diesel. n. Use propane- or butane-powered on-site mobile equipment instead of gasoline. <p>Operational Mitigation Measures</p> <p>(a) Point Source Operational Emissions</p> <p>SP 4.10-8 The applicant of future subdivisions shall implement all rules and regulations adopted by the Governing Board of the SCAQMD which are applicable to the development of the subdivision (such as Rule 402 - Nuisance, Rule 461 - Gasoline Transfer And Dispensing, Rule 1102 - Petroleum Solvent Dry Cleaners, Rule 1111 – NO_x Emissions from Natural Gas-Fired, Fan-Type Central Furnaces, Rule 1138 - Control Of Emissions From Restaurant Operations, Rule 1146 - Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters) and which are in effect at the time of occupancy permit issuance.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.7 AIR QUALITY (CONTINUED)		
	<p>(b) Mobile Source Operational Emissions</p> <p>SP 4.10-9 Prior to the approval of each future subdivision proposed in association with the <i>Newhall Ranch Specific Plan</i>, each of the operational emission reduction measures indicated below (and in Tables 11-6 and 11-7 of the SCAQMD's <i>CEQA Air Quality Handbook</i>, as amended) shall be implemented if found applicable and feasible for that subdivision.</p> <p>On Road Mobile Source Operational Emissions</p> <p><i>Residential Uses</i></p> <ol style="list-style-type: none"> a. Include satellite telecommunications centers in residential subdivisions. (Removed as growth of Internet allows residents to telecommute from home using personal computers.) b. Establish shuttle service from residential subdivision to commercial core areas. (<i>Residences are proposed in walking distance to many proposed commercial areas.</i>) c. Construct on-site or off-site bus stops (e.g., bus turnouts, passenger benches, and shelters). d. Construct off-site pedestrian facility improvements, such as overpasses and wider sidewalks. e. Include retail services within or adjacent to residential subdivisions. (<i>Retail services will be available in proximity to residential areas.</i>) f. Provide shuttles to major rail transit centers or multi-modal stations. (Not applicable because the project site is already served by two SCT routes that connect to McBean Transfer Station.) g. Contribute to regional transit systems (e.g., right-of-way, capital improvements, etc.). 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.7 AIR QUALITY (CONTINUED)		
	<p>SP 4.10-9 (continued)</p> <ul style="list-style-type: none"> h. Synchronize traffic lights on streets impacted by development. i. Construct, contribute, or dedicate land for the provision of off-site bicycle trails linking the facility to designated bicycle commuting routes. <p><i>Commercial/Office Uses</i></p> <ul style="list-style-type: none"> j. Provide preferential parking spaces for carpools and vanpools and provide 7 feet 2 inches minimum vertical clearance in parking facilities for vanpool access. k. Not applicable. l. Not applicable. m. Not applicable. n. Not applicable. o. Implement home dispatching system where employees receive routing schedule by phone instead of driving to work.<i>(Removed as growth of Internet allows employers to establish websites where such information can be posted and accessed by employees at home on personal computers.)</i> p. Not applicable. q. Not applicable. r. Reduce employee parking spaces for those businesses subject to Regulation XV (now Rule 2202). (Rule 2202 applies to employers with more than 250 employees on a single work site. The Mission Village project is not anticipated to include uses that would generate significant levels of employment at a single location. Furthermore, the project applicant cannot enforce this measure on individual businesses. In the event that a business would employ more than 250 employees, the business itself would be required to comply with Rule 2202.) 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.7 AIR QUALITY (CONTINUED)		
	<p>SP 4.10-9 (continued)</p> <ul style="list-style-type: none"> s. Implement a lunch shuttle service from a worksite(s) to food establishments. t. Not applicable. u. Not applicable. v. Utilize satellite offices rather than regular worksite to reduce VMT. (Removed as growth of Internet allows employees to work from home on personal computers.) w. Establish a home-based telecommuting program. (Communication technology allows employees to work from remote locations.) x. Provide on-site child care and after-school facilities or contribute to off-site development within walking distance. y. Not applicable. z. Not applicable. aa. Establish a shuttle service from residential core areas to the worksite. ab. Construct on-site or off-site bus stops (e.g., bus turnouts, passenger benches, and shelters). ac. Not applicable. ad. Include residential units within a commercial project. <i>(Residential uses would be in proximity to commercial uses.)</i> ae. Not applicable. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.7 AIR QUALITY (CONTINUED)		
	<p>SP 4.10-9 (continued)</p> <ul style="list-style-type: none"> af. Any two of the following: <ul style="list-style-type: none"> • Construct off-site bicycle facility improvements, such as bicycle trails linking the facility to designated bicycle commuting routes, or on-site improvements, such as bicycle paths. • Include bicycle parking facilities, such as bicycle lockers and racks. • Include showers for bicycling employees' use. ag. Any two of the following: <ul style="list-style-type: none"> • Construct off-site pedestrian facility improvements, such as overpasses, wider sidewalks. • Construct on-site pedestrian facility improvements, such as building access which is physically separated from street and parking lot traffic and walk paths. • Include showers for pedestrian employees' use. (Not applicable because the project applicant cannot enforce this measure on individual businesses). ah. Not applicable. ai. Contribute to regional transit systems (e.g., right-of-way, capital improvements, etc.). aj. Not applicable. ak. Synchronize traffic lights on streets impacted by development. al. Not applicable. am. Not applicable. an. Not applicable. ao. Implement or contribute to public outreach programs. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.7 AIR QUALITY (CONTINUED)		
	<p>SP 4.10-9 (continued)</p> <ul style="list-style-type: none"> ap. Not applicable. aq. Construct, contribute, or dedicate land for the provision of off-site bicycle trails linking the facility to designated bicycle commuting routes. <p><i>Industrial Uses</i></p> <ul style="list-style-type: none"> ar. Not applicable. as. Not applicable. at. Not applicable. au. Not applicable. av. Not applicable. aw.-Not applicable. ax. Not applicable. ay. Not applicable. az. Not applicable. ba. Not applicable. bb. Not applicable. bc. Not applicable. bd. Not applicable. be. Not applicable. bf. Not applicable. bg. Not applicable. bh. Not applicable. bi. Not applicable. bj. Not applicable. bk. Not applicable. bl. Not applicable. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.7 AIR QUALITY (CONTINUED)		
	<p>SP 4.10-9 (continued)</p> <ul style="list-style-type: none"> bm. Not applicable. bn. Not applicable. bo. Not applicable. bp. Not applicable. bq. Not applicable. br. Not applicable. <p>Stationary Source Operational Emissions</p> <p><i>Residential</i></p> <ul style="list-style-type: none"> bs. Use solar or low emission water heaters. bt. Not applicable. bu. Use built-in energy-efficient appliances. bv. Provide shade trees to reduce building heating/cooling needs. bw. Use energy-efficient and automated controls for air conditioners. bx. Use double-paned windows. by. Not applicable. bc. Use lighting controls and energy-efficient lighting. ca. Not applicable. cb. Not applicable. cb. Use light-colored roofing materials to reflect heat. cd. Increase walls and attic insulation beyond Title 24 requirements 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.7 AIR QUALITY (CONTINUED)		
	<p>SP 4.10-9 (continued)</p> <p><i>Commercial/Office Uses</i></p> <ul style="list-style-type: none"> ce. Use solar or low emission water heaters. cf. Use central water heating systems. cg. Provide shade trees to reduce building heating/cooling needs. ch. Use energy-efficient and automated controls for air conditioners. ci. Use double-paned windows. cj. Use energy-efficient low-sodium parking lot lights. ck. Use lighting controls and energy-efficient lighting. cl. Use light-colored roofing materials to reflect heat. cm. Increase walls and attic insulation beyond Title 24 requirements. cn. Not applicable. <p><i>Industrial Uses</i></p> <ul style="list-style-type: none"> co. Not applicable. cp. Not applicable. cq. Not applicable. cr. Not applicable. cs. Not applicable. ct. Not applicable. cu. Not applicable. cv. Not applicable. cw. Not applicable. cx. Not applicable. cy. Not applicable. cz. Not applicable. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.7 AIR QUALITY (CONTINUED)		
	<p>SP 4.10-10 All non-residential development of 25,000 gross square feet or more shall comply with the County’s Transportation Demand Management (TDM) Ordinance (Ordinance No. 93-0028M) in effect at the time of subdivision. The sizes and configurations of the <i>Specific Plan’s</i> non-residential uses are not known at this time and the Ordinance specifies different requirements based on the size of the project under review. All current provisions of the ordinance are summarized in Appendix 4.10 of the <i>Newhall Ranch Specific Plan Program EIR</i>.</p> <p>SP 4.10-11 Subdivisions and buildings shall comply with Title 24 of the <i>California Code of Regulations</i> which are current at the time of development.</p> <p>SP 4.10-12 Lighting for public streets, parking areas, and recreation areas shall utilize energy efficient light and mechanical, computerized or photo cell switching devices to reduce unnecessary energy usage.</p> <p>SP 4.10-13 Any on-site subterranean parking structures shall provide adequate ventilation systems to disperse pollutants and preclude the potential for a pollutant concentration to occur.</p> <p>SP 4.10-14 The sellers of new residential units shall be required to distribute brochures and other relevant information published by the SCAQMD or similar organization to new homeowners regarding the importance of reducing vehicle miles traveled and related air quality impacts, as well as on local opportunities for public transit and ridesharing.</p> <p>MV 4.7-1 The project applicant shall require that prior to the commencement of construction its contractors shall develop a Construction Traffic Emission Management Plan to minimize emissions from vehicles including, but not limited to, scheduling truck deliveries to avoid peak hour traffic conditions, consolidating truck deliveries, and prohibiting truck idling in excess of 5 minutes.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.7 AIR QUALITY (CONTINUED)		
	<p>MV 4.7-2 The project applicant shall require that its contractors suspend the use of all construction equipment during first-stage smog alerts.</p> <p>MV 4.7-3 The project applicant shall require that its contractors maintain construction equipment by conducting regular tune-ups according to the manufacturers' recommendations.</p> <p>MV 4.7-4 The project applicant shall require that its contractors use electric welders to avoid emissions from gas or diesel welders.</p> <p>MV 4.7-5 The project applicant shall require that its contractors reduce traffic speeds on all unpaved roads to 15 miles per hour or less.</p> <p>MV-4.7-6 The project applicant shall require that its contractors water active sites at least three times daily during dry weather.</p> <p>MV 4.7-7 The project applicant shall require that its contractors replace ground cover as quickly as possible.</p> <p>MV 4.7-8 The project applicant shall require that its contractors schedule construction activities that affect traffic flow to off-peak hours (e.g., between 7:00 PM and 6:00 AM and between 10:00 AM and 3:00 PM).</p> <p>MV 4.7-9 The project applicant shall require the contractor to provide temporary controls, such as a flag person, during all phases of construction to maintain smooth traffic flow.</p> <p>MV 4.7-10 The project applicant shall require the contractor route construction trucks away from congested streets and sensitive receptor areas (e.g., residences, schools, hospitals, etc.).</p> <p>MV-4.7-11 The project applicant shall install shaker plates at construction site exits, to minimize dirt track out and dust generation.</p> <p>MV-4.7-12 The project applicant shall operate street sweepers that comply with SCAQMD Rules 1186 and 1186.1 on roads adjacent to the construction site in a nearly continuous manner so as to minimize dust emissions. Paved parking and staging areas shall be swept daily.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.7 AIR QUALITY (CONTINUED)		
	<p>MV 4.7-13 The project applicant shall all on-site construction equipment to meet U.S. EPA Tier 2 of higher emissions standards according to the following:</p> <ul style="list-style-type: none"> • April 2010 through December 31, 2011: All offroad diesel-powered construction equipment greater than 50 horsepower (hp) shall meet Tier 2 offroad emissions standards. In addition, all construction equipment shall be outfitted with the BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 2 or Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. • January 1, 2012 through December 31, 2014: All offroad diesel-powered construction equipment greater than 50 horsepower (hp) shall meet Tier 3 offroad emissions standards. In addition, all construction equipment shall be outfitted with the BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. • Post-January 1, 2015: All offroad diesel-powered construction equipment greater than 50 horsepower (hp) shall meet Tier 4 offroad emissions standards. In addition, all construction equipment shall be outfitted with the BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.7 AIR QUALITY (CONTINUED)		
	<p>MV 4.7-14 An information sign shall be posted at the entrance to each construction site that identifies the permitted construction hours and provides a telephone number to call and receive information about the construction project or to report complaints regarding excessive fugitive dust generation. Any reasonable complaints shall be rectified within 24 hours of their receipt.</p> <p>Operational Mitigation Measures</p> <p>(a) Point Source Operational Emissions</p> <p>MV4.7-15 Any dry cleaners proposing to locate on site shall utilize the services of off-site cleaning operations at already SCAQMD-permitted locations. No on-site dry cleaning operations utilizing perchloroethylene or any other cleaning solvent containing toxic air contaminants shall be permitted within Mission Village.</p> <p>(b) Mobile Source Operational Emissions</p> <p>MV4.7-16 The project developer(s) shall coordinate with Santa Clarita Transit to identify appropriate bus stop/turnout locations.</p> <p>MV4.7-17 Kiosks containing transit information shall be constructed by the project applicant adjacent to selected future bus stops prior to initiation of bus service to the site.</p> <p>(c) Area Source Operational Emissions</p> <p>MV4.7-18 Wood-burning fireplaces and stoves shall be prohibited in all residential units. Use of wood in fireplaces shall be prohibited through project Covenants, Conditions, and Restrictions (CC&Rs).</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.8 WATER SERVICE		
<p><i>The proposed Mission Village project would generate a total water demand of 2,919 acre-feet per year (afy), 1,676 afy of potable water demand, and 1,243 afy of non-potable demand. Potable water demand (1,676 afy) would be met by the Valencia Water Company through the use of the project applicant's rights to 7,038 afy of groundwater from the Alluvial aquifer, which is presently used by the applicant for agricultural irrigation. Because this water is already used to support the applicant's existing agricultural uses, there would be no significant environmental effects resulting from the use of such water to meet the potable demands of the Mission Village project, which is part of the approved Newhall Ranch Specific Plan area. In addition, due to project conditions of approval, the amount of groundwater that will be used to meet the potable demands of the Newhall Ranch Specific Plan, including the Mission Village project, cannot exceed the amount of water historically and presently used by the applicant for agricultural uses. Therefore, no net increase in groundwater use will occur with implementation of this project pursuant to the Specific Plan.</i></p> <p><i>Non-potable water demand (1,243 afy) would be met through the use of recycled (reclaimed) water from the initial phase of the Newhall Ranch Water Reclamation Plant (WRP), with buildout of the WRP occurring over time as demand for treatment increases with implementation of the Newhall Ranch Specific Plan. Alternatively, if the Newhall Ranch WRP is not operating at the time of project occupancy, the non-potable water demand would be met through the use of recycled water from the existing Valencia WRP, located upstream of the Mission Village project site.</i></p>	<p>SP 4.11-1 The proposed Specific Plan shall implement a water reclamation system in order to reduce the Specific Plan's demand for imported potable water. The Specific Plan shall install a distribution system to deliver non-potable reclaimed water to irrigate land uses suitable to accept reclaimed water, pursuant to Los Angeles County Department of Health Standards. <i>(Consistent with this measure, the Project Description section of this EIR discusses the fact that the Mission Village project will install and implement a recycled water delivery system in order to reduce the project's demand for imported potable water. As required by this measure, recycled (reclaimed) water would be used to irrigate land uses suitable to accept recycled water, pursuant to Los Angeles County Department of Health standards.)</i></p> <p>SP 4.11-2 Landscape concept plans shall include a palette rich in drought-tolerant and native plants. <i>(Consistent with this measure, the Mission Village project's landscape plans shall include a palette rich in drought-tolerant and native plants.)</i></p> <p>SP 4.11-3 Major manufactured slopes shall be landscaped with materials that will eventually naturalize, requiring minimal irrigation. <i>(Consistent with this measure, the Mission Village project's grading/landscape plans shall include a note requiring landscaping with materials that will eventually naturalize, requiring minimal irrigation.)</i></p> <p>SP 4.11-4 Water conservation measures as required by the State of California shall be incorporated into all irrigation systems. <i>(Consistent with this measure, the Mission Village project shall incorporate into all of its irrigation systems, water conservation measures required by the State of California.)</i></p> <p>SP 4.11-5 Not applicable.</p>	<p>With implementation of the identified mitigation measures, the proposed project's water resources impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.8 WATER SERVICE (CONTINUED)		
<p>Accordingly, the proposed project's water demand would be met by relying on two primary sources of water supply, namely, the applicant's agricultural water supplies and recycled water supplied by the Newhall Ranch WRP or the existing Valencia WRP. Because these two independent water sources meet the water needs of the proposed project, no potable water would be needed from the existing or planned water supplies of Castaic Lake Water Agency (CLWA), including imported water from CLWA's State Water Project (SWP) supplies. Nonetheless, CLWA's water supplies, including imported water from the SWP, and other non-SWP supplies, are assessed in this EIR for information purposes.</p> <p>Based on the information presented, an adequate supply of water is available to serve the Mission Village project, and the project will not contribute to any significant cumulative water supply impacts in the Santa Clarita Valley, because it would rely on local groundwater and recycled water from local water reclamation plants and not use or rely on CLWA's SWP supplies. No significant water supply or water quality impacts are expected from supplying available water to meet the demands of the Mission Village project. No significant cumulative water supply impacts are expected to result from supplying water to the Mission Village project, because it would not use or rely on CLWA's SWP supplies.</p> <p>Over the past several years, questions have been raised regarding the reliability of SWP water delivered by CLWA, the ability of local water purveyors to deliver an adequate and reliable supply of water to its customers, and the extent to which ammonium perchlorate discovered in local groundwater reduces the amount of local water available in the Santa Clarita Valley.</p>	<p>SP 4.11-6 In conjunction with the submittal of applications for tentative tract maps or parcel maps which permit construction, and prior to approval of any such tentative maps, and in accordance with the requirements of the Los Angeles County General Plan DMS, as amended, Los Angeles County shall require the applicant of the map to obtain written confirmation from the retail water agency identifying the source(s) of water available to serve the map concurrent with need. If the applicant of such map cannot obtain confirmation that a water source(s) is available for buildout of the map, the map shall be phased with the timing of an available water source(s), consistent with the County's DMS requirements. <i>(Consistent with this measure, Valencia Water Company, the retail water purveyor for the Mission Village project, has issued its Mission Village WSA for the project, confirming the availability of water to serve the project concurrent with need.)</i></p> <p>SP 4.11-7 Prior to commencement of use, all uses of recycled water shall be reviewed and approved by the State of California Health and Welfare Agency, Department of Health Services. <i>(Consistent with this measure, the Mission Village project's recycled water delivery system shall be reviewed and approved by the State of California Health and Welfare Agency, Department of Health Services.)</i></p> <p>SP 4.11-8 Prior to the issuance of building permits that allow construction, the applicant of the subdivision shall finance the expansion costs of water service extension to the subdivision through the payment of connection fees to the appropriate water agency(ies). <i>(Consistent with this measure, prior to issuance of building permits, the applicant for the Mission Village project shall pay for and construct the required water service extension to the Mission Village subdivision.)</i></p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.8 WATER SERVICE (CONTINUED)		
	<p>SP 4.11-9 Pursuant to Public Resources Code Section 21081(a)(2), the County shall recommend that the Upper Santa Clara Water Committee (or Santa Clarita Valley Water Purveyors), made up of the Castaic Lake Water Agency, Los Angeles County Waterworks District No. 36, Newhall County Water District, Santa Clarita Water Division of CLWA and the Valencia Water Company, prepare an annual water report that will discuss the status of groundwater within the Alluvial and Saugus Aquifers, and State Water Project water supplies as they relate to the Santa Clarita Valley. The report will also include an annual update of the actions taken by CLWA to enhance the quality and reliability of existing and planned water supplies for the Santa Clarita Valley. In those years when the Committee or purveyors do not prepare such a report, the applicant at its expense shall cause the preparation of such a report that is acceptable to the County to address these issues. This annual report shall be provided to Los Angeles County who will consider the report as part of its local land use decision-making process. <i>(As an update, a total of 10 annual water reports have been prepared and provided to the County of Los Angeles, the City of Santa Clarita and other interested persons and organizations from 1998 through 2008. The latest 2009 Water Report is included in Appendix 4.8.)</i></p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.8 WATER SERVICE (CONTINUED)		
	<p>SP 4.11-10 Pursuant to Public Resources Code Section 21081(a)(2), the County shall recommend that Castaic Lake Water Agency (CLWA), in cooperation with other Santa Clarita Valley retail water providers, continue to update the <i>UWMP</i> for Santa Clarita Valley once every five years (on or before December 31) to ensure that the County receives up-to-date information about the existing and planned water supplies in the Santa Clarita Valley. The County will consider the information contained in the updated <i>UWMP</i> in connection with the County's future local land use decision-making process. The County will also consider the information contained in the updated <i>UWMP</i> in connection with the County's future consideration of any Newhall Ranch tentative subdivision maps allowing construction. <i>(CLWA and other local retail water purveyors have completed the 2005 UWMP in the fall 2005. The County will consider the information contained in the adopted 2005 UWMP in connection with the Mission Village project.)</i></p> <p>SP 4.11-11 Not applicable</p> <p>SP 4.11-12 Not applicable</p> <p>SP 4.11-13 Not applicable</p> <p>SP 4.11-14 Not applicable</p> <p>SP 4.11-15 Groundwater historically and presently used for crop irrigation on the Newhall Ranch Specific Plan site and elsewhere in Los Angeles County shall be made available by the Newhall Land and Farming Company, or its assignee, to partially meet the potable water demands of the Newhall Ranch Specific Plan. The amount of groundwater pumped for this purpose shall not exceed 7,038 afy. This is the amount of groundwater pumped historically and presently by the Newhall Land and Farming Company in Los Angeles County to support its agricultural operations. Pumping this amount will not result in a net increase in groundwater use in the Santa Clarita Valley.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.8 WATER SERVICE (CONTINUED)		
	<p>SP 4.11-15 (continued)</p> <p>To monitor groundwater use, the Newhall Land and Farming Company, or its assignee, shall provide the County an annual report indicating the amount of groundwater used in Los Angeles County and the specific land upon which that groundwater was historically used for irrigation. For agricultural land located off the Newhall Ranch Specific Plan site in Los Angeles County, at the time agricultural groundwater is transferred from agricultural uses on that land to Specific Plan uses, The Newhall Land and Farming Company, or its assignee, shall provide a verified statement to the County’s Department of Regional Planning that Alluvial aquifer water rights on that land will now be used to meet Specific Plan demand. <i>(Consistent with this measure, the applicant has provided the County with the annual reports, and the reports are included in Draft EIR Appendix 4.8.)</i></p> <p>SP 4.11-16 The agricultural groundwater used to meet the needs of the Specific Plan shall meet the drinking water quality standards required under Title 22 prior to use. <i>(Consistent with this measure, the agricultural groundwater used to meet the needs of the Mission Village project shall meet the drinking water quality standards required under Title 22 prior to use.)</i></p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.8 WATER SERVICE (CONTINUED)		
	<p>SP 4.11-17 In conjunction with each project-specific subdivision map for the Newhall Ranch Specific Plan, the County shall require the applicant of that map to cause to be prepared a supplemental or subsequent Environmental Impact Report, as appropriate, pursuant to CEQA requirements. By imposing this EIR requirement on each Newhall Ranch tentative subdivision map application allowing construction, the County will ensure that, among other things, the water needed for each proposed subdivision is confirmed as part of the County’s subdivision map application process. This mitigation requirement shall be read and applied in combination with the requirements set forth in revised Mitigation Measure 4.11-6, above, and in Senate Bills 221 and 610, as applicable, regardless of the number of lots in a subdivision map. <i>(This measure has been satisfied by the County requiring preparation of this EIR for the Mission Village project.)</i></p> <p>SP 4.11-18 The storage capacity purchased in the Semitropic Groundwater Banking Project by the Newhall Ranch Specific Plan applicant shall be used in conjunction with the provision of water to the Newhall Ranch Specific Plan. The applicant, or entity responsible for storing Newhall Ranch water in this groundwater bank, shall prepare an annual status report indicating the amount of water placed in storage in the groundwater bank. This report shall be made available annually and used by Los Angeles County in its decision-making processes relating to buildout of the Newhall Ranch Specific Plan. <i>(This measure is not applicable to the Mission Village project, because the water to be stored in the Semitropic Groundwater Banking Project is not needed to satisfy the water demand of the project or cumulative development in the Santa Clarita Valley; however, as requested by the County, the applicant provided the annual status report to County staff in 2010 (see EIR Appendix 4.8 for the applicant’s status report letter.)</i></p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.8 WATER SERVICE (CONTINUED)		
	<p>SP 4.11-19 A Memorandum of Understanding (MOU) and Water Resource Monitoring Program has been entered into between United Water Conservation District and the Upper Basin Water Purveyors, effective August 20, 2001. The MOU/Water Resource Monitoring Program, when executed, will put in place a joint water resource monitoring program that will be an effective regional water management tool for both the Upper and Lower Santa Clara River areas as further information is developed, consistent with the MOU. This monitoring program will result in a database addressing water usage in the Saugus and Alluvium aquifers over various representative water cycles. The parties to the MOU intend to utilize this database to further identify surface water and groundwater impacts on the Santa Clara River Valley. The applicant, or its designee, shall cooperate in good faith with the continuing efforts to implement the MOU and Water Resource Monitoring Program.</p> <p>As part of the MOU process, the United Water Conservation District and the applicant have also entered into a "Settlement and Mutual Release" agreement, which is intended to continue to develop data as part of an ongoing process for providing information about surface and groundwater resources in the Santa Clara River Valley. In that agreement, the County and the applicant have agreed to the following:</p> <p><i>4.3 Los Angeles County and Newhall will each in good faith cooperate with the parties to the MOU and will assist them as requested in the development of the database calibrating water usage in the Saugus and Alluvium aquifers over multi-year water cycles. Such cooperation will include, but not be limited to, providing the parties to the MOU with historical well data and other data concerning surface water and groundwater in the Santa Clara River and, in the case of Newhall, providing Valencia Water Company</i></p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.8 WATER SERVICE (CONTINUED)		
	<p>SP 4.11-19 (continued)</p> <p><i>with access to wells for the collection of well data for the MOU.</i></p> <p><i>4.4 Los Angeles County and Newhall further agree that the County of Los Angeles will be provided with, and consider, the then-existing data produced by the MOU's monitoring program in connection with, and prior to, all future Newhall Ranch subdivision approvals or any other future land use entitlements implementing the Newhall Ranch Specific Plan. If the then-existing data produced by the MOU's monitoring program identifies significant impacts to surface water or groundwater resources in the Santa Clara River Valley, Los Angeles County will identify those impacts and adopt feasible mitigation measures in accordance with the California Environmental Quality Act.</i></p> <p><i>(Since the MOU was signed in 2001, the United Water Conservation District and the Upper Basin Water Purveyors (CLWA, Los Angeles County Waterworks District #36, CLWA Santa Clarita Water Division, NCWD and Valencia Water Company) have worked together to accomplish the stated purpose and objectives of the MOU. The MOU has resulted in the collection and analysis of groundwater and other hydrologic data, along with construction and calibration of a sophisticated regional groundwater flow model for the Upper Basin. These efforts benefit the service areas of both the United Water Conservation District and the Upper Basin water purveyors.)</i></p> <p>SP 4.11-20 Not Applicable</p> <p>SP 4.11-21 The applicant, in coordination with RWQCB staff, shall select a representative location upstream and downstream of the Newhall Ranch Specific Plan and sample surface and groundwater quality. Sampling from these two locations</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.8 WATER SERVICE (CONTINUED)		
	<p>SP 4.11-21 (continued) would begin upon approval of the first subdivision map and be provided annually to the RWQCB and County for the purpose of monitoring water quality impacts of the Specific Plan over time. If the sampling data results in the identification of significant new or additional water quality impacts resulting from the Specific Plan, which were not previously known or identified, additional mitigation shall be required at the subdivision map level. <i>(This measure is not applicable until subdivision map approval for the Mission Village project.)</i></p> <p>SP 4.11-22 Beginning with the filing of the first subdivision map allowing construction on the Specific Plan site and with the filing of each subsequent subdivision map allowing construction, the Specific Plan applicant, or its designee, shall provide documentation to the County of Los Angeles identifying the specific portion(s) of irrigated farmland in the County of Los Angeles proposed to be retired from irrigated production to make agricultural water available to serve the subdivision. As a condition of subdivision approval, the applicant or its designee, shall provide proof to the County that the agricultural land has been retired prior to issuance of building permits for the subdivision. <i>(Consistent with this measure, the applicant of the Mission Village project has provided the County with this documentation. As a condition of approval of the Mission Village tract map, the applicant will provide proof to the County that the agricultural land in the County proposed to be retired from irrigated production, in fact, has been retired prior to issuance of building permits for the Mission Village subdivision.)</i></p> <p>MV 4.8-1 Upon the issuance of building permits associated with each subdivision map allowing construction within the Mission Village site, the applicant shall pay Facility Capacity Fees to the Castaic Lake Water Agency (CLWA) in accordance with CLWA policies and procedures.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.9 WASTEWATER DISPOSAL		
<p><i>Construction impacts would be less than significant, as portable, on-site sanitation facilities would be utilized during construction activities.</i></p> <p><i>Once project construction is complete, the proposed Mission Village project would generate a worst-case average total of 1.13 million gallons per day (mgd) of wastewater. Of the total project wastewater generation, approximately 0.884 mgd would be treated by the Newhall Ranch WRP) once WRP construction is complete. Due to gravitational limitations, the remaining approximately 0.241 mgd would be treated at the Valencia WRP. The treatment capacity of the Newhall Ranch WRP would be 6.8 mgd, with a maximum flow of 13.8 mgd. Until the development of the Newhall Ranch WRP is complete, there are three potential scenarios for the interim conveyance and treatment of the portion of wastewater generated by the Mission Village project that ultimately would be permanently treated at the Newhall Ranch WRP. The first scenario is to construct an initial phase of the Newhall Ranch WRP to serve the Mission Village project site, with buildout of the WRP occurring over time as demand for treatment increases. Under this scenario, the initial phase of the WRP would be designed and constructed to accommodate the project's predicted wastewater generation. The second scenario would temporarily direct all wastewater flows from the Mission Village project by pipeline across the Commerce Center Drive Bridge to the Valencia WRP until the first phase of the Newhall Ranch WRP is complete.</i></p>	<p>SP 4.12-1 The Specific Plan shall reserve a site of sufficient size to accommodate a water reclamation plant to serve the Newhall Ranch Specific Plan. <i>(This measure has been implemented by the Board of Supervisors' approval in May 2003, of the Newhall Ranch WRP within the boundary of the Specific Plan.)</i></p> <p>SP 4.12-2 A 5.8 to 6.9 mgd water reclamation plant shall be constructed on the Specific Plan site, pursuant to County, State, and Federal design standards, to serve the Newhall Ranch Specific Plan. <i>(This measure will be implemented pursuant to the project-level analysis already completed for the Newhall Ranch WRP in the certified Newhall Ranch Specific Plan EIR.)</i></p> <p>SP 4.12-3 The Conceptual Backbone Sewer Plan shall be implemented pursuant to County, State, and Federal design standards. <i>(The proposed Mission Village sewer system would implement the previously adopted Conceptual Backbone Sewer Plan relative to the Mission Village portion of the Specific Plan.)</i></p> <p>SP 4.12-4 Prior to recordation of each subdivision permitting construction, the applicant of each subdivision shall obtain a letter from the new County sanitation district stating that treatment capacity will be adequate for that subdivision. <i>(This mitigation measure, as it applies to Mission Village, will be implemented concurrent with project development.)</i></p>	<p>With implementation of the identified mitigation measures, the proposed project's wastewater disposal impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.9 WASTEWATER DISPOSAL (CONTINUED)		
<p><i>The third scenario assumes that the Commerce Center Drive Bridge is not constructed until after occupancy of some of the land uses in the Mission Village project, and an interim pump station would be constructed that would direct wastewater to the existing Valencia WRP. Based on the County Sanitation Districts of Los Angeles County (CSDLAC) future wastewater generation estimates and the planned expansion of the Saugus and Valencia WRPs, the Valencia WRP would have sufficient capacity to temporarily accommodate the Mission Village project's total predicted wastewater generation of 1.13 mgd. For these reasons, wastewater disposal impacts associated with Mission Village would be less than significant.</i></p>	<p>SP 4.12-5 All facilities of the sanitary sewer system will be designed and constructed for maintenance by the County of Los Angeles Department of Public Works and the County Sanitation Districts of Los Angeles County, and/or the new County sanitation district or similar entity in accordance with their manuals, criteria, and requirements. <i>(This mitigation measure, as it applies to Mission Village, will be implemented concurrent with project development.)</i></p> <p>SP 4.12-6 Pursuant to Los Angeles County Code, Title 20, Division 2, all industrial waste pretreatment facilities shall, prior to the issuance of building permits, be reviewed by the County of Los Angeles Department of Public Works, Industrial Waste Planning and Control Section and/or the new County sanitation district, to determine if they would be subject to an Industrial Wastewater Disposal Permit. <i>(To the extent this mitigation measure applies to Mission Village, it will be implemented concurrent with project development.)</i></p> <p>SP 4.12-7 Each subdivision permitting construction shall be required to be annexed into the Los Angeles County Consolidated Sewer Maintenance District. <i>(This mitigation measure, as it applies to Mission Village, will be implemented concurrent with project development.)</i></p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.10 SOLID WASTE SERVICES		
<p><i>Site preparation (vegetation removal and grading activities) and construction activities required to develop the Mission Village project would generate a total of approximately 166,869 tons of construction waste, or an average of approximately 23,838 tons of waste per year over the seven year buildout of the project. Assuming a 50 percent diversion/recycling rate, the development of the Mission Village project would result in the generation of approximately 11,919 tons of construction waste per year for seven years. Upon buildout, the Mission Village project would generate approximately 46,305 pounds of municipal solid waste per day, or approximately 8,451 tons per year, assuming no solid waste from the project is recycled (a worst-case scenario). The project would also generate household hazardous wastes, such as used batteries, paint, etc. Cumulative development within the Santa Clarita Valley would generate 395,553 tons per year of solid waste, as well as hazardous waste, assuming no recycling. The project's share of 8,451 tons per year would represent 2.1 percent of this total.</i></p>	<p>SP 4.15-1 Each future subdivision which allows construction within the Newhall Ranch Specific Plan shall meet the requirements of all applicable solid waste diversion, storage, and disposal regulations that are in effect at the time of subdivision review. Current applicable regulations include recycling areas that are:</p> <ul style="list-style-type: none"> • compatible with nearby structures; • secured and protected against adverse environmental conditions; • clearly marked, and adequate in capacity, number and distribution; • in conformance with local building code requirements for garbage collection access and clearance; • designed, placed and maintained to protect adjacent developments and transportation corridors from adverse impacts, such as noise, odors, vectors, or glare; • in compliance with federal, state, or local laws relating to fire, building, access, transportation, circulation, or safety; and • convenient for persons who deposit, collect, and load the materials. 	<p>Even with mitigation, the project's solid and hazardous waste impacts would be considered significant and unavoidable. In addition, cumulative solid and hazardous waste impacts would be considered significant and unavoidable.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.10 SOLID WASTE SERVICES (CONTINUED)		
<p><i>Mitigation has been identified to reduce construction and operation waste to the extent feasible. The capacity of Los Angeles County's (County) landfills has been assessed and is approved to provide adequate capacity to service the existing population and planned growth until year 2023. Capacity is projected to extend beyond year 2023 when combined with other events that have expanded landfill capacity within the County, such as County disposal agreements and recycling programs. Additionally, there is a potential for alternative solid waste disposal technologies to be developed and legislatively approved in the future, given the market forces that drive the solid waste industry, which could substantially reduce landfill disposal. However, because land suitable for landfill development or expansion currently is quantitatively finite and limited due to numerous environmental, regulatory, and political constraints, until other disposal alternatives adequate to serve existing and future uses for the foreseeable future are employed, the potential project and cumulative impacts relating to solid and hazardous waste disposal are considered significant and unavoidable.</i></p>	<p>SP 4.15-2 Future multi-family, commercial, and industrial projects within the Newhall Ranch Specific Plan shall provide accessible and convenient areas for collecting and loading recyclable materials. These areas are to be clearly marked and adequate in capacity, number, and distribution to serve the development.</p> <p>SP 4.15-3 The first purchaser of each residential unit within the Newhall Ranch Specific Plan shall be given educational or instructional materials which will describe what constitutes recyclable and hazardous materials, how to separate recyclable and hazardous materials, how to avoid the use of hazardous materials, and what procedures exist to collect such materials.</p> <p>SP 4.15-4 The applicant of all subdivision maps which allow construction within the Newhall Ranch Specific Plan shall comply with all applicable future state and Los Angeles County regulations and procedures for the use, collection and disposal of solid and hazardous wastes.</p> <p>MV 4.10-1 Prior to the issuance of grading permits, the project applicant shall prepare a Waste Management Plan pursuant to Los Angeles County Code, Title 20, Chapter 20.87, Construction and Demolition Debris Recycling. The Waste Management Plan shall include provisions for the recycling of a minimum of 50 percent of the construction and demolition debris, and the submittal of corresponding reports to the Los Angeles County Environmental Programs Division.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.11 SHERIFF SERVICES		
<p><i>The Los Angeles County Sheriff's Department provides the primary police protection service for the Specific Plan site, including the proposed Mission Village site, and the surrounding Santa Clarita Valley area. Additionally, the Department of the California Highway Patrol (CHP) provides traffic regulation enforcement; emergency incident management; and service and assistance on Interstate 5 (I-5), State Route 126 (SR-126), SR-14, and other major roadways in the unincorporated portions of the Santa Clarita Valley area. The Sheriff's Department current deputy-to-resident ratio without the proposed project is less than the desired level of service set by the County. The Newhall Area CHP Station is currently able to adequately provide service to the Mission Village Project site and the Santa Clarita Valley and the station does not anticipate any increase or a need to increase its equipment in the future, and no upgrades to the CHP station are planned.</i></p> <p><i>Buildout of the Mission Village project would significantly increase the demand for police protection and traffic-related services on the project site and in the local vicinity. Based on the Department's standard deputy-to-resident ratio, the proposed project would require the services of an additional 11 sworn Sheriff's Department officers. Payment of the applicable law enforcement facilities fees and new tax revenues generated by the project would provide the funds necessary to employ and equip the additional officers and mitigate impacts to the Sheriff's Department to a less than significant level. Additionally, although not made necessary by the project, the applicant has entered into negotiations with the Sheriff's Department for the provision of a Sheriff station site that would serve the entire Specific Plan site. Thus, by facilitating establishment of a Sheriff's station in the project vicinity, the proposed project would mitigate any cumulatively considerable impacts to sheriff services.</i></p>	<p>SP 4.17-1 As subdivision maps are submitted to the County for approval in the future, the applicant shall incorporate County Sheriff's Department design requirements (such as those pertaining to site access, site security lighting, etc.) which will reduce demands for Sheriff's Department service to the subdivisions and which will help ensure adequate public safety features within the tract designs.</p> <p>MV 4.11-1 Prior to the commencement of construction activities, the project applicant, or its designee, shall enter into an agreement with the California Highway Patrol for traffic control services during project construction. Such traffic control shall include the posting of reduced construction zone speed limit signs as necessary.</p> <p>MV 4.11-2 Prior to the commencement of construction activities, the project applicant, or its designee, shall retain the services of a private security company to patrol the construction site(s), as necessary, to minimize the potential for trespass, theft and other unlawful activity associated with construction-related activities.</p> <p>MV 4.11-3 Prior to the commencement of construction activities, the project applicant, or its designee, shall prepare an approved traffic management plan for construction activities affecting rights-of-way within the jurisdiction of the California Department of Transportation (Caltrans) and the Los Angeles County Department of Public Works.</p> <p>MV 4.11-4 Prior to the issuance of building permits or certificates of occupancy as applicable, the project applicant, or its designee, shall pay to the County the applicable law enforcement facilities fee required by Los Angeles County Code section 22.74.010, et seq., or, in the alternative, shall enter into an agreement with the County for the in lieu payment of such fees.</p>	<p>With implementation of the identified mitigation measures, the proposed project's Sheriff services impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.11 SHERIFF SERVICES (CONTINUED)		
<p><i>The proposed project would also increase demands for CHP services in the project area. However, through increased revenues generated by the proposed project (via motor vehicle registration fees and drivers license fees paid by new on-site residents and businesses), the project would generate more than sufficient funding for the additional staffing and equipment that would be needed to serve the project area, This funding can and should be allocated by the state CHP to the local Santa Clarita Valley Station, consistent with present funding practices, to meet projected demands. Therefore, the proposed project would not result in significant project impacts to CHP services, nor would the project contribute to any cumulatively considerable impacts to CHP services.</i></p> <p><i>Construction of the proposed project would increase the incidence of petty crimes on the site and also would increase construction traffic on SR-126 that may potentially delay emergency vehicles traveling through the area. However, by retaining the services of a private security company to patrol the project construction site, and by implementing a construction traffic control plan, any potentially significant construction-related impacts to law enforcement services would be reduced to a level below significant.</i></p> <p><i>Finally, new resident and daytime populations (employees and visitors) at the project site would be subject to the same potential hazards as existing County residents. It is expected that State and County emergency evacuation plans would be implemented (and amended as necessary) to provide for the safe evacuation of all County residents and employees. Therefore, no significant impacts would occur relative to emergency evacuation in the event of a natural or man-made disaster.</i></p>		

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.12 FIRE PROTECTION SERVICES		
<p><i>Fire protection and emergency medical response services for the Mission Village project and the surrounding area are provided by the County's Fire District. Fourteen fire stations and three fire camps provide fire protection services for the Santa Clarita Valley area. The closest station to the project site is Fire Station 76, located at 27223 Henry Mayo Drive in Valencia. The closest available district response units would provide fire protection services. Should a significant incident occur, the entire resources of the Fire Department, not just the stations closest to the site, would serve the project. The County's Fire Department and a franchise private ambulance company also provide paramedic services to the area.</i></p> <p><i>The Mission Village project site is located in an area that has been designated as a Very High Fire Hazard Severity Zone (formerly called Fire Zone 4) by the County of Los Angeles Fire Department, which denotes the County Forester's highest fire hazard potential.</i></p> <p><i>Pursuant to mitigation adopted by the County as part of its approval of the Newhall Ranch Specific Plan, and project specific mitigation proposed by this EIR, the applicant is currently in discussions with the County's Fire District with respect to the required MOU for Newhall Ranch, Entrada, and Legacy Village, which collectively comprise "the Project Area" for the Memorandum of Understanding (MOU). It is expected that the additional fire station to be constructed southwest of the Mission Village site would ultimately provide fire protection services for the Mission Village site. The project applicant intends to complete construction of Fire Station 177 such that the station is operational upon issuance of the 5,000th certificate of occupancy for Project Area as defined in the project MOU. Until such time as that station is completed, existing Fire Stations 76 and Fire Station 124 would be available to serve the project site.</i></p>	<p>SP 4.18-1 At the time of final subdivision maps permitting construction in development areas that are adjacent to Open Area and the High Country SMA, a Wildfire Fuel Modification Plan shall be prepared and submitted for approval by the County Fire Department. The Wildfire Fuel Modification Plan shall include the following construction period requirements: (a) a fire watch during welding operations; (b) spark arresters on all equipment or vehicles operating in a high fire hazard area; (c) designated smoking and non-smoking areas; and (d) water availability pursuant to County Fire Department requirements. The wildfire fuel modification plan shall depict a fuel modification zone in conformance with the Fuel Modification Ordinance in effect at the time of subdivision. Within the zone, tree pruning, removal of dead plant material and weed and grass cutting shall take place as required by the County Forester. Fire resistant plant species containing habitat value may be planted in the fuel modification zone. <i>(The proposed Mission Village project provides standards that are parallel with standards as presented by the Wildfire Fuel Modification Program. Construction vehicles used during the construction of the Mission Village Project would incorporate the use of spark arrestors on all machinery to prevent fires, along with a lookout for fires during welding and activities that could produce large amounts of sparks)</i></p>	<p>Project and Cumulative With implementation of each of the identified mitigation measures, the proposed project's fire protection services impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.12 FIRE PROTECTION SERVICES (CONTINUED)		
<p><i>Additionally, the proposed project would be required to meet all County codes and requirements relative to providing adequate fire protection services to the site during both the construction and operational stages of the project. As a result, the project would not diminish the staffing or the response times of existing fire stations in the Santa Clarita Valley, nor would it create a special fire protection requirement on the site that would result in a decline in existing service levels. Therefore, by implementing the adopted Specific Plan mitigation measures in combination with the recommended project-specific mitigation, the proposed project would not have a significant project or cumulative impact on fire protection services or fire hazards in Santa Clarita Valley.</i></p>	<p>SP 4.18-2 Each subdivision and site plan for the proposed Specific Plan shall provide sufficient capacity for fire flows of 1,250 gpm at 20 pounds psi residual pressure for a 2-hour duration for single-family residential units, and 5,000 gpm at 20 psi residual pressure for a 5-hour duration for multi-family residential units and commercial/retail uses, or whatever fire flow requirement is in effect at the time of subdivision and site plan approval. <i>(All development within the Mission Village project area will be required to comply with the fire flow standards for single-family residential, multi-family residential, commercial uses, and industrial uses as provided in the Los Angeles County Municipal Code, as adopted through the 2006 California Fire Code.)</i></p> <p>SP 4.18-3 Each subdivision map and site plan for the proposed Specific Plan shall comply with all applicable building and fire codes and hazard reduction programs for Fire Zones 3 and 4 that are in effect at the time of subdivision map and site plan approval. <i>(The proposed Mission Village Project will include development standards for construction of residential and commercial uses that would provide for the reduction of fire threats.)</i></p> <p>SP 4.18-4 The developer will provide funding for three fire stations to the Consolidated Fire Protection District of Los Angeles County (the "Fire District") in lieu of developer fees. The developer will dedicate two fire station sites for the two fire stations located in Newhall Ranch. The Fire District will dedicate the site for the fire station to be located at the Del Valle Training Facility. Each fire station site will have a building pad consisting of a net buildable area of 1 acre. If the cost of constructing the three fire stations, providing and dedicating the two fire station sites, and providing three engines, one paramedic squad and 63 percent of a truck company exceeds the developer's developer fee obligation for the Newhall Ranch development as determined by the Fire District, the Fire District will fund the costs in excess of the fee obligation.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.12 FIRE PROTECTION SERVICES (CONTINUED)		
	<p>SP 4.18-4 (continued)</p> <p>Two of the three fire stations to be funded by the developer will not exceed 6,000 square feet; the third fire station to be funded by the developer will not exceed 8,500 square feet. The Fire District will fund the cost of any space/square footage of improvement in excess of these amounts as well as the cost of the necessary fire apparatus for any such excess square footage of improvements. The cost of three fire engines, a proportionate share of a truck and one squad to be provided by the developer will be determined based upon the apparatus cost at the time the apparatus is placed in service.</p> <p>The Fire District and the developer will mutually agree to the requirements of first-phase protection requirements based upon projected response/travel coverage. Such mutual agreement regarding first-phase fire protection requirements ("fire protection plan") and the criteria for timing the development of each of the three fire stations will be defined in a Memorandum of Understanding between the developer and the Fire District. Delivery of fire service for Newhall Ranch will be either from existing fire stations or one of the three fire stations to be provided by the developer pursuant to this section. Prior to the commencement of the operation of any of the three fire stations, fire service may be delivered to Newhall Ranch from existing fire stations or from temporary fire stations to be provided by the developer at mutually agreed-upon locations, to be replaced by the permanent stations which will be located within the Newhall Ranch development. The developer and the Fire District will annually review the fire protection plan to evaluate development and market conditions and modify the Memorandum of Understanding accordingly. <i>(The Mission Village Project Site will be required to comply with the MOU for the development of Fire Station 177 as specifically provided by Mitigation Measure MV 4.12-2)</i></p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.12 FIRE PROTECTION SERVICES (CONTINUED)		
	<p>MV 4.12-1 Prior to approval of a final subdivision map for the project, the applicant must prepare and submit for approval by the County Fire Department a preliminary fuel modification plan, a preliminary landscape plan, and a preliminary irrigation plan for the project, as required by Section 1117.2.1 of the County of Los Angeles Fire Code.</p> <p>MV 4.12-2 The applicant shall construct a fire station on the Mission Village site, including all ancillary requirements for normal fire station operation such as landscaping, parking, fuel tanks, storage rooms, etc. The applicant also shall provide funding for the purchase of one Fire District standard, fully equipped fire pumper engine, and one Tiller Truck/Quint to be housed at the fire station. Upon completion of construction, the fire station, including the underlying land and equipment, shall be conveyed to the Consolidated Fire Protection District of Los Angeles County (Fire District) in lieu of the payment of any/all developer fees otherwise required of the project. The applicant and the Fire District shall enter into a memorandum of understanding (MOU) detailing the terms of the agreement as generally set forth in this mitigation measure.</p> <p>The fire station will be constructed on a minimum 1.5-acre site located south of Magic Mountain Parkway at the intersection of Westridge Parkway and "QQ" Street; the location and configuration of the site shall be approved by the Fire District. The fire station shall be approximately 13,500 GSF in size and include a 3,600 GSF apparatus storage building; future changes in federal, state, or local requirements may affect this minimum size. The Fire District shall approve all plans and designs for the fire station prior to the commencement of construction.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.12 FIRE PROTECTION SERVICES (CONTINUED)		
	<p>MV 4.12-2 (continued)</p> <p>The Fire District will evaluate with the applicant the requirements of first-phase protection based upon projected response/travel coverage with the goal of achieving 5-minute response coverage. The results of such evaluation shall include requirements for first-phase fire protection ("fire protection plan"), and the criteria for timing the development of the fire station shall be outlined in the MOU. Prior to the commencement of operation of the fire station, fire service may be delivered to Mission Village from existing fire stations or from temporary fire stations to be provided by the applicant at mutually agreed-upon locations, to be replaced by the permanent station. The use of such temporary fire stations shall be approved by the Fire District and detailed in the MOU. <i>(This mitigation measure implements mitigation previously adopted by the County in connection with development of the Newhall Ranch Specific Plan and does not impose upon the applicant an obligation to fund or construct additional fire stations beyond those obligations previously imposed by the County.)</i></p> <p>MV 4.12-3 The proposed development shall provide multiple ingress/egress access for the circulation of traffic, and emergency response issues. Said determinations shall be approved through the tentative map approval.</p> <p>MV 4.12-4 The development of this project shall comply with all applicable code and ordinance requirements for construction, access, water mains, fire flows and fire hydrants. Specifics for said requirements shall be established during the review and approval process of the tentative map.</p> <p>MV 4.12-5 This property is located within the area described by the Forester and Fire Warden as a Fire Zone 4, Very High Fire Hazard Severity Zone (VHFHSZ). All applicable fire code and ordinance requirements for construction, access, water mains, fire hydrants, fire flows, brush clearance and fuel modification plans, must be met.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.12 FIRE PROTECTION SERVICES (CONTINUED)		
	<p>MV 4.12-6 Specific fire and life safety requirements for the construction phase will be addressed at the building fire plan check. There may be additional fire and life safety requirements during this time.</p> <p>MV 4.12-7 Every building constructed shall be accessible to Fire Department apparatus by way of access roadways, with an all-weather surface of not less than the prescribed width and indicated on the Tentative or Exhibit "A" maps. The roadway shall be extended to within 150 feet of all portions of the exterior walls when measured by an unobstructed route around the exterior of the building.</p> <p>MV 4.12-8 Access roads shall be maintained with a minimum of 10 feet of brush clearance on each side. Fire access roads shall have an unobstructed vertical clearance clear-to-sky with the exception of protected tree species. Protected tree species overhanging fire access roads shall be maintained to provide a vertical clearance of 13 feet, 6 inches. Applicant to obtain all necessary permits prior to the commencement of trimming of any protected tree species.</p> <p>MV 4.12-9 The maximum allowable grade shall not exceed 15 percent except where topography makes it impractical to keep within such grade; in such cases, an absolute maximum of 20 percent will be allowed for up to 150 feet in distance. The average maximum allowed grade, including topographical difficulties, shall be no more than 17 percent. Grade breaks shall not exceed 10 percent in 10 feet.</p> <p>MV 4.12-10 Requirements for access, fire flows, and hydrants are to be addressed at the Los Angeles County Subdivision Committee meeting during the subdivision tentative map stage.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.12 FIRE PROTECTION SERVICES (CONTINUED)		
	<p>MV 4.12-11 Fire sprinkler systems are required in some residential and most commercial occupancies. For those occupancies not requiring fire sprinkler systems, it is encouraged that fire sprinkler systems be installed. This will reduce potential fire and life losses.</p> <p>MV 4.12-12 Prior to construction, the following items shall be addressed:</p> <ul style="list-style-type: none"> a. Installation and inspection of the required all weather access to be provided as determined by either the tentative map review process or building penult issuance. b. Fire hydrants shall be installed and tested prior to the clearance for the commencement of construction. <p>INSTITUTIONAL:</p> <p>MV 4.12-13 The development may require fire flows up to 8,000 gallons per minute at 20 pounds per square inch residual pressure for up to a 4-hour duration as outlined in the 2002 County of Los Angeles Fire Code Appendix III-AA. Final fire flows will be based on the size of buildings, their relationship to other structures, property lines, and types of construction used.</p> <p>MV 4.12-14 Fire hydrant spacing shall be based on fire flow requirements as outlined in the 2002 County of Los Angeles Fire Code Appendix III-BB. Additional hydrants will be required if hydrant spacing exceeds specified distances.</p> <p>MV 4.12-15 All access devices and gates shall comply with California Code of Regulations, Title 19, Article 3.05 and Article 3.16. Los Angeles County Fire Department Regulation #5.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.12 FIRE PROTECTION SERVICES (CONTINUED)		
	<p>COMMERCIAL/HIGH-DENSITY RESIDENTIAL:</p> <p>MV 4.12-16 The development may require fire flows up to 5,000 gallons per minute at 20 pounds per square inch residual pressure for up to a 5-hour duration. Final fire flows will be based on the size of buildings, their relationship to other structures, property lines, and types of construction used. Fire flows shall be established as part of the tentative map review process with the submittal of architectural details to determine actual flow requirement. If adequate architectural detail is unavailable during the tentative map review process, maximum fire flows will be established with the ability of the fire flow to be changed during the actual architectural plan review by Fire Prevention Engineering for building permit issuance.</p> <p>MV 4.12-17 Fire hydrant spacing shall be 300 feet and shall meet the following requirements:</p> <ol style="list-style-type: none"> a. No portion of lot frontage shall be more than 200 feet via vehicular access from a public fire hydrant. b. No portion of a building shall exceed 400 feet via vehicular access from a properly spaced public fire hydrant. c. Additional hydrants will be required if hydrant spacing exceeds specified distances. d. When cul-de-sac depth exceeds 200 feet on a commercial street, hydrants shall be required at the corner and mid block. e. A cul-de-sac shall not be more than 500 feet in length, when serving land zoned for commercial use. <p>MV 4.12-18 Turning radii shall not be less than 32 feet. This measurement shall be determined at the centerline of the road. A Fire Department approved turning area shall be provided for all driveways exceeding 150 feet in length and at the end of all cul-de-sacs.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.12 FIRE PROTECTION SERVICES (CONTINUED)		
	<p>MV 4.12-19 All on-site driveways/roadways shall provide a minimum unobstructed width of 28 feet, clear-to-sky. The on-site driveway is to be within 150 feet of all portions of the exterior walls of the first story of any building. The centerline of the access driveway shall be located parallel to, and within 30 feet of an exterior wall on one side of the proposed structure.</p> <p>MV 4.12-20 Driveway width for non-residential developments shall be increased when any of the following conditions will exist:</p> <ol style="list-style-type: none"> a. Provide 34 feet in width, when parallel parking is allowed on one side of the access roadway/driveway. Preference is that such parking is not adjacent to the structure. b. Provide 36 feet in width, when parallel parking is allowed on each side of the access roadway/driveway. For buildings in excess of 35 feet, minimum paved fire access is 28 feet. c. Any access way less than 34 feet in width shall be labeled "Fire Lane" on the final recording map, and final building plans. d. For streets or driveways with parking restrictions: The entrance to the street/driveway and intermittent spacing distances of 150 feet shall be posted with Fire Department approved signs stating "NO PARKING – FIRE LANE" in 3-inch-high letters. Driveway labeling is necessary to endure access for Fire Department use. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.12 FIRE PROTECTION SERVICES (CONTINUED)		
	<p>SINGLE-FAMILY/TWO-FAMILY DWELLING UNITS:</p> <p>MV 4.12-21 Single-family detached homes shall require a minimum fire flow of 1,250 gallons per minute at 20 pounds per square inch residual pressure for a 2-hour duration. Two-family dwelling units (duplexes) shall require a fire flow of 1,500 gallons per minute at 20 pounds per square inch residual pressure for a 2-hour duration. When there are five or more condominium units are taking access on a single driveway, the minimum fire flow shall be increased to 1,500 gallons per minute at 20 pounds per square inch residual pressure for a 2-hour duration.</p> <p>MV 4.12-22 Fire hydrant spacing shall be 600 feet and shall meet the following requirements:</p> <ol style="list-style-type: none"> a. No portion of lot frontage shall be more than 450 feet via vehicular access from a public fire hydrant. b. Lots of 1 acre or more shall place no portion of a structure where it exceeds 750 feet via vehicular access from a properly spaced public fire hydrant. c. When cul-de-sac depth exceeds 450 feet on a residential street, fire hydrants shall be required at the corner and mid block. d. Additional hydrants will be required if hydrant spacing exceeds specified distances during the tentative map review process or building permit plan check. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.12 FIRE PROTECTION SERVICES (CONTINUED)		
	<p>MV-4.12-23 Streets or driveways within the development shall be provided with the following:</p> <ul style="list-style-type: none"> a. Provide 36 feet in width on all streets where parking is allowed on both sides. b. Provide 34 feet in width on cul-de-sacs up to 700 feet in length. This allows parking on both sides of the street. c. Provide 36 feet in width on cul-de-sacs from 701 to 1,000 feet in length. This allows parking on both sides of the street. d. For streets or driveways with parking restrictions: The entrance to the street/driveway and intermittent spacing distances of 150 feet shall be posted with Fire Department approved signs stating "NO PARKING – FIRE LANE" in 3-inch-high letters. Driveway labeling is necessary to ensure access for Fire Department use. e. Turning radii shall not be less than 32 feet. This measurement shall be determined at the centerline of the road. <p>MV 4.12-24 A Fire Department approved turning area shall be provided for all driveways exceeding 150 feet in length and at the end of all cul-de-sacs.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.12 FIRE PROTECTION SERVICES (CONTINUED)		
	<p>LIMITED ACCESS DEVICES (GATES, ETC.):</p> <p>MV 4.12-25 All access devices and gates shall meet the following requirements:</p> <ol style="list-style-type: none"> a. Any single-gated opening used for ingress and egress shall be a minimum of 26 feet in width, clear-to-sky. b. Any divided gate opening (when each gate is used for a single-direction of travel, i.e., ingress or egress) shall be a minimum width of 20 feet clear-to-sky. c. Gates and/or control devices shall be positioned a minimum of 50 feet from a public right-of-way, and shall be provided with a turnaround having a minimum of 32 feet of turning radius. If an intercom system is used, the 50 feet shall be measured from the right-of-way to the intercom control device. d. All limited access devices shall be of a type approved by the Fire Department. e. Gate detail plans shall be submitted for review and approval to the Fire Department as part of the tentative map submittal or prior to installation. These plans shall show all locations, widths, and details of the proposed gates. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.13 EDUCATION		
<p><i>The Newhall School District (Newhall District), Saugus Union Elementary School District (Saugus District) and the William S. Hart Union High School District (Hart District) currently provide public elementary, junior high/middle school, and senior high school education in the Mission Village project area. The Newhall and Saugus District’s provide elementary school service (Kindergarten and grades 1–6) to the project site. The Hart District provides junior high school service (grades 7 and 8) and senior high school (grades 9–12) service to the project site. The Mission Village project would generate an estimated 969 elementary students, 187 middle school students, and 321 senior high school students for the three districts at buildout.</i></p> <p><i>The “School Facilities Funding Agreement entered into between the Newhall District and Newhall Land and Farming Company” (Newhall School Funding Agreement), effective January 22, 2010, and included in this EIR (Appendix 4.13), would mitigate Mission Village impacts on education facilities in the Newhall District to a level below significant. Under the Newhall School Funding Agreement, Newhall guarantees to the Newhall District that there will be adequate school facilities available to accommodate every student within the Specific Plan.</i></p> <p><i>The “School Facilities Funding Agreement Between the Saugus Union School District and Newhall Land and Farming Company” (Saugus School Funding Agreement), effective February 18, 1997, and included in this EIR (Appendix 4.13), would mitigate the proposed Mission Village project’s impacts on the Saugus District. Under the Saugus School Funding Agreement, the applicant and the Saugus District have agreed to a financing schedule and a financing plan, in combination with certain mitigation payments, which will provide permanent facilities, including land, buildings, furnishings and equipment to house grades K–6 students who will reside in the Newhall Ranch Specific Plan area. Once implemented, the Saugus School Funding Agreement would fully mitigate Mission Village’s</i></p>	<p>SP 4.16-1 The Specific Plan developer shall reserve five elementary schools sites, one junior high school site and one high school site, of 7 to 10, 20 to 25, and 40 to 45 acres in size, respectively, depending upon adjacency to local public parks and joint use agreements. <i>(The Mission Village project includes the reservation of a 9.5-acre elementary school site.)</i></p> <p>SP 4.16-2 The developer of future subdivisions which allow construction will comply with the terms and conditions of the School Facilities Funding Agreement between The Newhall Land and Farming Company and the Newhall School District. <i>(This measure is applicable to the Mission Village project.)</i></p> <p>SP 4.16-3 The developer of future subdivisions which allow construction will comply with the terms and conditions of the School Facilities Funding Agreement between The Newhall Land and Farming Company and the William S. Hart Union High School District. <i>(This measure is applicable to the Mission Village project.)</i></p> <p>SP 4.16-4 Not applicable.</p> <p>SP 4.16-5 Not applicable.</p> <p>MV 4.13-1 The developer of future subdivisions which allow construction will comply with the terms and conditions of the School Facilities Funding Agreement between The Newhall Land and Farming Company and the Saugus Union School District.</p>	<p>With implementation of the identified mitigation measures, the proposed project’s education impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.13 EDUCATION (CONTINUED)		
<p><i>direct and cumulative impacts on the Saugus School District's educational facilities.</i></p> <p><i>Project impacts on the Hart District would be mitigated through the "School Facilities Funding Agreement Between the William S. Hart Union High School District and The Newhall Land and Farming Company" (Hart School Funding Agreement), effective October 1998, and included in this EIR (Appendix 4.13). The Hart School Funding Agreement conditionally obligates The Newhall Land and Farming Company to provide up to three additional junior high schools and two additional senior high schools to the Hart District. Once implemented, the Hart School Funding Agreement would fully mitigate Mission Village's direct and cumulative impacts on the Hart District's educational facilities.</i></p> <p><i>Cumulative student generation under the Development Monitoring System (DMS) Build-Out Scenario and the Santa Clarita Valley Build-Out Scenario cannot be accommodated by existing or presently planned facilities that serve the valley; therefore, the impacts of cumulative development on the school districts would be potentially significant if no additional facilities were constructed. However, compliance, as appropriate, with existing School Facilities Funding Agreements and other mechanisms (e.g., Senate Bill [SB] 50, the Valley-Wide Joint Fee Resolution, and/or new school facilities funding agreements), which require that future development pay its fair-share towards the construction of new school facilities to accommodate the increased population, would reduce potential cumulative development impacts on the school districts to below a level of significance. Moreover, because the direct impacts of the proposed project would be fully mitigated, the project's contribution to any cumulative impacts would not be cumulatively considerable. No significant unavoidable impacts would result from implementation of the proposed Mission Village project.</i></p>		

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.14 PARKS AND RECREATION		
<p><i>The proposed Mission Village project includes a public 20-net acre Community Park, which is consistent with the Specific Plan’s Land Use Overlay Community Park designation for the area and would be located along the eastern side of the proposed Commerce Center Drive near the eastern site boundary. It should be noted that the park locations in the Newhall Ranch Specific Plan are overlay designations. The overlay designation allows park location flexibility to situate parks in the best locations to serve future residents as the property develops over time. The proposed project also includes a 5-acre public neighborhood park, 6.9-acre private Community Recreation Center, 4.6 acres of private recreation area, and 2.9-acre private park. The proposed project further provides a hierarchy of community, local and pathway trails, as identified in the Specific Plan, connecting to the Specific Plan’s Regional River Trail, which traverses the Santa Clara River. These trails include 18,980 linear feet of community trails, 12,900 linear feet of local trails, and 9,200 linear feet of pathways (7.5 miles of trails). In addition, the project includes 217 acres of River Corridor dedication. The Specific Plan allows a 10 percent (21.7 acres) park land credit for River Corridor dedication. In sum, the proposed project includes a total of 70.4 acres of park and recreational space.</i></p> <p><i>Implementation of these project components would result in a parkland provision equivalent to approximately 9.4 acres per 1,000 persons, which is greater than the Los Angeles County (County) and Quimby Act requirements of 3.0 acres per 1,000 persons. The basic Quimby Act park land obligation for the proposed project is 29.7 net acres of park land; pursuant to the Newhall Ranch Specific Plan, the 71.86 acres by which the proposed project exceeds its Quimby obligation will be credited against other subdivisions within the Specific Plan area. Measured against the identified significance thresholds, the proposed Mission Village project meets County parkland requirements, exceeds Quimby Act parkland standards, and would not result in significant impacts to local parks and</i></p>	<p>SP 4.20-1 Development of the Newhall Ranch Specific Plan will provide the following acreages of parks and open area:</p> <ul style="list-style-type: none"> • Ten public Neighborhood Parks totaling 55 acres; • Open Areas totaling 1,106 acres of which 186 acres are Community Parks; • High Country Special Management Area of 4,214 acres; • River Corridor Special Management Area of 819 acres; • A 15-acre lake; • An 18-hole golf course; and • A trail system consisting of: <ul style="list-style-type: none"> – Regional River Trail; – Salt Creek Corridor; – Community trails; and – Unimproved trails. <p>SP 4.20-2 Prior to the construction of the proposed trail system, the Specific Plan applicant shall finalize the alignment of trails with the County Department of Parks and Recreation.</p> <p>SP 4.20-3 Trail construction shall be in accordance with the County of Los Angeles Department of Parks and Recreation trail system standards.</p>	<p>With implementation of the identified mitigation measures, the proposed project’s parks and recreation impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.14 PARKS AND RECREATION (CONTINUED)		
<p><i>recreation facilities by causing substantial physical deterioration to existing recreational facilities. Additionally, the proposed project does not include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.</i></p> <p><i>Implementation of cumulative projects would incrementally increase demand for local park facilities. However, the proposed project would meet County parkland requirements and exceed the Quimby Act parkland standards. Further, future development projects would be subject to the Quimby Act and County requirements, which would mitigate the demand associated with each future project. As a result, no significant cumulative impacts on County parks and recreation facilities would occur with implementation of the proposed project.</i></p> <p><i>Because the proposed Mission Village project meets the County parkland requirements and exceeds the Quimby Act requirements, no further mitigation measures are required for the proposed project beyond those adopted as part of the Newhall Ranch Specific Plan.</i></p>	<p>The Specific Plan identifies two neighborhood parks within the Mission Village tract map site; however, the proposed project will provide only one neighborhood park. The credits generated by the proposed project exceed the Quimby Obligation, thus allowing only the provision for one neighborhood park within the tract map site.</p> <p>In addition to the above mitigation measures, the Specific Plan's neighborhood parks and the active areas of the Community Parks are required to be improved pursuant to the revised Specific Plan's list of specified park improvements. The park improvements are required to be provided in accordance with the final park plan approved by the County's Department of Parks and Recreation. See, Specific Plan, May 2003, Section 2.8, p. 2-145.</p> <p>As a Board of Supervisors' imposed Condition of Approval, approximately 1,517 acres of land encompassing the Salt Creek watershed in Ventura County are required to be dedicated in fee and/or by conservation easement, as determined by the County in its sole discretion, to the joint powers authority, which is responsible for overall recreation and conservation of the Newhall Ranch High County SMA. Said land is to be managed in conjunction with and in the same manner as the High Country SMA.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.15 LIBRARY SERVICES		
<p><i>The Mission Village project site is located in the Valencia Library service area of the County of Los Angeles Public Library (County Library). In addition to the Valencia Library, the Santa Clarita Valley area is served by three other County libraries (Newhall Library, Canyon Country Jo Anne Darcy Library, and Castaic Library) and the Santa Clarita Valley Bookmobile. Existing library facility space in the Santa Clarita Valley does not meet the County Library's service level guidelines.</i></p> <p><i>As part of the County's approval of the Newhall Ranch Specific Plan, the County adopted a library mitigation measure requiring that the developer dedicate up to two library sites and provide funding for the construction and development of library facilities on the Specific Plan site. The total library building square footage to be funded by the developer will not exceed 0.35 net square feet per person. Consistent with that mitigation, the proposed Mission Village project includes a 3.3-acre site for development of a public library in the Village Center area of the project. The Specific Plan mitigation measure also provides that, prior to issuance of the first residential building permit on Newhall Ranch, the County Librarian and developer must develop a mutually acceptable "Library Construction Plan." The plan must outline the library construction requirements and define elements such as location, size, funding, and timing of facilities construction. The Library Construction Plan, a completion schedule, land dedication criteria, and a funding plan must be defined and set forth in a MOU between the developer and County Librarian. With implementation of the Specific Plan mitigation, any potential impacts to library services resulting from the Mission Village project would be reduced to less than significant levels.</i></p>	<p>SP 4.19-1 The developer will provide funding for a maximum of two libraries (including the site(s), construction, furniture, fixtures, equipment, and materials) to the County Librarian. The developer will dedicate a maximum of two library sites for a maximum of two libraries located in Newhall Ranch in lieu of the land component of the County's library facilities mitigation fee, in accordance with the provisions of Section 22.72.090 of Section 2 of Ordinance No. 98-0068. The actual net buildable library site area required and provided by the developer will be determined by the actual size of the library building(s), the Specific Plan parking requirements, the County Building Code, and other applicable rules.</p> <p>The total library building square footage to be funded by the developer will not exceed 0.35 net square feet per person. The developer's funding of construction of the library(s) and furnishings, fixtures, equipment and materials for the library(s) will be determined based on the cost factors in the library facilities mitigation fee in effect at the time of commencement of construction of the library(s).</p> <p>Prior to County's issuance of the first residential building permit of Newhall Ranch to the developer, the County Librarian and the developer will mutually agree upon the library construction requirements (location, size, funding, and time of construction) based upon the projected development schedule and the population of Newhall Ranch based on the applicable number of average persons per household included in the library facilities mitigation fee in effect at the time. Such mutual agreement regarding the library construction requirements ("Library Construction Plan") and the criteria for timing the completion of the library(s) will be defined in a Memorandum of Understanding (MOU) between the developer and the County Librarian.</p>	<p>With implementation of the identified mitigation measures, the proposed project's library services impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.15 LIBRARY SERVICES (CONTINUED)		
<p><i>Based on the County Library's service level guidelines of 0.50 square foot of library facilities per capita and a collection size of 2.0 library material items (books, magazines, periodicals, audio, video, etc.) per capita for an opening day collection in a new library, the development of the proposed Mission Village project would require a total of 3,781 square feet of library facilities and 21,605 items.</i></p> <p><i>With respect to cumulative impacts, new developments occurring within the Santa Clarita Valley would increase demand for books and library space. However, the project's impacts would be fully mitigated and would not contribute to cumulative impacts. Additionally, payment of the Library Developer Fee, \$805.00 per residential unit (as of July 1, 2010), by other foreseeable regional projects would reduce potentially significant cumulative impacts on the County Library system to less-than -significant levels.</i></p>	<p>4.19-1 (continued)</p> <p>Such MOU shall include an agreement by the developer to dedicate sufficient land and pay the agreed amount of fees on a schedule to allow completion of the library(s) as described below. The developer's funding for library facilities shall not exceed the developer's fee obligation at the time of construction under the developer fee schedule.</p> <p>If two libraries are to be constructed, the first library will be completed and operational by the time of County's issuance of the 8,000th residential building permit of Newhall Ranch, and the second library will be completed and operational by the time of County's issuance of the 15,000th residential building permit of Newhall Ranch. If the County Librarian decides that only one library will be constructed, the library will be completed and operational by the time of County's issuance of the 10,000th residential building permit of Newhall Ranch.</p> <p>No payment of any sort with respect to library facilities will be required under Section 2.5.3.d. of the Specific Plan in order for the developer to obtain building permits for nonresidential buildings.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.16 AGRICULTURAL RESOURCES		
<p><i>Development of the proposed Mission Village tract map and related off-site improvements would convert 160.7 acres of Prime Farmland, 30.1 acres of Unique Farmland, 0.6 acres of Farmland of Statewide Importance, 2.5 acres of Farmland of Local Importance, and 875.6 acres of Grazing Land to non-agricultural urban land uses. The proposed project's irreversible loss of 160.7 acres of Prime Farmland and 30.1 acres of Unique Farmland, and 0.6 acre of Farmland of Statewide Importance is consistent with the findings of the Newhall Ranch Specific Plan Program EIR and is considered a significant impact; based. Based on the applicable significance thresholds, the loss of Grazing Land is not considered a significant impact. No feasible mitigation exists to reduce the identified significant impacts resulting from the conversion of prime agricultural land to a less -than -significant level and, therefore, these impacts are significant and unavoidable.</i></p> <p><i>With respect to forest resources, development of the proposed Mission Village tract map and related off-site improvements would not conflict with forestland or timberland zoning. In the past, the project site was zoned for agricultural uses; but, with approval of the Newhall Ranch Specific Plan on May 27, 2003, the Mission Village project site was re-zoned as non-agriculture. Therefore, development of the project site would not require a zone change from an existing forestland/timberland zone to a non-forestland/timberland zone, and there would be no related impacts.</i></p>	<p>SP 4.4-1 Not applicable. SP 4.4-2 Not applicable. MV 4.16-1 In order to minimize the premature conversion of agricultural lands and to track that conversion, prior to issuance of the first grading permit in areas of Mission Village where agricultural soils designated as prime farmland, unique farmland, and/or farmland of statewide importance exist (Pub.Resources Code section 21060.1), Newhall Land shall prepare a phasing map to document the phased discontinuation of existing agricultural activities located within the Mission Village project area over the course of its development.</p>	<p>The project-specific impacts resulting from the loss of prime agricultural land are considered significant and unavoidable. In addition, the cumulative conversion of prime agricultural land to non-agricultural uses constitutes a loss of an irreplaceable resource and is considered a significant and unavoidable cumulative impact.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.16 AGRICULTURAL RESOURCES (CONTINUED)		
<p><i>The Mission Village project site contains approximately 143.7 acres (approximately 7.75 percent of the 1,854.1-acre project site)¹⁴ of native trees (i.e., oak trees and cottonwood trees, which are considered Forest Land as defined by Public Resource Code section 12220(g)), of which 10.6 acres would be permanently disturbed and 28.9 acres would be temporarily disturbed. Therefore, approximately 0.57 percent (approximately 10.6 acres of native trees) of the 1,854.1-acre project site that contains native trees would be lost, due to development of the project. However, because mitigation is provided in Section 4.3, Biota, to mitigate the loss of these forest resources, any potentially significant impacts related to such loss would be reduced to a less than significant level.</i></p>		

¹⁴ This total -- 1,854.1 acres -- includes the tract map site and off-site improvement areas.

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.17 UTILITIES		
<p><i>The Mission Village proposed project would require energy resources and infrastructure to serve the project site. Current projections for energy supply and demand by Southern California Edison (SCE) and the Southern California Gas Company (SCGC) indicate that these utility providers would have sufficient electricity and natural gas resources to serve the project site. In addition, the proposed project would exceed the statewide energy efficiency requirements set forth in Title 24 of the California Code of Regulations by 15 percent. Further, consistent with the Newhall Ranch Specific Plan Program Environmental Impact Report (EIR), providing electricity and natural gas to the Mission Village project site would not require a considerable extension of distribution infrastructure.</i></p> <p><i>Importantly, several of Mission Village’s design features would reduce its demand for energy resources, and further ensure that all impacts to utilities-related resources are less than significant. First, as indicated above, Mission Village’s residential, commercial, and public buildings would exceed current state efficiency standards (i.e., Title 24 of the California Code of Regulations) by at least 15 percent, thereby reducing the overall demand for electricity and natural gas resources. (See Section 4.23, Global Climate Change, Mitigation Measures MV 4.23-1 and 4.23-2.) In addition, the project applicant may rely on renewable energy sources to meet a portion of the project’s energy demands, and is evaluating the feasibility of energy efficient municipal lighting and smart meter programs. (See Section 4.23, Global Climate Change, Mitigation Measures MV 4.23-3 and 4.23-4 and discussion of potentially feasible programs regarding municipal lightings and smart meters). With implementation of the mitigation measures from the certified Newhall Ranch Specific Plan Program EIR, and implementation of the “green” project design features summarized above, the Mission Village project is anticipated to result in less than significant impacts to electricity and natural gas resources and infrastructure.</i></p>	<p>SP 4.14-1 All development within the Specific Plan area shall comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the <i>California Code of Regulations</i>).</p> <p>SP 4.14-2 Southern California Edison or other energy provider is to be notified of the nature and extent of future development on the Specific Plan site prior to recordation of all future subdivisions.</p> <p>SP 4.14-3 All future tract maps are to comply with Southern California Edison or other energy provider guidelines for grading, construction, and development within SCE easements.</p> <p>SP 4.14-4 Electrical infrastructure removals and relocations are to be coordinated between the Specific Plan engineer and Southern California Edison or other energy provider as each tract is designed and constructed.</p> <p>SP 4.14-5 All future tract maps are to be reviewed by Los Angeles County to ensure adequate accessibility to Edison or other energy provider facilities as a condition of their approvals.</p> <p>SP 4.14-6 Not applicable.</p> <p>SP 4.13-1 All development within the Specific Plan area shall comply with the Energy Building Regulations adopted by the California Energy Commission (Title 24 of the <i>California Code of Regulations</i>).</p> <p>SP 4.13-2 A letter from the Southern California Gas Company or other gas provider is to be obtained prior to recordation of all future subdivisions stating that service can be provided to the subdivision under construction.</p>	<p>With implementation of the identified mitigation measures, the proposed project’s utilities impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.17 UTILITIES (CONTINUED)		
	<p>SP 4.13-3 The Specific Plan is to meet the requirements of SCGC in terms of pipeline relocation, grading in the vicinity of gas mains, and development within Southern California Gas Company easements. These requirements would be explicitly defined by SCGC at the future tentative map stage.</p> <p>SP 4.13-4 All potential buyers or tenants of property in the vicinity of Southern California Gas Company transmission lines are to be made aware of the line's presence in order to assure that no permanent construction or grading occurs over and within the vicinity of the high-pressure gas mains.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.18 MINERAL RESOURCES		
<p>Portions of the Mission Village project site located along the banks of the Santa Clara River, and the sites of the proposed utility corridor and water quality basin, are located within a Mineral Resource Zone (MRZ) 2 zone, which identifies the area as a location with significant mineral deposits present, or a location with a high likelihood of the presence of mineral deposits. The majority of the remainder of the Mission Village site is located in the MRZ-3 zone, which indicates that mineral deposits are expected to occur in this area, but the extent of significance of such deposits is unknown at the present time. The off-site site locations for water tanks are also located in MRZ-3. Two alternative sites are proposed for the electrical substation; each is located in MRZ-1, which is an area characterized as having no significant mineral deposits present or judged to have little likelihood for the presence of minerals. The extension of Magic Mountain Parkway to the project site would traverse both MRZ-2 and MRZ-3. However, the tract map site, utility corridor, water quality basin, water tank, electrical substation, and the extension of Magic Mountain Parkway sites are not located in active mineral extraction operation areas. Further, the tract map site and proposed sites for the utility corridor, water quality basin, water tank, electrical substation, and extension of Magic Mountain Parkway are not identified as a “locally-important mineral resource recovery site” or a “regionally significant construction aggregate resource area” by the County of Los Angeles General Plan, Santa Clarita Valley Area Plan, or Newhall Ranch Specific Plan. In addition, at the time the Newhall Ranch site was designated by the County of Los Angeles as “Specific Plan,” which serves as the zoning designation for the property, there were no areas within Newhall Ranch used for mineral extraction. Under the Specific Plan designation, the area currently is zoned for development of various Specific Plan land uses and not long-term mineral extraction activities.</p>	<p>No mitigation measures required.</p>	<p>Less than Significant</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.18 MINERAL RESOURCES (CONTINUED)		
<p><i>The Specific Plan zoning designation allows for the development of a mixed-use planned community, with sand and gravel extraction activities allowed during tract grading and construction phases on the sites to be developed. Additionally, extraction activities are permitted in the Visitor-Serving (VS) and Open Area (OA) zones under a conditional use permit, which is not proposed. Thus, the current zoning designation for the project site allows the area to be available for mineral extraction uses on a limited basis in areas that are already proposed for, and in association with, development (i.e., on tentative tract map sites). Furthermore, the majority of mineral resources of value are expected to be located in the River Corridor and not on the project site, and the continued availability of these resources would not be significantly affected by the proposed project. Therefore, project implementation will not result in a significant impact in relation to the loss of availability of a known mineral resource or a locally important mineral resource recovery site.</i></p>		

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.19 ENVIRONMENTAL SAFETY		
<p><i>The potential environmental safety impacts relative to development of the Mission Village project site include soil contamination attributable to past and present agricultural activities, on-site petroleum (i.e., oil) drilling and pipeline activities, and the disposal of on-site hazardous materials debris. Hazardous materials generally include petroleum products (including oil and gasoline), automotive fluids (antifreeze, hydraulic fluid), paint, cleaners (dry cleaning solvents, cleaning fluids), and pesticides from agricultural uses (at higher concentrations). Byproducts generated as a result of activities using hazardous materials (such as dry cleaning solvents, oil, and gasoline) are considered hazardous waste. Contamination usually takes the form of a hazardous materials or waste spill in soil. Such contamination can penetrate soils into the groundwater table, resulting in the pollution of a local water supply. Commercial uses, particularly those using underground storage tanks (UST), are most common in causing such contamination. Potential environmental safety impacts associated with the project site include observed stained soil (including possible petroleum hydrocarbon contamination) near abandoned oil wells and pipelines, aboveground storage tanks (ASTs) and equipment storage areas. Unless mitigated, these potentially contaminated soils could result in significant impacts, especially if construction utilizing these soils, or contamination within these soils, was permitted without proper monitoring and testing. When remediated to local, state and federal standards, including re-abandonment procedures for previously abandoned wells and pipelines, any potentially significant impacts relative to these conditions would be reduced to below a level of significance and, therefore, would not result in environmental safety hazards to Mission Village residents, employees and/or visitors or to adjacent properties.</i></p>	<p>SP 4.5-1 All final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100–110 kV lines; 150 feet from the 220–230 kV lines; and 250 feet from the 345 kV lines. <i>(The school proposed as part of the Mission Village project will not be sited within an electric transmission line restricted zone.)</i></p> <p>SP 4.5-2 Only non-habitable structures shall be located within SCE easements. <i>(The Mission Village tract map does not locate any habitable structures within a Southern California Edison [SCE] easement.)</i></p> <p>SP 4.5-3 Prior to issuance of grading permits, all abandoned oil and natural gas-related sites must be remediated to the satisfaction of the California Department of Oil and Gas, the Los Angeles County Hazardous Materials Control Program, the South Coast Air Quality Management District, and/or the Regional Water Quality Control Board (Los Angeles region). <i>(All abandoned oil and natural gas-related sites on the Mission Village project site have been abandoned and remediated, as necessary, according to California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR) standards. Furthermore, pursuant to project-specific mitigation measure MV 4.19-1, all former oil wells to be disturbed or located in an area of development on the Mission Village site shall be reabandoned according to DOGGR standards prior to the issuance of grading permits.)</i></p> <p>SP 4.5-4 Not applicable.</p>	<p>With implementation of the identified mitigation measures, the proposed project’s environmental safety impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.19 ENVIRONMENTAL SAFETY (CONTINUED)		
<p>Potential environmental safety impacts associated with the project site also include miscellaneous debris present on the project site that could contain previously unidentified hazardous materials. Mitigation is recommended requiring that unidentified structures or materials encountered during project construction be assessed and the appropriate action taken in accordance with applicable regulatory requirements. With mitigation, potential impacts relative to on-site debris would be reduced to a less than significant level.</p> <p>Electrical transmission line poles and transformers on the project site may contain polychlorinated biphenyls (PCBs), which could constitute a potentially significant impact. With mitigation, impacts relative to PCBs would be reduced to a less than significant level.</p> <p>The presence of pesticides in the soils from historic agricultural operations, and the continuing use of pesticides in connection with ongoing agricultural activities, constitutes a potential impact, although the impact does not rise to a significant level. Soil sampling has been conducted to determine on-site concentrations of pesticides. The results conclude no concentration of hazardous pesticides exceeding the residential or industrial use Preliminary Remediation Goals. Additionally, no Proposition 65 pesticides have been used on the Mission Village project site. With respect to the future use of pesticides, due to the regulation of those pesticides used by agricultural activities occurring on Newhall Ranch, including the chemical and physical properties of those pesticides used, the requirement to use the pesticides in accordance with manufacturer specifications, and the mode of application of the pesticides, it is not expected that humans would be subject to either acute overexposure or chronic exposure to any of the pesticides used. Therefore, the on-site use of pesticides would not create a potential public health hazard, and would create no significant impact to the development property or its residents.</p>	<p>SP 4.5-5 The Specific Plan is to meet the requirements of SCGC in terms of pipeline relocation, grading in the vicinity of gas mains, and development within SCGC easements. These requirements would be explicitly defined at the future tentative map stage. <i>(The Mission Village tentative tract map incorporates all applicable requirements of the Southern California Gas Company [SCGC] with respect to pipeline relocation, grading in the vicinity of gas mains, and development within SCGC easements.)</i></p> <p>SP 4.5-6 All potential buyers or tenants of property in the vicinity of SCGC transmission lines are to be made aware of the line's presence in order to assure that no permanent construction or grading occurs over and within the vicinity of the high-pressure gas mains. <i>(This mitigation measure will be implemented concurrent with project development.)</i></p> <p>SP 4.5-7 Not applicable.</p> <p>SP 4.5-8 Not applicable.</p> <p>SP 4.5-9 In accordance with the provisions of the Los Angeles County Code, Title 11, Division 4, Underground Storage of Hazardous Materials regulations, the County of Los Angeles Department of Public Works shall review, prior to the issuance of building permits by the County of Los Angeles, any plans for underground hazardous materials storage facilities (e.g., gasoline) that may be constructed or installed within the Specific Plan. <i>(This mitigation measure will be implemented prior to the issuance of building permits.)</i></p> <p>MV 4.19-1 During grading operation, all former oil wells located on the Mission Village development property shall be reabandoned and the sites remediated, if necessary, according to the requirements of the California Department of Conservation, Division of Oil, Gas and Geothermal Resources, if such sites are to be disturbed or are located in an area of development.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.19 ENVIRONMENTAL SAFETY (CONTINUED)		
<p><i>Other potential impacts, such as those associated with the presence of on-site ponds used for the disposal of hazardous wastes and water wells, would be reduced to a level that is less than significant with mitigation.</i></p> <p><i>No potentially significant impacts were identified with regard to on-site high-pressure gas lines, electrical transmission lines, transport of hazardous materials on State Route (SR)-126, the Chiquita Canyon Landfill, and the Castaic Lake Dam inundation area. Therefore, no mitigation is required or recommended for these potential environmental safety impacts.</i></p>	<p>MV 4.19-2 During grading operations, those areas of the Mission Village development property identified as formerly containing above-ground storage tanks, current agricultural storage areas and current soil staining by the <i>Phase I Environmental Site Assessment of Proposed The Mesas East, Valencia, California</i> (BA Environmental, February 2005), shall be investigated for the presence of petroleum hydrocarbons and hazardous materials and/or wastes, and, where necessary, shall be remediated in conformance with applicable federal, state and local laws, to the satisfaction of the California Department of Conservation, Division of Oil, Gas and Geothermal Resources, the Los Angeles County Hazardous Materials Control Program, the South Coast Air Quality Management District, and/or the Regional Water Quality Control Board (Los Angeles region).</p> <p>MV 4.19-3 During grading operations, all pipelines located on the Mission Village development property that will no longer be used to transport oil products shall be reabandoned according to the requirements of the California Department of Conservation, Division of Oil, Gas and Geothermal Resources. The soil beneath these pipelines shall be assessed for petroleum hydrocarbons. Any identified contaminated soil shall be remediated in conformance with applicable federal, state and local laws, to the satisfaction of the California Department of Conservation, Division of Oil, Gas and Geothermal Resources, the Los Angeles County Hazardous Materials Control Program, the South Coast Air Quality Management District, and/or the Regional Water Quality Control Board (Los Angeles region).</p> <p>MV 4.19-4 During grading operations, all groundwater monitoring wells and production water wells not intended for future use shall be abandoned according to applicable federal, state, and local regulations.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.19 ENVIRONMENTAL SAFETY (CONTINUED)		
	<p>MV 4.19-5 Prior to demolition or rehabilitation, all electrical poles and facilities to be demolished or rehabilitated shall be surveyed to determine if they contain PCBs. If PCBs are present, they shall be removed and disposed of by a licensed and certified PCB removal contractor, in accordance with all federal, state, and local regulations.</p> <p>MV 4.19-6 Prior to the issuance of grading permits, all ponds located on the project site that may have been used for the treatment or disposal of hazardous wastes shall be tested for environmental hazards and remediated, if necessary, in accordance with all federal, state, and local regulations.</p> <p>MV 4.19-7 Areas of visible soil staining not planned for excavation, or located in an area planned to be raised in grade, shall be assessed for environmental hazards and treated, as necessary, in accordance with all federal, state, and local regulations. Areas of visible soil staining that are scheduled to be excavated shall have any visibly impacted soil disposed of in accordance with all federal, state, and local regulations.</p> <p>MV 4.19-8 In the event that previously unidentified, obvious, or suspected hazardous materials, contamination, underground storage tanks, sumps, debris, asbestos, septic tanks, cesspools or other features or materials that could present a threat to human health or the environment are discovered during construction, construction activities in the vicinity of the find shall cease immediately until the project site is evaluated by a qualified professional. Work shall not resume until appropriate actions recommended by the professional have been implemented and it has been demonstrated that the identified contaminants have been remediated or removed from the project site in accordance with applicable law.</p> <p>MV 4.19-9 Soils excavated for construction of the unlined water quality control basin will not be used for construction of the basin. If discolored soil is encountered, it will be excavated and will not be used in construction of the basin.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.20 CULTURAL/PALEONTOLOGICAL RESOURCES		
<p><i>Phase I and II archaeological resource surveys within the Newhall Ranch Specific Plan area, including the Mission Village project area, were undertaken during preparation of the Newhall Ranch Specific Plan Program EIR. This information was reviewed at project-specific level for the Mission Village project to determine if there were archaeological or paleontological effects relative to Mission Village not examined or identified in the Newhall Ranch Specific Plan Program EIR.</i></p> <p><i>The Phase I survey resulted in the discovery and recording of one prehistoric archaeological site, CA-LAN-2236, within the boundaries of the proposed Mission Village project. The Phase I survey also identified two historical sites within the vicinity of the Mission Village project - the site of the original Newhall Ranch headquarters (CA-LAN-961H) and the site of the Asistencia de San Francisco Xavier (CA-LAN-962H).¹⁵ The site of the Newhall Ranch headquarters falls outside of the Mission Village development area and, therefore, would not be significantly impacted by the project. As to the Asistencia site, no development is proposed for the area, and the site will be dedicated to The Archaeological Conservancy. As such, implementation of the Mission Village project would not result in significant impacts to the Asistencia site.</i></p>	<p>SP 4.3-1 Not applicable.</p> <p>SP 4.3-2 Not applicable.</p> <p>SP 4.3-3 In the unlikely event that additional artifacts are found during grading within the development area or future roadway extensions, an archaeologist will be notified to stabilize, recover and evaluate such finds.</p> <p>SP 4.3-4 As part of an inspection testing program, a Los Angeles County Natural History Museum-approved inspector is to be on site to salvage scientifically significant fossil remains. The duration of these inspections depends on the potential for the discovery of fossils, the rate of excavation, and the abundance of fossils. Geological formations (like the Saugus Formation) with a high potential will initially require full time monitoring during grading activities. Geologic formations (like the Quaternary terrace deposits) with a moderate potential will initially require half-time monitoring. If fossil production is lower than expected, the duration of monitoring efforts should be reduced. Because of known presence of microvertebrates in the Saugus Formation, samples of at least 2,000 pounds of rock shall be taken from likely horizons, including localities 13, 13A, 14, and 23. These samples can be stockpiled to allow processing later to avoid delays in grading activities. The frequency of these samples will be determined based on field conditions.</p> <p>Should the excavations yield significant paleontological resources, excavation is to be stopped or redirected until the extent of the find is established and the resources are salvaged. Because of the long duration of the Specific Plan,</p>	<p>With implementation of the identified mitigation measures, the proposed project's cultural/paleontological resources impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.</p>

¹⁵ The proposed Mission Village project site is approximately 1,854.1 acres in size, including off-site project-related improvements (i.e., utility corridor, Magic Mountain Parkway roadway extension, water quality basin, three water tanks (portions of 2 would be located on-site), Southern California Edison electrical substation, conversion of an existing water tank to recycled water tank and grading associated with construction of the southerly extension of Westridge Parkway). The existing water tank area was not addressed in the Phase I and Phase II Archaeological Reports for the Newhall Ranch Specific Plan. However, the area around the existing water tank has been disturbed and is not in a natural state, thereby drastically reducing the possibility that new cultural or archaeological sites could be disturbed.

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.20 CULTURAL/PALEONTOLOGICAL RESOURCES (CONTINUED)		
<p><i>With respect to the prehistoric archaeological site, a Phase II archaeological study was conducted and CA-LAN-2236 was found to consist of a small, very low-density surface lithic scatter, measuring 300 square meters in size and consisting of six waste flakes found on the ground surface. No temporally diagnostic artifacts or chronometrically datable materials were found on this site, which appears to have served as a non-specialized stone chipping station, probably created in concert with some other economic activity, such as plant gathering or hunting. Phase II fieldwork at this site resulted in the collection of all extant archaeological artifacts from this locale. This has served to completely and adequately mitigate any significant impacts that might occur due to development at this site.</i></p> <p><i>As to paleontological resources, a Phase I paleontological report also was prepared to determine the likelihood of encountering paleontological resources on the proposed Mission Village site. This report focused on a literature and records search, as well as an extensive field survey of the area proposed for development. Development of Mission Village would occur in geologic formations with high and moderate potential for the discovery of fossil remains and, therefore, grading activities associated with development of the proposed Mission Village project could result in significant impacts to the region's paleontological resources absent mitigation. Mitigation previously adopted by the County, in combination with additional proposed mitigation, would reduce any potentially significant impacts to paleontological resources to a level below significant.</i></p>	<p>SP 4.3-4 (continued) a reassessment of the paleontological potential of each rock unit will be used to develop mitigation plans for subsequent subdivisions. The report shall include an itemized inventory of the fossils, pertinent geologic and stratigraphic data, field notes of the collectors and include recommendations for future monitoring efforts in those rock units. Prior to grading, an agreement shall be reached with a suitable public, non-profit scientific repository, such as the Los Angeles County Museum of Natural History or similar institution, regarding acceptance of fossil collections.</p> <p>MV 4.20-1 Although no other significant cultural resources were observed or recorded, all grading activities and surface modifications must be confined to only those areas of absolute necessity to reduce any form of impact on unrecorded (buried) cultural resources that may exist within the confines of the project area. In the event that previously undetected archaeological, paleontological, and/or historical resources are found during construction, activity in the immediate area of the find shall stop and a qualified archaeologist or paleontologist, as applicable, shall be contacted to evaluate the resource(s). If the find is determined to be a historical or unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation shall be provided. Construction work may continue on other parts of the construction site while historical/archaeological mitigation takes place, pursuant to <i>State CEQA Guidelines</i> Section 15064.5(f) and Public Resources Code Section 21083.2(i).</p> <p>MV 4.20-2 Following recordation of the applicable unit of the Mission Village tract map, the Asistencia de San Francisco (CA-LAN-962H) site shall be dedicated to The Archaeological Conservancy.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.21 FLOODPLAIN MODIFICATIONS		
<p>Implementation of the Mission Village project, including the installation of proposed infrastructure, urban development and modifications to the Santa Clara River and on-site tributaries, would not result in significant impacts to existing hydrologic conditions. Project-related effects to the Santa Clara River regarding water flow, velocity, water surface elevation and scour would be minimal and localized. Erosion-related impacts to the River and on-site tributaries would have the potential to be significant but would be reduced to a less than significant level with the implementation of previously adopted and proposed mitigation measures.</p> <p>Impacts to riparian resources resulting from changes to existing hydrologic conditions would also be minimal and localized, and would not result in significant impacts. Implementation of the Mission Village project would not result in a substantial reduction in sediment supplies that are transported to the Santa Clara River and would not result in a significant impact to Ventura County beaches.</p>	<p>MV 4.21-1 Post-peak stormwater runoff discharges from storm drainage systems must be controlled to minimize localized erosion impacts to River geomorphology and riparian habitat. Discharge flows would be regulated using water control features that must capture the runoff from small, frequent flows (i.e., one- and two-year events). Water and hydromodification control features must be designed in accordance with DPW criteria. Where applicable, energy dissipation structures must be incorporated at drainage outlets to the Santa Clara River to minimize discharge velocities and potential localized erosion.</p> <p>MV 4.21-2 Where practical, the proposed Santa Clara River bridge crossing shall minimize the number and size of piers and/or columns to minimize localized impacts to River and/or tributary geomorphology and riparian resources.</p> <p>MV 4.21-3 Structural features such as outlets, bank stabilization, grade stabilization structures, bridge abutments, culverts, and other features that may be subjected to River or tributary flows will be constructed of erosion resistant materials such as concrete, soil cement, or secured riprap to ensure long-term stability and reduce the need for routine maintenance and/or rehabilitation/replacement activities and be subject to approval by DPW.</p> <p>MV 4.21-4 Prior to building permit, in-stream tributary channel design features for Lion Canyon drainage will be incorporated to control potential hydromodification impacts to geomorphology and riparian resources. The design will be based on erosion potential and other hydrologic modeling to determine appropriate equilibrium slope in the post-development condition as described in the Subregional Stormwater Mitigation Plan and be subject to approval by DPW.</p>	<p>With implementation of the identified mitigation measures, the proposed project's floodplain modification impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.21 FLOODPLAIN MODIFICATIONS (CONTINUED)		
	<p>MV 4.21-5 Sediment/debris control structures must be constructed downstream of natural watersheds to protect developed area drainage systems from debris flows. The design capacity for sediment/debris control structures must take into account the classifications stated in the debris production maps provided in Appendix A of the DPW 1991 Hydrology Manual. Sediment/debris control structure capacity and transport rates must be based on the specification stated in the DPW Sedimentation Manual.</p> <p>MV 4.21-6 A Geomorphology Monitoring and Management Plan (Plan) will be prepared to ensure that the modified/re-engineered Lion Canyon drainage comply with the mitigation objectives and design goals outlined in the Newhall Ranch Tributary Channel Design Guidelines (PWA 2008). Specifically, the Plan shall include the measures to be implemented to ensure the integrity of the structural elements and a state of "constrained dynamic equilibrium."¹⁶ The Plan shall specify the following: (1) a framework to collect baseline data to characterize conditions immediately after construction; (2) a post-development monitoring program; (3) a framework to develop erosion and sedimentation threshold parameters and performance standards that activate adaptive management measures across a series of potential future scenarios; and, (4) contingency plans and appropriate remedial measures in the event that management efforts are not successful. The Plan shall be subject to final approval by the U.S. Army Corps of Engineers, CDFG, and DPW.</p>	

¹⁶ In this context, "constrained dynamic equilibrium" indicates that the channels will be designed to periodically change width, depth, and location on the floodplain in response to changing rainfall and vegetation dynamics, but stay within a predefined corridor and not encroach on infrastructure or fill slopes.

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.22 WATER QUALITY		
<p>The Mission Village tract map site presently consists of open space, agriculture, and oil and gas extraction wells with associated access roads, and runoff is conveyed via natural drainages and existing concrete channels to ultimately discharge to the Santa Clara River. Construction and operation of the Mission Village project would replace open space, agricultural land, and extraction well pad runoff with urban runoff. The following summarizes the impacts of the pollutants of concern under wet- and dry-weather conditions in the post-developed conditions:</p> <ul style="list-style-type: none"> Sediments: Municipal Separate Storm Sewer System (MS4) Permit, Construction General Permit, Dewatering General Permit, and Standard Urban Stormwater Mitigation Plan (SUSMP)-compliant Best Management Practices (BMPs) would be incorporated into the project to address sediment in both the construction phase and post-development. Mean total suspended solids concentration and loads are predicted to be less in the post-development condition than in the existing conditions. Turbidity in stormwater runoff would be controlled through implementation of a Construction Stormwater Pollution Prevention Plan (SWPPP) and would be permanently reduced through the stabilization of erodible soils with development. On this basis, the impact of the project on sediments is considered less than significant. 	<p>SP 4.2-1 All on- and off-site flood control improvements necessary to serve the NRSP are to be constructed to the satisfaction of the County of Los Angeles Department of Public Works Flood Control Division.</p> <p>SP 4.2-2 All necessary permits or letters of exemption from the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and Game, and the Regional Water Quality Control Board for Specific Plan-related development are to be obtained prior to construction of drainage improvements. The performance criteria to be used in conjunction with 1603 agreements and/or 404 permits are described in [NRSP Program EIR] Section 4.6, Biological Resources, Mitigation Measures 4.6-1 through 4.6-10 (restoration) and 4.6-11 through 4.6-16 (enhancement).</p> <p>SP 4.2-3 All necessary streambed agreement(s) are to be obtained from the California Department of Fish and Game wherever grading activities alter the flow of streams under CDFG jurisdiction. The performance criteria to be used in conjunction with 1603 agreements and/or 404 permits are described in [NRSP Program EIR] Section 4.6, Biological Resources, Mitigation Measures 4.6-1 through 4.6-10 (restoration) and 4.6-11 through 4.6-16 (enhancement).</p> <p>SP 4.2-4 Conditional Letters of Map Revision (CLOMR) relative to adjustments to the 100-year FIA flood plain are to be obtained by the applicant after the proposed drainage facilities are constructed.</p> <p>SP 4.2-5 Prior to the approval and recordation of each subdivision map, a Hydrology Plan, Drainage Plan, and Grading Plan (including an Erosion Control Plan if required) for each subdivision must be prepared by the applicant of the subdivision map to ensure that no significant erosion, sedimentation, or flooding impacts would occur during or after site development. These plans shall be prepared to the satisfaction of the County of Los Angeles Department of Public Works.</p>	<p>With implementation of the identified mitigation measures, the proposed project's water quality impacts would be mitigated to below a level of significance, and no unavoidable significant impacts would occur.</p>

Environmental Impact	Mitigation Measures		Level of Significance After Mitigation
4.22 WATER QUALITY (CONTINUED)			
<ul style="list-style-type: none"> <i>Nutrients (Phosphorus and Nitrogen [Nitrate+Nitrite-N and Ammonia-N]): MS4 Permit, Construction General Permit, Dewatering General Permit, and SUSMP-compliant BMPs would be incorporated into the project to address nutrients in both the construction phase and post-development. Average annual loads for total phosphorus, nitrate plus nitrite, and ammonia are predicted to increase from the project due to increased average annual runoff volume. Average concentrations are predicted to decrease for total phosphorus, nitrate-N plus nitrite-N, and ammonia. Average concentrations are predicted to be within the range of observed wet weather values for Santa Clara River Reach 5. Average nitrate-N plus nitrite-N and ammonia-N concentrations are predicted to be well below Los Angeles Regional Water Quality Control Board Basin Plan objectives and TMDL wasteload allocations. The predicted nutrient concentrations are not expected to cause increased algae growth. On this basis, the impact of the project on nutrients is considered less than significant.</i> 	SP 4.2-6	Install permanent erosion control measures, such as desilting and debris basins, drainage swales, slope drains, storm drain inlet/outlet protection, and sediment traps in order to prevent sediment and debris from the upper reaches of the drainage areas which occur on the Newhall Ranch site from entering storm drainage improvements. These erosion control measures shall be installed to the satisfaction of the County of Los Angeles Department of Public Works.	
	SP 4.2-7	The applicant for any subdivision map permitting construction shall satisfy all applicable requirements of the NPDES Program in effect in Los Angeles County to the satisfaction of the County of Los Angeles Department of Public Works. These requirements currently include preparation of an Urban Storm Water Mitigation Plan (USWMP) containing design features and BMPs appropriate and applicable to the subdivision. In addition, the requirements currently include preparation of an SWPPP containing design features and BMPs appropriate and applicable to the subdivision. The County of Los Angeles Department of Public Works shall monitor compliance with those NPDES requirements.	
	SP 4.2-8	The applicant for any subdivision map permitting construction shall comply with all appropriate requirements of the County of Los Angeles Standard Urban Stormwater Mitigation Plan (SUSMP) requirements, and comply with the State Water Resources Control Board (SWRCB) issued General Permit for Construction Activity Storm Water (SWRCB Order 99-08-DWQ), as it may be amended from time to time or replaced by other applicable stormwater permits.	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.22 WATER QUALITY (CONTINUED)		
<ul style="list-style-type: none"> <p>Trace Metals: MS4 Permit, Construction General Permit, General Dewatering Permit, and SUSMP-compliant BMPs would be incorporated into the project to address trace metals in both the construction phase and post-development. Aside from dissolved copper concentrations which are predicted to increase, the average annual trace metal concentrations are predicted to decrease with project development. Average annual trace metal loads are predicted to increase due to the increase in average annual runoff volume. (These differences in loads and volumes concerning trace metals are due to the change of land use (from native to developed) conditions). Predicted average annual concentrations of dissolved copper, total lead, dissolved zinc, and total aluminum are below benchmark Basin Plan objectives, California Toxics Rule (CTR) criteria, and National Ambient Water Quality Criteria (NAWQC) criteria. Cadmium is not expected to be present at significant levels in runoff discharges from the project. On this basis, the impact of the project on trace metals is considered less than significant.</p> <p>Chloride: MS4 Permit, Construction General Permit, Dewatering General Permit, and SUSMP-compliant BMPs would be incorporated into the project to address chloride in both the construction phase and post-development. The mean predicted concentration and load of chloride is predicted to increase with development, although the predicted concentration is well below the Basin Plan objective and is near the low end of the range of observed values in the Santa Clara River Reach 5. On this basis, the impact of the project on chloride is considered less than significant.</p> 	<p>MV 4.22-1 Prior to issuance of a building permit, and as a part of the design level hydrology study and facilities plan, the project applicant shall submit to LACDPW for review and approval of drainage plans showing the incorporation into the project of those water quality and hydrologic control project design features (i.e., the post-development water quality and hydrologic control BMPs)(the "PDFs"), identified in this Section 4.22, which PDFs shall be designed to meet the standards set forth in this Section 4.22, including the sizing, capacity, and volume reduction performance standards set forth herein.</p> <p>MV 4.22-2 Prior to issuance of a building permit, and as a part of the design level hydrology study and facilities plan, the project applicant shall submit to planning staff for review a Landscape and Integrated Pest Management Plan, identified in this Section 4.22, which shall be designed to meet the standards set forth as follows.</p> <p>A Landscape and Integrated Pest Management Plan shall be developed and implemented for common area landscaping within the Mission Village project that addresses integrated pest management (IPM) and pesticide and fertilizer application guidelines. IPM is a strategy that focuses on long-term prevention or suppression of pest problems (i.e., insects, diseases and weeds) through a combination of techniques including: using pest-resistant plants; biological controls; cultural practices; habitat modification; and the judicious use of pesticides according to treatment thresholds, when monitoring indicates pesticides are needed because pest populations exceed established thresholds. The Landscape and Integrated Pest Management Plan will address the following components:</p> <ol style="list-style-type: none"> 1. Pest identification. 2. Practices to prevent pest incidence and reduce pest buildup. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.22 WATER QUALITY (CONTINUED)		
<ul style="list-style-type: none"> • Pesticides: Pesticides in runoff may or may not increase in the post-development phase as a result of landscape applications. Proposed pesticide management practices, including source control, removal with sediments in treatment control PDFs, and advanced irrigation controls, would minimize the presence of pesticides in runoff. During the construction phase of the project, erosion and sediment control BMPs and source controls implemented per General Permit and General De-Watering Permit requirements would prevent pesticides associated with sediment from being discharged. Final site stabilization would limit mobility of legacy pesticides that may be present in pre-development conditions. On this basis, the impact of pesticides is considered less than significant. • Pathogens: Post-development pathogen sources include both natural and anthropogenic sources. The natural sources include bird and mammal excrement. Anthropogenic sources include leaking septic and sewer systems and pet wastes. Removal of agriculture and ranching operations and a reduction in open space within the project area would reduce the bacteria produced by livestock and wildlife. The project would not include septic systems and the sewer system would be designed to current standards minimizing the potential for leaks. Thus, pet wastes are the primary source of concern. Pathogens are not expected to occur at elevated levels during the construction phase of the project. The project design features (PDFs) would include source controls and treatment controls which in combination should help to reduce pathogen indicator levels in post-development stormwater runoff. On this basis, the project's impact on pathogen and pathogen indicators is considered less than significant. 	<p>MV 4.22-2 (continued)</p> <ol style="list-style-type: none"> 3. Monitoring to examine vegetation and surrounding areas for pests to evaluate trends and to identify when controls are needed. 4. Establishment of action thresholds that trigger control actions. 5. Pest control methods – cultural, mechanical, environmental, biological, and appropriate pesticides. 6. Pesticide management – safety (e.g., Material Safety Data Sheets, precautionary statements, protective equipment); regulatory requirements; spill mitigation; groundwater and surface water protection measures associated with pesticide use; and pesticide applicator certifications, licenses, and training (i.e., all pesticide applicators must be certified by the California Department of Pesticide Regulation). 7. Fertilizer management – soil assessment, fertilizer types, application methods, and storage and handling. 	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.22 WATER QUALITY (CONTINUED)		
<ul style="list-style-type: none"> <p><i>Hydrocarbons: Hydrocarbon concentrations would likely increase post-development because of vehicular emissions and leaks. In stormwater runoff, hydrocarbons are often associated with soot particles that can combine with other solids in the runoff. Such materials are subject to treatment in the proposed extended detention basins and bioretention areas. Source control BMPs incorporated in compliance with the MS4 Permit, the Construction General Permit, and the SUSMP would also minimize the presence of hydrocarbons in runoff. During the construction phase of the project, pursuant to the Construction General Permit, the Construction Stormwater Pollution Prevention Plan must include BMPs that address proper handling of petroleum products on the construction site, such as proper petroleum product storage and spill response practices, and those BMPs must effectively prevent the release of hydrocarbons to runoff per the Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology (BAT/BCT) standards. On this basis, the impact of the project on hydrocarbons is considered less than significant.</i></p> 		

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.22 WATER QUALITY (CONTINUED)		
<ul style="list-style-type: none"> <i>Trash and Debris: Trash and debris in runoff are likely to increase with development. However, the project PDFs, including source control and treatment BMPs incorporated in compliance with the MS4 Permit and the SUSMP requirements, would minimize the adverse impacts of trash and debris. Source controls such as street sweeping, public education, fines for littering, covered trash receptacles, and storm drain stenciling are effective in reducing the amount of trash and debris that is available for mobilization during wet weather. Trash and debris would be captured in catch basin inserts in the commercial area parking lots and in the treatment control PDFs. During the construction phase of the project, PDFs implemented per Construction General Permit and Dewatering General Permit requirements would remove trash and debris through the use of BMPs such as catch basin inserts and by general good housekeeping practices. Trash and debris are not expected to significantly impact receiving waters due to the implementation of the project PDFs.</i> 		

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
<p>4.22 WATER QUALITY (CONTINUED)</p>		
<ul style="list-style-type: none"> • Methylene Blue Activated Substances (MBAS): The presence of soap in runoff from the project would be controlled through the source control PDFs, including a public education program on residential and charity car washing and the provision of a centralized car wash area directed to the sanitary sewer in the multi-family residential areas. Project source control PDFs would reduce the impacts of soaps in post-construction runoff. Other sources of MBAS, such as cross connections between sanitary and storm sewers, are unlikely given modern sanitary sewer installation methods and inspection and maintenance practices. During the construction phase of the project, equipment and vehicle washing would not use soaps or any other MBAS sources. Therefore, MBAS are not expected to significantly impact the receiving waters of the proposed project. • Cyanide: In addition to the expected relatively low level of cyanide in untreated stormwater, cyanide in runoff from the project would be readily removed by biological uptake, degradation by microorganisms, and by volatilization in the treatment PDFs. Therefore cyanide is not expected to significantly impact the receiving waters of the proposed project. • Bioaccumulation: According to scientific literature, the primary pollutants that are of concern with regard to bioaccumulation are mercury and selenium. However, selenium and mercury are not of concern in this watershed, so bioaccumulation of selenium and mercury is also not expected to result either during the construction or post-development project phases. On this basis, the potential for bioaccumulation in the Santa Clara River and adverse effects on waterfowl and other species is considered less than significant. 		

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.22 WATER QUALITY (CONTINUED)		
<ul style="list-style-type: none"> <i>Construction Impacts: Construction impacts on water quality are generally caused by soil disturbance and subsequent suspended solids discharge, or by discharge of certain non-sediment-related pollutants, including construction materials (e.g., paint, stucco, etc); chemicals, liquid products, and petroleum products used in building construction or the maintenance of heavy equipment; and concrete-related pollutants. These impacts would be minimized through implementation of construction BMPs that would meet or exceed measures required by the Construction General Permit, as well as BMPs that control the other potential construction-related pollutants (e.g., petroleum hydrocarbons and metals). A SWPPP specifying BMPs for the site that meet or exceed BAT/BCT standards would be developed as required by, and in compliance with, the Construction General Permit and Los Angeles County Standard Conditions. Erosion control BMPs, including but not limited to hydro-mulch, erosion control blankets, stockpile stabilization, and other physical soil stabilization techniques, also would be implemented to prevent erosion, whereas sediment controls, including but not limited to silt fencing, sedimentation ponds, and secondary containment on stockpiles, would be implemented to trap sediment and prevent discharge. Non-stormwater and construction waste and materials management BMPs (such as vehicle and equipment fueling and washing BMPs; nonvisible pollutant monitoring; and BMPs to manage materials, products, and solid, sanitary, concrete, hazardous, and hydrocarbon wastes) also would be deployed to protect construction site runoff quality. On this basis, the construction-related impact of the project on water quality is considered less than significant.</i> 		

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.22 WATER QUALITY (CONTINUED)		
<p><i>Construction Impacts (cont'd):</i></p> <ul style="list-style-type: none"> <i>Regulatory Requirements: The proposed project satisfies MS4 Permit requirements for new development, including SUSMP low impact development (LID) requirements, and satisfies construction-related requirements of the Construction General Permit and General Dewatering Permit. Therefore, the project would comply with water quality regulatory requirements applicable to stormwater runoff.</i> <p><i>Finally, the proposed Mission Village project, including proposed drainage and hydromodification controls, would not substantially alter the existing drainage pattern of the Santa Clara River in a manner that would cause substantial erosion, siltation, or channel instability; or substantially increase the rates, velocities, frequencies, duration, and/or seasonality of flows in a manner that causes channel instability or in a manner that harms sensitive habitats or species in the River. Therefore, the impact of the project on hydromodification is considered less than significant.</i></p>		

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.23 GLOBAL CLIMATE CHANGE		
<p><i>The proposed Mission Village project would result in the emission of greenhouse gases (GHGs). Section 4.23 discusses the scientific and regulatory developments surrounding global climate change and provides a quantitative inventory for the emissions that would result from approving Mission Village. In the absence of regulatory criteria, a significance criterion also was developed to assess the impact of the project’s GHG emissions. Both project and cumulative impacts were assessed against the identified significance criterion.</i></p> <p><i>This section also discusses the Intergovernmental Panel on Climate Change’s (IPCC) conclusion that there is a scientific consensus that global climate change is occurring, and that the frequency of heat extremes, heat waves, and heavy precipitation events likely will increase. Currently accepted models predict that continued GHG emissions at or above current rates will produce more extreme global climate changes during the 21st century than were observed during the 20th century. Relatedly, the section also addresses the IPCC’s conclusion that human activities have increased atmospheric concentrations of GHGs.</i></p> <p><i>Nonetheless, there are uncertainties. The uncertainties relate to predicting: the actual climate change experienced by various areas of the world; the rate at which air and water temperatures will rise; whether the consequences of global climate change will be sudden or gradual; whether the consequences will be catastrophic or manageable; and whether international, national, state, and local measures will effectively reduce GHG emissions.</i></p>	<p>MV 4.23-1 All residential buildings on the project site that are enabled by approval of the proposed project shall be designed to provide improved insulation and ducting, low E glass, high efficiency air conditioning units, and radiant barriers in attic spaces, as needed, or equivalent to ensure that all residential buildings operate at levels 15 percent better than the standards required by the 2008 version of Title 24. Notwithstanding this measure, all residential buildings shall be designed to comply with the then-operative Title 24 standards applicable at the time building permit applications are filed. For example, if new standards are adopted that supersede the 2008 Title 24 standards, the residential buildings shall be designed to comply with those newer standards and, if necessary, exceed those standards by an increment that is equivalent to a 15 percent exceedance of the 2008 Title 24 standards.</p> <p>MV 4.23-2 All commercial and public buildings on the project site that are enabled by approval of the proposed project shall be designed to provide improved insulation and ducting, low E glass, high efficiency HVAC equipment, and energy efficient lighting design with occupancy sensors as needed, or equivalent to ensure that all commercial and public buildings operate at levels 15 percent better than the standards required by the 2008 version of Title 24. Notwithstanding this measure, all nonresidential buildings shall be designed to comply with the then-operative Title 24 standards applicable at the time building permit applications are filed. For example, if new standards are adopted that supersede the 2008 Title 24 standards, the nonresidential buildings shall be designed to comply with those newer standards and, if necessary, exceed those standards by an increment that is equivalent to a 15 percent exceedance of the 2008 Title 24 standards.</p>	<p>With implementation of the identified mitigation measures, the proposed project’s climate impacts would be mitigated to below a level of significance, and no significant unavoidable impacts would occur.</p>

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.23 GLOBAL CLIMATE CHANGE (CONTINUED)		
<p><i>The emissions inventory for the proposed Mission Village project considers eight categories of GHG emission sources that would result from approval of the Mission Village project: (1) emissions due to land use/vegetation changes; (2) emissions from construction activities; (3) emissions associated with residential building use; (4) emissions associated with nonresidential building use; (5) mobile source emissions; (6) municipal source emissions; (7) area emissions; and (8) emissions associated with recreational center use. The emissions from land use/vegetation changes and construction activities are one-time emissions event, whereas emissions from the other sources would occur annually, throughout the life of the project. The inventory identified approximately 109,331 metric tons (tonnes) of carbon dioxide equivalent (CO_{2e}) one-time emissions, and 60,715 tonnes of CO_{2e} annual emissions. If the one-time emissions are annualized, over 40-years, the annual emissions are 63,448 tonnes per year.</i></p> <p><i>These emission levels were analyzed to determine whether approval of Mission Village would impede compliance with the GHG emissions reduction goals mandated by the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32), which requires that California’s GHG emissions be reduced to 1990 levels by 2020. The proposed project’s CO_{2e} emissions from all annual sources are 36.6 percent below the level that would be expected if the proposed project were constructed consistent with the assumptions in the California Air Resources Board’s projections for 2020 if “no actions are taken” (CARB 2020 NAT scenario). (See Climate Change Proposed Scoping Plan: A Framework for Change [Scoping Plan], California Air Resources Board [adopted December 2008].) Moreover, when the one-time land use/vegetation change and construction emissions are included, the proposed project’s emissions are still 35.6 percent below the CARB 2020 NAT scenario. As established by CARB’s emission forecasts for 2020, a reduction of 29 percent below the CARB 2020 NAT scenario is required to meet the goals of AB 32.</i></p>	<p>MV 4.23-3 The project applicant or designee shall produce or cause to be produced renewable electricity, or secure greenhouse gas offsets or credits from a public agency (e.g., CARB; SCAQMD) endorsed market, equivalent to the installation of one photovoltaic (i.e., solar) power system no smaller than 2.0 kilowatts, when undertaking the design and construction of each single-family detached residential unit on the project site.</p> <p>MV 4.23-4 The project applicant or designee shall produce or cause to be produced renewable electricity, or secure greenhouse gas offsets or credits from a public agency (e.g., CARB; SCAQMD) endorsed market, equivalent to the installation of one photovoltaic (i.e., solar) power system no smaller than 2.0 kilowatts, on each 1,600 square feet of nonresidential roof area provided on the project site.</p>	

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
4.23 GLOBAL CLIMATE CHANGE (CONTINUED)		
<p><i>Therefore, the proposed project would not impede implementation of AB 32 as its reduction below the CARB 2020 NAT scenario is greater than that required, and project impacts are less than significant.</i></p> <p><i>This inventory was prepared assuming that all emissions from Mission Village would be "new," in the sense that absent development of Mission Village these emissions would not occur. Given the global nature of GHG emissions, questions arise over whether new global GHG emissions are caused by economic and population growth, and not the local development projects that simply accommodate such growth.</i></p> <p><i>In addition, the proposed Mission Village project's GHG emissions were assessed from a cumulative impact perspective. As discussed above, AB 32 requires approximately a 29 percent reduction of GHG emissions below the CARB 2020 NAT scenario. The project design features of Mission Village would reduce its contribution of GHG emissions; therefore, especially when compared to a project that does not adopt such reduction strategies and sustainable development principles, the proposed project would enable California to meet its goal of returning to 1990 GHG emissions levels by 2020. As a result, the Mission Village GHG emissions are not considered "cumulatively considerable" under CEQA.</i></p>	<p>MV 4.23-5 Consistent with the Governor's Million Solar Roofs Plan, the project applicant or designee, acting as the seller of any single-family residence constructed as part of the development of at least 50 homes that are intended or offered for sale, shall offer a solar energy system option to all customers that enter negotiations to purchase a new production home constructed in Mission Village on land for which an application for a tentative subdivision map has been deemed complete. The seller shall disclose the total installed cost of the solar energy system option, and the estimated cost savings.</p> <p>MV 4.23-6 The project applicant shall use solar water heating for all pools located at the Mission Village recreation centers.</p> <p>MV 4.23-7 The project applicant, in accordance with Los Angeles County requirements, will design and construct the approximately 13,500 square feet fire station and 36,000 square feet public library so as to achieve LEED silver certification.</p> <p>In addition to the seven global climate change mitigation measures identified above, mitigation measures recommended in connection with other sections (i.e., air quality; biological resources; traffic) of the Mission Village Draft EIR would reduce the proposed project's GHG emissions and/or improve the project's capacity to respond to the uncertain effects of global climate change. As these measures are recommended for adoption and incorporation into a mitigation monitoring and reporting program, these measures can be relied upon in this analysis as feasible measures designed to reduce GHG emissions and the impact of global climate change on the project.</p>	

1.0 PROJECT DESCRIPTION

1. PURPOSE

The purpose of this section is to describe the proposed Mission Village project in a manner that will be meaningful to the public, reviewing agencies and decision makers. For purposes of the California Environmental Quality Act (CEQA), a complete project description must contain the following information: (a) the precise location and boundaries of the proposed project, shown on a detailed map, along with a regional map of the project's location; (b) a statement of the objectives sought by the proposed project, which should include the underlying purpose of the project; (c) a general description of the project's technical, economic, and environmental characteristics; and (d) a statement briefly describing the intended uses of the EIR, including a list of the agencies that are expected to use the EIR in their decision making, a list of permits and other approvals required to implement the project, and a list of related environmental review and consultation requirements imposed by federal, state, or local laws, regulations or policies. (State CEQA Guidelines Section 15124.) The project description should not provide extensive detail beyond that necessary for the evaluation and review of the project's significant effects on the environment.

This section describes the proposed project, as well as its location and characteristics, and it includes statements describing the project's objectives and the intended uses of this EIR.

2. LEAD AGENCY

Under CEQA, the public agency that has the principal responsibility for carrying out or approving a proposed project is referred to as the "lead agency." (State CEQA Guidelines Section 15367.) The County of Los Angeles has primary land use jurisdiction over development within the unincorporated portions of the County, which includes the site of the proposed project. Additionally, the County acted as the lead agency for certification of the Newhall Ranch Program EIR, and approval of the Newhall Ranch Specific Plan and Water Reclamation Plant (WRP). Because the Mission Village project would implement a portion of the approved Newhall Ranch Specific Plan and because the County remains the public agency principally responsible for carrying out and approving proposed projects consistent with the Newhall Ranch Specific Plan, the County is the lead agency for this project. The lead agency contact at Los Angeles County is:

County of Los Angeles
320 West Temple Street
Los Angeles, California 90012
Contact: Samuel Dea, Department of Regional Planning (213) 974-4808

3. RESPONSIBLE AGENCIES

Under CEQA, a public agency other than a lead agency that has discretionary approval power over aspect(s) of a project is considered a “responsible agency.” (*State CEQA Guidelines* Section 15381.) No public agency, other than the County of Los Angeles, has discretionary approval power over the Mission Village project; however, if the County approves this project, subsequent implementation of various project components could require discretionary approval authority from responsible agencies that may, among others, include:

- (a) California Regional Water Quality Control Board (RWQCB)
- (b) California Department of Fish and Game (CDFG)
- (c) California Public Utilities Commission (CPUC)
- (d) South Coast Air Quality Management District (SCAQMD)
- (e) U.S. Fish and Wildlife Service (USFWS)
- (f) U.S. Army Corps of Engineers (USACE)

4. PROJECT APPLICANT

The applicant of the proposed project is:

Newhall Land and Farming
25124 Springfield Court, Suite 300
Valencia, California 91355
Contact: Steve Zimmer, Executive Vice President
(661) 255-4000

5. PROJECT SUMMARY

The project applicant proposes to develop the Mission Village project, which would be constructed on 1,261.8 acres of property located within the northeastern corner of Newhall Ranch in western unincorporated Los Angeles County, south of the Santa Clara River and State Route 126 (SR-126), and west of Interstate 5 (I-5). The proposed project consists of the development of single-family and multi-family residences, mixed-use commercial development, mixed-use residential/commercial development, commercial uses, an elementary school, parks, library, fire station, bus transfer station, open space, and recreational centers. Other land uses within the project site include a spineflower preserve in the northeastern portion of the site.

The proposed project also includes facilities and infrastructure proposed to support the project, including roads (including the Commerce Center Drive Bridge), trails, drainage improvements, flood protection (including buried bank stabilization within and adjacent to the Santa Clara River), potable and recycled water systems (including water tanks), sanitary sewer system and dry utility systems. To facilitate development of the Mission Village tract map site (VTTM 61105), several off-site project-related improvements (i.e., improvements outside the tract boundary) would be developed on an additional 592.8 acres of land. These project-related components include the following: utility corridor, Magic Mountain Parkway roadway extension and related improvements, a water quality basin, three water tanks (portions of 2 would be located on site), a Southern California Edison (SCE) electrical substation, and two debris basins. Additional proposed off-site activities include work associated with the Lion Canyon drainage, grading associated with construction of the northerly extension of Westridge Parkway and southerly extension of Commerce Center Drive, and miscellaneous grading to tie proposed grades into natural grades. For purposes of this EIR, the “tract map site” refers to the proposed location of the Mission Village development site itself, and the “project site” refers to the tract map site and off-site improvements.

The project applicant is requesting approval of the following discretionary entitlements (Project Approvals) to allow implementation of the Mission Village project (County Project No. 04-181):

- (a) Vesting Tentative Tract Map No. 061105
- (b) Significant Ecological Area (SEA) Conditional Use Permit No. RCUP200500080 for project-level development, including utilities within the Specific Plan’s River Corridor Special Management Area (SMA)/SEA 23 boundaries
- (c) Conditional Use Permit RCUP200500081 to authorize
 - (i) development of 73 second dwelling units;
 - (ii) care facilities associated with the proposed continued care retirement community;
 - (iii) grading associated with the extension of Westridge Parkway and Commerce Center Drive and the construction of off-site improvements, including the extension of Magic Mountain Parkway, a utility corridor, a water quality basin, an electrical substation, and water tanks; and
 - (iv) on-site grading and development of project related infrastructure (including water tanks and utilities).
- (d) Oak Tree Permit No. ROAK200500032 (project site)
- (e) Oak Tree Permit No. T200500043 (off-site extension of Magic Mountain Parkway)
- (f) Parking Permit RPKT200500011 to authorize off-site and reciprocal parking across lot lines

In addition, Section 5.2 of the Newhall Ranch Specific Plan contains provisions regarding implementation. Section 5.2 describes substantial conformance as an administrative procedure by which the Planning Director determines whether proposed development or uses substantially comply with the standards, regulations, and guidelines of the Specific Plan. Substantial Conformance 201000001 requests substantial conformance determination for the following: (a) Grading and Hillside Management Guidelines; (b) modification to setback standards; and (c) modification to proposed trails sections. These Project Approvals are described further below.

If the County grants the requested Project Approvals, 4,412 residences (382 single-family homes, and 4,030 multi-family units, including attached and detached condominiums, age qualified and apartment units),¹ 1,555,100 square feet of commercial/mixed-uses, an 9.5-acre elementary school, fire station, public library, bus transfer station, parks, public and private recreational facilities, trails, and road improvements would be permitted (See **Table 1.0-3, Mission Village Statistical Summary**, later in this section). Additional ministerial actions, such as building plan review grading, and building permits, would be required by the County prior to actual grading and construction of these improvements.

Project buildout currently is estimated to occur over several years, with full buildout not expected until 2021. Since market conditions and consumer needs historically change over time, a certain amount of flexibility is necessary in the specific type of residential units that ultimately would be built in order to assure the best mix of residential housing to meet changing market demands. Similarly, as to commercial uses, it is difficult to forecast with a high degree of certainty over the extended duration of project buildout the specific type of office uses and tenant space requirements that will be in demand at buildout.

For these reasons, it is necessary to maintain a certain degree of planning flexibility within the multi-family and commercial planning areas of the proposed project. This flexibility includes, for instance, the ability to: build condominiums rather than apartments, and vice versa; build detached housing units rather than attached units; alter dwelling unit type and location within a designated planning area; change the location of driveways, driveway entries and drive alignments; change lot configurations; and, change commercial building type and location within a planning area. Importantly, however, the total dwelling unit count and commercial square footage shown on Vesting Tentative Tract Map (VTTM) 061105 and the accompanying site plan exhibit maps would not be exceeded; that is, project buildout would not exceed 4,412 dwelling units and 1,555,100 total commercial square feet.

For example, the Village Center planning area is proposed as a mixed use center, comprised of residential, retail, and office uses, combined both horizontally and vertically. In light of potential changes

¹ The 4,412 total residential dwelling units does not include the 73 second units that would be developed on the single family lots and authorized by the conditional use permit.

in future market conditions, shifting demand may make it necessary to alter the location, orientation, or intensity of uses, thereby resulting in the relocation of housing units and commercial square footage to other areas within the Village Center. To the extent any such revision would alter the environmental impacts analysis, such revisions are addressed within this EIR. However, any such relocation would not result in an increase in the proposed 2,146 residential units for the Village Center area, nor an increase in the proposed 704,100 commercial square feet for this area.

The above approach also is consistent with the adopted Specific Plan (May 2003). The Specific Plan implementation section (Section 5.0) contains “substantial conformance” provisions to allow for the planning flexibility referred to above.

6. PROJECT LOCATION

Figure 1.0-1, Regional Location, illustrates the location of the Mission Village project site within a regional context. **Figure 1.0-2, Project Vicinity Map**, shows that the project site, located in unincorporated Los Angeles County, in the Santa Clarita Valley Planning Area, is within the approved Newhall Ranch Specific Plan boundaries. The Santa Clarita Valley Planning Area is generally surrounded by the Los Padres and Angeles National Forest areas to the north; Agua Dulce and the Angeles National Forest to the east; the major ridgeline of the Santa Susana Mountains, which separates Santa Clarita Valley from the San Fernando and Simi Valleys to the south; and the County of Ventura to the west.

Figure 1.0-3, Project Boundary/Environmental Setting, shows the Mission Village site in relation to the approved Newhall Ranch Specific Plan. The tract map is located immediately southeast of the confluence of Castaic Creek and the Santa Clara River. The Santa Clara River forms the northern boundary of the project site with Travel Village RV Park, SR-126, and Valencia Commerce Center off site and further to the north. The eastern site boundary abuts Six Flags Magic Mountain Theme Park and undeveloped land. Further to the east are an existing water reclamation plant (Valencia WRP); a California Highway Patrol station; and hotels, restaurants, and service stations adjacent to I-5. The City of Santa Clarita is located further east of the project site, just beyond I-5. Undeveloped land outside of Newhall Ranch exists to the south of the site with the existing community of Westridge and the proposed Legacy Village (formerly Stevenson Ranch Phase V) project further to the southeast and south, respectively. Undeveloped land within Newhall Ranch exists to the west of the project boundaries, with the proposed Landmark Village northwest of the confluence of Castaic Creek and the Santa Clara River.

7. LAND USE DESIGNATIONS AND ZONING

a. Newhall Ranch Specific Plan

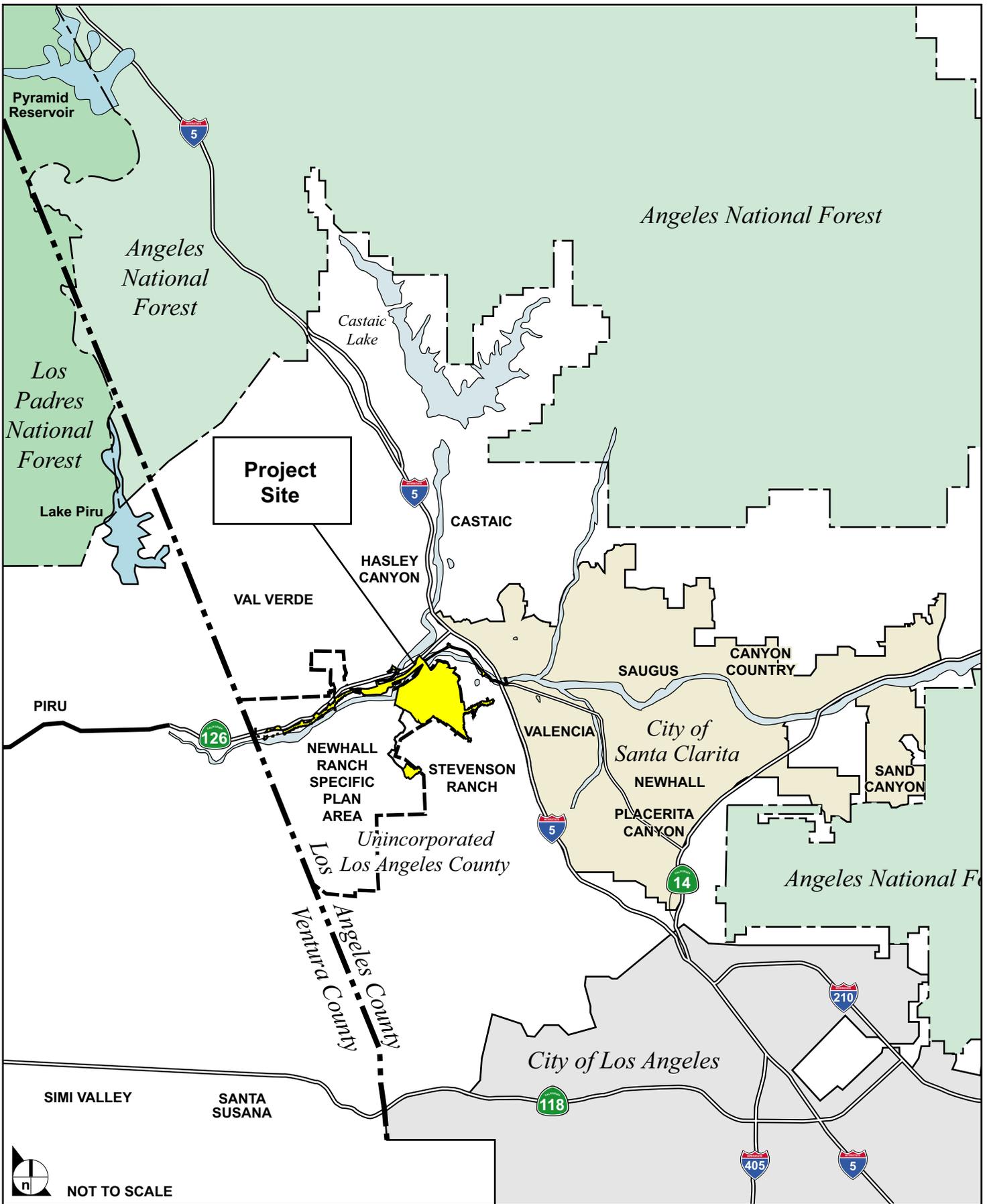
The Newhall Ranch Specific Plan was adopted by the Los Angeles County Board of Supervisors on May 27, 2003. The Specific Plan will guide the long-term development of the 11,999-acre Newhall Ranch community, comprising a broad range of residential, mixed-use, and non-residential land uses developed within five villages. The Specific Plan contains the approved land use plan, development regulations, design guidelines, and implementation program that would create a mixed-use community consistent with the goals, policies, and objectives of the County of Los Angeles General Plan and Santa Clarita Valley Areawide Plan. The Specific Plan is regulatory in nature and serves as the zoning for Newhall Ranch.²

Subsequent development plans and tentative subdivision maps must be consistent with the adopted General Plan, Areawide Plan, and Specific Plan.

The Specific Plan also establishes the regulations and standards for the protection of Open Areas adjacent to development and the two large River Corridor and High Country SMAs, totaling approximately 6,170 acres. These regulations and standards are part of the Newhall Ranch "Resource Management Plan," contained in Section 2.6 of the adopted Specific Plan.

As approved by the Board of Supervisors, the Specific Plan allows for up to 21,308 dwelling units (including 423 second units); 629 acres of mixed-use development; 67 acres of commercial uses; 249 acres of business park land uses; 37 acres of visitor-serving uses; 1,014 acres of open space (including 181 acres of community parks and 833 acres in other open spaces); 5,157 acres in special management areas; 55 acres in 10 neighborhood parks; a 15-acre lake; a public trail system; an 18-hole golf course; two fire stations; a public library; an electrical substation; reservation of five elementary school sites, one junior high school site, and one high school site; a 6.8-million-gallon per day (mgd) water reclamation plant; and other associated community facilities within Newhall Ranch. Buildout of Newhall Ranch is projected to occur over approximately 25 to 30 years, depending upon economic and market conditions.

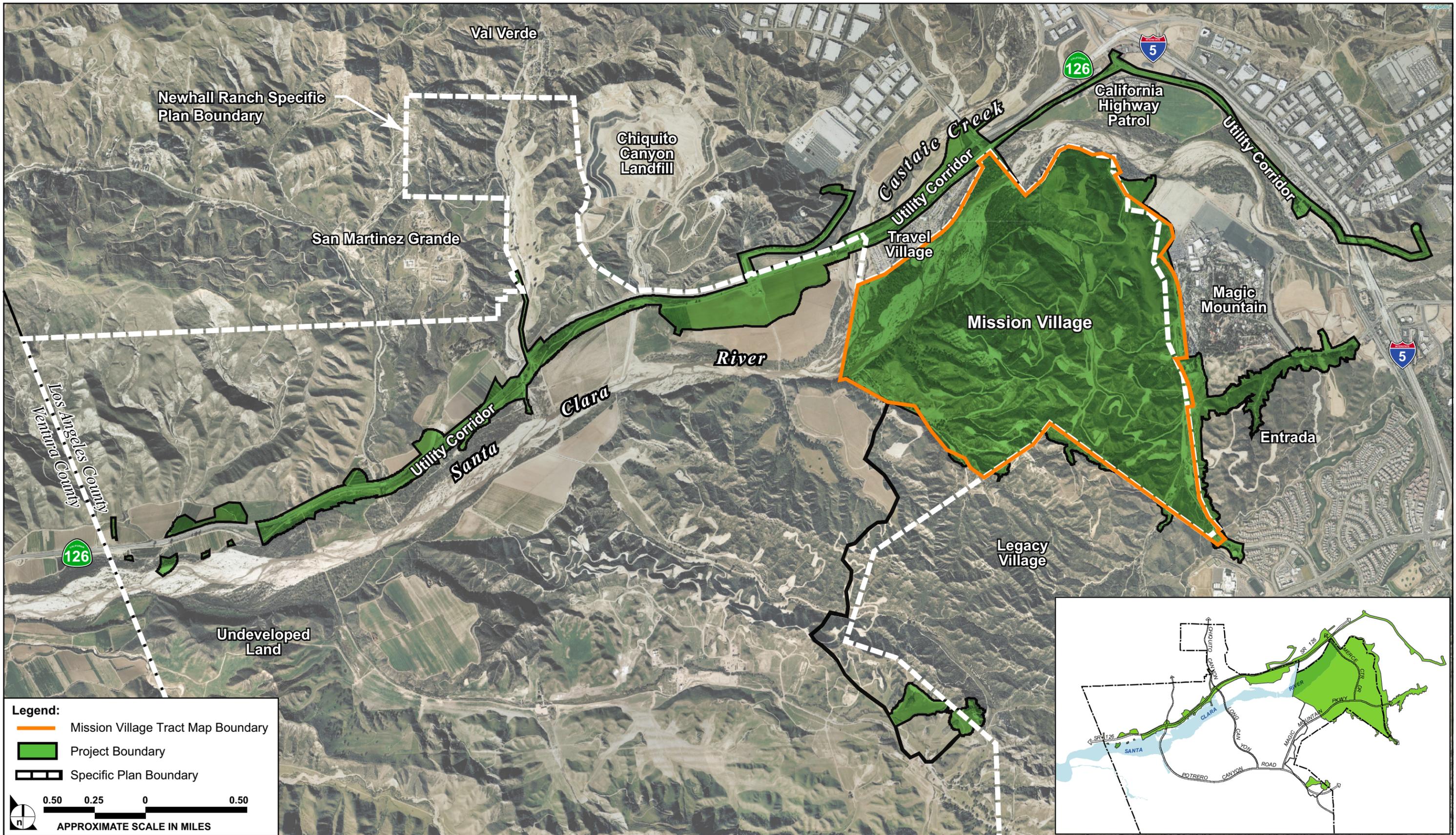
² The Specific Plan was prepared pursuant to the provisions of the California Planning and Zoning Law, Title 7, Division 1, Chapter, Article 8, Government Code §§65450–65457. This law authorizes local jurisdictions, like the County, to adopt a Specific Plan by resolution. On May 27, 2003, the County's Board of Supervisors adopted a Resolution approving General Plan Amendments, Sub-Plan Amendments and the Newhall Ranch Specific Plan. The Board also adopted an implementing ordinance amending the County Code to facilitate Specific Plan development.



SOURCE: Impact Sciences, Inc. – March 2010

FIGURE 1.0-2

Project Vicinity Map



SOURCE: AirPhoto USA – 2006, Impact Sciences, Inc. – August 2010

FIGURE 1.0-3

Project Boundary/Environmental Setting

The Specific Plan's adopted Land Use Plan (Exhibit 2.3-1 of the Specific Plan) and the Overall Land Use Plan Statistical Table (Table 2.3-1 of the Specific Plan) provide the framework for development of the Specific Plan area. The adopted Land Use Plan describes the Newhall Ranch Specific Plan land use designations. The designations include five types of residential uses (estates, low density, low medium density, medium density, and high density); Mixed-Use; Commercial; Business Park; Visitor-Serving; Open Area uses; two SMAs; and Spineflower Conservation Easement area, all linked by a comprehensive system of roadways, trails and utility easements. Land use overlays are also included on the approved Land Use Plan to show approximate locations of public facility and recreation uses, such as parks, schools, library, golf course, fire stations, electrical substation and the WRP. The Specific Plan also contains an approved Village Plan (Exhibit 2.3-2 of the Specific Plan), which identifies the five distinct villages within the Newhall Ranch Specific Plan. The five Specific Plan villages are:

- Riverwood – situated north of the Santa Clara River and along SR-126;
- Oak Valley – located in the western portion of Potrero Canyon;
- Potrero Valley – occupying the central and eastern portions of Potrero Canyon;
- Long Canyon – situated in the valley and hills adjacent to the Sawtooth Ridge, south of the Santa Clara River; and
- The Mesas – overlooking the Santa Clara River in the northeast portion of the Specific Plan site. (The proposed project renames a portion of this village to Mission Village.)

b. Specific Plan Land Use Designations – Mission Village

The Specific Plan land use designations within the Mission Village project site are summarized below.

- (a) Low Residential (L).** The Low Residential land use designation provides for large lot single-family detached residential development. Within the Low Residential land use designation, the average lot size within any proposed subdivision map shall be 1 acre in size. Site Development Standards are set forth in Newhall Ranch Specific Plan Section 3.4, and summarized in Table 3.4-1, Site Development Standards Matrix, and Table 3.4-2, Permitted Uses Matrix.

Mission Village. The Mission Village site contains Low Residential planning areas.

- (b) **Low-Medium Residential (LM).** The Low-Medium Residential land use designation provides for single-family detached, single-family attached, clustered single-family attached, and clustered single-family detached residential development. The Specific Plan contains additional regulations for this land use designation in the "Site Development Standards," which are set forth in Newhall Ranch Specific Plan Section 3.4, and summarized in Table 3.4-1, Site Development Standards Matrix, and Table 3.4-2, Permitted Uses Matrix.

Mission Village. The project contains Low-Medium Residential planning areas.

- (c) **Medium Residential (M).** The Medium Residential land use designation provides for single-family detached, single-family attached, clustered single-family attached, clustered single-family detached, and multi-family development. The attached and multi-family types include townhomes, stacked flats, and apartments. The small-lot single-family units may include clustered attached and detached homes. The Newhall Ranch Specific Plan contains additional regulations for this land use designation in the "Site Development Standards," which are set forth in Specific Plan Section 3.4, and summarized in Table 3.4-1, Site Development Standards Matrix, and Table 3.4-2, Permitted Uses Matrix.

Mission Village. The project contains Medium Residential planning areas.

- (d) **High Residential (H).** The High Residential land use designation provides for multi-family residential development. The multi-family types include townhomes, stacked flats, and apartments. The Specific Plan contains regulations for this land use designation in the "Site Development Standards," which are set forth in Specific Plan Section 3.4, and summarized in Table 3.4-1, Site Development Standards Matrix, and Table 3.4-2, Permitted Uses Matrix.

Mission Village. The project contains High Residential planning areas.

- (e) **Mixed-Use (MU).** The Mixed-Use land use designation permits the coordinated development of commercial, office, and Medium Residential and High Residential uses. Provisions in the Specific Plan permit the mixing of land uses, including combining residential uses with commercial and/or office use on one building site or within a building. Where commercial and residential uses occur on the same building site, the primary access for the residential portion of the project shall be a separate entrance. The Specific Plan contains additional regulations for this land use designation in the "Site Development Standards," which are set forth in Specific Plan Section 3.4, and summarized in Table 3.4-1, Site Development Standards Matrix, and Table 3.4-2, Permitted Uses Matrix.

There are four Mixed-Use areas in the Newhall Ranch Specific Plan Land Use Plan. They are strategically placed within Newhall Ranch and, depending upon their location and amenities, are designed to serve an area larger than the immediate village.

Mission Village. Within Mission Village, mixed-use commercial uses are proposed at the northernmost portion of the site, east of the proposed Commerce Center Drive, and south of the Santa Clara River. Elsewhere within the project, mixed-use commercial and commercial/residential mixed-use areas are proposed north and south of the intersection of Commerce Center Drive and Magic Mountain Parkway.

- (f) **Commercial (C).** The Commercial land use designation provides for the development of uses to serve the office and retail needs of the community. The location of commercial sites on urban arterial highways also permits these sites to provide commercial services to the surrounding regional area and to highway travelers.

Mission Village. The project contains Commercial land use planning areas. This use is located on the northwest corner of Commerce Center Drive and Magic Mountain Parkway.

- (g) **River Corridor SMA (RC).** This land use designation provides for the preservation, enhancement, public use, and management of the Santa Clara River, which flows east west through the Specific Plan area. As part of the Specific Plan process, the former boundaries of SEA 23 were realigned and replaced by the River Corridor SMA boundaries to more accurately reflect the areas of significant biological resources. The River Corridor SMA will retain the County's SEA 23 designation for the realignment area. Development standards are specifically structured to help ensure compatibility of uses within this special resource area.

The Specific Plan's Development Regulations (Chapter 3 of the Specific Plan) set forth regulations and standards specifically focused on the special regulatory needs of the River Corridor SMA, and the adopted *Resource Management Plan* (Chapter 2, Section 2.6 of the Specific Plan) establishes a framework for the ongoing management of the River Corridor SMA.

Mission Village. The River Corridor SMA forms the northern boundary of the proposed project.

- (h) **Open Area (OA).** The Open Area land use designation provides regulations for parkland, major creeks and drainages, significant landforms, oak woodlands, savannahs, and cultural sites between development planning areas or as a transition to larger Special Management Areas.

Mission Village. Open areas are planned for Mission Village.

c. Specific Plan Land Use Overlays – Mission Village

The land use overlays delineated on the approved Newhall Ranch Specific Plan Land Use Plan (Exhibit 2.3-1 of the Specific Plan) are described in Sections 2.3 and 3.3 of the Specific Plan. It should be noted that the park locations in the Newhall Ranch Specific Plan are overlay designations. The overlay designation allows amenity location flexibility to situate parks, schools, etc. in the best locations to serve future residents as the property develops over time. The land use overlays within the Mission Village project site are as follows:

- (a) **Community Park (CP).** Three Community Park overlays are shown on the approved Newhall Ranch Specific Plan Land Use Plan. Each park site is located in or adjacent to other Open Areas or SMAs to maximize recreational uses. Community Park improvements may include tot lots, playground equipment, ball fields, tennis/basketball courts, swimming pool, picnic facilities, turf areas, vehicular parking, restrooms, gyms, and indoor recreation centers. Community Parks are also accessed by the Specific Plan's bike and pedestrian trail network.

Mission Village. The Mission Village project includes a 20-acre Community Park along the site's eastern boundary.

- (b) **Neighborhood Parks (NP).** Ten Neighborhood Park overlays are located within the Specific Plan Residential and Mixed-Use land use designations, typically adjoining elementary school sites and providing day-to-day recreational amenities to community residents. Neighborhood Park overlays are a minimum of 5 acres and sized to minimize overall maintenance and service costs. Mandatory Neighborhood Park facility improvements are described in Specific Plan Section 2.8, paragraph 4b(1). Some of the Neighborhood Parks may be combined to provide a larger recreational site.

Mission Village. The project includes a 5-acre neighborhood park. In addition, Mission Village will provide other recreational opportunities such as private parks and private recreational centers.

- (c) **Elementary School (ES).** Five elementary school overlays are designated on the approved Newhall Ranch Specific Plan Land Use Plan.

Mission Village. The project site includes one of the five elementary school overlays within the Newhall Ranch Specific Plan, and a 9.5-acre elementary school site is proposed as part of the project.

- (d) **Fire Station (FS).** Two new fire station sites are indicated on the Specific Plan Land Use Plan. These approximately 1-acre sites will have direct access to arterial streets.

Mission Village. The Mission Village project would include one of the fire station sites, a 1.5-acre site located just south of Magic Mountain Parkway along Westridge Parkway.

- (e) **Library (LIB).** One library site is integrated into the Specific Plan Land Use Plan.

Mission Village. The proposed project includes the 3.3-acre library site, which would be located in the Village Center.

- (f) **Electrical Substation (S).** A Southern California Edison substation is included as part of the Newhall Ranch buildout and is proposed to be located between Potrero Valley and Oak Valley.

Mission Village. Southern California Edison has indicated that the substation may be necessary prior to the buildout of Mission Village. Accordingly, the proposed project includes the substation, which would be located off-site either in Potrero Valley near the boundary with Legacy Village, or in Legacy Village near the boundary with Potrero Valley.

d. Specific Plan Phasing and Monitoring – Mission Village

(1) Phasing

The Newhall Ranch Specific Plan contains an approved phasing program (Chapter 5, Section 5.3 of the Specific Plan). The primary purpose of the phasing program is to correlate appropriate infrastructure requirements with site development. To allow for a flexible phasing program, the five individual Specific Plan villages have been planned so that each village may be developed independently and in any order. The villages may also be developed concurrently to allow for maximum efficiency of infrastructure implementation and to meet market demand.

The basic phasing mechanism of the Specific Plan is the tentative subdivision map. As each tentative subdivision map is processed, infrastructure requirements for that subdivision will be established. The infrastructure requirements for each tentative subdivision map must be substantially consistent with the following plans from the Specific Plan: Master Circulation Plan (Specific Plan Exhibit 2.4-2), Master Trails Plan (Specific Plan Exhibit 2.4-5), and Public Services and Facilities Plan, including conceptual infrastructure plans for drainage and flood control (Specific Plan Exhibit 2.5-1), water (Specific Plan Exhibit 2.5-2) and sewer (Specific Plan Exhibit 2.5-3).

(2) Monitoring

The Specific Plan also contains an approved monitoring program (Chapter 5, Section 5.4 of the Specific Plan). The monitoring program contains provisions to ensure that Newhall Ranch is developed in a manner consistent with the development plans, development regulations, and design guidelines of the Specific Plan. The monitoring program's primary function is to establish a record of progress in the phasing of development and the implementation of required infrastructure. Concurrent with the submittal of each tentative subdivision map, the Specific Plan requires an updated and/or revised

- (a) Annotated Land Use Plan (Exhibit 5.4-1 of the Specific Plan);
- (b) Annotated Land Use Plan Statistical Summary Table (Table 5.4-1 of the Specific Plan);
- (c) Park and Recreation Improvements Summary (Table 5.4-2 of the Specific Plan); and
- (d) Infrastructure, Community Amenities, and Entitlements Status Summary (Table 5.4-3 of the Specific Plan).

Each of these tables is included in **Appendix 1.0**.

The monitoring program also divides the Specific Plan area into Planning Areas within each of the five Specific Plan villages, and lists the land use, as well as the allowable number of housing units or the allowable amount of non-residential building square footage, within each village.³

Mission Village. Consistent with the Specific Plan, the project applicant is seeking to implement the development of a portion of one of the five Specific Plan villages through the application and processing of the Mission Village Vesting Tentative Tract Map No. 61105, and related Project Approvals.

³ Please refer to the Newhall Ranch Specific Plan's Annotated Land Use Plan (Exhibit 5.4-1) and Annotated Land Use Plan Statistical Table (Table 5.4-1).

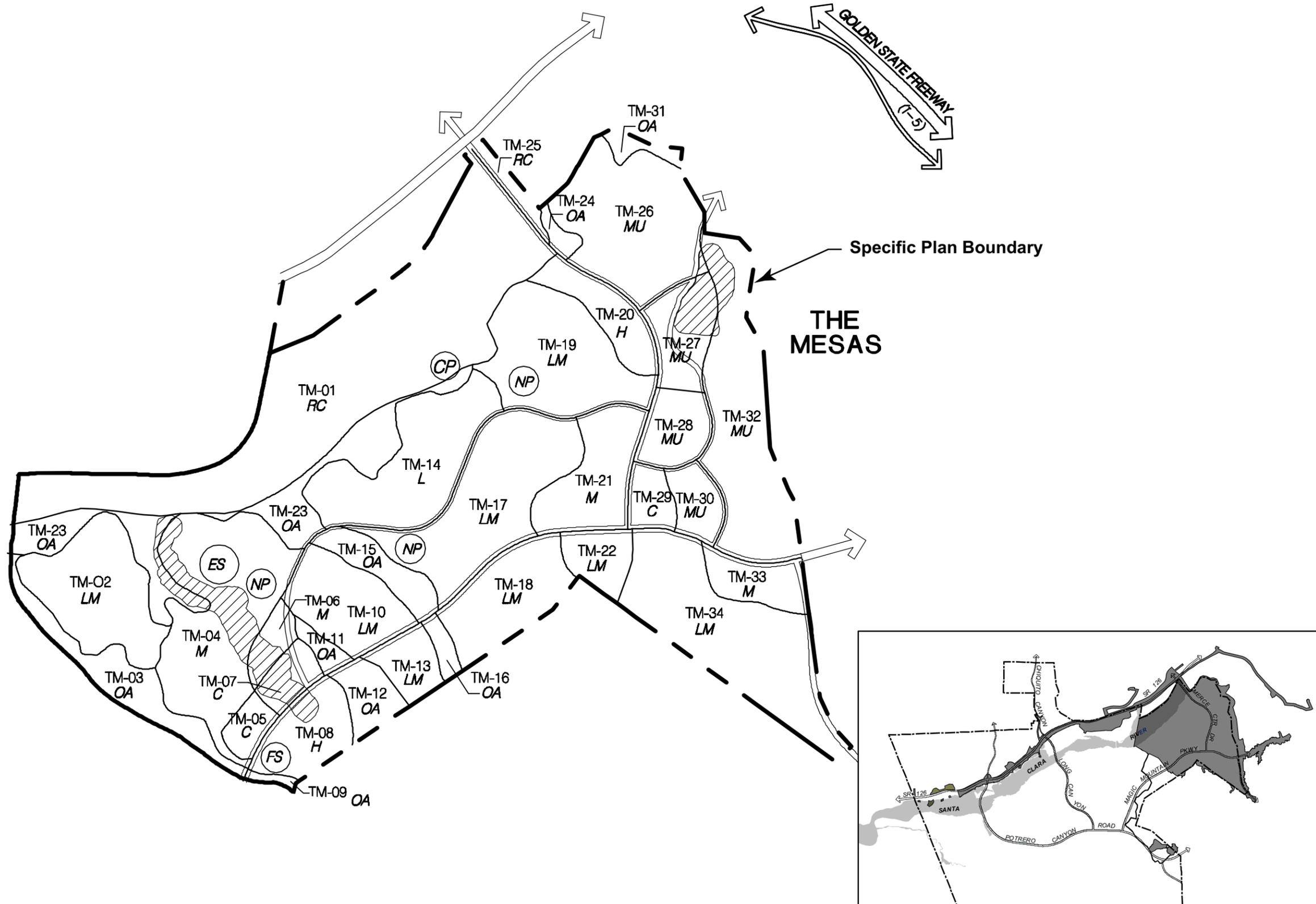
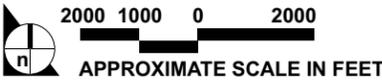
The Mission Village project would be built out in phases, with the timing of project development dependent upon market conditions. It is anticipated that the residential dwelling units and a limited amount of retail and commercial space would be developed initially, with the balance of the commercial uses developed after an adequate number of residential units have been built to generate sufficient demand to support further on-site commercial development. Complete project buildout is anticipated to occur in approximately 2021.

The tract map portion of the Mission Village site is located within the Specific Plan village referred to as The Mesas, as shown in **Figure 1.0-4, Planning Areas of The Mesas**. Under the Specific Plan, development of a maximum of 7,716 dwelling units is permitted within The Mesas, along with 1,488,000 square feet of planned mixed-use/non-residential development with a maximum of 2,232,000 square feet. The proposed Mission Village project would be developed on a portion of the Specific Plan site within The Mesas village that encompasses a planned maximum of 5,465 dwelling units, and 1,299,000 square feet of planned mixed-use/non-residential development (with a maximum of 1,948,500 square feet), along with supporting parks and trails, an elementary school, and all required public facilities and infrastructure. As shown in **Table 1.0-1, Specific Plan/The Mesas Village – Mission Village Project**, the Mission Village project has been designed to be consistent with the land use designations within the applicable Mesas Village Planning Areas of the approved Specific Plan.

Legend:

- PV-17 PLANNING AREA
 - E ESTATE RESIDENTIAL
 - L LOW RESIDENTIAL
 - LM LOW-MEDIUM RESIDENTIAL
 - M MEDIUM RESIDENTIAL
 - H HIGH RESIDENTIAL
 - MU MIXED-USE
 - C COMMERCIAL (RETAIL/OFFICE)
 - BP BUSINESS PARK
 - VS VISITOR SERVING
 - OA OPEN AREA
 - RC RIVER CORRIDOR SPECIAL MANAGEMENT AREA
 - HC HIGH COUNTRY SPECIAL MANAGEMENT AREA
 - ROADS *
 - SCE/UTILITY EASEMENTS
 - CDFG SPINEFLOWER CONSERVATION EASEMENTS
- LAND USE OVERLAYS (POTENTIAL LOCATIONS):**
- CP COMMUNITY PARK
 - NP NEIGHBORHOOD PARK
 - ES ELEMENTARY SCHOOL
 - JH JUNIOR HIGH SCHOOL
 - HS HIGH SCHOOL
 - LIB LIBRARY
 - GC GOLF COURSE
 - LK COMMUNITY LAKE
 - FS FIRE STATION
 - S ELECTRICAL SUBSTATION
 - WR WATER RECLAMATION PLANT

Roads/road rights of way within CDFG spineflower conservation easements and all other spineflower preserves are subject to realignment prior to subdivision approval pursuant to Board motion (March 25, 2003).



SOURCE: Newhall Ranch Specific Plan – May 2010

FIGURE 1.0-4

Planning Areas of The Mesas

**Table 1.0-1
Specific Plan/The Mesas Village – Mission Village Project**

Approved Specific Plan The Mesas Village ¹					Current Proposed Project Mission Village		
Planning Area	Land Use Designation	Planned Residential Units	Building SF	Gross Acres	Proposed Residential Units	Proposed Building SF	Gross Acres
TM-14	Low Residential	81		89.6	73 ²		94.1
TM-10	Low-Medium	N/A		0.5	N/A		0.4
TM-17	Low-Medium Resident (LM)	364		105.9	295		102.4
TM-18	LM	129		56.8	139		56.9
TM-19	LM	294		90.1	214		92.6
TM-22	LM	52		22.3	37		21.5
TM-34	LM	332		122.7	251		109.3
TM-21	Medium (M)	586		53.6	502		45.9
TM-33	M	320		26.6	275		31.2
TM-33A	MU					154,000	9.7
TM-20	High Residential (HR)	515		32.1	474		38.3
TM-26	Mixed-Use (MU)	439	1,009,500	102.1	0	697,000	102.5
TM-27	MU	258	90,000	36.2	175	126,430	38.9
TM-28	MU	591		28.3	441		30.4
TM-30	MU	314		20.2	368	355,470	18.8
TM-32	MU	1,190	69,500	111.5	1,168	48,100	109.7
TM-29	Commercial		130,000	16.2	0	174,100	13.2
TM-15	Open Area (OA)			19.5			22.0
TM-23	OA			35.5			31.8
TM-16	Open Area			1.9			1.4
TM-24	OA			5.9			6.4
TM-31	OA			7.6			7.7
TM-01	River Corridor (RC)			227.9			228.0
TM-25	RC			9.5			9.5
TOTAL		5,465	1,299,000	1,214	4,412 ⁵	1,555,100 ⁴	1,222.6 ³

¹ Only those planning areas applicable to Mission Village are depicted.

² Under the Newhall Ranch Specific Plan, development of a maximum of 423 Second Units was approved. The Mission Village project proposes 73 second units for development with the corresponding 73 single-family dwelling units to be developed in Planning Area TM-14.

³ 39.2 acres are outside the Newhall Ranch Specific Plan but are within the Tentative Tract boundary; these acres are not included in the 1,222.6 total. The 39.2 acres are proposed as open space with no zone change proposed. As shown on Table 1.0-3, the proposed tract map site includes a total of 1,261.8 gross acres (1,222.6 + 39.2 = 1,261.8).

⁴ Under the Newhall Ranch Specific Plan, development of a maximum of 1,948,500 square feet of non-residential development was approved for the Mission Village portion of The Mesas village. The Mission Village project proposes 1,555,100 square feet.

⁵ Under the Newhall Ranch Specific Plan, development of a maximum of 5,465 residential units was approved for the Mission Village portion of The Mesas village. The Mission Village project proposes 4,412 residences.

Source: Mission Village Conformance Statistical Summary, February 2007.

8. REQUESTED PROJECT APPROVALS

Consistent with the Specific Plan (Chapter 5), implementation of the Specific Plan is to be carried out through the application and processing of County entitlements, including tentative subdivision maps, conditional use permits, oak tree permits, and other discretionary approvals or permits. In addition, the Specific Plan calls for all land division maps of any type (e.g., tentative or final, vesting or non-vesting, tract or parcel) to be submitted, reviewed, and approved in accordance with the Los Angeles County Subdivision Ordinance and the California Subdivision Map Act.⁴

The project applicant is requesting the Project Approvals described below. These approvals would govern the proposed development of the project site. Prior to approving the project, the County of Los Angeles, acting as the Lead Agency, must certify that this EIR: (a) has been reviewed and considered; (b) adequately analyzed the potential impacts of the proposed project; (c) has been completed in compliance with CEQA, the *State CEQA Guidelines*, and the County's *Environmental Document Reporting Procedures and Guidelines*; and (d) reflects the independent judgment of the Board of Supervisors. The requested Project Approvals are as follows:

- (a) **Vesting Tentative Tract Map No. 61105.** Approval of the Vesting Tentative Tract Map is requested to subdivide the Mission Village site into 382 single-family lots, 44 condominium lots for 4,030 multi-family units, 11 mixed-use lots, and lots for, among other uses, the Spineflower Preserve, recreation, fire station, bus transfer station, library, parks, school site, and open space. The proposed map would subdivide the site into a total of 661 lots.
- (b) **SEA Conditional Use Permit No. RCUP200500080.** On May 27, 2003, the County's Board of Supervisors approved a program-level SEA Conditional Use Permit, SEA CUP No. 94-087-(5), as part of the Board's project approvals for the Newhall Ranch Specific Plan. SEA CUP No. 94-087-(5) approved: (a) adjustments to the existing boundaries of SEA 23, consistent with County of Los Angeles General Plan policies requiring protection of natural resources within SEAs; and (b) Specific Plan development within the SEA boundaries, including bridge crossings (i.e., Commerce Center Drive Bridge), trails, bank stabilization and other improvements. The approved SEA boundary adjustments were found to be consistent with the adopted Specific Plan, which established a Specific Plan "Special Management Area" (SMA) designation over the adjusted SEA 23 boundaries. Although the adjusted SEA 23 boundaries were designated as the River Corridor SMA in the adopted Specific Plan, the County's underlying SEA 23 designation remains in effect.

As part of the Mission Village Project Approvals, the project applicant is requesting a project-level SEA Conditional Use Permit to provide the County with a regulatory framework for determining if the Mission Village development within the approved River Corridor SMA/SEA 23 boundaries is consistent with both the adopted Specific Plan and previously approved program-level SEA CUP No. 94-087-(5). Specifically, the proposed project-level improvements within the River Corridor SMA/SEA

⁴ Where the provisions or procedures of the Los Angeles County Subdivision Ordinance conflict with the provisions of the approved Specific Plan, the Specific Plan applies. (See Specific Plan, Chapter 5, Section 5.2.)

23 include the Commerce Center Drive Bridge, neighborhood park, access roads, and easements, grading, trails, water quality basins, bank stabilization, water and sewer utility crossings, utility corridor, storm drain outlets, and potential riparian mitigation sites.

The County of Los Angeles General Plan requires that any development proposal within an SEA be reviewed for compliance with certain “design compatibility criteria.” The Los Angeles County Zoning Code implements this General Plan requirement. In addition, the General Plan requires that an application for an SEA CUP must undergo an “SEA Performance Review.” This process involves review of the application by the appointed Significant Ecological Area Technical Advisory Committee (SEATAC). SEATAC reviews the application and accompanying biological resources report for adequacy, and makes recommendations for final project design. Such recommendations are then considered by the Los Angeles County Regional Planning Commission.

- (c) **Oak Tree Permit No. ROAK200500032.** The County Zoning Code contains provisions protecting trees of the oak genus. As a result, the removal or damage of certain “protected” oak trees is unlawful without a permit (Los Angeles County Zoning Code, Section 22.56.2050). An Oak Tree Permit is required for the removal of 147 of the 517 oak trees and encroachment of 49 oak trees located on the project site. Of the 147 removals, 6 trees are also covered by ROAK00-196 for Landmark Village.
- (d) **Oak Tree Permit No. T200500043.** The County Zoning Code contains provisions protecting trees of the oak genus. As a result, the removal or damage of certain “protected” oak trees is unlawful without a permit (Los Angeles County Zoning Code, Section 22.56.2050). An Oak Tree Permit is required for the removal of 11 of the 63 oak trees and encroachment of 2 oak trees located within the easterly extension of Magic Mountain Parkway east of the project site.
- (e) **Conditional Use Permit No. RCUP200500081.** The CUP would authorize development of 73 second dwelling units, care facilities associated with the proposed continued care retirement community, on-site grading and development of project related infrastructure (including water tanks and utilities and permit necessary off-site grading associated with the extension of Westridge Parkway and Commerce Center Drive and the construction and grading for off-site improvements, including the extension of Magic Mountain Parkway, and the development of a utility corridor, a water quality basin, an electrical substation, and water tanks.
- (f) **Parking Permit RPKT200500011.** The parking permit would allow for off-site and reciprocal parking across lot lines.
- (g) **Substantial Conformance Determinations 201000001 for Grading and Hillside Management Guidelines, Trail Sections, and Setback Modifications.** Section 5.2 of the Newhall Ranch Specific Plan contains provisions regarding implementation. Section 5.2 describes substantial conformance as an administrative procedure by which the Planning Director determines whether proposed development or uses substantially comply with the standards, regulations, and guidelines of the Specific Plan. The project applicant is requesting a determination that the proposed project substantially conforms with all applicable Specific Plan standards, regulations, and guidelines.

9. OTHER PERMITS AND APPROVALS

Table 1.0-2, Future Agency Actions, identifies other permits and approvals, which are known to be needed, or may be needed, in order to implement various project components in the future.

**Table 1.0-2
Future Agency Actions¹**

Agency	Action Required
<ul style="list-style-type: none"> Regional Water Quality Control Board 	Section 401 certification of USACE Section 404 permit or, alternatively, waste discharge requirements (WDRs); construction de-watering permits; Newhall Ranch Specific Plan Sub-Regional Stormwater Mitigation Plan ²
<ul style="list-style-type: none"> California Department of Fish and Game (CDFG) 	Streambed Alteration Agreement per Fish & Game Code Sections 1601, et seq. Section 2081 Incidental Take Permits authorizing impacts to listed plant and animal species ³
<ul style="list-style-type: none"> United States Department of the Army, Corps of Engineers (USACE) 	Section 404 permit under the federal Clean Water Act ⁴
<ul style="list-style-type: none"> United States Department of the Interior, Fish and Wildlife Service (FWS) 	Candidate Conservation Agreement to be made part of the Spineflower Conservation Plan ⁵
<ul style="list-style-type: none"> South Coast Air Quality Management District 	Various permits for air emissions required under the Air Quality Management Plan
<ul style="list-style-type: none"> California Public Utilities Commission 	Approval of an Advise Letter to allow Valencia Water Company to provide water to the project site

¹ This table is not intended to provide the complete and final listing of all future actions required to implement the project but, rather, identifies those actions that are known at this time to be required in the future.

² Approval of the RMDP/SCP EIS/EIR would eliminate the need to obtain approvals from RWQCB.

³ Approval of the RMDP/SCP EIS/EIR would eliminate the need to obtain approvals from CDFG.

⁴ Approval of the RMDP/SCP EIS/EIR would eliminate the need to obtain approvals from USACE.

⁵ Approval of the RMDP/SCP EIS/EIR would eliminate the need to obtain approvals from FWS.

10. PROJECT OBJECTIVES

CEQA requires that an EIR include a statement of the objectives sought by a project applicant. (*State CEQA Guidelines* Section 15124(b).) The overall objective of the proposed project is to implement a portion of the Newhall Ranch Specific Plan, including, as it relates to Mission Village, the Specific Plan's Master Circulation Plan; Master Trails Plan; Conceptual Backbone Drainage, Water and Sewer Plans; Public Facilities/Services Plan (e.g., fire, police/sheriff, schools, libraries); Resource Management Plan; Hillside

Preservation and Grading Plan; and Parks, Recreation and Open Area Plan. The Mission Village project objectives are consistent with the Specific Plan objectives, and include the following:

a. Land Use Planning Objectives

1. Create a new community with interrelated villages within the Newhall Ranch Specific Plan to allow for residential, mixed-use, and commercial development, while preserving significant natural resources, important landforms and open areas.
2. Avoid leapfrog development and accommodate projected regional growth in a location that is adjacent to existing and planned infrastructure, urban services, transportation corridors, and major employment centers.
3. Cluster development within the site to preserve regionally significant natural resource areas and sensitive habitat, and major landforms.
4. Provide development and transitional land use patterns which do not conflict with surrounding communities and land uses.
5. Establish land uses and development regulations which permit a wide range of housing densities, types, styles, prices, and tenancy (for sale and rental).
6. Designate sites for needed public facilities, such as schools, fire stations, libraries, and parks.

b. Economic Objectives

1. Adopt development regulations which provide flexibility to respond to and adjust to changing economic and market conditions over the life of Newhall Ranch.
2. Provide a tax base to support public services.

c. Mobility Objectives

1. Design a mobility system which includes alternatives to automobile use.
2. Provide a safe, efficient, and aesthetically attractive street system with convenient connections to adjoining regional transportation routes.
3. Provide an efficient street circulation system that minimizes impacts on residential neighborhoods and environmentally sensitive areas.
4. Establish a diverse system of pedestrian and bicycle trails, segregated from vehicle traffic, to serve as an alternative to automobile use.

d. Parks, Recreation, and Open Area Objectives

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

2. Provide Neighborhood and Community Parks and improvements which satisfy park dedication requirements and meet the recreational needs of local residents.

e. Resource Conservation Objectives

1. Implement the Specific Plan's Resource Management Plan as it relates to the Mission Village project.
2. Protect wetland and endangered species in the Santa Clara River.
3. Preserve the site of the historical Asistencia (San Fernando Mission Annex).
4. Preserve significant stands of oak trees.
5. Promote water conservation through design guidelines that encourage use of drought-tolerant and native plants.

11. TECHNICAL, ECONOMIC, AND ENVIRONMENTAL CHARACTERISTICS

CEQA requires an EIR to provide a "general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals, if any, and supporting public service facilities." (*State CEQA Guidelines* Section 15124(c).) Consistent with the Specific Plan, the proposed project includes a mix of single family, multi-family, mixed-use, commercial, school, parks, recreation, and open space uses. The project would provide land uses that continue to implement the long-term development of the Specific Plan. New housing would be provided to support existing and new employment opportunities expected to occur in the local vicinity and region. The proposed trail and parks system would provide local recreational support for new and existing residents. The mixed-use/commercial uses would support the proposed residential uses, as well as the existing residents in the local vicinity.

a. Proposed Land Uses and Improvements

The text below describes the proposed land uses for the Mission Village project and the improvements/infrastructure necessary to implement the project. This description is intended to provide a sufficient level of detail from which an evaluation can be made of the project's significant environmental impacts should the County approve the requested Project Approvals (i.e., Vesting Tentative Tract Map, SEA CUP, Oak Tree Permit, etc.).

(1) Technical Characteristics

The Vesting Tentative Tract Map identifies the arrangement of land uses, lots, grading limits, and supporting infrastructure/improvements on the Mission Village site. The project site is subdivided into a

total of 661 lots, including detailed subset maps of VTTM 61105, which can be found in **Appendix 1.0**. The following is a descriptive listing of the 661 lots:

- (a) 382 single-family lots/units, plus 73 second units
- (b) 44 multi-family lots (for 4,030 multi-family units)

Of the 44 multi-family lots, 20 lots with a total of 459 units are depicted as active adult units. 1 lot with a total of 351 units is depicted as a continued care retirement community; 2 lots with 491 units are depicted as mixed use lots, which may include live/work units and commercial square footage; and 5 of the proposed condominium lots may be reserved as rental units, rather than for sale units, which would result in a total of 905 apartments.

- (c) 11 mixed-use/commercial lots
- (d) 4 recreation lots (including community recreation center and private park)
- (e) 2 park site lots
- (f) 1 elementary school site lot
- (g) 150 open space lots
- (h) 2 spineflower preserve lots
- (i) 14 utility lots (including water quality basins, water tanks, wastewater pump stations)
- (j) 48 roadway lots (public, private and bridge)
- (k) 1 library lot
- (l) 1 fire station lot
- (m) 1 bus transfer lot

As noted, the project site allows for the development of 4,412 dwelling units, and 1,555,100 square feet of nonresidential space. **Figure 1.0-5, Mission Village Planning Areas**, depicts the planning areas that comprise Mission Village as designated in the Specific Plan.

At the project level, the Mission Village project site is divided into six planning areas that are referred to as neighborhoods, Neighborhoods A through F. Neighborhood A is characterized as medium density residential uses, containing residential uses, an elementary school, and park uses. Neighborhood A is illustrated in **Figure 1.0-6, Neighborhood A Site Plan**.

Neighborhood F is commonly known as the Village Center. The Village Center is characterized by the highest residential densities proposed for the project site, and it includes mixed-uses (residential, office and commercial), a bus transfer station, a library, and a community recreation center. Neighborhood B is located near the westerly portions of the site along Magic Mountain Parkway and it contains medium-density residential uses. Neighborhoods B and F are depicted on **Figure 1.0-7, Neighborhoods B & F Site Plan**.

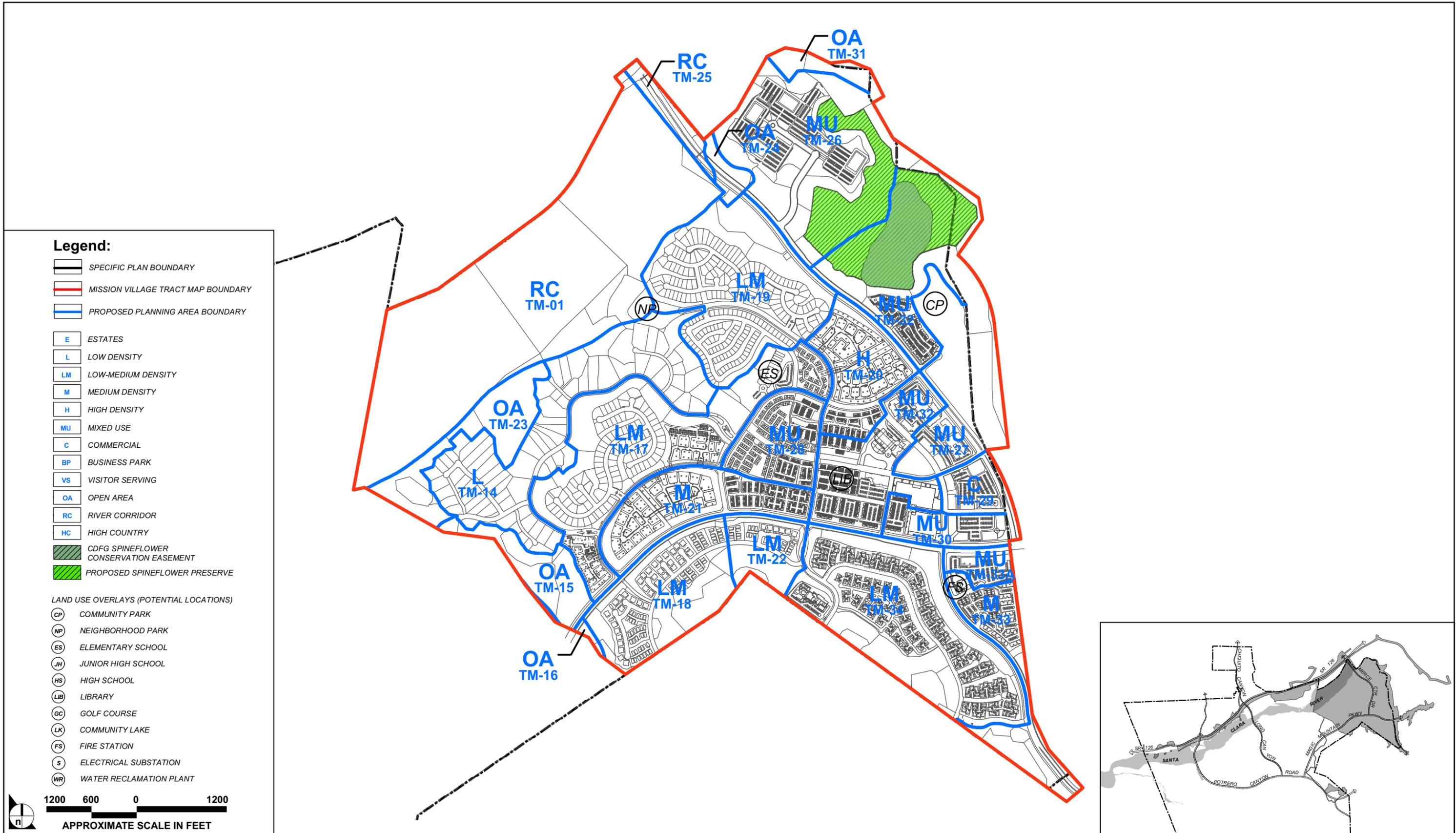
Neighborhood C is located south of Magic Mountain Parkway and it contains a variety of land uses, including medium-density Active Adult residential uses, a private recreation center west of Westridge Parkway, mixed-use commercial, a fire station, and higher density residential uses east of Westridge Parkway. Neighborhood C is illustrated on **Figure 1.0-8, Neighborhood C Site Plan**. Neighborhood D is located at the easternmost boundaries of the project site and it contains medium-density residential uses, and a community park. Neighborhood D is illustrated on **Figure 1.0-9, Neighborhood D Site Plan**.

Neighborhood E is comprised of employment and service commercial uses and it is located at the approach to the Mission Village community from SR-126. Neighborhood E is illustrated on **Figure 1.0-10, Neighborhood E Site Plan**.

As shown on **Figure 1.0-2**, regional access to Mission Village would be provided by I-5, which is located approximately 0.5 mile east of the project site, and SR-126, which is located to the north of the project site. Commerce Center Drive would serve as the primary north/south access through Mission Village and it would be connected to SR-126 by new interchange improvements. Magic Mountain Parkway is the proposed primary east/west access through Mission Village and it would connect to The Old Road, which is a frontage road located along the west side of I-5. Westridge Parkway would provide a secondary connection to the south of the project site via Magic Mountain Parkway.

The timing and need for certain infrastructure improvements that may be required to serve the proposed project is contingent upon the overall phased development of Newhall Ranch. Therefore, although the following improvements may not be constructed as part of the project, the EIR, nevertheless, addresses these improvements in the event it is necessary to construct them as part of the project:

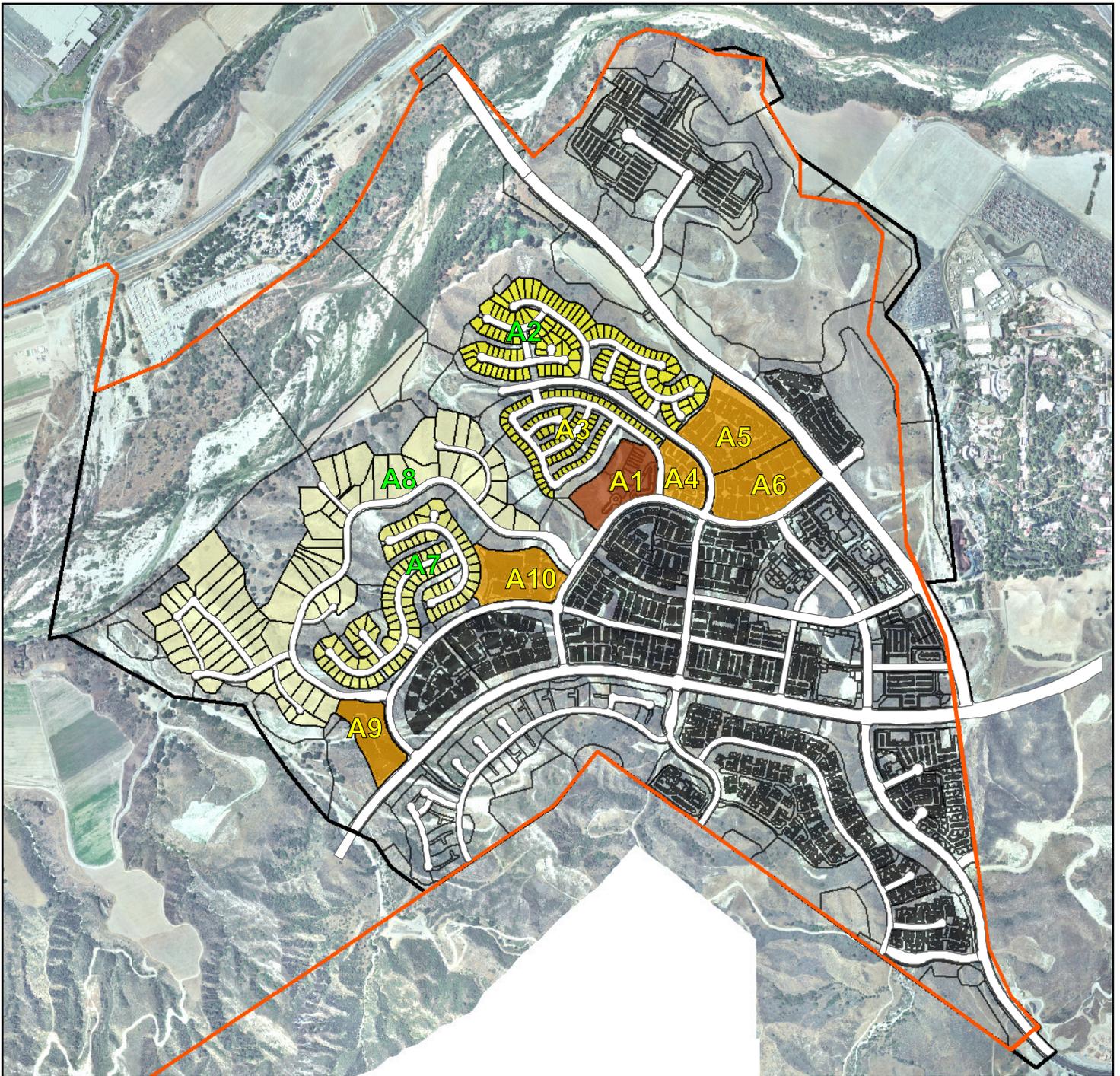
- Utility corridor: The utility corridor would be developed between the Newhall Ranch Wastewater Treatment Plant and the existing Los Angeles County Sanitation District 32 Wastewater Treatment Plant (Valencia WRP). The corridor generally would parallel SR-126, Henry Mayo Drive, and The Old Road.
- Edison substation: Depending on the timing of other projects, Southern California Edison may require a 16-kilovolt (kV) substation on the Newhall Ranch Specific Plan site. There are two alternative locations for the proposed substation, and both are located outside the boundaries of Mission Village.



SOURCE: FORMA Systems – August 2010

FIGURE 1.0-5

Mission Village Planning Areas



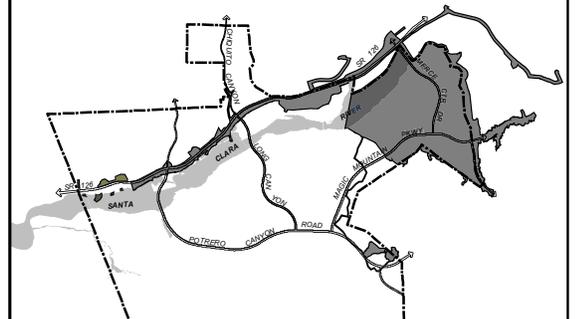
Legend:

- Newhall Ranch Specific Plan Boundary
- Vesting Tentative Tract Map Boundary

- A1 - School
- A2, A3, A7, A8 - Single Family Detached
- A4, A5, A9 - Condominium
- A6, A10 - Condominium



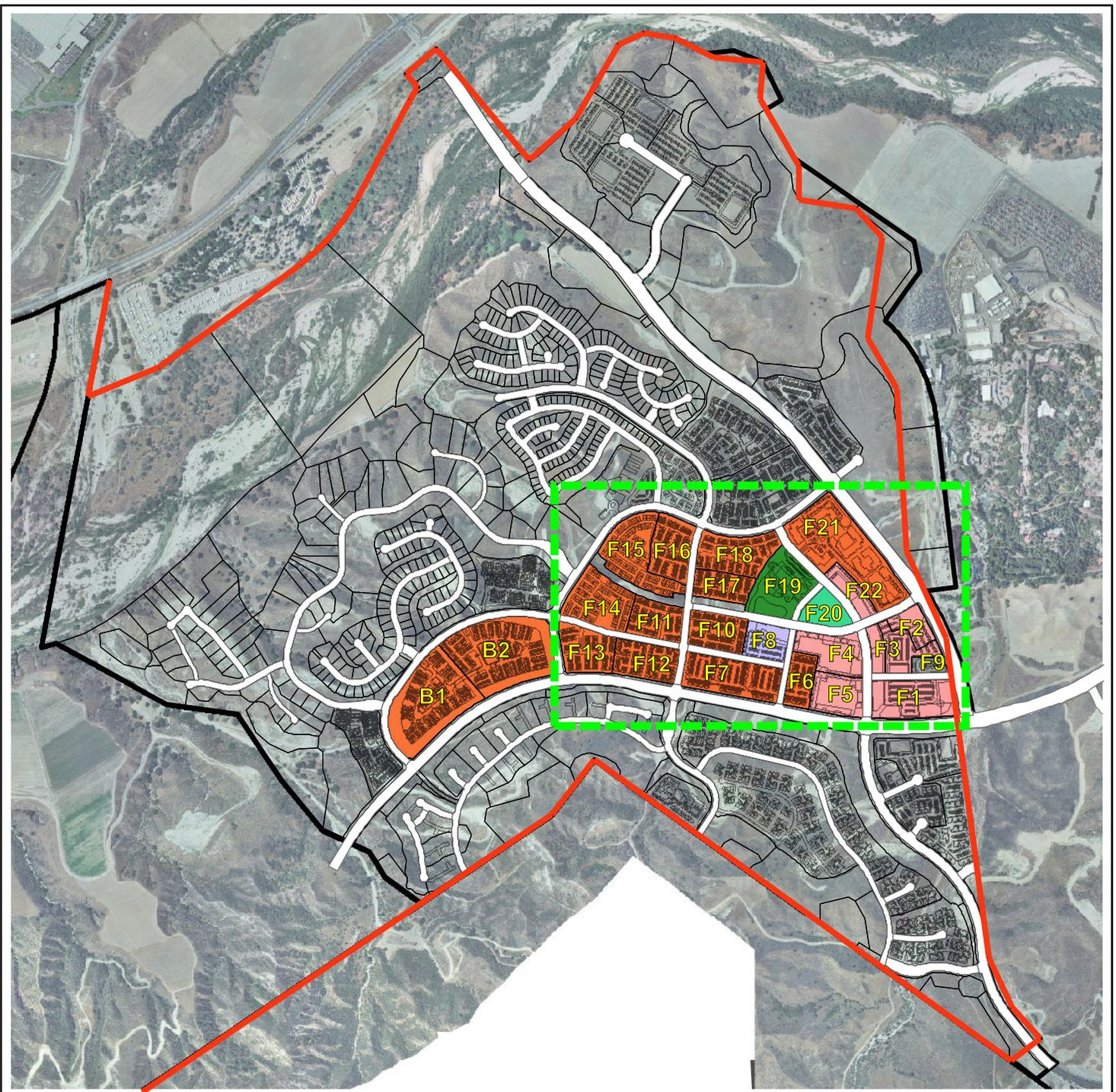
NOT TO SCALE



SOURCE: Psomas - April 2010, Impact Sciences, Inc. - July 2010

FIGURE 1.0-6

Neighborhood A Site Plan



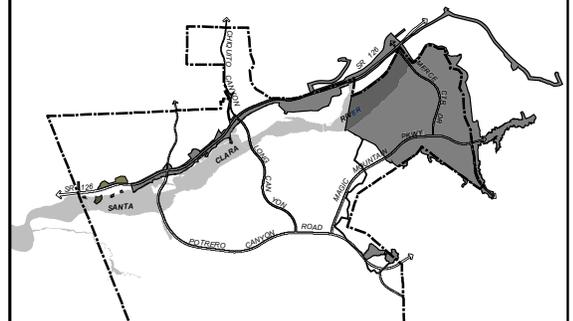
Legend:

- Newhall Ranch Specific Plan Boundary
- Vesting Tentative Tract Map Boundary
- - - Village Center



NOT TO SCALE

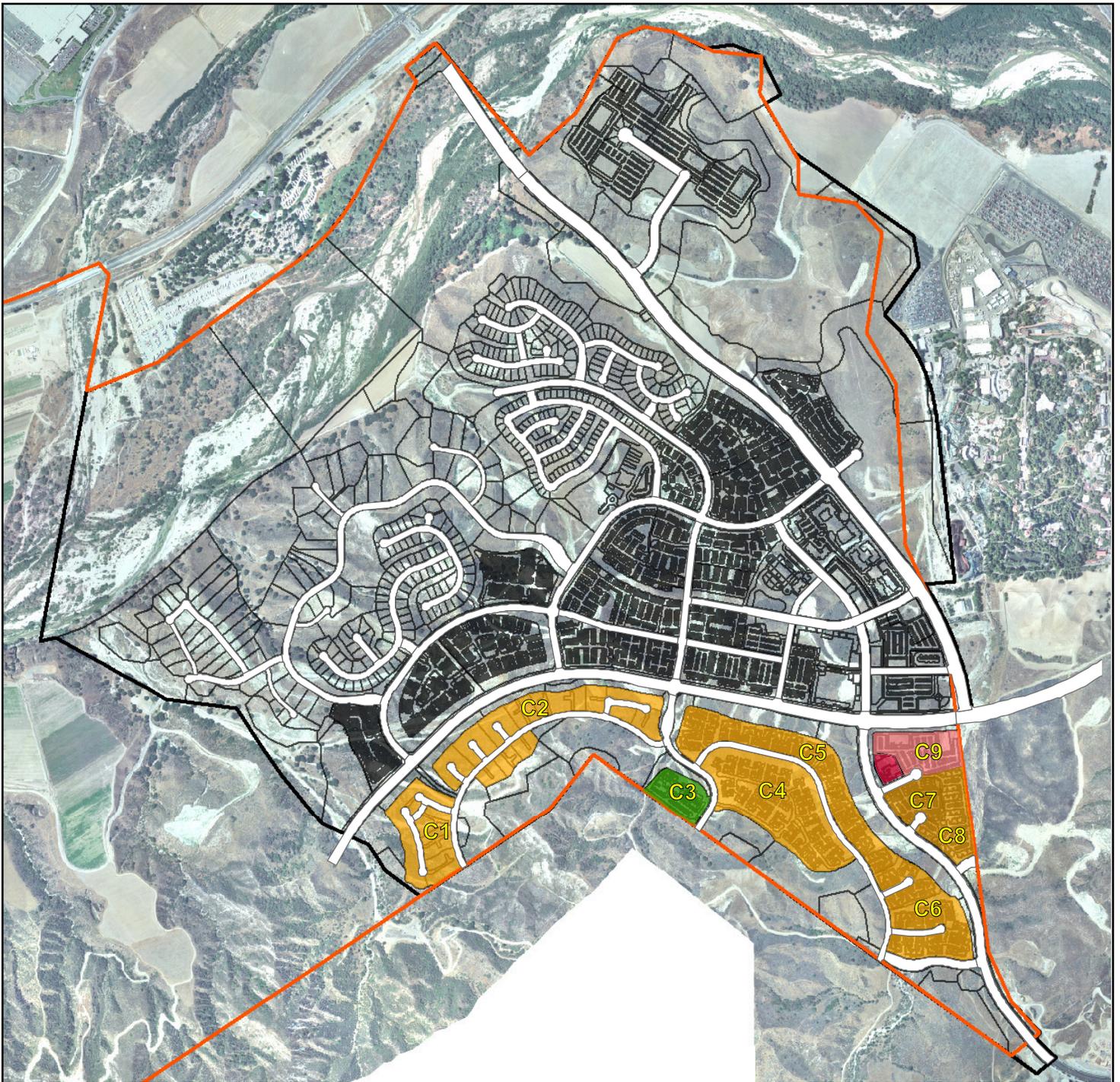
- B1, B2, F15 - Condominium
- F1-F3, F22 - Mixed Use / Commercial
- F4, F5 - Mixed Use Commercial / Residential
- F6, F7 - Apartment / Condominium
- F8 - Library
- F9 - Bus Transfer
- F10-F14, F16-F18 - Condominium
- F19 - Recreation
- F20 - Private Park
- F21 - Continued Care Retirement Community



SOURCE: Psomas - February 2010, Impact Sciences, Inc. - August 2010

FIGURE 1.0-7

Neighborhoods B & F Site Plan

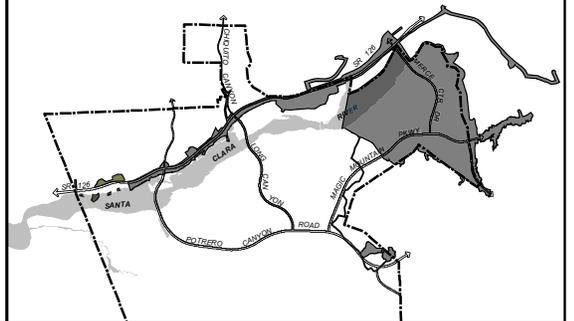


Legend:

- Newhall Ranch Specific Plan Boundary
- Vesting Tentative Tract Map Boundary
- C1, C2 - Condominium - Age-Qualified
- C3 - Recreation
- C4, C5 - Condominium - Age-Qualified
- C6 - Condominium - Age-Qualified
- C7, C8 - Apartment / Condominium
- C9 - Mixed Use Commercial / Fire Station



NOT TO SCALE



SOURCE: Psomas - April 2010, Impact Sciences, Inc. - July 2010

FIGURE 1.0-8

Neighborhood C Site Plan



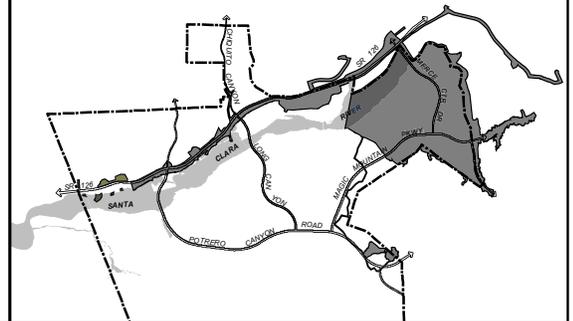
Legend:

- Newhall Ranch Specific Plan Boundary
- Vesting Tentative Tract Map Boundary

D1 - Apartment / Condominium



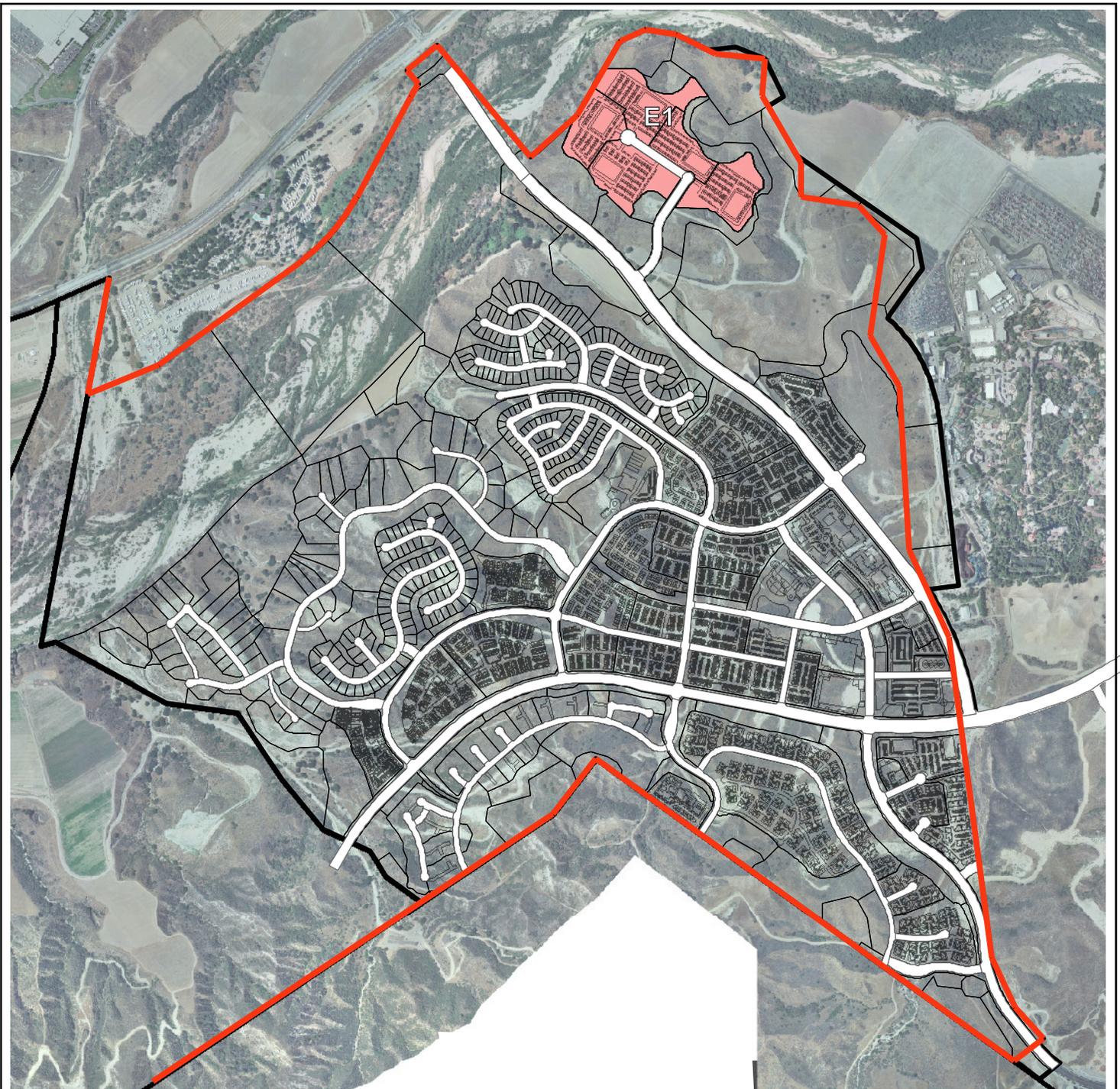
NOT TO SCALE



SOURCE: Psomas - February 2010, Impact Sciences, Inc. - August 2010

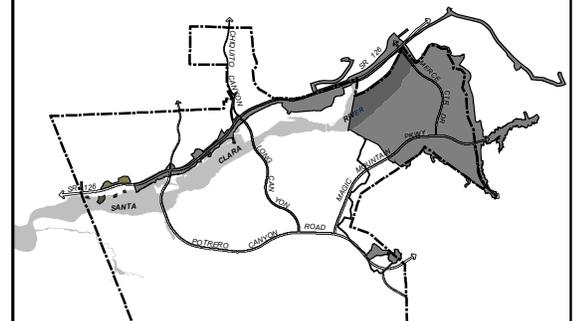
FIGURE 1.0-9

Neighborhood D Site Plan



Legend:

- Newhall Ranch Specific Plan Boundary
- Vesting Tentative Tract Map Boundary
- E1 - Mixed Use / Commercial



NOT TO SCALE

SOURCE: Psomas - February 2010, Impact Sciences, Inc. - March 2010

FIGURE 1.0-10

Neighborhood E Site Plan

Table 1.0-3, Mission Village Tract Map Statistical Summary, provides a specific breakdown of the proposed tract map site by land use designation type, area, number of lots, lot size or square footage, total dwelling units or commercial square footage, and dwelling unit density per acre. Other uses that would be provided within the land use designations identified on **Table 1.0-3** include electric and natural gas infrastructure, telephone and cable television lines, fiber optics, potable and non-potable water conveyance systems, and sewer/wastewater conveyance systems.

A description of each of the land use types comprising the Mission Village project is provided below. **Figure 1.0-11, Mission Village Land Use Types**, depicts the location of each land use type relative to the project site. Additional information specific to each use type necessary to assess the proposed project's environmental impacts is provided in **Section 4.0, Environmental Impact Analysis**.

(a) Residential

The Specific Plan established land uses and development regulations, which permitted a wide range of housing densities, types, styles, prices and tenancy (for sale and rental), with varying architectural style, within five distinct villages to create a unique identity and sense of community in each village. Mission Village residential neighborhoods are designed to be consistent with these Specific Plan objectives.

The proposed project permits a variety of housing types, ranging from single-family units with densities from 1.0 to 8.9 dwelling units per acre, to multi-family units with densities from 4.7 to 55 dwelling units per acre. Two basic residential housing types are proposed for the project site: detached (single-family units and condominiums) and attached (multi-family condominiums, duplexes, townhomes and apartments). Vesting Tentative Tract Map No. 61105 (**Appendix 1.0**), shows the location of the proposed detached units and the lot locations for the proposed attached units. The following is a description of the proposed single-family and multi-family dwelling unit types.

(1) Single-Family Residential Component

The single-family housing type is characterized by a traditional lot orientation at net densities ranging from 1 to 8.9 dwelling units per acre. A majority of these lots are proposed to be located along private streets and drives, and lot sizes predominantly range from approximately 1 acre to 4,000 square feet. A total of 382 single-family detached units is proposed. In addition, 73 second units are proposed on the lots in A-8. (See **Figure 1.0-6, Neighborhood A Site Plan**.) A typical building elevation for a single-family detached unit is depicted in **Figure 1.0-12, Typical Elevation – Single-Family Units**.

**Table 1.0-3
Mission Village Tract Map Statistical Summary**

Land Use Type	Area (gross acres)	Lots	Lot Sizes or Square Footage	Total Units or Square Footage	Density (du/acre or FAR)
Residential					
Single-Family	132.5	382	4,000/6,050/7,150/1 acre	382 du	1–8.9 du/acre
Multi-Family	210.7	38	-	4,030 du ²	4.7–55 du/acre
Apartments/condominiums	32.4	5			
Continued Care Retirement Community	13.6	1			
Subtotal	389.2			4,412 du³	
Mixed-Use/Commercial	57.4	11	-	1,555,100 sq. ft. ¹	0.60 FAR
Elementary School	9.5	1	N/A	N/A	N/A
Other			N/A	N/A	N/A
Open Space		150			
River	217.0				
Un-graded lots	63.1				
Graded Lots	249.4				
Public Park	26.1	2			
Private Recreation	14.7	4			
Spineflower Preserve	65.6	2			
Library	3.3	1			
Fire Station	1.5	1			
Bus Transfer Station	1.2	1			
Utilities	25.5	14	N/A		N/A
Roads	138.3	48	N/A		N/A
TOTAL	1,261.8	661		4,412 du 1,555,100 sq. ft.	

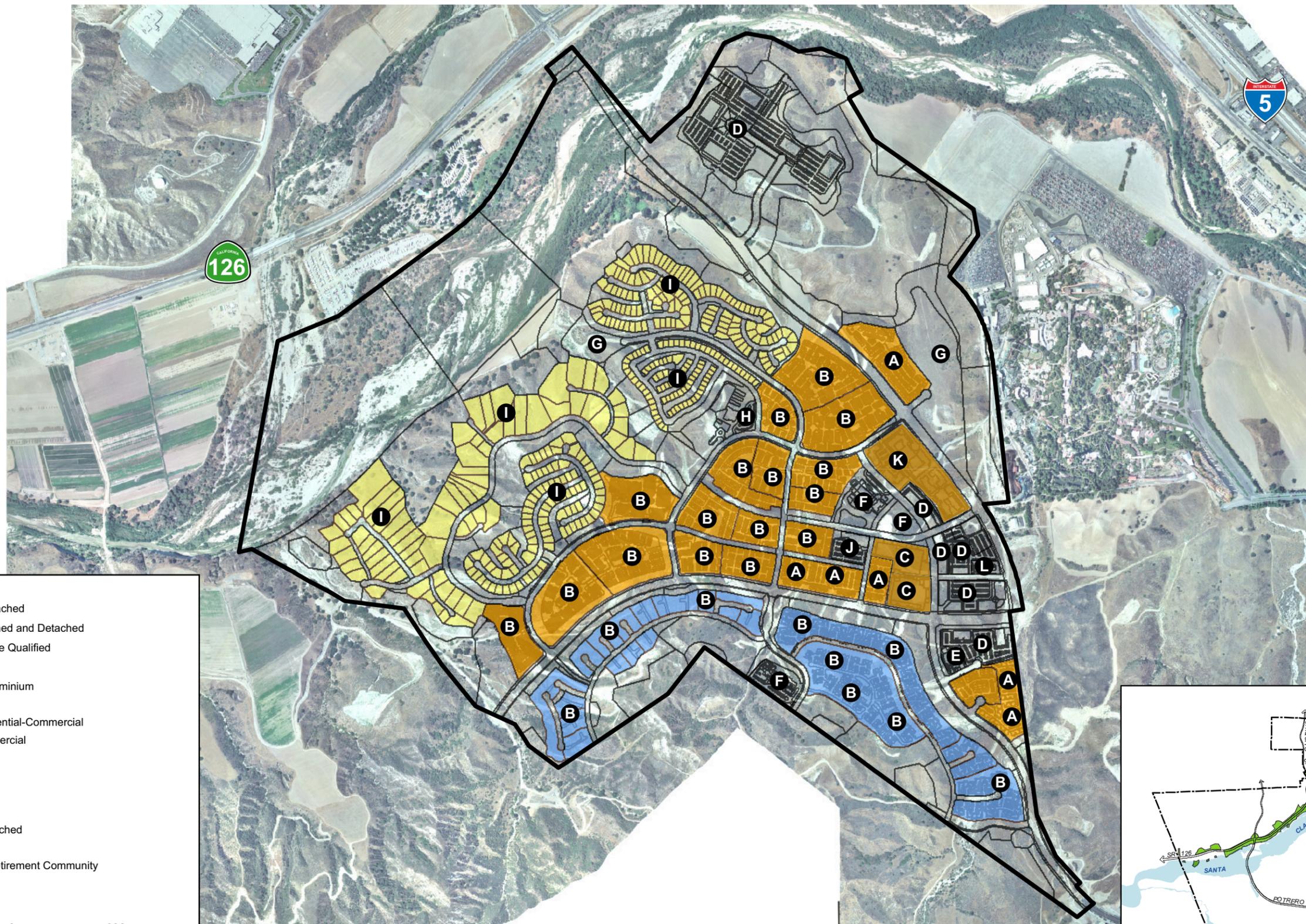
¹ Includes 66,400 sq. ft. designated Multi-Family/Condominium.

² Mixed-Use/commercial acreage includes 491 residential units that are counted in multi-family total.

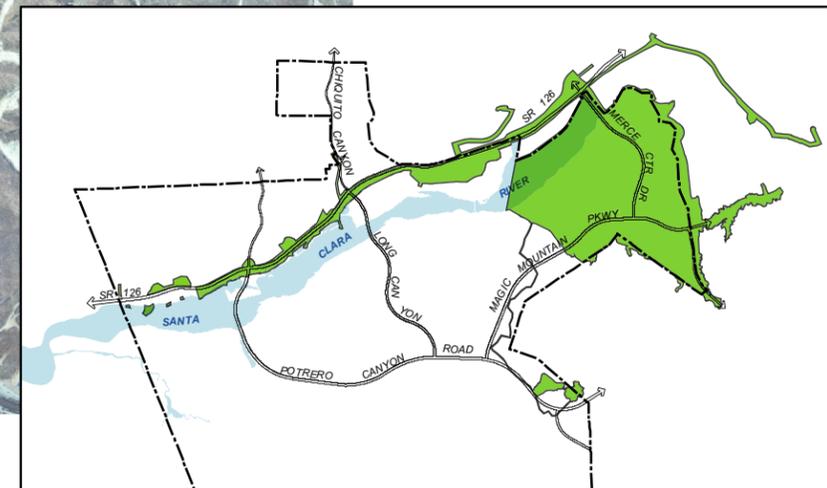
³ A CUP request for 73 second units on single-family lots has been submitted. These second units are not included in project totals.

Source: Vesting Tentative Tract Map No. 61105 (revised April 2010).

FAR = floor area ratio; du = dwelling unit; sq. ft. = square feet.



- Legend:**
- Single-Family Detached
 - Multi-Family Attached and Detached
 - Condominium - Age Qualified
- Land Use:**
- A** Apartment / Condominium
 - B** Condominium
 - C** Mixed Use / Residential-Commercial
 - D** Mixed Use / Commercial
 - E** Fire Station
 - F** Recreation
 - G** Park
 - H** School
 - I** Single Family Detached
 - J** Library
 - K** Continued Care Retirement Community
 - L** Bus Transfer



SOURCE: PSOMAS – April 2010, Impact Sciences, Inc. – August 2010

FIGURE 1.0-11

Mission Village Land Use Types



SOURCE: Newhall Ranch Mission Village Project Summary – August 2004

FIGURE 1.0-12

Typical Elevation – Single-Family Units

(2) **Multi-Family Residential Component**

The multi-family attached units provide for densities ranging from 4.7 to 55 dwelling units per acre. These units are typically characterized as detached condominium, townhomes, live/work units, duplex, or condominium/apartment-style buildings. Parking may be at-grade, subterranean or structured. A total of 4,030 multi-family units are proposed. Included in this total are 393 Active Adult residences in Area C. (See **Figure 1.0-8, Neighborhood C Site Plan.**) These residences will be limited to residents 55 or older. Also included in this total are 351 units of continuing care retirement community residences offering independent and assisted living for seniors. A typical building elevation for attached multi-family housing is depicted in **Figure 1.0-13, Typical Elevation – Multi-Family Units.**

(b) **Mixed-Use/Commercial Component**

Mixed-use areas include retail/commercial and office uses, as well as civic, public, and recreational uses, connected by a vehicular, transit, and pedestrian network of streets, courtyards, and paseos. Residential uses are located in the areas surrounding the mixed-use and commercial sectors.

A total of 1,555,100 square feet of mixed-use/commercial uses are planned on approximately 57.4 acres of land in two general locations on the project site. The mixed-use/commercial areas are planned in the eastern portions of the site along Commerce Center Drive, i.e., the Village Center, Neighborhood E and Neighborhood C. Supporting commercial uses likely to be found in the mixed-use areas include food service, grocery, banking, dry cleaners, merchandise sales, food sales, and various professional offices, as well as live/work units. 704,100 square feet of the mixed use/commercial uses planned for Mission Village would be located in the Village Center in a “main street” setting with reciprocal and shared parking. The 704,100 square feet includes 66,400 square feet of commercial uses that would be integrated horizontally with residential uses located in the Village Center. All mixed-use/commercial areas would be accessible by a vehicular, transit, and pedestrian street network, trails, paseos, and sidewalk areas. Conceptual illustrations of the Village Center are depicted in **Figures 1.0-14a, and 1.0-14b, Conceptual Design Elements for the Village Center.**

(c) **Elementary School**

Mission Village is located within the boundaries of 2 school districts: Newhall School District (NSD) and Saugus Union School Districts (SUSD). The project applicant has entered into a School Facilities Funding Agreement (Agreement) with both Districts. The Agreements generally require that the applicant set aside land and provide funds for development of the required elementary schools as mitigation for buildout of all uses within Newhall Ranch. Both Agreements provide full mitigation for elementary school impacts.

Consistent with the Agreements, the proposed project includes a 9.5-acre site located in Area A for development of an elementary school. The school is planned to consist of a main school building with modular classrooms and adjacent playing field. **Figure 4.13-3, Conceptual Site Plan – Newhall School District Elementary School**, depicts the conceptual plan for the school. Children of elementary school age will attend schools within the school district in which they reside. Initially, children will attend existing schools within their respective Districts. Children within NSD initially will attend the Oak Hills School in Westridge located to the south of the project. In accordance with the Agreements, certain student generation numbers would trigger the requirement that the project applicant provide ready-to-build school sites.

The SUSD will determine which of the existing schools within its district the children from Mission Village will attend. A SUSD school is proposed on a planned 7.0-acre site in the adjacent Entrada Community (VTTM 53295). (See **Figure 4.13-4, Conceptual Site Plan – Saugus Union School District Elementary School**.)

(d) Recreation Areas

The proposed project includes a 20-acre Community Park along the eastern side of the proposed Commerce Center Drive near the eastern site boundary. The location of the Community Park within VTTM 61105 and additional details regarding the park are shown on **Figure 1.0-16, Community Park**. The Community Park would include improvements such as those identified in Specific Plan Section 2.8 (4) (b). These include tot lots, ball fields, tennis or basketball courts, turf areas, vehicular parking, and restrooms facilities.

One of the Specific Plan Neighborhood Parks also would be developed on the project site. The location of the Neighborhood Park within VTTM 61105 and additional details regarding the park are shown on **Figure 1.0-17, Neighborhood Park**. The park would contain approximately 5 acres of usable parkland. Amenities provided at the parks would include those identified in the Specific Plan Section 2.8 (4) (b).

An 6.9-acre private Community Recreation Center would be provided as a Newhall Ranch wide amenity, and may contain such amenities as a 25,000-square-foot recreational building, pool, spa, wading pool, shade overhead structure, play courts, and/or restroom building. The location of the Community Recreation Center within VTTM 61105 and additional details regarding the center are shown on **Figure 1.0-15**. The recreation areas would be fenced and maintained by a homeowners association, and parking would be provided both off street and on street. Located next to the Community Recreation Center is a private park that will function as a village green in the Village Center to provide opportunities for both passive and active recreation as well as allocation for community functions, such a farmers market.



SOURCE: Newhall Ranch Mission Village Project Summary – August 2004

FIGURE 1.0-13

Typical Elevation – Multi-Family Units



SOURCE: Newhall Ranch Mission Village Project Summary – August 2004

FIGURE 1.0-14a

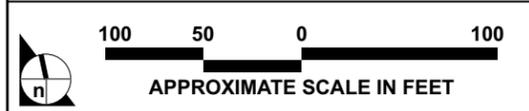
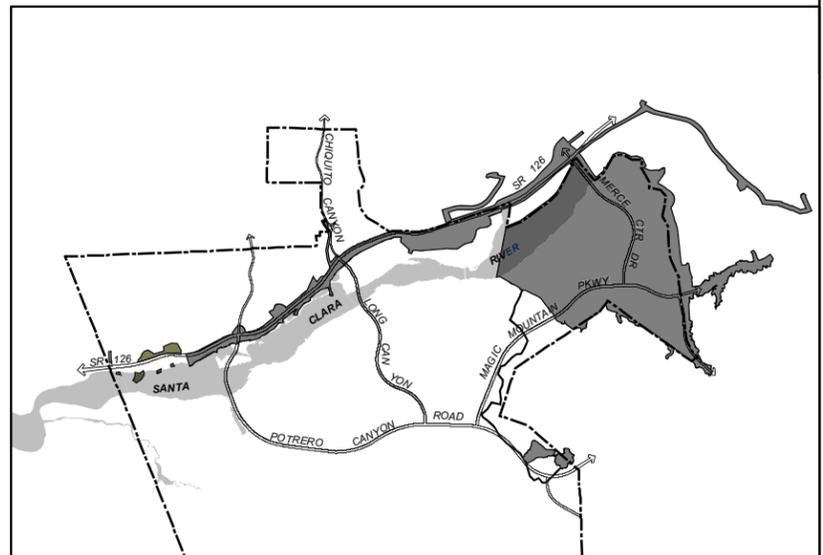
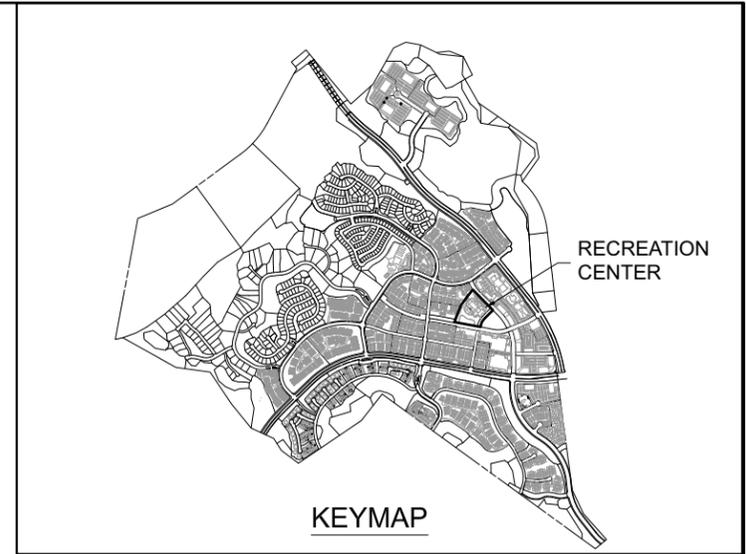
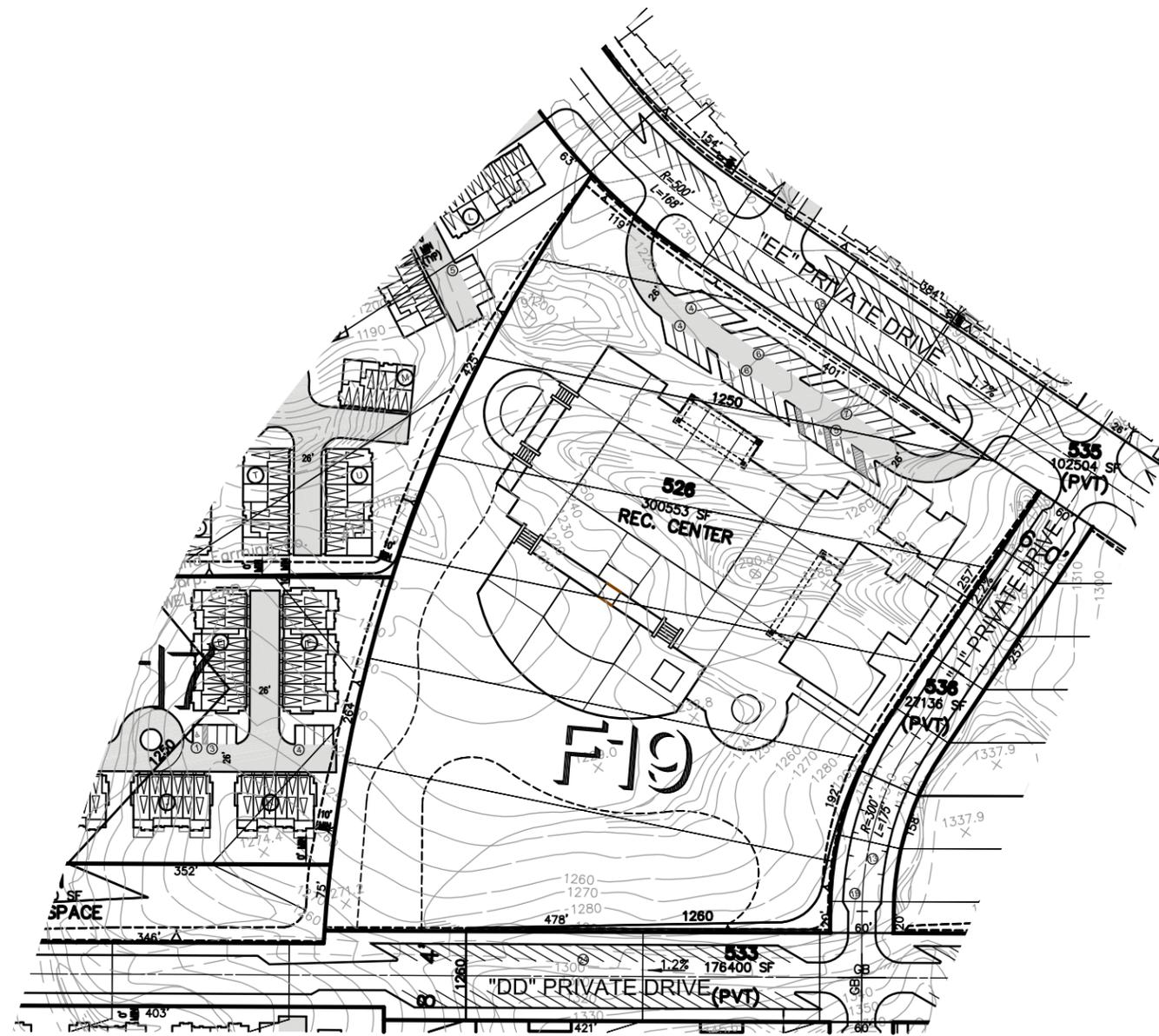
Conceptual Design Elements for the Village Center



SOURCE: Newhall Ranch Mission Village Project Summary – August 2004

FIGURE 1.0-14b

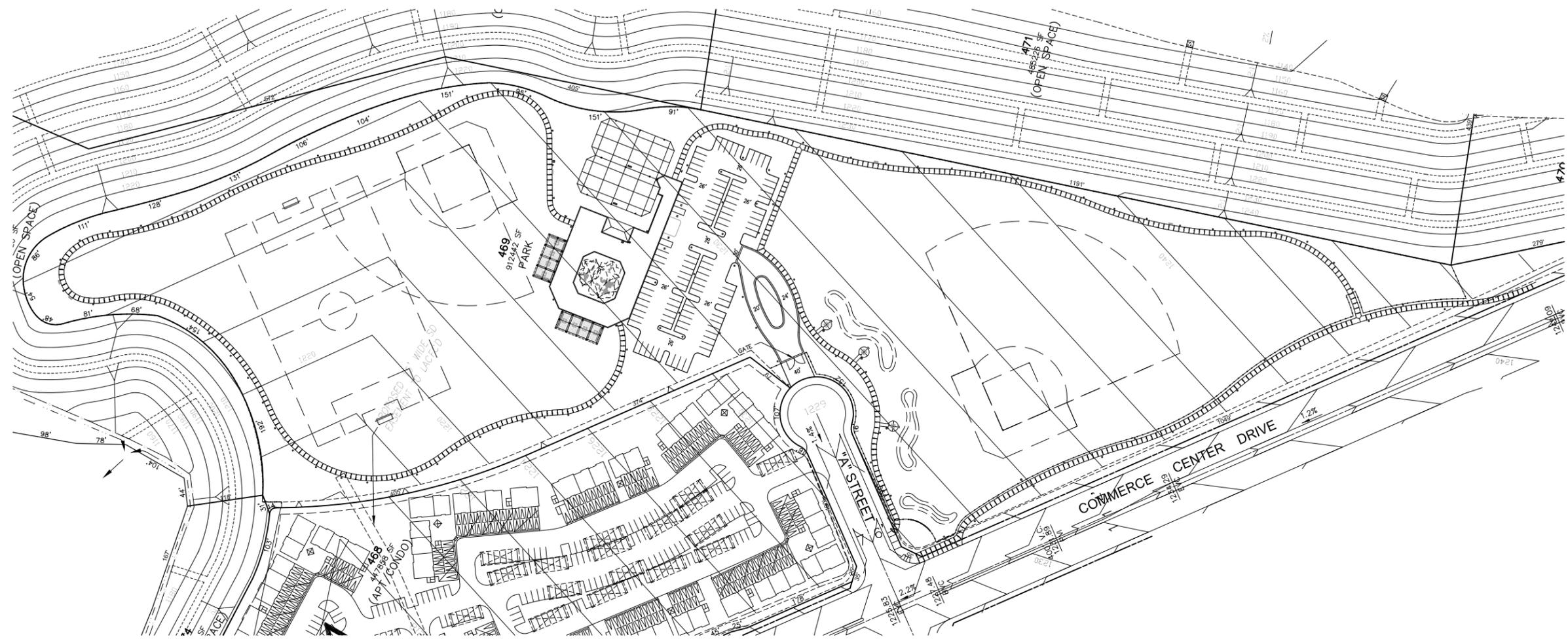
Conceptual Design Elements for the Village Center



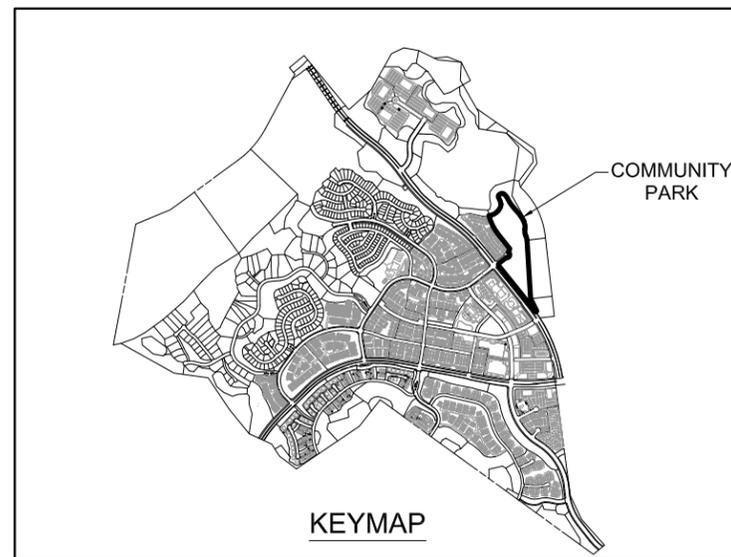
SOURCE: PSOMAS – February 2010

FIGURE 1.0-15

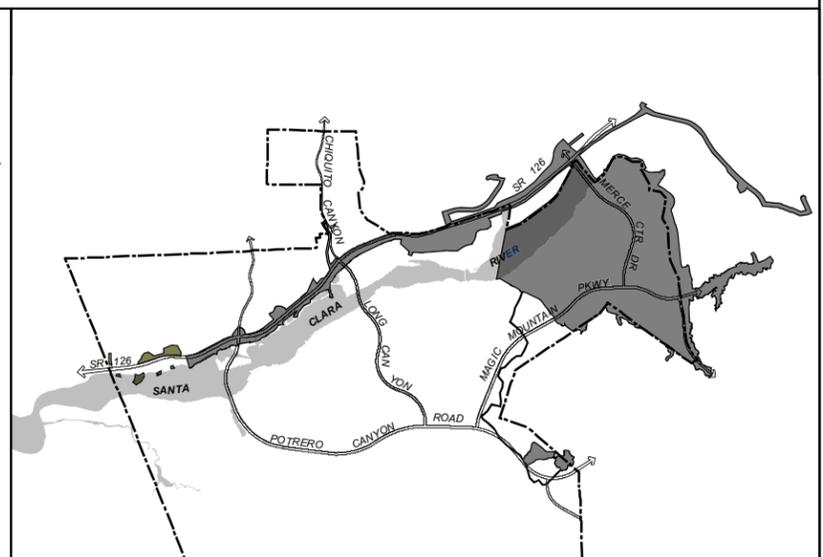
Community Recreation Center



Community Park



KEYMAP

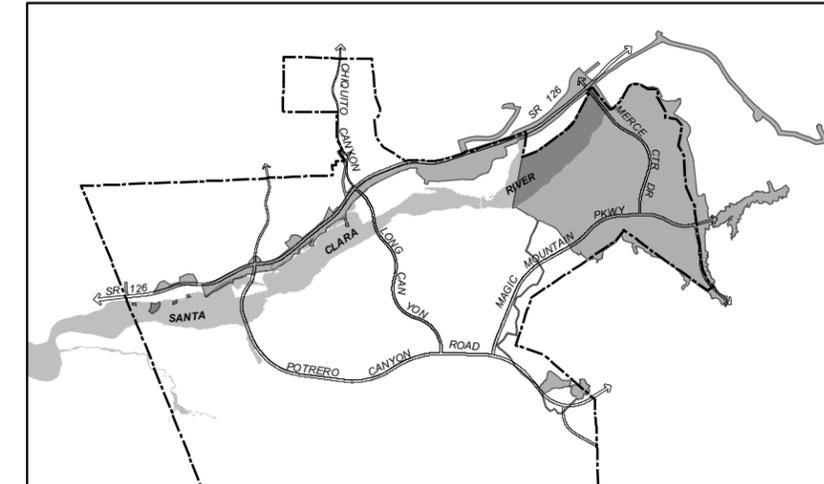
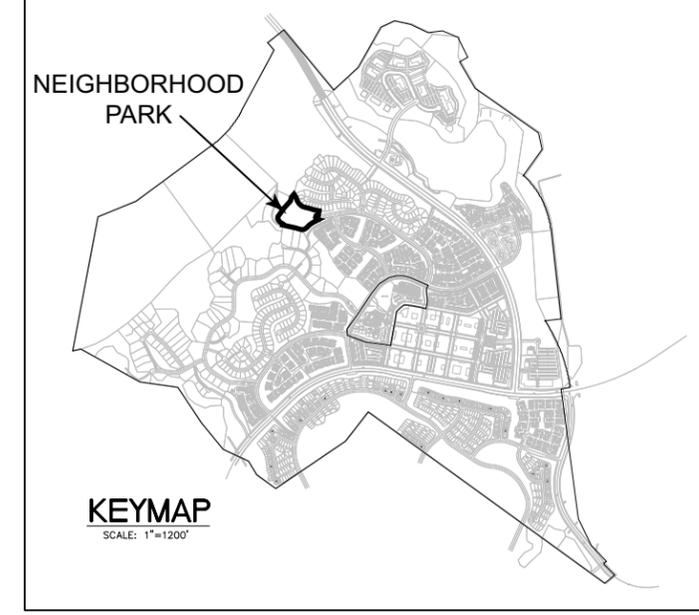
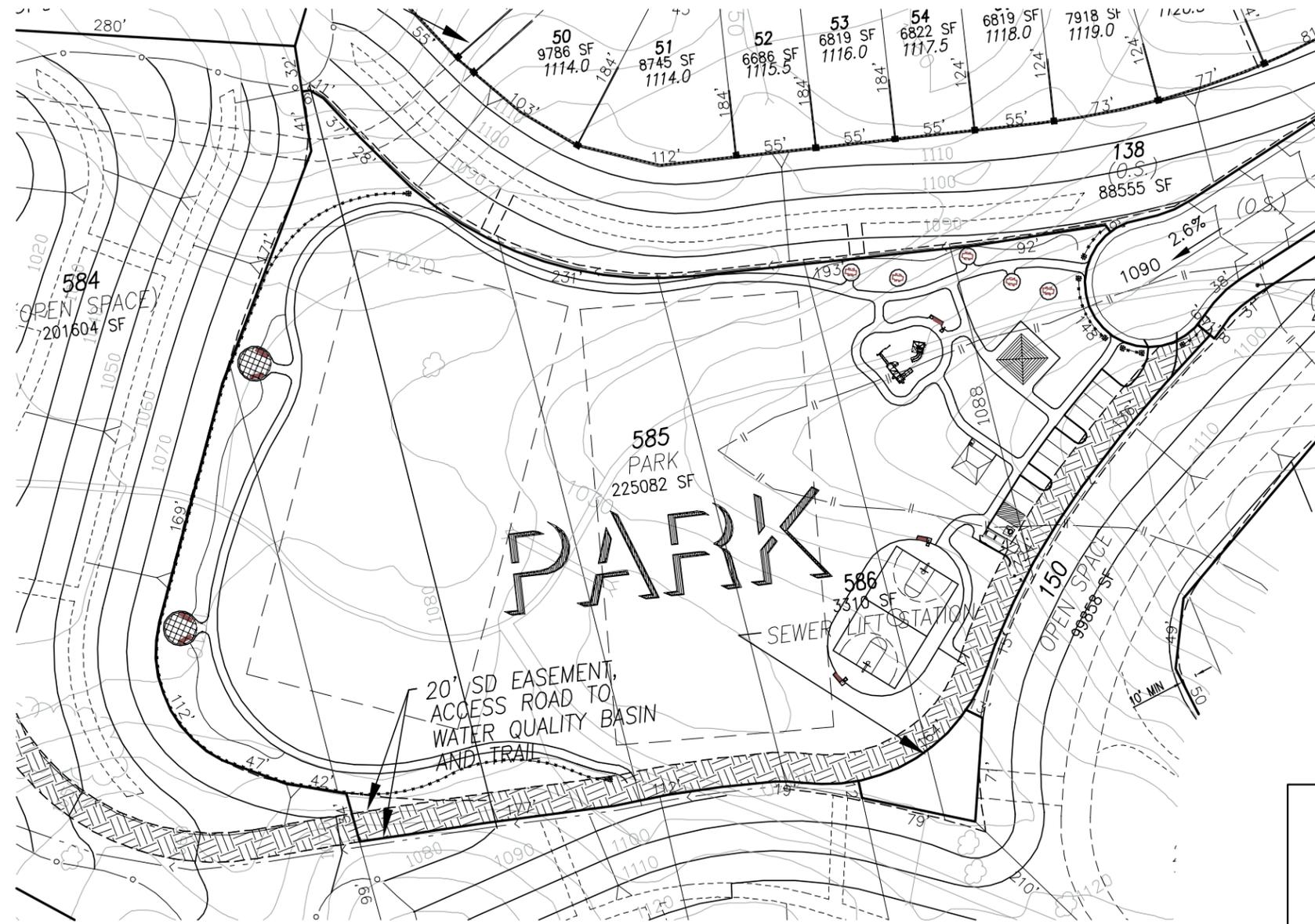


APPROXIMATE SCALE IN FEET

SOURCE: PSOMAS – February 2010, Impact Sciences, Inc. – May 2010

FIGURE 1.0-16

Community Park



NOT TO SCALE

SOURCE: PSOMAS – December 2006, Impact Sciences, Inc. – May 2010

FIGURE 1.0-17

Neighborhood Park

In Neighborhood C, the active adult area, a private neighborhood recreation area would be developed on a total of 4.6 acres. This facility would provide recreational activities for those residents living in Neighborhood C. The amenities may include a 25,000-square-foot recreational building, pool, spa, wading pool, shade overhead structure, and/or play courts.

In addition to the small recreation lot in area A7, separate smaller satellite neighborhood recreation centers would be situated throughout various neighborhoods in Mission Village. These may contain facilities for passive uses or active uses such as tot lots, play courts, and/or pools.

(e) Fire Station

The proposed project includes a 1.5-acre fire station site located south of Magic Mountain Parkway on the easterly side of Westridge Parkway. This site will accommodate up to a 13,500-square-foot fire station plus ancillary buildings.

Consistent with Mitigation Measure 4.18-4 of the Newhall Ranch Specific Plan Program EIR, the applicant is negotiating an MOU with the County Fire Department that would provide for the development of up to three fire stations within the Specific Plan site. Specific to Mission Village, discussions between The Newhall Land and Farming Company (Newhall Land) and the Fire Department revolve around the construction or funding by Newhall Land of an approximately 13,500-square-foot station within Mission Village on the 1.50-acre net building pad site.

It should be noted that both the station and building pad sizes exceed the requirements of the approved Newhall Ranch Specific Plan. Additionally, the approved Specific Plan required Newhall Land to provide funding for the construction of the station, rather than constructing the station, and provide funding for its pro-rata share of equipment for the station.

As required by the Specific Plan, Newhall Land and the Fire Department will enter into a MOU to finalize the Newhall Ranch requirements associated with the Fire Department.

(f) Library

Consistent with mitigation adopted as part of the Newhall Ranch Specific Plan, the proposed project includes a 3.3-acre library site in the Village Center area of the project. Specific Plan mitigation requires that the developer provide funding for the library, including the site, construction, furniture, fixtures, equipment and materials, and that the total library building square footage not exceed 0.35 net square foot per person. The library construction requirements, including size, funding, and time of construction, are to be mutually agreed upon by the County Librarian and the developer, and incorporated into a memorandum of understanding entered into prior to the County's issuance of the first residential

building permit for Newhall Ranch. Access to the library site will be provided from private drives that make up the “main street” element of the Village Center.

(g) Transit

The proposed project includes a 1.2-acre transit site for development of a bus transfer station in the Village Center area of the project. The site would facilitate local bus service and provide connection points for express bus operation.

(h) Open Area/River Corridor

The Mission Village project includes approximately 244 acres of open space, distributed along the perimeter of the project site and adjacent to the Santa Clara River.

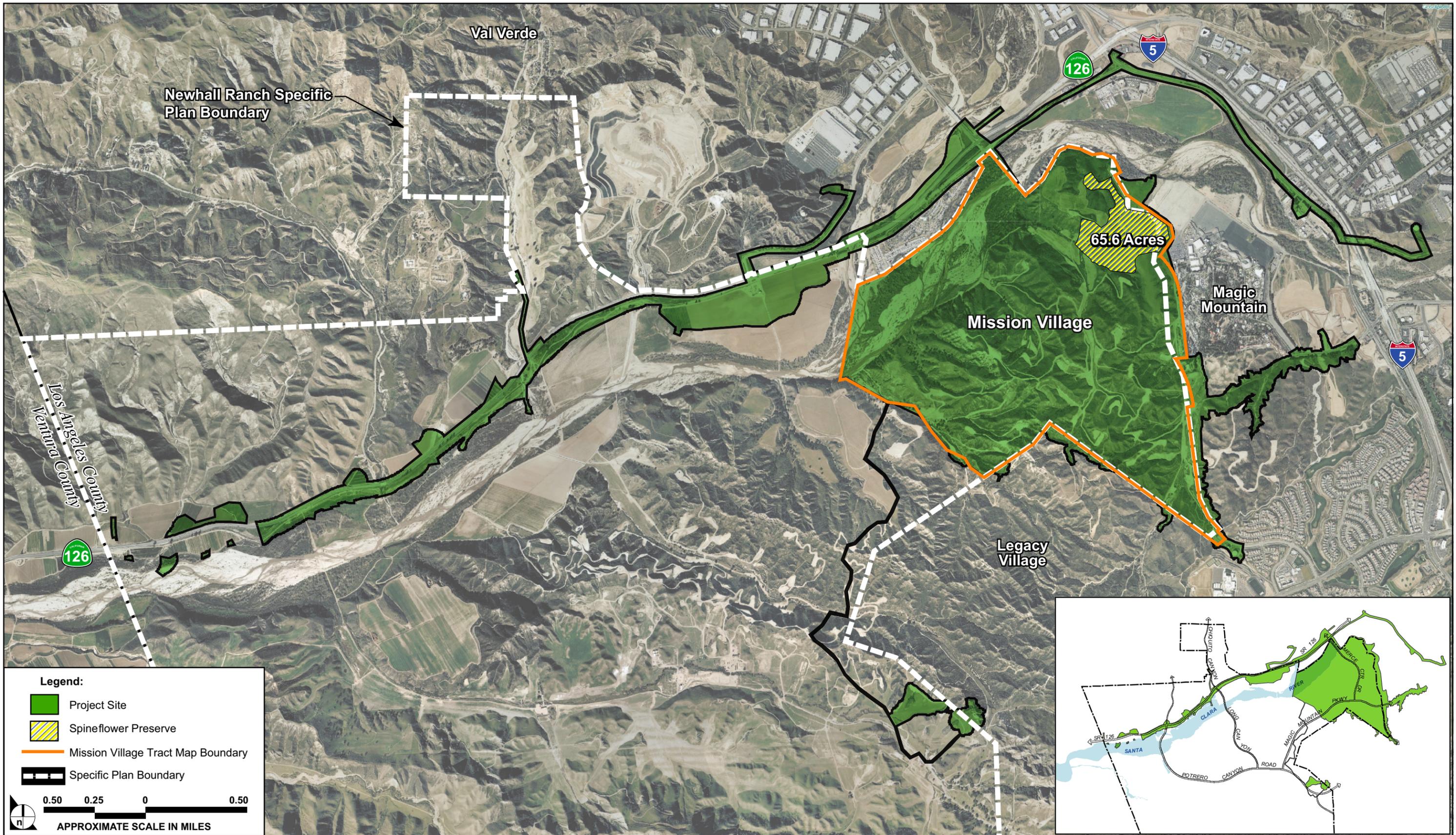
(i) Spineflower Preserve

The Mission Village project includes a 65.6-acre Spineflower Preserve situated in the northeast portion of the project site. **Figure 1.0-18, Spineflower Preserve**, depicts the location of the preserve in relation to the project site. The boundaries of the preserve have been delineated in consultation with the County and CDFG, and have been configured to ensure the continued existence of the species in perpetuity. In February 2003, Newhall granted a conservation easement to CDFG over 20.27 acres of spineflower habitat located within the larger preserve on the Mission Village project site. The conservation easement regulates uses on the property and provides for the preparation of a management plan. The project applicant is responsible for the funding and implementation of management activities, including monitoring, as approved by the County and CDFG.

The establishment of a Spineflower Preserve within the Mission Village site is consistent with the Newhall Ranch Specific Plan, which includes a Spineflower Special Study Mitigation Overlay and Preserve Program requiring the establishment of spineflower preserves in the area. Additional description of the Spineflower Preserve is provided in **Section 4.3, Biota**, of this EIR.

(j) Trails and Paseos

The approved Specific Plan’s Master Trails Plan (Specific Plan Exhibit 2.4-5) provided broad, general trail alignments and classifications to ensure that Mission Village would be linked to the greater Newhall Ranch via the Regional River Trail and the Community Trail network. **Figure 1.0-19, Mission Village Portion of the Newhall Ranch Specific Plan Master Trails Plan**, depicts the Specific Plan’s Master Trails Plan as it relates to Mission Village.



Legend:

- Project Site
- Spineflower Preserve
- Mission Village Tract Map Boundary
- Specific Plan Boundary

0.50 0.25 0 0.50
 APPROXIMATE SCALE IN MILES

SOURCE: AirPhoto USA – 2006, Psomas, Impact Sciences, Inc. – August 2010

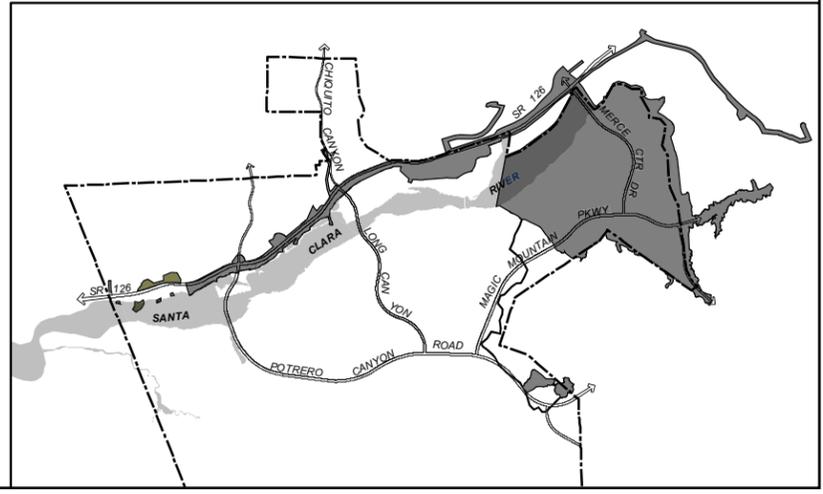
FIGURE 1.0-18

Spineflower Preserve



Legend:

-  MISSION VILLAGE PROJECT BOUNDARY
-  COMMUNITY TRAIL
-  EQUESTRIAN TRAIL COMPONENT OF COMMUNITY TRAIL
-  LOCAL TRAIL
-  PATHWAY
-  UNIMPROVED TRAIL



SOURCE: FORMA Exhibit 2.4-5 Master Trails Plan – May 2003

FIGURE 1.0-19

Mission Village Portion of the Newhall Ranch Specific Plan Master Trails Plan

Figure 1.0-20, Mission Village Trails Plan, depicts the trails and paseos that fulfill the intent of the Specific Plan's Master Trails Plan and implements the Specific Plan's objective of providing a hierarchy of trails with varying sizes and functionality. The Plan includes approximately 18,900 linear feet of community trails, 12,900 linear feet of local trails, and 9,200 linear feet of pathways. As shown on **Figure 1.0-20**, the Mission Village project would provide an extensive community trail system throughout the project site, which would be linked to the Santa Clara Regional River Trail (off site to the northwest) via the extension of other local trails, and paseos.

Community trails are unified pedestrian and bicycle routes in landscaped parkways, and are located along major roads in order to connect the Villages of the Specific Plan. The Mission Village community trails are proposed along Magic Mountain Parkway, Commerce Center Drive, and Westridge Parkway.

A local trail is a joint pedestrian/bicycle route that may or may not follow a roadway. Local trails provide access to amenities, the community trail network, or serve to link Villages of the Specific Plan. The Mission Village project includes local trails through open space areas.

Pathways, which consist of multi-purpose bicycle and pedestrian trails, are located adjacent to local collector roadways. The pathways are proposed to provide a means of pedestrian access from residential neighborhoods to and from the Community Park, recreation centers, elementary school, and mixed-use/commercial areas. The pathways would adjoin major roadways and certain residential collector streets, and be separated from vehicular traffic by a landscaped parkway (**Figure 1.0-20**). The Mission Village project includes pathways along residential collector streets off of Magic Mountain Parkway and Commerce Center Drive. The Mission Village Trails Plan will ensure that each residential neighborhood and community service area is linked to one or more pedestrian and bicycle trails or paseos, with locations for river trail access points and observation/interpretive points. In addition, on-street bike lanes will be provided along Magic Mountain Parkway and Commerce Center Drive.

(k) Site Access and Circulation

The Mission Village project-level circulation system is consistent with and implements the mobility objectives of the Specific Plan's approved Master Circulation Plan (Exhibit 2.4-2 of the Specific Plan). The Specific Plan's Master Circulation Plan was designed as a flexible mechanism by which necessary circulation modes of travel within the Specific Plan area could be integrated with existing regional road networks. The Specific Plan's mobility objectives were found by the County to be consistent with the transportation goals and objectives of the County of Los Angeles General Plan and Santa Clarita Valley Areawide Plan. **Figure 1.0-21, Newhall Ranch Specific Plan Master Circulation Plan – Mission Village**, depicts the Specific Plan's Master Circulation Plan as it relates to Mission Village.

Regional access to Mission Village would be provided by I-5, which is located approximately 0.25 mile to the east of the project site; and SR-126, which is located to the north of the project site. Commerce Center Drive and Magic Mountain Parkway would be the major arterial roadways through the Mission Village project. As shown on **Figure 1.0-22, Mission Village Circulation Plan**, the project circulation plan would provide a system of arterials, residential and commercial collectors, residential public streets, and private drives. Cross-sections of the various types of streets that would be provided throughout the project are depicted in **Appendix 1.0**.

As part of the project, Commerce Center Drive and Magic Mountain Parkway would be extended to provide regional access to and from the project site to SR-126 and I-5, respectively. The Magic Mountain Parkway extension would require the construction of off-site roadway improvements, and would proceed westerly from its existing terminus at The Old Road for a distance of approximately 5,000 feet before intersecting with the project site, as shown on **Figure 1.0-22**. The extension of Commerce Center Drive would proceed southerly from its current terminus at SR-126, over the Santa Clara River, into the project site, and includes construction of the Commerce Center Drive Bridge (discussed separately below). See, **Appendix 1.0**.

(I) Commerce Center Drive Bridge

As part of the Mission Village project, the applicant is proposing to construct the Commerce Center Drive Bridge component of the Newhall Ranch Specific Plan. The Commerce Center Drive Bridge would connect the existing north terminus of Commerce Center Drive at SR-126 with the proposed southern extension of Commerce Center Drive and would serve central portions of Newhall Ranch. The bridge would span the width of the Santa Clara River, equating to a roadway segment of approximately 1,300 feet in length and 120 to 129 feet in width.

As previously noted, as part of the project approvals for the Newhall Ranch Specific Plan, the Los Angeles County Board of Supervisors approved a program-level SEA CUP (No. 94-087-(5)) on May 27, 2003. The SEA CUP permits construction of three elevated highway bridge crossings over the Santa Clara River, including the Commerce Center Drive Bridge. The number and general location of the bridge crossings within Newhall Ranch were established to minimize impacts to sensitive habitat and species within the River Corridor SMA/SEA 23, and to minimize major access points to SR-126. The bridge supports for the proposed Commerce Center Drive Bridge would consist of concrete piers or columns located within the River Corridor SMA/SEA 23; each support would be spaced approximately 100 feet apart. In addition, abutments and bank stabilization (including gunite, soil cement and riprap) would be required on the south side of the bridge to protect against the erosive forces of floodwater in the river.

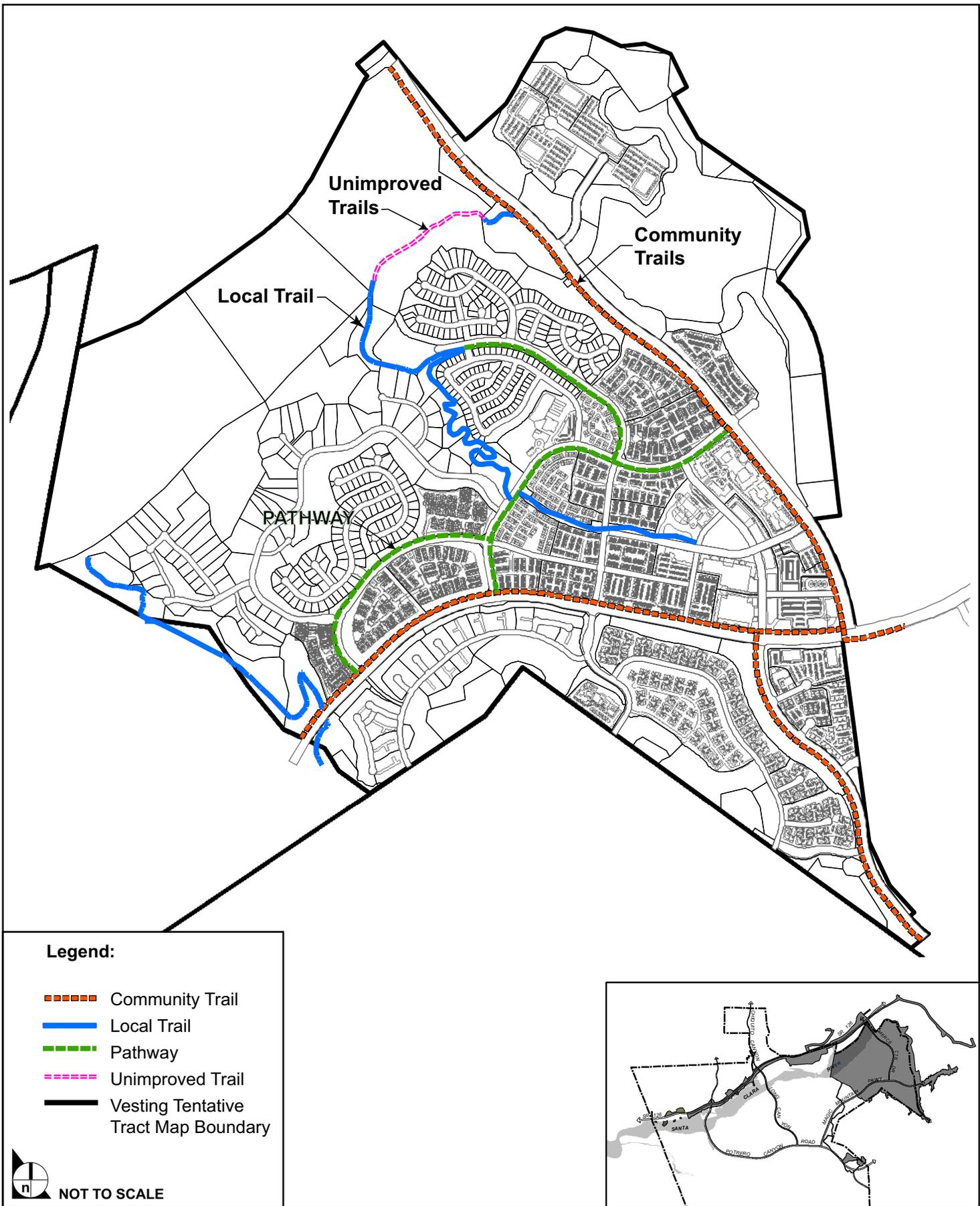
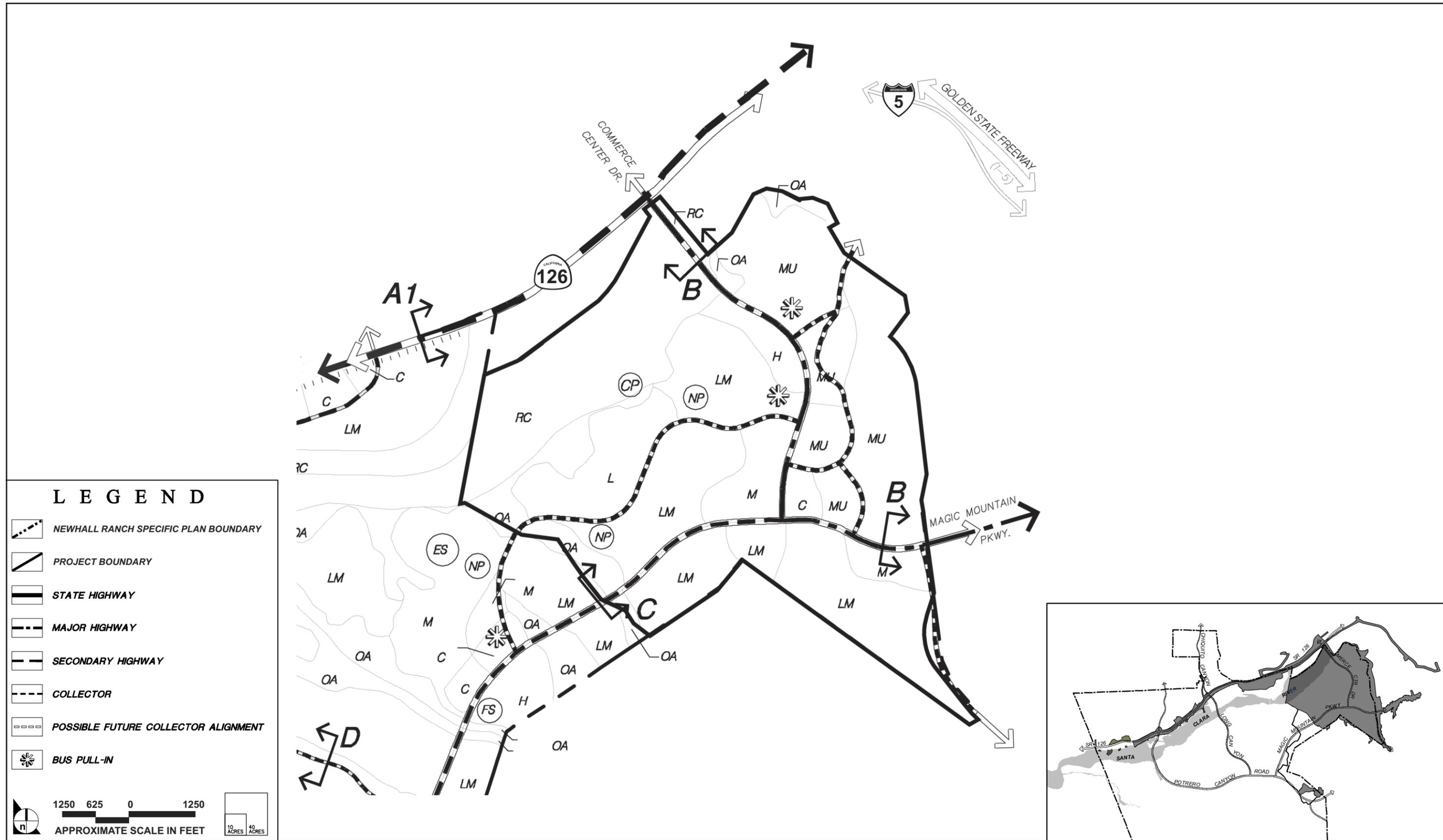


FIGURE 1.0-20

Mission Village Trails Plan



LEGEND

- NEWHALL RANCH SPECIFIC PLAN BOUNDARY
- PROJECT BOUNDARY
- STATE HIGHWAY
- MAJOR HIGHWAY
- SECONDARY HIGHWAY
- COLLECTOR
- POSSIBLE FUTURE COLLECTOR ALIGNMENT
- BUS PULL-IN

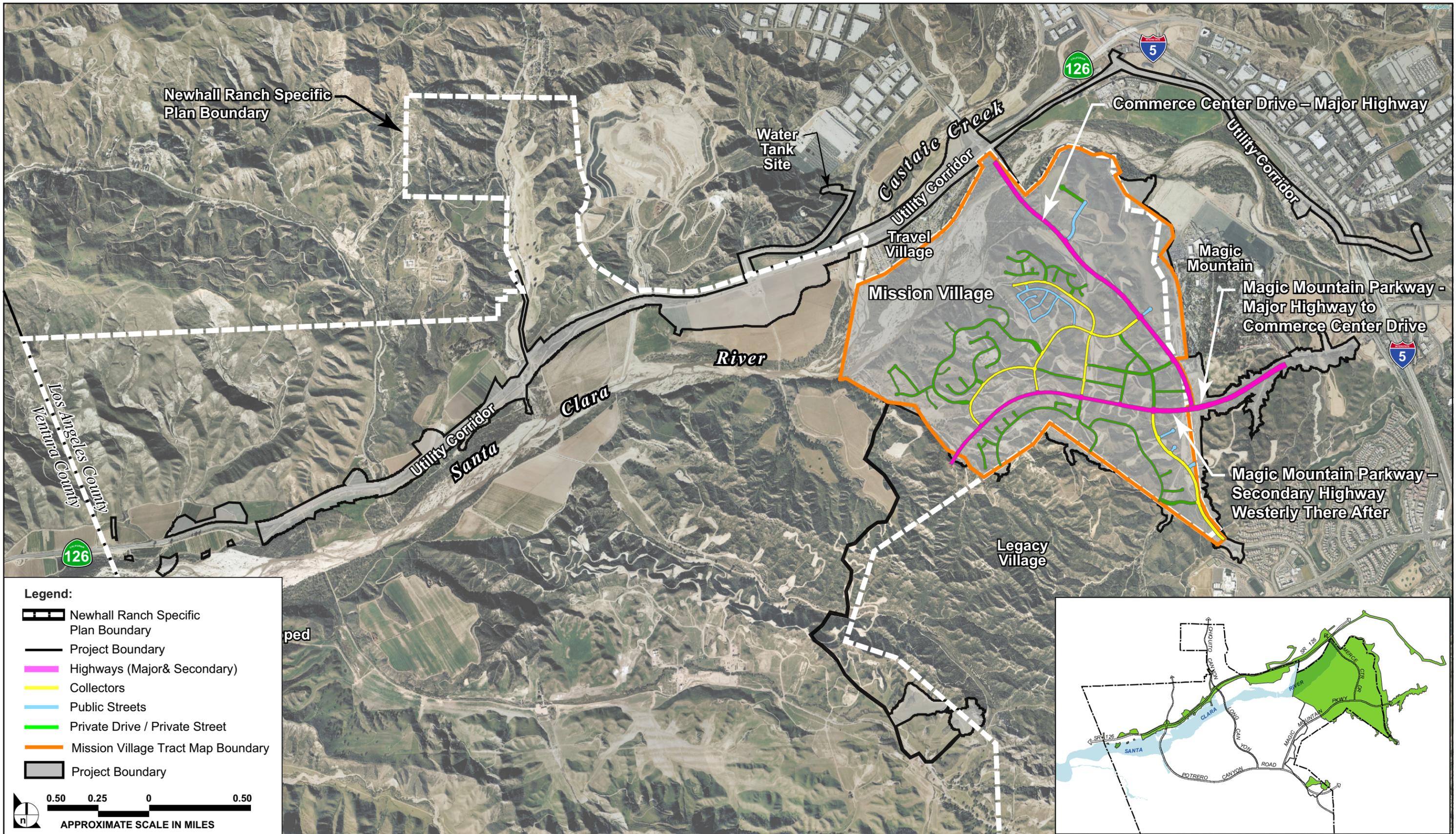
1250 625 0 1250
 APPROXIMATE SCALE IN FEET

10 ACRES 40 ACRES

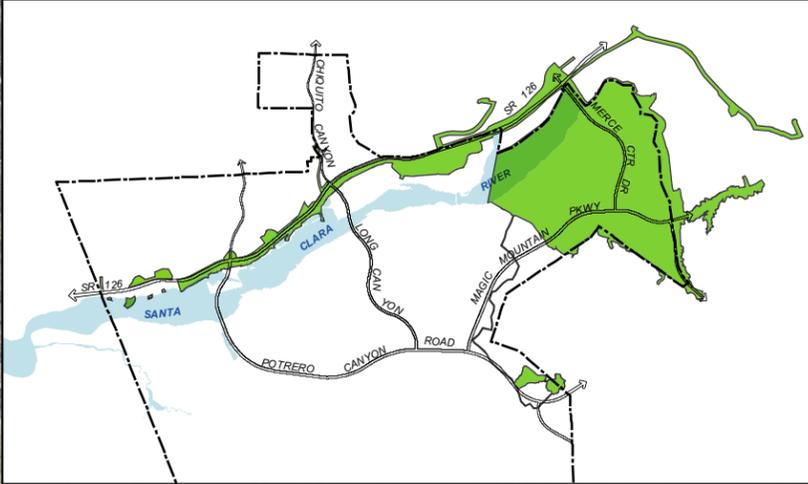
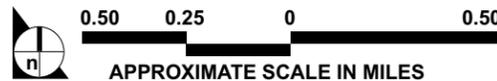
SOURCE: FORMA Exhibit 2.4-2 Master Circulation Plan – May 2003

FIGURE 1.0-21

Newhall Ranch Specific Plan Master Circulation Plan – Mission Village



- Legend:**
- Newhall Ranch Specific Plan Boundary
 - Project Boundary
 - Highways (Major & Secondary)
 - Collectors
 - Public Streets
 - Private Drive / Private Street
 - Mission Village Tract Map Boundary
 - Project Boundary



SOURCE: AirPhoto USA – 2006, Psomas - February 2010, Impact Sciences, Inc. – August 2010

FIGURE 1.0-22

Mission Village Circulation Plan

The abutments and bank stabilization areas also would be located within the River Corridor SMA/SEA 23.⁵ **Figure 1.0-23, Commerce Center Bridge**, illustrates cross-sections of the new bridge at varying locations and additional details regarding lane widths, etc.

As part of the environmental review process, the Natural River Management Plan (NRMP; August 1998) Final Environmental Impact Study (EIS)/EIR (SCH No. 1997061090), Section 404 Permit, and Section 1603 Streambed Alteration Agreement for portions of the Santa Clara River and its tributaries was approved by the USACE and CDFG. The NRMP EIS/EIR analyzed the potential environmental impacts associated with the implementation of various public improvements (bank stabilization, trails bridges, utility crossings, etc.) along and within portions of the Santa Clara River adjacent and upstream of Newhall Land properties, including the Commerce Center Drive Bridge.

Additionally, Caltrans has completed its environmental review, issued a Notice of Findings of No Significant Impact (FONSI)/Negative Declaration, and approved the construction of improvements on SR-126 at Commerce Center Drive referred to as the Commerce Center Drive Interchange Project. This action permits the construction of a grade-separated interchange at the SR-126 and Commerce Center Drive intersection, with a new overpass structure for SR-126 over Commerce Center Drive. The new interchange will provide full movements for traffic between Commerce Center Drive and SR-126. Improvements associated with this interchange include the construction of the necessary bank stabilization for the Commerce Center Drive Bridge.

(m) Drainage/Flood Control

The Mission Village project-level drainage and water quality plan is consistent with and implements the Specific Plan's approved Conceptual Backbone Drainage Plan (Exhibit 2.5-1 of the Specific Plan). The primary objective in developing the Specific Plan Backbone Drainage Plan was to identify a conceptual backbone drainage and flood protection system for Newhall Ranch, while preserving the Santa Clara River as an important natural resource. To satisfy this objective, several program-level criteria regarding the form and function of the Santa Clara River were identified early in the planning process, which formed the basis for establishing the River Corridor SMA/SEA 23. In addition, the Specific Plan established a commitment to meet the ongoing requirements of all National Pollutant Discharge Elimination System (NPDES) permits by providing drainage/water quality improvements such as water quality basins, vegetative swales, and inlet and outlet structures. The locations and sizing of such improvements were to be determined as part of the Newhall Ranch tentative subdivision map process. **Figure 1.0-24, Newhall Ranch Specific Plan Backbone Drainage Plan – Mission Village**, depicts the Specific Plan's Conceptual Backbone Drainage Plan as it relates to Mission Village.

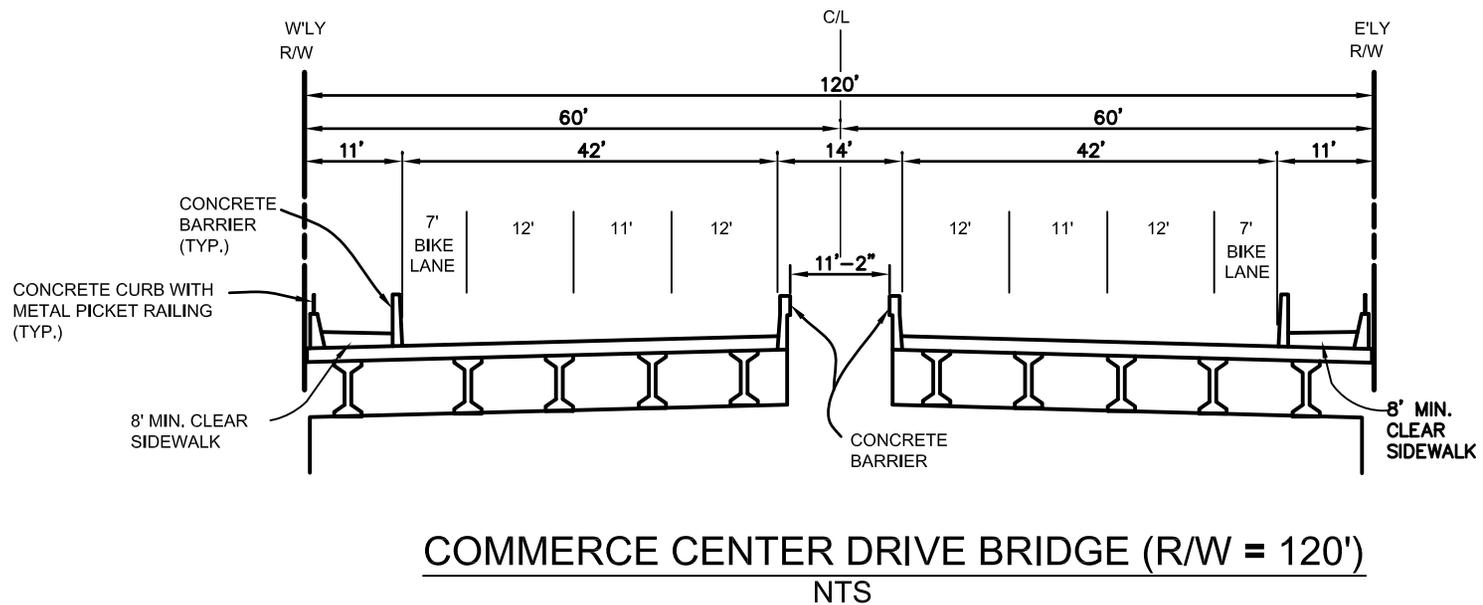
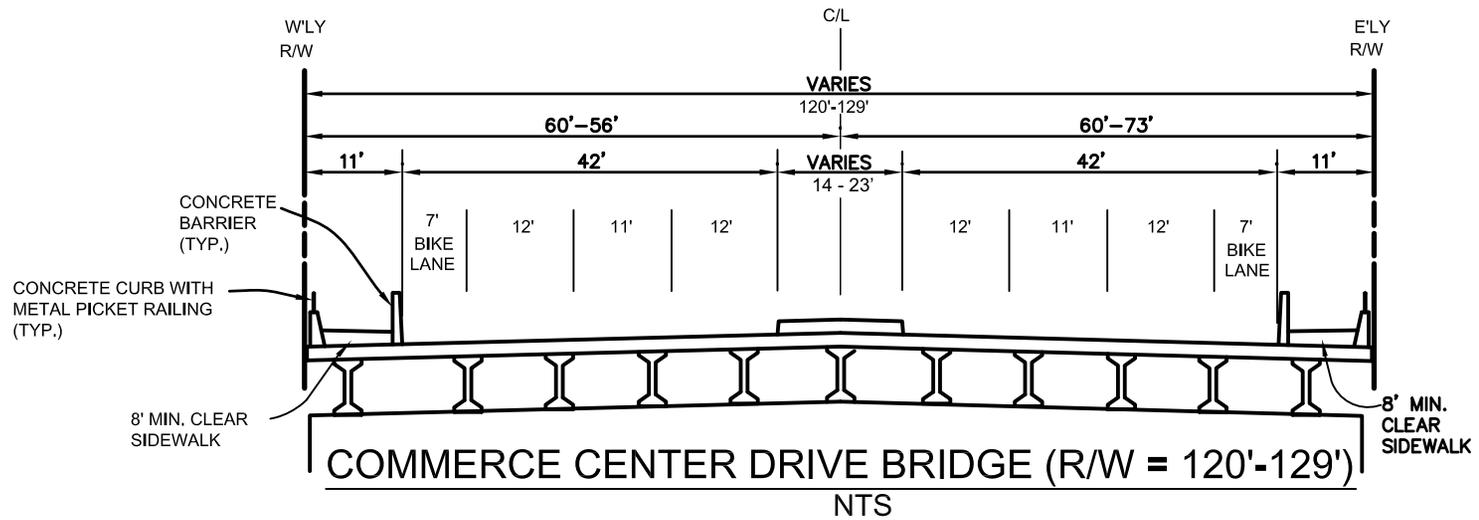
⁵ For a detailed discussion of the environmental effects of the bridge and related improvements, please see **Section 4.2, Hydrology**, and **Section 4.3, Biota**, of this EIR.

Figure 1.0-25, Mission Village Drainage and Water Quality Plan, illustrates the project's proposed drainage and water quality plan and related improvements. The plan incorporates methodologies to meet or exceed the ongoing NPDES permit requirements and conforms to the drainage and water quality requirements of the Specific Plan. The plan includes a comprehensive series of drainage, flood control, and water quality improvements designed to allow for a system to both protect development and preserve the Santa Clara River.

The proposed Mission Village drainage system would be designed to provide drainage and flood protection, and to maintain storm water flows from the project during and after buildout at a level approximately equal to or less than pre-development conditions. Project Design Features (PDFs) incorporated into the project to address water quality and hydrologic impacts include site design, source control, treatment control, and hydromodification control Best Management Practices (BMPs). As shown on **Figure 1.0-25, Mission Village Drainage and Water Quality Plan**, on-site surface run-off would be intercepted by curb, debris and/or desilting basins, and conveyed to a network of storm drains that lead to a series of treatment facilities, including water quality basins, prior to discharge into the Santa Clara River. As part of the proposed project, an off-site water quality basin covering approximately 9 acres in size would be constructed in the northeast portion of the project site, within the boundaries of Entrada; two debris basins would be constructed along the southerly tract boundary within VTTM 61996 (Legacy Village), which would be removed with construction of Legacy Village; and four debris basins would be constructed within the eastern portion of the Utility Corridor. (See **Figure 1.0-25, Mission Village Drainage and Water Quality Plan**, and **Figure 1.0-25a, Off-Site Improvements**.) In commercial areas, parking lot and roof run-off would be directed through landscaped parkways and grassy swales or through sections of porous pavement to provide infiltration and initial treatment prior to discharge into the drainage system.

Additional drainage-related improvements that would be implemented as part of the project include conveying water through underground pipes and installing energy dissipaters. In addition, the tributaries located on the Mission Village site would be modified:

- **Lion Canyon:** The Lion Canyon drainage would be stabilized with drainage treatments, including grade stabilizing measures to maintain sediment equilibrium and protect the channel bed and banks from hydromodification impacts.
- **Exxon Canyon:** The southern portion of Exxon Canyon would be graded to accommodate development on the Mission Village project site, and the seasonal flows through the drainage would be conveyed by buried storm drain.
- **Middle Canyon, Magic Mountain Canyon, Dead End Canyon:** These tributaries would be graded to accommodate Mission Village development and the seasonal flows through the drainages would be conveyed by buried storm drain.



SOURCE: Newhall Ranch Mission Village Project Summary – April 2010

FIGURE 1.0-23

Commerce Center Bridge



SOURCE: FORMA Exhibit 2.5-1 Conceptual Backbone Drainage Plan – May 2003

FIGURE 1.0-24

Newhall Ranch Specific Plan Backbone Drainage Plan – Mission Village

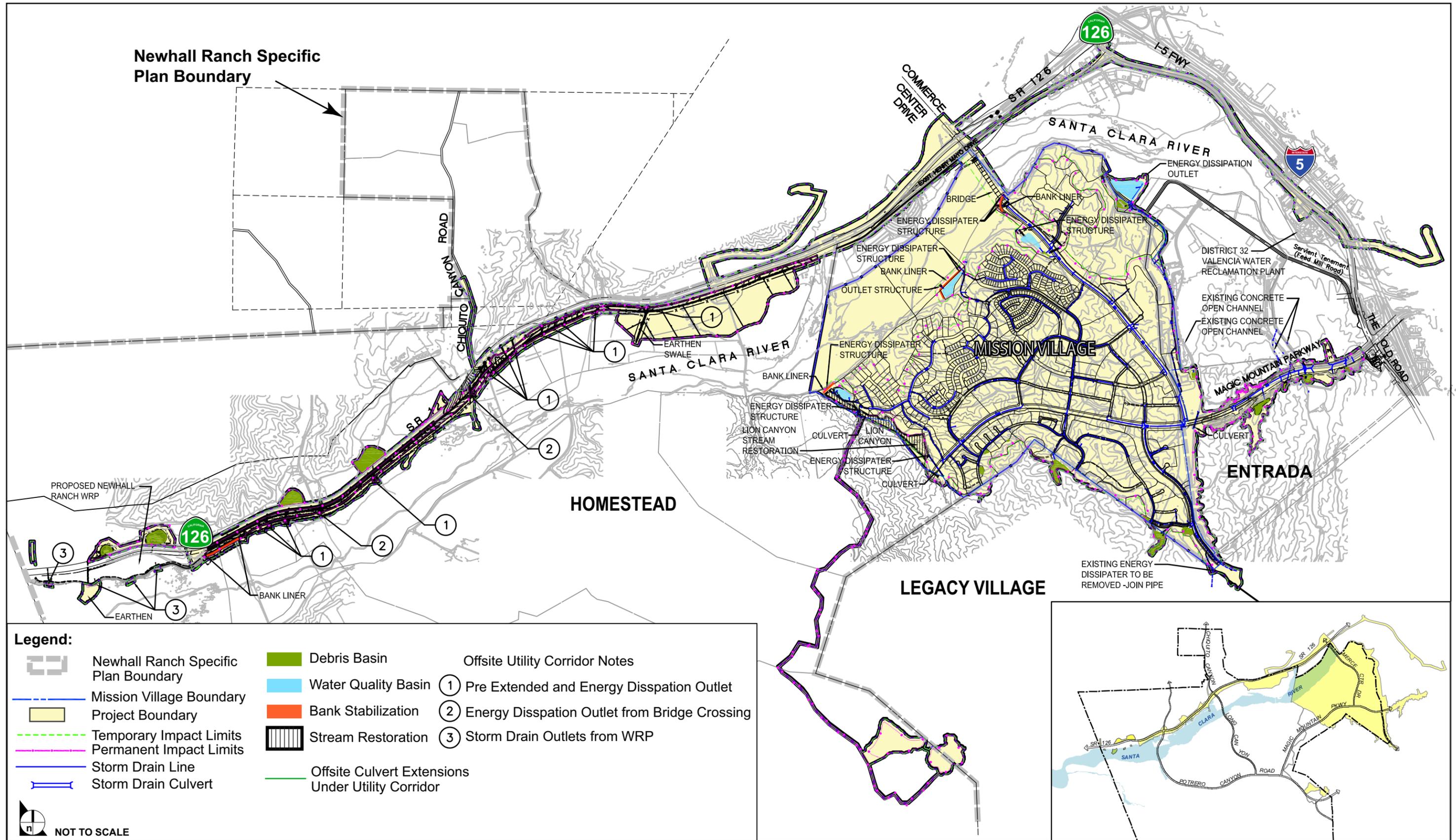
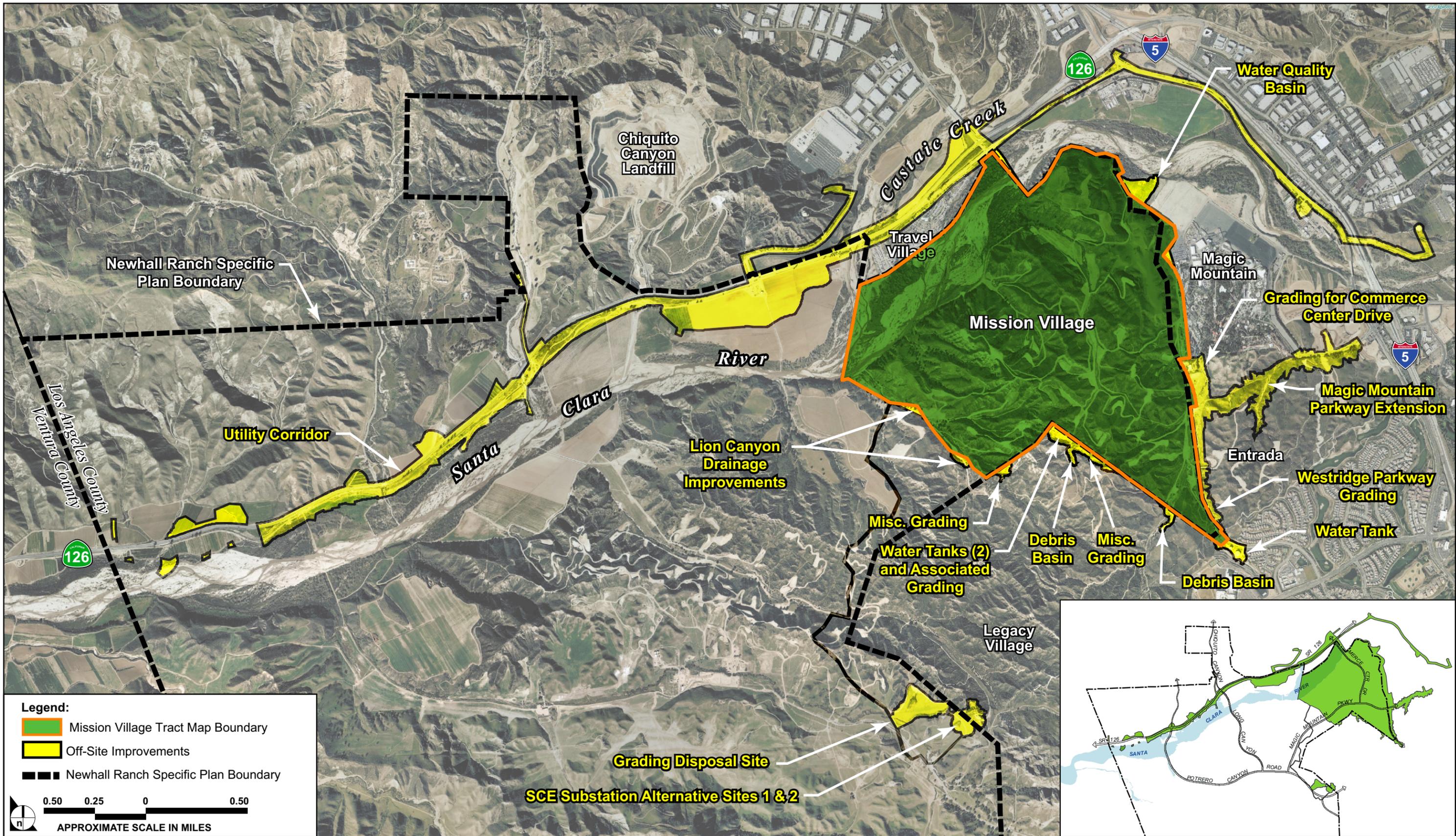


FIGURE 1.0-25

Mission Village Drainage and Water Quality Plan



SOURCE: AirPhoto USA – 2006, Impact Sciences, Inc. – May 2010

FIGURE 1.0-25a

Off-Site Improvements

- Unnamed Canyon D: A portion of Unnamed Canyon D would be graded to accommodate the Mission Village project, and the seasonal flows through the drainage would be conveyed by buried storm drain.
- Unnamed Canyon 1 and Unnamed Canyon 2: The extension of Magic Mountain Parkway would require the conversion to buried storm drains of approximately 4,647 linear feet and 416 linear feet, respectively, of existing drainages within Unnamed Canyon 1 and Unnamed Canyon 2, which are located outside the tract map site.
- Mid-Martinez Canyon and Agricultural Ditch: As part of the utility corridor improvements, approximately 410 feet of Mid-Martinez Canyon would be converted to a buried storm drain to facilitate construction of a debris basin located along the north side of SR-126. Construction of the utility corridor also would impact, though temporarily, approximately 65 feet of the Agricultural Ditch, which serves as a drainage to the Chiquita Canyon Landfill.

Please refer to **Section 4.2, Hydrology**, of this EIR for a detailed discussion of the proposed drainage improvements to be undertaken in connection with development of the proposed project. Please refer to **Section 4.22, Water Quality**, of this EIR for detailed discussion of the water quality PDFs incorporated into the project drainage concept. Please also see **Section 4.21, Floodplain Modifications**, of this EIR for additional information relative to drainage improvements.

(n) Bank Stabilization

The approved Newhall Ranch Specific Plan contemplated installation of bank stabilization along portions of the Santa Clara River to protect development from flood hazards while preserving the river as a natural resource. The approved Specific Plan contained specific criteria to be followed by projects implementing the Specific Plan (see Specific Plan [May 2003], Chapter 2, pp. 2-71 through 2-75). The environmental effects of the bank stabilization were analyzed in the certified Newhall Ranch Specific Plan Program EIR, but are further analyzed at the tract map level as part of this EIR.

Consistent with the Specific Plan, the Mission Village project proposes buried bank stabilization where necessary to protect against flooding and erosion pursuant to Federal Emergency Management Administration (FEMA) and Los Angeles County Department of Public Works' requirements. The bank stabilization is designed and would be constructed to retain the Santa Clara River's significant riparian vegetation and habitat, to allow the river to continue to function as a regional wildlife corridor, and to provide flood protection pursuant to Los Angeles County standards.

Approximately 2,150 linear feet of bank stabilization would be constructed as part of the Mission Village project on the south side of the Santa Clara River. This would include approximately 600 linear feet along the southerly abutment of the Commerce Center Drive Bridge that may not be completely buried.

An additional approximately 1,200 linear feet of soil cement bank stabilization, designed to protect the previously approved Newhall Ranch WRP, would be constructed downstream of the tract map site. The

bank stabilization related to the WRP was approved and analyzed at a project-level with the Newhall Ranch EIR.

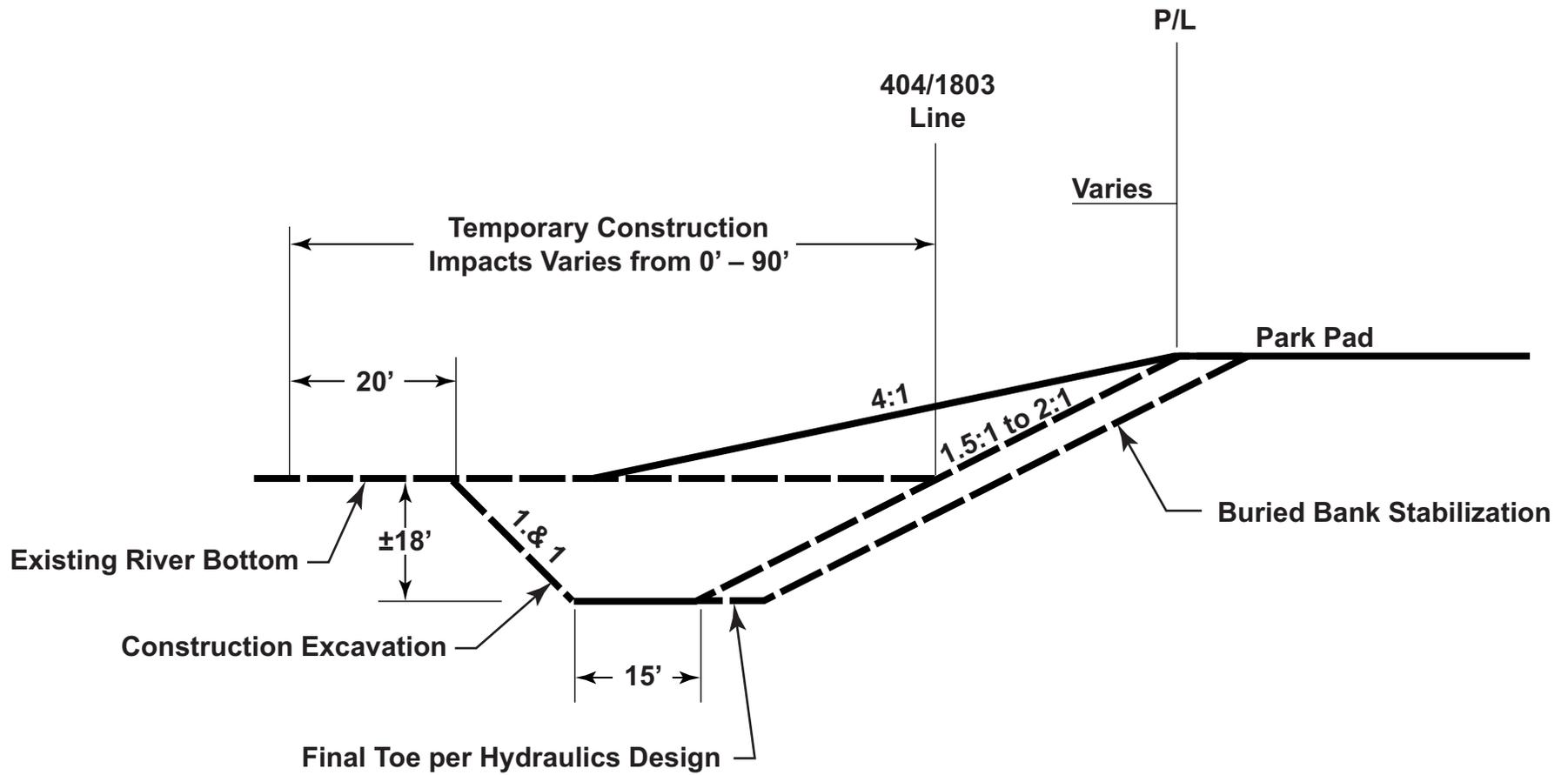
Additionally, the project includes the installation of Turf Reinforcement Mat (TRM) or a similar bank stability protection along 16,000 linear feet of the utility corridor west of the Mission Village tract map site. Finally, the project includes the installation of various stormwater outlet structures both within the tract map site and off site. (See **Figure 1.0-25, Mission Village Drainage and Water Quality Plan.**) The off-site outlet structures and energy dissipaters would be located at the outlet of Chiquito Canyon Creek, San Martinez Grande Creek, and other minor drainages and culverts across SR-126.

The project also includes the construction of buried bank stabilization between the Santa Clara River and the Old Road, north of the existing Valencia WRP. This bank stabilization was approved with the Santa Clara River NRMP and was analyzed within the certified EIR/EIS prepared for the NRMP.

Figure 1.0-26, Bank Stabilization Cross-Section, depicts an engineering design cross-section for buried bank stabilization. The buried bank stabilization approach uses either buried soil cement, ungrouted rock riprap, or concrete gunite slope lining, which is buried beneath the existing banks of the river to resist scouring. The following guidelines will be applied in selecting the proper revetment system:

- Buried soil cement bank protection will be used in situations where the stream velocities are high or where there is the potential for lateral bank migration based on stream characteristics. Alternatively, buried ungrouted riprap will be used if in situ soils do not meet soil cement design requirements.
- If there is not sufficient space to allow covering of the revetment with the earthen fill because of physical constraints such as topographic features or existing facilities, then exposed ungrouted rock riprap will be used if the velocities do not exceed the limitations of the rock.
- Locations where there are proposed bridge crossings would require that the banks underneath the bridge have concrete gunite or riprap slope protection.

The soil placed on top of the bank stabilization is replanted with native vegetation to allow the disturbed area to return to its natural condition upon completion of construction. Typically, the toe of the lining must be buried at least twice the height of the lining in order to resist scouring. Burying the toe of the lining requires temporary excavation and backfilling. The original channel elevation would be restored after construction. The area would also be replanted with native vegetation.



SOURCE: PSOMAS - June 2004

FIGURE 1.0-26

Bank Stabilization Cross-Section

Figure 1.0-27, Examples of Bank Stabilization Techniques, provides illustrations of exposed and buried bank stabilization techniques to be used in this project. This figure also depicts the relationship between the Santa Clara River, buried bank stabilization, and trail areas. The representative photographs used in this figure are taken from previously constructed projects located in the Valencia community, in which exposed and buried bank stabilization were used.

(o) Utility Corridor

The off-site Utility Corridor will include utility infrastructure to serve the Mission Village project and, ultimately, future Newhall Ranch development. The corridor will include both new utility facilities, as well as relocated existing facilities. The corridor utilities would include a gravity sewer and pressure sewer force main, and pipelines for potable water, recycled water, agricultural water, electrical power, telephone, cable television, and natural gas. See **Figures 1.0-29, 1.0-30, 1.0-32, 1.0-33, and 1.0-34** for illustrative views of the potable water infrastructure, recycled water storage system, and wastewater/sewer plan.

The utility corridor alignment generally runs east/west along SR-126 to the I-5, where the alignment turns to the south. (See **Figure 1.0-25a, Off-Site Improvements.**) The corridor alignment begins from the west at the proposed Newhall Ranch WRP near the Los Angeles/Ventura County line. The corridor generally would be located on the south side of SR-126 and would extend easterly, crossing under Martinez Grande Creek, and Chiquito Canyon Creek, through the Newhall Ranch Landmark Village (VTTM 53108) tract map site. From the Landmark Village site, the gravity sewer and force main would extend east by crossing under Castaic Creek south of SR-126. The potable and recycled water lines and the agricultural water lines would cross SR-126 to the north before crossing under Castaic Creek north of SR-126.

After crossing under Castaic Creek, the utility corridor would continue easterly, along either Hancock Parkway on the north side of SR-126 or along the south side of SR-126 adjacent to Travel Village, until the intersection of Commerce Center Drive and Henry Mayo Drive at the east end of Travel Village. At that point, the utility corridor would extend easterly along Henry Mayo Drive to The Old Road, and then continue south in The Old Road towards Magic Mountain Parkway, veering off to the southeast north of Feed Mill Road. The wastewater lines would terminate at the existing Valencia WRP #32 near the intersection of The Old Road and Rye Canyon Road. At this point, the recycled water main would continue south and east along the north bank of the Santa Clara River until it turns uphill (north) and connects to the existing Round Mountain potable water tank, which would be converted to a recycled water tank as part of this project. (See Potable Water, *infra.*)

Existing utilities located near the post office in Franklin Parkway would be extended for utility service to the Newhall Ranch WRP. Electric power, telephone, cable television, and water would be extended in Franklin Parkway and Wolcott Way and would be brought across SR-126 to the utility corridor from the existing terminus of these utilities near the post office site located approximately 3,500 feet east of Wolcott Way.

Various utilities, including potable water, recycled water, well and pipeline, gravity sewer, gas, electrical power, telephone, and cable television, also would extend from the utility corridor north across SR-126 at Chiquito Canyon Road and at San Martinez Grande Canyon Road to serve Newhall Ranch development on the north side of SR-126.

(p) Southern California Edison Substation

Depending on the timing of other development projects, Southern California Edison may require construction of a 16 kV Substation to serve the Mission Village project. There are two alternative locations for the proposed substation, both outside the boundaries of Mission Village and both approximately 1.5 acres in size. (See **Figure 1.0-25a, Off-Site Improvements.**) Alternative one would be located almost entirely within Newhall Ranch in the Potrero Valley portion of the approved Specific Plan, with a small portion of the grading encroaching into the Legacy Village project (VTTM 061996). This site would require approximately 158,000 cubic yards of cut and 45,000 cubic yards of fill. The excess dirt from this site would be placed in the existing agricultural fields in Potrero Valley. Access to the site would be provided along the existing Newhall Ranch agriculture roads. The second alternative would be located partially within Newhall Ranch in the Potrero Valley portion of the approved Specific Plan and Legacy Village (VTTM 061996) project site. This site would require 372,000 cubic yards of cut and 107,000 cubic yards of fill. The excess dirt from this site would be placed in the existing agricultural fields in Potrero Valley. Access to the site would be provided along the existing Newhall Ranch agriculture roads.

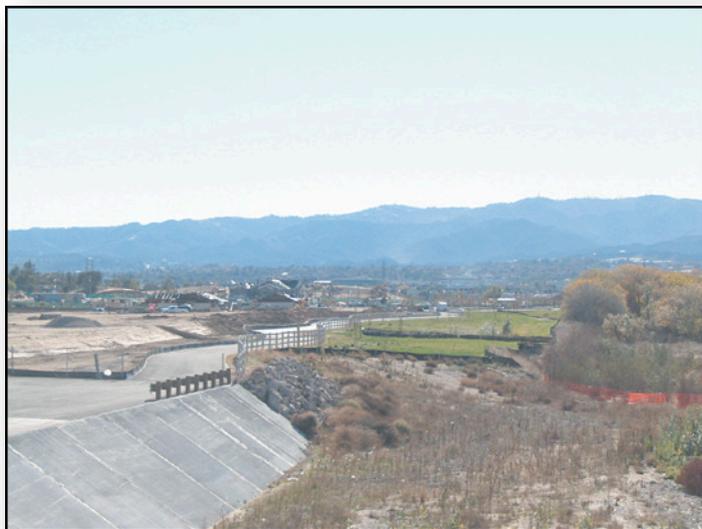
Electric service to Mission Village would be provided through 16,400 feet of temporary utility poles/lines that cross Newhall Ranch and that would be converted to permanent facilities during the buildout of Newhall Ranch. The utility poles/lines would be located along or near existing agricultural roads in order to take advantage of the area's existing topography and to minimize impacts.



Stabilization at San Francisco Creek
at the West Bank
(This photo depicts exposed bridge abutment)



Stabilization at Bridgeport
(This photo depicts
Buried Bank stabilization)



Stabilization at East Bank from
Decoro Bridge
(This photo depicts River/Buried Bank
Stabilization, Upland Preserve and a Trail)

SOURCE: PSOMAS – 2003

FIGURE **1.0-27**



Examples of Bank Stabilization Techniques

(p) Potable Water

The Mission Village project-level potable and recycled water plan is consistent with and implements the Specific Plan's approved Conceptual Backbone Water Plan. (Specific Plan Exhibit 2.5-2). This plan sets forth program-level on-site storage and water distribution systems to provide adequate water service to Newhall Ranch. The Specific Plan also committed to the provision of recycled water, to the extent available, for irrigation use. **Figure 1.0-28, Newhall Ranch Specific Plan Conceptual Backbone Water Plan – Mission Village**, depicts the Specific Plan's Conceptual Backbone Water Plan as it relates to Mission Village.

The Valencia Water Company (VWC) would provide potable water to the Mission Village project. Potable water demands will be met by using groundwater produced from the Alluvial aquifer from newly constructed replacement wells located within the Valencia Commerce Center that have been approved and permitted by the California Department of Health Services (DHS). These wells replaced older wells used for irrigation that are no longer active and have been permanently closed as directed by DHS. In August 2004, VWC received an amended water supply permit from DHS for approval and construction of four domestic water supply wells. The wells will operate by delivering water to VWC's existing Zone I system and then would be pumped into Zones II and III to meet the demands of the Mission Village project. The project would be located primarily within VWC's Zone II and Zone III water pressure zones. See, **Figure 1.0-29, Mission Village Potable Water System**.

The portion of Mission Village lying within VWC Zone II would be served by a proposed 4.0-million-gallon reservoir tank, which would be located partially on site and partially off site just south of the project boundary within VTTM 61996 (Legacy Village), and a second proposed 4.0-million-gallon reservoir tank located off-site at the existing Westridge Tank site adjacent to Westridge Parkway. (See **Figure 1.0-25a, Off-Site Improvements**.) Both reservoir tanks would be constructed as part of the proposed project. The two new reservoirs would receive water via a new 3,500-gallon-per-minute (gpm) pump station and 18-inch pipeline constructed along the extension of Commerce Center Drive. Connections are also planned with the existing Zone II water system along Magic Mountain Parkway and Westridge Parkway.

The proposed project Zone III service areas would be served by an existing 3.3-million-gallon reservoir located within the Westridge Community, southeast of the Mission Village project site. Connection to the project site would be provided by an existing Zone III line located in Westridge Parkway.

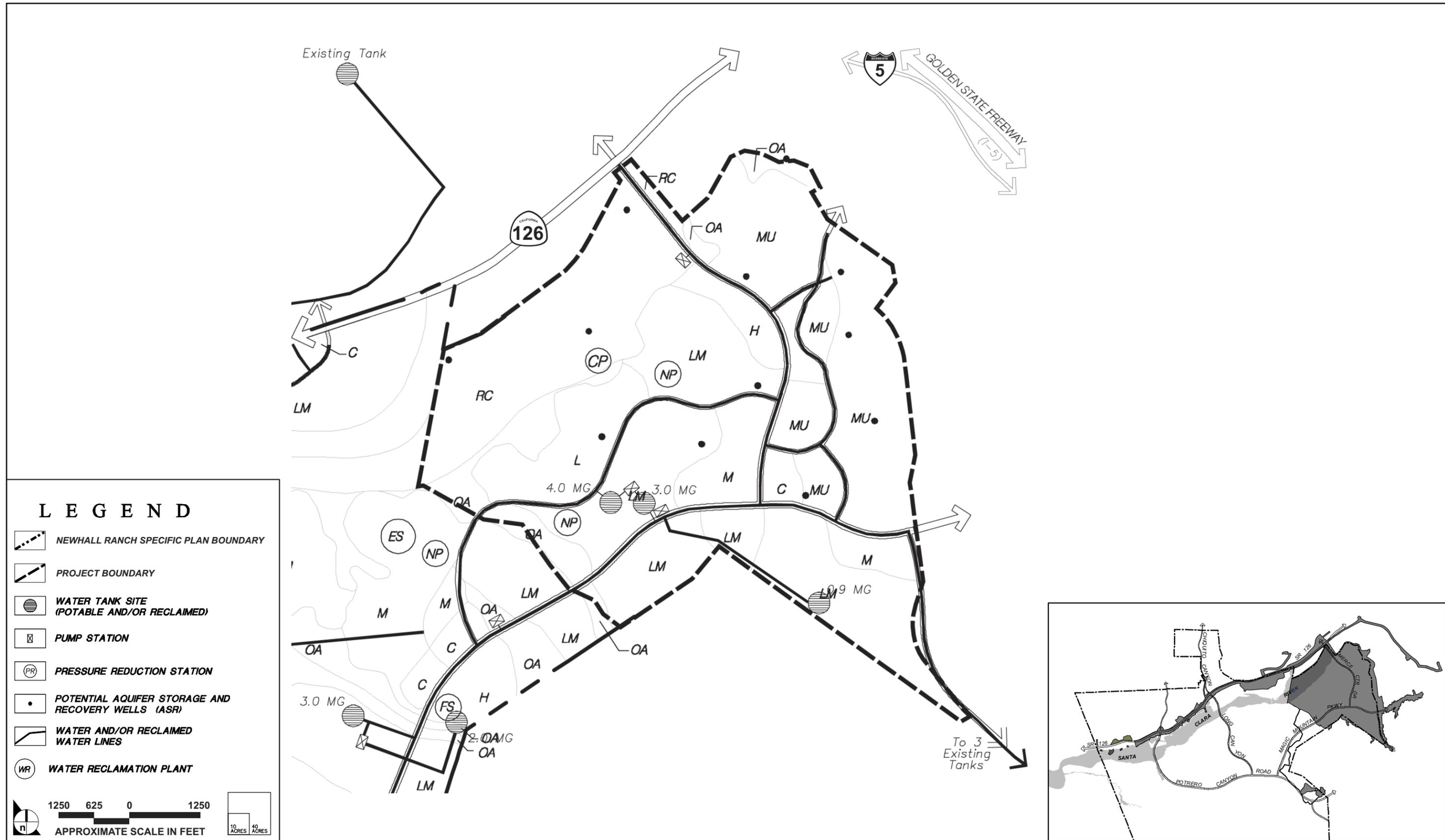
(q) Recycled Water

The project also proposes to use recycled water for landscape irrigation purposes when available. Use of recycled water would entail construction of a separate recycled water storage and distribution system from the potable system described above. **Figure 1.0-30, Mission Village Reclaimed Water System**, depicts the proposed Mission Village recycled water system.

Currently, recycled water is only available from the Valencia WRP located along The Old Road east of the project site. The long-range plan is for the future Newhall Ranch WRP and the Valencia WRP to serve the sewage and recycled water needs within Newhall Ranch. (The environmental effects of constructing and operating the Newhall Ranch WRP were evaluated at the project-level in the certified Newhall Ranch Specific Plan EIR.) The WRP's capacity would be 6.8 mgd, with a maximum flow of 13.8 mgd. The WRP would be designed to meet the standards and requirements of the Los Angeles County Department of Public Works, County Sanitation Districts of Los Angeles County (CSDLAC), and State of California relative to recycled water. A new County sanitation district has been formed, the Newhall Ranch County Sanitation District, which would include the proposed project area.

Both the Valencia and Newhall Ranch WRPs would supply recycled water to the Valencia Water Company (VWC) Zone 1 pressure zone. Zone I would have sufficient delivery capacity through a backbone pipeline to meet the recycled water needs of the entire Newhall Ranch Specific Plan. The backbone pipeline would be constructed starting at the Newhall Ranch WRP and continuing easterly along the utility corridor south of the SR-126 right of way to Castaic Creek where it would extend north under SR-126, then east crossing under Castaic Creek. The pipeline would continue easterly through Hancock Parkway then southerly on Commerce Center Drive to Henry Mayo Drive, where it would continue easterly on Henry Mayo Drive to The Old Road. At the point where Henry Mayo Drive merges with The Old Road, the pipeline would turn southerly along the right of way along The Old Road, where it would connect to the existing Valencia WRP.

The Mission Village site would be located within VWC's Zone I, Zone II and Zone III recycled water pressure zones. Water storage facilities for Zone I would be provided by 500,000 gallons of storage to be located at the Newhall Ranch WRP pump station. In addition, the existing 3.3-million-gallon Round Mountain reservoir tank, currently being used for potable water and which is located in the proposed Utility Corridor, would be converted to a non-potable recycled water tank. (See **Figure 1.0-25a, Off-Site Improvements**.) Recycled water would be supplied to this tank by installing a pipeline from the proposed project's backbone pipeline system along The Old Road and then along the Santa Clarita trails system eastward to the tank.



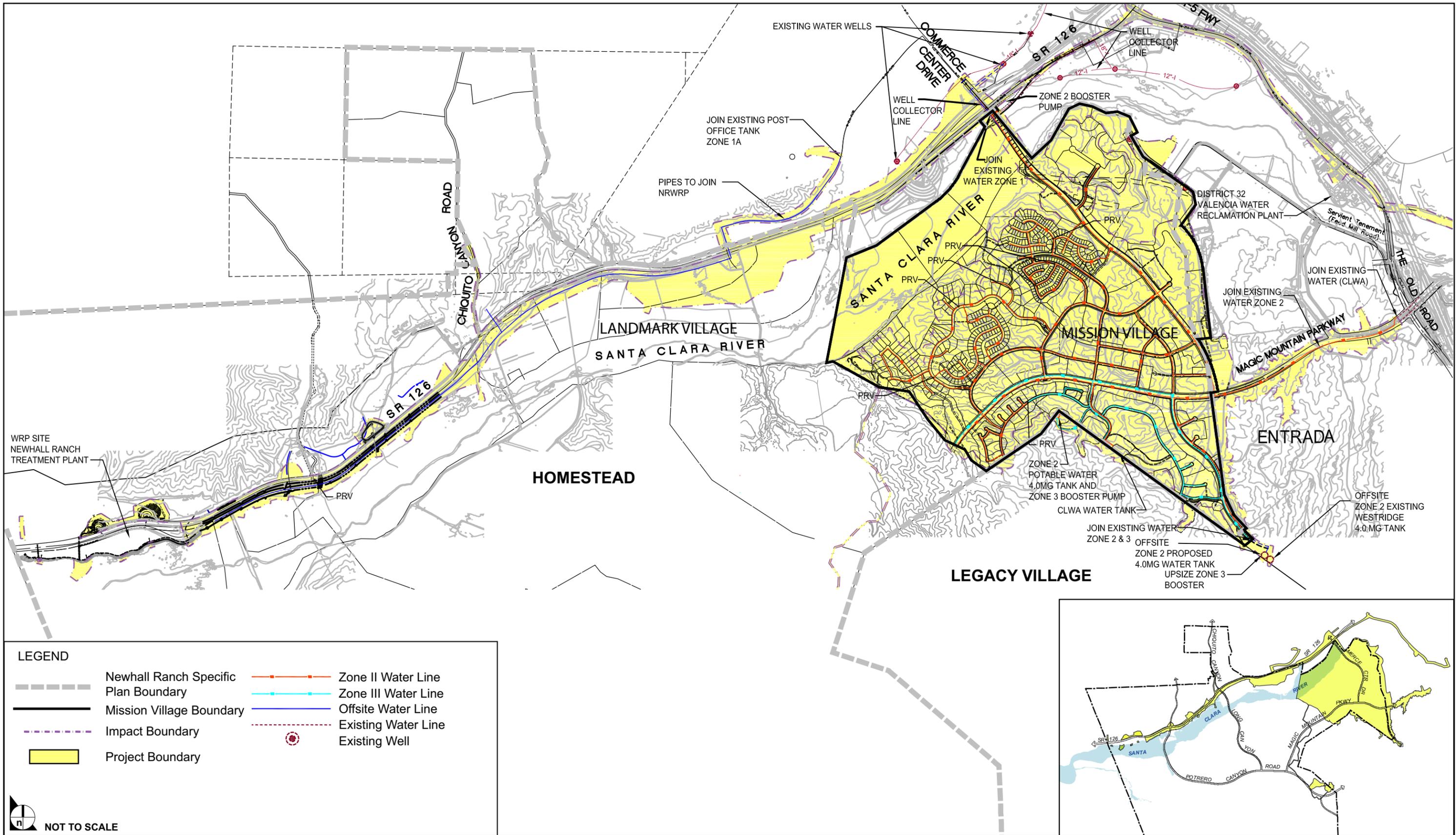
LEGEND

- NEWHALL RANCH SPECIFIC PLAN BOUNDARY
 - PROJECT BOUNDARY
 - WATER TANK SITE (POTABLE AND/OR RECLAIMED)
 - PUMP STATION
 - PRESSURE REDUCTION STATION
 - POTENTIAL AQUIFER STORAGE AND RECOVERY WELLS (ASR)
 - WATER AND/OR RECLAIMED WATER LINES
 - WATER RECLAMATION PLANT
- 1250 625 0 1250
 APPROXIMATE SCALE IN FEET
- 10 ACRES 40 ACRES

SOURCE: FORMA Exhibit 2.5-2 Conceptual Backbone Water Plan – May 2003

FIGURE 1.0-28

Newhall Ranch Specific Plan Conceptual Backbone Water Plan – Mission Village



LEGEND

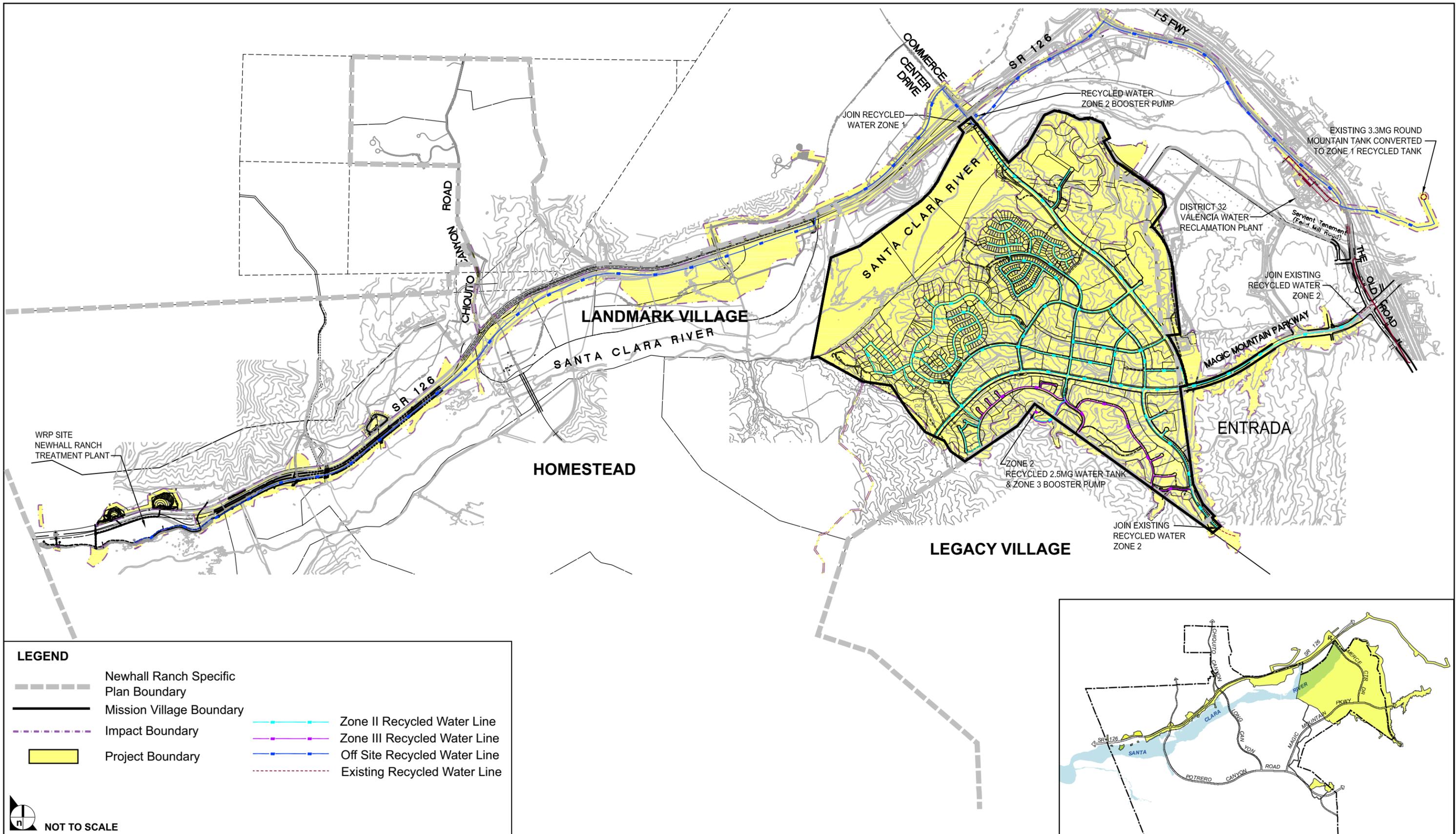
	Newhall Ranch Specific Plan Boundary		Zone II Water Line
	Mission Village Boundary		Zone III Water Line
	Impact Boundary		Offsite Water Line
	Project Boundary		Existing Water Line
			Existing Well

NOT TO SCALE

SOURCE: PSOMAS – February 2010

FIGURE 1.0-29

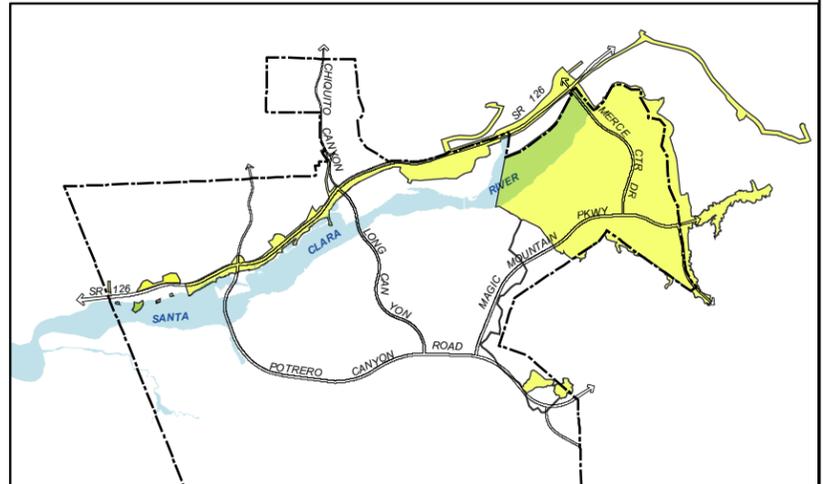
Mission Village Potable Water System



LEGEND

	Newhall Ranch Specific Plan Boundary		Zone II Recycled Water Line
	Mission Village Boundary		Zone III Recycled Water Line
	Impact Boundary		Off Site Recycled Water Line
	Project Boundary		Existing Recycled Water Line

NOT TO SCALE



SOURCE: PSOMAS – February 2010

FIGURE 1.0-30

Mission Village Reclaimed Water System

A 2.5 million gallon storage tank would be constructed along the southerly tract map boundary, partially on site and partially within VTTM 61996 (Legacy Village), to meet the storage requirements for Zone II. (See **Figure 1.0-25a, Off-Site Improvements.**) Zone II would require a pump station located at Commerce Center Drive and SR-126 to pump recycled water from Zone I to Zone II; Zone III would require a pump station to pump water from Zone II to Zone III.

To augment recycled water supplies within Zone II, two connections are planned to the Castaic Lake Water Agency (CLWA) existing Zone II recycled water system located in Magic Mountain Parkway and Westridge Parkway, with reducing stations within the project to serve lower zones.

Project improvements also would include the abandonment and relocation of one or two existing agricultural wells presently used to irrigate cultivated fields on the Mission Village project site and on other portions of Newhall Ranch. These existing wells and associated piping would be relocated/abandoned, as necessary, to continue to meet ongoing agricultural needs elsewhere on Newhall Ranch.

(r) Wastewater

The Mission Village project-level wastewater/sewer plan is consistent with and implements the Specific Plan's approved Conceptual Backbone Sewer Plan (Exhibit 2.5-3 of the Specific Plan), which sets forth a program-level system for wastewater/sewage collection for Newhall Ranch. The Specific Plan also committed that all sewer system facilities would be designed and constructed for maintenance by the County, the CSDLAC, or the new Newhall Ranch County Sanitation District, in accordance with all applicable requirements. **Figure 1.0-31, Newhall Ranch Specific Plan Conceptual Backbone Sewer Plan – Mission Village**, depicts the Specific Plan's Conceptual Backbone Sewer Plan as it relates to Mission Village.

As noted above, the long-range plan is for the Newhall Ranch WRP to be constructed to serve the sewage and recycled water needs within Newhall Ranch, including Mission Village.⁶ In the interim, several options are available to treat wastewater generated by the proposed project.

One option, as shown in **Figure 1.0-32, Mission Village Wastewater System – Scenario 1**, is to construct an initial phase of the Newhall Ranch WRP to serve the Mission Village project, with buildout of the WRP occurring over time as demand for treatment increases. Under this scenario, a network of sewer collectors, sewers pumps, and force mains would collect and convey effluent to an interceptor sewer

⁶ Upon construction of the Newhall Ranch WRP, due to gravitational limitations, a small amount of wastewater generated by the Mission Village project (approximately 0.2 million gallons per day) would need to be treated at the existing Valencia WRP, which is located approximately 0.5 mile east of the Mission Village site along The Old Road.

pipeline in the utility corridor. The interceptor sewer will convey effluent to the west in the proposed utility corridor (parallel to the SR-126 right-of-way), where it would connect to the Newhall Ranch WRP.

The second option, as shown in **Figure 1.0-33, Mission Village Wastewater System – Scenario 2**, is to construct a lift or pump station within the utility corridor in one of three potential locations, either near the northerly abutment of the proposed Commerce Center Drive bridge, or within the Landmark Village site near Long Canyon Road, or near the Newhall Ranch WRP. In either scenario, the wastewater would be pumped to the existing Valencia WRP (District No. 32), which is located approximately 0.5 mile east of the project site along The Old Road. Wastewater from the Mission Village project would continue to be pumped to the Valencia WRP until the first phase of the Newhall Ranch WRP is constructed. Under this scenario, a sanitary sewer force main would be constructed in the proposed utility corridor located south of SR-126 right-of-way, and extend along Henry Mayo Drive and would connect to an existing CSDLAC pump station near the intersection of The Old Road and Henry Mayo Drive. The existing CSDLAC pump station may require upsizing.

In the event the Commerce Center Drive Bridge is not completed at the time it becomes necessary to treat wastewater flows and, therefore, the bridge cannot support pipelines to convey effluent flows, an interim pump station would be constructed near the intersection of “GG” Street and Commerce Center Drive on the westerly side of Commerce Center Drive that would pump effluent to the existing Valencia WRP (District No. 32). **Figure 1.0-34, Mission Village Wastewater System – Scenario 3**, illustrates this option. Under this scenario, a pipeline from the interim pump station on the project site to the Valencia WRP would be constructed along Commerce Center Drive and the Magic Mountain Parkway Extension. The pipeline would connect with an existing line at the intersection of The Old Road and Magic Mountain Parkway. The existing pipeline would convey effluent to the Valencia WRP.

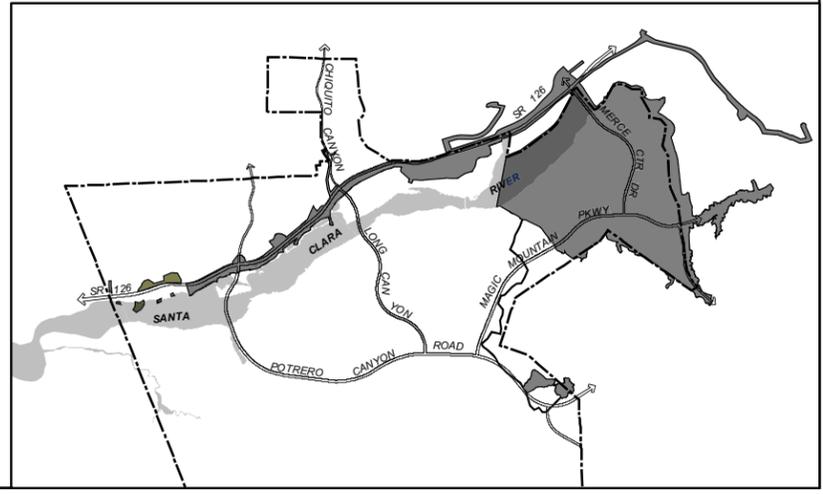
(s) Magic Mountain Parkway Extension

As part of the proposed project, Magic Mountain Parkway will be extended from its existing terminus just east of the project boundary to provide a westward thoroughfare through the project site. (See **Figure 1.0-25a, Off-Site Improvements**.) Improvements also will be made to the existing portion of the roadway lying within VTTM 53295 (Entrada), from The Old Road to the existing terminus. As part of the Magic Mountain Parkway improvements, Media Center Drive also will be realigned.



LEGEND

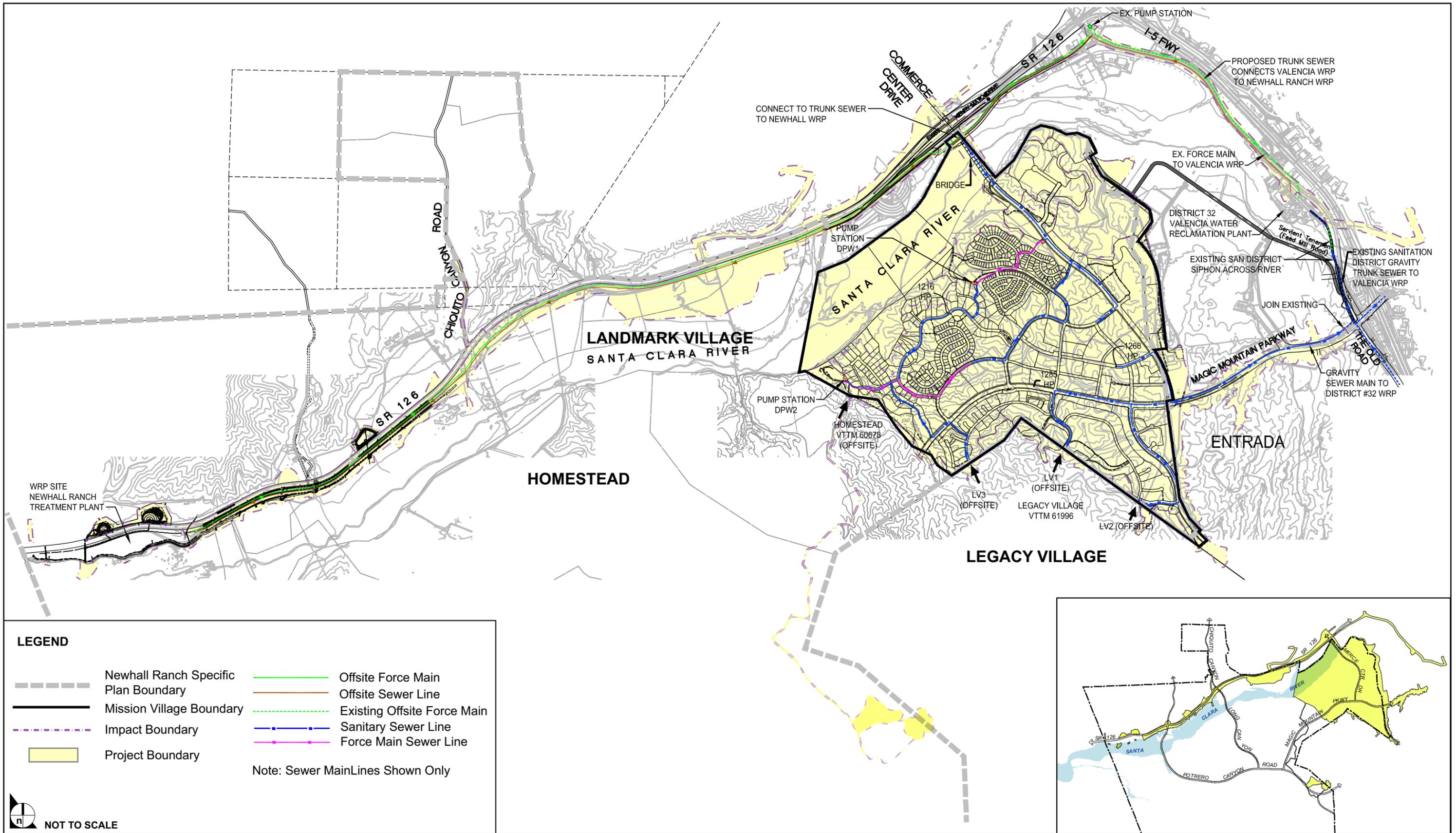
-  NEWHALL RANCH SPECIFIC PLAN BOUNDARY
-  PROJECT BOUNDARY
-  SEWER LINE SYSTEM
-  PROPOSED WATER RECLAMATION PLANT



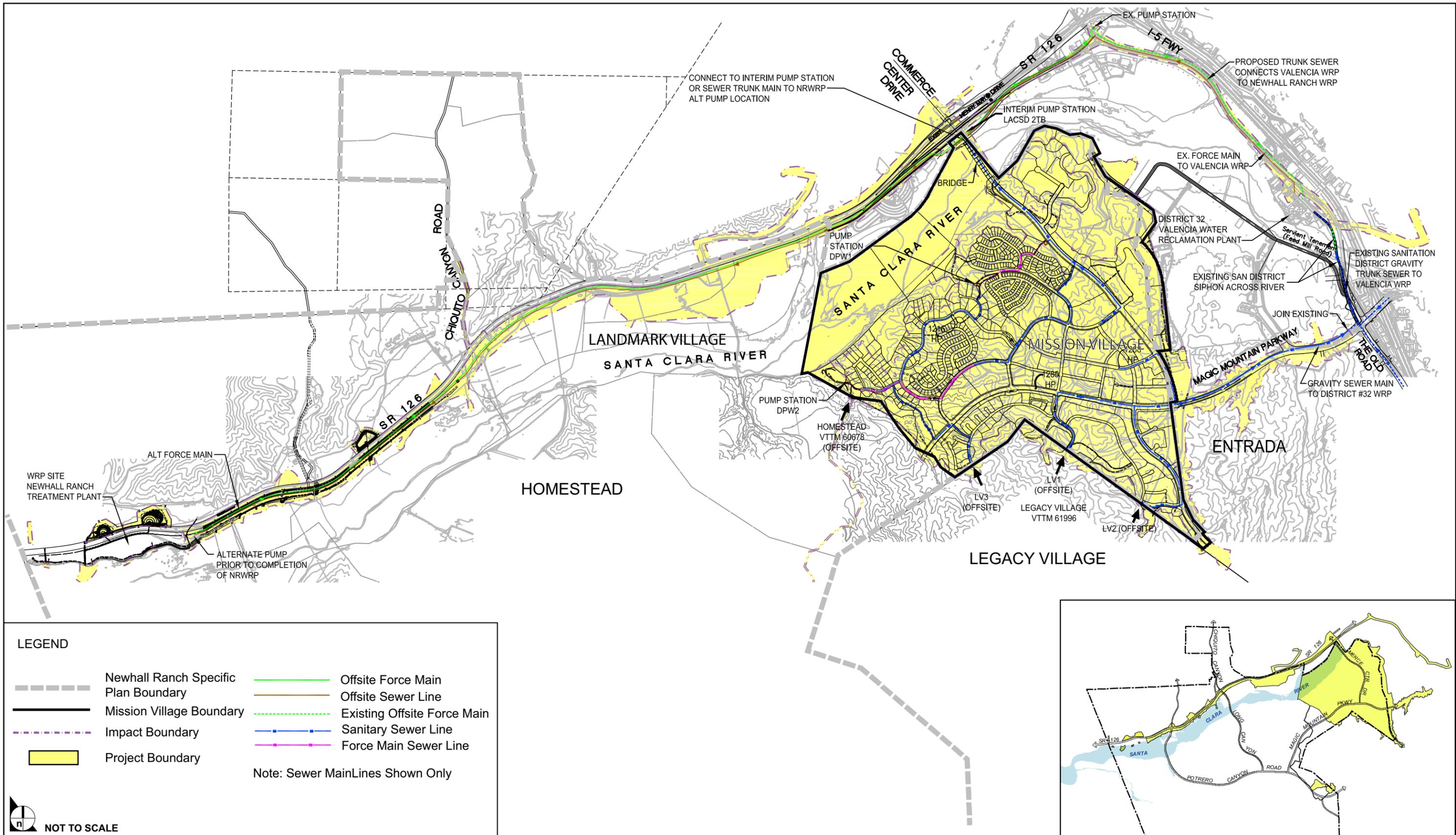
SOURCE: FORMA Exhibit 2.5-3 Conceptual Backbone Sewer Plan – May 2003

FIGURE 1.0-31

Newhall Ranch Specific Plan Conceptual Backbone Sewer Plan – Mission Village



Mission Village Wastewater System - Scenario 1



LEGEND

	Newhall Ranch Specific Plan Boundary		Offsite Force Main
	Mission Village Boundary		Offsite Sewer Line
	Impact Boundary		Existing Offsite Force Main
	Project Boundary		Sanitary Sewer Line
			Force Main Sewer Line

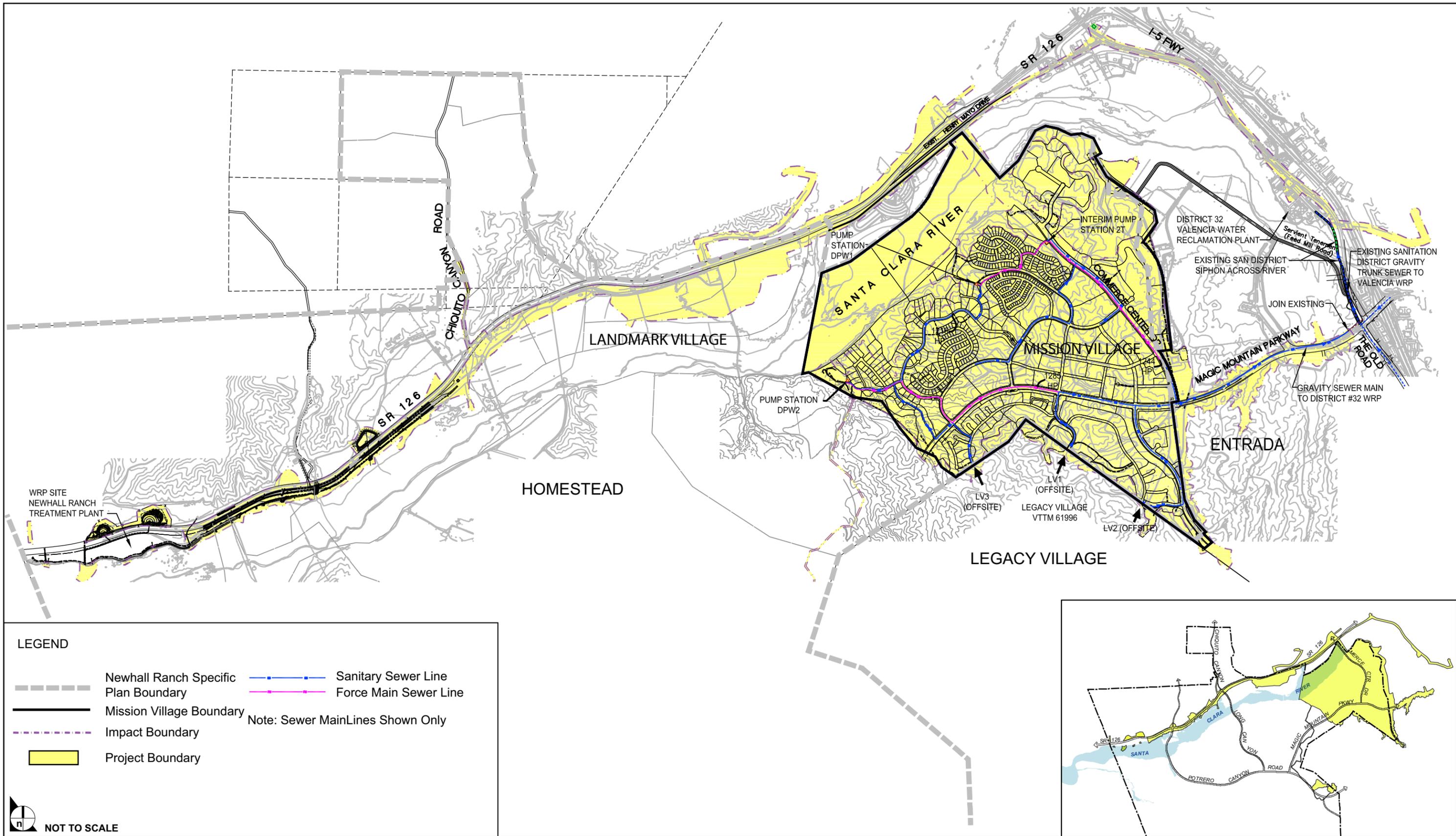
Note: Sewer MainLines Shown Only

NOT TO SCALE

SOURCE: PSOMAS - February 2010

FIGURE 1.0-33

Mission Village Wastewater System - Scenario 2



SOURCE: PSOMAS - February 2010

FIGURE 1.0-34

Mission Village Wastewater System - Scenario 3

(t) Grading

Project site grading would require the removal and recompaction of approximately a maximum of 29.9 million cubic yards of existing material in a balanced cut and fill operation. Included in this 29.9 million cubic yards is grading for the off-site Magic Mountain Parkway extension (approximately 900,000 cubic yards of cut and 500,000 cubic yards of fill, the excess to be used as fill in Mission Village), the utility corridor (approximately 618,000 cubic yards cut/fill), and Alternate 2 of the SCE Substation. Project grading would be consistent with, and would implement, the Specific Plan's approved Conceptual Grading Plan (Specific Plan Exhibit 2.7-1), and the applicable Specific Plan Design Guidelines (Specific Plan Chapter 4, Section 4.8) for grading and hillside management.

Grading specific to the Mission Village project includes mass grading for the development areas, along with fine grading for development pads. Mass grading would consist of rough grading operations that would provide for major roads and infrastructure, including off-site improvements, establish drainage patterns, and create building pads for the various land uses within the project site. Remedial grading and custom grading may also be required depending upon future site specific soils and geotechnical investigations. Graded slopes would be landscaped and irrigated pursuant to County grading and erosion control requirements. Vesting Tentative Tract Map 61105 depicts the project's ultimate grading contours as shown on the project grading plan.

Off-site grading is required at several locations to construct the off-site project components. Specifically, the proposed project would require off-site grading of the utility corridor, roadway extensions (Magic Mountain Parkway and Westridge Parkway/Commerce Center Drive; grading to occur within VTTM 53295 [Entrada]), portions of a water quality basin, and portions of a water tank site. (See **Figure 1.0-25a, Off-Site Improvements.**) A limited amount of off-site grading also will be conducted along the southerly boundary of the tract map site with VTTM 61996 (Legacy Village) in order to tie the proposed grades into natural grades. (See **Figure 1.0-25a, Off-Site Improvements.**) Additionally, it is anticipated that limited portions of the re-grading and stabilization work associated with the Lion Canyon drainage would take place outside of the Mission Village tract map site, within the future Homestead portion of Lion Canyon. (See **Figure 1.0-25a, Off-Site Improvements.**)

As described earlier, depending on the timing of other development projects, Southern California Edison may require construction of a 16 kV Substation to serve the Mission Village project. There are two alternative locations for the proposed substation, both outside the boundaries of Mission Village. Additional grading to construct either one of these sites would need to occur. Alternative one would require approximately 158,000 cubic yards of cut and 45,000 cubic yards of fill. The excess dirt from this site would be placed in the existing agricultural fields in Potrero Valley, adjacent to the construction site.

The second alternative would require 372,000 cubic yards of cut and 107,000 cubic yards of fill. The excess dirt from this site also would be placed in the existing agricultural fields in Potrero Valley.

The project-related grading also may occur in several phases, including partial grading within the tract map site. The limit of the grading phase would be established to achieve a balanced earthwork for that grading phase and may extend beyond the limits of a particular final unit map boundary to achieve a phased grading balance. An interim hydrology report would be prepared for each phased grading area and the phased grading would be protected from flooding erosion in accordance with current County standards.

b. Implementation of Smart Growth Principles

There are many different components that make a community sustainable or qualify a project as a “smart growth” project. These include a proper mix of land use, provision of jobs, design for future transit uses, provision of open space and recreation, connectivity (trails), preservation of natural areas, the reduction of impermeable surfaces, water conservation and re-use, energy conservation including the use of alternative energies (solar, wind, cogeneration, etc.), and the incorporation of green building techniques. Researchers sometimes refer to those factors that characterize urban development patterns as “D” variables, which include density of development, diversity of land uses, design (pedestrian v. vehicle-oriented), destination accessibility, and distance to transit. The D variables have a significant effect on the overall vehicle miles traveled (VMT) and vehicle trips (VT) of individuals and households, mostly through their effect on the distance people travel and the modes of travel they choose. As is evidenced below, Mission Village, as with Newhall Ranch, utilizes the D variables in a manner that incorporates the components of a sustainable or smart growth community.

1. **Mix of Land Uses.** Mission Village, along with the other villages in Newhall Ranch, will include a broad range of housing types, including affordable housing, along with commercial, office, and public facilities. Mission Village will provide a diverse range of 4,412 homes (382 single-family and 4,030 multi-family units) with densities ranging between 1 and 55 du/ac. In addition, age qualified homes will be provided for active adults age 55 plus, and a continuing care retirement community offering independent and assisted living also is included. To minimize and shorten vehicle trips, most homes will be located within walking distances to the Mission Village community’s commercial and mixed-use areas, elementary school site, community park, and trail system. Additionally, to further minimize and shorten vehicle trips, Mission Village would be located adjacent to the Valencia Commerce Center, one of the largest employment centers in the County. Bike and pedestrian trails within Newhall Ranch and Mission Village will connect to trails within the Valencia Commerce Center, thereby reducing the need for vehicle trips.
2. **Provision of Jobs.** A portion of Newhall Ranch’s approximate 20,000 new jobs would be provided through Mission Village’s mixed-use and commercial areas. Newhall Ranch is adjacent to the existing Valencia Gateway (which includes the Valencia Commerce Center), which presently provides

50,000 jobs. Other development within Valencia Gateway will create an additional 30,000 jobs. When completed, the job centers in Newhall Ranch and Valencia will result in the creation of approximately 100,000 jobs in the Santa Clarita Valley. A balanced jobs-housing base is a critical component to a sustainable community because it allows people to work close to home and minimizes vehicle miles traveled.

3. **Locating Residential Uses in Close Proximity to Commercial Services/Public Spaces.** Nearly 60 percent of the residential units in Newhall Ranch will be located within walking distance (0.5 mile) of village or commercial centers. This is true, as well, with respect to the Mission Village land plan. Residents within Mission Village will be able to utilize paseos/trails and/or the Santa Clara River Regional Trail to walk to commercial centers, private recreational facilities, the elementary school, and a community park. This traditional neighborhood design minimizes vehicle trips.
4. **Provision of Transit and Light Rail Right-of-Way.** Newhall Ranch, including Mission Village, will be part of the Santa Clarita Transit system and has been planned in a manner that will facilitate increased use of public transit. Transit improvements within Newhall Ranch will include a park-and-ride lot, a future transit station, transfer station, bus stops, and preservation of light rail right-of-way as part of the Landmark Village project. Mission Village will include bus stops and a bus transfer station. The provision of transit and the accommodation of light rail encourage residents to rely less on vehicular travel.
5. **Open Space, Recreation, and Preservation of Sensitive Resource Areas.** Newhall Ranch includes the preservation of over 10,000 acres of open space, recreation, and sensitive lands, including the High Country; Santa Clara River Corridor; Open Areas; spineflower preservation areas; and the Salt Creek area. A total of three community parks (Mission Village includes one) and up to 10 neighborhood parks will be provided as part of Newhall Ranch. Additionally, private recreation facilities will be provided throughout Newhall Ranch providing additional recreational opportunities to residents. Specific to Mission Village, the proposed project's design, including its park, open space, and preserve areas, would connect jobs, retail, schools, parks, and recreation facilities with the community's trail system to promote walking and biking while minimizing vehicle trips.
6. **Hierarchy of Trails.** Newhall Ranch will include over 50 miles of trails to encourage pedestrian mobility. Mission Village would include approximately 7.5 miles of the trails, with direct connections to residential, commercial, and park uses. This design also is intended to minimize vehicle trips.
7. **Reducing Impermeable Surfaces.** To curtail urban runoff and maximize groundwater recharge, Newhall Ranch, including Mission Village, will utilize open/soft bottom channels, smaller street sections, where possible, increased native landscape areas, and non-structural water quality treatment improvements.
8. **Water Conservation and Re-Use.** Newhall Ranch, including Mission Village, will utilize native, drought-tolerant plants in the community's landscaping, use recycled water for irrigation, and evapotranspiration controllers (i.e., weather-sensitive sprinklers) to reduce potable water demand and runoff.
9. **Traffic/Transportation Improvements.** Mission Village's traffic circulation plan, which is consistent with the overall Newhall Ranch circulation plan, would minimize vehicle trips and reduce greenhouse gas emissions through the design of internal roads in conjunction with homes, school

site, commercial areas, and trail system. Transit is included in the traditional neighborhood design, and would include a bus transfer station site and bus stops. Additionally, as part of the Specific Plan, a 5-mile right-of-way for a potential Metrolink light rail extension is accommodated along SR-126 and a park-and-ride lot would be provided. Trails and bike paths leading to close-to-home jobs, neighborhood-serving retail, and the school would encourage residents to reduce vehicle miles traveled.

(1) Economic Characteristics

The Specific Plan Program EIR analyzed the population, housing, and employment effects of the Specific Plan on the local and regional environment. As approved, the Specific Plan was found to be consistent with the population, housing, and employment projections of the County of Los Angeles General Plan and the Santa Clarita Valley Areawide Plan. In addition, the approved Specific Plan was found to be consistent with the Southern California Association of Governments' (SCAG) adopted population, housing, and employment forecasts for the region, and the Santa Clarita Valley.⁷

The Mission Village project would implement a portion of the Specific Plan by providing a mix of residential, mixed-use, commercial, school, park, recreational and open space uses on the project site. Data provided by the County of Los Angeles, Department of Regional Planning indicates that the average size of a county household is 3.17 persons per single-family household, and 2.38 persons per multi-family household. Therefore, based on the proposed project's construction of 382 single-family units and 4,030 multi-family units, the residential component of the project would result in a previously planned population increase of approximately 10,802 persons.

As part of the Specific Plan project review, a fiscal impact analysis was prepared, which showed that implementation of Newhall Ranch would result in a favorable fiscal impact on Los Angeles County and the City of Santa Clarita. After funding all essential local governmental services, annual surpluses were projected for both the County and City.⁸

The County of Los Angeles would provide public services to the project site. This would include police and fire service, flood control, library service, and wastewater service. The approval of such services to the entire Specific Plan site was considered by the County in adopting the Specific Plan. As contemplated, the project residents and businesses would generate revenue in the form of sales taxes, property taxes, fees, etc., which would be available to the County to fund public services on the site (e.g., fire and police service, flood control, library service, street maintenance, and wastewater treatment). Revenues for

⁷ For further information, please refer to Section 4.21, Population, Housing, and Employment, of the Newhall Ranch Program EIR.

⁸ For further information, please refer to Section 6.0, Fiscal Impacts, of the Newhall Ranch Program EIR and the related fiscal impacts study (Appendix 6.0).

capital improvements would also be generated by the project directly through various forms of development fees, including, but not limited to, fire facilities fees, water connection fees, wastewater connection fees, and school and library fees. Financing mechanisms for needed infrastructure improvements and supporting public service facilities could include private financing, assessment districts, landscape maintenance districts, fee districts, Mello-Roos districts, and bridge and thoroughfare fees.

(a) Affordable Housing

Section 3.10 of the adopted Newhall Ranch Specific Plan includes an Affordable Housing Program that provides for the direct inclusion of very low, low, and moderate income affordable housing opportunities within the Specific Plan area. At Specific Plan buildout, a total of 2,200 affordable dwelling units would be provided. The Affordable Housing Program includes timing mechanisms and monitoring provisions to ensure that affordable housing is provided concurrent with market rate housing. The applicant is required to identify the number and location of affordable housing units as a condition of tentative or final map approval.

The Mission Village project would set aside approximately 300 units located in the Medium Residential, High Residential, and Mixed Use land use categories as affordable housing as a part of the Newhall Ranch Specific Plan Affordable Housing Program (June 25, 2010 or as amended).

(2) Environmental Characteristics

Environmental characteristics associated with buildout of the Specific Plan were addressed by the County at the program-level in the certified Newhall Ranch Program EIR. The environmental characteristics of the Mission Village component of the Specific Plan are further analyzed at the project-specific level as part of this EIR. Please see **Section 2.0, Environmental and Regulatory Setting**, and **Section 4.0, Environmental Impact Analysis**, of this EIR.

2.0 ENVIRONMENTAL AND REGULATORY SETTING

1. PURPOSE

The following discussion of the environmental and regulatory setting addresses the physical and regulatory conditions that characterize not only the Mission Village site, but also local and regional areas in the Mission Village vicinity, as required by section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This section is tiered from the previously certified Newhall Ranch Specific Plan Program EIR, under the authority of State CEQA Guidelines, sections 15168 and 15152. It also incorporates by reference specific sections of the Newhall Ranch Program EIR in accordance with State CEQA Guidelines section 15150.

Section 2.0 of the Newhall Ranch Program EIR identified and analyzed the existing environmental and regulatory setting for the entire Newhall Ranch Specific Plan. All subsequent project-specific development plans and tentative subdivision maps must be consistent with the Newhall Ranch Specific Plan, adopted in May 2003. The project must also be in compliance with the County of Los Angeles General Plan and Santa Clarita Valley Area Plan.

2. ENVIRONMENTAL SETTING

The information presented in the Newhall Ranch Program EIR, Section 2.0, Environmental and Regulatory Setting, provides a detailed regional assessment of the area surrounding the entire Newhall Ranch Specific Plan, including the Mission Village site and related off-site improvements. This assessment is incorporated by reference. (*State CEQA Guidelines* Section 15150.)

a. Regional Setting

The Mission Village site is within the approved Newhall Ranch Specific Plan, which is located in the northern portion of unincorporated Los Angeles County, in the Santa Clara River Valley (see **Figure 1.0-1** for regional location). The Mission Village project site is within the County's Santa Clarita Valley Planning Area. The Santa Clarita Valley Planning Area is generally bound by the Los Padres and Angeles National Forest areas to the north; Agua Dulce and the Angeles National Forest to the east; the major ridgeline of the Santa Susana Mountains, which separates the Santa Clarita Valley from the San Fernando and Simi Valleys to the south; and Ventura County to the west. The proposed Mission Village project is one of the first development phases of the approved Newhall Ranch Specific Plan.

b. Local Setting

As illustrated in **Figure 1.0-3, Project Boundary/Environmental Setting**, the approximately 1,262-acre Mission Village site is generally located south of the Santa Clara River at the Commerce Center

Drive/State Route 126 (SR-126) intersection. The banks of the Santa Clara River form the northern project boundary and the Westridge development and Legacy Village (Stevenson Ranch Phase V) define the southern boundary. Magic Mountain Amusement Park abuts the project site at its eastern boundary. The City of Santa Clarita is located east of the Mission Village site just beyond Interstate 5 (I-5), approximately 1 mile from the tract map site. Surrounding land uses are described in more detail in the Newhall Ranch Program EIR. Further to the east are an existing water reclamation plant (Valencia WRP); a California Highway Patrol station; and hotels, restaurants, and service stations adjacent to I-5.

A series of improvements located off of the Mission Village tract map site is required to support the proposed uses. A description of the local setting for each off-site improvement is described below and illustrated on **Figure 1.0-25a**.

Utility Corridor: The off-site Utility Corridor will include utility infrastructure to serve the Mission Village project and, ultimately, future Newhall Ranch development. The corridor will include both new utility facilities, as well as relocated existing facilities. The corridor utilities would include a gravity sewer and pressure sewer force main, and pipelines for potable water, recycled water, agricultural water, electrical power, telephone, cable television, and natural gas.

The utility corridor alignment generally would run east/west along SR-126 to the I-5, where the alignment turns south. (See **Figure 1.0-25a, Off-Site Improvements**.) The corridor alignment begins from the west at the proposed Newhall Ranch WRP near the Los Angeles/Ventura County line. The corridor generally would be located on the south side of SR-126 and would extend easterly, crossing under Martinez Grande Creek, and Chiquito Canyon Creek, through the Newhall Ranch Landmark Village (VTTM 53108) tract map site. From the Landmark Village site, the gravity sewer and force main would extend east by crossing under Castaic Creek south of SR-126. The potable and recycled water lines and the agricultural water lines would cross SR-126 to the north before crossing under Castaic Creek north of SR-126.

After crossing under Castaic Creek, the utility corridor would continue easterly, along either Hancock Parkway on the north side of SR-126 or along the south side of SR-126 adjacent to Travel Village, until the intersection of Commerce Center Drive and Henry Mayo Drive at the east end of Travel Village. At that point, the utility corridor would extend easterly along Henry Mayo Drive to The Old Road, and then continue south in The Old Road towards Magic Mountain Parkway, veering off to the southeast north of Feed Mill Road. The wastewater lines would terminate at the existing Valencia WRP #32 near the intersection of The Old Road and Rye Canyon Road. At this point, the recycled water main would continue south and east along the north bank of the Santa Clara River until it turns uphill (north) and connects to the existing Round Mountain potable water tank, which would be converted to a recycled water tank as part of this project.

Southern California Edison Substation: Depending on the timing of other development projects, Southern California Edison may require construction of a 16-kilovolt (kV) substation to serve the Mission Village project. There are two alternative locations for the proposed substation, both outside the boundaries of Mission Village and both approximately 1.5 acres in size. (See **Figure 1.0-25a, Off-Site Improvements.**) Alternative one would be located almost entirely within Newhall Ranch in the Potrero Valley portion of the approved Specific Plan, with a small portion of the grading encroaching into the Legacy Village project (VTTM 061996). This site would require approximately 158,000 cubic yards of cut and 45,000 cubic yards of fill. The excess dirt from this site would be placed in the existing agricultural fields in Potrero Valley. Access to the site would be provided along the existing Newhall Ranch agriculture roads. The second alternative would be located partially within Newhall Ranch in the Potrero Valley portion of the approved Specific Plan and Legacy Village (VTTM 061996) project site. This site would require 372,000 cubic yards of cut and 107,000 cubic yards of fill. The excess dirt from this site would be placed in the existing agricultural fields in Potrero Valley. Access to the site would be provided along the existing Newhall Ranch agriculture roads.

Magic Mountain Parkway Extension: As part of the proposed project, Magic Mountain Parkway will be extended from its existing terminus just east of the project boundary to provide a westward thoroughfare through the project site. (See **Figure 1.0-25a, Off-Site Improvements.**) Improvements also will be made to the existing portion of the roadway lying within VTTM 53295 (Entrada), from The Old Road to the existing terminus. As part of the Magic Mountain Parkway improvements, Media Center Drive also will be re-aligned.

Water Quality Basin: As part of the proposed project, an off-site water quality basin would be constructed within the boundaries of VTTM 53295/Entrada, in the northeast portion of the project site. (Please refer to **Figure 4.2-5, Mission Village Drainage and Water Quality Plan.**)

Water Tanks: As part of the project, three water tanks would be constructed off-site (portions of two would be located on site) in the southern portion of the project site within VTTM 61996/Legacy Village (formerly referred to as Stevenson Ranch Phase V). (Please refer to **Figure 1.0-25a.**)

Off-Site Grading: Off-site grading is required at several locations to construct the off-site project components. Specifically, the proposed project would require off-site grading of the utility corridor, roadway extensions (Magic Mountain Parkway and Westridge Parkway/Commerce Center Drive; grading to occur within VTTM 53295 [Entrada]), portions of a water quality basin, portions of a water tank site. (See **Figure 1.0-25a, Off-Site Improvements.**) A limited amount of off-site grading also will be conducted along the southerly boundary of the tract map site with VTTM 61996 (Legacy Village) in order to tie the proposed grades into natural grades. (See **Figure 1.0-25a, Off-Site Improvements.**)

Additionally, it is anticipated that limited portions of the re-grading and stabilization work associated with the Lion Canyon drainage would take place outside of the Mission Village tract map site, within the future Homestead portion of Lion Canyon. (See **Figure 1.0-25a, Off-Site Improvements.**)

Surrounding land uses are described in detail in the Newhall Ranch Specific Plan Program EIR.

c. Public Services

The Newhall Ranch Program EIR addresses the wholesale water agency, Castaic Lake Water Agency, and local retail water purveyors in Santa Clarita Valley, including Valencia Water Company. Valencia Water Company is also identified as the local retail water purveyor for the Mission Village site. The project proposes to use reclaimed water for landscape irrigation purposes when available. This entails construction of a separate reclaimed water storage and distribution system from the potable system. Please refer to this EIR, **Section 1.0, Project Description**, for additional information regarding the potable and reclaimed water storage and distribution systems. Please also refer to this EIR, **Section 4.8, Water Service**, for additional information regarding water supply and demand and related issues.

In addition, the Newhall Ranch Program EIR provides a complete description of wastewater disposal, sheriff and fire protection services, area school districts, library services, and park and recreation facilities for the entire Specific Plan site. Such services are discussed further below in the context of the proposed Mission Village project.

With respect to wastewater disposal, as noted in **Section 1.0, Project Description**, the long-range plan is for the Newhall Ranch WRP to be constructed to serve the sewage and recycled water needs within Newhall Ranch. In the interim, several options are available to treat wastewater generated by the proposed project.

One option, as shown in **Figure 1.0-32, Mission Village Wastewater System – Scenario 1**, is to construct an initial phase of the Newhall Ranch WRP to serve the Mission Village project, with buildout of the WRP occurring over time as demand for treatment increases. Under this scenario, a network of sewer collaterals and collectors would collect and convey effluent to the west in the proposed utility corridor (parallel to the SR-126 right-of-way), where it would connect to Newhall Ranch WRP.

The second option, as shown in **Figure 1.0-33, Mission Village Wastewater System – Scenario 2**, is to construct a lift or pump station within the utility corridor in one of two potential locations, either near the northerly abutment of Commerce Center Drive or near the Newhall Ranch WRP. In either scenario, the wastewater would be pumped to the existing Valencia WRP (District No. 32), which is located approximately 0.5 mile east of the project site along The Old Road. Wastewater from the Mission Village

project would continue to be pumped to the District No. 32 treatment facility until the first phase of the Newhall Ranch WRP is constructed. Under this scenario, a pipeline from the pump station to the Valencia WRP would be constructed along Henry Mayo Drive and would connect to an existing Los Angeles County Sanitation District (LACSD) pump station near the intersection of The Old Road and Henry Mayo Drive. The existing pump station may require upsizing.

In the event the Commerce Center Drive Bridge is not completed at the time it becomes necessary to treat wastewater flows and, therefore, the bridge cannot support pipelines to convey effluent flows, an interim pump station would be constructed near the intersection of "GG" Street and Commerce Center Drive on the westerly side of Commerce Center Drive that would pump effluent to the existing Valencia WRP (District No. 32). **Figure 1.0-34, Mission Village Wastewater System – Scenario 3**, illustrates this option. Under this scenario, a pipeline from the interim pump station on the project site to the Valencia WRP would be constructed along the Magic Mountain Parkway Extension and would connect with an existing line at the intersection of The Old Road and Magic Mountain Parkway.

As to police and fire protection services, the proposed Mission Village project site would be served by the County of Los Angeles Sheriff's Department, while the California Highway Patrol would provide traffic regulation, enforcement, and other services on I-5, SR-126, SR-14, and other major roadways in unincorporated Los Angeles County. Please refer to this EIR, **Section 4.11, Sheriff Services**, for additional information regarding the provision of such services on the site. Fire protection and emergency medical response services for the Mission Village site would be provided by the Los Angeles County Fire Department. Please refer to this EIR, **Section 4.12, Fire Protection Services**, for additional information regarding the provision of such services on the site.

With respect to schools, the Mission Village project would be served by the Newhall and Saugus School Districts for elementary school education, while the William S. Hart Union High School District would provide junior and high school education. Please refer to this EIR, **Section 4.13, Education**, for additional information regarding educational services.

Library services for the project site would be provided by the County of Los Angeles Public Library system. Please refer to this EIR, **Section 4.15, Library Services**, for additional information regarding library services.

Parks and recreation would be provided on the project site. Additionally, several other existing and proposed parks and recreational facilities are located within proximity to the site. Please refer to this EIR, **Section 4.14, Parks and Recreation**, for additional information regarding parks and recreational facilities and services.

d. Site Characteristics

The northeast portion of the Mission Village tentative tract map site is used presently for agricultural purposes; the site contains 160.7 acres of Prime Farmland. The rest of the site is primarily open space, with remnants of abandoned oil and gas operations dispersed throughout the project site (**Figure 2.0-1, Existing Land Use**).

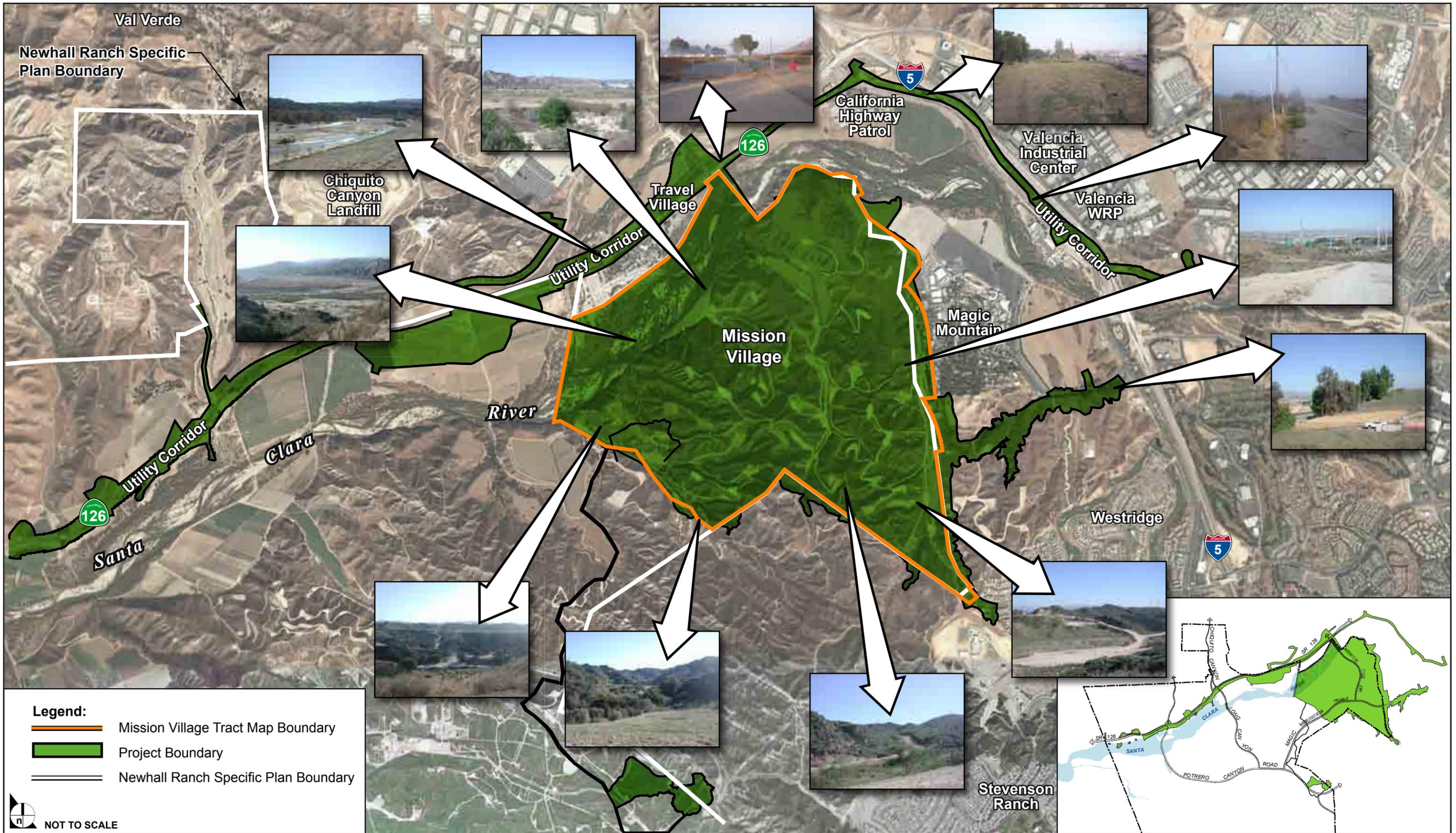
(1) Geotechnical Resources

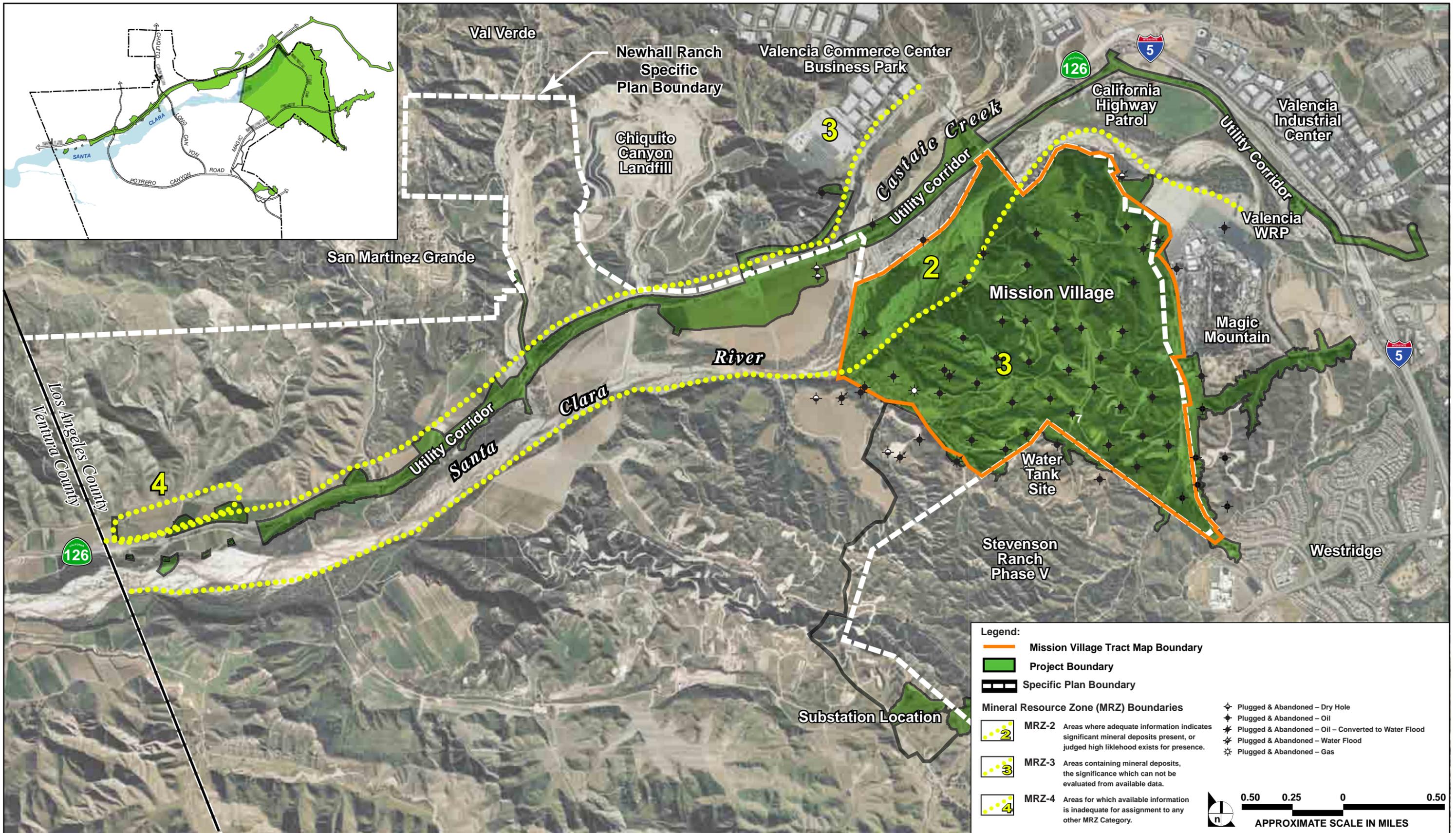
The Mission Village project site is located in the tectonically active Traverse Ranges of Southern California and is underlain by sedimentary rock of the Saugus Formation. Alluvium is present in the larger drainage areas and slope wash layers on most of the site.

As shown on **Figure 2.0-2, Mineral Resources Zone including Plugged and Abandoned Oil Wells**, the Mission Village site is also underlain by mineral and gravel deposits. The California Department of Conservation, Division of Mines and Geology categorizes the site as both Mineral Resource Zones MRZ-2 and MRZ-3. MRZ-2 indicates that information exists identifying a substantial deposit of mineral and/or gravel resources in this area. MRZ-3 are areas that contain mineral deposits, although the significance of these deposits cannot be evaluated from the data available. Please refer to **Section 4.1, Geotechnical and Soil Resources**, and **Section 4.18, Mineral Resources**, for additional information on existing geotechnical, soil and mineral resources on the Mission Village site. Oil well sites are discussed in detail in **Section 4.19, Environmental Safety**.

(2) Biology

The Mission Village project site has been disturbed by historic and ongoing agriculture activity; however, there are existing sensitive biological resources and habitat types on the project site and within its vicinity. On-site vegetation communities vary depending upon their location on the project site. In addition to disked farm fields, habitat communities include, among others, non-native grassland, upland scrub habitat and sensitive riparian habitat located primarily in areas adjacent to and within the Santa Clara River to the north of the project site. Vegetation on the site ranges from annual grasses to chaparral, with oak trees common in canyon areas and locally occurring on the north-facing slopes. Additionally, the Mission Village project includes a 65.7-acre Spineflower Preserve situated in the northeast portion of the project site. **Figure 1.0-18, Spineflower Preserve**, depicts the location of the preserve in relation to the project site. The boundaries of the preserve have been delineated in consultation with the County and California Department of Fish and Game, and have been configured to ensure the continued existence of the species in perpetuity.





SOURCE: AirPhoto USA – 2006, State of California Department of Conservation, Division of Oil, Gas and Geothermal Resources - January 2004, Impact Sciences, Inc. – August 2010

FIGURE 2.0-2

Mineral Resources Zone including Plugged and Abandoned Oil Wells

As mentioned above, the Santa Clara River forms the northern boundary of the Mission Village tract map site. The river area is located within the approved Specific Plan River Corridor Special Management Area (SMA), which is also designated as part of the County's Significant Ecological Area (SEA) 23. The approved River Corridor SMA/SEA 23 area located in the northern portion of the project site was protected at the Specific Plan level because of the resource values present in that designated area. The area includes riparian habitats and associated species; and it also functions as a regional east/west wildlife movement corridor.

In conjunction with approval of the Specific Plan, the Los Angeles County Board of Supervisors approved a program-level SEA Conditional Use Permit (SEA CUP). The approved SEA CUP (a) adjusted the existing boundaries of the County's original SEA 23 boundaries, consistent with General Plan policies requiring protection of natural resources within SEAs and (b) allowed Specific Plan development within the River Corridor SMA/SEA 23 boundaries. The Specific Plan development includes three bridge crossings, including the Commerce Center Road Bridge, buried and exposed bank stabilization, trails, and development on mostly agricultural land within the approved River Corridor SMA/SEA 23 area. The applicant is seeking a project-level SEA CUP for proposed development associated with the Mission Village project within the River Corridor SMA/SEA 23 in order to ensure consistency with both the adopted Specific Plan and the approved program-level SEA CUP.

Please refer to **Section 4.3, Biota**, of this EIR for additional information on the existing sensitive biological resources on the Mission Village site, along with the consistency analysis for project-level development within the approved River Corridor SMA/SEA 23 area of the proposed project.

(3) Topography

Slopes range from gentle in the mesa and canyon floor areas to very steep along the Santa Clara River bluffs and near very resistant sandstone bedrock outcrops. The site topography is dominated by the north-trending Lion Canyon on the western margin of the site and the Magic Mountain Canyon on the eastern margin of the site. Located mid-site are Middle Canyon and Dead End Canyon, which lie between these two drainages. These canyons drain northward into the Santa Clara River, which is located parallel to the northern perimeter of the project site. Elevated flat lands are present on the northern portion of the site in the vicinity of Airport Mesa and Exxon Mesa. Below the elevated flat lands are old, uplifted stream and fan deposits. Elevations on the site range from 850 feet above sea level along the Santa Clara River to a high point of 1,510 feet above sea level. (**Figure 2.0-3, On-Site Topography**).

(4) Drainage Characteristics

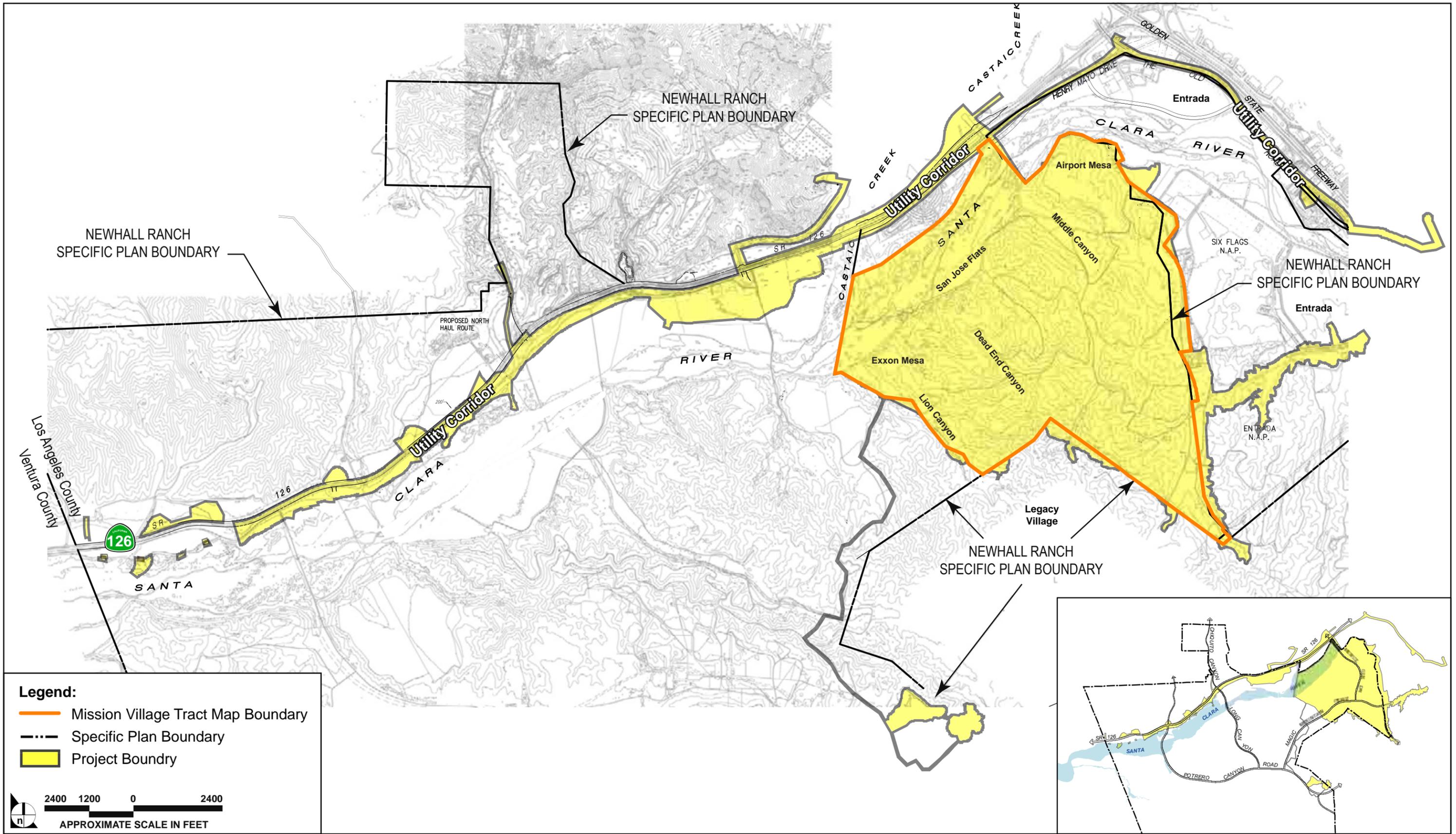
The Mission Village site is within the Santa Clara Valley River basin and the entire site drains into the Santa Clara River, which borders the northern portion of the project site.

The 50-Year Capital Floodplain (as defined by the Flood Control Division of the Los Angeles County Department of Public Works) of the Santa Clara River is located on the portion of the Mission Village tract map that covers the Santa Clara River. The reach of the Santa Clara River within the Specific Plan site has year-round low flows created by tertiary-treated effluent discharges from two existing upstream water reclamation plants (Valencia and Saugus WRPs), and stormwater runoff. Natural flows in the River only occur in the winter due to storm runoff. The flows vary significantly from year to year. In addition, there can be short-term releases from Castaic Lake during summer months that reach the River via Castaic Creek, which joins the river within the Specific Plan site.

Beneath the surface of the Mission Village site, groundwater is found within the Alluvial aquifer and the deeper Saugus Formation. The Newhall Ranch Program EIR provides a thorough description of the drainages in the Mission Village area. Additionally, please refer to **Section 4.2, Hydrology**, and **Section 4.21, Floodplain Modifications**, for additional information on the drainage characteristics of the Mission Village project site.

(5) Cultural Resources

During the Phase I survey conducted in connection with preparation of the Newhall Ranch Specific Plan Program EIR, one historical site was found on the site of the proposed project and another was found immediately off site. Both are concentrated in the northeastern end of the Specific Plan property. The two sites are the on-site Asistencia de San Francisco Xavier (CA-LAN-962H), and the off-site, original Newhall Ranch headquarters (CA-LAN-961H), although the built structures of the ranch headquarters were removed from this locale several years ago. Neither of the two sites is listed in the National Register for Historic Places or the California Register of Historic Resources; however, because the Rancho San Francisco is listed as a California Historical Landmark and the Asistencia de San Francisco Xavier is located within the Rancho, the Asistencia is also a California Historical Landmark. Please refer to this EIR, **Section 4.20, Cultural/Paleontological Resources**, for additional information on the archaeological and paleontological resources found on the Mission Village site.



SOURCE: PSOMAS – July 2005, Impact Sciences, Inc. – April 2010

FIGURE 2.0-3

On-Site Topography

(6) Noise

The Newhall Ranch Program EIR provides a detailed assessment of noise issues associated with Specific Plan development. Specific sources of noise in the Mission Village vicinity include SR-126 and I-5, the Magic Mountain Entertainment amusement park and the Travel Village RV Park. Noise generated by Travel Village typically involves human activity or motor vehicles. Please see this EIR, **Section 4.6, Noise**, for additional information regarding the existing noise conditions on the project site and within its vicinity.

(7) Air Quality

The Newhall Ranch Program EIR provides an assessment of the air quality issues relative to the Mission Village project, which lies within the South Coast Air Basin. Please refer to this EIR, **Section 4.7, Air Quality**, for additional information on ambient air quality on and in the vicinity of the Mission Village project site.

(8) Existing Roadway Network

Gated access to the Mission Village site is currently provided by Feedmill Road. The I-5/SR-126 interchange is located approximately 0.5 mile east of the site. Portions of the site are under active agricultural cultivation and are served by agricultural roads. It is expected that construction traffic will use existing, on-site agricultural roads. Please refer to this EIR, **Section 4.5, Traffic/Access**, for additional information on the existing roadway network on the Mission Village site and within its vicinity.

3. REGULATORY SETTING

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

State planning law mandates that every city and county prepare a General Plan. A General Plan is a comprehensive policy document outlining the future development in a city or county. This policy statement is divided into seven elements, including Land Use, Housing, Circulation, Open Space, Conservation, Noise, and Safety. The Land Use Element has the broadest scope of all the General Plan Elements. The Land Use Element establishes the pattern of land use and sets standards and guidelines to regulate development. Community plans provide a greater level of detail than the General Plan and have been prepared for various planning areas throughout the County. Zoning ordinances implement the general and community plans.

Two land use plans govern unincorporated land development in the Santa Clarita Valley Planning Area, the County of Los Angeles General Plan and Santa Clarita Valley Area Plan, which is a community plan. The County of Los Angeles General Plan serves as the overall policy document for the unincorporated portions of the County, including the Mission Village site. The land use designations are very broad in nature, as are the types of uses permitted within each designation. The Santa Clarita Valley Area Plan is the community plan that provides detailed policy statements, land uses, and development standards for the unincorporated Newhall Ranch Mission Village area. Absent adoption of a specific plan, the County of Los Angeles Planning and Zoning Code provides precise development guidelines (i.e., permitted and conditionally permitted land uses, minimum lot sizes, building heights, maximum square footage, etc.) for land within the unincorporated portions of the County.

As discussed earlier in the **Introduction** to this EIR, the project site is located within the approved Newhall Ranch Specific Plan area, which was adopted by the Los Angeles County Board of Supervisors on May 27, 2003, consistent with Title 22, Chapter 22.46 of the Los Angeles County Planning and Zoning Code. The Newhall Ranch Specific Plan implements the goals and policies of the Los Angeles County General Plan and Santa Clarita Valley Area Plan on a focused, site-specific basis. The Specific Plan contains a conceptual development plan, development regulations, design guidelines, and implementation mechanisms consistent with the goals, objectives, and policies of the Los Angeles County General Plan and Santa Clarita Valley Area Plan.

The authority to adopt a Specific Plan ultimately lies in state planning law contained in sections 65450-65457 of the California Government Code, which includes a requirement that a Specific Plan must be consistent with a jurisdiction's General Plan. Because any adopted Specific Plan must be consistent with the County General Plan and the Santa Clarita Valley Area Plan, all future projects filed within the Newhall Ranch Specific Plan area, which are found to be consistent with the Specific Plan, must also be deemed consistent with the County General Plan and Santa Clarita Valley Area Plan. Refer to the Newhall Ranch Program EIR for an evaluation of the Specific Plan's consistency with the County General Plan and Santa Clarita Valley Areawide Plan.

b. Newhall Ranch Specific Plan

The Newhall Ranch Specific Plan is a comprehensive planning document that guides future development of the Newhall Ranch property and serves as the zoning for the entire Specific Plan area. A specific plan is a zoning document that sets forth development guidelines and policies to be utilized by landowners, developers and public agencies when considering development plans for an area, and can be used to address the unique qualities of a property.

The proposed Mission Village project represents one of the first subdivision maps filed within the approved Newhall Ranch Specific Plan. All development constructed within the Specific Plan area is subject to development standards for grading and drainage, trails and walkways, landscaping, building mass, building density, setbacks, lighting, and fencing. These standards are enforced during the County of Los Angeles project review and plan check process. In furtherance of that process, an analysis has been prepared that demonstrates the consistency of the proposed Mission Village project with the approved Newhall Ranch Specific Plan. Please refer to this EIR, **Appendix 2.0**.

The Newhall Ranch Specific Plan is divided into distinct villages based on natural landmarks and topographic features. The Mission Village project site is located within the Mesas portion of the Specific Plan, which is that area located south of the Santa Clara River. As illustrated in **Figure 2.0-4, Newhall Ranch Specific Plan, Existing Land Use Designations**, the Mission Village site includes the following development land use designations: Low Residential (L), Low Medium Residential (LM), Medium Residential (M), High Residential (H), Commercial (C), and Mixed Use (MU) development. The site also includes the River Corridor SMA/SEA 23 (RC) designation, which abuts the northern boundary of the project site, and the Open Area (OA) designation adjacent to the River Corridor.

As to the development designations, the Low Residential designation provides for large-lot, single-family, detached residential development. Within this designation, the average lot size within any proposed subdivision must be no less than 1.0 acre in size. The minimum lot size in the designation is 7,500 square feet, as long as the overall average of 1.0 acre is maintained.

The Low Medium Residential designation allows both attached and detached homes. The minimum lot size is 2,500 square feet with a minimum front yard setback set at 18 feet. A 5-foot-minimum side yard setback applies to detached dwelling units, while attached units may have a zero-lot line subject to certain criteria.

The Medium Residential designation allows a variety of housing types, including small-lot, single-family, detached and attached units, along with multi-family homes. The minimum lot size for a detached home is 2,500 square feet, with a minimum front yard setback of 18 feet and side yard setback of 5 feet. There is no minimum lot size for the attached homes under this category, although a 10-foot front yard setback does apply.

The High Residential designation provides for multi-family residential development. Typical housing will be primarily multi-story and may include townhomes/condominiums and apartments.

The Mixed-Use designation allows for centers that contain a combination of retail/commercial, office, and/or residential uses. The designation provides for multi-family residential development. Typical housing will be multi-story and may include townhomes/condominiums and apartments.

The Commercial designation includes uses such as retail, food service, banking, entertainment and automotive-related uses, and is located near arterial highways.

Development standards also apply to major open space areas, such as the River Corridor SMA/SEA 23 that abuts the northern project boundary. A required 50-foot minimum setback applies from the property line adjacent to the River Corridor SMA/SEA 23 area. Maximum building height in the River Corridor SMA/SEA 23 is restricted to 25 feet. The Open Area designation regulates parkland, major creeks and drainages, oak woodlands, and similar open areas.

The Specific Plan contains provisions to monitor future development to ensure compliance with the regulations and standards of the Specific Plan, and to establish a record of progress in the phasing of development and implementation of required infrastructure. To accomplish these tasks, the monitoring program divides the Specific Plan into planning areas within each village and lists the land use as well as the number of housing units and/or non-residential building square footage.

The Mission Village project is located within planning areas TM-01, TM-10, and TM 14-34 of the Newhall Ranch Specific Plan. A maximum of 5,331 dwelling units is allowed along with approximately 1.29 million square feet of commercial/mixed use development (with a maximum of approximately 1.95 million square feet) in the designated planning areas.

In contrast to the permissible level of development, the proposed Mission Village project contains 4,412 dwelling units and 1,555,100 square feet of commercial mixed-use development. Based on the type and organization of land use patterns and the requested amount of development, the proposed Mission Village project is considered consistent with the land use designations and permitted development shown in the Newhall Ranch Specific Plan. **Table 2.0-1, Specific Plan/The Mesas Village – Mission Village Project**, below, shows the Specific Plan maximum allowed land uses by type for the planning areas within the Mission Village project site, as compared to the land use types proposed by the Mission Village project.

As noted above, an analysis of the Mission Village project's consistency with the policies and objectives of the approved Newhall Ranch Specific Plan is provided in EIR, **Appendix 2.0**. Based on the analysis provided, the Mission Village project is consistent with the adopted policies and objectives of the Newhall Ranch Specific Plan. The Los Angeles County Regional Planning Commission and Board of Supervisors will conduct discretionary review of the project's consistency with the approved Specific Plan.

Legend:

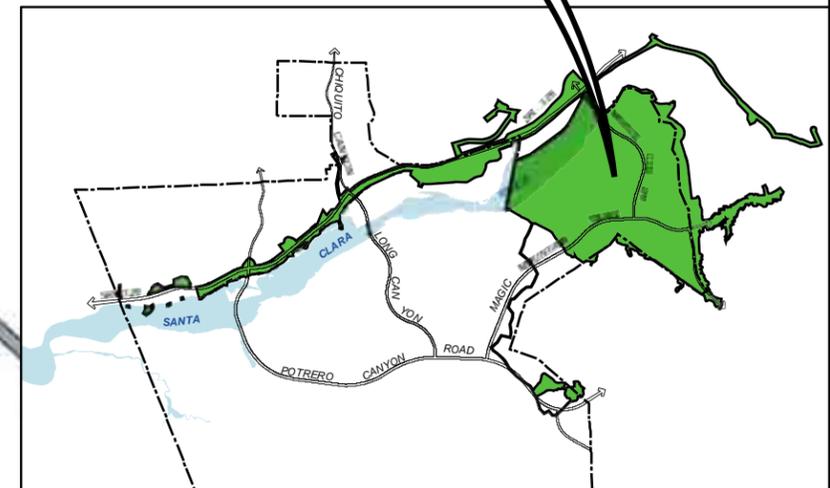
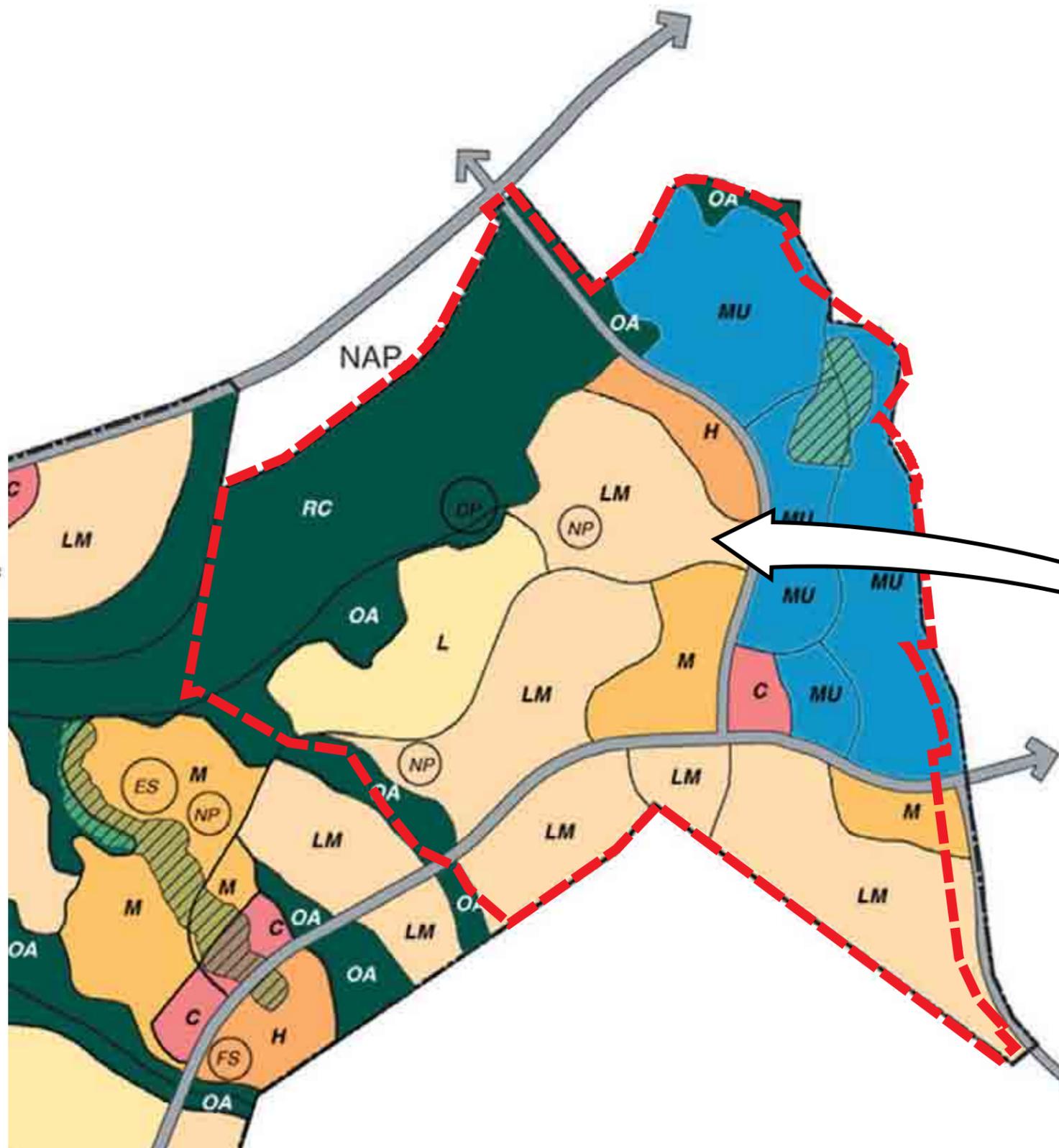
--- MISSION VILLAGE PROJECT BOUNDARY

-  ESTATES
-  LOW DENSITY
-  LOW-MEDIUM DENSITY
-  MEDIUM DENSITY
-  HIGH DENSITY
-  MIXED USE
-  COMMERCIAL
-  BUSINESS PARK
-  VISITOR SERVING
-  OPEN AREA
-  RIVER CORRIDOR
-  HIGH COUNTRY
-  CDFG SPINEFLOWER CONSERVATION EASEMENTS
-  ROADS*
-  SCE/UTILITY EASEMENT

LAND USE OVERLAYS (POTENTIAL LOCATIONS)

-  COMMUNITY PARK
-  NEIGHBORHOOD PARK
-  ELEMENTARY SCHOOL
-  JUNIOR HIGH SCHOOL
-  HIGH SCHOOL
-  LIBRARY
-  GOLF COURSE
-  COMMUNITY LAKE
-  FIRE STATION
-  ELECTRICAL SUBSTATION
-  WATER RECLAMATION PLANT

Roads/road rights of way within CDFG spineflower conservation easements and all other spineflower preserves are subject to realignment prior to subdivision approval pursuant to Board motion (March 25, 2003).



SOURCE: FORMA Exhibit 2.3-1 Land Use Plan – May 2003, Impact Sciences, Inc. – February 2010

FIGURE 2.0-4

Newhall Ranch Specific Plan, Existing Land Use Designations

c. Regional Plans and Policies

Regional planning considerations and federal air and water quality laws have increased the relative importance of land use planning in a regional context. The Southern California Association of Government's (SCAG's) *Regional Comprehensive Plan* (RCP) includes a Growth Management chapter that provides the demographic forecasts used in the South Coast Air Quality Management District's (SCAQMD's) *Air Quality Management Plan* (AQMP) and provides a flexible framework to resolve growth-related issues expected in the future. The RCP's Growth Forecasting Chapter and the Regional Housing Needs Assessment Chapter were both updated in 2007, after the Newhall Ranch Program EIR was certified. In addition, SCAQMD released a new AQMP in 2003, which was updated in 2007. Any variation or new information prompted by the update in plans is reflected in the summaries and in the several sections within this EIR impacted by these updates.

SCAG requires that regionally significant projects demonstrate consistency with certain of SCAG's adopted regional plans and policies. Specifically, SCAG requires a discussion of the project's consistency, non-consistency, or non-applicability with the *Regional Transportation Plan* (RTP) goals and *Compass Growth Vision Report* (CGV) principles, and suggests that such analysis be presented in a side-by-side comparison table format.¹

The SCAG 2008 RTP strives to provide a regional investment framework to address the region's transportation and related challenges, and looks to strategies that preserve and enhance the existing transportation system and integrate land use into transportation planning. The RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic, and commercial limitations.

The CGV report, issued in 2004, presents a comprehensive Growth Vision for the six-county SCAG region. The fundamental goal of the CGV effort is to make the SCAG region a better place to live, work and play for all residents regardless of race, ethnicity, or income class. To organize the strategies for improving the quality of life, a series of principles was established, intended to promote and maximize regional mobility, livability, prosperity and sustainability. The "Regional Growth Principles" are proposed to provide a framework for local and regional decision making that improves the quality of life for all SCAG residents.

¹ SCAG website, www.scag.ca.gov/igr/index.htm, accessed March 31, 2010.

**Table 2.0-1
Specific Plan/The Mesas Village – Mission Village Project**

Approved Specific Plan The Mesas Village ¹					Current Project Mission Village		
Planning Area	Land Use Designation	Planned Residential Units	Building SF	Gross Acres	Proposed Residential Units	Proposed Building SF	Gross Acres
TM-14	Low Residential	81		89.6	73 ²		88.9
TM-10	Low-Medium	148		0.5	N/A		0.4
TM-17	Low-Medium Resident (LM)	364		105.9	295		102.4
TM-18	LM	129		56.8	139		56.9
TM-19	LM	294		90.1	214		92.6
TM-22	LM	52		22.3	37		21.5
TM-34	LM	332		114.2	251		109.3
TM-21	Medium (M)	586		53.6	502		45.9
TM-33	M	320		26.6	275		31.2
TM-33A	MU					154,000	9.7
TM-20	High Residential (HR)	515		32.1	474		38.3
TM-26	Mixed-Use (MU)	439	1,009,500	102.1	0	697,000	102.5
TM-27	MU	258	90,000	36.2	175	126,430	38.9
TM-28	MU	591		28.3	441	0	30.4
TM-30	MU	314		20.2	368	355,470	18.8
TM-32	MU	1,190	69,500	111.5	1,168	48,100	109.7
TM-29	Commercial		130,000	16.2	0	174,100	13.2
TM-15	Open Area (OA)			19.5			22.0
TM-23	OA			35.5			37.0
TM-16	Open Area			1.9			1.4
TM-24	OA			5.9			6.4
TM-31	OA			7.6			7.7
TM-01	River Corridor (RC)			227.9			228.0
TM-25	RC			9.5			9.5
TOTAL		5,465	1,299,000	1,214	4,412	1,555,100	1,222.6

¹ Only those planning areas applicable to Mission Village are depicted.

² Under the Newhall Ranch Specific Plan, development of a maximum of 423 second units was approved. The Mission Village project proposes 73 second units.

³ 39.1 acres are outside the Newhall Ranch Specific Plan but are within the tentative tract map boundary; these acres are not included in the 1,222.6 total. The 39.1 acres are proposed as open space with no zone change proposed.

⁴ Under the Newhall Ranch Specific Plan, development of a maximum of 1,948,500 square feet of non-residential development was approved for the Mission Village portion of The Mesas village. The Mission Village project proposes 1,555,100 square feet.

⁵ Under the Newhall Ranch Specific Plan, development of a maximum of 5,465 residential units was approved for the Mission Village portion of The Mesas village. The Mission Village project proposes 4,412 residences.

Source: Mission Village Conformance Statistical Summary, February 2007.

An analysis of the project's consistency with SCAG's RTP and CGV goals and principles is presented in **Table 2.0-2, SCAG Regional Transportation Plan Goals and Compass Growth Vision Principles.**

**Table 2.0-2
SCAG Regional Transportation Plan Goals and Compass Growth Vision Principles**

Regional Transportation Plan Goals		
Goals/Principle Number	Policy Text	Statement of Consistency, Non-Consistency, or Not Applicable
RTP G1	Maximize mobility and accessibility for all people and goods in the region.	Consistent: To minimize and shorten vehicle trips, a majority of homes will be within walking distance to the Mission Village community's commercial and mixed-use areas, elementary school, community park, and trail system. Mission Village is located adjacent to the Valencia Commerce Center, one of the largest employment centers in the Santa Clarita Valley. Bike and pedestrian trails within Newhall Ranch and Mission Village will connect to trails within the Valencia Commerce Center.
RTP G2	Ensure travel safety and reliability for all people and goods in the region.	Consistent: See RTP G1 above. Newhall Ranch, including Mission Village, will be part of the Santa Clarita Transit system. Transit improvements within Newhall Ranch will include a park-and-ride lot, transit station, transfer station, bus stops, and preservation of light rail right-of-way. Mission Village will include a total of three bus stops and bus transfer station. The provision of transit and the accommodation of light rail encourage residents to rely less on vehicular travel.
RTP G3	Preserve and ensure a sustainable regional transportation system.	Consistent: In addition to Responses to RTP G1 and G2 above, nearly 60 percent of the residential units in Newhall Ranch will be located within walking distance of village or commercial centers. This is documented by the Mission Village land plan. Residents within Mission Village will be able to utilize paseos/trails and/or the Santa Clara River Regional Trail to walk to commercial centers, private recreational facilities, library, the elementary school and community and neighborhood parks. As stated above, this traditional neighborhood design minimizes vehicle trips.
RTP G4	Maximize the productivity of our transportation system.	Consistent: Newhall Ranch, including Mission Village, will be part of the Santa Clarita Transit system and will pay its fair share for transit service to the community. Transit improvements within Newhall Ranch will include a park-and-ride lot, a transit station, transfer station, bus stops, and preservation of light rail right-of-way. Mission Village will include a total of bus stops and bus transfer station. The provision of transit and the accommodation of light rail encourage residents to rely less on vehicular travel.

Regional Transportation Plan Goals		
Goals/Principle Number	Policy Text	Statement of Consistency, Non-Consistency, or Not Applicable
RTP G5	Protect the environment, improve air quality, and promote energy efficiency.	Consistent: Nearly 60 percent of the residential units in Newhall Ranch will be located within walking distance of village or commercial centers. This is documented by the Mission Village land plan. Residents within Mission Village will be able to utilize paseos/trails and/or the Santa Clara River Regional Trail to walk to commercial centers, private recreational facilities, library, the elementary school and community and neighborhood parks. As stated above, this traditional neighborhood design minimizes vehicle trips. Consequently, because of the project's orientation to alternative modes of transportation, there is the opportunity to provide improved air quality and to promote energy efficiency.
RTP G6	Encourage land use and growth patterns that complement our transportation investments and improves the cost-effectiveness of expenditures.	Consistent: Mission Village will include a total of three bus stops and bus transfer station. The provision of transit and accommodation of light rail encourage residents to rely less on vehicular travel. Additionally, nearly 60 percent of the residential units in Newhall Ranch will be located within walking distance of village or commercial centers. This is documented by the Mission Village land plan. Residents within Mission Village will be able to utilize paseos/trails and/or the Santa Clara River Regional Trail to walk to commercial centers, private recreational facilities, library, the elementary school and community and neighborhood parks. Consequently, less expenditures would be required for traditional vehicular oriented transportation systems.
RTP G7	Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies	Not Applicable: The security of the transportation system, rapid recovery monitoring, and coordination of other security agencies is the responsibility of the County of Los Angeles and other state agencies.
Compass Growth Vision		
Principle 1: Improve mobility for all residents		
GV P1.1	Encourage transportation investments and land use decisions that are mutually supportive.	Consistent: Mission Village's traffic circulation plan, which is consistent with all of Newhall Ranch, minimizes vehicle trips and reduces greenhouse gas emissions through the design of internal roads in conjunction with homes, school site, commercial areas, and trail system. Transit is included in the traditional neighborhood design, and it includes a bus transfer station and bus stops. Additionally, a 5-mile right-of-way for a potential Metrolink light rail extension is accommodated by Newhall Ranch along SR-126. Trails and bike paths leading to close-to-home jobs, neighborhood-serving retail, and the school encourage residents to reduce vehicle miles traveled. Finally, Newhall Land has committed to funding significant regional roadway improvements including improvements to SR-126 and I-5.

Regional Transportation Plan Goals		
Goals/Principle Number	Policy Text	Statement of Consistency, Non-Consistency, or Not Applicable
GV P1.2	Locate new housing near existing jobs and new jobs near existing housing.	Consistent: Nearly 60 percent of the residential units in Newhall Ranch will be located within walking distance of village or commercial centers. This is documented by the Mission Village land plan. Residents within Mission Village will be able to utilize paseos/trails and/or the Santa Clara River Regional Trail to walk to commercial centers. As stated above, this traditional neighborhood design minimizes vehicle trips. Additionally, the Valencia Commerce Center, one of the largest employment centers in the Santa Clarita Valley, is located adjacent to the project site.
GV P1.3	Encourage transit-oriented development.	Consistent: Mission Village's traffic circulation plan, which is consistent with all of Newhall Ranch, minimizes vehicle trips and reduces greenhouse gas emissions through the design of internal roads in conjunction with homes, school site, commercial areas, and trail system. Transit is included in the traditional neighborhood design, and it includes a bus transfer station and bus stops. Additionally, a 5-mile right-of-way for a potential Metrolink light rail extension is accommodated by Newhall Ranch along SR-126. Trails and bike paths leading to close-to-home jobs, neighborhood-serving retail, and the school encourage residents to reduce vehicle miles traveled. Finally, Newhall Land has committed to funding significant regional roadway improvements including improvements to SR-126 and I-5.
GV P1.4	Promote a variety of travel choices.	Consistent: Transit is included in the traditional neighborhood design, and it includes a park-and-ride lot, bus transfer station, and bus stops. Additionally, a 5-mile right-of-way for a potential Metrolink light rail extension is accommodated by Newhall Ranch along SR-126. Trails and bike paths leading to close-to-home jobs, neighborhood-serving retail, and the school encourage residents to reduce vehicle miles traveled. Finally, Newhall Land has committed to funding significant regional roadway improvements including improvements to SR-126 and I-5.
Principle 2: Foster livability in all communities		
GV P2.1	Promote infill development and redevelopment to revitalize existing communities.	Inconsistent: The proposed project is not an in-fill or redevelopment project.
GV P2.2	Promote developments that provide a mix of uses.	Consistent: Mission Village would provide a diverse range of dwelling units, including 4,412 homes (382 single-family and 4,030 multi-family units) with densities ranging between 1 and 55 du/ac; age-qualified homes for active adults age 55 plus; a continued care retirement community offering independent and assisted living; and affordable housing. Additionally, Mission Village would provide mixed-use commercial development, mixed-use residential/commercial development, commercial uses, an elementary school, parks, library, fire station, bus transfer station, open space, and recreational centers.

Regional Transportation Plan Goals		
Goals/Principle Number	Policy Text	Statement of Consistency, Non-Consistency, or Not Applicable
GV P2.3	Promote “people scaled,” pedestrian-friendly (walkable) communities.	Consistent: Nearly 60 percent of the residential units in Newhall Ranch will be located within walking distance of village or commercial centers. This is documented by the Mission Village land plan. Residents within Mission Village will be able to utilize paseos/trails and/or the Santa Clara River Regional Trail to walk to commercial centers, private recreational facilities, library, the elementary school and community and neighborhood parks. As stated above, this traditional neighborhood design minimizes vehicle trips.
GV P2.4	Support the preservation of stable, single-family neighborhoods.	Consistent: The proposed project would not impact the existing single-family neighborhoods in the Westridge community located near the project site.
Principle 3: Enable prosperity for all people		
GV P3.1	Provide, in each community, a variety of housing types in each community to meet the housing needs of all income levels.	Consistent: The proposed project would provide a mix of housing types (single-family, multi-family, apartments) that would accommodate households with varied income levels.
GV P3.2	Support educational opportunities that promote balanced growth.	Consistent: The proposed project includes an elementary school to serve the residential dwellings.
GV P3.3	Ensure environmental justice regardless of race, ethnicity, or income class.	Not Applicable: This policy is the responsibility primarily of governmental entities, although the Mission Village project does not conflict with environmental justice principles.
GV P3.4	Support local and state fiscal policies that encourage balanced growth.	Not Applicable: This policy is applicable to governmental entities. Nonetheless, the proposed project would locate jobs in close proximity to residential areas.
GV P3.5	Encourage civic engagement.	Not Applicable: This policy applies primarily to governmental entities. Nonetheless, the proposed project includes a 20-acre Community Park along the eastern side of the proposed Commerce Center Drive near the eastern site boundary. The Community Park would include improvements such as those identified in Specific Plan Section 2.8(4)(b). These include tot lots, ball fields, tennis or basketball courts, turf areas, vehicular parking, and restrooms facilities and a library.
Principle 4: Promote sustainability for future generations		
GV P4.1	Preserve rural, agricultural, recreational, and environmentally sensitive areas.	Consistent: Newhall Ranch, of which Mission Village is a part, includes the preservation of the High Country; Santa Clara River Corridor; Open Areas; spineflower preservation areas; other specified Open Areas, and the Salt Creek area; a total of over approximately 7,500 acres. A total of three community parks (Mission Village includes one) and up to 10 neighborhood parks will be provided as part of Newhall Ranch. Private recreation facilities will be provided throughout the entire Ranch, providing additional recreational opportunities to residents. Additionally, Mission Village’s design connects jobs, retail, schools, parks, and recreation facilities with the community’s trail system to promote walking and biking while minimizing vehicle trips.

Regional Transportation Plan Goals		
Goals/Principle Number	Policy Text	Statement of Consistency, Non-Consistency, or Not Applicable
GV P4.2	Focus development in urban centers and existing cities.	Consistent: The Santa Clarita Valley has been developing at a rapid pace for the past 10 years. Residential communities are located adjacent (Westridge) or proposed (Legacy V and Entrada) to the Mission village site. Commercial/industrial uses are located to the north of the project site in the Valencia Commerce Center. Existing and planned development sites generally surround the project site.
GV P4.3	Develop strategies to accommodate growth that uses resources efficiently, eliminate pollution and significantly reduce waste.	<p>Consistent: Nearly 60 percent of the residential units in Newhall Ranch will be located within walking distance of village or commercial centers. This is documented by the Mission Village land plan. Residents within Mission Village will be able to utilize paseos/trails and/or the Santa Clara River Regional Trail to walk to commercial centers, private recreational facilities, library the elementary school and community and neighborhood parks. As stated above, this traditional neighborhood design minimizes vehicle trips.</p> <p>To curtail urban runoff and maximize groundwater recharge, Newhall Ranch, including Mission Village, will utilize smaller street sections, where possible, drought tolerant landscape areas, and non-structural water quality treatment improvements, such as bio-retention and dry extended detention basins.</p> <p>Newhall Ranch, including Mission Village, will utilize drought-tolerant plants in the community's landscaping, use recycled water for irrigation, and evapotranspiration controllers (i.e., weather-sensitive sprinklers) to reduce potable water demand and runoff. All of these measures use resources efficiently, eliminate pollution, and significantly reduce waste.</p>

Regional Transportation Plan Goals		
Goals/Principle Number	Policy Text	Statement of Consistency, Non-Consistency, or Not Applicable
GV P4.4	Utilize “green” development techniques.	<p>Consistent: The following requirements will be incorporated into the Mission Village project:</p> <p>All residential and non-residential buildings on the project site that are enabled by approval of the proposed project shall be designed to ensure that all buildings operate at levels 15 percent better than the standards required by the version of Title 24 applicable at the time the building permit applications are filed.</p> <p>The project applicant or designee shall produce or purchase renewable electricity equivalent to the installation of one 2.0 kilowatt photovoltaic (i.e., solar) power system when undertaking the design and construction of each single-family detached residential unit and every 1,600 square feet of non-residential roof area on the project site that is enabled by approval of the proposed project; or, at the applicant's option, prior to commencing construction, the applicant shall secure offsets or credits for carbon dioxide equivalents from either the Climate Action Reserve of the California Climate Action Registry, the Chicago Climate Exchange, or similar reserve/exchange; or, alternatively, at the applicant's option, the applicant may pay to the South Coast Air Quality Management District (District) the equivalent amount of funds that would be due to buy credits from the Climate Action Reserve, Chicago Climate Exchange, or similar reserve/exchange for greenhouse gas emission mitigation purposes. In any case, installation of individual photovoltaic systems shall be considered when undertaking the design and construction of single-family residential units on the project site.</p> <p>The project applicant, in accordance with Los Angeles County requirements, will design and construct the approximately 13,500-square-foot fire station and public library so as to achieve LEED silver certification.</p> <p>The project applicant shall use solar water heating for all pools located at the Mission Village recreation centers.</p> <p>Consistent with the Governor's Million Solar Roofs Plan, the project applicant or designee, acting as the seller of any single-family residence constructed as part of the development of at least 50 homes that are intended or offered for sale, shall offer a solar energy system option to all customers that enter negotiations to purchase a new production home constructed on land for which an application for a tentative subdivision map has been deemed complete. The seller shall disclose the total installed cost of the solar energy system option, and the estimated cost savings.</p>

3.0 CUMULATIVE IMPACT ANALYSIS METHODOLOGY

1. PURPOSE

The purpose of this section is to explain the methodology for the cumulative project analysis presented in this EIR. This section is important because, in many cases, the impact of a single project may not be significant, but when combined with other projects the “cumulative” impact may be greater. Section 15355 of the California Environmental Quality Act (CEQA) Guidelines defines “cumulative impacts” as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” State CEQA Guidelines Section 15130(b) states, “[t]he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided of the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness.”

Significant cumulative impacts often result from the combined effect of past, present, and future related projects that are located in proximity to the project under review. For example, the wastewater demand generated by a proposed project may not be significant when analyzed alone; however, when analyzed in combination with the wastewater demand of other approved or proposed related projects, the cumulative wastewater demands may exceed the resource capabilities of the wastewater agency, resulting in a significant cumulative impact. Therefore, it is important for a cumulative impacts analysis to be viewed over time and in conjunction with other related past, present, and reasonably foreseeable future developments, which may have impacts that might compound or interrelate with those of the project under review. Furthermore, the cumulative impact analysis is an important part of an EIR as it allows the environmental analysis to provide a more complete forecast of future environmental conditions and show the impacts of other reasonably foreseeable related projects.

*This section describes the cumulative growth forecasting methodology and cumulative impact analysis methodology utilized in this EIR to assess cumulative impacts. The assessment of cumulative impacts for each environmental impact category is presented in **Section 4.0, Environmental Impact Analysis**.*

2. CUMULATIVE GROWTH FORECASTING METHODOLOGY

In order to analyze the cumulative impacts of the Mission Village project in combination with other expected future growth, the amount and location of growth expected to occur must be predicted. Section 15130(b) of the *State CEQA Guidelines* allows two methods of prediction: “(A) a list of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the agency, or (B) a summary of projections contained in an adopted general plan or related planning document which is designed to evaluate regional or areawide conditions.” In order to

analyze a worst-case condition, this EIR uses a combination of both methods to provide a reasonable and comprehensive estimate of cumulative impacts.

For this EIR, some impact analysis sections present the following two separate cumulative development scenarios:

- Development Monitoring System (DMS) Build-Out Scenario; and
- Santa Clarita Valley (SCV) Cumulative Build-Out Scenario (a summary of projections and DMS).

The environmental issue areas addressed with the DMS Build-Out Scenario analysis include water services, wastewater disposal, education, fire, and library services. This scenario is discussed further under **subsection a., DMS Build-Out Scenario**, below.

It should be noted that the list of cumulative projects (please see **Appendix 3.0, Development Monitoring System Database**) used in this EIR to assess cumulative impacts is an ever-changing dynamic list. From time to time, the City of Santa Clarita (City) and the County of Los Angeles (County) modify the list as specific development proposals are applied for, changed, withdrawn, approved, or denied by the City and the County. An attempt has been made to be as current as possible in compiling cumulative project lists; however, it is possible that the lists maintained by the City and the County will change even further while this EIR is under further review. To account for possible changes in City/County project filings that might occur prior to or during this EIR's public review, the cumulative analysis used in this EIR incorporates an additional unfiled 400 dwelling units. The unfiled units have been accommodated by including them in the City of Santa Clarita and the County of Los Angeles SCV Consolidated Traffic Model.

a. DMS Build-Out Scenario

Added to housing units already existing in the SCV, the first scenario (herein referred to as the "DMS Build-Out Scenario") entails buildout of subdivision projects listed in the County's DMS plus the proposed project.¹ DMS data used for this analysis include all pending, recorded, and approved projects

¹ The Los Angeles County General Plan includes provisions known as the "Development Monitoring System" to give decision makers information about the existing capacity of available public services at the time a new development proposal is considered in the four major Urban Expansion Areas of the Los Angeles County General Plan (Antelope Valley, Santa Clarita Valley, Malibu/Santa Monica Mountains, and East San Gabriel Valley). The goal of DMS is to identify the new public facilities that will be required for new development, and to ensure that the appropriate cost of any expansion of facilities will be paid for by that new development, and not assumed by existing taxpayers. For further discussion of the County's DMS, please refer to the Newhall Ranch Specific Plan Program EIR (March 1999), at Section 2.0, Environmental and Regulatory Setting, pp. 2-18-19.

for which land divisions have been filed within the City of Santa Clarita and County unincorporated lands as of October 2003. The City plus the County unincorporated areas together constitute the County's SCV Planning Area, the area for which the DMS is run. A build-out scenario of the SCV Planning Area based on the development included in the DMS is presented in **Table 3.0-1, DMS Build-Out Scenario – Santa Clarita Valley Planning Area With and Without Project** (refer to **Appendix 3.0**, for detailed calculations). The listings presented in **Table 3.0-1** do not include General Plan Amendment requests (the SCV Cumulative Build-Out Scenario, which follows, includes General Plan Amendment requests). **Table 3.0-2, DMS Implementation**, provides a summary of the County's implementation of DMS.

Table 3.0-1
DMS Build-Out Scenario – Santa Clarita Valley Planning Area With and Without Project

Land Use Types	DMS Buildout w/o Mission Village ¹	Mission Village	DMS Buildout w/Mission Village ¹
Single-Family	62,398 du	382	62,780 du
Multi-Family	26,143 du	4,030	30,173 du
Mobile Home	1,818 du		1,818 du
Commercial Retail	8,581,337 sq. ft.	1,555,100	9,880,337 sq. ft.
Hotel	670 rooms		670 rooms
Sit-Down Restaurant	146,340 sq. ft.		146,340 sq. ft.
Fast Food Restaurant	15,100 sq. ft.		15,100 sq. ft.
Movie Theater	3,300 seats		3,300 seats
Health Club	54,000 sq. ft.		54,000 sq. ft.
Car Dealership	300,000 sq. ft.		300,000 sq. ft.
Hospital	222,800 sq. ft.		222,800 sq. ft.
Library	93,110 sq. ft.	36,000	129,110 sq. ft.
Church	323,190 sq. ft.		323,190 sq. ft.
Industrial Park	19,042,611 sq. ft.		19,042,611 sq. ft.
Business Park	3,100,321 sq. ft.		3,100,321 sq. ft.
Manufacturing/Warehouse	3,006,821 sq. ft.		3,006,821 sq. ft.
Utilities	1,037,240 sq. ft.		1,037,240 sq. ft.
Commercial Office	4,086,541 sq. ft.		4,086,541 sq. ft.
Medical Office	133,730 sq. ft.		133,730 sq. ft.
Golf Course	345.0 ac		345.0 ac
Developed Parkland	101.1 ac	25	126.1 ac
Special Generator ²	296.0 sg		296.0 sg

du = dwelling unit; sq. ft. = square feet; ac = acres; sg = special generator

¹ Los Angeles County Department of Regional Planning, Service Provider Report (October 12, 2003) using data for the William S. Hart Union High School District, which encompasses the SCV Planning Area. Includes existing development as contained in the SCV Consolidated Traffic Model, (April 2003).

² Includes Wayside Honor Ranch, Six Flags Magic Mountain, Travel Village, CHP Office, and Aqua Dulce Airport.

**Table 3.0-2
DMS Implementation**

DMS Issues	County Review/ Implementation
Geotechnical Hazards/Grading	Not identified by DMS. Geotechnical Studies/Mitigation, Conditions of Approval, Building Permit.
Flood/Drainage	Not identified by DMS. Hydrology Study/Mitigation, Conditions of Approval, Building Permit, National Pollutant Discharge Elimination System (NPDES) Permit.
Traffic/Access	Project must meet criteria and implement one or more of the mitigation measures identified. Traffic Study, Joint City/County Bridge/Thoroughfare District, General Plan/Mitigation, Conditions of Approval, Building and Improvement Permits.
Air Quality	Not identified by DMS. Air Quality Report/Mitigation, Conditions of Approval.
Noise	Not identified by DMS. Noise Study/Mitigation, Conditions of Approval.
Biota/SEA/River	Not identified by DMS. SEATAC, Biological Study, Mapped Line, Mitigation.
Cultural Resources	Not identified by DMS. Cultural Resources Report/Mitigation, Conditions of Approval and Monitoring during grading.
Visual Resources	Not identified by DMS. Specific Plan/Mitigation, Conditions of Approval.
Water Services	DMS Analysis (Determination of adequate water supply). Mitigation, Conditions of Approval.
Wastewater	DMS Analysis (Annexation into Sanitation District service area, pay sewage connection fee as a Condition of Approval/Mitigation).
Solid Waste	Not identified by DMS. SRRE, HHWE/Conditions of Approval/Mitigation.
Utilities: Energy Resources	Not identified by DMS. Mitigation, Building plan review.
Education	DMS Analysis Fees per SB 50 or other applicable state fees. Mitigation, Conditions of Approval.
Library Services	DMS Analysis (\$640.00/dwelling unit County Library fee). Mitigation, Conditions of Approval.
Fire Protection	Meet service criteria, pay Fire Facilities Fee Program. Mitigation, Conditions of Approval.
Parks and Recreation	Not identified by DMS. Conditions of Approval/Mitigation.
Population/Housing/ Employment	Not identified by DMS. SCV Areawide Plan/Mitigation, Conditions of Approval.
Agricultural Resources	Not identified by DMS. SCV Areawide Plan/Mitigation.

DMS Issues	County Review/ Implementation
Sheriff Services	Not identified by DMS. Conditions of Approval/Mitigation.
Man-Made Hazards	Not identified by DMS. Conditions of Approval/Mitigation.
Oak Trees	Not identified by DMS. County Forester, Oak Tree Ordinance and Guidelines, Oak Tree Report/Mitigation, Conditions of Approval.

b. Santa Clarita Valley Cumulative Build-Out Scenario

The second cumulative development scenario (herein referred to as the “SCV Cumulative Build-Out Scenario”) entails buildout of all lands under the current land use designations indicated in the Los Angeles County SCV Areawide Plan, the City of Santa Clarita General Plan, the proposed project, plus all known active pending General Plan Amendment requests for additional urban development in the City of Santa Clarita and the County unincorporated area, including the proposed Chiquita Canyon Landfill Master Plan Revision.² Because this scenario combines both of the CEQA future development prediction methods (i.e., the listing of known projects, plus a summary of development projections from an adopted general plan), the SCV Cumulative Build-Out Scenario is considered a worst-case projection of future development activity. It also allows a comprehensive analysis of the infrastructure, services, and other impacts of the region’s buildout.

The source of data for the SCV Cumulative Build-Out Scenario is the April 2003 Santa Clarita Valley Consolidated Traffic Model, 2003 Update and Validation (SCVCTM), which was used in the traffic analysis. The SCVCTM was developed jointly by the City of Santa Clarita and the Los Angeles County Department of Public Works (LACDPW) and is amended as necessary to include General Plan Amendment applications as they are submitted to the City and County. The modeled area extends easterly from the Los Angeles County/Ventura County line to where the Antelope Valley Freeway (SR-14) passes out of the SCV near Vasquez Rocks Park; northerly to the Grapevine area north of Castaic; and southerly to the confluence of the Interstate 5 (I-5) and SR-14 freeways south of Newhall Pass (this is the area that is the subject of the County’s SCV Areawide Plan).

² This proposed project involves an application for a Conditional Use Permit (CUP) to expand the landfill footprint by approximately 102 acres within the existing site boundary. The project also requests to accept wastes such as water treatment and wastewater residue that are prohibited under the current CUP (89-091) approved in 1996, and to construct approved facilities under the existing CUP that were not yet constructed. The proposed revisions to the Landfill Master Plan would not change the existing maximum disposal rate that can be accepted at the landfill of 6,000 tons per day and 30,000 tons per week.

In this EIR, the SCVCTM area is often referred to as the “Valley.” A list of the future development activity expected in the Valley under the SCV Cumulative Build-Out Scenario is presented in **Table 3.0-3, Cumulative Development Activity – Santa Clarita Valley Cumulative Build-Out Scenario with Project** (refer to **Appendix 3.0** for detailed calculations). The City of Santa Clarita General Plan can be reviewed at the City of Santa Clarita, Community Development Department (Planning Division Public Counter), 23920 Valencia Boulevard, Suite 300, Santa Clarita, California, and the Los Angeles County SCV Areawide Plan can be reviewed at the County of Los Angeles Department of Regional Planning, 320 West Temple Street, Los Angeles, California. Both documents are incorporated by reference in this EIR.

3. CUMULATIVE IMPACT ANALYSIS METHODOLOGY

The specific group of projects that interact to produce cumulative impacts can differ from environmental topic to environmental topic due to a number of reasons, including the extent of the geographic area affected. For example, the William S. Hart Union High School District serves the project site, but also serves a large area of unincorporated County land. The potential for cumulative impacts on high school education services, therefore, is analyzed for the entire Hart School District service boundary area to account for a worst case analysis. On the other hand, the Newhall and Saugus Union School Districts also serves the project site, but provides elementary school education to a smaller portion of the unincorporated County land than the area the Hart School District serves for high school services. Thus, a smaller geographical area (and, therefore, a smaller amount of future growth) is analyzed for cumulative impacts on elementary school services than is analyzed for impacts to high school services. **Figure 3.0-1, Cumulative Impact Analysis Methodology**, illustrates this concept. The topics in this EIR that fit this type of service boundary-driven cumulative impact analysis methodology include: water resources; wastewater disposal, education, and libraries.

Other environmental impacts do not confine themselves to specific service boundaries. For example, in analyzing cumulative impacts to transportation/circulation, the relevant geographical area is subject to certain variables such as the current structure of the regional and local roadway system, variables in driving behavior, future modifications to the circulation system, and uncertainty with respect to the pace of buildout of other development projects that would affect the same elements of the circulation system. In this case, a conservative approach (i.e., overestimated) was taken and a wide study area was utilized; the broad geographical area used is the SCVCTM Planning Area described above for the SCV Cumulative Build-Out Scenario. The topics in this EIR that fit this type of cumulative impact analysis methodology include: transportation/circulation; noise (because it relies on traffic data from the SCVCTM); population, housing, and employment; solid waste; and parks and recreation.

Table 3.0-3
Cumulative Development Activity – Santa Clarita Valley Cumulative Build-Out Scenario

Land Use Types	Cumulative Buildout w/o Mission Village ¹	Mission Village	Cumulative Buildout w/Mission Village ¹
Single-Family	93,412 du	382	93,794 du
Multi-Family	47,621 du	4,030	51,651 du
Mobile Home	2,699 du		2,699 du
Commercial Retail	18,600,030 sq. ft.	1,555,100	20,155,130 sq. ft.
Hotel	2,071 room		2,071 room
Sit-Down Restaurant	283,790 sq. ft.		283,790 sq. ft.
Fast Food Restaurant	23,600 sq. ft.		23,600 sq. ft.
Movie Theater	3,300 seats		3,300 seats
Health Club	54,000 sq. ft.		54,000 sq. ft.
Car Dealership	411,000 sq. ft.		411,000 sq. ft.
Elem./Middle School	278,590 students	1,156	279,746 students
High School	12,843 students	321	13,164 students
College	29,948 students		29,948 students
Hospital	247,460 sq. ft.		247,460 sq. ft.
Library	111,790 sq. ft.	36,000	171,790 sq. ft.
Church	501,190 sq. ft.		501,190 sq. ft.
Day Care	785,000 sq. ft.		785,000 sq. ft.
Industrial Park	41,743,950 sq. ft.		41,743,950 sq. ft.
Business Park	8,424,330 sq. ft.		8,424,330 sq. ft.
Manufacturing/Warehouse	3,932,470 sq. ft.		3,932,470 sq. ft.
Utilities	1,150,240 sq. ft.		1,150,240 sq. ft.
Commercial Office	6,380,520 sq. ft.		6,380,520 sq. ft.
Medical Office	133,730 sq. ft.		133,730 sq. ft.
Golf Course	1,209.0 ac		1,238.0 ac
Developed Parkland	477.3 ac	25	502.3 ac
Undeveloped Parkland	1,000.0 ac		1,000.0 ac
Special Generator ²	413.0 sg		413.0 sg

du = dwelling unit; sq. ft. = square feet; ac = acres; sg = special generator

¹ SCV Consolidated Traffic Model, (November 2004). Includes existing development, buildout under the existing City of Santa Clarita General Plan and SCV Areawide Plan, and active pending General Plan Amendment requests.

² Includes Wayside Honor Ranch, Six Flags Magic Mountain, Travel Village, CHP Office, and Aqua Dulce Airport.

³ Includes a 25.3-acre park and 27.2-acre community center.

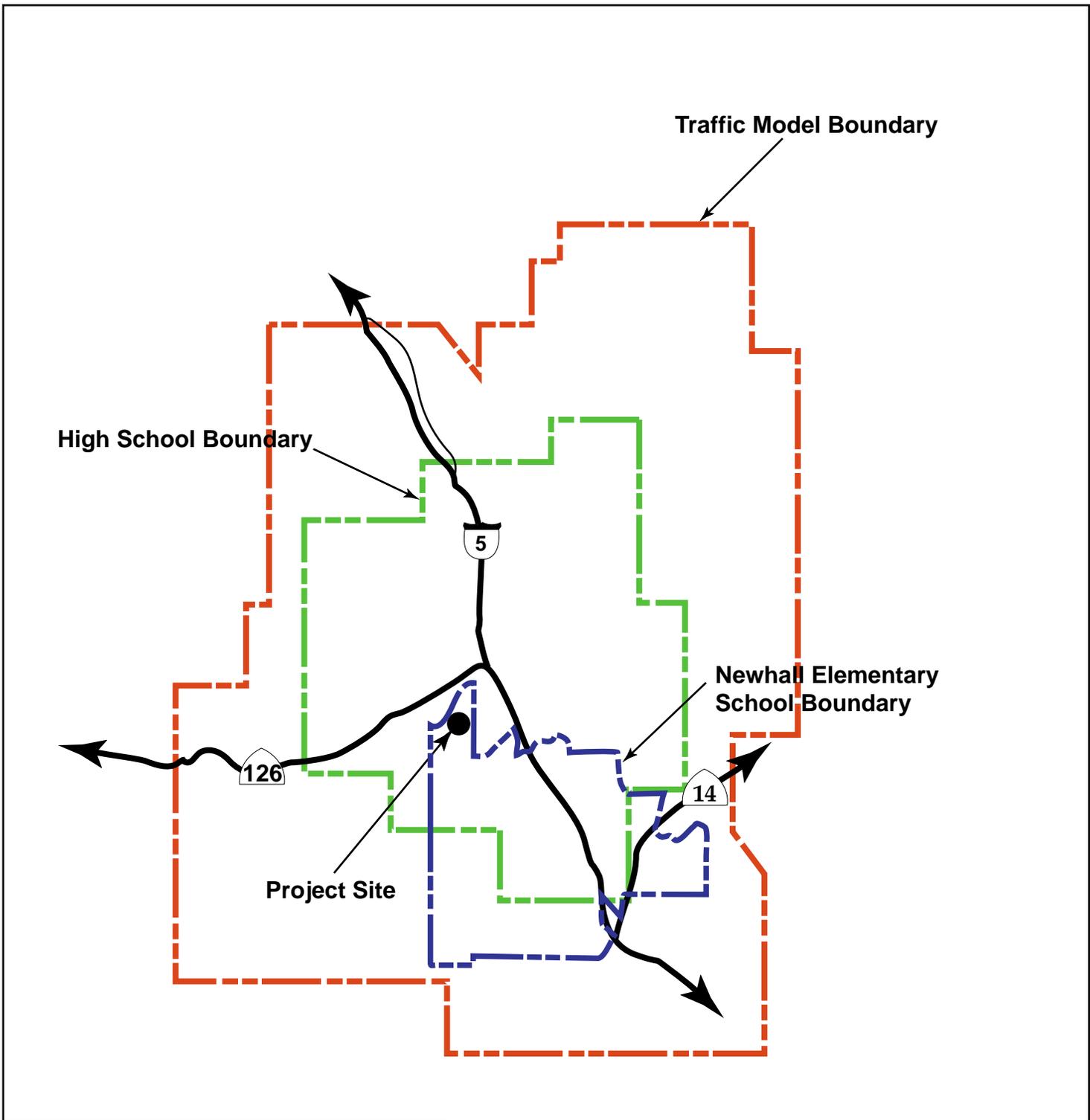
The potential cumulative effects relating to another group of environmental topics can be felt beyond the SCVCTM Planning Area referred to in the previous paragraph. For example, cumulative impacts on biological resources can occur regionally, particularly when sensitive resources that occur over a large regional context are involved. For instance, a freeway may be proposed in a way that cuts off the regional movement of animals from one large open area to another, thereby having a regional impact that is not restricted to a planning area, but likely affecting the biological environment in topographically related areas. The topics in this EIR that fit this type of cumulative impact analysis methodology include flood, agricultural resources, and biota. As an example, biota cumulative impacts will be addressed in relation to not only the project site, but also to the river system. This discussion can be found in **Section 4.3, Biota**.

The assessment of cumulative air quality impacts relies on project-specific methods suggested by South Coast Air Quality Management District rather than the aforementioned growth predictions. The Air Quality Management District's methods are based on performance standards and emission reduction targets necessary to attain the federal and state air quality standards identified in the *Air Quality Management Plan (AQMP)*. The 2003 *AQMP* was prepared to accommodate growth, to reduce the high levels of pollutants within the South Coast Air Basin, to meet state and federal air quality standards, and to minimize the fiscal impact pollution control measures have on the local economy. If the analysis shows that a project does not comply with the standards, then cumulative impacts are considered to be significant unless there is other pertinent information available to the contrary.³

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

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

³ The 2003 *AQMP* is available for public review at the County's Department of Regional Planning, 320 W. Temple Street, Los Angeles, California, and is incorporated by reference in this EIR.



Traffic Model Boundary

High School Boundary

Newhall Elementary School Boundary

Project Site

5

126

14

Legend:

- - - Traffic Model Boundary
- - - High School Boundary
- - - Newhall Elementary School Boundary

 NOT TO SCALE

Note: The boundary lines indicated are conceptual in nature as geographical parameters are continually modified and updated as a result of development agreements and the like.

SOURCE: Impact Sciences, Inc. – December 2006

FIGURE 3.0-1

4.0 ENVIRONMENTAL IMPACT ANALYSIS

PURPOSE

This section provides information on the project site's existing conditions, project and cumulative impact potential, and cumulative mitigation measures (refer to EIR Sections 4.1, Geotechnical and Soil Resources, through 4.23, Global Climate Change). As proposed, Mission Village would be developed over several years, with project buildout anticipated by 2021. Mitigation measures are designed to reduce the project's impact potential. This section also describes the significant impacts that would occur after mitigation measures have been applied. Technical topics addressed in the EIR were defined by the Lead Agency through the Initial Study and Notice of Preparation process.

4.1 GEOTECHNICAL AND SOIL RESOURCES

1. SUMMARY

Based on the analysis presented in this section, potential impacts associated with liquefaction and seismically induced settlement are considered less than significant. Due to the project's topography, low liquefaction potential, thin liquefiable layers, and the use of certified, compacted fill, impacts associated with lateral spreading and seismically induced settlement would be less than significant. Potential impacts resulting from the abandoned, on-site oil wells also are considered to be less than significant because of the method of abandonment, and the ability to respond to any leaks encountered during site grading.

However, specific project-related significant geologic, soil, and geotechnical impacts could occur in the following areas:

- Ground rupture associated with faults along the Airport Mesa, Saddle and Del Valle Fault Zones;*
- Ground motion associated with future earthquakes on nearby faults;*
- Potential hazards due to the combination of dynamic compaction and differential settlement, along with differential materials response along cut/fill and bedrock/alluvium contacts;*
- Fifty-two landslide areas were identified on the project site, most of which are concentrated on the eastern half of the tract map site;*
- Stability of the proposed cut and fill slopes, critical natural slopes, and landslide areas;*
- Potential drainage and soil erosion concerns related to surface runoff from the project site during construction and operation of the Mission Village project;*
- Expansive soils associated with changes from cut and fill of the project site;*
- Subsidence caused by shallow spread footing for foundation support; and*
- Soil corrosivity caused by the development of concrete pads on the project site.*

Applicable mitigation measures to address these impacts were identified in the Newhall Ranch Specific Plan Program EIR. This EIR recommends additional mitigation measures specific to the Mission Village project site. With implementation of the mitigation measures set forth in this section, potentially significant impacts associated with geologic, soil, and geotechnical features would be reduced to levels below significant.

*In compliance with Section 111 of the Los Angeles County Building Code, and according to the project geotechnical consultant (R.T. Franklin & Associates), the site designated on the geologic/geotechnical maps, as shown on **Appendix 4.1**, is feasible for development, would be safe against hazards from landslide, settlement or slippage, and*

would not affect off-site property, provided the mitigation measures identified in this section are adopted and implemented during project construction.

2. INTRODUCTION

a. Relationship of Project to Newhall Ranch Program EIR

Section 4.1 of the Newhall Ranch Specific Plan Program EIR identified and analyzed the existing conditions, potential impacts, and mitigation measures associated with the geologic, soil, and geotechnical resources for the entire Newhall Ranch Specific Plan. The Newhall Ranch mitigation program was adopted by the County in its findings and in the revised Mitigation Monitoring Plans for both the Specific Plan and Water Reclamation Plant (WRP). The Newhall Ranch Specific Plan Program EIR concluded that Specific Plan implementation would result in significant geologic, soil, and geotechnical impacts, but that the identified mitigation measures would reduce the impacts to below a level of significance. That EIR also determined that site-specific geologic, soil, and geotechnical analysis and evaluation would be required as the Specific Plan is implemented through the application and processing of tentative subdivision maps and other discretionary entitlements for Newhall Ranch. All subsequent project-specific development plans and tentative subdivision maps must be consistent with the Newhall Ranch Specific Plan, adopted May 2003, and the County of Los Angeles General Plan and Santa Clarita Valley Area Plan.

This project-level EIR is tiering from the previously certified Newhall Ranch Specific Plan Program EIR. **Section 4.1** assesses the Mission Village project's existing conditions, potential environmental impacts, applicable mitigation measures from the Newhall Ranch Specific Plan Program EIR, and any new mitigation measures recommended by this EIR.

b. References for this EIR Section

The technical analysis documents used in this section were prepared by Allan E. Seward Engineering Geology, Inc. (Seward), Leighton and Associates, and R.T. Franklin and Associates (RTFA).¹ The technical reports prepared specifically for the Mission Village project (formerly known as the Mesas East project) are:

- Allan E. Seward Engineering Geology, Inc., *Geologic Report – Fault Investigation for Airport Mesa Area, Portion of Mesas East VTTM61105, Newhall Ranch.* (1 volume.) July 20, 2004. Job No. 04-1703H-1.

¹ Seward and R.T. Frankian & Associates were the consultants that performed the geotechnical reconnaissance and reporting associated with the Newhall Ranch Program EIR.

- Allan E. Seward Engineering Geology, Inc., *Geologic and Geotechnical Report, Review of Vesting Tentative Tract Map 61105 (dated June 14, 2004). Mesas East, Newhall Ranch.* (6 volumes.) July 22, 2004. Job No. 04-2023-4.
- Allan E. Seward Engineering Geology, Inc., *Geologic and Geotechnical Report – Addendum No. 1 Response to Los Angeles County Geologic Review Sheet* dated October 21, 2004 and *Soils Engineering Review Sheet* dated October 26, 2004; and *Geologic and Geotechnical Report – Review of Revised Vesting Tentative Tract Map* (November 15, 2004). Mission Village, Newhall Ranch. (2 volumes.) December 22, 2004. Job No: 04-2023-4.
- Allan E. Seward, Engineering Geology, Inc., *Geologic and Geotechnical Report – Addendum No. 2, Response to Los Angeles County Geologic Review Sheet*, January 26, 2005 and *Soils Engineering Review Sheet*, February 22, 2005, and *Geologic and Geotechnical Report, Review of Revised Vesting Tentative Tract Map* (6/1/05), Vesting Tentative Tract 61105, Mission Village, Newhall Ranch, (2 volumes.) June 13, 2005, Job No. 05-2023-4.
- Allan E. Seward, Engineering Geology, Inc. *Preliminary Geologic/Geotechnical Report, Review of Utility Corridor Plans (30% Submittal), Utility Corridor along Highway 126, Newhall Ranch WRP Site to Travel Village*, Castaic, May 25, 2007, Job No. 07-2079 (0).
- Allan E. Seward, Engineering Geology, Inc., 2007, *Geologic and Geotechnical Report – Addendum No. 3, Response to Los Angeles County Geologic Review Sheet* dated September 17, 2007 and *Soils Engineering Review Sheet*, September 19, 2007, *Vesting Tentative Tract 61105 (dated 8/9/2007)*, Mission Village, Newhall Ranch. December 4, 2007. Job No. 07-2023-4.
- Allan E. Seward, Engineering Geology, Inc., 2008, *Geologic and Geotechnical Report – Addendum No. 4, Response to Los Angeles County Geologic Review Sheet*, January 16, 2008 and *Soils Engineering Review Sheet*, January 18, 2008, *Vesting Tentative Tract 61105 (8/9/2007)*, Mission Village, Newhall Ranch. March 13, 2008. Job No. 08-2023-4 (19).
- Allan E. Seward, Engineering Geology, Inc., 2009, *Geologic and Geotechnical Report, Review Revised Vesting Tentative Tract Map 53108*, December 21, 2009, Landmark Village, Newhall Ranch, December 21, 2009, Job No. 09-1702R-4.
- Leighton and Associates, Ins, 2007, *Geotechnical Report, Off-Site Grading for Proposed Southern California Edison Substation Alternatives*, responses to County of Los Angeles, Department of Public Works Geologic and Soils Engineering Review Sheets for TTM No. 61105 (Mission Village Project), November 26, 2007, Project No. 062273-001.
- Leighton and Associates, Ins, 2008, *Responses to County of Los Angeles, Department of Public Works Geologic and Soils Engineering Review Sheets for Leighton’s Geotechnical Report Off-Site Grading for Proposed Southern California Edison Substation Alternatives*, March 11, 2008, Project No. 062273-001.
- Leighton and Associates, Inc., 2010, *100-Scale Grading Plan Review of Offsite Grading for Proposed Southern California Edison Substation Alternatives 1 and 2 March 2010, Vesting Tentative Tract Map 61105*, County of Los Angeles. March 16, 2010, Project No. 062273-002.

- R.T. Frankian & Associates, 2009, *Evaluation of Building Setbacks, Airport Mesa (Area E1), Vesting Tentative Tract 61105*, Newhall Ranch, Los Angeles County, California. October 14, 2009. Job No. 94-502-60.
- R.T. Frankian & Associates, 2009, *100-Scale Plan Review, Revised Vesting Tentative Tract Map No. 61105*, Mission Village, Newhall Ranch. December 21, 2009. Job No. 94502-21.
- R.T. Frankian & Associates, 2010, *Response to County of Los Angeles Review Sheets and Geotechnical Plan Review, Revised Vesting Tentative Tract Map No. 61105*, Mission Village, Newhall Ranch. April 29, 2010. Job No. 94502-22.
- R.T. Frankian & Associates, 2010, *Geologic/Geotechnical Evaluation for Environmental Report Vesting Tentative Tract Map No. 61105*, Mission Village, Newhall Ranch. March 31, 2010. Job No. 94-502-52.
- R.T. Frankian & Associates, 2010, *Response to County of Los Angeles Review Sheets and Geotechnical Plan Review, Revised Tentative Tract Map No. 61105*, Mission Village, Newhall Ranch. April 29, 2010.

These project-specific technical reports are included in **Appendix 4.1** to this EIR. Altogether, these reports evaluate existing geologic, soil, and geotechnical conditions, identify potentially significant project-specific geologic, soil, and geotechnical impacts, and identify mitigation measures to reduce the impacts to below a level of significance.²

3. SUMMARY OF THE NEWHALL RANCH PROGRAM EIR FINDINGS

The Newhall Ranch Specific Plan Program EIR identified potentially significant geologic, soil, and geotechnical impacts that would result from implementation of the Specific Plan. The significant on-site and off-site geologic, soil, and geotechnical impacts identified in the Program EIR were landslides, surficial failures, cut slopes, expansive bedrock, hydroconsolidation, liquefaction potential, and seismic hazards.

In response to identified significant impacts, the County adopted 56 measures to address on-site geology, soils, slope stability, seismicity, and secondary seismic hazards. Based on the Newhall Ranch Specific Plan Program EIR and the entire record, the County's Board of Supervisors found that the significant geotechnical and soil resources impacts identified in that EIR would be mitigated to below a level of significance with implementation of the 56 mitigation measures that were adopted when the Program EIR was certified.³

² Throughout this section, the July 22, 2004, *Geologic and Geotechnical Report, Review of Vesting Tentative Tract Map 61105* (dated June 14, 2005), and the December 22, 2004, *Geologic and Geotechnical Report, Review of Revised Vesting Tentative Tract* (November 15, 2004) are referred to collectively as *Geologic and Geotechnical Report, Vesting Tentative Tract Map* (July 22, 2004), as revised December 22, 2004, unless otherwise indicated.

³ Mitigation Measures 4.1-1 through 4.1-56 in both the certified Newhall Ranch Specific Plan Program EIR (March 9, 1999) and the adopted Mitigation Monitoring Plan for the Specific Plan (May 2003).

4. EXISTING CONDITIONS

The discussion of the existing geologic conditions and features provided below make reference to features located on the project site and in the geologic/geotechnical maps included in the geologic and geotechnical reports prepared by Seward, Leighton and Associates, and RTFA included in **Appendix 4.1**. The following discussion summarizes the major geological features that were identified on the site in the geotechnical reports.

For purposes of this section only, tract map site shall be defined as the tract map site plus immediately adjacent off-site improvement areas (Magic Mountain Parkway extension, Media Center Drive re-alignment and Westridge Parkway and Commerce Center Drive grading, debris basins, water quality basin, Lion Canyon drainage, miscellaneous off-site grading and water tanks). Project site shall include the tract map site, as described herein, plus the utility corridor and Southern California Edison substation site alternatives.

The tract map site is largely undeveloped except for roads and pads associated with past oil well drilling operations, cattle grazing, and other agricultural activities. Slopes range from gentle in the mesa and canyon floor areas to very steep along the Santa Clara River bluffs and near very resistant sandstone bedrock outcrops. The site topography is dominated by the north-trending Lion Canyon on the western margin of the site and the Magic Mountain Canyon on the eastern margin of the site. Located mid-site are Middle Canyon and Dead End Canyon. These canyons drain northward into the Santa Clara River, which is located parallel to the northern perimeter of the tract map site and generally along the south side of the utility corridor. Elevated flat lands are present on the northern portion of the tract map site in the vicinity of Airport Mesa and Exxon Mesa. Below the elevated flat lands are old, uplifted stream and fan deposits. Elevations on the project site range from 850 feet above sea level along the Santa Clara River to a high point of 1,510 feet above sea level. Vegetation on the site ranges from annual grasses to chaparral, with oak trees common in canyon areas and locally occurring on the north-facing slopes. Vegetation has been modified by previous oil well drilling activities, as well as ongoing cattle grazing. Agricultural crops are currently cultivated in Middle Canyon and Airport Mesa and were previously cultivated on Exxon Mesa.

The project site is located in the Traverse Ranges geomorphic province of Southern California in the eastern portion of the Ventura Basin. The Ventura Basin has been tectonically downwarped in the geologic past to produce a large-scale synclinal structure, which has developed a thick accumulation of Cenozoic sediments. The project site is underlain by sedimentary rock units of the Pico and Saugus Formations that have been tectonically deformed into southeast-plunging folds with local faulting in the Airport Mesa Area.

Younger terrace deposits locally overlie the bedrock within the tract map site, with minor to moderate angular discordance. Alluvium is present in the larger drainage areas and slopewash layers on most of the site.

Two major topographic features known as mesas are located on the northeastern (Airport Mesa) and northwestern (Exxon Mesa) portions of the tract map site. These mesas consist of older stream channel and alluvial fan deposits (Quaternary terrace deposits [Qt]) that have been uplifted and overlie the bedrock of the Saugus Formation.

Within the tract map site, the structure of the bedrock strikes northwest across the site and dips moderately (15 to 30 degrees) to the northeast. Three notable exceptions are the Airport Mesa Structural Zone, Lion Canyon anticline, and Monoclinical Warp. Within the tract map site, the Airport Mesa Structural Zone consists of two faults (designated the Airport Mesa and Saddle faults) and a series of folds (including the Airport Mesa anticline, Airport Mesa syncline, and Saddle syncline). The Lion Canyon anticline is a southeast plunging asymmetrical fold that dips moderately on its eastern limb and fairly steep on its western limb for a short distance before the beds flatten towards the Grapevine Mesa syncline, which is located off site to the west of Lion Canyon. The Monoclinical Warp trends southeast with steeply dipping bedrock south of the hinge and moderate to shallow dipping bedrock north of the hinge. The warp gradually levels out to the northwest and dies out before reaching the southern portion of Middle Canyon.

Beneath the utility corridor the bedrock structure is controlled by three regional folds consisting of the Grapevine Mesa syncline, Del Valle anticline, and Middle Canyon syncline. The bedrock structure beneath the Southern California Edison (SCE) electrical substation site alternatives is similar to the structure beneath the tract map site, with the bedrock striking northwest and dipping 40 to 55 degrees towards the northeast.

As discussed in **Section 1.0, Project Description**, off-site improvements are necessary to support the Mission Village tract map site proposed uses. The utility corridor is located both within the Newhall Ranch Specific Plan and outside the Specific plan within right of ways of several roadways. The portion of the utility corridor within the Newhall Ranch Specific Plan is generally flat for existing banks between younger and older alluvium and ascending fill slopes and local bedrock outcrops along the south side of State Route 126.

The proposed SCE electrical substation site alternatives are generally along the boundary between Newhall Ranch Specific Plan, Potrero Valley portion, and Legacy Village (VTTM 061996). These sites

generally straddle an existing northwest-southeast trending ridge with approximate elevations ranging from 1,250 to 1,540. An existing Edison easement for high-voltage power lines is located nearby.

a. Geologic Structure and Earth Materials

(1) Bedrock Formations

(a) Saugus Formation (TQsl and TQsu)

Underlying the tract map site, and exposed locally along a portion of the utility corridor alignment, are Plio-Pleistocene, non-marine sedimentary rock units of the Saugus Formation. This formation includes light gray to yellowish-gray sandstone, pebbly sandstone, and pebble to cobble conglomerate, light yellowish brown to brown sandy siltstone, siltstone, mudstone, and rare moderate-brown claystone. Siltstone, claystone, and mudstone units of the Saugus Formation are potentially expansive.

Subsurface investigations and field mapping indicate that the upper stratigraphic section of the Saugus Formation (TQsu) is lithologically distinct from the more typical lower section (TQsl). The location of the upper and lower Saugus Formation is identified on the geologic maps contained in **Appendix 4.1**. The lower (older) section of the Saugus Formation exposed on the western portion of the site, is generally coarse-grained, moderately to well indurated, and lithologically similar to the typical Saugus Formation characteristics. The upper (younger) section exposed on the eastern portion of the site is less indurated and commonly contains more thinly bedded siltstone and mudstone than the typical Saugus Formation characteristics.

The bedrock exposed to the south of the Saddle Fault is identified as the upper member of the Saugus Formation (TQsu). North of the Saddle Fault the bedrock encountered in subsurface explorations is mostly coarse grained and is designated as undifferentiated Saugus Formation (TQsl).

(b) Pico Formation (Tp)

The Pliocene Pico Formation underlies the west end of the utility corridor alignment and SCE electrical substation site alternatives, and is identified in the geologic maps included in **Appendix 4.1** as "Tp." The Pico Formation observed on the project site consists of moderately hard, light gray to light greenish-gray sandstone and pebbly sandstone with local interbeds of light greenish-gray to olive-gray siltstone, sandy siltstone, and rare moderate-brown mudstone. The sandstones are generally well sorted and massive to locally well bedded with common low angle cross bedding. Pebbles are generally well rounded and commonly crystalline in composition. The siltstone and mudstone units are potentially expansive. Thin, low strength clay seams are present within this formation and can be problematic relative to slope

stability. The Pico Formation sedimentary rock units are primarily located in the vicinity of the western portions of the utility corridor and substation site alternatives.

(2) Surficial Deposits

(a) Quaternary Terrace Deposits (Qt)

Deposits of relatively flat-lying terrace deposits, which are significantly higher than the active stream channel areas, are designated as terrace deposits (Qt) on the geologic maps contained in **Appendix 4.1**. The terrace deposits are limited to the tract map site, and are not present within the utility corridor or SCE substation site alternatives. At least two fill-terrace levels are present on the tract map site. The dominant upper terrace forms large mesas on the northwestern portion of the site (Exxon Mesa) and northeastern portion of the site (Airport Mesa), which are roughly 180 to 200 feet above the adjacent drainages. A second lower terrace level is present on the margins of Lion Canyon and locally in the larger canyons to the east across the site. The lower terrace surface is largely eroded but appears to commonly extend at least 20 to 40 feet above the adjacent drainages. Small relic Qt deposit remnants were also encountered on portions of the upper slopes on the south side of Middle Canyon. The lower terrace deposits typically consist of pebbly sandstone, pebble to cobble conglomerate, and silty sandstone, which range up to an observed thickness of 23 feet.

The upper terrace deposits that compose the large mesa areas range in depth up to 112 feet and typically consist of interbedded light yellowish-brown to yellowish gray sand, gravelly sand and silty sand with interbeds of yellowish-brown sandy silt, gravelly sandy silt, and local brown silt to clayey silt. Cobbles occur locally in the upper portion of the deposits. However, there is usually a coarse grained layer at the base that consists of 3 to 10 feet of coarse-grained sand and gravelly sand with cobbles and boulders (typically 2 feet maximum diameter, but up to 5 feet diameter were locally observed).

In general, the larger Qt deposits on the site are dense and suitable for the support of engineered fill, and building structures, once the upper weathered and soil zones (generally upper 3 to 10 feet) have been removed. Some of the smaller localized Qt deposits on the lower canyon margins require complete removal due to their weathered nature.

(b) Quaternary Older Alluvium (Qoa)

Older alluvial deposits underlie most of the utility corridor alignment, but have not been identified within the tract map or substation site alternatives. These materials consist primarily of fine-grained silts and clays beneath the western portion of the corridor and coarse-grained sands and gravelly sands beneath the eastern portion.

(c) Quaternary Alluvium (Qal)

The larger canyon areas and Santa Clara River floodplain are underlain by alluvium. Older, incised alluvium is commonly present on the margins of the canyons. These units are mapped as Qal in the geologic maps included in **Appendix 4.1**. These deposits typically consist of sands and gravel with cobbles, boulders and local silty intervals.

(d) Quaternary Slopewash (Qsw)

Slopewash, designated as Qsw in the Geologic Maps included in **Appendix 4.1**, is a non-bedded, heterogeneous accumulation of soil and weathered bedrock deposited by gravity on slopes. Swales and side-canyons adjacent to the larger canyon drainages commonly contain accumulations of slopewash. The thickest accumulations occur at the toe of slopes and where broad swales join main drainage areas. The maximum thickness of slopewash colluvium encountered in the exploratory excavations conducted as part of the geological investigation is about 15 feet.

(3) Fill and Plowed Soils

(a) Residual Soil

Natural areas of the project site are mantled by surface soils consisting of moderate-brown to yellowish-brown and yellowish gray silty sand with scattered pebbles. These soils, which developed in the alluvial flats and in the relatively flat mesa areas, have been disturbed by past agricultural and grading activities.

(b) Artificial Fill (af)

Existing non-compacted artificial fill within the project site ranges from minor spill fills generated during past grading of minor roads and oil well pads to larger accumulations placed to bridge roads across drainages. The more prominent fill areas are shown in the geologic maps included in **Appendix 4.1**.

(c) Certified Engineered Fill (Cef)

Certified engineered fill associated with the Westridge Development (Tract 45433-04), near the easterly portions of the Magic Mountain Parkway extension and as part of the Media Center Drive re-alignment, has been placed adjacent to the southeast corner of the tract map site. Development proposed as a part of the Mission Village tract map will tie into this existing fill for the extension of Westridge Parkway.

Certified fill is also present along much of the northern edge of the utility corridor, placed during the widening and realignment of State Highway 126. Certified engineered fill is not present within the substation site alternatives.

b. Mass Movement Deposits

(1) Landslides (Qls)

Extensive multi-phased subsurface investigations were performed to evaluate the lateral limits, depth, and geometry of the landslides encountered within the project site. The landslide limits are identified on the geologic maps contained in **Appendix 4.1** as Qls.

A total of 52 landslides have been mapped within the project site, of which 21 are greater than 250 feet in width, and 31 are smaller than 250 feet in width. In general, the mapped landslides are translational failures, which occurred where unsupported clay-rich beds of the Saugus Formation bedrock were exposed. The 52 landslides all fall within the tract map site, with most of the landslides concentrated on the eastern half of the tract map site, occurring within the weaker, upper member of the Saugus Formation (TQs). Radiocarbon dating of a landslide near Newhall Ranch with similar geomorphology to the landslides located on the Mission Village project site indicates that most of the large landslides probably occurred more than 11,000 years ago.

(2) Surficial Failures (sf)

Shallow (5 to 15 feet in depth) surficial failures involving soil, slopewash and weathered bedrock were observed within the tract map site. Approximate locations and the extent of the surficial failures occurring on the tract map site are shown as “sf” on the geologic maps contained in **Appendix 4.1**.

c. Groundwater

The project site is located in the Eastern Hydrologic Subarea of the Upper Santa Clara River watershed of Los Angeles County. Within the project site, groundwater occurs in the alluvial deposits within the Santa Clara River and major tributary canyons, and within the aquifers of the Saugus Formation.

The Water Resources Division of Los Angeles County Department of Public Works (LACDPW) has periodically measured groundwater levels in water wells within the vicinity of the project site. The wells are typically situated within the Santa Clara River/Castaic Creek flood plain. In general, well records indicate historic high water levels within approximately 3 feet of ground surface for the project site. Exploratory bucket-auger borings and trenching was conducted on the project site in association with the preparation of the geotechnical reports to identify groundwater levels. No significant groundwater was

encountered in the exploratory bucket-auger borings or trenches within the tract map site with the exception of the spring area at the mouth of Middle Canyon, where shallow groundwater occurs in the alluvium and at greater depths in the bedrock. Piezometers installed within Middle Canyon encountered groundwater approximately 15 feet below ground surface near the canyon mouth, and at 35 feet approximately 1,500 feet upstream from the mouth in 2004. Groundwater was also encountered in bedrock at depths of 40 and 49 feet in two borings excavated near the mouth of Middle Canyon. The spring and elevated water table in Middle Canyon is attributed to a groundwater barrier created by the juxtaposition of coarse-grained alluvium and bedrock against lower permeability materials along the Airport Mesa and/or Saddle faults. Due to the elevated nature of the site, groundwater is not expected to pose a hazard to the proposed development or grading operations. Groundwater was encountered in most of the borings along the Utility Corridor, with the depth to water ranging from 11 to 30 feet below existing ground surface. Groundwater was not encountered within the substation site alternatives.

d. Potential Corrosivity of Soils

On the project site, a total of seven samples were collected and sampled for electrical resistivity, pH, and sulfate and chloride. Based on County of Los Angeles classification standards, soil electrical resistivity values of selected shallow soils suggest that moderately to severely corrosive to ferrous metals exist at the site. Samples tested for pH showed no significant acidity of tested soils. Based upon test results, concrete exposure to sulfates in shallow soils would be negligible per 1997 Uniform Building Code Classification.

e. Rippability

The bedrock encountered on the project site consists primarily of siltstone and sandstone of the Pico and Saugus Formations. These units are moderately cemented and can likely be excavated with conventional grading equipment. The granular and poorly cemented nature of alluvial deposits located on the project site indicates that the grading operations would only require typical grading equipment and techniques. Heavy single-shank ripping may be required if more indurated bedrock units are encountered.

f. Seismic Considerations

The project is within the Transverse Ranges geomorphic province of Southern California. The Transverse Ranges consist of a series of west-trending mountains and intervening valleys, which is contrary to the northwest geomorphic trend that is typical of most of California and reflects the underlying structural (geologic) trend. These ranges are largely the result of north-south compression, which has resulted in east-west-trending folds and thrust faults. Associated faults in the vicinity of the site include the Holser Fault, Del Valle Fault, Santa Susana, Northridge (East Oakridge) and Sierra Madre (San Fernando)

reverse/thrust faults. The January 17, 1994, Northridge (magnitude 6.8) Earthquake occurred on a south-dipping thrust fault which uplifted the Santa Susana Mountains at least 40 centimeters (cm).

The Southern California region is traversed by the San Andreas Fault, which is a transform boundary between the Pacific Plate and the North American Plate. The San Andreas Fault is part of the San Andreas system of northwest-striking, right-lateral faults. The faults of this system are generally historically active, as indicated by the January 9, 1857, Fort Tejon (magnitude 7.9) Earthquake. The Southern California region is seismically active and commonly experiences strong ground shaking resulting from earthquakes along active faults. Earthquakes along these faults are part of a continuous, naturally occurring process, which has contributed to the characteristic landscape of the region.

Three common types of geologic hazards may be produced during a seismic event (earthquake). These include ground rupture, ground motion, and ground failure. Each of these topics is discussed in detail below.

(1) Ground Rupture

Ground rupture or displacement is generally expected to occur along pre-existing active faults and occurs as a fault breaks the ground surface during a seismic event. Ground rupture cannot be prevented; therefore, mitigation of this hazard involves avoiding construction over known existing active faults. Where the locations of active faults are unknown or suspected, they are investigated through subsurface exploration, delineated, and if necessary, placed into a potentially hazardous fault zone where construction should be avoided.

Review of published geologic maps and Alquist-Priolo Maps indicates that the nearest active fault to the project site (the San Gabriel Fault) is located approximately 2 miles northeast of the project site. No active faults, as defined by the Alquist-Priolo Earthquake Fault Zoning Act and delineated on Alquist-Priolo Maps, are shown within the boundaries of the project site. The technical appendix of the Los Angeles County Safety Element indicates a possible active fault, identified as the Holser Fault splay, in the Airport Mesa Area on the northeastern portion of the project site. Discussions of the faults in the vicinity of the Airport Mesa Area are discussed in greater detail below.

In addition to the faults in the vicinity of the Airport Mesa Area, the potentially active Del Valle Fault crosses the proposed Utility Corridor east of San Martinez Grande Canyon. Two additional areas of recognized tectonic deformation exist within the project site and consist of the Monoclinial Warp and Lion Canyon anticline. These areas were also investigated in consideration of the changes in geologic structure. A discussion of both features is addressed below.

No faults were identified within the substation site alternatives.

(a) Airport Mesa Area

Previous geologic mapping by Weber (1979 and 1982) identified two faults as extending east-west across Airport Mesa within the tract map site. Allan E. Seward, Engineering Geology, Inc. (AES) conducted a site-specific fault rupture hazard investigation for the site with the intent of evaluating the existence of any fault-related features or “lineaments” in the Airport Mesa area. They investigated three “lineaments” that correspond to the two known faults (the Airport Mesa and Saddle faults), and one fold (the Airport Mesa anticline). Their purpose was to determine the significance, lateral extent, and activity of these structural geologic features from a standpoint of potential surface fault rupture hazard on future development. AES determined that the area between the two faults has been uplifted as a block at least 40 feet as a result of folding and reverse faulting; the Pleistocene age terrace deposits overlying the Saugus Formation have also been deformed along the Airport Mesa and Saddle faults. AES concluded that the faults have demonstrated movement within at least the last 100,000 years but, due to a lack of datable soil horizons, failed to unequivocally establish that the faults have moved in the last 11,000 years. By definitions established by California Division of Mines and Geology (CDMG), the Airport Mesa and Saddle faults are considered potentially active.

Although AES could not definitively conclude that the faults were active, they recommended building setbacks from the Airport Mesa and Saddle faults. Furthermore, they also recommended a building setback from the Airport Mesa anticline, based on the identification of faults in terrace deposits overlying the anticline. AES also recommended zones of restricted development and structural mitigation for the area between the two faults, in the area between the Airport Mesa fault and the Airport Mesa anticline, and for 100 feet beyond the recommended building setbacks “because of the potential for sympathetic movement.” These zones were delineated to restrict construction of critical facilities or essential services buildings (i.e., schools, fire stations, hospitals, etc.). The overall width of the AES proposed building setbacks and zones of restricted development measures approximately 500 to 1200 feet.

RTFA (2009b) evaluated the building setbacks recommended by AES to compare their findings and setback recommendations to current regulatory standards, assess the AES interpretations with more recent findings of investigations on the nearby Holser fault, and determine if setbacks established by AES for the features they designated as the “Airport Mesa Lineament,” “Saddle Lineament,” and “Airport Mesa anticline” may be modified or eliminated. RTFA concluded that:

- the Airport Mesa fault, Saddle fault, and Airport Mesa anticline (herein collectively referred to as the Airport Mesa structural zone) are not located within an Alquist-Priolo Earthquake Fault Zone or designated as active by the Los Angeles County Safety Element (LASCE);

- unlike ground rupture identified in Stevenson Ranch following the Northridge earthquake, there is no data or reports of earthquake ground rupture features occurring on the Airport Mesa structural zone following the 1971 San Fernando or 1994 Northridge earthquakes;
- the Airport Mesa structural zone may be age equivalent with the nearby Holser fault, which has been determined by Geolabs (2007b) as falling within the 40,000 to 100,000 before present age range;
- the AES exploration failed to identify any evidence of surface fault rupture or fault activity younger than 11,000 years. Therefore, by criteria established for the Alquist-Priolo Earthquake Fault Zoning Act (A-P Act) by the State Geologist, and the LACSE, the faults and folds comprising the Airport Mesa structural zone are not active geologic structures;
- the Airport Mesa structural zone has demonstrated movement in late Quaternary time, but not Holocene time, and by definition is considered potentially active. There is no requirement or precedent in the A-P Act or the LACSE for establishing building setbacks from potentially active faults; and
- the Airport Mesa anticline is a fold, not a fault. There is no requirement, nor precedent in either the A-P Act or the LACSE for building setbacks for folds.

The potential for ground rupture occurring along the Airport Mesa and Saddle faults, and the Airport Mesa anticline, is considered unlikely during the design life of the project. There is no requirement for establishing building setbacks from potentially active faults for residential, commercial, or industrial structures. However, since Holocene displacement (fault movement within the last 11,000 years) cannot be entirely ruled out for the Airport Mesa and Saddle faults due to a lack of datable soil horizons, RTFA has conservatively established "Fault Building Setbacks" for the Airport Mesa and Saddle faults. The setbacks are depicted on the geologic map presented in RTFA, Response to County of Los Angeles Review Sheets and Geotechnical Plan Review, Revised Tentative Tract Map No. 61105, Mission Village, dated April 29, 2010. In general, the fault setbacks measure approximately 50 feet on each side of the mapped fault traces, or any subsidiary faults, that have disrupted the Pleistocene age terrace deposits. The fault setback distance of 50 feet is considered appropriate, based on a lack of demonstrative Holocene fault movement, and in consideration of the extensive subsurface investigation that defined the accurate locations of the faults.

The potential for fault surface rupture occurring on the Airport Mesa anticline is considered remote, as the anticline is not associated with Holocene or active faulting. Accordingly, no setback has been established for the Airport Mesa anticline.

(b) Del Valle Fault

The Del Valle Fault consists of a west-southwest-dipping fault, right-lateral oblique reverse fault. This fault trends eastward from the Los Angeles-Ventura County line for nearly 2 miles, then turns southward

before crossing San Martinez Grande Canyon. The Del Valle Fault, crossing the utility corridor east of San Martinez Grande Canyon, offsets uplifted Pleistocene alluvial deposits and is designated as potentially active in the Safety Element of Los Angeles County General Plan

(c) Monoclinical Warp Area

Building Setback Zones were implemented on portions of the Stevenson Ranch and Westridge developments for the southeastern extent of this geologic feature. These setbacks were based upon observed zones of faulting near its hinge line (Leighton and Associates 1997) and its relationship with the reverse offsets observed in the bedrock after the 1994 Northridge Earthquake, where the State of California established an Alquist-Priolo Earthquake Fault Zone for ground surface rupture identified in Stevenson Ranch. It is important to note that the State did not establish an Alquist-Priolo Earthquake Fault Zone encompassing the Monoclinical Warp; rather the zone was established only for the observed ground surface rupture in Stevenson Ranch.

Based on the setbacks established for Westridge and Stevenson Ranch, an assessment of the style of deformation in the vicinity of the Monoclinical Warp was conducted for the project site. Review of aerial photographs did not reveal any evidence of faults or obvious geologic features indicative of active faults. A few minor faults were encountered in trenches and dozer cuts conducted on the site. However, the faults were determined to be minor faults as features that formed under high pressure caused by a once thick cover of sediments that has been stripped away long ago. Based on evidence obtained during the geotechnical investigation, the faults located in this area were created more than 11,000 years ago. Thus, ground rupture hazard areas in the vicinity of the Monoclinical Warp area are considered negligible within the life of the proposed development.

(d) Lion Canyon Anticline

Based on the asymmetrical geometry of the Lion Canyon anticline and the change in geologic structure from steeply dipping to shallow dipping bedrock across Lion Canyon to the west, a presence or absence investigation of faulting across this structure was conducted. Backhoe and excavator trenches were dug on the western limb of the anticline to better define the geologic structure in this area.

Overall, no significant faulting was observed in explorations within the bedrock, deposits in the vicinity of the structure change, or in the steeply dipping beds. The shallowing of the dips towards the west is attributed to the Grapevine Mesa syncline, which trends southeast towards the southern property line in Lion Canyon. The potential for primary ground rupture hazard in the vicinity of the Lion Canyon anticline, within the life of the development, is considered to be negligible as no faulting associated with the anticline was identified.

(2) Ground Motion

Ground motion is generated during an earthquake when two blocks of the earth's crust slip past each other. Ground motion is generally greatest near the epicenter of an earthquake, and then decreases with increasing distance. The likelihood of ground motion occurrence and its intensity is dependent upon a number of criteria, including focal depth, proximity to projected or actual fault rupture, fault mechanism, duration of shaking, local structure, source direction of earthquake, underlying earth material characteristics, and topography. These features are applicable to the tract map site and the utility corridor and SCE substation site alternatives.

(3) Ground Failure

Ground failure is a general term used to describe seismically induced secondary permanent ground deformation caused by strong ground motion. This includes liquefaction, lateral spreading, seismic settlement of poorly consolidated materials (dynamic densification), differential materials response, slope failures, sympathetic movement on weak bedding planes or non-causative faults, shattered ridge effects and ground lurching.

The seismic hazards map for the Newhall Quadrangle (1998) and Val Verde Quadrangle (2002) indicate that alluvial portions of the project site are in designated zones where investigations are required to evaluate the potential for liquefaction and lateral spreading. The potential for liquefaction and seismic settlement was evaluated for the tract map site, assuming historic high groundwater levels at a depth of 10 to 30 feet below the existing topography. The results of the liquefaction assessment indicate that some relatively thin liquefaction-prone zones exist on the site at isolated depth intervals. Even though some thin deposits appear to be liquefiable, the potential seismically induced settlements in the subsurface soils at the site, i.e., settlements caused by seismic excitation, are small at most locations. The maximum cumulative calculated settlement after removals is 0.39 inch and differential settlements are expected to be no greater than 0.26 inch in a horizontal distance of 30 feet.

The geotechnical study for the tract map site also concluded that minimal lateral spreading due to liquefaction is expected at the site for three reasons. First, most of the surface of the project site has a very gentle slope to the northern site boundary. Second, liquefaction potential and associated settlements are considered to be limited on the site. Third, thicknesses of liquefiable layers are relatively small.

Liquefaction analyses for the utility corridor site indicate that post-earthquake settlement of the alluvial deposits could range from negligible to as much as approximately 2 inches. The potential for ground lurching or lateral spreading along the corridor is estimated to be low due to the low magnitude of estimated earthquake-induced total and differential settlements, and the proposed recompacted layers

Portions of the substation site alternatives will be located within bedrock, which is not susceptible to liquefaction. Alluvium or other unsuitable materials underlying the substation site alternatives will be removed and replaced with engineered fill. By implementing this recommendation, the potential for liquefaction impacting the site is considered to be low.

g. Oil Wells

Review of the 2003 Munger Map book and the California Department of Conservation Division of Oil, Gas and Geothermal Resources (DOGGR) Maps indicate that 55 oil wells were formerly located on the project site, including eight within the area of the off-site improvements, and an additional eight wells are located outside of, though nearby, the project site. The wells located within the area of the off-site improvements are distributed as follows: Magic Mountain Parkway Extension (two wells); grading for Commerce Center Drive (one well); water quality basin (one well); utility corridor (two wells); SCE substation site alternatives (two wells). Oil well records on file with the DOGGR indicate that all of these wells have been abandoned. The locations of these wells, as indicated by DOGGR records, are identified on the Geologic Maps included in **Appendix 4.1**.

h. Debris Flows

Potential debris flow hazards exists anywhere that a moderate to thick accumulation of residual soil, slope wash, or weathered bedrock materials occur on moderate to steep descending slopes that border future building pads. The southerly portion of the tract map site, where steep natural slopes descend to the tract boundary, is the most susceptible to debris flow hazard. However, no building pads would be located within this area.

SCE substation site Alternative 1 may have the potential for debris flow hazards. A more definitive determination of debris flow hazard should be performed for future design stages of the proposed project development. SCE substation site Alternative 2 will be surrounded by graded slopes, designed with drainage benches to control drainage and minimize erosion. Accordingly, the substation site alternatives are not subject to debris flow hazard.

The utility corridor is not adjacent to steep natural slopes and not subject to debris flow hazards.

5. PROPOSED PROJECT IMPROVEMENTS

Development of the project site would involve the excavation of a maximum of approximately 29.9 million cubic yards and placement of a maximum of approximately 29.9 million cubic yards of earth material in a generally balanced cut and fill operation. Of the 29.9 million cubic yards, approximately

900,000 cubic yards is required for the off-site extension of Magic Mountain Parkway and approximately 618,000 cubic yards for utility corridor. In addition, electrical substation, site Alternative 1 would create a cut and fill of approximately 158,000 and 45,000 cubic yards, respectively. The export of 113,000 cubic yards would be placed in the near disposal site. Site Alternative 2 would create would create a cut and fill of approximately 372,000 and 107,000 cubic yards, respectively. The export of 265,000 cubic yards would be placed in the disposal site.

Proposed tract map site development will include the grading of 58 cut slopes. The cut slopes will be graded at inclinations of 2:1 (horizontal to vertical) to 3:1. All cut slopes exceeding 30 feet in height will be designed with terrace drains every 25 vertical feet. The maximum proposed cut slope is approximately 170 feet in height. Proposed fill slopes will be graded at inclinations of 2:1 or flatter. All fill slopes exceeding 30 feet in height will be designed with terrace drains every 25 vertical feet. The maximum proposed fill slope height within the tract map site is approximately 130 feet. The natural slopes proposed for the project site have gradients ranging from 0.5:1 to 5:1, with the steepest slopes consisting of the bluffs along to the Santa Clara River. The grading associated with utility corridor will have maximum cut and fill slopes of approximately 40 feet. Grading for substation site alternative 1 will produce a maximum cut slope of approximately 140 feet and a maximum fill slope of approximately 30 feet. Substation site alternative 2 will have a maximum cut slope of approximately 150 feet and a fill slope of approximately 80 feet. All proposed cut and fill locations on the project site are noted in the geologic maps included in **Appendix 4.1**. Details regarding the cut slopes identified in the geologic maps are discussed in the geotechnical reports that are included in **Appendix 4.1**.

6. PROJECT IMPACTS

The analysis of potential geologic, soil, and geotechnical impacts associated with construction and operation of the proposed project, including the significance criteria applicable to assessing such impacts, is presented below.

a. Significance Threshold Criteria

Appendix G of the *California Environmental Quality Act (CEQA) Guidelines* indicates that the proposed project would result in a significant geologic and soils impact if the project would

- (a) expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - (i) rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

- (ii) strong seismic ground shaking?
 - (iii) seismic-related ground failure, including liquefaction?
 - (iv) landslides?
- (b) result in substantial soil erosion or the loss of topsoil?
- (c) be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?
- (d) be located on expansive soil, as defined in Table 18- 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?
- (e) have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?"

In addition, the project's Initial Study (**Appendix I**) suggests that a project would result in a significant geotechnical impact if

- (a) it is located in an active or potentially active fault zone or Alquist-Priolo Earthquake Fault Zone;
- (b) it is located in an area containing a major landslide(s);
- (c) it is located in an area having high slope instability;
- (d) it is subject to high subsidence, high groundwater level, or hydrocompaction;
- (e) the project is considered a sensitive use (school, hospital, public assembly site) located in close proximity to a significant geotechnical hazard; and/or
- (f) the project would entail substantial grading and/or alteration of topography including slopes of over 25 percent.

An additional criterion against which the project is evaluated is construction within and upon expansive soils, corrosive soils, and other soils with properties that could have an adverse effect on future site development.

The discussion of the geologic conditions and features below makes reference to features located on the project site and the geotechnical reports in **Appendix 4.1**.

b. Construction Impacts

Any construction activities that would occur during the earlier phases of site development would be set back far enough away from existing structures such that any associated grading of temporary steep slopes

that may be excavated during remedial grading (if any) or during placement of infrastructure would not affect the existing development. In addition, construction operations would be conducted pursuant to the requirements of the Occupational Safety and Health Administration (OSHA) and the mitigation measures identified in this EIR. As a result, any potential impacts associated with temporary steep slopes that may be created during remedial grading (if any) or during placement of infrastructure would be mitigated to below a level of significance through standard construction practices and OSHA requirements. Accordingly, construction of the proposed project is not expected to result in any significant geologic, soil or geotechnical impacts.

c. Operational Impacts

(1) Hazards Associated with Faults

The locations of faulting observed beneath Airport Mesa within the tract map site are identified on the geotechnical maps presented as Figures 2.1 through 2.12 in the *Response to County of Los Angeles Review Sheets and Geotechnical Plan Review, Revised Vesting Tentative Tract Map No. 61105* (April 29, 2010), prepared by RTFA (April 2010 Response), included in **Appendix 4.1**. As discussed above, evidence of movement within the last 11,000 years along the faults identified on the tract map site has not been definitively established. However, there is substantial evidence of at least 40 feet of vertical uplift during the last 100,000 years along both fold/fault zones based on offset of the terrace deposits. This average level of movement along with the presence of aerial photo lineaments, a distinct fault scarp preserved on the terrace surface, deformed colluvial wedge deposits, and “flowering” of faults near the ground surface all suggest recent, from a geological perspective, faulting along the Airport Mesa and Saddle faults. The potential for impacts relating to movements along the faults identified on the tract map site is considered significant in the absence of mitigation.

The April 2010 Response includes recommended building setbacks to mitigate potential ground rupture hazards along the Airport Mesa and Saddle faults. In accordance with the requirements and policies of the State of California and the Los Angeles County Department of Public Works, Geotechnical and Materials Engineering Division, a building setback has been established at least 50 feet beyond faults interpreted in the Geotechnical Reports to be active or potentially hazardous along the Airport Mesa and Saddle Lineament Fault Zones. A minimum 75-foot setback from the Airport Mesa anticline and 20-foot setback from associated minor faults has also been established. Detailed locations of the fault setback areas are identified in the Geologic Remediation Maps (Plates G7 to G11) included in the *Geologic and Geotechnical Report, Vesting Tentative Tract Map 61105* (July 22, 2004), as revised by Plates E8-E13 of the geotechnical report dated December 22, 2004, prepared by Seward, in **Appendix 4.1**.

The Del Valle Fault was identified by Seward in their May 2007 report as crossing the utility corridor. This fault is considered potentially active. Accordingly, Seward recommended a building setback for the fault. The setback measures approximately 150 feet wide along the west side of the fault, and approximately 80 feet wide along the east side. Seward also recommended that pipelines within the building setback be designed with flexible joints, and that emergency shut-off valves be installed for gas, water, and sewer lines on both sides of the building setback.

No active or potentially active faults exist within the substation site alternatives.

Structures for human occupancy are prohibited within the Fault Building Setbacks. Specifically, within the setbacks the following restrictions are to be imposed:

1. No habitable structures, as defined by the Uniform Building Code, are to be allowed within the Fault Building Setbacks.
2. Pipelines, including gas, water storm drain, and sewer, should be constructed to allow for some flexure and emergency shut off valves may be prudent for gas and water lines within these zones in case of possible ground deformation during an earthquake.
3. Specific recommendations should be provided at the grading or building plan stages.

Thus, as noted above, the areas surrounding the Airport Mesa, Saddle, and Del Valle faults are identified as building setback areas. As identified in the maps included in **Appendix 4.1**, there are no structures proposed within the building setback areas. Only roads and utility connections are proposed to cross these faults. Overall, with the incorporation of the mitigation measures recommended for development adjacent to the Airport Mesa, Saddle, and Del Valle faults, impacts are considered less than significant.

As discussed earlier, the potential for primary ground ruptures along the Monoclinical Warp and Lion Canyon anticline is considered negligible. This conclusion is based on field observations, physical testing conducted on the project site, review of past reports, and utilization of aerial photos. Furthermore, these features are folds, not faults. Primary ground rupture is typically not associated with folds. As a result, the potential impacts associated with ground ruptures in the vicinity of the Monoclinical Warp and Lion Canyon anticline are considered less than significant.

(a) Liquefaction

Liquefaction is the process in which water-saturated, usually loose-to-moderately dense, fine-to-medium sands temporarily lose strength due to strong ground motion and behave as a viscous fluid. The results of the liquefaction assessment for the project site indicate that some relatively thin liquefaction-prone zones exist on the project site at isolated depth intervals. However, more important than the identification of

zones of potential liquefaction are the settlements caused by seismic events. Even though some thin deposits appear to be liquefiable, the potential seismically induced settlements in subsurface soils at the site are small. The maximum cumulative calculated settlement is 0.39 inch and differential settlements are expected to be no greater than 0.26 inch in a distance of 30 feet. Certified compacted fill from proposed removals and recompaction, as discussed in the geologic reports included in **Appendix 4.1**, is anticipated to eliminate any minor settlements beneath the fill due to bridging effects. Due to the low magnitude of estimated conservative earthquake-induced total and differential settlements, and the proposed recompacted layers, potential impacts associated with liquefaction and seismically induced settlement are considered less than significant.

(b) Lateral Spreading

Lateral spreading is a type of liquefaction where sediments/materials spread laterally down slope due to temporary loss of shear strength. Lateral spreading may occur on slopes as shallow as 1 to 2 degrees. No lateral spreading due to liquefaction is expected on the project site for the following reasons:

- Most of the site surface has a very gentle slope to the north site boundary,
- Liquefaction potential and associated settlements are considered to be limited to the site, and
- Thicknesses of liquefiable layers are relatively small.

As a result, there would be no significant impacts associated with lateral spreading on the tract map site, utility corridor or SCE substation site alternatives.

(c) Dynamic Compaction and Differential Materials Response

Differential materials response refers to the different responses various materials display when subjected to seismic waves. Dynamic compaction refers to seismically induced settlement and permanent movement of poorly consolidated materials.

Where materials with different densities or strengths are in contact, differential materials response to the seismic energy may cause distress along the contact. The combination of dynamic compaction and differential settlement along with differential materials response is a source of future potential hazard along cut/fill and bedrock/alluvium contacts. Unless mitigated, development of lots underlain by transitions between different material types (e.g., bedrock to fill, bedrock to alluvium, etc.) could result in a potentially significant geotechnical impact. Mitigation measures are identified below that will reduce impacts to a less than significant level on the tract map site, utility corridor, and SCE substation site alternatives.

(d) Ground Motion

Potential ground motions from future earthquakes on nearby faults were evaluated from a probabilistic analysis. A peak horizontal acceleration of $0.88 g^4$ was estimated as the design basis ground motion (10 percent chance of exceedance in 50 years). The liquefaction evaluation of the site utilized a ground acceleration of $0.59 g$, which was based on the average of three attenuation relationships and weighted for a 7.5-magnitude earthquake.

Table 4.1-1, Seismic Force Design Factors and Coefficients, depicts the coefficients and factors that apply to the seismic force design of buildings and structures at the subject site, based on section 1613 of the 2008 County Building Code, Earthquake Loads.

**Table 4.1-1
Seismic Force Design Factors and Coefficients**

Factor	Coefficient
Latitude	34.4301
Longitude	-118.5062
Site Class	D
Ss	2.236
S1	0.709
SMs	2.326
SM1	1.064
SDs	1.551
SD1	0.709
PGA = SDs/2.5	0.6204

*Source: Los Angeles County Building Code, Section 1613,
Earthquake Loads*

The current standards for construction provided in the County Building Code are designed to safeguard against major failures and loss of life. Conformance to these standards will mitigate the potential impacts associated with ground motion generated during a seismic event on the tract map site, utility corridor and SCE substation site alternatives.

(2) Hazards Associated with Major Landslides

As discussed earlier, a total of 52 landslides were mapped on the tract map site, of which 21 are greater than 250 feet in width, and 31 are less than 250 feet in width. No landslides have been identified along the utility corridor or within the substation site alternatives. In general, the mapped landslides are

⁴ Ground motion is typically reported with respect to the acceleration of gravity in units of g.

translational failures, which occurred where unsupported clay-rich beds of the Saugus Formation bedrock were exposed. Most of the landslides are concentrated on the eastern half of the tract map site and occur within the weaker, upper member of the Saugus Formation (TQs). Radiocarbon dating of a landslide near Newhall Ranch with similar geomorphology indicates that most of the large landslides on the Mission Village project site are probably greater than 11,000 years old.

With the exception of the landslides identified in the geologic remediation maps (Plates G7 to G11) included in **Appendix 4.1** as Qls-I, Qls-XXXV, Qls-XXXVII, Qls-XLIII and Qls-XLIV, as revised by Plates E8-E13 of the geotechnical report dated December 22, 2004, all of the landslide debris material in areas of proposed development would be removed and replaced with engineered fill unless the proposed cut is deeper than the base of the landslide. Partial removals are recommended for Landslides Qls-I, XXXV, XLIII and XLIV. The deeper portions of these large ancient landslides consist of competent materials as determined by visual down-hole logging of the landslides, in place density tests, and consolidation tests performed on the selected weaker samples during the geotechnical investigation. Due to the favorable geometry of the proposed grades at these locations and with the implementation of the mitigation measures recommended in this section of the EIR, these landslides are considered to be grossly stable and safe for the use intended.

Landslide Qls-XXXVII will be completely removed below the proposed pad area; however, due to environmental constraints, the lower portion of this landslide will need to remain in place. A shear key is required to stabilize the upper pad area. The lower remaining portion of Qls-XXXVII will be placed within a Restricted Use Area (RUA). Landslides located outside areas of proposed development (Qls-XXXVIII and XXXIX) will be designated as RUA on the Final Maps. The location of the landslides and the proposed RUAs are depicted in the maps included in **Appendix 4.1**.

Overall, the project design, in combination with the mitigation measures recommended in the geotechnical reports included in **Appendix 4.1** and included in this section of the EIR, will reduce impacts associated with potential landslides to a less than significant level on the tract map site, utility corridor and SCE substation site alternatives.

(3) Hazards Associated with High Slope Instability

(a) Cut and Fill Slopes

An analysis of the stability of the proposed cut and fill slopes, critical natural slopes proposed to remain adjacent to the development, and landslide areas that may impact the proposed development was addressed in the *Response to the County of Los Angeles Review Sheets and Geotechnical Plan Review, Revised Tentative Tract Map No. 61105* (April 29, 2010), prepared by RTFA, and included in **Appendix 4.1**. The

stability analysis utilized cross sections constructed to illustrate critical structural geometries and maximum slope heights for each analyzed slope. Overall, the analysis concluded that in a number of locations on the tract map site, stabilization measures are needed to offset slope stability concerns. A summary of the stability analysis and stabilization measures recommended for various locations on the tract map site are identified in Table I of the *Response to the County of Los Angeles Review Sheets and Geotechnical Plan Review, Revised Tentative Tract Map No. 61105* (April 29, 2010), prepared by RTFA. Impacts related to slope stability would be mitigated to a less than significant level with the incorporation of all measures identified in the geotechnical reports for various locations on the tract map site.

An analysis of the stability of the proposed cut and fill slopes, critical natural slopes proposed to remain adjacent to, and landslide areas which may impact the proposed substation site alternatives was addressed in the *100-Scale Grading Plan Review of Offsite Grading for Proposed Southern California Edison Substation Alternatives, Vesting Tentative Tract Map 61105*, (March 16, 2010), prepared by Leighton and Associates, Inc., and included in **Appendix 4.1**. The stability analysis utilized cross sections constructed to illustrate critical structural geometries and maximum slope heights for each analyzed slope. The stabilization measures would mitigate slope stability impacts to a less than significant level.

The grading for the utility corridor will include cut slopes up to 30 feet high. Two cut slopes were identified that will require stabilization measures. The stabilization measures would mitigate slope stability impacts to a less than significant level.

(b) Natural Slopes and Debris Flows

The natural slopes on the proposed project site have gradients ranging from 5:1 to 0.5:1 (horizontal to vertical). The steepest slopes on the subject site are the bluffs adjacent to the Santa Clara River and the slopes where resistant sandstone/conglomerate beds of the lower unit of the Saugus Formation appear above the surface.

Natural slopes with steep gradients (greater than 2 to 1) that are adjacent to graded areas may be potentially unstable and/or subject to debris flow hazard, thereby resulting in potentially significant impacts. For those natural slopes in close proximity to proposed building pads, where warranted for gross stability, building setbacks have been delineated and mitigation measures proposed. Detailed locations of the setback areas are identified in the Geologic Remediation Maps (Plates G7-G11) included in the *Geologic and Geotechnical Report, Vesting Tentative Tract Map 61105* (July 22, 2004), as revised by Plates E8-E13 of the geotechnical report dated December 22, 2004, prepared by Seward and included in **Appendix 4.1**. Consequently, impacts resulting from natural flows and debris flows to on the tract map

site, utility corridor and SCE substation site alternatives will be mitigated to a level below significant subject to the implementation of mitigation.

(c) Soils Incapable of Supporting Wastewater Disposal Systems

The land uses proposed on the project site would not use septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. All of the land uses located on the project site ultimately will be connected to the proposed wastewater reclamation plant and, in the interim, to the Valencia WRP. Therefore, impacts related to soils stability as it pertains to septic tanks or alternative wastewater disposal are not applicable to the tract map site, utility corridor and SCE substation site alternatives and, thus, no impacts would occur.

(d) Drainage and Soil Erosion

Groundwater and soil moisture conditions can vary seasonally or for other reasons. While complete knowledge of the subsurface conditions at the project site cannot be determined, it is possible that seepage could be encountered while stripping and excavating during site preparation at some areas (e.g., in drainages or along terrace/bedrock contacts on the site).

With respect to potential erosion-related impacts, surface drainage control design should include provisions for positive surface gradients to ensure that surface runoff is not permitted to pond, particularly above slopes or adjacent to building foundations or slabs. Surface runoff should be directed away from slopes and foundations and collected in lined ditches or drainage swales, via non-erodible drainage devices, which should discharge to paved roadways or existing watercourses. If, however, these facilities discharge onto natural grounds, a means should be provided to control erosion and to create sheet flow. Additionally, the existing provisions in the Los Angeles County Grading Ordinance for planting and irrigation of constructed slopes in conjunction with drainage recommendations identified later in this section will alleviate impacts related to drainage and soil erosion. With the implementation of the design measures described above and all mitigation measures proposed to reduce potential drainage and soil erosion concerns, potential impacts would be mitigated to a less than significant level with respect to the tract map site, utility corridor and SCE substation site alternatives. Additional information related to minimizing project-related erosion and associated water quality impacts is provided in **Section 4.2, Hydrology**, of this EIR.

(4) Hazards Associated with High Subsidence, High Groundwater Level, and/or Hydrocompaction

At the present time, no specific building foundation designs have been identified. However, the proposed project will generally involve the following foundation support conditions: (1) foundation support within engineered fill, and (2) foundation support within transition zones of cut and fill. The structural design will include measures to alleviate seismic concerns in accordance with Uniform Building Code (UBC) requirements. Overall, the shallow spread footing for foundation support of both residential and commercial structures can be adequately founded on compacted engineered fill. Nevertheless, mitigation measures are recommended that would ensure subsidence impacts are reduced to a less than significant level.

Based upon consolidation test data developed for this project, the compressibility of the subsurface soils below the recommended removals is considered to be typically low to moderate within the depths tested ranging from 4 feet to 35 feet. The relatively light loaded residential and commercial structures proposed on the project site are not expected to impose significant stress increases more than 10 feet below existing grade. Based upon laboratory data developed for this project, no significant hydroconsolidation effects due to water incursion are expected at the site after the recommended removals are completed. Therefore, with implementation of the mitigation measures included in this EIR, potential impacts relative to soil compressibility and hydroconsolidation to the tract map site, utility corridor, and SCE substation site alternatives would be less than significant.

(5) Hazards Associated with Placing a Sensitive Use in Close Proximity to a Significant Geotechnical Hazard

The proposed project includes the construction of an elementary school/community center in the central portion of the project site. While potentially significant geotechnical hazards have been identified on the project site (including hazards associated with seismic considerations, landslides and soil stability), as a result of project design features such as building setbacks and the establishment of restricted use areas, no sensitive uses (i.e., the elementary school) would be placed in proximity to a significant geotechnical hazard. Therefore, there would be no potentially significant impacts relative to this significance criterion to the tract map site, utility corridor, and SCE substation site alternatives.

(6) Hazards Associated with Substantial Grading and/or Alteration of Topography

Tract site grading would require the removal and recompaction of approximately 29.5 million cubic yards of existing material in a balanced cut and fill operation. Fifty-seven proposed cut-slopes of 25 feet or higher have been identified on the tract map site.

In addition, for the electrical substation site alternatives, alternative one would create a cut and fill of approximately 158,000 and 45,000 cubic yards, respectively. The export of 113,000 cubic yards would be placed in the disposal site. Alternative 2 would create a cut and fill of approximately 372,000 and 107,000 cubic yards, respectively. The export of 265,000 cubic yards would be placed in the disposal site. Grading for alternative 1 will produce a maximum cut slope of approximately 140 feet and a maximum fill slope of approximately 30 feet. Alternative 2 will have a maximum cut slope of approximately 150 feet and a fill slope of approximately 80 feet.

Although no numerical definition is given for the phrases “substantial grading” or “substantial alteration of topography,” a considerable amount of grading would occur on the project site, and existing topography would be altered. Additionally, slopes over 25 percent grade would be present on the project site. Grading and topographic modification, if done improperly and without due consideration for on-site geologic and hydrologic considerations, could result in ground failure and damage to future uses on the site. Thus, grading associated with the proposed project, utility corridor and SCE substation site alternatives would result in a potentially significant impact unless mitigated through compliance with all appropriate grading, soil compaction, and slope construction practices.

(7) Other Potentially Hazardous Geotechnical Conditions

Soil conditions on the project site that would affect construction practices and future site development include expansive soils, soils with shrinkage-bulking potential, corrosive soils and abandoned oil wells. Construction within and over soils with these characteristics could adversely affect future development of the site.

(a) Expansive Soils

Soil expansion has been found to be a significant consideration for design and construction of foundations and concrete slabs-on-grade. Based on testing and boring data, the alluvial soils at the site are predominantly granular and have a low expansion potential. The terrace deposits also typically have a very low-to-low expansion potential. Based on Expansion Index Tests, low-to medium-expansive Pico and Saugus Formations bedrock materials were identified at the project site. The medium expansive materials typically consist of siltstone, claystone, and mudstone units. It is anticipated that compacted fill from the on-site materials will have a very low to medium expansion potential. Because expansive soils can have an adverse effect on future development of the site, thereby resulting in potentially significant impacts, mitigation is recommended requiring further testing of the expansion potential of the site soils exposed at rough grade after site grading is complete such that the final foundation design is based on the

expansion test results to mitigate impacts to the tract map site, utility corridor and SCE substation site alternatives to less than significant.

(b) Shrinkage-Bulking Potential

The expected rate of shrinkage or bulking of the various near-surface materials encountered on the project site is presented in **Table 4.1-2, Soil Shrinkage and Bulking**.

The above shrinkage, bulking, and subsidence factors are approximations. The actual volume changes from cut to fill depend on the quality or degree of compaction and mixing. With the incorporation of the mitigation measures recommended below, impacts to the tract map site, utility corridor and SCE substation site alternatives related to expansive soils will be reduced to a less than significant level.

**Table 4.1-2
Soil Shrinkage and Bulking**

Material Type	Shrinkage (%)	Bulking (%)
Artificial Fill (af)	12–18%	
Alluvium (Qal)	20%	
Slopewash (SW)	4–14%	
Upper Qt (0 foot–8 foot depth)	10–16%	
Qt (>8 foot depth)	10%	
Upper TQs (0 foot–3 foot depth)	4%	
TQs (>3 foot depth)		0–6%

Source: Allan E. Seward Engineering Geology Inc. Geologic and Geotechnical Report for Vesting Tentative Tract Map 61105. July 22, 2004.

(c) Soil Corrosivity

As described earlier, a total of seven samples were collected and sampled for electrical resistivity, pH, and sulfate and chloride. Chloride content and pH test results indicated that no significant impact to structures developed on the site would result due to the existence of acidic soils. Concrete exposure to sulfates in the soils would be negligible per UBC classification. Based on resistivity test data, on-site soils classify as moderately to severely corrosive to buried metals per County of Los Angeles classification. The development of concrete pads in areas with soils that are moderate to severely corrosive is considered significant in the absence of mitigation. However, mitigation measures pertaining to impacts generated by soil corrosivity are identified below. With the implementation of all of the mitigation measures identified below, soil corrosivity impacts on the tract map site, utility corridor, and SCE substation site alternatives can be mitigated to a less than significant level.

(d) Oil Wells

As indicated earlier, 55 oil wells were formerly located on the project site, with 47 wells located within the tract map and 8 off site. Oil well records indicate that all of these wells have been abandoned per DOGGR requirements. Even though all of the oil wells located on the site have been abandoned, DOGGR will require the review of the original abandonment files relative to the proposed development and possibly may require the re-abandonment of the wells to the latest DOGGR requirements. Mitigation is proposed on the tract map site, utility corridor and SCE substation site alternatives requiring that the former oil wells be reabandoned and the sites remediated, if necessary, if such sites are to be disturbed or are located in an area of development. See **Section 4.19, Environmental Safety**.

If any leaking or undocumented oil wells are encountered during grading operations, the locations will be surveyed and the current well conditions evaluated immediately. Soils in the vicinity of oils wells could be contaminated with petroleum products spilled during past oil well operations. Mud pits are often associated with oil wells that could contain materials considered to be hazardous under current environmental regulations. If any hazardous materials are encountered during future grading operations, construction operations are to cease, while the contamination is assessed by DOGGR and mitigated. Impacts pertaining to the abandoned oil wells are considered to be less than significant. The potential impacts associated with hazardous materials relative to the abandoned oil wells are analyzed further in **Section 4.19, Environmental Safety**.

(h) Debris Flows

Potential debris flow hazards exists anywhere that a moderate to thick accumulation of residual soil, slope wash, or weathered bedrock materials occur on moderate to steep descending slopes that border future building pads. The southerly portion of the tract map site, where steep natural slopes descend to the tract boundary, and SCE substation site alternative 1 are the most susceptible to debris flow hazard. Mitigation is proposed requiring that potential debris flow be further evaluated once a 40-scale rough grading plan has been developed for the project site and appropriate mitigation measures provided for any additional debris flow areas identified. Mitigation also is proposed on the tract map site, utility corridor and SCE substation site alternatives requiring that potential debris flow be mitigated by one or a combination of the following measures:

- Remove loose surficial material
- Construct diverter slough walls
- Construct impact wall
- Construct debris basins

- Construct stabilization fill slopes
- Control run-off water
- Plant selective deep-rooting vegetation

Consequently, with mitigation, impacts associated with debris flow would be less than significant.

7. PROJECT MITIGATION MEASURES

Although the proposed Mission Village project may result in potential geologic, soil, and geotechnical impacts prior to mitigation, the County previously adopted mitigation measures required to be implemented as part of the Newhall Ranch Specific Plan. These mitigation measures, as they relate to geologic, soil, and geotechnical resources, are found in the previously certified Newhall Ranch Program EIR and the adopted Mitigation Monitoring Plan for the Specific Plan (May 2003). In addition, this EIR identifies recommended mitigation measures specific to the Mission Village project site that would ensure that future development of the project site and grading activities would be safe from geologic, soil, and geotechnical hazards, and that such development would not adversely affect adjacent properties.

a. Mitigation Measures Required by the Adopted Newhall Ranch Specific Plan, as they Relate to the Mission Village Project

The following 56 mitigation measures were adopted by the County in connection with its approval of the Newhall Ranch Specific Plan (May 2003). Of the 56 mitigation measures, 47 measures are applicable to the proposed Mission Village project site due to its geographic location and/or geologic conditions. Mitigation measures that are not applicable to the Mission Village project site include a brief explanation as to why the measure is not applicable. The applicable mitigation measures will be implemented in conjunction with the development of the project site to mitigate the potentially significant geologic, soil, and geotechnical impacts associated with the proposed Mission Village project.

SP4.1-1 The standard building setbacks from ascending and descending man-made slopes are to be followed in accordance with Section 1806.4 of the Los Angeles County Building Code, unless superseded by specific geologic and/or soils engineering evaluations. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 44)

SP4.1-2 The existing Grading Ordinance for planting and irrigation of cut-slopes and fill slopes is to be adhered to for grading operations within the project site. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 44)

SP4.1-3 In order to safeguard against major seismic-related structural failures, all buildings within the project boundaries are to be constructed in conformance with the Los Angeles County Uniform Building Code, as applicable.

- SP 4.1-4 The location and dimensions of the exploratory trenches and borings undertaken by Allan E. Seward Engineering Geology, Inc., and R.T. Frankian & Associates are to be noted on all grading plans relative to future building plans, unless the trenches and/or borings are removed by future grading operations. If future foundations traverse the trenches or borings, they are to be reviewed and approved by the project Geotechnical Engineer. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 45.)
- SP 4.1-5 Wherever the Pacoima Formation is exposed, it may be potentially expansive; therefore, it is to be tested by the project Soils Engineer at the grading plan stage to determine its engineering characteristics and mitigation requirements, as necessary. (*This mitigation measure is not applicable to the Mission Village project site due to the fact that the project site does not contain the Pacoima Formation.*)
- SP 4.1-6 Should any expansive soils be encountered during grading operations, they are not to be placed nearer the finished surface than 8 feet below the bottom of the subgrade elevation. This depth is subject to revision depending upon the expansive potential measured during grading. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP 4.1-7 If expansive materials are encountered at subgrade elevation in cut areas, the soils are to be removed to a depth of 8 feet below the "finished" or "subgrade" surface and the excavated area backfilled with non-expansive, properly compacted soils. This depth is subject to revision depending upon the expansive potential measured during grading. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP 4.1-8 At the time of subdivision, which allows construction, areas subject to liquefaction are to be mitigated to the satisfaction of the project Geotechnical Engineer prior to site development. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP 4.1-9 Subdrains are to be placed in areas of high ground water conditions or wherever extensive irrigation is planned. The systems are to be designed to the specifications of the Newhall Ranch Specific Plan Geotechnical Engineer.
- SP 4.1-10 Subdrains are to be placed in the major and minor canyon fills, behind stabilization blankets, buttress fills, and retaining walls, and as required by the Geotechnical Engineer during grading operations. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP 4.1-11 Canyon subdrains may be installed in "V"-ditches or in a rectangular trench excavated to expose competent material or bedrock as approved by the Geotechnical Engineer.
- SP 4.1-12 The vertical spacing of subdrains behind buttress fills, stabilization blankets, etc., are to be a maximum of 15 feet. The gradient is to be at least 2 percent to the discharge end. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP 4.1-13 Geological materials subject to hydroconsolidation (containing significant void space) are to be removed prior to the placement of fill. Specific recommendations relative to hydroconsolidation are to be provided by the Newhall Ranch Specific Plan Geotechnical Engineer at the subdivision stage. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 44)

- SP4.1-14 Proposed structures on ridgelines will have a minimum 20-foot horizontal setback from the margin of the bedrocks to prevent perched or ground water levels where relatively impermeable materials can block downward migration.
- SP4.1-15 Subsurface exploration is required to delineate the depth and lateral extent of the landslides shown on the geologic map. This work shall be undertaken at the subdivision stage. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 15) Landslides must be mitigated through stabilization, removal, and/or building setbacks as determined by the Newhall Ranch Specific Plan Geotechnical Engineer, and to the satisfaction of the Los Angeles County Department of Public Works.
- SP4.1-16 At the subdivision stage, the existence of landslides designated with "3" on Figure 4.1-2, Existing Landslide Areas (of the Newhall Ranch EIR), and within or adjacent to the development area is to be confirmed. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 15) If landslides are confirmed in these areas, they are to be mitigated through stabilization, removal, and/or building setbacks as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.
- SP4.1-17 The existence, or lack thereof, of landslides on or adjacent to the roadway alignments for the extension of Magic Mountain Parkway and Valencia Boulevard will be evaluated by subsurface investigations at the subdivision stage. (Allan E. Seward Engineering Geology, Inc., 13 December 1995, p. 11) If landslides are confirmed in these areas, they are to be mitigated through stabilization, removal, and/or building setbacks as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.
- SP4.1-18 The potential hazards associated with debris flow scars and other possible surficial failures located in proximity to the roadway alignments for the extension of Magic Mountain Parkway and Valencia Boulevard will be evaluated at the subdivision stage. (Allan E. Seward Engineering Geology, Inc., 13 December 1995, p. 11) These areas are to be mitigated as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.
- SP4.1-19 Remove debris from surficial failures during grading operations prior to the placement of fill. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 16).
- SP4.1-20 All soils and/or unconsolidated slopewash and landslide debris is to be removed prior to the placement of compacted fills. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 45)
- SP4.1-21 Cut-slopes which will expose landslide material are to undergo geologic and geotechnical evaluation at the subdivision stage to determine their stability and degree of consolidation. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 15) Several options are available to mitigate potential landslide failure in the proposed cut-slopes. Landslides may be stabilized with buttress fills or shear keys designed by the Newhall Ranch Specific Plan Geotechnical Engineer; landslide material can be entirely removed and replaced with a stability fill; or the slope can be redesigned to avoid the landslide. Landslides underlying cut pad or road areas may be removed or partially removed if the Newhall Ranch Specific Plan Geologist and Geotechnical Engineer conclude that the landslide is stable and sufficiently consolidated to build on. Landslides located on ascending natural slopes above proposed graded areas will also require

evaluation for stability. Unstable landslides on natural slopes above graded areas will either require stabilization, removal, or building setbacks to mitigate potential hazards.

- SP4.1-22 Additional geologic investigations are required prior to approval of future tentative maps which allow construction or grading plans to determine the geologic and geotechnical feasibility of the 15 lots proposed in the High Country SMA. *(This mitigation measure is not applicable to the Mission Village project site due to the fact that the High Country SMA is not located on the project site.)*
- SP4.1-23 Prior to construction of the road embankment located within landslide QIs II, a compacted fill shear key will be constructed at the property boundary. (R.T. Frankian & Associates, 19 September 1994, p. 6)
- SP4.1-24 Landslides which will not affect the proposed grading concept are to be placed in Restricted Use Areas on the Final Maps. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 43)
- SP4.1-25 Surficial stability of cut-slopes designated with a “G” are to be fully evaluated at the subdivision stage, due to the possibility of wedge failures or surficial material in the slope. Corrective grading measures are to be presented in detail as mitigation at both the subdivision and Grading Plan stages of development. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, pp. 17, 43) *(The focused geotechnical studies prepared for the Mission Village project included the analysis of areas previously identified with a “G” in the Newhall Ranch Specific Plan EIR. All proposed cuts were evaluated and, where necessary, focused mitigation measures were identified and included in the list of measures presented below to mitigate potential impacts).*
- SP4.1-26 Cut slopes designated as “P” are potentially unstable and are to be fully evaluated at the subdivision stage to ascertain whether they are stable as designed. Corrective grading measures are to be presented in detail as mitigation at both the subdivision and Grading Plan stages of development. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, pp. 17, 43) *(The focused geotechnical studies prepared for the Mission Village project included the analysis of areas previously identified with a “P” in the Newhall Ranch Specific Plan EIR. All proposed cuts were evaluated and, where necessary, focused mitigation measures were identified and included in the list of measures presented below to mitigate potential impacts).*
- SP4.1-27 Cut-slopes designated with a “U” are to be further investigated at the subdivision stage to confirm underlying geologic conditions and slope stability. Corrective grading measures are to be presented in detail as mitigation at both the subdivision and Grading Plan stages of development. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, pp. 17, 43) *(The focused geotechnical studies prepared for the Mission Village project included the analysis of areas previously identified with a “U” in the Newhall Ranch Specific Plan EIR. All proposed cuts were evaluated and, where necessary, focused mitigation measures were identified and included in the list of measures presented below to mitigate potential impacts).*
- SP4.1-28 Cut-slopes associated with the construction of the proposed extensions of Magic Mountain Parkway and Valencia Boulevard are to be further investigated at the subdivision stage to confirm the underlying geologic conditions and slope stability.

Corrective measures are to be required if it is determined that the cut-slopes will not be stable. (Allan E. Seward Engineering Geology, Inc., 13 December 1995, pp. 11 & 12)

- SP4.1-29 Orientations of the bedrock attitudes are to be evaluated by the Newhall Ranch Specific Plan Engineering Geologist to identify locations of required buttress fills. Buttress fill design and recommendations, if necessary, are to be presented as mitigation during the grading plan stage. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP4.1-30 All fills, unless otherwise specifically designed, are to be compacted to at least 90 percent of the maximum dry unit weight as determined by ASTM Designation D 1557-91 Method of Soil Compaction. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP4.1-31 No fill is to be placed until the area to receive the fill has been adequately prepared and approved by the Geotechnical Engineer. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP4.1-32 Fill soils are to be kept free of all debris and organic material. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP4.1-33 Rocks or hard fragments larger than 8 inches are not to be placed in the fill without approval of the Geotechnical Engineer, and in a manner specified for each occurrence. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP4.1-34 Rock fragments larger than 8 inches are not to be placed within 10 feet of finished pad grade or the subgrade of roadways or within 15 feet of a slope face. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP4.1-35 Rock fragments larger than 8 inches may be placed in windrows, below the limits given above, provided the windrows are spaced at least 5 feet vertically and 15 feet horizontally. Granular soil must be flooded around windrows to fill voids between the rock fragments. The granular soil is to be wheel rolled to assure compaction. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP4.1-36 The fill material is to be placed in layers which, when compacted, is not to exceed 8 inches per layer. Each layer is to be spread evenly and is to be thoroughly mixed during the spreading to insure uniformity of material and moisture. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP4.1-37 When moisture content of the fill material is too low to obtain adequate compaction, water is to be added and thoroughly dispersed until the soil is approximately 2 percent over optimum moisture content. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP4.1-38 When the moisture content of the fill material is too high to obtain adequate compaction, the fill material is to be aerated by blading or other satisfactory methods until the soil is approximately 2 percent over optimum moisture content. (R.T. Frankian & Associates, 19 September 1994, Appendix I)

- SP4.1-39 Where fills toe out on a natural slope or surface, a keyway, with a minimum width of 16 feet and extending at least 3 feet into firm, natural soil, is to be cut at the toe of the fill. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP4.1-40 Where the fills toe out on a natural or cut slope and the natural or cut slope is steeper than 5 horizontal to 1 vertical, a drainage bench with a width of at least 8 feet is to be established at the toe of the fill. Fills may be placed over cut slopes if the visible contact between the fill and cut is steeper than 45 degrees. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP4.1-41 When placing fills over slopes, sidewall benching is to extend into competent material, approved by the Geotechnical Engineer, with vertical benches not less than 4 feet. (R.T. Frankian & Associates, 19 September 1994, Appendix I) Competent material is defined as being free of loose soil, heavy fracturing or compressive soils.
- SP4.1-42 When constructing fill slopes, the grading contractor is to avoid spillage of loose material down the face of the slope during the dumping and compacting operations. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP4.1-43 The outer faces of fill slopes are to be compacted by backing a sheepsfoot compactor over the top of the slope, and thoroughly covering the entire slope surface with overlapping passes of the compactor. Compaction of the slope is to be repeated after each 4 feet of fill has been placed. The required compaction must be obtained prior to placement of additional fill. As an alternate, the slope can be overbuilt and cut back to expose a compacted core. (R.T. Frankian & Associates, 19 September 1994, Appendix I)
- SP4.1-44 All artificial fill associated with past petroleum activities, as well as other existing artificial fill, are to be evaluated by the Newhall Ranch Specific Plan Geotechnical Engineer at the subdivision and/or grading plan stage. (Allan E. Seward Engineering Geology, 19 September 1994, Inc., p. 45) Unstable fills are to be mitigated through removal, stabilization, or other means as determined by the Newhall Ranch Specific Plan Geotechnical Engineer.
- SP4.1-45 Surface runoff from the future graded areas is not to run over any natural, cut, or fill slopes. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)
- SP4.1-46 Runoff from future pads and structures is to be collected and channeled to the street and/or natural drainage courses via non-erosive drainage devices. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)
- SP4.1-47 Water is not to stand or pond anywhere on the graded pads. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 20)
- SP4.1-48 Oil and water wells that might occur on site are to be abandoned in accordance with state and local regulations. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 45)
- SP4.1-49 If any leaking or undocumented oil wells are encountered during grading operations, their locations are to be surveyed and the current well conditions evaluated immediately.

(Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 21) Measures are to be taken to document the wells, abandonment, and remediate the well sites (if necessary) in accordance with state and local regulations.

- SP4.1-50 The exact status and location of the Exxon (Newhall Land & Farming) oil well #31 will be evaluated at the subdivision stage. If necessary, the well will be abandoned in accordance with state and local regulations. (Allan E. Seward Engineering Geology, Inc., 13 December 1995, p. 12).
- SP4.1-51 Survey control will be required to precisely locate the Salt Creek and Del Valle Faults at the subdivision stage. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 33).
- SP4.1-52 Additional subsurface trenching will be performed within the Holser Structural Zone on Newhall Ranch during the subdivision stage to evaluate its existence. Within Potrero Canyon, additional subsurface evaluation will be performed during the subdivision stage to confirm that nontectonic alluvial movement was the cause of surface ground cracking during the January 17, 1994 earthquake, and to evaluate the potential for shallow-depth faults. (Allan E. Seward Engineering Geology, Inc. 19 September 1994, p. 42, as revised above.) *(Additional subsurface evaluations pertaining to the Holser Fault are not applicable for the Mission Village project site. This is due to the fact that Holser Fault is not located on the project site.)*
- SP4.1-53 Precise Building Setback Zones for the Newhall Ranch Specific Plan site are to be defined at the subdivision stage.
- SP4.1-54 Due to the potential activity of the Salt Creek and Del Valle Faults, site development is to remain outside of Building Setback Zones around fault traces, and the possible fault zone connecting them. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 42).
- SP4.1-55 To minimize potential hazards from shattered ridge effects, structures and storage tanks proposed on ridgelines are to have a minimum 20-foot setback from the margins of the bedrock. Designation of specific building setbacks will require evaluation at the subdivision stage. (Allan E. Seward Engineering Geology, Inc., 19 September 1994, p. 40) Building Setback Zones are to be identified on all site plans and tract maps for the site.
- SP4.1-56 The potential for ground motion and ground failure associated with a seismic event in proximity to the planned roadway alignments of Magic Mountain Parkway and Valencia Boulevard will be evaluated at the subdivision stage. (Allan E. Seward Engineering Geology, Inc., 13 December 1995, p. 11) Mitigation to reduce associated significant impacts will also be identified at that time.

b. Mitigation Measures Proposed for the Project by this EIR

The following project-specific mitigation measures are recommended to mitigate the potentially significant geologic, soil, and geotechnical impacts that may occur with implementation of the Mission Village project. These mitigation measures are in addition to those adopted in the previously certified

Newhall Ranch Program EIR. To indicate that the measures relate specifically to the Mission Village project, each measure is preceded by “MV,” which stands for Mission Village.

(1) Seismic

- MV 4.1-1 Future structures shall be designed according to standards applicable to Seismic Zone 4 of the Uniform Building Code.
- MV 4.1-2 Lots underlain by transitions between different material types (e.g., bedrock to fill, bedrock to alluvium, etc.) shall be over-excavated 5 feet to minimize potential adverse impacts associated with differential materials response.
- MV 4.1-3 Over-excavation of clay-rich bedding planes of the Saugus Formation or Pico Formation and subsequent placement of a certified fill cap shall be conducted to mitigate potential hazards from expansive material, and to reduce potential hazards from potential secondary seismicogenic movement along bedding planes.
- MV 4.1-4 Due to the potential for primary ground surface rupture along the Airport Mesa, Saddle, and Del Valle Faults, Fault Building Setback zones have been designated for the area within the map trace of the faults.
- To reduce potential public health and safety impacts to a less than significant level, the following restrictions shall be applicable to these areas:
- No construction of habitable structures, as defined in Appendix B of CDMG Special Publication 42, are allowed within the Fault Building Setback zone.
 - Pipelines, including gas, water, storm drain and sewer, shall be constructed to allow for some flexure and emergency shut off valves shall be required for gas and water lines within these zones in case of possible ground deformation during an earthquake.
 - Site-specific recommendations shall be provided at the Grading Plan or Building Plan stages.
- MV 4.1-5 If critical facilities or essential services buildings (e.g., hospitals, schools, fire stations, etc.) are to be developed within the area of the Airport Mesa or Saddle faults, a Building Setback of at least 50 feet from each side of the Airport Mesa or Saddle faults shall be maintained.
- MV 4.1-6 The project shall be designed in accordance will all applicable building codes and standards utilizing the appropriate geotechnical parameters as presented in the “Seismicity” section of the R.T. Frankian & Associates report entitled *Response to County of Los Angeles Review Sheets and Geotechnical Plan Review, Revised Vesting Tentative Tract Map No. 6110,5 (April 29, 2010)* to reduce seismic risk to an acceptable level as defined by CGS in Chapter 2 of SP 117a (CGS, 2008).

MV 4.1-7 The mitigation for liquefaction at the site will consist of a combination of ground motion and structural to reduce the risk to an acceptable level as defined by CGS in chapter 2 of SR 117a (CGS, 2008). The ground modification will consist of the removal of some of the soil material subject to liquefaction and/or elevating the site grades.

(2) Landslides and Soil Stability

MV 4.1-8 The recommendations identified in Table I, *Response to County of Los Angeles Review Sheets and Geotechnical Plan Review, Revised Vesting Tentative Tract Map No. 61105* (April 29, 2010) prepared by R.T. Frankian & Associates, shall be incorporated into the project such that the analyzed cut-slopes, proposed grades, remedial grades and compacted fill slopes comply with Los Angeles County minimum requirements for gross stability under static and pseudostatic loading conditions and for surficial stability, as applicable.

MV 4.1-9 All landslide removal bottoms shall be observed by the project engineering geologist and surveyed by the supervising civil engineer prior to the placement of engineered fill.

MV 4.1-10 Where proposed pad grades occur near the basal Qt contact of the mesas and the basal Qt layer contains a high percentage of oversized (>8 inches) clasts, the Qt shall be removed (over-excavated) and replaced with suitable engineered fill. Stability fills are recommended for all proposed cut-slopes that expose Qt deposits in the slope face.

MV 4.1-11 All slopewash in areas of proposed development shall be completely removed prior to the placement of engineered fill.

MV 4.1-12 In proposed fill areas, all artificial fill impacting the proposed development shall be entirely removed prior to placement of compacted/certified fill material. If artificial fill is present below proposed cut grade elevations, it shall be completely removed and replaced with certified engineered fill.

MV 4.1-13 Review of the tentative tract map design, the topographic base map and field mapping of the site indicates that where potential debris flow hazard exists, the following measures shall be implemented (but not limited to) to mitigate the potential for debris flow hazard at these locations:

- Remove loose surficial material
- Construct diverter slough walls
- Construct impact walls
- Construct debris basins
- Control run-off
- Plant selective deep-rooted vegetation
- Construct stability fills

- MV 4.1-14 As part of the project site grading, 48 of the identified landslides shall be completely removed. Of the remaining four landslides (Qls-XXXV, Qls-XXXVII, Qls-XLIII, and Qls-XLIV), three (Qls-XXXV, Qls-XLIII, and Qls-XLIV) shall be partially removed until a stable configuration is achieved. The southern portion of the fourth landslide (Qls-XXXVII) shall be completely removed below the proposed building pad, and the northern portion (within the spineflower preserve) shall remain in place and be stabilized by a shear key and buttress fill slope. The remaining portion of this landslide shall be placed within a Restricted Use Area.
- MV 4.1-15 All cut slopes shall be graded in accordance with the recommendations of the Project Geotechnical Consultant, as described in the Vesting Tentative Tract Map plan review reports.
- MV 4.1-16 The proposed fill slopes shall be graded in accordance with the recommendations of Project Geotechnical Consultant as described in the Vesting Tentative Tract Map plan review reports.
- MV 4.1-17 The grading adjacent to natural slopes shall be performed in accordance with the recommendations of the Project Geotechnical Consultant, as described in the Vesting Tentative Tract Map plan review reports. Where warranted for gross stability, Building Setbacks recommended in the plan review reports that exceed the setback standards set forth in the Los Angeles County/California Building Code shall be adhered to. The standard setbacks from grossly stable ascending and descending natural slopes provided in the Los Angeles County/California Building Code shall also be followed, where not superseded by the recommended Building Setbacks.
- MV 4.1-18 The debris flow hazard shall be further evaluated once a 40-scale rough grading plan has been developed for the project site. Appropriate mitigation measures, such as avoidance, debris basins, impact walls, etc., shall be provided for any additional debris flow areas identified on the rough grading plan.

(3) Earthwork

The following specifications are recommended to provide a basis for quality control during the placement of compacted fill or backfill as applicable.

- MV 4.1-19 Prior to placing compacted fill, the ground surface shall be prepared by removing non-compacted artificial fill (af), disturbed compacted fill soils (caf), loose alluvium, and other unsuitable materials. Areas that are to receive compacted fill shall be inspected by the project geologist/geotechnical engineer prior to the placement of fill.
- MV 4.1-20 All drainage devices shall be properly installed and inspected by the project geologist/geotechnical engineer and/or owner's representative(s) prior to placement of backfill.
- MV 4.1-21 Fill soils shall consist of imported soils or on-site soils free of organics, cobbles, and deleterious material provided each material is approved by the project geologist/geotechnical engineer. The project geologist/geotechnical engineer shall

evaluate and/or test the import material for its conformance with the report recommendations prior to its delivery to the site. The contractor shall notify the project geologist/geotechnical engineer 72 hours prior to importing material to the site.

- MV 4.1-22 Fill shall be placed in controlled layers (lifts), the thickness of which is compatible with the type of compaction equipment used. The fill materials shall be brought to optimum moisture content or above, thoroughly mixed during spreading to obtain a near uniform moisture condition and uniform blend of materials, and then placed in layers with a thickness (loose) not exceeding 8 inches. Each layer shall be compacted to a minimum compaction of 90 percent relative to the maximum dry density determined per the latest ASTM D1557 test. Density testing shall be performed by the project geologist/geotechnical engineer to verify relative compaction. The contractor shall provide proper access and level areas for testing.
- MV 4.1-23 Rocks or rock fragments less than 8 inches in the largest dimension may be utilized in the fill, provided they are not placed in concentrated pockets. Rocks larger than 4 inches shall not be placed within 3 feet of finish grade.
- MV 4.1-24 Rocks greater than 8 inches in largest dimension shall be taken off site, or placed in accordance with the recommendation of the Soils Engineer in areas designated as suitable for rock disposal.
- MV 4.1-25 Where space limitations do not allow for conventional fill compaction operations, special backfill materials and procedures may be required. Pea gravel or other select fill can be used in areas of limited space. A sand and Portland cement slurry (2 sacks per cubic-yard mix) shall be used in limited space areas for shallow backfill near final pad grade, and pea gravel shall be placed in deeper backfill near drainage systems.
- MV 4.1-26 The project geologist/geotechnical engineer shall observe the placement of fill and conduct in-place field density tests on the compacted fill to check for adequate moisture content and the required relative compaction. Where less than specified relative compaction is indicated, additional compacting effort shall be applied and the soil moisture conditioned as necessary until adequate relative compaction is attained.
- MV 4.1-27 The contractor shall comply with the minimum relative compaction out to the finish slope face of fill slopes, buttresses, and stabilization fills as set forth in the specifications for compacted fill. This may be achieved by either overbuilding the slope and cutting back as necessary, or by direct compaction of the slope face with suitable equipment, or by any other procedure that produces the required result.
- MV 4.1-28 Any abandoned underground structures such as cesspools, cisterns, mining shafts, tunnels, septic tanks, wells, pipelines or others not discovered prior to grading are to be removed or treated to the satisfaction of the Soils Engineer and/or the controlling agency for the project.
- MV 4.1-29 The contractor shall have suitable and sufficient equipment during a particular operation to handle the volume of fill being placed. When necessary, fill placement equipment shall be shut down temporarily in order to permit proper compaction of fills, correction of deficient areas, or to facilitate required field-testing.

- MV 4.1-30 The contractor shall be responsible for the satisfactory completion of all earthwork in accordance with the project plans and specifications.
- MV 4.1-31 Final reports shall be submitted after completion of earthwork and after the Soils Engineer and Engineering Geologist have finished their observations of the work. No additional excavation or filling shall be performed without prior notification to the Soils Engineer and/or Engineering Geologist.
- (a) Placement of Trench Backfill**
- MV 4.1-32 Trench excavations to receive backfill shall be free of trash, debris or other unsatisfactory materials prior to backfill placement, and shall be inspected by the project geologist/geotechnical engineer.
- MV 4.1-33 Soils obtained from the excavation may be used as backfill if they are essentially free of organics and deleterious materials, unless otherwise indicated in the applicable geotechnical report.
- MV 4.1-34 Rocks generated from the trench excavation not exceeding 3 inches in largest dimension may be used as backfill material. However, such material may not be placed within 12 inches of the top of the pipeline. No more than 30 percent of the backfill volume shall contain particles larger than 1.5 inches in diameter, and rocks shall be well mixed with finer soil.
- MV 4.1-35 Soils (other than aggregates) with a Sand Equivalent (SE) greater than or equal to 30, as determined by ASTM D 2419 Standard Test Method or at the discretion of the engineer or representative in the field, may be used for bedding and shading material in the pipe zone areas. These soils are considered satisfactory for compaction by jetting procedures.
- MV 4.1-36 No jetting shall be permitted in utility trenches within the top 2 feet of the subgrade of concrete slabs-on-grade.
- MV 4.1-37 Trench backfill other than bedding and shading shall be compacted by mechanical methods as tamping sheepsfoot, vibrating or pneumatic rollers or other mechanical tampers to achieve the density specified herein. The backfill materials shall be brought to optimum moisture content or above, thoroughly mixed during spreading to obtain a near uniform moisture condition and uniform blend of materials, and then placed in horizontal layers with a thickness (loose) not exceeding 8 inches. Trench backfills shall be compacted to a minimum compaction of 90 percent relative to the maximum dry density determined per the latest ASTM D1557 test.
- MV 4.1-38 The contractor shall select the equipment and process to be used to achieve the specified density without damage to the pipeline, the adjacent ground, existing improvements or completed work.
- MV 4.1-39 Observations and field tests shall be carried on during construction by the project geologist/geotechnical engineer to confirm that the required degree of compaction has been obtained. Where compaction is less than that specified, additional compaction effort shall be made with adjustment of the moisture content as necessary until the specified

compaction is obtained. Field density tests may be omitted at the discretion of the engineer or his representative in the field.

- MV 4.1-40 Whenever, in the opinion of the project geologist/geotechnical engineer or the owner's Representative(s), an unstable condition is being created, either by cutting or filling, the work shall not proceed until an investigation has been made and the excavation plan revised, if deemed necessary.
- MV 4.1-41 Fill material within a trench shall not be placed, spread, or rolled during unfavorable weather conditions. When the work is interrupted by heavy rain, fill operations shall not be resumed until field tests by the project geologist/geotechnical engineer indicate the moisture content and density of the fill are as specified.
- MV 4.1-42 In order to provide a uniform firm bottom prior to placing fill, all unconsolidated alluvium, slopewash, colluvial soils and severely weathered terrace deposits and bedrock shall be removed from areas to receive fill. The estimated depths of removals (excluding landslides) are 5 to 22 feet, as shown on the Geologic Remediation Maps (Plates G7 to G11) contained in *Geologic and Geotechnical Report, Vesting Tentative Tract Map 61105* (July 22, 2004), as revised by Plates ES8-ES13 contained in the *Geologic and Geotechnical Report, Review of Revised Vesting Tentative Tract Map* (December 22, 2004), prepared by Seward, which is included in **Appendix 4.1**. The exact depth and extent of necessary removals will be determined in the field during the grading operations when observations and more location-specific evaluations can be performed. Removal depths for these areas are based on subsurface investigations, laboratory testing, proposed fill, depth use intended and analyses (including liquefaction and cyclic settlement analyses), as well as the geotechnical engineer's geologic and geotechnical judgment.
- MV 4.1-43 All existing uncertified fill (i.e., artificial fill) is considered unsuitable for support of proposed engineered fills and/or structures and must be removed and replaced with compacted fill.
- MV 4.1-44 To protect against potential landslide activity, colluvium/slopewash present within the canyon swales and on drainage sideslopes shall be removed to depths ranging from 10 to 60 feet. Removals at the locations of exploratory trenches shall be extended to the bottom of the trench backfill if the adjacent removal depths are shallower than the trench.
- MV 4.1-45 In areas to receive compacted fill where the surface gradient is steeper than 5:1, the soil mantle, colluvium and unsuitable material shall be removed and such areas benched horizontally into competent material in conjunction with fill placement.
- MV 4.1-46 After the ground surface to receive fill has been exposed, it shall be ripped to a minimum depth of 6 inches, brought to optimum moisture content or above and thoroughly mixed to obtain a near uniform moisture condition and uniform blend of materials, and then compacted to the required relative compaction per the latest ASTM D 1557 laboratory maximum density.
- MV 4.1-47 Ground water is not expected to impede the grading operations over the project site except on the lower portion of Middle Canyon where groundwater was observed at a depth of 15 feet. The grading contractor shall be prepared to implement dewatering

measures as necessary, to achieve the required removals below the groundwater if it is determined to be necessary. Where recommended removals encounter groundwater, water levels will need to be controlled by providing an adequate excavation bottom slope and sumps for pumping water out as the excavation proceeds, or groundwater may be lowered by installing shallow dewatering well points prior to grading. Partial removals of soils above the water table and soil improvement below the water table (e.g., shallow compaction grouting) may be another option. Dewatering may be needed depending on the season when the removals are performed.

- MV 4.1-48 A minimum 5- to 8-foot-thick over-excavation shall be performed on all cut lots, and transitional lots (transitions between bedrock, fill, terrace deposits and alluvium) and a minimum 3-foot-thick over-excavation on streets. This over-excavation will provide a uniform base for structural support of buildings and traffic loads. If on a cut/fill transition lot the maximum depth of fill exceeds 15 feet, then the thickness of the fill cap shall be one-third of the deepest fill thickness below any proposed structure. If excavation of the native soils (i.e., bedrock) exposes high expansive materials, then the lot over-excavation shall be deepened to 8 feet. Cut and transition lots located in areas of steeply dipping bedrock will need to be over-excavated to a depth of 8 feet. If these lots are underlain by weak sheared bedding planes or shears they may require a deeper over excavation and need to be evaluated on a case-by-case basis during the grading operations. Lots potentially affected by the requirements have been identified in the Geologic Remediation Maps (Plates G7 to G11) included in the *Geologic and Geotechnical Report, Vesting Tentative Tract Map 61105* (July 22, 2004), as revised by Plates ES8-ES13 contained in the *Geologic and Geotechnical Report, Review of Revised Vesting Tentative Tract Map* (December 22, 2004), prepared by Seward, which is included in EIR **Appendix 4.1**.
- MV 4.1-49 All fill material shall be placed in uniform lifts not exceeding 8 inches in its loose state and compacted to a minimum of 90 percent relative compaction as determined based on the latest ASTM Test Designation D-1557.
- MV 4.1-50 For fills deeper than 40 feet, the portion of fill below 40 feet depth shall be compacted to a minimum of 93 percent relative compaction. To ensure compliance with this requirement, these areas shall be delineated at the Grading Plan stage.
- MV 4.1-51 Fill slope inclination shall not be steeper than 2:1. The fill material within approximately one equipment width (typically 15 feet) of the slope face shall be constructed with cohesive material obtained from on-site soils. The finished fill-slope face shall be constructed by over-building the slope and cutting back to the compacted fill material. Stability Fills are recommended where cut-slope faces will expose fill-over bedrock, alluvium-over-bedrock or Quaternary Terrace Deposits over bedrock conditions. These fills shall be constructed with a keyway at the toe of the fill slope with a minimum equipment width but not less than 15 feet, and a minimum depth of 3 feet into the firm undisturbed earth. Following completion of the keyway excavations, the project engineering geologist shall observe and approve the keyway bottom prior to backfilling with Certified Engineered Fill.
- MV 4.1-52 Where fill slopes are constructed above natural ground with a gradient of 5:1 or steeper, all topsoil, colluvium, and unsuitable material shall be removed and a keyway shall be constructed at the toe of the fill slope with a minimum width of 15 feet, and a minimum

depth of 3 feet into firm undisturbed earth. Following completion of the keyway excavations, the project Engineering Geologist/Geotechnical Engineer or his representative shall observe and approve the keyway bottom prior to backfilling with compacted fill.

- MV 4.1-53 Where fill slopes toe out on relatively level natural ground, the removals shall be performed to a minimum 1:1 projection from the toe of slope to the recommended removal depth. Where sliver fill-slopes are proposed, it is recommended that the slope be constructed with a minimum 15-foot-width Stability Fill throughout, which is keyed in at the toe of slope.

(b) Excavations, Shoring and Backfill

- MV 4.1-54 Excavations deeper than 3 feet shall conform to safety requirements for excavations as set forth in the State Construction Safety Orders enforced by the State Division of Industrial Safety, CAL OSHA. Temporary excavations 12 feet or lower shall be no steeper than 1:1. For excavations to 20 feet in height, the bottom 3.5 feet may be vertical and the upper portion shall be no steeper than 1.5:1. Excavations not complying with these requirements shall be shored.

- MV 4.1-55 Excavation walls in sands and dry soils shall be kept moist, but not saturated at all times.

- MV 4.1-56 The bases of excavations or trenches shall be firm and unyielding prior to foundations or utility construction. On-site materials other than topsoil or soils with roots or deleterious materials may be used for backfilling excavations. Densification (compaction) by jetting may be used for on-site clean sands or imported equivalent of coarser sand provided they have a Sand Equivalent greater than or equal to 30 as determined by ASTM D2419 test method.

- MV 4.1-57 Parameters for design of cantilever and braced shoring shall be provided at the grading plan stage.

(4) Oil Wells

- MV 4.1-58 If any leaking or undocumented oil wells are encountered during grading operations, their locations shall be surveyed and the current well conditions evaluated immediately. If potentially hazardous materials relating to operation of the oil wells are encountered during future grading operations, they shall be assessed and mitigated to the satisfaction of DOGGR before grading is permitted to continue.

(5) Drainage and Erosion Control

- MV 4.1-59 To maintain appropriate long-term drainage and erosion control, the following points shall be adhered to in slope protection, landscaping, irrigation and modifications to slopes, pads and structures:

- All interceptor ditches, drainage terraces, down-drains and any other drainage devices shall be maintained and kept clear of debris. A qualified Engineer shall

review any proposed additions or revisions to these systems, to evaluate their impact on slope erosion.

- Retaining walls shall have adequate freeboard to provide a catchment area for minor slope erosion. Periodic inspection, and if necessary, cleanout of deposited soil and debris shall be performed, particularly during and after periods of rainfall.
- Slope surficial soils may be subject to water-induced mass erosion. Therefore, a suitable proportion of slope planting shall have root systems, which will develop well below 3 feet. Intervening areas can then be planted with lightweight surface plants with shallower root systems. All plants shall be lightweight and require low moisture. Any loose slough generated during the process of planting shall be properly removed from the slope face(s).
- Construction delays, climate/weather conditions, and plant growth rates may be such that additional short-term erosion control measures may be needed; examples would be matting, netting, plastic sheets, deep (5 feet) staking, etc.
- Major erosion can be initiated by seemingly insignificant events: rodent burrowing, human trespass (footprints, etc.), small concentrations of uncontrolled surface/subsurface water, or poor compaction of utility trench backfill on slopes.

MV 4.1-60 All possible precautions shall be taken to maintain moderate and uniform soil moisture. Slope irrigation systems shall be properly operated and maintained and system controls shall be placed under strict control.

MV 4.1-61 Surface drainage control design shall include provisions for positive surface gradients to ensure that surface runoff is not permitted to pond, particularly above slopes or adjacent to building foundations or slabs. Surface runoff shall be directed away from slopes and foundations and collected in lined ditches or drainage swales, via non-erodible drainage devices, which shall discharge to paved roadways, or existing watercourses. If these facilities discharge onto natural ground, means shall be provided for control erosion and to create sheet flow.

MV 4.1-62 Site grading shall be observed, particularly after heavy, prolonged rainfall, to identify erosion areas at an early stage. Maintenance work shall be done as soon as practical to repair these areas and prevent their enlargement.

MV 4.1-63 Fill slopes, Buttress Fill and Stability Fills, as applicable, shall be provided with subsurface drainage as necessary for stability. Subdrains along the bottom of canyon fills shall be constructed.

MV 4.1-64 Water shall not be allowed to pond on future graded areas, or allowed to flow uncontrolled over natural or graded slopes. Surface drainage shall be directed to terrace drains or debris basins. Debris material generated from erosion shall be contained within site boundaries. All slope terrace drains shall be kept clear of all debris to limit impounding or surface water. Graded slopes shall be seeded with a deep-rooting, drought-resistant vegetation to minimize erosion.

(6) Landscaping

MV 4.1-65 All final grades shall be sloped away from the building foundations to allow rapid removal of surface water runoff. No ponding of water shall be allowed adjacent to the foundations. Plants and other landscaped vegetation requiring excessive watering shall be avoided adjacent to the building foundations. If such landscaping is installed, an effective water-tight barrier shall be provided to prevent water from affecting the building foundations.

(7) Expansive Soils

MV 4.1-66 Additional testing for expansive soils shall be performed at the grading plan stage and during finish grading so that appropriate foundation design recommendations for expansive soils, if applicable, can be made.

(8) Soil Corrosivity

MV 4.1-67 Pending additional testing, either Type I or II cement shall be used in concrete placed in contact with the ground. Mitigating recommendations against soil corrosivity shall be revised/expanded based on additional confirmatory tests that shall be performed at the Grading Plan stage. Final recommendations for concrete will be in accordance with the latest UBC requirements, and a corrosion specialist shall provide mitigating recommendations for potential corrosion of metals in contact with on-site soils.

8. CUMULATIVE IMPACTS

The cumulative impacts analysis presented in the Newhall Ranch Program EIR considered the cumulative geologic, soil, and geotechnical impacts associated with buildout of the entire Specific Plan, including the WRP. The Newhall Ranch Program EIR determined that geologic, soil, and geotechnical impacts tend to be site specific, rather than cumulative in nature and that each development site would be subject to, at minimum, uniform site development and construction standards relative to seismic and other geologic conditions prevalent within the region. The Program EIR recognized that when development plans would be developed for a specific site, appropriate and site-specific studies would be done to identify geotechnical and soils impacts, and to recommend appropriate mitigation. Because any potential geotechnical impacts that may result with development of the Mission Village project site would be site specific in nature, and because development of the proposed project, as well as the development of all surrounding projects, is required to be consistent with applicable Los Angeles County and Uniform Building Code requirements relative to potential geologic hazards, the proposed Mission Village project would not result in significant cumulative geologic, soil or geotechnical impacts.

9. CUMULATIVE MITIGATION MEASURES

No cumulative mitigation measures are recommended or required.

10. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Project-Specific Impacts

With implementation of the mitigation measures identified in this section based on the recommendations detailed in the appended geotechnical reports prepared for the Mission Village project site, no significant unavoidable geologic, soil or geotechnical impacts are anticipated.

b. Cumulative Impacts

No significant cumulative geologic, soil or geotechnical impacts have been identified or are anticipated for the proposed project. Therefore, there are no significant unavoidable cumulative geologic, soil, or geotechnical impacts.

1. SUMMARY

Site clearing and grading operations within the Mission Village project site would have the potential to discharge sediment downstream during storm events. Temporary erosion control measures in disturbed areas of the project site during the construction phase are recommended to reduce this potential impact to less than significant levels.

As to operational impacts, with implementation of the Specific Plan mitigation measures requiring the incorporation of certain project design features and additional mitigation specific to Mission Village, development of the proposed project would result in less than significant impacts on drainage patterns because development would not substantially alter existing drainage patterns, significantly modify a drainage channel, nor change the rate of flow, currents, or the course and direction of surface waters such that they would cause substantial erosion or siltation, or cause on-site or off-site flooding or mudflow. Once developed, the Mission Village project would reduce post-development storm water flows during a 50-year capital storm event, as compared to existing conditions. Specifically, the amount of discharge from the project site (including the tributary watershed in which the project site lies) would decrease from 5,682 cubic feet per second (cfs) to 4,862 cfs. This 14 percent reduction in rainfall runoff would be due to the reduction in erosive areas on the project site that contribute sediment and debris to the runoff. Mitigation requires that the proposed storm drainage improvements meet the flood control requirements of the Flood Control and Watershed Management Divisions of the Los Angeles County Department of Public Works thereby reducing flood impacts to less than significant levels. Additionally, the proposed bank stabilization and bridge abutments within the river would not impede or redirect flood flows within the river and, therefore, would not cause a significant impact relative to flooding.

None of the improvements proposed on the site would be subject to flood hazard; future inhabitable structures on the site would be a minimum of 1 foot above the 100-year flood hazard area. The proposed project would also not result in risk of loss, injury, or death due to flooding, mudflow, tsunami, or seiche.

*Project water quality impacts are discussed in this environmental impact report (EIR) in **Section 4.22, Water Quality**. Project impacts on biological resources in the Santa Clara River as a result of changes to river hydraulics associated with proposed site grading, bank stabilization, and other floodplain modifications are addressed in this EIR in **Section 4.21, Floodplain Modifications**.*

2. INTRODUCTION

a. Relationship of Project to Newhall Ranch Specific Plan Program EIR

Section 4.2 of the Newhall Ranch Specific Plan Program EIR identified and analyzed the existing conditions, potential impacts, and mitigation measures associated with flood protection for the entire Newhall Ranch Specific Plan site. The Newhall Ranch Specific Plan Program EIR concluded that Specific Plan implementation would result in significant impacts, but that the identified mitigation measures would reduce the impacts to below a level of significance. The Newhall Ranch Specific Plan Program EIR also determined that site-specific Drainage Concept Plans would be required as the Specific Plan is implemented through the application and processing of tentative subdivision maps. All subsequent project-specific development plans and tentative subdivision maps must be consistent with the Newhall Ranch Specific Plan and the County of Los Angeles General Plan and Santa Clarita Valley Area Plan.

This project-level EIR is tiered from the previously certified Newhall Ranch Specific Plan Program EIR. This EIR section discusses the Mission Village project's existing conditions, the project's potential environmental impacts, and the applicable mitigation measures from the Newhall Ranch Specific Plan Program EIR, and any new mitigation measures recommended by this EIR for the Mission Village project.

The Mission Village project-level drainage and water quality plan is consistent with and implements the Specific Plan's approved Conceptual Backbone Drainage Plan (Exhibit 2.5-1 of the Specific Plan). The primary objective in developing the Specific Plan Backbone Drainage Plan was to identify a conceptual backbone drainage and flood protection system for Newhall Ranch, while preserving the Santa Clara River as an important natural resource. To satisfy this objective, several program-level criteria regarding the form and function of the Santa Clara River were identified early in the planning process, which formed the basis for establishing the River Corridor special management area/significant ecological area (SMA/SEA) 23. In addition, the Specific Plan established a commitment to meet the ongoing requirements of all National Pollutant Discharge Elimination System (NPDES) permits by providing drainage/water quality improvements such as water quality basins, vegetative swales, and inlet and outlet structures. The locations and sizing of such improvements were to be determined as part of the Newhall Ranch tentative subdivision map process. **Figure 1.0-24, Newhall Ranch Specific Plan Backbone Drainage Plan – Mission Village**, shown in **Section 1.0, Project Description**, depicts the Specific Plan's Conceptual Backbone Drainage Plan, as it relates to Mission Village.

b. References for this EIR Section

The information presented in this section relies on the Mission Village drainage concept report prepared by PSOMAS (2010), which is presented in **Appendix 4.2** of this EIR. This section addresses the potential

hydrologic impacts of the proposed project. The potential hydrologic impacts to the biological resources within and adjacent to the Santa Clara River and its tributary drainages are addressed in **Section 4.3, Biota**, of this EIR. Potential water quality impacts of the proposed project are addressed in **Section 4.22, Water Quality**, and potential impacts to river hydraulics as a result of elevating the project site out of the Federal Emergency Management Agency (FEMA) 100-year and 50-year capital floodplains, bank stabilization, and construction of the Commerce Center Drive Bridge are addressed in **Section 4.21, Floodplain Modifications**.

In addition to the drainage concept report, the following references were used in this analysis. Documents referred to, referenced, or cited in this EIR section are incorporated by reference and are available for public review at the County of Los Angeles, Department of Regional Planning, 320 West Temple Street, Los Angeles, California:

- Los Angeles County Department of Public Works, Level of Flood Protection and Drainage Protection Standards, 1986.
- Los Angeles County Department of Public Works *Hydrology Manual* (December 1991) and *Sedimentation Manual* (June 1993).
- Los Angeles County Department of Public Works. Development Planning for Storm Water Management, A Manual for the Standard Urban Storm Water Mitigation Plan (SUSMP) (September 2002).
- California Regional Water Quality Control Board, Los Angeles Region, Water Quality Control Plan (Basin Plan) for the Coastal Waters of Los Angeles and Ventura Counties (June 1994, Approved February 1995).
- California Regional Water Quality Control Board, Los Angeles Region, Standard Urban Stormwater Mitigation Plan for Los Angeles County and Cities in Los Angeles County (March 2000).
- California Regional Water Quality Control Board, Los Angeles Region, Order No. R4-2006-0074, NPDES Permit No. CAS004001 Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within the County of Los Angeles, and the Incorporated Cities Therein, Except for the City of Long Beach (Amended September 2006).
- California Stormwater Quality Task Force, Construction Storm Water Sampling and Analysis Guidance Document to Assist Dischargers in Complying with California State Water Resources Control Board Resolution No. 2001-046 (October 2001).
- California Water Resources Control Board, Resolution No. 2001-046: Modification of Water Quality Order 99-08-DWQ State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity (Adopted April 2001).

- California Water Resources Control Board, Fact Sheet for Water Quality Order 99-08-DWQ: National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity (General Permit).
- Newhall Ranch Company, Newhall Ranch Specific Plan Master Hydrology and Drainage Concept (Sikand Engineering, December 1999).
- Flood EIR Technical Report – Santa Clara River [for] Mission Village TTM #61105 (Pacific Advanced Civil Engineering, Inc., February 2007).

Although this EIR contains its own stand-alone analysis of the proposed project's hydrologic impacts, the applicant currently is processing applications for federal and state permits that include the Specific Plan site and, consequently, the Mission Village site. This separate process presently is the subject of analysis and environmental review in a joint Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) prepared by the U.S. Army Corps of Engineers (USACE) and the California Department of Fish and Game (CDFG). The Draft EIS/EIR is available for public review at <http://www.dfg.ca.gov/regions/5/newhall/docs>.

3. SUMMARY OF NEWHALL RANCH SPECIFIC PLAN PROGRAM EIR FINDINGS

With respect to flood impacts, the Newhall Ranch Specific Plan Program EIR concluded that implementation of the Specific Plan's Conceptual Backbone Drainage Plan would result in an approximate 30 percent decrease in total debris volume and a 12 percent decrease in total burned and bulked runoff in the 20,724-acre tributary watershed where Newhall Ranch is located. Specifically, the existing amount of burned and bulked flows totals 52,729 cfs for the capital storm, and the current total debris volume is estimated at 1,203,790 cubic yards (cy). Implementation of the Specific Plan would reduce the amount of burned and bulked discharge by 6,179 cfs to 46,550 cfs, and the amount of debris volume generated by 361,420 cy to a total of 842,370 cy.

In order to avoid flooding impacts along the Santa Clara River, those areas along the river that are proposed for commercial and residential development would be elevated above the existing FEMA 100-year and Los Angeles County Department of Public Works (LACDPW) capital flood hazard areas and, where necessary, erosion protection provided, thereby, removing the development from flood hazards.

The floodplain modifications proposed in the Specific Plan included three bridge crossings over the river, soil cement (and other bank protection methods) along portions of the banks in the river corridor of the Specific Plan site, and removal of mostly agricultural acreage from the floodplain by raising the land areas and installing bank protection. It was concluded that the proposed Specific Plan improvements

would alter flows in the river; however, the effects would only be expected during infrequent flood events that reached the buried banks (e.g., 100-year and capital flood events).

The analysis also found that implementation of the Specific Plan would cause an increase in flows, water velocities, water depth, changes in sediment transport, and changes in the flooded areas of the river; however, these hydraulic effects were found to be localized and minor in magnitude and event. The analysis also determined that, under the Specific Plan, the river would still retain sufficient width and natural hydraulic conditions so as to allow the existing fluvial processes to continue.

Based on the prior analysis, implementation of the Specific Plan was found to not increase site discharge during a capital storm, not result in upstream or downstream flooding, and not subject any on-site or off-site improvements to flood hazards. Therefore, the development proposed in the Specific Plan was found to result in less than significant on-site and off-site flooding impacts.

The Newhall Ranch Specific Plan Program EIR also included several mitigation measures to ensure that the Specific Plan's Conceptual Backbone Plan is implemented with the results intended in the Specific Plan and that the improvements are consistent with the requirements of the LACDPW. With implementation of these measures, it was determined that there would be no on-site or off-site significant flood impacts from either the Newhall Ranch Specific Plan or cumulative development within its tributary areas.

4. METHODOLOGY

The following section discusses Los Angeles County's capital flood methodology. The County's methodology for calculating the project's impacts on river hydraulics is presented in **Section 4.21, Floodplain Modifications**, while the methodology used for calculating water quality impacts is addressed in **Section 4.22 Water Quality**. This impact analysis addresses three development scenarios:

1. Existing Conditions
2. Existing Conditions with Project
3. Cumulative Build-Out

The hydrologic and hydraulic methodology used for the first two scenarios are summarized in this section to provide the reader with background information on the approach used to calculate pre- and post-development runoff quantities, the capacities of proposed improvements, and the effects of development on the Santa Clara River. The third scenario is a cumulative buildout scenario that was previously addressed in the Newhall Ranch Specific Plan Program EIR.

a. Explanation of the County Capital Flood¹

In 1931, the Los Angeles County Flood Control District (now the Flood Control Division of the LACDPW) began development of a comprehensive plan of flood control facilities to collect and convey flows from the mountainous canyons, the alluvial fans, and the urbanized coastal plain.

The major needs in designing the system were the reduction of damage due to high canyon flows, the conveyance of large volumes of water in a major storm, and the ability to meet future flood control needs. The design of the flood protection system for the County is based upon the LACDPW's 50-year capital flood hydrology. The reader should note that the LACDPW 50-year capital event design flow rate is well in excess of the FEMA 100-year flow rate.

LACDPW 50-year capital flood (or Q_{cap}) hydrology is based on a "design," or theoretical storm event that is derived from 50-year frequency rainfall values and is patterned after actual major extra-tropical storms observed in the Los Angeles region. The 50-year capital frequency design storm is assumed to occur over a period of four days, with the maximum rainfall falling on the fourth day. For the sake of clarity and to minimize confusion, the prior sections and remaining sections of this document will drop the reference to "50-year capital flood" and only use the term "capital flood."

Analysis of recorded major storms reveals that, during the 24-hour period of maximum rainfall, rainfall intensity typically increases during the first 70 to 90 percent of the period and decreases in the remaining time. Furthermore, approximately 80 percent of the amount of the 24-hour rainfall occurs within the same 70 to 90 percent of the period. In developing the capital flood methodology, the 50-year frequency design storm is assumed to fall on saturated soils. In converting rainfall to runoff, rainfall that is not lost due to the hydrologic processes of interception, evaporation, transpiration, depression storage, infiltration, or percolation is assumed to be surface runoff. The effect of snowfall or snowmelt on rainfall-runoff relationships is a consideration in only a very limited portion of the County (i.e., the higher elevations) where snowfall accumulates in winter.

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

¹ Los Angeles County Department of Public Works, *Hydrology Manual*, (Alhambra, California: December 1990).

The final factor in adjusting the capital flood design flow rate is referred to as a bulking factor. In the area where a watershed is burned, the runoff would carry with it a large layer of eroded topsoil. This sediment, along with the associated burned trees and brush, is referred to as debris. In order to account for these quantities of debris, the design flow rate is artificially increased using a prescribed bulking factor, which is a function of not only soil type, but also the steepness of the terrain and the size of the drainage basin. The bulking factors for larger drainage basins range from about 1.20 to 1.50 or from 20 percent to 50 percent over and above the burned flow rate.

In September 2003, LACDPW revised the hydrologic method that accounts for fire effects on runoff computations. In the previous practice, a completely burned watershed was assumed. That policy was updated to employ a statistical approach that relates historical fire data and vegetation recovery rates to changes in the runoff coefficient of soil. In so doing, a fire factor (*FF*) was developed to represent the effectively burned percentage of a given watershed. This factor is used to adjust runoff coefficients for the capital flood by indexing between an unburned and completely burned soil coefficient for a given soil.

Because the prior capital flood methodology was used in the Newhall Ranch Specific Plan, the previous capital discharge is used in this impact analysis for comparison. In the design stages for the Mission Village project, the updated 2003 capital discharge will be employed as this updated version is anticipated to be adopted between now and approval of the proposed project. Because the 2003 capital discharge is lower than previous calculations, using updated values in the design phase will result in reduced calculated flood flows and a reduced calculated potential for flood-related impacts. Any changes in design of bank protection resulting from utilizing the updated capital discharge would only reduce the top of bank protection elevation and toe of the bank protection depth. Final design of bank protection would adhere to LACDPW capital flood design standards. The LACDPW has revised capital flood flow rates for the Santa Clara River (PACE – Newhall Ranch Santa Clara River HEC-RAS Modeling, March 2006). In general, these revised flow rates are 15 to 20 percent less than the previous values for the Santa Clara River within the study reach (see **Table 4.2-2** later in this document).

In summary, the County's Q_{cap} is based on a theoretical four-day storm event occurring right after the watershed has been burned with the resulting flow rate being increased again by a bulking factor, thereby yielding a peak flow rate that is greater than a 50-year storm over an unburned-unbulked drainage basin. The probability of all of the theoretical assumptions incorporated in the County's capital flood occurring at the same time is extremely small, and yields greater design flows than the FEMA methodology for calculating the 100-year and 500-year floods. As a result, the County's methodology is more conservative than the FEMA 100-year flow rate.

b. Method of Drainage Analysis

The engineering term for the methods used to properly size pipes and channels is “hydraulic analysis.” In order to determine the proper sizes of pipes and channels, assumptions must be made regarding the amount of rainfall to design for and the amount and type of development that would take place in a drainage basin. An estimate must also be made of how often that amount of rainfall could be surpassed. This is referred to as the event exceedance probability, or its reciprocal value, return period. For example, a storm that has a 10 percent exceedance probability is a storm that has a 10 percent chance of exceeding a particular rainfall runoff in any given year. The reciprocal of this number (1/10) is also known as a 10-year return period storm. An important concept to keep in mind is that a pipe or channel is “designed” for a rate of flow (measured in cfs), not a volume of flow (measured in cubic feet or acre-feet). A dam or a lake is designed for storing or containing a fixed volume of water. A pipe of a fixed size, on the other hand, can carry different flow rates, depending on the pressure placed on the water.

In designing a storm drain system, the size of a pipe that would safely carry a predicted rate of flow (expressed in cfs) must be calculated. A 1-foot square box that is 1 foot deep (a cubic foot) can hold 7.5 gallons of water. From this fact, the amount of storm water passing through a pipe or channel in one second can be calculated by multiplying the cross sectional area of the flow in the pipe (in square feet) by the rate of storm flows through the pipe in feet per second (fps). This three-dimensional rate of flow is referred to as “cubic feet per second,” or cfs.

With the above concepts in mind, the effects of development on natural ground can be considered. Buildings, driveways, patios, sidewalks, and roads all create new impervious covers to the natural ground, and prevent water from being absorbed or infiltrating into the ground. The water that would normally infiltrate into the ground would, therefore, run off at higher than normal flow rates. Thus, the surface discharge from developed areas is greater than from undeveloped areas.

LACDPW requires that all designs utilize exceedance probability calculations for design and analysis. By employing this methodology, this impact analysis meets County design standards.

c. Explanation of Design Hydrology

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

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

The rate of runoff is directly related to the type of soil (see **Sections 4.1, Geotechnical and Soil Resources**, and **4.16, Agricultural Resources**, for further discussion regarding on-site soils). Certain soil types accept water faster (are more permeable) than other soils. Therefore, the types of soils present on a

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

(2) Effects of Burning and Bulking

In an undeveloped watershed, capital flood flow rates assume a burned condition, which causes the coefficient of runoff to increase. Further, after increasing the coefficient of runoff for burning, the flow rate is then multiplied by a bulking factor, which is used to account for the amount of mud and debris that would be contained within the flow from the burned watershed. In the case of the proposed Mission Village project, the increase in runoff coefficient, or flow rates, to account for burning is the equivalent of 10 to 20 percent. Furthermore, application of the bulking factor to account for debris production would increase runoff quantities by 20 to 50 percent over and above the burned flow rate. Computer modeling for this project was used to estimate the runoff for the 50-year capital storm events. The analysis considered burned hydrology, but no additional bulking factors were used in the proposed (post-development) on-site runoff conditions because sediment-trapping devices are proposed upstream of the project site and north of State Route 126 (SR-126).

(3) Effects of Development

As previously mentioned, development places impervious materials over soils that had previously absorbed storm water. Once the impervious materials are placed over the soil, little direct infiltration occurs and runoff discharge increases. Because development does not typically completely cover the ground surface, portions of each developed parcel (e.g., front, side, and rear yards, landscaping, open space, etc.) remain pervious to infiltration by storm water. Percent imperviousness for each proposed land use for the project site is presented in **Table 4.2-1, Percent Imperviousness for Selected Land Uses**.

**Table 4.2-1
Percent Imperviousness for Selected Land Uses**

Land Use	Percent Imperviousness
Single Family Residential	42%
Multi Family Residential	68%
School	82%
Commercial	92%
Park	15%
Roadway	100%
Open Space/Site Grading	0%

(4) Santa Clara River Hydraulics

The floodplain conditions of the river were modeled using River Analysis System (RAS) software developed by the USACE Hydrologic Engineering Center (HEC). Inputs to the HEC-RAS model include channel geometry, boundary conditions, hydraulic roughness, and hydrology (see the PACE report in **Appendix 4.2** for a detailed description of this model).

The modeling prepared for the proposed project is consistent with that prepared for the Newhall Ranch Specific Plan. Discharges include the 50 percent (2-year), 20 percent (5-year), 10 percent (10-year), 5 percent (20-year), 2 percent (50-year), and 1 percent (100-year) annual probability return periods. In addition, the LACDPW capital flow (which is a 0.05 percent to 0.02 percent (2,000-year to 5,000-year) recurrence interval also has been evaluated. The numerical modeling includes velocity distributions for over 100 river cross sections. Manning's roughness values for the model bed were taken from analysis of aerial photography of the project site and vary horizontally along each model cross section. The proposed conditions analysis was conducted by modifying the existing conditions model such that the proposed bank protection (described below) was placed within the model as encroaching levees. The impacts of the proposed Commerce Center Drive Bridge and the on-site and off-site bank protection (and erosion protection) for the entire Mission Village project site has been evaluated and are included as a part of the numerical modeling analysis.

The project model for the river was created by modifying existing cross-section geometrics to simulate the hydraulic effects of the proposed bank protection (soil cement, riprap and concrete), erosion protection, and the Commerce Center Drive Bridge abutments and piers. The encroachment due to the soil cement was conservatively approximated by the insertion of vertical walls or "levee markers" in the HEC-RAS model to define the horizontal location of the proposed bank protection levees in the hydraulic model (model levees set at equivalent elevation on slope of riverbank). The methodology used to model the proposed Commerce Center Drive Bridge span, concrete slope protection, pier spacing, and abutment

locations is consistent with the Newhall Ranch Revised Additional Analysis, Volume VIII (May 2003). For modeling and impact analysis consideration, these conservative bridge configurations would have the greatest impact on river hydraulics. It should be pointed out, however, that the river hydraulic analysis presented in this section is based on the project-specific design details, not assumptions from the previous *Newhall Ranch Specific Plan* evaluation.

Existing Santa Clara River discharge rates for the 2-, 5-, 10-, 20-, 50-, and 100-year storm events were obtained from a 1994 USACE study entitled, *Santa Clara River Adopted Discharge Frequency Values*. This study is based upon a frequency analysis of stream flow data along the Santa Clara River and, therefore, approximates river flows from observed data. These values are presented in **Table 4.2-2, Existing Santa Clara River Conditions – Discharge by Return Period**. It is important to note that these values include discharges from upstream tributaries and direct runoff from the watershed.

**Table 4.2-2
Existing Santa Clara River Conditions
Discharge by Return Period (cfs)**

Location	Station	2-Year ¹	5-Year ¹	10-Year ¹	20-Year ¹	50-Year ¹	100-Year ¹	ML Map Qcap ²	Revised Qcap ³
Downstream of Commerce Center Drive	35245	1,720	5,240	9,490	15,600	27,500	40,300	138,000	116,236
At Castaic Confluence	32265	2,527	8,232	14,942	24,157	41,141	58,207	163,000	140,776
Downstream of Chiquito Creek Confluence	22195	2,558	8,333	15,123	24,453	41,646	58,922	165,000	141,426
At Grande Canyon Creek Confluence	17360	2,581	8,408	15,263	24,675	42,025	59,457	166,500	141,426
Downstream of Potrero Creek Confluence	15125	2,600	8,480	15,400	24,900	42,400	60,000	168,000	142,475

Source: Pacific Advanced Civil Engineering, Inc., *Mission Village Flood Technical Report* (February 2007).

¹ These recurrence intervals were obtained from USACE. *Santa Clara River Adopted Discharge Frequency Values* (adopted May 3, 1994, by the USACE, the Ventura County Flood Control Department, and the LACDPW).

² This recurrence interval is from the LACDPW ML Maps 43-ML-24 and 43-ML-25 of floodplain and floodway. This published Q_{cap} flow rate from LACDPW was recently revised downward.

³ Revised Capital Flood Flow Rates from LACDPW 2005 - see PACE March 2006 *Santa Clara River HEC-RAS Modeling report* (**Appendix 4.2**).

5. PLANS AND POLICIES FOR FLOOD CONTROL

Storm runoff from the project site, and discharges of runoff into and/or encroachment upon natural drainages, wetlands, and/or floodplains are subject to the federal Clean Water Act (CWA) (33 U.S.C. Section 1251 et seq.) and associated regulations; the State Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.) and associated regulations; Sections 1600–1607 of the California Fish

and Game Code; and the requirements established by USACE, CDFG, the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Board (RWQCB), and the Flood Control and Watershed Management Divisions of the LACDPW. Many of these regulations control water quality and floodplain modifications, and, where applicable, are addressed in this EIR in **Section 4.22, Water Quality**, and **Section 4.21, Floodplain Modifications**, respectively.

a. The Federal Clean Water Act

The project would be subject to federal permit requirements under the federal CWA.

In 1972, the federal Water Pollution Control Act (later referred to as the CWA) was amended to require that the discharge of pollutants to “waters of the U.S.” from any point source be effectively prohibited, unless the discharge is in compliance with a NPDES Permit. In 1987, the CWA was again amended to add Section 402(p), requiring that the U.S. Environmental Protection Agency (U.S. EPA) establish regulations for permitting of stormwater discharges (as a point source) by municipal and industrial facilities and construction activities under the NPDES permit program. The U.S. EPA published final regulations directed at municipal separate storm sewer systems (MS4s) serving a population of 100,000 or more, and stormwater discharges associated with industrial activities, including construction activities, on November 16, 1990. The regulations require that MS4 discharges to surface waters be regulated by a NPDES Permit (Phase I Final Rule, 55 Fed. Reg. 47990). The U.S. EPA published final regulations directed at storm water discharges not covered in the Phase I Final Rule, including small construction projects of 1 to 5 acres, on December 8, 1999 (Phase II Final Rule, 64 Fed. Reg. 68722).

Section 404 of the CWA regulates activities that result in the location of a structure, excavation, or discharge of dredged or fill material into “waters of the U.S.,” which include wetlands along with non-wetland habitats, such as streams (including intermittent streams), rivers, lakes, ponds, etc. The Santa Clara River, including that portion of the river that flows through the Mission Village tract map site, is designated by the U.S. Geological Survey (USGS) as “waters of the U.S.” Portions of other drainages in the vicinity of the project site are also considered “waters of the U.S.” and fall under USACE jurisdiction. These jurisdictional areas include portions of Castaic Creek, Chiquito Canyon Creek, San Martinez Grande Creek, Salt Creek, Long Canyon Creek, Lion Canyon Creek, Potrero Canyon Creek, and several other minor drainages. Of the additional major drainages, only a portion of Lion Canyon Creek occurs within the boundaries of the Mission Village tract map site.

The CWA authorizes the U.S. EPA to permit a state to serve as the NPDES permitting authority in lieu of the U.S. EPA. The state of California has in-lieu authority for an NPDES program. The Porter-Cologne Water Quality Control Act authorizes the SWRCB, through the RWQCB, to regulate and control discharges into waters of the state. The SWRCB entered into a memorandum of agreement with the U.S.

EPA on September 22, 1989, to administer the NPDES program governing discharges to “waters of the U.S.”

To facilitate compliance with federal regulations, the SWRCB has issued two statewide general NPDES permits for storm water discharges: one for storm water from industrial sites (not applicable to the Mission Village project), and the other for storm water from construction sites.

The SWRCB issued a statewide general NPDES Permit for stormwater discharges from construction sites [(NPDES No. CAR000002) Water Quality Order 2009-0009-DWQ, SWRCB NPDES General Permit for Stormwater Discharges Associated with Construction Activity (adopted by the SWRCB on September 2, 2009)]. Under this Construction General Permit, discharges of stormwater from construction sites with a disturbed area of one or more acres (effective July 1, 2010) are required to either obtain individual NPDES permits for stormwater discharges or to be covered by the Construction General Permit. Coverage under the Construction General Permit is accomplished by completing a construction site risk assessment to determine appropriate coverage level; preparing a Stormwater Pollution Prevention Plan (SWPPP), including site maps, a Construction Site Monitoring Program (CSMP), and sediment basin design calculations; for projects located outside of a Phase I or Phase II permit area, completing a post-construction water balance calculation for hydromodification controls; and completing a Notice of Intent. All of these documents must be electronically submitted to the SWRCB for General Permit coverage. The primary objective of the SWPPP is to identify and apply proper construction, implementation, and maintenance of BMPs to reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from the construction site during construction. The SWPPP also outlines the monitoring and sampling program required for the construction site to verify compliance with discharge Numeric Action Levels (NALs) set by the Construction General Permit.

The RWQCB is the enforcement authority in the Los Angeles Region for the two statewide general permits, and all NPDES storm water and non-storm water permits. Construction sites and discharges are also regulated under local laws and regulations.

The project is also subject to the waste discharge requirements of the RWQCB Municipal Permit (General MS4 Permit) Order No. R4-2006-0074, NPDES No. CAS004001 (amended September 14, 2006). The County of Los Angeles is a Permittee under the General MS4 Permit and, therefore, has legal authority to enforce the terms of the permit within its jurisdiction. The General MS4 Permit is intended to ensure that combinations of source control and treatment control Best Management Practices (BMPs) are implemented to protect the quality of receiving waters. It includes requirements governing the design, construction and operation of developments.

b. United States Army Corp of Engineers

Additional project improvements within the jurisdiction of the USACE would require permits under Section 404 of the CWA. Section 404 of the CWA regulates activities that result in the location of a structure, excavation, or discharge of dredged or fill material into “waters of the U.S.,” which include wetlands along with non-wetland habitat, such as streams (including intermittent streams), rivers, lakes, ponds, etc. The Santa Clara River, including that portion of the river that flows through the Mission Village project site, is designated by the USGS as “waters of the U.S.” No other drainages within the project site are considered “waters of the U.S.” Construction of a portion of the bank stabilization, outlet structures (discussed in **Section 4.21, Floodplain Modifications**), and the Commerce Center Drive Bridge fall within the USACE’s jurisdiction.

c. California Department of Fish and Game

CDFG has jurisdiction over the Santa Clara River. Additional project improvements under the jurisdiction of CDFG would require permits under sections 1600–1607 of the California Fish and Game Code. Under this state law, CDFG regulates activities that would alter the flows, beds, channels, or banks of streams² and lakes.

d. Los Angeles County Department of Public Works

Los Angeles Department of Public Works, Flood Control Division. The Flood Control Division within LACDPW is responsible for collecting and analyzing hydrologic data to support the design, operation, and maintenance of flood control facilities within Los Angeles County. Among other duties, the Flood Control Division performs hydrology and sedimentation studies; collects stream flow, precipitation, and evaporation data; forecasts rainfall runoff; and analyzes flood flows. The data collected by the Flood Control Division is used in conjunction with design standards developed by LACDPW to ensure that flood control facilities are adequately sized, maintained, and operated. The Flood Control Division operates and maintains County flood control facilities, including open flood control channels, underground storm drains, catch basins, debris retaining structures, and concrete streambed stabilization structures.

The Flood Control Division uses site-specific data to prepare maps of watersheds burned by brush fires, potential mudflow areas, and debris flow zones. Hydrologic and topographic information is used by the Flood Control Division to prepare detailed flood hazard zone maps. These maps are more detailed than the Flood Insurance Rate Maps (FIRM) used by FEMA, because impervious and burned surfaces are taken into account.

² The term “stream” can include intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blueline streams and watercourses with subsurface flows.

In the Santa Clarita Valley along the Santa Clara River, LACDPW requires that (1) the top elevation of the bank protection must contain the capital flood discharge; (2) the bank protection must be readily accessible for inspection and emergency repair; (3) the bank protection must be constructed of a material resistant to erosive flows; and (4) the bank protection must extend to or below the anticipated scour elevation for the capital flood event. Lining of the natural channel bottom is typically not required.

Further, properties adjacent to the river that include improvements along and across a segment of the river (including the project) must meet the standards adopted in the Newhall Ranch Specific Plan Program EIR and Revised Additional Analyses, Volume VIII (May 2003) in Appendix 4.10.

Additionally, LACDPW has required the project applicant to prepare detailed hydraulic and fluvial modeling (for the capital flood event) for the proposed study reach of the Santa Clara River. LACDPW had three stated purposes for requesting the Newhall Ranch Santa Clara River fluvial analysis:

- (1) Verify applicability of the Los Angeles County Design Manual (and Hydrology and Sedimentation Manual) top and toe elevation calculations for this reach of the Santa Clara River.
- (2) Establish proposed riverbank protection horizontal and vertical (top and toe elevations of the bank protection) alignments to facilitate a complete review of the various Newhall Ranch tentative tract map submittals.
- (3) Provide level of understanding of the Newhall Ranch Santa Clara River reach fluvial mechanics as related to existing conditions and the proposed Newhall Ranch development conditions to identify any major project impacts.

The fluvial study examined local, long-term, and episodic components of riverbed adjustment. The study found that localized impacts from proposed bridge piers would occur; however, these impacts would not be significant. The study also found that the Mission Village project would not change the fluvial mechanics of the Santa Clara River and, therefore, would not create a significant impact.

Santa Clara River and Major Tributaries Drainage Policy. The LACDPW has determined that the Santa Clara River Basin is a major source of sediment for coastal beaches. In addition, groundwater recharge provides a significant amount of water for the Santa Clarita Valley and should be maintained. Based on these needs, LACDPW developed a drainage policy for the Santa Clara River as follows (LACDPW Sedimentation Manual, 1993):

- The design of flood protection facilities for the Santa Clara River shall be based on:
 - the Department capital flood flow rates (50-year rainfall discharge, bulked only);
 - soft bottom waterways with levees; and
 - Protective levees and additional facilities, such as drop structures or stabilizers, as required shall be designed using LACDPW criteria.

- The design of flood protection facilities for tributary drainages to the Santa Clara River that have existing flood control improvements shall be compatible with these existing facilities.
- The soft bottom drainages shall be designed to maintain equilibrium between sediment supply to the drainage and sediment transport through the drainage. In cases where a soft bottom drainage is subject to significant deposition due to high sediment supply or significant erosion due to lack of sediment supply, then the drainage concept will be developed in consultation with LACDPW to comply with applicable requirements for tentative tract map approval.

Storm Drains and Urban Flood Protection. All facilities in developed areas that are not covered under the capital flood protection conditions above must be designed for the urban flood. The urban flood is runoff from a 25-year frequency design storm falling on a saturated watershed.

In developed areas, street flow in an urban flood must be contained within the street, but the runoff may be carried in a drain under the street as well as on the street surface. Under urban flood conditions, street flow is allowed in the upstream area of an urban watershed, to the point where the flow reaches the street capacity at the property line. At this point, the flow must be split and conveyed both in the street and in a 25-year frequency design storm facility (LACDPW Hydrology Manual, 1991).

Urban Drains. Urban drains typically are designed to carry the runoff from a 10-year frequency storm. The runoff resulting from the 25-year frequency design storm must be carried within the drain and on the street, below the private property line. Like the 50-year frequency design storm, these design storms are four-day storms with the maximum rainfall quantities occurring on the fourth day (DPW Addendum to 1991 Hydrology Manual, 2002).

Sumps. Sumps are structures used to capture runoff, and in urban areas must be designed for the capital flood. Drains leaving the sump must have capacity to carry the runoff resulting from a 50-year frequency rainfall event.

Multiple Levels of Flood Protection. The LACDPW has established policies for multiple levels of flood protection. This applies in cases where a drainage system might have to provide more than a single level of flood protection. An example is where a natural canyon is tributary to a proposed urban drain or sump. In this case, the system must protect the developed area from an urban flood, as well as debris and stormwater from the natural canyon. Additional capacity also must be incorporated into the urban drainage system to accommodate the burned and bulked flow from the canyon area and protect the drainage from a capital flood (LACDPW Hydrology Manual, 1991).

Debris Production Zones. The Project area is located within debris production zones designated by the Hydraulic/Conservation Division of LACDPW. Specific debris production maps are provided in Appendix A of the LACDPW 1991 Hydrology Manual. The LACDPW has constructed and maintains

several debris control structures within the Santa Clara River watershed to minimize the chance of channels clogging with debris. Debris control structures, volumes, and transportation rates are provided in the LACDPW Sedimentation Manual.

Hydromodification Control. Under Part 4, section D.1 of the MS4 Permit, the County and its co-permittees were required to develop and implement by February 1, 2005, numeric criteria for peak flow control in accordance with the findings of the Peak Discharge Impact Study analyzing the potential impacts on natural streams due to impervious development. The LACDPW and the Southern California Storm Water Monitoring Coalition had been conducting the study, but the study was not completed in time to meet the February 1, 2005, deadline. Therefore, on January 31, 2005, the County adopted and submitted to the RWQCB an Interim Peak Flow Standard to be in effect until such time as a final standard can be adopted based on a completed study. As of the date of this writing, the interim policy is still in place.

The adopted Los Angeles County Interim Peak Flow Standard was derived from a similar Interim Peak Flow Standard for Ventura County approved by the RWQCB under the Standard Urban Stormwater Mitigation Plan (SUSMP) requirements provisions of the MS4 Permit. The intent of the Interim Standard, as described by the County in a letter dated January 31, 2005, is to provide protection for natural streams to the extent supported by findings from the ongoing study, and consistent with practical construction practices. The Interim Peak Flow Standard adopted by the County is:

The Peak Flow Standard shall require that all post development runoff from a 2-year, 24-hour storm shall not exceed the predevelopment peak flow rate, burned, from a 2-year, 24-hour storm when the predevelopment peak flow rate equals or exceeds five cubic feet per second. Discharge flow rates shall be calculated using the County of Los Angeles Modified Rational Method. The Peak Flow Standard shall also require that post development runoff from the 50-year capital storm shall not exceed the predevelopment peak flow rate, burned and bulked, from the 50-year capital storm.

Proposed projects are required to meet the peak flow control criteria as a part of the development plan approval process for building and grading permits.

In addition to the Interim Peak Flow Standard, the Newhall Ranch Specific Plan Sub-Regional Stormwater Mitigation Plan (SWMP; Geosyntec, 2008) that was approved by the County of Los Angeles provides an alternative performance standard for the Specific Plan projects. The Specific Plan projects will be conditioned to require, as a project design feature, sizing and design of hydraulic features as necessary to control hydromodification impacts in accordance with this Newhall Ranch Specific Plan Sub-Regional SWMP. The Specific Plan projects will comply with the following performance standard:

The erosion potential (Ep) of stormwater discharges from the Project shall be maintained within 20% of the target value in the tributary drainages that will receive post-development flows. The target erosion potential (Ep) will consider changes in sediment supply.

The Ep is a metric that measures the potential impact of modified flows on stream stability and excessive erosion, and has been developed as a means to define an in-stream performance standard and a "significance test" of the effectiveness of proposed hydromodification control strategies. An equivalently effective, similarly geomorphically referenced approach may be developed and applied in the future in place of the erosion potential approach.

The hydromodification performance standard will be met for all of the Specific Plan projects from the point of discharge to the tributary drainage channel downstream to the confluence of the tributary drainage with the Santa Clara River, and shall be achieved through on-site or in-stream controls, or a combination thereof.

Newhall Ranch Specific Plan Sub-Regional Stormwater Mitigation Plan. The Newhall Ranch Specific Plan Sub-Regional Stormwater Mitigation Plan (Geosyntec, 2008) (see **Appendix 4.2**) was developed to comply with the County Municipal Separate Storm Sewer System (MS4) NPDES Permit and the Standard Urban Stormwater Mitigation Plan requirements and sets forth the urban runoff management program that will be implemented for the Specific Plan sub-region. The Sub-Regional SWMP is the first of three levels of stormwater plan preparation. These levels include (1) the Sub-Regional SWMP, which applies to the entire Specific Plan area; (2) the Project Water Quality Technical Report, which will provide the project-level impact analysis for each of the villages within the Specific Plan area; and (3) the final Project SUSMP, which will be prepared prior to the recordation of any final subdivision map or the issuance of any grading or building permit. The Sub-Regional SWMP sets the framework for the future levels of stormwater plan preparation.

The Sub-Regional SWMP includes an analysis of potential flood impacts associated with the proposed Project and provides control measures that will be implemented to minimize potential flood hazards. The control measures, or project design features, include site design criteria to help minimize changes in runoff following project construction, treatment controls including bioretention areas designed to capture and treat stormwater runoff, high flow by-pass in the tributaries which would convey excess stormwater runoff directly to the Santa Clara River instead of discharging to a tributary drainage, and storage of excess runoff volume for irrigation reuse.

6. EXISTING CONDITIONS

a. Santa Clara River

The entire Mission Village project site is located within the Santa Clara River basin. The Santa Clara River flows through the northern portion of the Newhall Ranch site from east to west. The river has a Qcap of 116,236 cfs at a point upstream of Castaic Creek, and a Qcap of 140,776 cfs just west of the confluence of Castaic Creek and the Santa Clara River (values based on 2005 revised capital flood flow rates issued by LACDPW).

The entire watershed of the Santa Clara River basin at the Pacific Ocean is 1,634 square miles in area. The watershed drains portions of the Los Padres National Forest from the north, the Angeles National Forest from the northeast and east, and the Santa Susana Mountains from the south and southeast. At the downstream end of the Newhall Ranch Specific Plan site, the Santa Clara River drainage area is 644 square miles. The Mission Village tract map site represents approximately 1.97 square miles, or 0.31 percent of the 644-square-mile watershed (1,261.8 acres/640 acres per square mile = 1.97 square miles).

Downstream of the existing Valencia Water Reclamation Plant (WRP), the Santa Clara River is perennial to approximately 5 miles downstream of the Los Angeles County/Ventura County line near Rancho Camulos. Flows in the Santa Clara River also can be affected by groundwater dewatering operations or by diversions for agriculture or groundwater recharge. Throughout the Santa Clara River channel, complex surface water/groundwater interactions lead to areas of alternating gaining and losing river segments. In particular, downstream of the Los Angeles County/Ventura County line, the Santa Clara River flows through the Piru groundwater basin, which forms a "Dry Gap" where dry-season streamflow is lost to groundwater.

As with most Southern California streams, flows in the Santa Clara River are highly episodic. For the gauged period between 1953 and 1996, annual flow at the Los Angeles County/Ventura County line gauge ranged between 253,000 acre-feet (1969) and 561 acre-feet (1961). Annual peak flows at the County line between 1953 and 1996 ranged from 68,800 cfs (1969) to 109 cfs (1960). The second highest annual peak, 32,000 cfs in 1966, was less than half of the highest peak (68,800 cfs in 1969).

The reach of the river within and adjacent to the project site has multiple channels (braided). High sediment loads, bank erodibility, and intense and intermittent runoff conditions characterize this kind of system. The river has the potential for aggradation (sediment deposition) and degradation (scouring or sediment removal) in various locations along the study reach based upon hydraulic conditions present in the various sub reaches of the river. Historical data analysis has found that the curved reaches of the riverbed within the Mission Village study area have aggraded up to 15 feet and degraded as much as

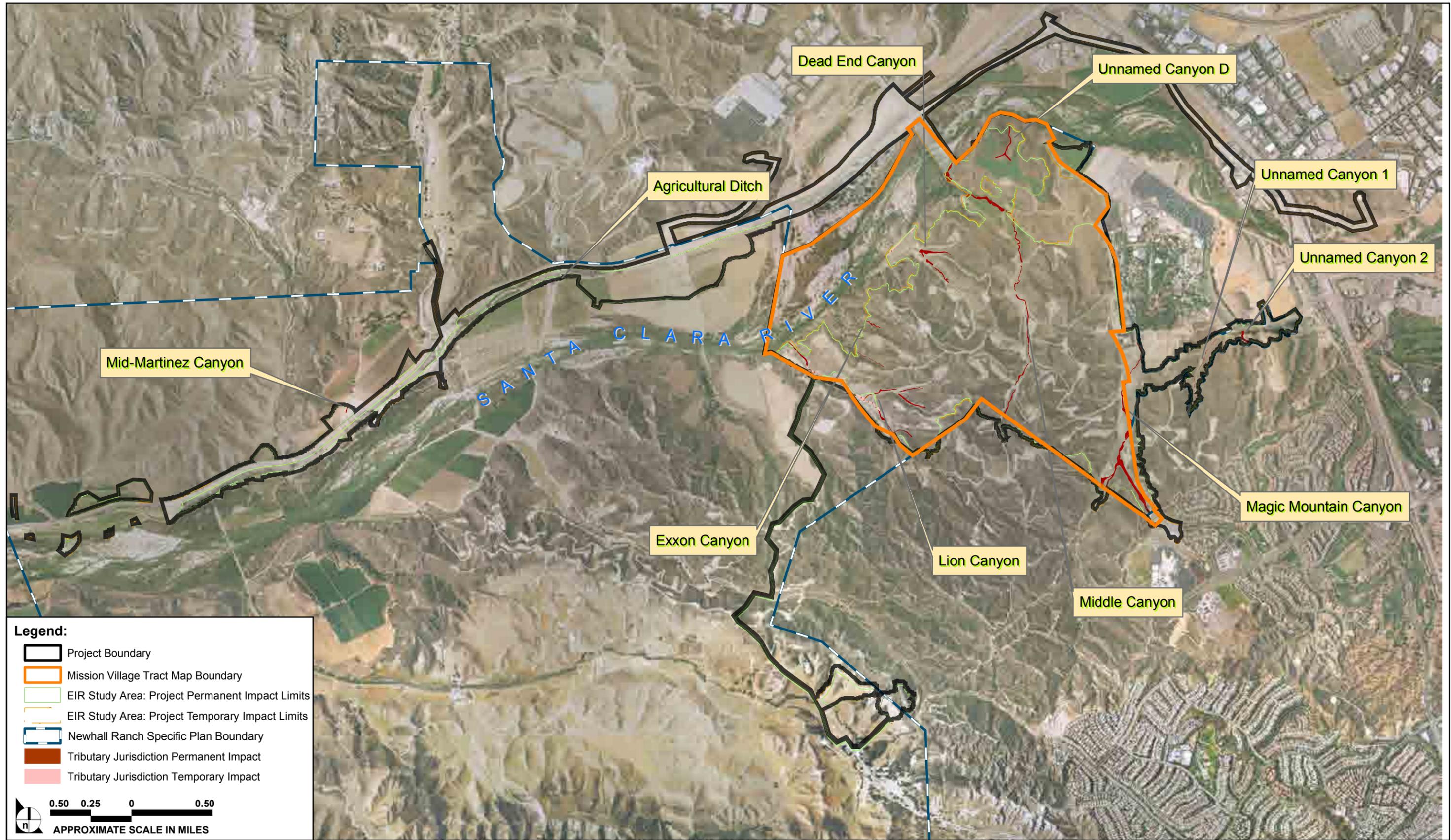
20 feet (PACE 2007). Velocities and water surface elevations in the river vary from section-to-section of the river based on various hydraulic and hydrologic parameters. In general, velocity and water depth along the river will increase with higher discharge. Velocity and water depth percent increases do not correspond to the percent discharge increases because the wide river channel allows flood flows to spread out within the river cross-section thus reducing the increases in velocity and depth.

b. Tributaries

The tract map site is located east of the confluence of Castaic Creek and south of the Santa Clara River. The Castaic Creek watershed, the largest of the tributary watersheds, is approximately 209 square miles (including the area above the dam). Other tributaries located primarily or entirely on the Mission Village tract map site are described below. The location of these tributary areas is depicted on **Figure 4.2-1, Tributary Drainages**.

(1) Lion Canyon

The approximate 0.84 square mile (539 acres) Lion Canyon watershed is a tributary to the southern bank of the Santa Clara River. Approximately 280 acres of the Lion Canyon watershed, or about 52 percent of the watershed area, is located within the Mission Village tract map site (see **Figure 4.2-1**). The watershed is aligned generally in an east to west direction, and joins the Santa Clara River valley. The length of the Lion Canyon watershed is approximately 4,761 feet, with an average slope of 4.6 percent. Within the Mission Village tract map site, Lion Canyon is characterized by a narrow sloping valley floor surrounded by rugged and steep foothills. Approximately 43 percent of the canyon within Mission Village lies in the valley floor, which averages approximately 320 feet in width, 100 feet at the upper end, its narrowest point, and 380 feet near its terminus at the Santa Clara River.



SOURCE: PACE – September 2010

FIGURE 4.2-1

Tributary Drainages

(2) Exxon Canyon

The 0.03 square mile (16 acres) Exxon Canyon watershed is a tributary to the southern bank of the Santa Clara River. Approximately 16 acres of the watershed, or about 100 percent of the watershed area, is located within the Mission Village tract map site (see **Figure 4.2-1**). The watershed is aligned generally in a south to north direction and joins with the Santa Clara River Valley. The length of the Exxon Canyon watershed is approximately 2,193 feet, with an average slope of 9.2 percent. The drainage divides into two narrow forks approximately 150 feet above the Santa Clara River. Each fork is narrow, averaging approximately 100 feet in width and gaining 60 meters in elevation between the River and their origins.

The southern portion of Exxon Canyon would be graded to accommodate development on the Mission Village project, and the seasonal flows through the drainage would be conveyed by buried storm drain (see **Figure 4.2-1**). Approximately 0.3 acre (or 1,276 feet) of existing drainage/jurisdiction would be converted to buried storm drain. The northern drainage/jurisdiction of Exxon Canyon, adjacent to the Santa Clara River, would remain unimproved within the project boundary (see **Figure 4.2-1**).

(3) Middle Canyon

The 0.53-square-mile (340 acres) Middle Canyon watershed is a tributary to the southern bank of the Santa Clara River. Approximately 272 acres of the watershed, or about 80 percent of the watershed area, is located within the Mission Village tract map site (see **Figure 4.2-1**). The watershed is aligned generally in a south-to-north direction and joins with the Santa Clara River Valley. The length of the Middle Canyon watershed is approximately 7,967 feet, with an average slope of 3.7 percent. The lower 2,800 feet of Middle Canyon lies in a valley approximately 400 feet in width. The upper portion narrows considerably, averaging less than 100 feet in width. It terminates through a year-round spring into the Santa Clara River.

Middle Canyon would be graded to accommodate Mission Village development and the seasonal flows through the drainage would be conveyed by buried storm drain (see **Figure 4.2-1**). In total, approximately 5.6 acres or about 7,439 feet of existing drainage/jurisdiction would be converted to buried storm drain within the Mission Village tract map site. A freshwater spring is located downstream of the mouth of Middle Canyon on a terrace along the Santa Clara River as depicted on **Figure 4.2-1**. The spring, comprising approximately 2.1 acres, is considered a unique aquatic resource that would be preserved.

(4) Magic Mountain Canyon

The 1.32-square-mile (847 acres) Magic Mountain Canyon watershed is a tributary to the southern bank of the Santa Clara River. Approximately 178 acres of the watershed, or about 27 percent of the watershed

area, is located within the Mission Village tract map site (see **Figure 4.2-1**). The watershed is aligned generally in a south-to-north direction and joins with the Santa Clara River Valley. The length of the Magic Mountain Canyon watershed is approximately 4,813 feet, with an average slope of 3.4 percent. The origin of this canyon has been impacted by existing development, and the canyon terminates into the Magic Mountain amusement park. The middle portion consists of gently sloping valley, approximately 400 feet in width.

(5) Unnamed Canyon D

The 0.04-square-mile (28 acres) Unnamed Canyon D watershed is a tributary to the southern bank of the Santa Clara River. Approximately 28 acres of the watershed, or about 100 percent of the watershed area, is located within the Mission Village tract map site (see **Figure 4.2-1**). The watershed is aligned generally in a south-to-north direction and joins with the Santa Clara River Valley. The length of the Unnamed Canyon D watershed is approximately 1,740 feet, with an average slope of 11.6 percent. Unnamed Canyon D drains to the Santa Clara River through a narrow, steep valley, measuring less than approximately 100 feet in diameter. T

(6) Dead-End Canyon

The 0.19-square-mile (124 acres) Dead-End Canyon watershed is a tributary to the southern bank of the Santa Clara River. Approximately 124 acres, or about 100 percent of the watershed area, is located within the Mission Village tract map site (see **Figure 4.2-1**). The watershed is aligned generally in an east to west direction and joins with the Santa Clara River Valley. The length of the Dead-End Canyon watershed is approximately 1,076 feet, with an average slope of 6.1 percent. The drainage is impeded by existing oil field access roads and it divides into two narrow forks approximately 600 feet above the Santa Clara River. Each of these forks is narrow, averaging approximately 80 feet in width and gaining 60 meters in elevation between the River and their origins.

(7) Unnamed Canyon 1

The Unnamed Canyon 1 watershed is not located on the Mission Village tract map site, however, the proposed project would result in the installation of improvements in this drainage area. The 0.16-square-mile (103 acres) Unnamed Canyon 1 watershed is aligned generally in a south to north direction and is a tributary to the southern bank of the Santa Clara River. The entire length of the Unnamed Canyon 1 watershed is approximately 2,020 feet, with an average slope of 2.7 percent. The source of water for Unnamed Canyon 1 is compromised by an existing golf course, and the drainage terminates in a ditch next to a parking lot for the Magic Mountain amusement park.

(8) Unnamed Canyon 2

The Unnamed Canyon 2 watershed is not located on the Mission Village tract map site, however, the proposed project would result in the installation of improvements in this drainage area. The 0.6-square-mile (401 acres) Unnamed Canyon 2 watershed is aligned generally in a south to north direction and is a tributary to the southern bank of the Santa Clara River. The length of the entire Unnamed Canyon 1 watershed is approximately 3,126 feet, with an average slope of 3.1 percent. The source of water for Unnamed Canyon 2 is compromised by an existing golf course, and the drainage terminates in a ditch next to a parking lot for the Magic Mountain amusement park.

(9) Mid-Martinez Canyon

The Mid-Martinez Canyon watershed is not located on the Mission Village tract map site; however, the proposed project would result in the installation of improvements in this drainage area. The 0.16-square-mile (105 acres) Mid-Martinez Canyon watershed is aligned generally in a north to south direction and is a tributary to the northern bank of the Santa Clara River. The length of the entire Mid-Martinez Canyon watershed is approximately 3,729 feet, with an average slope of 6.5 percent. The upper sections of Mid-Martinez Canyon consist of steep narrow canyons, less than 60 feet in width. The lower 2,400 feet is deeply incised as it passes through agricultural fields.

(10) Agricultural Ditch

The Chiquita Landfill site is located north of the Mission Village tract map site, just north of SR-126, and drains to an agricultural ditch. The watershed for the landfill is 0.54 square miles (349 acres) and flows generally in a north-to-south direction.

c. Tract Map Site (VTTM 61105)

Information is provided below regarding the existing drainage characteristics of the Mission Village project site, as well as the amount of runoff that flows through and from the site into the river.

The entire tributary drainage area for the Mission Village site is approximately 2,690 acres, lies completely within unincorporated Los Angeles County, and is comprised of 15 drainage areas that independently drain toward the Santa Clara River (see **Figure 4.2-2, Mission Village Existing On- and Off-Site Drainage Areas**). Runoff flows to and through the project site and across the proposed off-site improvements of Magic Mountain Parkway via sheet flows and natural concentrated flows. All runoff from the tributary area eventually discharges to the Santa Clara River either directly or to existing concrete channels that outlet to the river north and east of Magic Mountain Theme Park (see **Figure 4.2-2**).

There are currently no existing drainage or erosion/sedimentation control improvements located within the site other than minor agricultural drainage ditches and an insignificant amount of loose rock and earthen riverbank protection.

Annual rainfall in this area is typically low and occurs generally in the winter months. Runoff sources occur both on and off site, with the headwaters of the streams in the steep upper canyons near the ridgelines in off-site areas. The combination of soil characteristics and high magnitude low frequency storms, which are typical of the region, produce conditions conducive to rapid accumulation of surface water and high storm peak runoffs.

Capital flood runoff quantities for the drainage areas are provided in **Table 4.2-3, Existing Drainages and Runoff Discharge**. In accordance with LACDPW requirements, the burned and bulked storm event (the capital storm) was used to calculate the discharge. Under existing conditions, burned and bulked flows from the 15 drainage areas total approximately 5,700 cfs. The calculated total debris volume during a capital storm is approximately 85,200 cubic yards.

**Table 4.2-3
Existing Drainages and Runoff Discharge**

Drainage Area	Acreage	Debris Producing Acreage	Q50c (cfs) ¹	Q50bb (cfs) ²	Debris Volume (cy) ³
1-23 series	743.8	655	1,085	1,493	24,875
30-40 series	534.3	534.3	776	1,057	14,960
50 series	358.6	358.6	375	551	10,041
60 series	169.3	169	307	416	6,433
70 series	26.1	26.1	46	63	1,428
75 series	17.3	17.3	36	49	946
80 series	75.3	75.3	77	109	3,916
90 series	95.8	95.8	149	224	4,311
100 series	105.2	105.2	137	198	4,418
120 series	18.2	18.2	38	52	996
500 series	102.7	103	193	276	4,519
600 series	402.1	376.3	959	1,059	6,062
610 series	19.8	19.8	45	61	1,083
620 series	21.6	19	41	54	1,039
622 series	6	0	21	21	0
Totals	2,696	2,573	4,285	5,682	85,238

Source: PSOMAS, Drainage Concept for Mission Village, VTTM 61105 (February 2010).

¹ Q50c-50-year rainfall intensity clear and burned flow

² Q50bb-50-year rainfall intensity burned and bulked flow

³ Debris Volume – Cubic yards are determined by using a debris producing rate of (range 30-55 cy/acre), which is specific for this area, on undeveloped conditions (see the appendix in the PSOMAS report for debris

Drainage Area	Acreage	Debris Producing Acreage	Q50c (cfs) ¹	Q50bb (cfs) ²	Debris Volume (cy) ³
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production area ratios calculations).

Drainage area series 30 through 90 and 120 all drain through the site and directly to the Santa Clara River, accounting for almost half of the project tributary area (1,286 acres). Drainage areas 1 through 20 and 100 series drain to an existing concrete channel that runs through the Magic Mountain Theme Park. Series 500 and 600 outlet to two concrete channels that converge on the theme park property and into a culvert under the park entrance, and into a concrete channel within VTTM 53295 that drains to the Santa Clara River. Drainage area 610 outlets under Magic Mountain Parkway to the same concrete channel. Series 620 outlets under Magic Mountain Parkway and into an existing concrete channel that runs along The Old Road before outletting to the river. Drainage area 622 is collected in area drains and street catch basins, and piped to the same concrete channel along The Old Road. When The Old Road is relocated (prior to implementation of the Mission Village project), this concrete channel will be replaced by a reinforced concrete box in a similar alignment.

The easternmost portion of the tributary area is predominantly outside of the tract map area and in a natural condition. Runoff from the portion of the tributary area south of existing Magic Mountain Parkway currently discharges under Magic Mountain Parkway and to the northeast where it discharges into an existing debris basin is located in sub-basin 26A immediately east of the project site. This basin outlets into a concrete channel that flows northerly along the western boundary of Magic Mountain Theme Park and discharges to the Santa Clara River via a reinforced concrete box. There are no known flow constraints in this portion of the tributary area. The capital flood (Q_{cap}) within the river along the project site is approximately 140,776 cfs just west of the confluence of Castaic Creek and the Santa Clara River. Existing burned and bulked flow from the project site is approximately 5,682 cfs. Therefore, capital flood flows from the project site are approximately 4.0 percent of the river capital flood discharge rate at this point.

(1) Santa Clara River Floodplain

A portion of the project site lies within the County's capital floodplain for the river (See **Figure 4.2-3, Existing County Capital Floodplain Boundaries**) and within the 100-year floodplain identified by FEMA FIRM No. 065043-0340 (October 20, 2002) and 65043-0345 B (October 24, 2002) for the unincorporated areas of Los Angeles County (see **Figure 4.2-4, Existing FEMA 100-yr Floodplain Boundaries**). The 100-year floodplain boundaries are based on historical runoff records as measured with stream gauges and based upon the theoretical 1 percent probability rainfall event and the resulting 100-year flood rate and

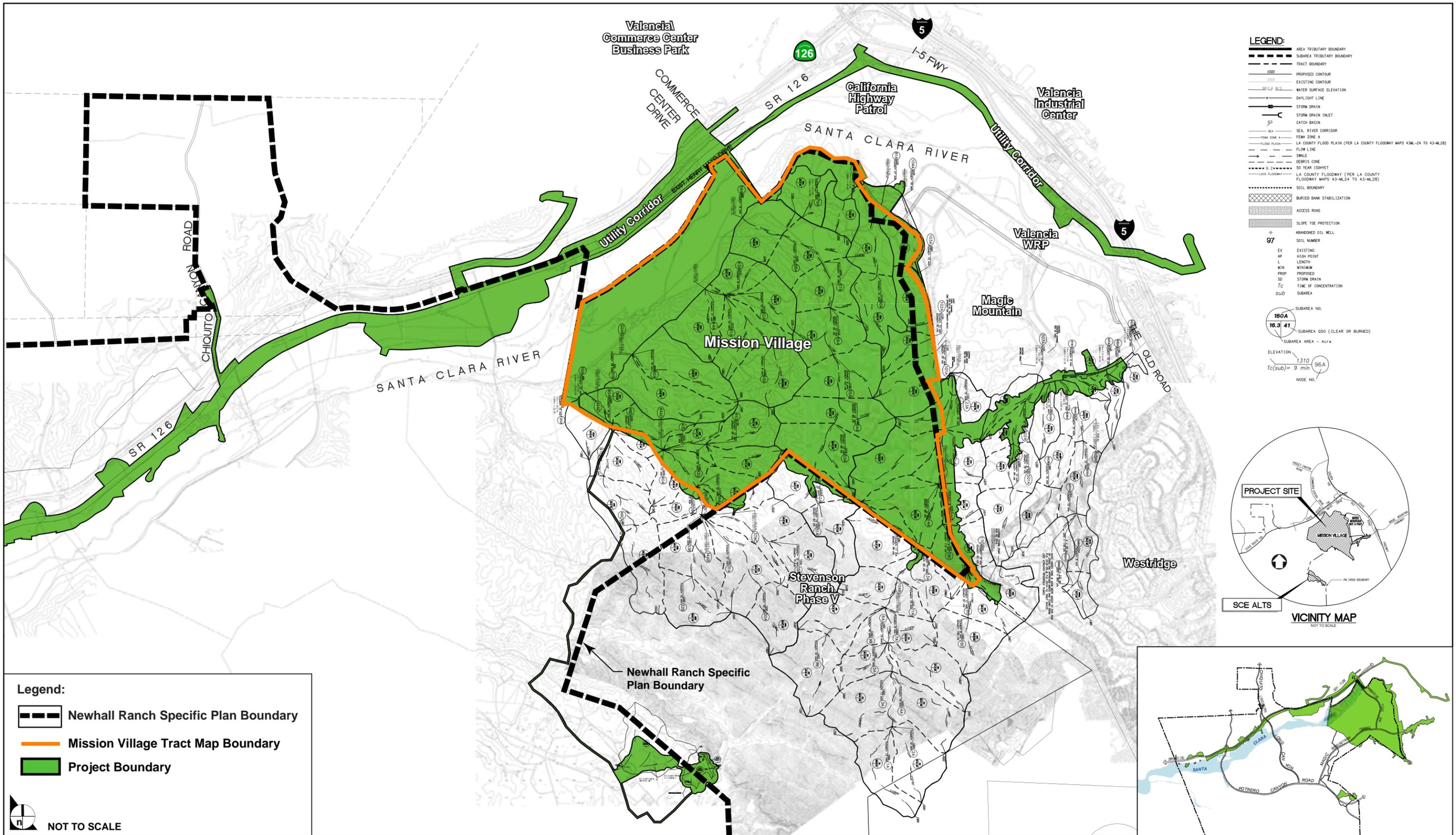
floodplain. Mapping the 100-year floodplain is important because FEMA uses the data to establish standards for flood insurance coverage under the Natural Flood Insurance Program (NFIP). Under NFIP criteria, the 100-year flood elevation is the “base flood” and any land that is outside of this 100-year, or base flood, elevation is considered reasonably safe and free from flood hazards.

The Santa Clara River and its major tributaries have been identified as a study area from the headwaters in Acton to the Pacific Ocean.

FEMA and their contracted consultants are heading the effort with Los Angeles and Ventura counties to update the floodplain and floodway for the Santa Clara River and the major tributaries. The floodplain is determined as the peak limits of flooding of a river, channel, etc. during a particular design storm event. The floodway limits are typically inside the floodplain for each design storm event. The floodway is a theoretical limit line where the insignificant (limited-flow carrying) floodplain fringe is eliminated. By definition, the floodway is the encroachment of the floodplain from both directions to raise the water surface up to 1.0 foot.

In the case of the Santa Clara River within the Newhall Ranch study area, there are two sets of agency mapped and adopted floodplain limit lines. The FEMA Flood Insurance Rate Maps for the 100-year event ($\pm 60,000$ cfs) were updated and adopted by FEMA (2002), but FEMA has not mapped a 100-year floodway in this reach of the river. In addition, LACDPW has a mapped floodplain and floodway for the Santa Clara River for the capital flood event ($\pm 140,000$ cfs), which is the LACDPW design storm event.

All of the Newhall Ranch Santa Clara River designs, including the Mission Village project, have been required to meet both FEMA and the higher ($\pm 140,000$ cfs) LACDPW capital flood event. The capital flood flow rate is ± 2.5 times greater than the FEMA 100-year flow rate and, therefore, the design criteria required to meet the LACDPW capital storm is much more conservative and will meet or exceed the 100-year FEMA criteria.



Legend:

- Newhall Ranch Specific Plan Boundary
- Mission Village Tract Map Boundary
- Project Boundary

NOT TO SCALE

LEGEND:

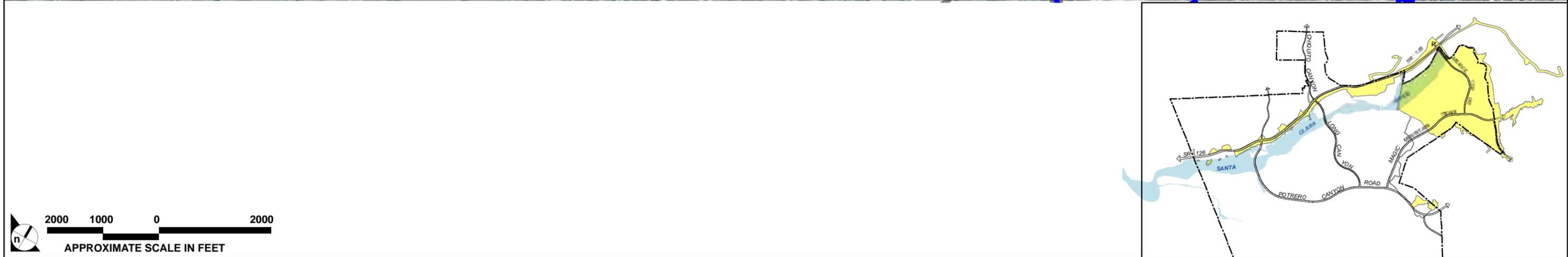
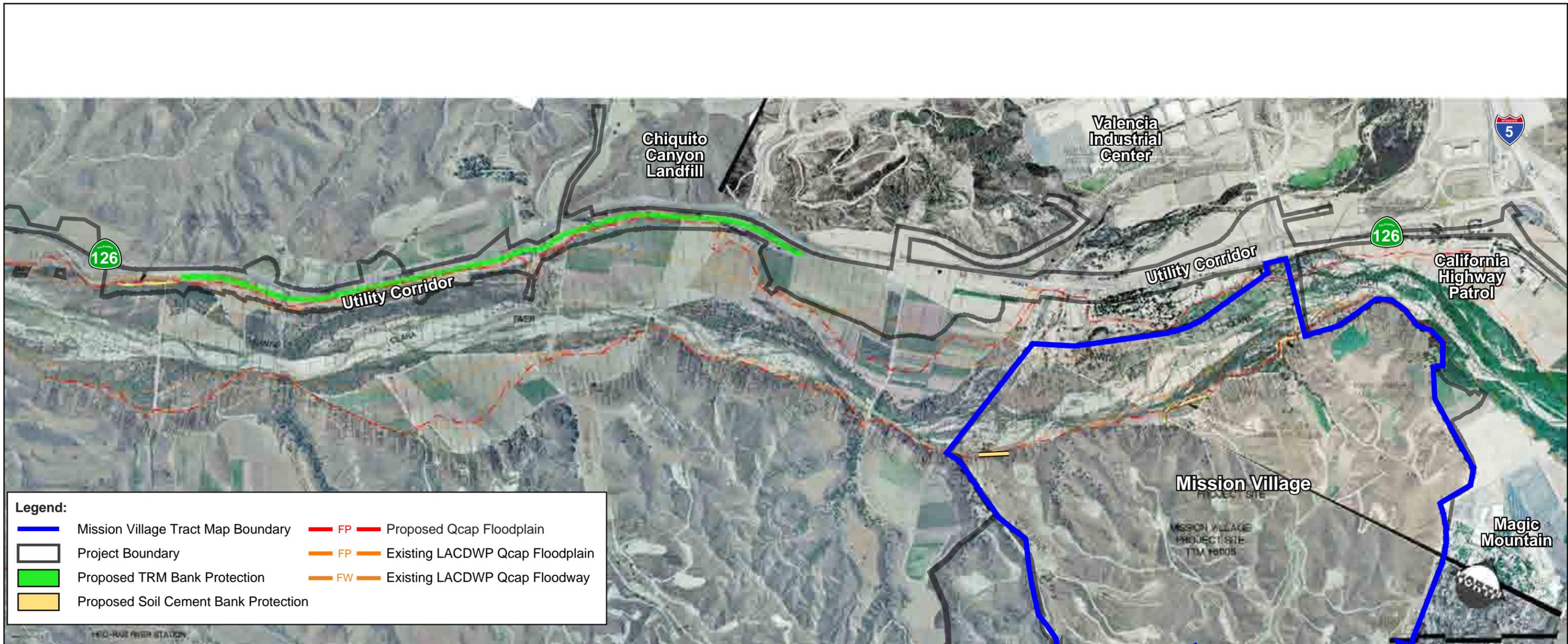
- AREA TRIBUTARY BOUNDARY
- SUBAREA TRIBUTARY BOUNDARY
- TRACT BOUNDARY
- PROPOSED CONTOUR
- EXISTING CONTOUR
- WATER SURFACE ELEVATION
- DAYLIGHT LINE
- STORM DRAIN
- STORM DRAIN INLET
- CATCH BASIN
- SEA, RIVER CORRIDOR
- FEMA ZONE A
- FLOOD PLAIN
- FLOW LINE
- SHALE
- DEBRIS CONE
- 50 YEAR ISORHET
- LA COUNTY FLOODWAY (PER LA COUNTY FLOODWAY MAPS 43-ML24 TO 43-ML28)
- SOIL BOUNDARY
- BURIED BANK STABILIZATION
- ACCESS ROAD
- SLOPE TOE PROTECTION
- ABANDONED OIL WELL
- SOIL NUMBER
- EXISTING
- HIGH POINT
- LENGTH
- MINIMUM
- PROPOSED
- STORM DRAIN
- TIME OF CONCENTRATION
- SUBAREA

SUBAREA NO. 160A
 SUBAREA QSD (CLEAR OR BURNED) 16.3 41
 SUBAREA AREA - Acre
 ELEVATION 1310
 $T_c(sub) = 9 \text{ min}$ 96A
 NODE NO.

VICINITY MAP
NOT TO SCALE

SOURCE: PSOMAS – 2010, Impact Sciences, Inc. – August 2010

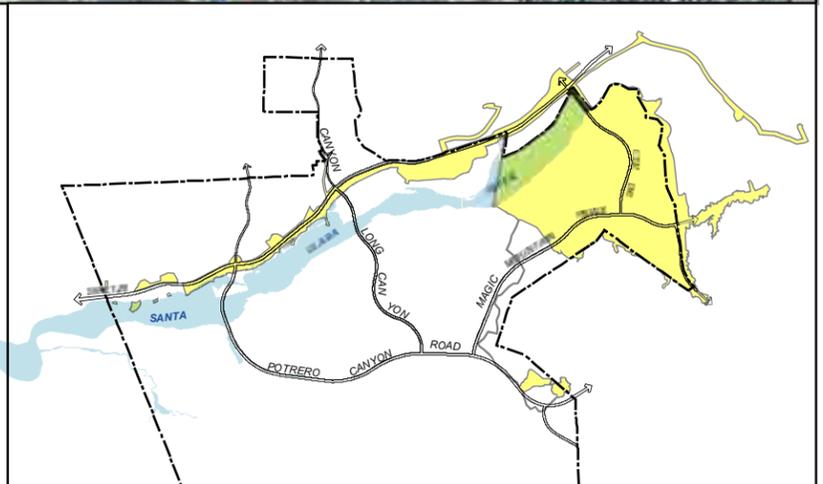
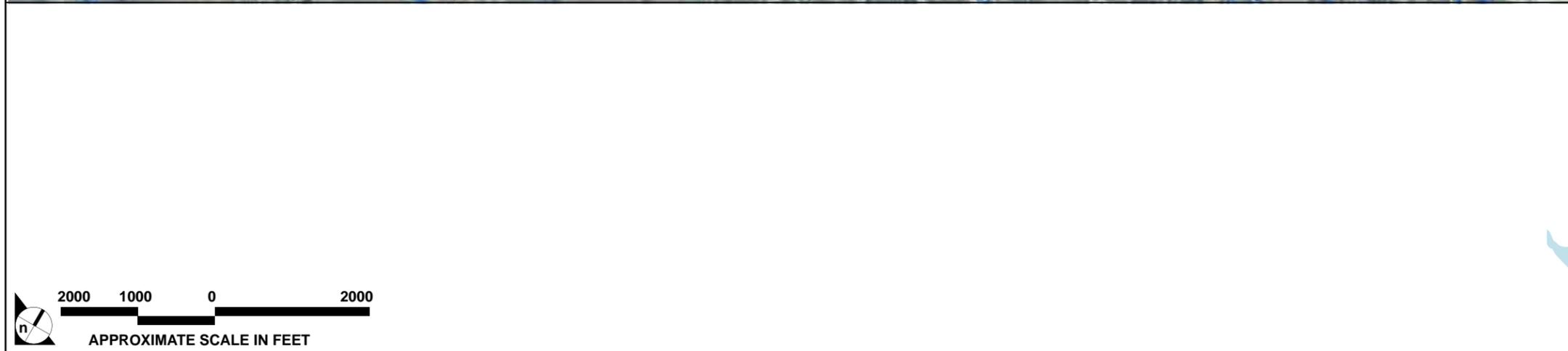
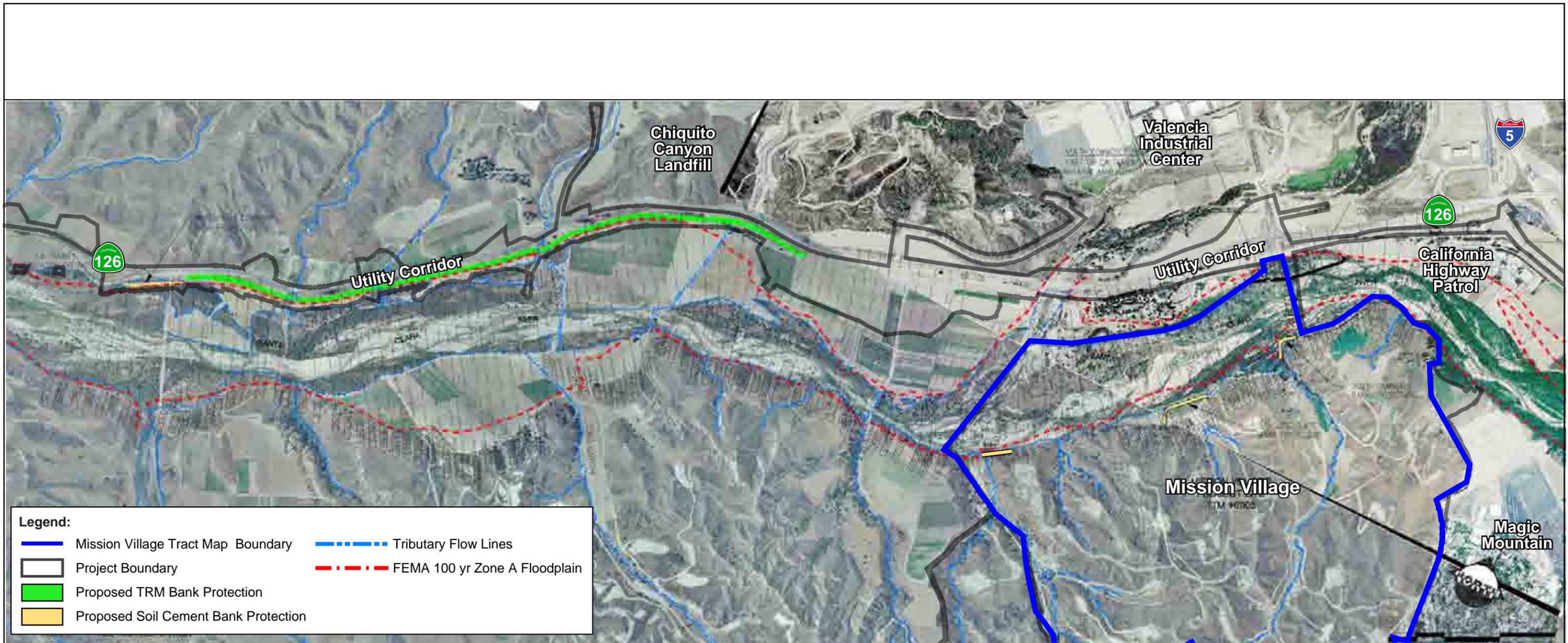
FIGURE 4.2-2
Mission Village Existing On- and Off-Site Drainage Areas



SOURCE: PSOMAS – 2006, Impact Sciences, Inc. – May 2010

FIGURE 4.2-3

Existing County Capital Floodplain Boundaries



SOURCE: PSOMAS – 2006, Impact Sciences, Inc. – May 2010

FIGURE 4.2-4

Existing FEMA 100-yr Floodplain Boundaries

As part of the FEMA Santa Clara river update, the 100-year hydrology (runoff flow rates) for the river will be reevaluated and the 1995 Joint Los Angeles and Ventura County study is being considered as the basis for the reevaluation (the 1995 study results were similar to the existing FEMA 100-year flow rate of $\pm 60,000$ cfs). LACDPW has advised FEMA that Newhall has provided updated Capital Floodplain Modeling results as part of the Mission Village Drainage Concept Report and LACDPW has approved the results for the existing condition. As part of the Newhall Ranch Specific Plan, a detailed floodplain and floodway analysis will be prepared for the updated existing conditions and the proposed Newhall Ranch development. This 100-year information will ultimately be adopted by FEMA for use as the published floodplain and floodway for the river in this reach.

It is not expected that the newly defined FEMA initiative to reevaluate the flood hazards (floodway and floodplain) along the Santa Clara River will impact any portion of the Newhall Ranch Specific Plan site. As part of the Newhall Ranch Specific Plan, updated floodplain and floodway mapping will be provided to LACDPW and FEMA for review and approval (100-year and Capital for FEMA and LACDPW, respectively).

FEMA has issued a Conditional Letter of Map Revision (CLOMR) for the Mission Village project in September 2007 based upon the 100-year proposed condition floodplain analysis and can be found in **Appendix 4.2**.

(2) Tributary Floodplains

Middle Canyon. Middle Canyon has a published FEMA 100-year floodplain that extends from the downstream confluence with the Santa Clara River to approximately 3,000 feet upstream. The original published mapping illustrated in the 1996 Q3 data was updated in a Letter of Map Revision prepared by Sikand Engineering Associates in 1998, based on more detailed floodplain hydraulic mapping and more accurate topographic information.

7. PROPOSED IMPROVEMENTS

The following are the on-site and off-site improvement that would be constructed as part of the project that are relevant to the analysis of hydrologic impacts.

a. Related On-Site Improvements

- The Mission Village tract map site is proposed on approximately 1,262 acres of land, located within the boundaries of the approved Newhall Ranch Specific Plan.

Runoff from the developed portions of the Mission Village tract map site would be conveyed to the Santa Clara River through a combination of grading, storm drainpipes, channels, catch basins, outlet structures, and channel lining/bank stabilization along the river. The proposed modifications to project site tributaries and other proposed drainage improvements are described below, and their locations are illustrated in **Figure 4.2-5, Mission Village Drainage and Water Quality Plan**. A detailed set of drainage plans can be found in **Appendix 4.2**. **Figure 4.2-5** also illustrates the post-development drainage patterns for the Mission Village tract map site. As required by the LACDPW, all on-site drainage systems carrying runoff from developed areas and storm drains under major and secondary highways, open channels (main channels), debris carrying systems, and sumps would be designed for the 50-year capital flood. The bank stabilization, storm water drainage outlet structures, and the Commerce Center Drive Bridge abutments and piers all represent construction within the river. Please see **Section 4.3, Biota**, and **Section 4.21, Floodplain Modifications**, in this EIR for detailed discussions of the biotic and floodplain impacts for the 2-year, 5-year, 10-year, 20-year, 50-year, 100-year and capital flood events associated with the proposed bank stabilization.

(1) Tributaries

Proposed modifications to tributaries located on the project site are described below.

Lion Canyon. The Lion Canyon drainage would be stabilized with proposed drainage treatments as depicted on **Figure 4.2-1**. The drainage channel would include grade stabilizing measures (i.e., drop structures/grade stabilizers) to maintain sediment equilibrium and protect the channel bed and banks from hydromodification impacts. One road-crossing culvert would cross the drainage as depicted in **Figure 4.2-1**, and approximately 3,000 lineal feet of side drainages to the Lion Canyon drainage would be converted to storm drain.

Reconstruction of the drainage channel would result in approximately 4,700 lineal feet of stabilized channel.

Exxon Canyon. The southern portion of Exxon Canyon would be graded to accommodate development on the Mission Village site, and the seasonal flows through the drainage would be conveyed by buried storm drain (see **Figure 4.2-1**). Approximately 1,276 lineal feet of existing drainage would be converted to buried storm drain. The northern drainage/jurisdiction of Exxon Canyon, adjacent to the Santa Clara River, would remain unimproved within the Project boundary (see **Figure 4.2-1**).

Middle Canyon. Middle Canyon would be graded to accommodate Mission Village development and the seasonal flows through the drainage would be conveyed by buried storm drain (see **Figure 4.2-1**). In total, approximately 7,439 lineal feet of existing drainage would be converted to buried storm drain within the Mission Village area.

Magic Mountain Canyon. Magic Mountain Canyon would be graded to accommodate the Mission Village project, and the seasonal flows through the drainage would be conveyed by buried storm drain (see **Figure 4.2-1**). In total, approximately 6,111 lineal feet of existing drainage would be converted to buried storm drain within the Mission Village project site.

Unnamed Canyon D. The portion of Unnamed Canyon D that is adjacent to the Santa Clara River would remain unimproved following Project implementation (see **Figure 4.2-1**). Approximately 260 feet of existing drainage at the mouth of Unnamed Canyon D would be preserved. The remaining portion of Unnamed Canyon D would be graded to accommodate Mission Village project development, and the seasonal flows through the drainage would be conveyed by buried storm drain (see **Figure 4.2-1**). Approximately 1,232 lineal feet of the remaining existing drainage would be converted to buried storm drain within the Mission Village project site.

Dead End Canyon. Dead-End Canyon would be graded to accommodate Mission Village development, and the seasonal flows through the drainage would be conveyed by buried storm drains (see **Figure 4.2-1**). Approximately 1,931 lineal feet of existing drainage would be converted to buried storm drain.

(2) Storm Drains

On-site surface runoff would be intercepted and conveyed to a network of on-site storm drains that would lead to a series of treatment structures, including water quality basins, prior to discharge into the Santa Clara River. Storm drains (pipes and reinforced concrete boxes) designed to meet the storm flows, as required by the County of Los Angeles Department of Public Works, would consist of both privately and publicly maintained systems (e.g., Homeowner Associations, Assessment Districts, or the County of Los Angeles). The minimum publicly maintained mainline pipe size would be 18-inch connector pipes for clear flows.

(3) Open Channels

Small open channels would consist of rectangular and trapezoidal concrete channels and would be designed to meet the storm flows, as required by the County of Los Angeles Department of Public Works. A detailed set of drainage plans can be found in **Appendix 4.2**.

(4) Catch Basins

Catch basins would be provided to intercept flows beyond the 10-, 25-, and 50-year storms and at strategic locations to minimize flooding at street intersections and at sump locations.

(5) Debris Basins

To reduce debris discharged through and from the project site, 17 debris basins are proposed at the downstream ends of natural areas to intercept flows from undeveloped upland areas prior to their discharge into the on-site storm system. In addition to the existing debris basin located east of the site and discussed previously, four debris basins are proposed upstream of Magic Mountain Parkway, one debris basin is proposed upstream of Magic Mountain Theme Park, seven debris basins are proposed at the southern edge of the Mission Village site (two of which are located outside of the tract map boundary), and one debris basin is proposed at the northern edge of the Mission Village site. Four additional debris basins are proposed along the utility corridor north of SR-126. These 17 debris basins within the tributary area are designed to capture debris from natural drainages before runoff from the drainages discharges into the on-site storm system or into the river. The locations of these debris basins are illustrated in **Figure 4.2-5**. These basins will be designed and sized to capture debris from upstream runoff during a 50-year capital storm before discharging the clear runoff to the proposed downstream storm system. LACDPW would maintain the debris basins, which would be cleaned per County standards. It is expected that the debris removed from the basins would be taken to a composting facility at a County landfill or used as daily cover.

(6) Low-Flow Pipes and Outlets

To reduce pollution impacts from the low-flow runoff, a series of pipes and outlets would be provided to intercept first flush runoff from developed portions of the tract map site. Surface and subsurface water quality control basins near the outlet points of the storm drains would be used to filter pollutants out of the stormwater before it is discharged downstream. Pollutants expected to be generated on the site, their potential water quality impacts, and water quality control are addressed in **Section 4.22 Water Quality**, of this EIR

(7) Erosion Control

Tract map-related erosion control that would occur in and adjacent to the river includes energy dissipaters, soil cement/bank stabilization, and the bridge abutments. These are discussed individually below.

(a) Energy Dissipaters

To reduce storm flow velocities and to prevent erosion at storm water discharge points into the river, energy dissipaters consisting of either riprap or larger standard impact type energy dissipaters would be constructed at storm system outlets into the river. The energy dissipaters would slow the rate of flow of runoff into the river to prevent erosion of the stream channel. Dissipaters would be designed based upon storm drain outlet hydraulic conditions, such as discharge, velocity and pipe size, and location within the river. Elsewhere on the site, erosion and sedimentation control would consist of revegetation and landscaping of manufactured slopes. Proposed debris basins would also capture debris and sediment from runoff from natural slopes and areas before the runoff is discharged downstream and eventually into the river.

(b) Soil Cement/Bank Stabilization

A total of approximately 2,150 linear feet of bank stabilization would be constructed as part of the Mission Village project on the south side of the Santa Clara River within the tract map site pursuant to Los Angeles County standards in order provide erosion control where necessary. This would include approximately 600 lineal feet along the southerly abutment of the Commerce Center Drive Bridge that may not be completely buried. The buried bank stabilization approach uses soil cement, or riprap, which would be buried beneath the existing banks of the river to resist scouring.

Soil cement is a highly compacted mixture of soil (well-graded soil mixture), cement, and water (by weight approximately 88 percent soil, 7 percent cement, and 5 percent water). As the cement hydrates, it hardens the compacted soil into a strong, durable, low-permeability material. Soil cement bank protection has been used in highly erosive conditions by various flood control agencies for over 50 years. Buried soil cement bank protection is a modern flood control technique used to protect against bank erosion and scouring while allowing natural vegetation to occur in the soil over the soil cement resulting in a “soft bank” solution. In the event that the soil over the soil cement and overlying vegetation are removed through river erosion, the exposed soil cement would provide a naturalized and aesthetic bank protection method in contrast to traditional riprap or concrete. A typical cross-section for buried soil cement bank protection is shown in **Figure 1.0-26, Bank Stabilization Cross-Section, Project Description**, of this EIR. As shown, this approach uses soil cement bank protection at the toe (bottom) of the bank protection, which is buried well below the existing bed of the river. Typically, the toe must be 10 to 20 feet below the bed of the river in order to resist capital flood scouring. Construction of the bank protection requires temporary excavation and backfilling of the soil in and around the bed and bank of the river. A temporary construction zone of up to 75 feet would occur at the base of the bank protection in order to excavate to the toe of the bank protection. The original channel elevation (and in some instances

additional backfill is added to bury the soil cement bank protection slope face that would extend above the bed and bank of the river) would be restored after construction and disturbed areas would be re-vegetated with native plant species maintaining the natural habitat presently found along the river. The soil cement bank protection is required to protect new development south of the river and the Commerce Center Drive Bridge.

The bank protection on the south bank of the river is at the edge of the floodplain limits and, therefore, would not impact the river water surface or velocity.

(c) Commerce Center Drive Bridge Abutment

Commerce Center Drive Bridge over the Santa Clara River would include bridge abutments and piers, and 600 lineal feet of exposed concrete and riprap bank protection on the southern side of the bridge, which would protect against the erosive forces of the river.³

b. Off-Site Improvements

To facilitate development of this site, several off-site project-related components would be implemented. These project-related components include the following:

- grading associated with the extension of Westridge Parkway and Commerce Center Drive,
- extension of Magic Mountain Parkway;
- a utility corridor,
- three water tanks; portions of two water tanks would be located on site,
- a water quality basin,
- two debris basins, and
- an electrical substation.

A brief description of these off-site improvements is provided below. Please see EIR **Section 1.0, Project Description**, for additional information.

³ The northerly bank protection at the Commerce Center Drive Bridge has been evaluated as part of the Caltrans/LACDPW project (State Route 126 widening and Commerce Center Drive interchange project).

(1) Grading for Extension of Westridge Parkway and Commerce Center Drive

Grading associated with the extension of Westridge Parkway and Commerce Center Drive that would connect the project to the south and north, respectively, of the project site. This grading would be conducted on Entrada and Legacy Village.

(2) Extension of Magic Mountain Parkway

The existing terminus of Magic Mountain Parkway would be extended westward to connect to the Vesting Tentative Tract map site and grading associated with construction of the extension would be required. The extension of this road way would impact Unnamed Canyon 1 and Unnamed Canyon 2, in total, approximately 4,647 lineal feet and 416 lineal feet, respectively, of existing drainage would be converted to buried storm drain

(3) Utility Corridor

The Utility Corridor is depicted on **Figure 1.0-30, Mission Village Reclaimed Water System**, found in **Section 1.0, Project Description**, of this EIR. The Utility Corridor would run in a general east-west direction along SR-126 and is comprised of several alignments dependent upon the specific type of service. The majority of the alignment is located away from the Santa Clara River and tributaries. However, the project includes the installation of Turf Reinforcement Mat (TRM), geotextile reinforced bio-engineered erosion protection, or a similar bank stability protection along 16,000 lineal feet of the utility corridor west of the Mission Village tract map site. Finally, the project includes the installation of various stormwater outlet structures (**Figure 1.0-25a**, both within the tract map site and off site). The off-site outlet structures and energy dissipaters would be located at the outlet of Chiquito Canyon Creek, San Martinez Grande Creek, and other minor drainages and culverts across SR-126 and would not require bank protection or other measures that may affect river hydraulics. This erosion protection would provide bank stability protection along this portion of the utility corridor.

TRMs are one type of reinforced bio-engineered bank stabilization material. TRMs and geotextile reinforced bio-engineered bank stabilization methods are designed to reinforce vegetation at the root and stem, thereby allowing vegetation to be used as erosion control in areas where flow conditions could exceed the ability of natural vegetation to remain rooted. TRMs and other geotextiles are suitable for locations with high slopes or stream banks where grouted riprap and concrete channels are hydraulically unnecessary and hardened bank protection is aesthetically undesirable. TRMs are secured to the soil surface using a predetermined staple pattern and either wire soil staples or biodegradable stakes. TRM products are constructed of two basic materials that perform different functions: (1) permanent netting designed to provide permanent structure and strength to the vegetation at the root and stem level, and (2)

degradable natural and synthetic fiber netting that provides erosion control immediately after installation by holding seed and soil particles in place and trapping moisture on the soil surface. As a result, TRM products provide erosion control, vegetation establishment, and reinforcement at one location.

Bank protection will be required along portion of the utility corridor as follows: (1) approximately 1,200 lineal feet of soil cement bank stabilization is located downstream of the tract map site, and is designed to protect the approved WRP. The bank stabilization related to the WRP was approved and analyzed at a project-level with the Newhall Ranch EIR; (2) approximately 2,000 lineal feet of buried bank stabilization between the Santa Clara River and the Old Road, north of the existing Valencia WRP. This bank stabilization was approved with the Santa Clara River Natural Management Plan (NRMP) and was analyzed within the certified EIS/EIR prepared for the NRMP.

Newhall Land is currently in discussions with several of the utility agencies who will have infrastructure in the corridor. Prior to the project final map recordation, Newhall will finalize a maintenance agreement with an agency or some other entity (public or private – Homeowners Association (HOA), Center for Natural Land Management, Joint Power Authority, Landscape Maintenance District, etc.) for acceptance of the maintenance responsibility for bank protections for the Utility Corridor.

With the TRM (bio-engineered) slope protection along the Utility Corridor it is anticipated that there will be some limited maintenance activities related to vegetation replacement, removal of non-native species, removal of non-healthy plants, grading, replacement and/or repair of the TRMs. All of this work will take place within the limits of the project disturbance limits as analyzed in this EIR. As part of the maintenance entity agreement, Newhall will provide a Utility Corridor maintenance easement for repair activities along the Utility Corridor to the limits of project disturbance.

In the unlikely event that maintenance or repair beyond that described above is necessary and would include impacts outside the project disturbance limits (maintenance easement) analyzed in the project EIR, the appropriate permits and approvals would have to be obtained.

As part of the utility corridor improvements Mid-Martinez Canyon and the Agricultural Ditch will be impacted. Approximately 410 feet of Mid-Martinez would be permanently converted to a buried storm drain to facilitate the construction of a debris basin to be located along the north side of SR-126. Approximately 65 feet of the Agricultural Ditch would be temporarily impacted for the construction of the proposed utility corridor described above.

(4) Water Quality Basin

A water quality basin is proposed at the northeasterly portion of the project site.

(5) Electrical Substation

Depending on the timing of other development projects, Southern California Edison may require construction of a 16 kV Substation. There are two alternative locations for the proposed substation, both outside the boundaries of the Mission Village tract map. Alternative 1 is located almost entirely within Newhall Ranch in the Potrero Valley portion of the approved Specific Plan with a small portion the grading encroaching into the Legacy Village project (VTTM 061996. Access to the site would be provided along the existing Newhall Ranch agriculture roads. Alternative 2 is located within the Legacy Village project site. Access to the site would be provided along the existing Newhall Ranch agriculture roads. Electric service to Mission Village will be provided through 16,400 feet of temporary utility poles/lines that cross Newhall Ranch and that would be converted to permanent facilities during the buildout of Newhall Ranch. The utility poles/lines would be located along or near existing agricultural roads in order to take advantage of the area's existing topography and to minimize impacts.

(6) Water Tanks

Three reservoir water tanks would be constructed, two partially on-site and partially within VTTM 61996 (Legacy Village), and the third in the Westridge community south of the site.

(7) Debris Basins

Two debris basins would be constructed along the southerly tract boundary within VTTM 61996 (Legacy Village), which would be removed with construction of Legacy Village.

8. PROJECT IMPACTS**a. Significance Threshold Criteria**

According to the County of Los Angeles *Environmental Document Reporting Procedures and Guidelines*, the County is concerned with any development that may be subject to flood hazards and debris flows, including (1) flooding due to the development's location within a major drainage course, (2) flooding due to the development's location within a floodplain, and (3) high debris transport and deposition potential.

Under Appendix G of the *State CEQA Guidelines*, a project would result in a significant flood impact if it would result in any of the following:

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; and/or
- Create the potential for inundation by seiche,⁴ tsunami,⁵ or mudflow.

The Mission Village site and its tributary area are too far inland from the Pacific Ocean to be affected by inundation by either seiche or tsunami. Furthermore, no large, continuously filled body of water exists within or in proximity to the project site or the tributary area that would be subject to a seiche. The impacts of project implementation, however, are discussed below for the remaining significance threshold criteria. Wherever pertinent, these thresholds are applied to project construction impacts as well as operational impacts. Wherever a significance threshold criterion is exceeded or there is the potential for a criterion to be exceeded, mitigation is identified that, if feasible, would reduce the potential impact to a less than significant level. This impact analysis focuses only on the potential flood impacts of the project from stormwater runoff. The potential water quality impacts of the project are addressed in this EIR, **Section 4.22, Water Quality**. The project's potential impacts to biological resources within and around drainages are addressed in this EIR, **Section 4.3, Biota**, and **Section 4.21, Floodplain Modifications**.

b. Construction Impacts

The primary concern during construction of the Mission Village project is potential erosion and sedimentation impacts during site clearing and grading, and excavation within the river to install the bank stabilization and the construction of the piers and abutments associated with the Commerce Center Drive Bridge. After construction, the tract map site would be largely covered with impermeable surfaces

⁴ A seiche (pronounced say'sh) is a wave on the surface of a lake or landlocked bay caused by atmospheric or seismic disturbances. The effect of a seiche may also be referred to as "sloshing," which occurred to many swimming pools in the San Fernando Valley during the 1994 Northridge earthquake,

⁵ A tsunami (pronounced soo-NAH-mee) is a series of waves of extremely long wave length and long period, generated in a body of water by an impulsive disturbance that displaces the water such as an earthquake, landslide, or sub-marine volcanic eruption.

and non-erodible surfaces, including landscape vegetation. Erosion and sedimentation caused by construction activities are dependent upon climatic and site conditions, as well as the degree of soil disturbance during construction. Erosion within the streambed would depend upon the volume of perennial and natural flows. Site clearing and grading operations, in particular, would have the greatest potential for discharging sediment downstream during storm events.

The proposed reinforced concrete and riprap at bridge abutments, in addition to the soil cement proposed as part of this project, would encroach into the existing 100-year floodplain in some areas. This action would trigger FEMA review in the form of the CLOMR/LOMR floodplain map revision process. Additionally, some banks located out of the floodplain need stabilization because of lateral migration of the riverbed, and the need to protect for the capital flood discharge. Construction of the soil cement bank protection represents a short-term construction-related disturbance as areas on the river side of the soil cement will be filled and re-vegetated.

Increases in sedimentation and debris production on the site, and erosion and sedimentation in the river and creek beds during construction, although temporary, would result in a significant impact without mitigation.

c. Operational Impacts

(a) Substantial Alteration of an Existing Drainage Pattern

Implementation of the Mission Village Drainage Concept Plan would collect runoff from the 2,690-acre tributary area. Runoff would then gravity flow toward the river in a drainage pattern similar to existing conditions, where water flows have naturally formed paths of least resistance and concentrate at existing topographic depressions or cut channels through the site.

There are currently 15 drainage areas within the approximately 2,690-acre tributary watershed in which the Mission Village project site lies. After grading and development, the resulting 17 drainage areas would convey storm runoff and continue to flow northeasterly, northerly, and northwesterly towards the Santa Clara River. As a result, there would be no substantial alteration in the existing drainage pattern within the tributary area and project impacts under this criterion would be less than significant.

The river would be encroached upon with placement of the buried soil cement, bridge abutments and piers, storm drain outlets, and energy dissipaters proposed by the project. Project impacts are expected to include localized erosion and increased localized sedimentation as a result of changes to river velocity and water surface elevation due to project impacts (see **Section 4.21, Floodplain Modifications**, for a discussion of potential project impacts on location biological resources as a result of these improvements).

Any potentially significant impacts relative to erosion and sedimentation would be mitigated with the installation of debris basins and energy dissipators, which would be required to be constructed to DPW requirements. The project would not affect overall discharges to the river because no discharge would be diverted from or to the river as a result of the proposed project.

(1) Site Erosion

Once the project is implemented as proposed, erosion is not anticipated to be a concern because the project site would be largely covered with impermeable and non-erodible surfaces and landscaping. Placement of the soil cement along the southern bank of the river would result in a long-term beneficial impact because the soil cement would stabilize the river's banks.

(2) Riverbed Scouring and Floodplain

In-stream velocities are indicators of potential riverbed scouring. Potential for erosion within the river can be evaluated by reviewing changes to hydraulic shear stress or flow velocities, in conjunction with potentially erodible materials. In Los Angeles County, velocities are the preferred indicator for potential streambed erosion. Because the riverbed is composed of alluvial materials, the non-erodible velocities (velocities below which no erosion would occur) range from 2.5 fps (fine gravels under clear flow conditions) to 5.0 fps (alluvial silts transporting colloidal materials). Therefore, a representative velocity of 4.0 fps was determined to be the appropriate indicator for potential erosion or scouring. In addition, a detailed capital fluvial analysis has been prepared to evaluate both existing and project conditions.

If a significant amount of the 2- to 100-year floodplain area were in the 0-to-4 fps range, but as a result of the project (including the Commerce Center Drive Bridge and bank protection), would be subjected to velocities greater than 4 fps, the proposed project would be considered to have a potentially significant erosion impact on the riverbed.

While localized increases in velocity would occur, particularly at and immediately downstream of the Commerce Center Drive Bridge, the project improvements would not cause a significant increase in areas of the river that would be subject to velocities over 4 fps during a two- and five-year storm event, because flows during these events would be completely spanned by the bridge and bank improvements so they remain unaffected. Additionally, there would be areas of the river where decreases in velocity are experienced during a 10-year through 100-year storm event.

Increases in velocity in excess of 4 fps would occur along the project site. However the project-related increases in velocity would be reduced by installation of buried bank protection on the river corridor. The buried bank stabilization is consistent with the bank stabilization improvements described in the certified

Newhall Ranch Specific Plan Program EIR. All of these changes are localized within the study area, and no impacts to velocities will occur upstream or downstream of the project.

In natural riverine systems, such as the Santa Clara River and its tributaries, frequent discharges (on the order of the average annual and two-year flows) dictate stream geomorphology. Extended and frequent discharges at these critical flow rates would potentially impact stream health. The project proposes to install water quality basins, which would capture runoff from small, frequent storms and release flows at non-erosive rates. This means that water from the basins would be released at a rate substantially less than discharges associated with two-year storms; therefore, erosive impacts would be reduced to less than significant levels.

To reduce storm flow velocities during smaller, more frequent flows (i.e., two-year storm events) and to prevent erosion at storm water discharge points into the river, the Mission Village Drainage Concept includes energy dissipaters consisting of either riprap or larger standard impact type energy dissipaters at affected storm system outlets in the river. These energy dissipaters would slow the rate of flow of discharge into the river in order to prevent erosion of the stream channel.

Energy dissipaters and water quality basins used to reduce erosion risk in smaller events also would reduce erosion risk in larger events and would mitigate any potentially significant impacts to a level below significant.

The project would not affect the rate of flow, currents, or the course and direction of surface water of the side drainages as the project would be required to adhere to Los Angeles County requirements for detention basins and pipe sizing. As a result, project impacts under this criterion would be less than significant.

(3) Erosion at Drainage Discharge Points

The Los Angeles MS4 Permit notes that increased volume, velocity, and discharge duration of stormwater runoff from developed areas could potentially accelerate downstream erosion and impair stream habitat. As a result, the permit stipulates, "Permittees shall control post-peak stormwater runoff in Natural Drainage Systems to prevent accelerated stream erosion and protect stream habitat." The following analysis determined that there would be no significant downstream impacts potentially accelerating stream erosion as a result of the project. (See this EIR, **Section 4.21, Floodplain Modifications**, for a discussion of the project's potential impacts on biological resources in the river and other affected drainages).

Development of the Mission Village project site would place bank stabilization along portions of the existing riparian corridor. Subsequent revegetation installed after bank stabilization is in place would create more vegetated corridor than presently occurs under existing conditions. It is acknowledged that

there is a potential for a portion of bank stabilization to become exposed during a major storm event. However, with the greater riverian corridor in place it is unlikely that large portions of bank stabilization will become exposed. For instance, 25-year storm events were experienced in the Santa Clara River in January 2005. At that time, none of the projects located along the Santa Clara River that had incorporated buried bank stabilization into their design experienced any exposure of bank stabilization. The success of the bank stabilization, in part, can be attributed to revegetation efforts required with the placement of buried bank stabilization. Lastly, the County of Los Angeles does not intend to refill portions of vegetated fill associated with bank stabilization should any be lost during periods of high storm water flows.

In natural riverine systems, such as the Santa Clara River and its tributaries, frequent discharges (on the order of the average annual and two-year flows) dictate stream geomorphology. Extended and frequent discharges at these critical flow rates would potentially impact stream health. The project proposes to install water quality basins, which would capture runoff from small, frequent storms and release flows at non-erosive rates. This means that water from the basins would be released at a rate substantially less than discharges associated with two-year storms; therefore, erosive impacts would be reduced to less than significant levels. To reduce storm flow velocities during smaller, more frequent flows (i.e., two-year storm events) and to prevent erosion at stormwater discharge points into the river, the Mission Village Drainage Concept includes energy dissipaters consisting of either riprap or other approved energy dissipaters at storm system outlets into the river. These energy dissipaters would slow the rate of flow of discharge into the river in order to prevent erosion of the stream channel.

Energy dissipaters and water quality basins used to reduce erosion risk in smaller events also would reduce erosion risk in larger events and would mitigate any potentially significant impacts to a level below significant.

The project would not adversely affect the rate of flow, currents, or the course and direction of surface water of the side drainages as the project would be required to adhere to Los Angeles County requirements for detention basins and pipe sizing. As a result, project impacts under this criterion would be less than significant.

(4) Fluvial Impacts

Development along the river within the study area has the potential to modify the fluvial mechanics of the river, and the PACE fluvial analysis evaluates impacts from buildout of Newhall Ranch from (1) fluvial modifications of the riverbed from single hypothetical storm events, and (2) changes in the floodplain fluvial operation over the long-term. It is important to note that the HEC-RAS and fluvial study covers an area from I-5 to generally west of the Ventura County/Los Angeles County line and is not limited to the Mission Village project site.

The fluvial study examined local, long-term, and episodic components of riverbed adjustment. The study found that the proposed bridge piers would minimally hinder flows or reduce floodplain area during higher frequency floods, and that flows would be confined within the bank protection stabilizations during more infrequent floods. The proposed floodplain modifications would be very minor and these impacts would not be significant. The study also found that the Mission Village project would not change the fluvial mechanics of the Santa Clara River and, therefore, would not create a significant impact.

(b) Post-Development Drainages and Runoff Discharge for Mission Village Tract Map (VTTM 61105)

Because the proposed upstream debris basins are part of the project's drainage system design, runoff flow rates from the entire 2,690-acre tributary area are addressed in the following analysis.

Runoff within Lion Canyon, which is the major on-site tributary, will be conveyed through both engineered, soft bottom channels and underground stormwater conveyance infrastructure. Regarding flooding and flood hazards, the engineered channels will be designed to contain and convey the flows from a 100-year storm event and the DPW capital flood event in accordance with County regulations. The adequacy of the final engineered channel flow capacity will be assessed by LACDPW. For approval, the final channel design must meet the requirements of the DPW sedimentation manual. The hydraulic modeling and calculations supporting the final channel design will incorporate the required freeboard and an acceptable factor of safety to prevent impacts from overtopping and flooding.

Regarding the underground stormwater conveyance infrastructure, the design of these storm drains will comply with DPW requirements for "Storm Drains and Urban Flood Protection" and will incorporate project design features specified in the Newhall Ranch Specific Plan Sub-Regional Stormwater Mitigation Plan (Geosyntec, 2008) to minimize flood hazards. The final engineered design of the storm drains will be evaluated and approved by LACDPW. Final design will be compliant with LACDPW requirements for storm drains and urban flood protection (LACDPW Hydrology Manual, 1991).

The Mission Village project would result in grading within minor tributaries, including Exxon, Dead End, Middle, Unnamed D and Magic Mountain Canyons, to develop building pads for residential and commercial buildings. Drainage flows from those areas would be conveyed by buried storm drains varying in diameter from 30 to 144 inches. The stormwater drainage infrastructure associated with these drainages will be designed to comply with DPW requirements for "Storm Drains and Urban Flood Protection" and will incorporate the project design features described in the Newhall Ranch Specific Plan Sub-Regional Stormwater Mitigation Plan (Geosyntec, 2008). Since proposed channels and buried storm drains would be designed to convey the 100-year and capital flood events, the project would not result in a significant flooding hazard.

The drainage and runoff discharge calculations for the Mission Village Tract Map (VTTM 61105) under existing conditions are shown in **Table 4.2-2**, above. The development of the proposed Mission Village project would increase the amount of runoff from those areas of the site that would be covered by roads, buildings, paved parking areas, and other relatively impermeable or impervious features (see **Table 4.2-1** for the assumed percent imperviousness of the general land uses proposed for the site). Specifically, impervious surfaces on the site would increase the amount of clear flow runoff from and through the site, while burned and bulked runoff and debris flow rates would be reduced because the developed portions of the site would be covered with impervious surfaces and non-erodible vegetation, and because five debris basins that would reduce the amount of debris and sediment in the runoff would be constructed at upstream off-site locations (see **Figure 4.2-5**). Post-development runoff volumes by drainage area are presented in **Table 4.2-4, Post-Development Drainages and Runoff Discharge – VTTM 66105**.

**Table 4.2-4
Post-Development Drainages and Runoff Discharge – VTTM 66105**

Drainage Areas	Acreage	Debris Producing Acreage	Q50c (cfs) ¹	Q50bb (cfs) ²	Debris Volume (cy) ³
1–31 series	735.1	498.5	1,137	1,137	13,459
40 series	84.8	84.8	168	241	3,986
50 series	25.6	25.6	32	45	1,400
55 series	2.0	2.0	5	7	109
60 series	172.2	15.5	302	302	408
95–119 series	474.3	126.0	759	788	5,166
140 series	20.6	20.6	33	45	1,127
150 series	13.0	13.0	26	35	711
160 series	16.3	16.3	30	41	892
170 series	6.1	6.1	17	23	334
200 series	439.1	439.1	580	809	11,680
300 series	2.4	2.4	6	8	131
400 series	145.1	0	239	239	0
503 series	11.8	11.8	26	35	645
600 series	523.9	268.2	1,048	1,049	7,914
620 series	19.6	9.4	50	56	514
630 series	2.7	0	7	7	0
Totals	2,695	1,539	4,466	4,862	48,476

Source: PSOMAS, *Drainage Concept for Mission Village, VTTM 61105* (February 2010).

¹ Q50c–50-year rainfall intensity clear and burned flow

² Q50bb–50-year rainfall intensity burned and bulked flow

³ Debris Volume – Debris Producing acreage is multiplied by the area's debris producing rate. (range: 30–55 cy/ac). Debris Producing rates were taken from the LACDPW Sedimentation Manual (see the PSOMAS report in **Appendix 4.2** for reference sheets).

The post-development burned and bulked discharge quantities would total 4,862 cfs for the tributary area during a 50-year capital storm.

A comparison of existing peak discharge quantities from **Table 4.2-2** and post-development peak discharge from **Table 4.2-4** is provided below, in **Table 4.2-5**.

Table 4.2-5
Comparison of Acreage and Discharge - Existing and Proposed Project
VTTM 61105

	Acreage	Debris Producing Acreage	Q50c (cfs)	Q50bb (cfs)	Debris Volume (cy)
Existing	2,696	2,573	4,285	5,682	85,238
Proposed	2,695	1,539	4,466	4,862*	48,476
Net Effect	0%	(-40%)	+5%	(-14%)	(-43%)

Source: PSOMAS, *Drainage Concept for Mission Village, VTTM 61105 (February 2010)*.

* Future developed flows anticipated to come from VTTM 53295 and VTTM 61996 result in a net increase of 905 cfs flowing through this project's flood control system and outletting to the river. The future flows result in a net increase in flow from the existing burned and bulked out flow of 1 percent.

As shown, there would be a 820 cfs (14 percent) reduction in burned and bulked discharge from the tributary watershed, specific to the Mission Village tract map site (VTTM 66105), under post-development conditions. This reduction in discharge would be the result of reduced erosion of the site due to coverage of much of the site with pavement, roofs, vegetation, and other non-erosive surfaces. It also would be largely the result of the proposed debris basins that would capture sediment and debris in upstream runoff and allow debris to settle out from the runoff before it would discharge into the storm system through the developed portion site. With these improvements in place, the project would reduce runoff flow rates through the site and into the Santa Clara River. Furthermore, since storm flows from upstream areas would be channeled through the site in facilities designed for the 50-year capital storm, and since on-site runoff would be accommodated in facilities designed for the 25-year urban design storm, pursuant to LACDPW requirements, no on-site or upstream flooding due to inadequately designed storm drainage facilities would occur.

With respect to potential runoff from the alternative SCE substation sites, the existing conditions at both locations, which are located within the Santa Clara River watershed, are mountainous with low annual rainfall that drains to a nearby existing stream. The total area of the site is approximately 52.9 acres, with a burned and bulked flow and debris volume of approximately 199 cfs and 2,894 cy, respectively, during a 50-year capital storm. As development on the site would be minimal and result in little or no impact to

the existing condition, development would not change the burned and bulked flow or the debris volume (see hydrology calculations for existing and proposed conditions in **Appendix 4.2**). Therefore, any potential impacts associated with development of the substation site would be less than significant.

As a result, any potentially significant impacts relating to post-development drainages and discharges would be reduced to a level below significant. Thus, with the project design features, the project would not create or contribute runoff flow rates that would exceed the capacity of existing or planned storm water drainage systems and project impacts under this criterion would be less than significant.

(c) Place Housing or Structures within a 100-Year Flood Hazard Area

Approximately 188 acres of the Mission Village tract map site are currently located within the 100-year FEMA floodplain and approximately 201 acres are currently located within the capital floodplain (these acreages include the Santa Clara River). Approximately 11.9 acres within the FEMA floodplain and approximately 14.2 acres of the capital floodplain would be temporarily altered during project construction, while permanent development is proposed on approximately 0.8 acre of the FEMA floodplain and on approximately 2.2 acres of the capital floodplain. As required, future inhabitable structures on the site would be a minimum of 1 foot above the 100-year flood hazard area. As a result of these improvements, no housing or structures would be placed within a 100-year flood hazard area, and there would be no significant impact under this criterion. Please see **Section 4.21, Floodplain Modifications**, for a discussion of the potential impacts associated with construction within the 50-year capital and the 100-year FEMA floodplains.

(d) Exposure to Significant Risk of Loss, Injury, or Death by Flooding or Mudflow

As previously discussed, overall upstream tributary and project site runoff would decrease under post-development conditions. In addition, the project would channel off-site and on-site runoff through drainage improvements designed and constructed for either the 25-year urban flood or the 50-year capital flood as required by the LACDPW. Furthermore, no proposed inhabitable structures on the site would be subject to flood hazard within the Santa Clara River, and the buried bank stabilization would protect future site development from flood waters. Finally, site grading would be to the standards set forth by the LACDPW, and all slopes would be graded, compacted, and stabilized such that they would not be subject to mudflow hazard (see **Section 4.1, Geotechnical and Soil Resources**, for further discussion of the site's pre- and post-development geotechnical characteristics). With these improvements in place, there would be no exposure to significant risk of loss, injury, or death as a result of flooding and mudflow and, therefore, any potentially significant impacts would be reduced to a level below significant.

d. Conclusion

Development of the proposed Mission Village project would result in less than significant impacts on drainage patterns because development would not substantially alter existing drainage patterns, significantly modify a drainage channel, or change the rate of flow, currents, or the course and direction of surface waters such that they would cause substantial erosion or siltation, or cause on-site or off-site flooding or mudflow. Moreover, mitigation is proposed that would reduce any potentially significant impacts to a level below significant.

Post-construction and post-grading runoff volumes would be less than existing conditions. No on- or off-site flooding would occur because mitigation would require that all grading and drainage improvements be sized to meet the storm flows, as required by the LACDPW.

A portion of the Mission Village site is within the FEMA 100-year floodplain and within the capital floodplain of the Santa Clara River. However, future inhabitable development would be elevated a minimum of 1 foot above the capital floodplain. Bank stabilization is proposed along the southern river bank to protect the future development from risk of flood, loss, and injury or death. As a result, no inhabitable development would occur within a flood hazard area as mapped on a federal Flood Hazard Boundary or FIRM, or other flood hazard delineation map. Grading and slope stabilization would be to standards set forth by the LACDPW, and the site would not be subject to flooding or mudflow. The project would not expose people or structures to a significant risk of loss, injury or death as a result of inundation by seiche or tsunami. Finally, the proposed bank stabilization and bridge abutments within the river would not impede or redirect flood flows within the river such that they would cause a significant impact relative to flooding.

9. MITIGATION MEASURES

Although the proposed Mission Village project may result in potential flood control impacts absent mitigation, the County already has imposed mitigation required to be implemented as part of the Newhall Ranch Specific Plan. These mitigation measures, as they relate to flood control, are found in the previously certified Newhall Ranch Specific Plan Program EIR (March 8, 1999) and the adopted Mitigation Monitoring Plan for the Specific Plan (May 2003). In addition, this EIR identifies recommended mitigation measures specific to the Mission Village project site. The project applicant has committed to implementing the applicable mitigation measures from the Newhall Ranch Specific Plan and the mitigation measures recommended for the proposed Mission Village project to ensure that future development of the project site would not result in flood control impacts, and would not adversely affect adjacent properties.

a. Mitigation Measures Required by the Adopted Newhall Ranch Specific Plan, as they Related to the Mission Village Project

The following seven mitigation measures (**Mitigation Measure SP 4.2-1** through **SP 4.1-7**, below) were adopted by the County in connection with its approval of the Newhall Ranch Specific Plan (May 2003). The applicable mitigation measures will be implemented to mitigate the potentially significant flood control impacts associated with the proposed Mission Village project. These measures are preceded by “SP,” which stands for Specific Plan.

- SP 4.2-1 All on- and off-site flood control improvements necessary to serve the Newhall Ranch Specific Plan are to be constructed to the satisfaction of the LACDPW, Flood Control Division. *(The proposed project would comply with this requirement.)*
- SP 4.2-2 All necessary permits or letters of exemption from the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and Game, and the Regional Water Quality Control Board for Specific Plan-related development are to be obtained prior to construction of drainage improvements. The performance criteria to be used in conjunction with 1603 agreements and/or 404 permits are described in Section 4.6, Biological Resources, Mitigation Measures 4.6-1 through 4.6-10 (restoration) and 4.6-11 through 4.6-16 (enhancement) (of the Newhall Ranch Specific Plan Program EIR). *(The proposed project would comply with this requirement.)*
- SP 4.2-3 All necessary streambed agreement(s) are to be obtained from the California Department of Fish and Game wherever grading activities alter the flow of streams under CDFG jurisdiction. The performance criteria to be used in conjunction with 1603 agreements and/or 404 permits are described in Section 4.6, Biological Resources, Mitigation Measures 4.6-1 through 4.6-10 (restoration) and 4.6-11 through 4.6-16 (enhancement) (of the Newhall Ranch Specific Plan Program EIR). *(The proposed project would comply with this requirement.)*
- SP 4.2-4 Conditional Letters of Map Revision (CLOMR) relative to adjustments to the 100-year FIA floodplain are to be obtained by the applicant before the proposed drainage facilities are constructed. *(The proposed project has complied with this requirement. See Appendix 4.2)*
- SP 4.2-5 Prior to the approval and recordation of each subdivision map, a Hydrology Plan, Drainage Plan, and Grading Plan (including an Erosion Control Plan if required) for each subdivision must be prepared by the applicant of the subdivision map to ensure that no significant erosion, sedimentation, or flooding impacts would occur during or after site development. These plans shall be prepared to the satisfaction of the LACDPW. *(The proposed project would comply with this requirement.)*
- SP 4.2-6 Install permanent erosion control measures, such as desilting and debris basins, drainage swales, slope drains, storm drain inlet/outlet protection, and sediment traps in order to prevent sediment and debris from the upper reaches of the drainage areas which occur on the Newhall Ranch site from entering storm drainage improvements. These erosion

control measures shall be installed to the satisfaction of the LACDPW. *(The proposed project would comply with this requirement.)*

- SP 4.2-7 The applicant for any subdivision map permitting construction shall satisfy all applicable requirements of the NPDES Program in effect in Los Angeles County to the satisfaction of the LACDPW. These requirements currently include preparation of an Urban Storm Water Mitigation Plan (USWMP) containing design features and Best Management Practices (BMPs) appropriate and applicable to the subdivision. In addition, the requirements currently include preparation of a Storm Water Management Pollution Prevention Plan (SWPPP) containing design features and BMPs appropriate and applicable to the subdivision. The LACDPW shall monitor compliance with those NPDES requirements. *(The proposed project would comply with this requirement.)*

b. Mitigation Already Incorporated into the Project

The following mitigation measures, or project design features, are already incorporated into the design of the proposed Mission Village project. Measures that relate specifically to Mission Village are preceded by "MV," which stands for Mission Village.

- MV 4.2-1 The on-site storm drains (pipes and reinforced concrete boxes) and open channels shall be designed and constructed to meet the storm flows, as required by the LACDPW.
- MV 4.2-2 Debris basins shall be constructed pursuant to LACDPW requirements to intercept storm flows from undeveloped areas before they discharge into the developed portions of the Mission Village tract map site.
- MV 4.2-3 Energy dissipaters consisting of either riprap or larger standard impact type energy dissipaters shall be installed along the Santa Clara River as required by LACDPW at outlet locations to reduce velocities of runoff into the channel to prevent erosion.
- MV 4.2-4 The project is required to comply with the RWQCB Municipal Permit (General MS4 Permit) Order No. 01-182, NPDES No. CAS004001 (amended September 14, 2006), and with the state's General Construction Activity Storm Water Permit, California State Water Resources Control Board Order No. 99-08-DWQ, National Pollutant Discharge Elimination System (NPDES) No. CAS000002, reissued on August 19, 1999, as amended and further modified by Resolution No. 2001-046 on April 26, 2001.

c. Additional Mitigation Measures Proposed by this EIR

The following project-specific mitigation measures are recommended to mitigate the potentially significant flood control impacts that may occur with implementation of the proposed Mission Village project. These mitigation measures are in addition to those adopted in the previously certified Newhall Ranch Specific Plan Program EIR.

(1) Construction Mitigation Measures

MV 4.2-5 During all construction phases, temporary erosion control shall be implemented to retain soil and sediment on the tract map site as follows:

- Re-vegetate exposed areas as quickly as possible;
- Minimize disturbed areas;
- Divert runoff from downstream drainages with earth dikes, temporary drains, slope drains, etc.;
- Reduce velocity through outlet protection, check dams, and slope roughening/terracing;
- Implement dust control measures, such as sand fences, watering, etc.;
- Stabilize all disturbed areas with blankets, reinforced channel liners, soil cement, fiber matrices, geotextiles, and/or other erosion resistant soil coverings or treatments;
- Stabilize construction entrances/exits with aggregate underdrains with filter cloth or other comparable method;
- Place sediment control BMPs at appropriate locations along the site perimeter and at all operational internal inlets to the storm drain system at all times during the rainy season (sediment control BMPs may include filtration devices and barriers, such as fiber rolls, silt fence, straw bale barriers, and gravel inlet filters, and/or with settling devices, such as sediment traps or basins; and/or
- Eliminate or reduce, to the extent feasible, non-storm water discharges (e.g., pipe flushing, fire hydrant flushing, over-watering during dust control, vehicle and equipment wash down, etc.) from the construction site through the use of appropriate sediment control BMPs.

MV 4.2-6 All necessary permits, agreements, and/or letters of exemption from the USACE and/or CDFG for project-related development within their respective jurisdictions must be obtained prior to issuance of grading permits.

MV 4.2-7 By October 1st of each year, a separate erosion control plan for construction activities shall be submitted to the local municipality describing the erosion control measures that will be implemented during the rainy season (October 1 through April 15).

(2) Operational Mitigation Measures

MV 4.2-8 A final developed condition hydrology analysis (LACDPW Drainage Concept Report [DCR] and Final Design Report [FDR]) shall be prepared in conjunction with final project design when precise engineering occurs. This final analysis shall confirm that the final project design is consistent with the analysis and confirm that the sizing and design of the water quality and hydrologic control BMPs control hydromodification impacts are in accordance with the Newhall Ranch Sub-Regional Stormwater Mitigation Plan. All elements of the storm drain

system shall conform to the policies and standards of the LACDPW, Flood Control Division, as applicable.

- MV 4.2-9 Ultimate project hydrology and debris production calculations shall be prepared by a project engineer to verify the requirements for debris basins and/or desilting inlets.
- MV 4.2-10 To reduce debris being discharged from the site, debris basins shall be designed and constructed pursuant to LACDPW Flood Control requirements to intercept flows from undeveloped areas entering into the developed portions of the site.

10. CUMULATIVE IMPACTS

As discussed in **Section 3.0, Cumulative Impact Analysis Methodology**, two development scenarios were selected for the cumulative impact analysis that is required by CEQA for this EIR. These scenarios include the County's DMS Build-Out Scenario and the Santa Clarita Valley Cumulative Build-Out Scenario (see **Section 3.0** for a detailed description of each of these scenarios). Individual or detailed discussion of these scenarios with respect to cumulative flood impacts is not relevant in this section because (1) the County's DMS does not monitor projects for the Flood Control Division of the LACDPW; and (2) the boundary of the approximate 2,690-acre tributary watershed in which the Mission Village site is located is the appropriate geographic area for such an analysis at the project level. Therefore, attention is focused in this cumulative impact analysis on the potential flood impacts of the buildout of the tributary watershed in which the Mission Village site is situated (please refer to **Section 4.21, Floodplain Modification**, for a discussion of cumulative flood impacts on the Santa Clara River and floodplain).

a. Flood Impacts

The adopted Newhall Ranch Specific Plan and the County of Los Angeles General Plan provide for additional development within the tributary watershed.

Pursuant to LACDPW requirements, all future drainage facilities in the 2,690-acre tributary watershed must be designed for either the capital storm or the 25-year urban design storm (storm drains under major and secondary highways, open channels [main channels], debris carrying systems, and sumps must be designed for the capital storm). LACDPW also prohibits increases in off-site post-development storm flows and increases in storm flow velocities. As a result of compliance, overall storm runoff discharge quantities from the watershed under post-development runoff conditions would be less than or equal to existing conditions largely because the runoff would include less debris than is typical of undeveloped watersheds and flow velocities would not increase. Because on-site drainage facilities already would have been built for burned and bulked flows from undeveloped areas, they would have more than adequate capacity to accommodate off-site flows as the off-site portions of the drainage areas develop.

The analysis of project conditions, above, demonstrates that project development, which must comply with all County requirements and previously approved Newhall Ranch Specific Plan EIR mitigation measures, would not create any significant impacts. Compliance with the applicable regulations results in less discharge from the project post-development as compared to pre-development levels, and thus runoff from the project causes no incremental increase in the cumulative impact of watershedwide development.

Because the cumulative project drainage improvements in Los Angeles County would be required to conform to the requirements of LACDPW in order to accommodate the capital flood from the effected watershed, no potentially significant cumulative project flooding impacts are expected to occur. The development criteria imposed on each project by LACDPW would ensure no potentially significant cumulative impacts.

As to the influence of increased urban area with respect to associated cumulative geomorphic impacts to the Santa Clara River, a study was prepared addressing these issues, which is located in **Appendix 4.2**. Assessment of potential impacts resulting from cumulative hydromodification effects in selected reaches of the Santa Clara River is addressed in that study, which was prepared by Balance Hydrologics, Inc., October 2005 (**Appendix 4.2**). In summary, the study concluded that:

Major perturbations within the Santa Clara River watershed (dam construction, levee construction, changes in flows in response to decadal-scale climatic patterns, and increase in woody vegetation) do not appear to have had a significant impact on the geomorphic expression of the Santa Clara River, as quantified from measurements made from a series of historical aerial photographs flown during the years 1927 through 2005.

The study has further concluded that while there is no expected increase in summer flows due to additional treated effluent discharge to the Santa Clara River, and even if summer baseflows do increase, it is not expected that there would be a significant change within the channel. Generally, large storm events, such as those that occurred in February 1998 and January 2005 can significantly modify the channel form. However, the study has concluded that the channel morphology of the Santa Clara River mainstem has not adjusted significantly to much larger disturbances in flow, sediment yield, and riparian vegetation growth factors, within the Newhall reach. Consequently, a significant impact is not expected to the geomorphic impact of the Santa Clara River mainstem due to the anticipated increase in urban development.

In conclusion, future upstream development within the tributary watershed would be required to comply with LACDPW, Flood Control Division design criteria, and on-site drainage facilities would have adequate capacity to capture and convey off-site flows from upstream areas as they develop. As a result,

no significant cumulative project flooding impacts are expected to occur within the watershed as it builds out.

Cumulative geomorphic impacts to selected reaches of the Santa Clara River as a result of increased urban development are addressed in a study prepared by Balance Hydrologics, Inc, (October 2005), which is included in **Appendix 4.2**. The study concludes that a significant impact to the geomorphology of the Santa Clara River mainstem due to the anticipated increase in urban development is not expected. Refer to **Section 4.21, Floodplain Modification**, for a more detailed discussion of potential cumulative flood impacts on the Santa Clara River and floodplain.

b. Conclusion

Other projects within the tributary watershed would not only be subject to the same general requirements as the proposed Mission Village project, but to other requirements that LACDPW Flood Control Division may specifically identify for such projects based on their unique topographic and geologic characteristics. All development within the watershed of the Santa Clara River and within unincorporated Los Angeles County is required to comply with the LACDPW Flood Control Division requirements, which are designed to ensure that upstream or downstream flooding does not occur, and to ensure that downstream erosion and sedimentation do not occur. Therefore, no significant unavoidable cumulative flooding, erosion, and sedimentation impacts would occur. Compliance with these requirements ensures consistency with the County's Qcap model.

11. CUMULATIVE MITIGATION MEASURES

Other projects within Los Angeles County would not only be subject to the same general requirements as the proposed Mission Village project, but to other requirements that the LACDPW Flood Control Division would specifically identify for them based on their unique topography and geologic characteristics. Therefore, no further mitigation is specified in this section for cumulative development projects relative to downstream flooding, erosion, and sedimentation impacts. Build out of the tributary watershed in which the Mission Village site is located would not have an adverse impact on beach sand replenishment at the mouth of the Santa Clara River.

12. SIGNIFICANT UNAVOIDABLE IMPACTS

a. Project Impacts

Implementation of the above mitigation measures to the satisfaction of the LACDPW would reduce storm-related flooding, erosion, and sedimentation impacts to less than significant levels. Therefore, no significant unavoidable impacts are anticipated.

b. Cumulative Impacts

Because all development within the tributary watershed must comply with LACDPW Flood Control Division requirements to ensure that upstream or downstream flooding does not occur, there would be no significant cumulative impacts; and therefore, no significant unavoidable cumulative flooding, erosion, or sedimentation impacts would be created.

1. SUMMARY

The entire project site occupies 1,854.5 acres, including the 1,261.8-acre Mission Village tract map site and an additional 592.8 acres of off-site land primarily within the boundaries of the approved Specific Plan. The project site includes 277.9 acres of riparian vegetation, including 111.8 acres of riparian woodland (southern willow scrub, shrub tamarisk, and southern cottonwood-willow riparian) and 166.1 acres of other riparian vegetation communities. The project site includes 1,576.8 acres of upland vegetation communities and land covers, of which 1,430.4 acres occur outside the 100-year floodplain of the Santa Clara River. The project site includes 1.5 miles of the Santa Clara River mainstem; this represents 1.7 percent of the overall Santa Clara River mainstem (86 miles). The total Mission Village project area, inclusive of infrastructure improvements, includes approximately 5 miles of the Santa Clara River mainstem (6 percent of overall). The Mission Village project, including the necessary off-site project components, would result in the permanent conversion of, or temporary disturbance to, 1,493.1 acres of the following:

- 413.4 acres of California sagebrush scrub
- 16.1 acres of California sagebrush scrub–Artemisia
- 12.9 acres of California sagebrush scrub–black sage
- 83.2 acres of California sagebrush scrub–California buckwheat
- 13.9 acres of California sagebrush scrub–undifferentiated chaparral
- 127.0 acres of California sagebrush scrub–purple sage
- 0.1 acre of disturbed California sagebrush scrub
- 394.3 acres of disturbed lands
- 219.9 acres of land currently used for agricultural purposes
- 8.0 acres of developed land
- 19.7 acres of river wash
- 28.8 acres of southern cottonwood-willow riparian forest
- 66.1 acres of California annual grassland
- 34.3 acres of undifferentiated chaparral
- 7.8 acres of coast live oak woodland
- 22.3 acres of big sagebrush scrub
- 0.7 acre of southern willow scrub
- 6.9 acres of arrow weed scrub
- 5.6 acres of Mexican elderberry scrub
- 2.6 acres chamise chaparral
- 1.8 acres of chamise–hoaryleaf ceanothus chaparral
- 1.9 acres of valley oak/grass
- 1.6 acres of herbaceous wetlands

- 1.8 acres of mulefat scrub
- 1.1 acre of disturbed mulefat scrub
- 0.6 acre of eriodictyon scrub
- 0.1 acre of giant reed grassland
- 0.5 acre of alluvial scrub.

Development of the proposed project would preclude landscape level or regional wildlife movement between the Santa Clara River and undeveloped lands to the south. Dead-End Canyon, Middle Canyon, and Magic Mountain Canyon would be developed and eliminated as potential wildlife movement corridors. Lion Canyon and Exxon Canyon would not be developed, but would become dead-ends and preclude movement between large habitat areas. Although the Mission Village portion of the Specific Plan area would be developed and affect local wildlife movement, regional habitat connectivity would be maintained. The conceptual regional open space plan developed by Penrod et al.,¹ provides for landscape-scale habitat connectivity between the Santa Susana Mountains to the south and the Los Padres National Forest to the north encompasses the High Country SMA/SEA 20 and the Salt Creek area and the Santa Clara River west of Mission Village. The High Country SMA/SEA 20 and Salt Creek area comprise an important part of the “least cost (best potential route) path” linkage design identified by Penrod et al.² They provide a key part of the east–west linkage that crosses I-5 and connects with the Angeles National Forest in the San Gabriel Mountains to the east and with Ventura County SOAR open space to the southwest. They also provide a significant part of the north–south linkage between the Santa Susana Mountains and the “Fillmore Greenbelt” to the northwest that further links up with the Los Padres National Forest and the Angeles National Forest to the north.

In approving the Specific Plan and Conditional Use Permit No. 94-087-(5), the Board of Supervisors found that the Specific Plan contained sufficient natural vegetative cover and open space to buffer critical resources in the River Corridor SMA/SEA 23 from the development shown in the Specific Plan. The Board of Supervisors further found that the Specific Plan incorporated extensive buffer areas to protect critical resources within the Santa Clara River. The Specific Plan’s adopted Resource Management Plan requires a minimum 100-foot-wide setback adjacent to the Santa Clara River between (a) the river side of the top of bank stabilization and (b) development within certain specified land use designations (including those of the Mission Village project site). This requirement may be modified if the Planning Director, in consultation with the County staff biologist, determines that a smaller buffer would adequately protect the riparian resources within the River Corridor SMA/SEA 23, or that a 100-foot-wide

¹ K. Penrod et al., *South Coast Missing Linkages Project: A Linkage Design for the Santa Monica-Sierra Madre Connection* (Idyllwild, California: South Coast Wildlands, in cooperation with the National Park Service, Santa Monica Mountains Conservancy, California State Parks, and The Nature Conservancy, 2006).

² Ibid.

setback is infeasible for physical infrastructure planning. Again, these buffer criteria are consistent with the Buffer Study³ and CDFG recommendations described below in **subsection 9(b)(1)(b)(2)(c)**.

Significant impacts associated with the Specific Plan would occur with respect to the loss of mulefat scrub, coast live oak woodland, coastal sage scrub, Mexican elderberry scrub, southern willow scrub, southern cottonwood willow riparian forest, great basin scrub, scalebroom scrub, valley freshwater marsh, wildlife habitat, special-status bird nests, special-status plant species, protected oaks, special-status wildlife species, and California Department of Fish and Game (CDFG) and U.S. Army Corps of Engineers (Corps) jurisdictional resources. Significant indirect impacts would occur with respect to increased light and glare, increased non-native plant species, and increased human and domestic animal presence.

The direct and indirect impacts associated with development and operation of the Mission Village project are consistent with the findings of the Newhall Ranch Specific Plan Program EIR (March 1999)⁴ and Revised Additional Analysis (May 2003).⁵ Implementation of the mitigation measures required by the Newhall Ranch Specific Plan Program EIR and the Specific Plan Resource Management Plan (RMP), as well as the additional mitigation measures required by this EIR, would mitigate project-specific impacts to less than significant levels. Due to the incorporation of additional mitigation measures required by this EIR, those project-level significant unavoidable impacts identified in the Newhall Ranch Specific Plan Program EIR (i.e., loss of sensitive animal species, coastal sage scrub, and wildlife habitat, and the increase in human and domestic animal presence) would be mitigated to less than significant. The Mission Village project would contribute to a significant unavoidable cumulative impact related to regional impacts to coastal scrub and San Fernando Valley spineflower individuals.

The Mission Village Biological Resources Technical report was reviewed by the Significant Environmental Area Technical Advisory Committee (SEATAC) on three separate occasions: January 29, 2007, September 10, 2007, and April 7, 2008. This EIR section reflects comments received from the SEATAC.

2. INTRODUCTION

a. Relationship of Project to Newhall Ranch Specific Plan Program EIR

Section 4.6 of the Newhall Ranch Specific Plan Program EIR identified and analyzed the existing conditions, potential impacts, and mitigation measures associated with biological resources for the entire Newhall Ranch Specific Plan. Subsequent to certification of the Newhall Ranch Specific Plan Program

³ Impact Sciences, *North Valencia Annexation Buffer Study*, prepared for Newhall Land and Farming Company. April 28, 1997.

⁴ County of Los Angeles, *Environmental Impact Report (EIR) for the Newhall Ranch Specific Plan and Water Reclamation Plant* (1999).

⁵ Impact Sciences, Inc., *Revised Additional Analysis to the Newhall Ranch Specific Plan and Water Reclamation Plant Final Program EIR, Volume VIII* (2003).

EIR, a more detailed review was conducted of the Specific Plan's biological effects caused by changes to the hydrology and hydraulics of the Santa Clara River in the Newhall Ranch Revised Additional Analysis (2003),⁶ Section 2.3, Floodplain Modifications. The Revised Additional Analysis (Sections 2.2 and 2.4) also examined in greater depth the Salt Creek Corridor and Specific Plan consistency against Los Angeles County (County) General Plan policies pertaining to Significant Ecological Areas (SEA).

This project-level EIR is tiering from the previously certified Newhall Ranch Specific Plan Program EIR. Section 4.3 assesses the Mission Village project's existing biological conditions, the project's potential environmental impacts on biological resources, and the biology mitigation measures from the Newhall Ranch Specific Plan Program EIR, and additional mitigation measures recommended by this EIR for the Mission Village project.

All subsequent project-specific development plans and tentative subdivision maps must be consistent with the Newhall Ranch Specific Plan and the County of Los Angeles General Plan and Santa Clarita Valley Areawide Plan.

b. Newhall Ranch Specific Plan

The approved Newhall Ranch Specific Plan guides future development of the Newhall Ranch community, located in northern Los Angeles County. The Santa Clara River and SR-126 traverse the northern portion of the Specific Plan area. The river extends approximately 5.5 miles east to west across the Specific Plan site. On May 27, 2003, the Los Angeles County Board of Supervisors approved the Specific Plan, which established the general plan, zoning designations, and development standards necessary to develop the Specific Plan site. The approved Specific Plan sets forth a comprehensive set of plans, development regulations, design guidelines, and implementation programs to develop the Specific Plan site, consistent with the goals, objectives, and policies of the Los Angeles County General Plan and Santa Clarita Valley Area Plan, as amended by General Plan Amendment No. 94-087-(5) (approved May 27, 2003). The Specific Plan was designed so that all subsequent development plans and subdivision maps associated with Newhall Ranch would be consistent with both the Los Angeles County General Plan and Santa Clarita Valley Area Plan. The Specific Plan also includes the Newhall Ranch Water Reclamation Plan (WRP) at the western edge of the Specific Plan area. Individual projects, such as residential, mixed-use, commercial, non-residential developments, roadways, public facilities, and amenities, would be developed over time in accordance with the approved Specific Plan. Many of these individual development projects would require work in and adjacent to the Santa Clara River and its tributaries. The first such project to be processed through the County under the approved Specific Plan is the Landmark Village project, with Mission Village being the second.

⁶ Impact Sciences, Inc., *Revised Additional Analysis*.

Environmental review for both the Specific Plan and the WRP was conducted by Los Angeles County, pursuant to the California Environmental Quality Act (CEQA). In the environmental documentation, the Specific Plan was evaluated at a “program” level, and the Newhall Ranch WRP was analyzed at a “project” level. The County Board of Supervisors certified the adequacy of the Newhall Ranch Specific Plan Program EIR on May 27, 2003. After certification, the Board of Supervisors adopted the required resolution, findings, and conditions approving the Specific Plan, WRP, and other associated local project approvals.

The approved Specific Plan (May 2003) authorizes a broad range of residential (and associated school sites, parks, and other facilities), mixed-use development (*e.g.*, commercial, residential, office), and non-residential development (*e.g.*, commercial, business park, visitor-serving, community facilities, including fire stations, library, WRP), and arterial roads, bridges, and other infrastructure, facilities, and amenities. The Specific Plan’s total number of permitted residential dwelling units (20,885) would be constructed on approximately 2,391 acres. The Specific Plan also permits about 67 acres of commercial uses; approximately 249 acres of business park uses; 36.7 acres of High Country Special Management Area (SMA) Visitor-Serving Uses; approximately 1,010 acres of Open Area; approximately 5,180 acres of SMA/Open Space; 10 neighborhood parks; recreational lake; public trail system; golf course; fire stations; public library; electrical substation; reservation of elementary school sites, junior high school site, and a high school site; a 6.8 mgd WRP; and other associated community facilities and amenities. Buildout of the Specific Plan is projected to occur over approximately 20 years, depending upon economic and market conditions.

(1) *Specific Plan’s Existing Setting*

The Specific Plan area is topographically diverse with slope gradients ranging from moderate to steep in the hillsides, to very gentle in the Santa Clara River floodplain and in major tributary canyons. Also, there are mesas adjacent to the Santa Clara River (*e.g.*, Grapevine Mesa and Airport Mesa). Site elevations range from 825 feet above mean sea level (AMSL) in the Santa Clara River bottom at the Ventura County/Los Angeles County line, to approximately 3,200 feet AMSL on the ridgeline of the Santa Susana Mountains along the southern boundary. The primary ridges are east-, west-, and northwest-trending, with secondary ridges trending north and south. There are many distinctive ridges in the Specific Plan area, including Sawtooth Ridge along the northeastern side of Long Canyon, and Ayers Rock at the northern edge of Potrero Canyon.

Native and naturalized habitats within the Specific Plan area are representative of those found in this region and provide high-quality examples of those plant communities found in the Santa Susana Mountains and the Santa Clara River ecosystems. Upland habitats dominate the landscape within the Specific Plan area, both north and south of the Santa Clara River. The major upland plant communities include California sagebrush scrub, undifferentiated chaparral, coast live oak and valley oak woodlands,

and California annual grassland. However, the Specific Plan site also contains valley oak/grass, mixed oak woodland, chamise chaparral, California walnut woodland, and big sagebrush scrub. The Santa Clara River supports a variety of riparian plant communities, including southern cottonwood-willow riparian forest, southern willow scrub, southern coast live oak riparian forest, mulefat scrub, elderberry scrub, arrow weed scrub, giant reed, tamarisk scrub, herbaceous wetland, bulrush/cattail wetland, cismontane alkali marsh, and coastal and valley freshwater marsh and seeps. Intermittent and ephemeral drainages on site also provide habitat for alluvial scrubs.

The riparian habitat along the Santa Clara River has been designated as critical habitat by the USFWS for the state- and federally listed endangered least Bell's vireo (*Vireo bellii pusillus*). The River also provides habitat for the state- and federally listed endangered southwestern willow flycatcher (*Empidonax traillii extimus*). The River itself supports the state- and federally listed endangered and state fully protected unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*).

There are two SEAs within the boundary of the approved Specific Plan: (1) the High Country SMA/SEA 20, which is comprised of diverse oak woodland habitats that function as a wildlife corridor/linkage between the San Gabriel and Santa Monica Mountains; and (2) the River Corridor SMA/SEA 23, which is comprised of aquatic habitat within the Santa Clara River corridor that supports the endangered unarmored threespine stickleback and other listed and sensitive species.

The applicant leases portions of the Specific Plan area for oil and natural gas production, as well as for cattle grazing, ranching, and agricultural operations (e.g., food crop production, dry land farming, honey farming). All such operations are currently ongoing. In addition, the applicant leases the Specific Plan site to the movie industry for set locations. A minor land use includes employee houses, an oil company office, and miscellaneous structures. There are several easements on the Specific Plan site, including oil, natural gas, electrical, telephone, and water easements. In particular, Southern California Edison and Southern California Gas Company maintain distribution lines within on-site easements.

Grazing activities and oil and natural gas production have had an effect on much of the natural habitat on site. Scrub habitats have been displaced by annual grasslands as a result of grazing and land clearing for agriculture and other historic land uses. In addition, the Specific Plan site has been fragmented by dirt and asphalt roads, graded oil well pads and pipelines, and pumping, storage, and transmission facilities. **Figure 2.0-1** depicts the existing and ongoing agricultural, grazing, and oil leasing activities within the project area. Existing cultivated agricultural fields comprise approximately 1,965 acres; oil field leasing and other related disturbed areas comprise about 1,209 acres; and grazing areas comprise approximately 11,048 acres.

(2) *Specific Plan's Approved Land Use Plan*

The approved Newhall Ranch Specific Plan Land Use Plan in the vicinity of the Mission Village project site is shown on **Figure 2.0-4**, and it provides the framework for the approved development within the Specific Plan site. The approved Land Use Plan describes the land use designations that include Residential (five types), Mixed-Use, Commercial, Business Park, Visitor-Serving, Open Area, the two River Corridor and High Country SMAs, and a Spineflower Conservation Overlay Easement area, all linked by a comprehensive system of roadways, trails, and paseos. Land use overlays are included on the approved Land Use Plan to show approximate locations of public facilities such as parks, schools, library, golf course, fire stations, and the WRP. This information is summarized below. Additional information regarding the Specific Plan's approved Land Use Plan is found in Section 2.3 of the approved Specific Plan (May 2003).

(3) *High Country SMA/SEA 20 and River Corridor SMA/SEA 23*

The largest land use designation of the Newhall Ranch Specific Plan Land Use Plan (**Figure 2.0-4**) is the approximate 4,205-acre High Country SMA/SEA 20. The High Country SMA/SEA 20 is located in the southern portion of the Specific Plan site and includes oak savannahs, high ridgelines, and various canyon drainages, including the Salt Creek watershed in Los Angeles County. Salt Creek is a regionally significant wildlife corridor that provides an important habitat link to the Santa Clara River. The Santa Clara River is an important east-west riparian corridor within the Specific Plan site. This corridor also serves as an important connection between the upland habitats to the north and south of the River. Specifically, large expanses of undeveloped land (*i.e.*, Salt Creek in Los Angeles County) allow for the movement of wildlife to the River and back. Salt Creek also provides wildlife movement connectivity between the River Corridor SMA/SEA 23 and the High Country SMA/SEA 20.

The Specific Plan's previously adopted Resource Management Plan requires the High Country SMA/SEA 20 to be dedicated in fee to a *joint powers authority* (JPA) consisting of representatives from the Los Angeles County (four members), the City of Santa Clarita (two members), and the Santa Monica Mountains Conservancy (two members). The JPA would have overall responsibility for recreation within and conservation of the High Country SMA/SEA 20. The Center for Natural Lands Management would be responsible for resource conservation and management in the High Country SMA/SEA 20. An assessment district would be formed under the authority of the Los Angeles County Board of Supervisors to generate revenue to be distributed to the JPA for recreation, maintenance, construction, conservation, and related activities within the High Country SMA/SEA 20.

Prior to dedication in fee of the High Country SMA/SEA 20, the Specific Plan requires that a conservation and public access easement be offered to the County of Los Angeles and that a conservation and management easement be offered to the Center for Natural Lands Management. The Specific Plan also

requires that the County's conservation and public access easement be consistent with any other conservation easements to state or federal resource agencies, which may have been granted as part of the mitigation actions required by state and federal permits. In addition, the conservation and public access easement is to prohibit grazing within the High Country SMA/SEA 20, except for those grazing activities associated with long-term resource management plans; and restrict recreation to the established trail system.

Pursuant to the Specific Plan, the High Country SMA/SEA 20's dedication in fee is to occur in three approximately equal phases of about 1,400 acres each, proceeding from north to south within the Specific Plan site, as follows: (a) the first offer of dedication would take place with issuance of the 2,000th residential building permit of the Specific Plan; (b) the second offer of dedication would take place with issuance of the 6,000th residential building permit; and (c) the remaining offer of dedication would be completed by the 11,000th residential building permit.

(4) Salt Creek Dedication and Management Area

As part of its approval of the Specific Plan in 2003, the Los Angeles County Board of Supervisors imposed an off-site condition which required that the applicant dedicate to the public the 1,517-acre (approximately) portion of the Salt Creek Watershed in Ventura County, adjacent to the western boundary of the Specific Plan site. Figure 4.3-1, Protected and Preserved Lands, depicts the off-site salt creek area in relation to the Newhall Ranch Specific Plan. The applicant must satisfy this condition by dedicating the Salt Creek area in fee and/or by conservation easement to the JPA, which is responsible for overall recreation and conservation of the High Country SMA/SEA 20. The Salt Creek Area is to be managed in conjunction with and in the same manner as the High Country SMA/SEA 20. Protection of the Salt Creek Area in both Los Angeles County and Ventura County enhances the Specific Plan's compatibility with animal movement in the region.

The Specific Plan's previously approved Resource Management Plan identified the High Country SMA/SEA 20 as a primary location for mitigating impacts that would occur within the development areas of the Specific Plan. The Salt Creek area provides similar mitigation opportunities. Both the High Country SMA/SEA 20 and the Salt Creek area provide mitigation opportunities for oak resources, slender mariposa lily, coastal sage scrub, and wetland creation, restoration, and enhancement, and other sensitive biological resources.⁷

⁷ For further information regarding mitigation opportunities for slender mariposa lily, coastal sage scrub, oak tree/woodland, and wetlands creation/restoration/enhancement within the High Country SMA/SEA 20, please refer to the Biological Resources Technical Report for the Newhall Ranch High Country Special Management Area and Salt Creek Area (Dudek, October 2006), a copy of which is located in **Appendix 4.5** of the 2009 Draft Environmental Impact Statement/Environmental Impact Report EIS/EIR.



SOURCE: Newhall Ranch 2008; Impact Sciences Inc. 2009

FIGURE 4.3-1

Mission Village EIR

Protected and Preserved Lands

The Newhall Ranch Specific Plan will not significantly affect wildlife movement in the Salt Creek corridor. Wildlife movement within the Salt Creek watershed occurs primarily along the general direction of the drainages between the Santa Susana Mountains and the Santa Clara River Valley. These routes are used because they follow the gentlest topography and more open habitat. Wildlife movement between watersheds to the east and west are easiest at the upper and lower ends of the watersheds. At the lower ends, canyons merge in the Santa Clara River Valley and are generally flat with less steep ridges. At the upper ends of the watersheds, the ridgeline of the Santa Susana Mountains provides less steep connections to the upper reaches of the canyons and adjacent watersheds.

As part of the original approval of the Newhall Ranch Specific Plan, the Board of Supervisors established a 0.5-mile-wide buffer south of the Santa Clara River and a 0.125-mile buffer north of the river between all development proposed as part of the Specific Plan and the Los Angeles County/Ventura County jurisdictional line. Habitat loss in the Potrero Creek watershed would potentially cause a shift in some wildlife populations to undisturbed habitats in the Salt Creek watershed in both Los Angeles County and Ventura County. Habitat losses in the Potrero Creek watershed also would potentially affect the long-term movement of wildlife within this watershed and within the Salt Creek watershed in both Ventura County and Los Angeles County. However, no direct impacts to that portion of the Salt Creek watershed in Ventura County would occur in association with the Specific Plan because no development is proposed in the Ventura County portion of the Salt Creek corridor, and because all development proposed as part of the Specific Plan would occur no closer than 0.5 mile from Ventura County.

Note that buildout of the Specific Plan will occur over an approximate 20-year period. Consequently, the displacement of wildlife species, primarily larger mammals, would occur incrementally over an extended period. These larger wildlife species (*e.g.*, mountain lion, deer, bobcat, and coyote) generally have home ranges that are not confined to one watershed, and would be expected to be displaced in relatively small numbers. In contrast, the smaller wildlife species will more likely suffer from direct mortality because of land development, and would not be displaced into adjacent watersheds. This time factor allows for a very gradual shift (*i.e.*, over a period of decades) of wildlife use/movement for those animals able to move a distance of more than 0.5 mile from the Specific Plan area in Los Angeles County to adjacent undeveloped areas, including the Salt Creek watershed in Ventura County. These very gradual (and temporary) increases in wildlife use/movement in the Salt Creek watershed in both Los Angeles County and Ventura County would be easier to absorb over several years (*i.e.*, the animals would have more time to adapt to the available resources or would have time to move out of the Salt Creek watershed to adjacent watersheds). Therefore, the direct impacts of habitat loss in the Specific Plan area on wildlife movement within the Salt Creek watershed, and particularly the Ventura County portion given its distance away from proposed development, are not considered significant. Nevertheless, the Board of Supervisors imposed a condition requiring the applicant to enhance and increase the effectiveness of animal movement protections within the Salt Creek wildlife corridor.

3. SUMMARY OF THE NEWHALL RANCH SPECIFIC PLAN PROGRAM EIR FINDINGS

The approved Newhall Ranch Specific Plan would develop approximately 5,793 acres of the 11,963-acre Specific Plan site (or 49 percent of the site), and would preserve as undeveloped land a total of approximately 6,170 acres (or 51 percent of the site). In addition, a condition of approval requires the applicant to dedicate to the public 1,517 acres of off-site land in the remaining Salt Creek watershed in Ventura County, adjacent to the Specific Plan site. This land is also required to be managed in conjunction with and in the same manner as the High Country Special Management Area (SMA)/Significant Ecological Area (SEA) 20. Portions of proposed development within the Specific Plan area would occur in sensitive upland and riparian habitats. Therefore, the Specific Plan was determined to have significant impacts on the biological resources located on the site. Implementation of measures contained in the Specific Plan RMP and those measures contained in the Newhall Ranch certified environmental documentation would reduce some, but not all, Specific Plan impacts to special-status plant and wildlife species, riparian, wetland and aquatic resources (located along the river corridor) to below California Environmental Quality Act (CEQA) thresholds of significance. While mitigation is also provided to reduce the magnitude of impacts to upland resources, certain of these impacts were also expected to remain significant. Also, despite the preservation of the major wildlife corridor along the Santa Clara River, the Specific Plan would significantly impact the ability of some animals to move across portions of the Specific Plan area. Table 4.3-1, Significant Biological Impacts – Newhall Ranch Specific Plan and WRP, summarizes the Specific Plan’s impacts on biological resources, the applicable mitigation measures, and the significance findings after the mitigation is implemented.

**Table 4.3-1
Significant Biological Impacts – Newhall Ranch Specific Plan and WRP**

Impact Description	Mitigation Measures	Conclusion After Mitigation
General Wildlife Impacts –Based on the amount of habitat lost (5,132 acres), the impact potential of implementation of the Newhall Ranch Specific Plan on the diminishment of habitat for wildlife or plants is considered significant.	See measures listed below for impacts to sensitive animal species.	Significant
The impact potential of implementation of the Newhall Ranch Specific Plan on the movement of resident wildlife species is considered significant due to the reduction in open land available for wildlife movement between the river and upland areas.	See measures listed below for impacts to sensitive animal species and habitats.	Significant

Table 4.3-1 (Continued)
Significant Biological Impacts—Newhall Ranch Specific Plan and WRP

Impact Description	Mitigation Measures	Conclusion After Mitigation
<p>Loss of Habitat—As approved, implementation of the Specific Plan would result in the loss of 1,820 of the 5,183 acres of coastal sage scrub, 202 of the 1,213 acres of chaparral, and 1,480 of the 1,896 acres of non-native grassland habitat present on the site (when combined, 42 percent of these vegetation types would be lost). Given the concern for this species (coast horned lizard) in the region, the substantial loss of habitat, and potentially the direct loss of individuals of this species, this impact would be considered significant without mitigation.</p>	<p>See measures listed below for impacts to sensitive animal species and habitats.</p>	<p>Significant</p>
<p>It is acknowledged that any loss of plant species listed as Rare, Threatened, or Endangered is considered a significant impact. Those include the following:</p>		
Slender-horned spineflower (significant if present)	Mitigation Measures 4.6-27, 4.6-34, 4.6-35, and 4.6-53	Not Significant
California Orcutt grass	Mitigation Measures 4.6-27, 4.6-34, 4.6-35, and 4.6-53	Not Significant
Lyon’s pentachaeta	Mitigation Measures 4.6-27, 4.6-34, 4.6-35, and 4.6-53	Not Significant
Nevin’s barberry	Mitigation Measures 4.6-27, 4.6-34, 4.6-35, and 4.6-53	Not Significant
Thread-leaved brodiaea	Mitigation Measures 4.6-27, 4.6-34, 4.6-35, and 4.6-53	Not Significant
Santa Susana tarplant	Mitigation Measures 4.6-27, 4.6-34, 4.6-35, and 4.6-53	Not Significant
Braunton’s milk vetch	Mitigation Measures 4.6-27, 4.6-34, 4.6-35, and 4.6-53	Not Significant
San Fernando Valley spineflower (significant in Additional Analysis)	Mitigation Measures 4.6-53, 59, and 65–80	Not Significant
Short-joint beavertail cactus (significant in Additional Analysis) ^a	Mitigation Measures 4.6-27, 34, 35, 53, and 59	Not Significant
Calochortus (potentially significant in Additional Analysis depending upon actual species present)	Mitigation Measures 4.6-27, 34, 35, 53, and 59	Not Significant
Dudleya (potentially significant depending upon actual species present) ^a	Mitigation Measures 4.6-27, 34, 35, 53, and 59	Not Significant
Based on this analysis of indirect impacts to spineflower and other sensitive plants, seven indirect impacts/edge effects are considered significant in connection with the proposed development of Newhall Ranch.	Mitigation Measures 4.6-53, 4.6-59, and 4.6-65–80	Not Significant
<p>Project construction and operation may have potential significant impacts on a number of sensitive animal species through loss of habitat and/or decrease in water quality if impacts are unmitigated. Species include the following:</p>		
Santa Ana sucker	Mitigation Measures 4.6-44, 4.6-53, 4.6-55, 4.6-57, and 4.6-58	Not Significant
Unarmored threespine stickleback	Mitigation Measures 4.6-53, 4.6-54, 4.6-55, 4.6-57, 4.6-58, and 4.6-59	Not Significant

Table 4.3-1 (Continued)
Significant Biological Impacts—Newhall Ranch Specific Plan and WRP

Impact Description	Mitigation Measures	Conclusion After Mitigation
Arroyo chub	Mitigation Measures 4.6-44, 4.6-53, 4.6-55, 4.6-57, and 4.6-58	Not Significant
Arroyo southwestern toad	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-55, and 4.6-56	Not Significant
Western spadefoot toad	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-56, and 4.6-55	Not Significant
Silvery legless lizard	Mitigation Measures 4.6-27–4.6-43, and 4.6-53	Significant
Southwestern pond turtle	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-56, and 4.6-55	Not Significant
Coastal rosy boa	Mitigation Measures 4.6-27–4.6-43, and 4.6-53	Significant
San Bernardino ringneck snake	Mitigation Measures 4.6-27–4.6-43, and 4.6-53	Significant
Two-striped garter snake	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-56, and 4.6-55	Not Significant
California horned lizard	Mitigation Measures 4.6-27–4.6-43, 4.6-53, 4.6-56, and 4.6-55	Significant
San Diego horned lizard	Mitigation Measures 4.6-27–4.6-43, 4.6-53, 4.6-56, and 4.6-55	Significant
Coast patch-nosed snake	Mitigation Measures 4.6-27–4.6-43, and 4.6-53	Significant
Least Bell's vireo	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-56, and 4.6-59	Not Significant
Southwestern willow flycatcher	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-56, and 4.6-59	Not Significant
Northern harrier	Mitigation Measures 4.6-27–4.6-43, and 4.6-53	Significant
Cooper's hawk	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-55, and 4.6-56	Not Significant
Vermilion flycatcher	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-55, and 4.6-56	Not Significant
Yellow warbler	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-55, and 4.6-56	Not Significant
Summer tanager	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-55, and 4.6-56	Not Significant
Southern California rufous-crowned sparrow	Mitigation Measures 4.6-27–4.6-43, 4.6-53, 4.6-56, and 4.6-55	Significant
Tricolored blackbird	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-56, and 4.6-55	Significant
Great blue heron	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-55, and 4.6-56	Not Significant
Great egret	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-55, and 4.6-56	Not Significant

Table 4.3-1 (Continued)
Significant Biological Impacts—Newhall Ranch Specific Plan and WRP

Impact Description	Mitigation Measures	Conclusion After Mitigation
Snowy egret	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-55 and 4.6-56	Not Significant
Black-crowned night heron	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-55, and 4.6-56	Not Significant
White-tailed kite	Mitigation Measures 4.6-27–4.6-43, and 4.6-53	Significant
Swainson’s hawk	Mitigation Measures 4.6-27–4.6-43, and 4.6-53	Significant
Mountain plover	Mitigation Measures 4.6-27–4.6-43, and 4.6-53	Significant
Western least bittern	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-55, and 4.6-56	Not Significant
Fulvous whistling duck	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-55, and 4.6-56	Not Significant
Bell’s sage sparrow	Mitigation Measures 4.6-27–4.6-43, and 4.6-53	Significant
Ferruginous hawk	Mitigation Measures 4.6-27–4.6-43, and 4.6-53	Significant
Western burrowing owl	Mitigation Measures 4.6-27–4.6-43, and 4.6-53	Significant
Sharp-shinned hawk	Mitigation Measures 4.6-27–4.6-43, and 4.6-53	Significant
Golden eagle	Mitigation Measures 4.6-27–4.6-43, and 4.6-53	Significant
Pallid bat	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-55, and 4.6-56	Not Significant
Pocketed free-tailed bat	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-55, and 4.6-56	Not Significant
Pale Townsend’s big-eared bat	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-55, and 4.6-56	Not Significant
Greater western mastiff bat	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-55, and 4.6-56	Not Significant
Mountain lion	Mitigation Measures 4.6-27–4.6-43, and 4.6-53	Significant
San Diego black-tailed jackrabbit	Mitigation Measures 4.6-27–4.6-43, 4.6-53, 4.6-56, and 4.6-55	Significant
San Diego desert woodrat	Mitigation Measures 4.6-27–4.6-43, 4.6-53, 4.6-56, and 4.6-55	Significant
Yuma myotis	Mitigation Measures 4.6-1–4.6-26, 4.6-53, 4.6-55, and 4.6-56	Not Significant
Development of the Specific Plan would result in impacts to sensitive habitats including the following:		
Coast Live Oak Woodland	Mitigation Measures 4.6-28 and 4.6-48	Significant
Coastal sage scrub	Mitigation Measures 4.6-27–4.6-43	Significant

Table 4.3-1 (Continued)
Significant Biological Impacts—Newhall Ranch Specific Plan and WRP

Impact Description	Mitigation Measures	Conclusion After Mitigation
Valley oak woodland/savanna	Mitigation Measures 4.6-27–4.6-43	Significant
Elderberry scrub	Mitigation Measures 4.6-27–4.6-43, and 4.6-60	Not Significant
Mainland cherry forest	Mitigation Measures 4.6-27–4.6-43, and 4.6-61	Not Significant
Southern willow scrub	Mitigation Measures 4.6-1–4.6-26	Not Significant
Southern cottonwood-willow riparian forest and southern willow riparian woodland	Mitigation Measures 4.6-1–4.6-26	Not Significant
Valley freshwater marsh and ponds	Mitigation Measures 4.6-1–4.6-26	Not Significant
Wetlands	Mitigation Measures 4.6-1–4.6-26	Not Significant
SEA 20–High Country	Mitigation Measures 4.6-1–26	Not Significant
SEA 23–River Corridor	Mitigation Measures 4.6-26a–52	Not Significant
Indirect Impacts –Implementation of the Newhall Ranch Specific Plan has the potential to indirectly impact adjacent natural areas and sensitive biological resources that occur proximal to the site. This would occur as a result of increased use of the Santa Clara River and upland areas by humans and domestic animals, increased use of adjacent natural areas by animals typical of an urban environment, and the potential effects of light, glare, sediment, and urban pollutant runoff, unless mitigated.	Mitigation Measures 4.6-18, 4.6-19 and 4.6-56	Significant
Cumulative Biological Impacts	None Proposed/Required	Significant

Note:

^a It has since been determined that no sensitive *Dudleya* species are known to occur on the Newhall Ranch Specific Plan site.

Source:

*Biota Report for the Newhall Ranch Specific Plan (July 1996), Newhall Ranch Specific Plan Program EIR (March 1999), and Revised Additional Analysis (May 2003).*⁸

Based on the Newhall Ranch Specific Plan Program EIR and record, the County’s Board of Supervisors found that the Specific Plan would result in impacts (as identified in **Table 4.3-1**, above) that would be unavoidably significant even with implementation of all identified feasible mitigation measures. Consistent with Section 15093 of the *State CEQA Guidelines*, the Board of Supervisors found that the Specific Plan offered overriding economic, legal, social, public benefits that outweighed the identified significant unavoidable impacts and made them acceptable.

⁸ Los Angeles County Department of Regional Planning, *Biota Report, Newhall Ranch Specific Plan* (1996); County of Los Angeles, *EIR for the Newhall Ranch Specific Plan*; Impact Sciences, Inc., *Revised Additional Analysis*.

4. EXISTING CONDITIONS

a. General Project Site Characteristics

The Mission Village project site is located on the Val Verde and Newhall 7.5-minute USGS quadrangle maps (**Figure 4.3-2, Vicinity Map**), and is in northwestern Los Angeles County, approximately 30 miles northwest of downtown Los Angeles. The project site is largely undeveloped except for roads and pads associated with past oil well drilling operations, cattle grazing, and other agricultural activities. Slopes range from gentle in the mesa and canyon floor areas to very steep along the Santa Clara River bluffs and sandstone bedrock outcrops. The site topography is dominated by the north-trending Lion Canyon on the western margin of the site and the Magic Mountain Canyon on the eastern margin of the site. Located mid-site are Middle Canyon and Dead End Canyon. These canyons drain northward into the Santa Clara River which is located in the northern portion of the project site. Elevated flat lands are present on the northern portion of the site in the vicinity of Airport Mesa and Exxon Mesa. Below the elevated flat lands are old, uplifted stream and fan deposits. Elevations on the site range from 940 feet above sea level along the Santa Clara River to a high point of 1,510 feet above sea level. Dominant vegetation types on the project site include riparian (associated with the Santa Clara River and other on-site drainages), coastal sage scrub, mixed chaparral, and oak woodland. Agricultural crops are currently cultivated in Middle Canyon and were previously cultivated on Exxon Mesa.

In addition to the 1,261.8-acre tract map site, the project also includes 592.8 acres of development at locations beyond the tract map site. There are a number of off site project components, including the following:

- An underground utility corridor that generally runs east/west along SR-126 extending from the Valencia Water Reclamation Plan (WRP) (Plant 32) on the east to the proposed Newhall Ranch WRP on the west, which would serve to extend utility services to the tract map site and ultimately the Newhall Ranch Specific Plan development.
- Magic Mountain Parkway and related improvements would be extended west from the parkway's present terminus to a location within the tract map site.
- Three water tanks are proposed. Portions of two tank sites lie on site.
- Two power substation site options are proposed within the Potrero portion of the Newhall Ranch Specific Plan and Legacy Village.

- A Water Quality Basin is proposed to the northeast of the tract map site. A small portion of the water quality basin and a portion of the access road to the site are located within the tract map site. Most of the basin would be located outside of the tentative tract boundary.
- Two debris basins located to the south of the site.
- Additional proposed off-site activities include: (1) work associated with Lion Canyon drainage, (2) grading associated with construction of the northerly extension of Westridge Parkway and southerly extension of Commerce Center Drive, and (3) miscellaneous earthwork to tie proposed grades into natural grades.

For the purposes of this analysis, the “tract map site” refers only to the proposed location of the Mission Village development itself. The “project site” includes the tract map site, plus the off-site improvements discussed above.

b. Geologic and Soil Characteristics

The project site is located in the Transverse Ranges geomorphic province of Southern California in the eastern portion of the Ventura Basin. The Ventura Basin has been tectonically downwarped in the geologic past to produce a large-scale synclinal structure, which has developed a thick accumulation of Cenozoic sediments. The project site is underlain by sedimentary rock of the Saugus Formation that has been tectonically deformed into southeast-plunging folds with local faulting in the Airport Mesa area. Younger terrace deposits locally overlie the bedrock with minor to moderate angular discordance. Alluvium is present in the larger drainage areas and slopewash layers on most of the site. Two major topographic features known as mesas are located on the northeastern (Airport Mesa) and northwestern (Exxon Mesa) portions of the site. These mesas consist of older stream channel and alluvial fan deposits (Quaternary terrace deposits [Qt]) that have been uplifted and overlie the bedrock of the Saugus Formation. The soils occurring on the project site are discussed below, and the locations of the mapped soil polygons are shown in **Figure 4.3-3, Project Site Soils**.



Legend

-  County Boundary
-  Mission Village Project Boundary
-  Mission Village VTTM Boundary
-  Permanent Impact Limits
-  Temporary Impact Limits

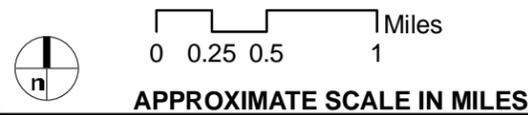


IMAGE SOURCE: USGS 24K Quad

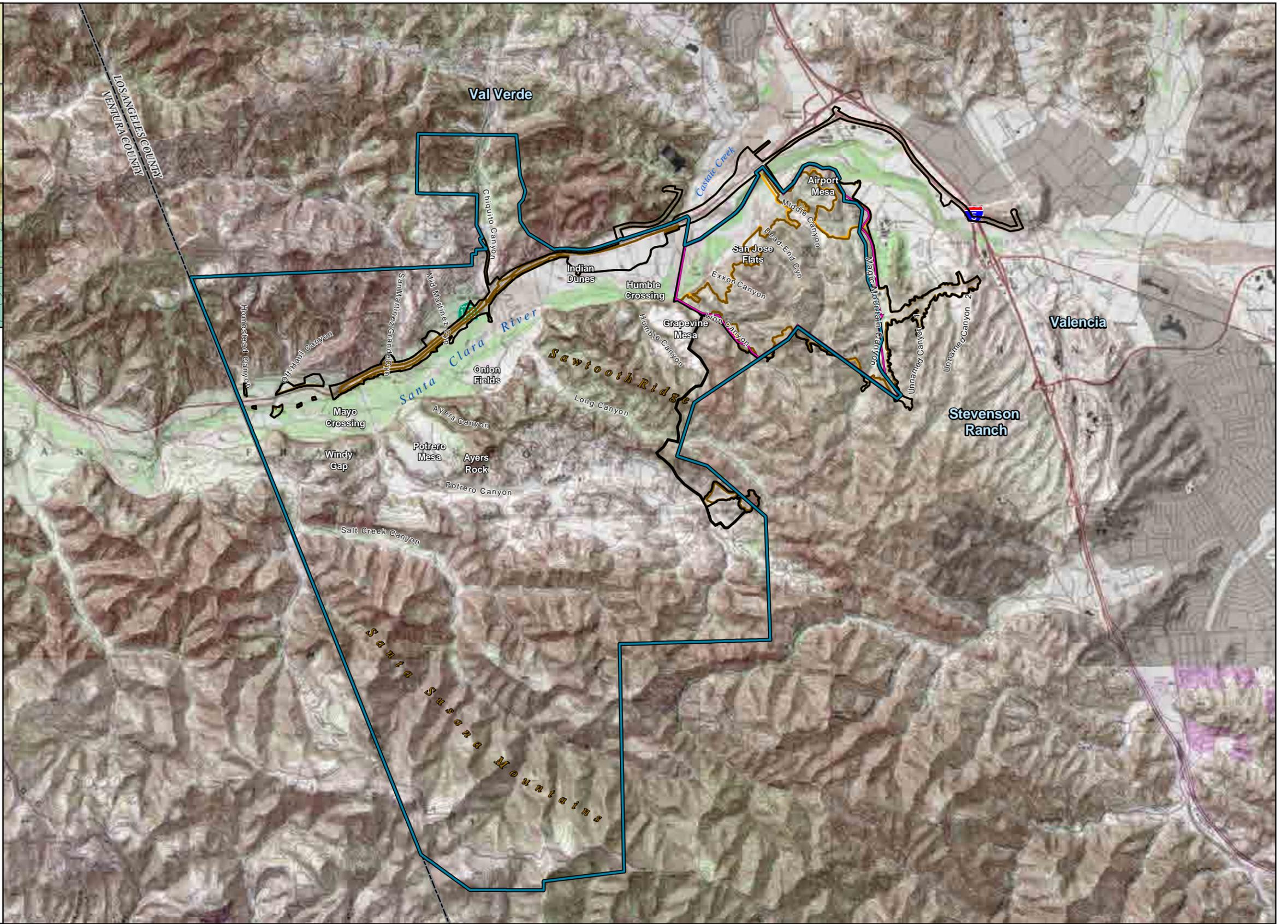


FIGURE 4.3-2
 Mission Village Biota Report
Vicinity Map

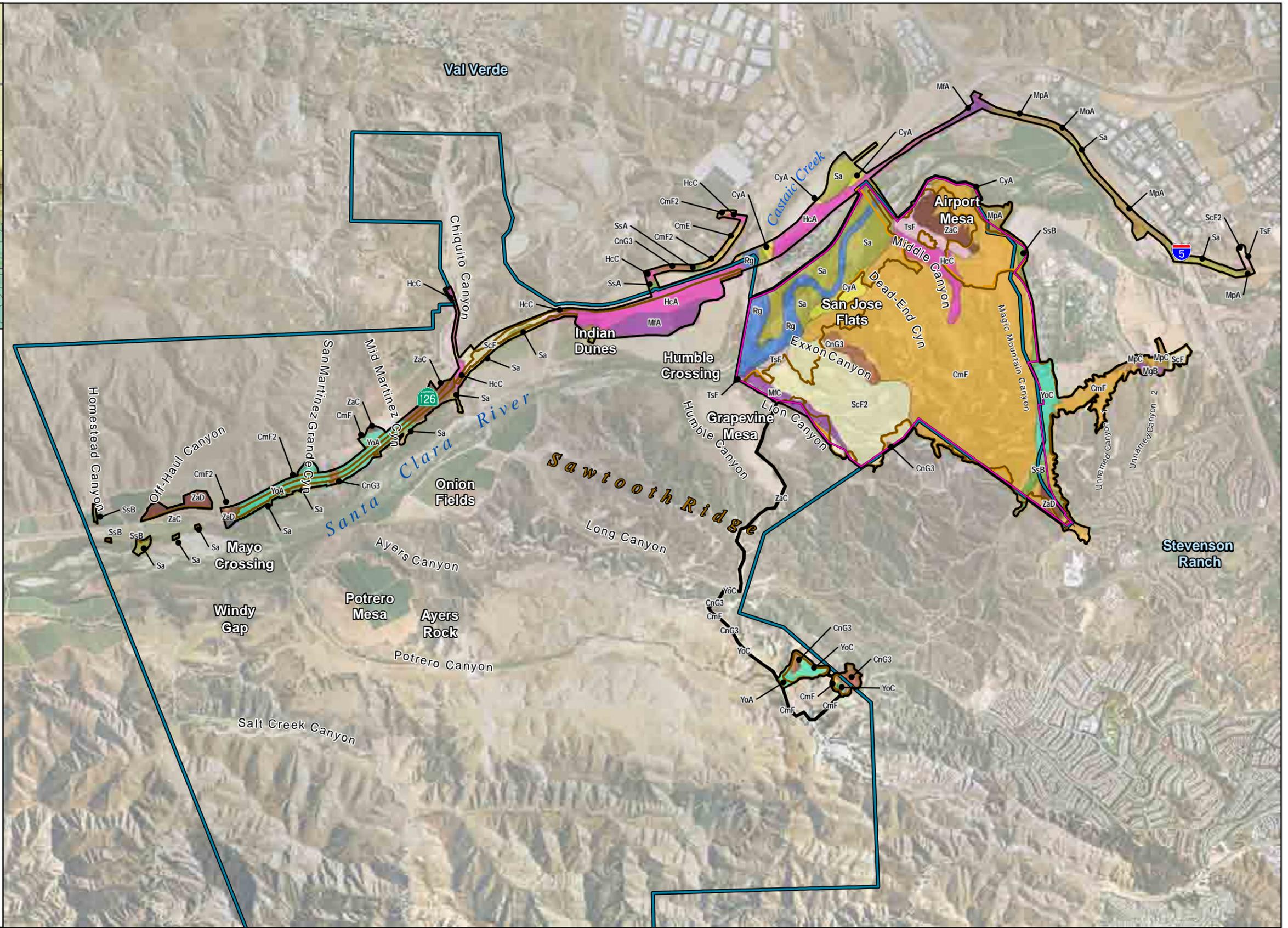
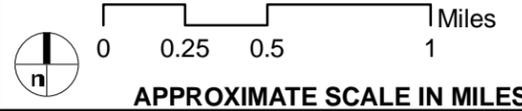


Legend

- NRSP Boundary
- Mission Village Project Boundary
- Mission Village VTTM Boundary
- Permanent Impact Limits
- Temporary Impact Limits

Project Site Soils

- CmE - Castaic-Balcom silty clay loams, 15 - 30 % slopes
- CmF - Castaic-Balcom silty clay loams, 30 - 50 % slopes
- CmF2 - Castaic-Balcom silty clay loams, 30 - 50 % slopes, eroded
- CmG2 - Castaic-Balcom silty clay loams, 50 - 65 % slopes, eroded
- CnG3 - Castaic and Saugus soils, 30 - 65 % slopes, severely eroded
- CyA - Cortina sandy loam, 0 - 2 % slopes
- HcA - Hanford sandy loam, 0 - 2 % slopes
- HcC - Hanford sandy loam, 2 - 9 % slopes
- MfA - Metz loamy sand, 0 - 2 % slopes
- MfC - Metz loamy sand, 2 - 9 % slopes
- MgB - Metz loam, 2 - 5 % slopes
- MoA - Mocho sandy loam, 0 - 2 % slopes
- MpA - Mocho loam, 0 - 2 % slopes
- MpC - Mocho loam, 2 - 9 % slopes
- Rg - Riverwash
- Sa - Sandy alluvial land
- ScF - Saugus loam, 30 - 50 % slopes
- ScF2 - Saugus loam, 30 - 50 % slopes, eroded
- SsA - Sorren- loam, 0 - 2 % slopes
- SsB - Sorren- loam, 2 - 5 % slopes
- TsF - Terrace escarpments
- YoA - Yolo loam, 0 - 2 % slopes
- YoC - Yolo loam, 2 - 9 % slopes
- ZaC - Zamora loam, 2 - 9 % slopes
- ZaD - Zamora loam, 9 - 15 % slopes



SOURCE: NRCS SSURGO Soil Survey 2008
 IMAGE SOURCE: DigitalGlobe 2007

FIGURE 4.3-3
 Mission Village EIR
 Project Site Soils

(1) Bedrock Formations**(a) Saugus Formation (TQsl and TQsu)**

The bedrock underlying the site consists of Plio-Pleistocene, non-marine sedimentary rock of the Saugus Formation. This formation includes light gray to yellowish-gray sandstone, pebbly sandstone and pebble to cobble conglomerate, light yellowish brown to brown sandy siltstone, siltstone, mudstone, and rare moderate-brown claystone. Siltstone, claystone, and mudstone units of the Saugus Formation are potentially expansive.

Subsurface investigations and field mapping indicate that the upper section of the Saugus Formation (TQsu) is lithologically distinct from the more typical lower section (TQsl). The lower (older) stratigraphic section of the Saugus Formation exposed on the western portion of the site, is generally coarse-grained, moderately to well indurated, and lithologically similar to the typical Saugus Formation characteristics. The upper (younger) stratigraphic section exposed on the eastern portion of the site is less indurated and commonly contains more thinly bedded siltstone and mudstone than the typical Saugus Formation characteristics.

The bedrock exposed to the south of the Saddle Lineament is identified as the upper member of the Saugus Formation (TQsu). North of the Saddle Lineament the bedrock encountered in subsurface explorations is mostly coarse grained and is designated as undifferentiated Saugus Formation (TQsl).

(b) Pico Formation (Tp)

The Pliocene Pico Formation underlies the southern portion of the project site. The Pico Formation observed on the project site consists of moderately hard, light gray to light greenish-gray sandstone and pebbly sandstone with local interbeds of light greenish-gray to olive-gray siltstone, sandy siltstone, and rare moderate-brown mudstone. The sandstones are generally well sorted and massive to locally well bedded with common low angle cross bedding. Pebbles are generally well rounded and commonly crystalline in composition. The siltstone and mudstone units are potentially expansive. Thin, low strength clay seams are present within this formation and can be problematic relative to slope stability. The Pico Formation soil is primarily located in the vicinity of the proposed Long Canyon Road and Valencia Boulevard segments along the western portion of the project site and along the southern portion of the project site in the vicinity of the proposed Magic Mountain Parkway extension.

(2) Surficial Deposits**(a) Quaternary Terrace Deposits (Qt)**

Deposits of relatively flat-lying older alluvium which are significantly higher than the active stream channel areas are designated as terrace deposits (Qt). At least two fill-terrace levels are present on the project site. The dominant upper terrace forms large mesas on the northwestern portion of the site (Exxon Mesa) and northeastern portion of the site (Airport Mesa), which are roughly 180 to 200 feet above the adjacent drainages. A second lower terrace level is present on the margins of Lion Canyon and locally in the larger canyons to the east across the site. The lower terrace surface is largely eroded but appears to commonly extend at least 20 to 40 feet above the adjacent drainages. Small relic Qt deposit remnants were also encountered on portions of the upper slopes on the south side of Middle Canyon. The lower terrace deposits typically consist of pebbly sandstone, pebble to cobble conglomerate, and silty sandstone which range up to an observed thickness of 23 feet.

The upper terrace deposits which compose the large mesa areas range in depth up to 112 feet and typically consist of interbedded light yellowish-brown to yellowish gray sand, gravelly sand and silty sand with interbeds of yellowish-brown sandy silt, gravelly sandy silt, and local brown silt to clayey silt. Cobbles only occur locally in the upper portion of the deposits. However, there is usually a coarse grained layer at the base which consists of 3 to 10 feet of coarse-grained sand and gravelly sand with cobbles and boulders (typically 2 feet maximum diameter, but up to 5 feet diameter were locally observed).

(b) Quaternary Alluvium (Qal)

The larger canyon areas and Santa Clara River floodplain are underlain by alluvium. Older, incised alluvium is commonly present on the margins of the canyons. These deposits typically consist of sands and gravel with cobbles, boulders, and local silty intervals.

(c) Quaternary Slopewash (Qsw)

Slopewash is a non-bedded, heterogeneous accumulation of soil and weathered bedrock deposited by gravity on slopes. Swales and side-canyons adjacent to the larger canyon drainages commonly contain accumulations of slopewash. The thickest accumulations occur at the toe of slopes and where broad swales join main drainage areas. The maximum thickness of slopewash colluvium encountered in the exploratory excavations conducted as part of the geological investigation is about 15 feet.

c. Drainage Patterns

The Mission Village project site is located within the Santa Clara River basin. The Santa Clara River flows through the northern portion of the project site from east to west. The watershed of the Santa Clara River basin is 1,634 square miles in area. The portion of the watershed in which the project site lies is located generally east of the Ventura/Los Angeles County line and is approximately 640 square miles in size with the remainder of the watershed west of the Ventura/Los Angeles County line. It drains portions of the Los Padres National Forest from the north, the Angeles National Forest from the northeast and east, and the Santa Susana Mountains from the south and southeast. The Newhall Ranch site is located within a smaller, 32.4 square-mile tributary watershed. The Mission Village site represents approximately 1.97 square miles, or 0.31 percent of the 640 square mile watershed, and 6.09 percent of the 32.4 sq. mile Newhall Ranch tributary watershed.

The entire tributary drainage area for the Mission Village project site is approximately 2,656 acres and is comprised of fifteen drainage areas that drain toward the Santa Clara River. Runoff generally flows through the drainage areas via sheet flows and natural concentrated flows. All runoff from the tributary area eventually discharges to the Santa Clara River. The drainages on and bordering the project site are discussed in more detail in **Section 4.2, Hydrology**.

5. METHODS

a. Literature/Database Review

To evaluate the natural resources found or potentially occurring on the Mission Village project site, Dudek searched the technical literature and reviewed databases. Specifically, reports reviewed included the Biota chapter of the Newhall Ranch Specific Plan Program EIR as revised (March 1999), the Newhall Ranch Biota Report (July 1996), the Newhall Ranch Revised Additional Analysis (May 2003), Section 2.2, Salt Creek Corridor, Section 2.3, Floodplain Modifications, and Section 2.6, Spineflower and Other Sensitive Plant Species, and various technical reports documenting the biological surveys conducted on the project site and greater Newhall Ranch (shown later in this document in **Table 4.3-2**).⁹ Dudek also reviewed literature sources specific to the common plants and animals, plant communities, and special-status species occurring in the County (**Section 10.0, References**).

In addition, the most recent versions of the California Natural Diversity Data Base (CNDDB) and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants were reviewed for the USGS 7.5-minute quadrangle on which the project site is located (i.e., Val Verde) and the eight

⁹ County of Los Angeles, *EIR for the Newhall Ranch Specific Plan*; Los Angeles County Department of Regional Planning, *Biota Report*; Impact Sciences, Inc., *Revised Additional Analysis*.

surrounding quadrangles (i.e., Newhall, Warm Springs Mountain, Whitaker Peak, Cobblestone Mountain, Piru, Simi Valley West, Simi Valley East and Oat Mountain)¹⁰ (**Appendix 4.3**).

b. Field Surveys

All surveys were conducted by biologists qualified and/or permitted to conduct such surveys. Habitat and species observations were noted on data sheets, aerial photographs, and maps. Specific information concerning any special-status species observed on site was recorded on appropriate data sheets. All surveys were conducted in accordance with published resource agency survey protocols, where they exist, or consistent with accepted survey methodologies for the particular species when published protocols did not exist. A summary of surveys dates, surveyors, and methodologies are provided in **Table 4.3-2, Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into This EIR**. The survey reports referenced in **Table 4.3-2**, which includes additional information on specific methods used during the course of field surveys, are included in **Appendix 4.3**.

¹⁰ The CNDDDB Map is available on the California Department of Fish and Game website at www.dfg.ca.gov/biogeodata/cnddb/rarefind/asp (last accessed July 22, 2009).

Table 4.3-2
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into This EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
Plant Surveys	FLx ¹¹	May 5–7, 2001	Focused plant surveys were conducted in the northeast portion of the Mission Village project site (referred to as Airport Mesa at the time) by FLx in 2002. The surveys were floristic in nature and were conducted according to accepted scientific protocol. Vegetation types and plant species associations were noted and their dominant species recorded.
		October 16–17, 2002	
		April 14–27	
		May 31–June 3	
		June 15–17, and September 13–16, 2004	
		April 18–28, 2005	
		April 24 and May 5, 2006	
	Dudek ¹²	May–August, 2002;	Focused plant surveys were conducted in portions of the Specific

¹¹ FLx, *Rare Plant Surveys: Newhall Ranch Specific Plan Project Sites, Los Angeles County, California* (2002); FLx, *Rare Plant Survey for Helianthus sp., River Village and Water Reclamation Plant, Los Angeles County, California* (2002); FLx, *Rare Plant Survey for Helianthus sp.; Castaic Junction, Los Angeles County, California* (2002); FLx, *Sensitive Plant Species Surveys: Santa Clara River, Newhall Ranch/Valencia Company Project Sites, Los Angeles County, California* (2004); FLx, “Sensitive Plant Species Surveys at the Magic Mountain Entertainment Site Fireworks Area” (2004); FLx, “Sensitive Plant Species Surveys at the Magic Mountain Entertainment Site Fireworks Area” (2005); FLx, “Sensitive Plant Species Surveys at the Magic Mountain Entertainment Site Fireworks Area” (2006); FLx, “Sensitive Plant Species Survey for the Potrero Irrigation Project” (2006).

¹² Dudek and Associates, Inc., *2002 Sensitive Plant Survey Results for Newhall Ranch Specific Plan Area, Los Angeles County, California* (2002); Dudek and Associates, Inc., *2002 Sensitive Plant Survey Results for Entrada [Magic Mountain Entertainment], Los Angeles County, California* (2003); Dudek and Associates, Inc., *2002 Sensitive Plant Survey Results for the Valencia Commerce Center, Los Angeles County, California* (2003). Dudek and Associates, Inc., “Survey Results for Sensitive Plant Species within Water Well 206” (2003); Dudek and Associates, Inc., *2003 Sensitive Plant Survey Results for the Isola and Ventura Homestead Sites, Los Angeles County, California* (2004); Dudek and Associates, Inc., *2003 Sensitive Plant Survey Results for the Valencia Commerce Center, Los Angeles County, California* (2004); Dudek and Associates, Inc., *2003 Sensitive Plant Survey Results for Newhall Ranch Specific Plan Area, Los Angeles County, California* (2004); Dudek and Associates, Inc., *2003 Sensitive Plant Survey Results for the Castaic Junction Site, Los Angeles County, California* (2004); Dudek and Associates, Inc., *2003 Sensitive Plant Survey Results for the Magic Mountain Entertainment Site, Los Angeles County, California* (2004); Dudek and Associates, Inc., *2004 Sensitive Plant Survey Results for the Newhall Ranch Specific Plan Area, Los Angeles County, California* (2004); Dudek and Associates, Inc., *2004 Sensitive Plant Survey Results for the Valencia Commerce Center, Los Angeles County, California* (2004); Dudek and Associates, Inc., *2004 Sensitive Plant Survey Results for the Entrada Site, Los Angeles County, California* (2004); Dudek and Associates, Inc., *2003 Sensitive Plant Survey Results for the Salt Creek Site, Los Angeles County, California* (2004). Dudek and Associates, Inc., *2005 Sensitive Plant Survey Results for the Newhall Ranch Specific Plan Area, Los Angeles County, California* (2006); Dudek and Associates, Inc., *2005 Sensitive Plant*

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
		May–August, 2003; April–July, 2004; May–July, 2005; April–August 2006; May–July 2007; ongoing	Plan area, Salt Creek area, and the Valencia Commerce Center (VCC) and Entrada planning areas for special-status species. The survey area included the Mission Village site. The surveys were floristic in nature and were conducted according to accepted scientific protocol. Survey methods varied slightly within the different study areas, but included focused surveys for the CNPS List 1 and 2 species and focused surveys for San Fernando Valley spineflower within areas identified by CDFG staff and in the remaining vegetation within the study areas.
Vegetation Community Surveys	Dudek ¹³	November and December 2005; July and August 2006	Biologists conducted vegetation community mapping throughout the Specific Plan and Salt Creek areas, and the VCC and Entrada planning areas. Vegetation community and land cover classifications used in these reports primarily follow the Vegetation Classification and Mapping Program “List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database.” ¹⁴

Survey Results for the Entrada [Magic Mountain Entertainment] Site, Los Angeles, California (2006); Dudek and Associates, Inc., 2005 Sensitive Plant Survey Results for the Valencia Commerce Center, Los Angeles, California (2006); Dudek and Associates, Inc., 2006 Sensitive Plant Survey Results for the Newhall Ranch Specific Plan Area, Los Angeles County, California (2006); Dudek and Associates, Inc., 2006 Sensitive Plant Survey Results for the Entrada [Magic Mountain Entertainment] Site, Los Angeles, California (2006); Dudek and Associates, Inc., 2006 Sensitive Plant Survey Results for the Valencia Commerce Center, Los Angeles, California (2006).

¹³ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area* (2006); Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch Specific Plan Area, Los Angeles County, California* (2006); Dudek and Associates, Inc., *Biological Resources Technical Report for the Valencia Commerce Center, Los Angeles County, California* (2006); Dudek and Associates, Inc., *Biological Resources Technical Report for the Entrada Site, Los Angeles County, California* (2006).

¹⁴ CDFG (California Department of Fish and Game). 2003. “List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database.” *California Natural Diversity Database*. Vegetation Classification and Mapping Program. September 2003.

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
Oak Tree Surveys	Impact Sciences, Land Design Consultants, Richard Johnson & Associates, Inc., Dudek ¹⁵	2003–2006	Biologists conducted on-site surveys and evaluations of the oak trees pursuant to the Los Angeles County Oak Tree Ordinance (CLAOTO) from 2003 through 2006. The specific area was covered on foot through areas where oak trees occur within the proposed project development area (including a 200-foot buffer). Oak trees were surveyed from the base of each tree. Oak trees subject to CLAOTO were also mapped within the VCC and Entrada planning areas. In addition, to comply with Public Resources Code Section 21083.4, biologists surveyed the site's oak woodlands, which are defined as areas with at least 10% cover by oak trees with an understory of non-grass vegetation and at least 20% cover by oak trees with an understory of grass vegetation. Oak/grass includes areas where oak trees comprise between 10% and 20% of the total cover with an understory of grass vegetation. These surveys not only captured oak woodland habitat, but also the entire range of oak trees in terms of size and maturity, including those trees that are five (5) inches or greater in diameter, measured at breast height, as identified in Public Resources Code Section 21083.4(a). Tree stands (tree groupings) outside of these areas, in undisturbed or preserved areas, were delineated on aerial images and evaluated in the field via a sampling protocol and later statistically analyzed for population estimates. Oak woodlands were mapped during the Vegetation

¹⁵ Impact Sciences, Inc., *Newhall Ranch Oak Tree Survey* (2006); Impact Sciences, Inc., *Mission Village Oak Tree Report, Los Angeles County, California* (2006); Impact Sciences, Inc., *Landmark Village Planning Area Oak Tree Report, Los Angeles County, California* (2006); County of Los Angeles, *EIR for the Newhall Ranch Specific Plan*; Land Design Consultants, *Entrada Oak Tree Report* (2007); Richard Johnson & Associates, Inc., *Arborist Survey Report for Valencia Commerce Center VTPM 18108, Los Angeles County, California* (2007); Dudek, "Oak Tree Estimate for High Country SMA and the Salt Creek Area" (2007); Impact Sciences, Inc., *Easterly Extension of Magic Mountain Parkway, Oak Tree Report, Los Angeles County, California* (2006); Impact Sciences, Inc., "Oak Tree Report: Mission Village VTTM 61105 Los Angeles County, California March 2010 update" (2010).

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
			Community Surveys.
Jurisdictional Delineation of Waters and Streambeds	URS ¹⁶	2003	The focus of the delineation was the Santa Clara River and its tributaries within the Specific Plan area. Published Corps/CDFG delineation protocols were utilized in the field.
	Glenn Lukos Associates, Inc ¹⁷	2006	The focus of the delineation was the Santa Clara River and its tributaries within the Entrada planning area. Published Corps/CDFG delineation protocols were utilized in the field.
Invertebrates (Fairy Shrimp)	Dudek ¹⁸	December 2007– March 2008	Wet season vernal pools surveys were conducted in five previously identified depressions associated with western spadefoot surveys in the Specific Plan area, three in Potrero Canyon, ¹⁹ one between Lion Canyon and Grapevine Mesa, and one east of Lion Canyon. ²⁰ Two of the five depressions retained water in 2007/2008 and were surveyed for shrimp presence.
Invertebrates (Butterflies)	Compliance Biology, Guy Bruyey ²¹	April and May 2004	The RMDP site and the Entrada planning area were surveyed to determine the presence or absence of San Emigdio blue butterfly, quino checkerspot butterfly, and their associated host plants. A general butterfly inventory was also conducted.
		April and May 2005	The Salt Creek Canyon Preservation area was surveyed to determine the presence or absence of San Emigdio blue butterfly,

¹⁶ URS, *Jurisdiction Delineation, Newhall Ranch Project for a Portion of the Santa Clara River and its Tributaries, Los Angeles County, California* (2003).

¹⁷ Glenn Lukos Associates, Inc., "Jurisdictional Delineation for Entrada, an Approximately 850-Acre Property in Los Angeles County, California" (2006).

¹⁸ Dudek, *Wet Season Presence/Absence Survey for Vernal Pool Branchiopods for Newhall Ranch, Los Angeles County, California* (2008).

¹⁹ Dave Crawford, Compliance Biology, Inc., telephone call to Sherri Miller (Dudek), November 2007.

²⁰ Compliance Biology, Inc., *Results of the Focused Western Spadefoot Toad Surveys on the Mission Village Project Site* (2006).

²¹ Compliance Biology, Inc., *Results of Butterfly Surveys on the Newhall Ranch Project Site, Los Angeles County, California* (2004); Compliance Biology, Inc., *Results of Butterfly Surveys on Newhall Land, Stevenson Ranch Phase V Site, Los Angeles County, California* (2004); Compliance Biology, Inc., *Results of Butterfly Surveys on Magic Mountain Entertainment Site, Los Angeles County, California* (2004); Compliance Biology, Inc., *Results of Butterfly Surveys on Newhall Salt Canyon Habitat Preservation Area, Los Angeles County, California* (2005).

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
	RECON ²²	March 15–May 10, 1999	quino checkerspot butterfly, and their associated host plants. A general butterfly inventory was also conducted. Focused surveys for quino checkerspot butterfly and its associated habitat were conducted. The survey area included the Specific Plan Phase 1 development area (the northern portion of the Specific Plan area, including the Santa Clara River Valley, Homestead Canyon, Off-Haul Canyon, San Martinez Grande, Mid-Martinez Grande, and Chiquito Canyon).
Invertebrates (Gastropods)	Dudek ²³	June 2007	Biologists conducted a site visit to the Middle Canyon Spring as well as the lower reach of the Middle Canyon drainage to document the biotic conditions of the spring area, including the presence of the undescribed snail. (In 2010, the undescribed species of snail was formally described as <i>Pyrgulopsis castaicensis</i> n. sp. ²⁴ and is referred to by its new scientific name herein.)
Invertebrates (Gastropods)	Aspen ²⁵	Five days between November 2009 and January 2010	Surveys for terrestrial snails focused on microhabitats within California annual grassland, coastal scrub, riparian woodland, riparian scrub, big sagebrush scrub, mulefat scrub, oak woodland, and chaparral where these species have the potential to occur. Surveyed microhabitats included, but were not limited to, brush and debris piles, rock piles, isolated rocks, leaf litter, logs, trash/debris piles, and other unique features that may provide soil moisture or refugia. These areas were searched by raking through leaf and stick litter, visually inspecting cracks and crevices, and turning over objects, such as logs and rocks.

²² RECON, *Quino Checkerspot Butterfly Habitat Assessment for Phase 1 Development and Permit Areas of Newhall Ranch* (1999).

²³ Dudek, *Draft Middle Canyon Spring Survey and Status Report*. Prepared for Newhall Land and Farming (2007).

²⁴ R. Hershler and H. Liu, 2010. "Two New, Possibly Threatened Species of *Pyrgulopsis* (Gastropoda: Hydrobiidae) From Southwestern California," *Zootaxa* 2243:1-17.

²⁵ C. Huntley, "Re: Snail Methods, etc." Email from C. Huntley (Aspen) to P. Behrends (Dudek), A.C. Lynch (Sohagi Law Group), D. Bedford (CDFG), K. Drewe

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
Invertebrates (General Insects)	Jones et al. CSU, Fullerton ²⁶	April and May 2004	An observational and sampling study of potential pollinators of the San Fernando Valley spineflower was conducted in areas occupied by the spineflower, resulting in a compilation of the insects occurring in these areas.
Semi-Aquatic Amphibians (Frogs, Toads, and Salamanders) and Reptiles; Fish	RECON ²⁷	March 15–May 30, 1999	Surveys for arroyo toads were conducted along portions of the Santa Clara River and Castaic Creek within the Specific Plan and VCC planning areas using USFWS survey protocols.
	White and Leatherman BioServices ²⁸	2000	Habitat assessment for arroyo toad habitat was conducted at Tesoro del Valle along the San Francisquito Creek, east of the project area.
	Ecological Sciences ²⁹	April–June 2001	USFWS protocol surveys for arroyo toad were conducted along portions of the Santa Clara River, Castaic Creek, San Francisquito Creek, Santa Clara River South Fork, and Bouquet

(CDFG), S. White (Aspen), M. Carpenter (Newhall Land), S. Rojas (Newhall Land), and S. Miller (Dudek), March 12, 2010.

²⁶ C.E. Jones et al., *Newhall Ranch Investigation of the San Fernando Valley Spineflower* (2004).

²⁷ RECON, *Survey for Arroyo Southwestern Toad for Newhall Ranch* (1999).

²⁸ White and Leatherman BioServices, "Results of Arroyo Toad Habitat Assessment at Tesoro del Valle" (2000).

²⁹ S.D. Cameron, "Permit Submittal Requirement, TE-808242, Arroyo Toad Surveys, Los Angeles County, California." (2001); Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, Castaic Creek, Santa Clarita, California" (2005); Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, San Francisquito Creek, Santa Clarita, California" (2005); Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, Castaic Creek, Santa Clarita, California" (2003); Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, Castaic Reservoir Site, Santa Clarita, California" (2003); Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, Hart/Pony Baseball Site and Hart/Pony Commercial Site, Santa Clarita, California" (2003); Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, NRMP Project Area, Santa Clarita, California" (2003); Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, Round Mountain Site, Santa Clarita, California" (2003); Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, Soledad Site, Santa Clarita, California" (2003); Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, Castaic Creek, Santa Clarita, California" (2004); Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, Portions of Santa Clara River/South Fork, Santa Clarita, California" (2004); Ecological Sciences, Inc. "Results of Focused Arroyo Toad Surveys, NRMP Soledad/Riverpark Area, Santa Clarita, California" (2004); Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, San Francisquito Creek, Santa Clarita, California" (2004).

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
			Creek within the Specific Plan and VCC planning areas.
		April-June 2005	USFWS protocol surveys for arroyo toad were conducted along portions of the Castaic Creek and San Francisquito Creek within the Specific Plan and VCC planning areas.
		March-June 2003	USFWS protocol surveys for arroyo toad were conducted along portions of the Santa Clara River, Castaic Creek, Castaic Reservoir site, San Francisquito Creek, South Fork of the Santa Clara River, and Bouquet Creek within the Specific Plan and VCC planning areas.
		March-June 2004	USFWS protocol surveys for arroyo toad were conducted along portions of the Santa Clara River and the South Fork of the Santa Clara River, and Castaic Creek within the Specific Plan and VCC planning areas.
	Impact Sciences ³⁰	April-June, 2001	USFWS protocol surveys for arroyo toad were conducted in portions of the Santa Clara River and adjacent uplands from near the confluence of Castaic Creek, downstream to the Los Angeles County border, within the Specific Plan and VCC planning areas. Surveys were also conducted within the Natural River Management Plan area. Surveys for southwestern pond turtle and two-striped garter snake were conducted concurrently with the arroyo toad surveys. ³¹

³⁰ Impact Sciences, Inc., *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians within the Natural River Management Plan Area, Valencia, California* (2001).

³¹ Surveys for the southwestern pond turtle primarily were visual surveys and were not conducted using the U.S. Geological Survey protocols for visual and trapping surveys (U.S. Geological Survey, *Western Pond Turtle (Emys marmorata) Visual Survey Protocol for the Southcoast ecoregion* (2006), *Western Pond Turtle (Emys marmorata) Trapping Survey Protocol for the Southcoast Ecoregion* (2006)). The USGS surveys are designed to provide systematic habitat assessment and population estimates and are more rigorous than presence/absence surveys. The USGS surveys have not been adopted nor required for the purpose of CEQA analyses.

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
	Sandburg, Nancy ³²	May 8–May 29, 2001	Focused surveys for arroyo toad and California red-legged frog east of the project area, along the Santa Clara River from the River’s End vacation park to the Transit Mix Concrete Company mine. These were not conducted using USFWS survey protocols.
	BonTerra Consulting ³³	2003	Surveys were conducted in 35 earth-bottom channels, including some channels in the project area for unarmored threespine stickleback and Santa Ana sucker.
	Compliance Biology ³⁴	March 19–June 25, 2004	USFWS protocol surveys for arroyo toad were conducted in portions of the Santa Clara River and adjacent uplands near the confluence of Castaic Creek, downstream to the Los Angeles County border within the Specific Plan and VCC planning areas. Surveys for southwestern pond turtle and two-striped garter snake were conducted concurrently with the arroyo toad surveys.
		March 10 and March 23, 2004	Surveys for potential western spadefoot toad breeding habitat were conducted in the Mission Village area within the Specific Plan area during the known breeding season. Surveys consisted of habitat evaluations with a focus on the presence of temporary or seasonal rain pools. All flat lowland areas were surveyed for standing water, dirt roads were inspected for deep road ruts that may fill with rainwater, and temporary man-made retention basins were surveyed.
		May 9 and May 23,	Surveys for potential western spadefoot toad breeding habitat

³² Nancy Sandburg, “Field Summary of Santa Clara River Surveys for *Bufo californicus* and *Rana aurora draytonii*, May 8 through May 29, 2001” (2001).

³³ BonTerra Consulting, *Los Angeles County Soft Bottom Channels 2003 Focused Survey Results* (2003).

³⁴ Compliance Biology, Inc., *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians, River Village Project; Newhall Ranch, Valencia, California* (2004); Compliance Biology, Inc., “Results of Focused Western Spadefoot Toad Surveys on the River Village Project Site and Associated Borrow Sites” (2004); Compliance Biology, Inc., *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians, Newhall Ranch, Valencia, California* (2004); Compliance Biology, Inc., *Results of the Focused Western Spadefoot Toad Surveys on the Castaic Mesa Project Site* (2006); Compliance Biology, Inc., *Results of the Focused Western Spadefoot Toad Surveys on the Mission Village Project Site*.

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
		2004	were conducted in the River Village project site and associated borrow sites (now referred to as Landmark Village). Surveys consisted of habitat evaluations with focus on the presence of temporary or seasonal rain pools. All flat lowland areas were surveyed for standing water, dirt roads were inspected for deep road ruts that may fill with rainwater, and temporary man-made retention basins were surveyed.
		May 12, 2004	Surveys for potential western spadefoot toad breeding habitat were conducted in the West Creek area near Copperhill Drive and San Francisquito Creek. Surveys consisted of habitat evaluations with focus on the presence of temporary or seasonal rain pools. All flat lowland areas were surveyed for standing water, dirt roads were inspected for deep road ruts that may fill with rainwater, and temporary man-made retention basins were surveyed.
		February–March 2006	Surveys for potential western spadefoot toad breeding habitat were conducted in the Castaic Mesa area upstream of the VCC planning area near Castaic Lagoon. Surveys consisted of habitat evaluations with focus on the presence of temporary or seasonal rain pools. All flat lowland areas were surveyed for standing water, dirt roads were inspected for deep road ruts that may fill with rainwater, and temporary man-made retention basins were

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
			surveyed.
	ENTRIX ³⁵	March 31, April 1, November 8, 10, 2004; February 1, 2005	Reconnaissance-level (non-USFWS protocol) field surveys were conducted, focusing on arroyo toad, California red-legged frog, southwestern pond turtle, two-striped garter snake, and identifying habitat within portions of the Santa Clara River floodplain between Castaic Creek and Chiquito Canyon Creek within the Specific Plan area. Limited seining and dipnetting were also conducted.
	Peter H. Bloom ³⁶	April–July 2007	USFWS protocols surveys for arroyo toad were conducted along approximately 8 miles of the Santa Clara River adjacent to the proposed Mission Village project area. The survey area encompassed all habitats within the River channel and up to 700 meters from the River in some areas.
	San Marino Environmental Associates ³⁷	May–September 1994	Surveys focused on trapping two-striped garter snake and southwestern pond turtle as part of the ARCO natural resource damage assessment.
		May–July 1995	Surveys focused on documenting presence/absence and distribution of unarmored threespine stickleback, arroyo chub, Santa Ana sucker, arroyo toad, California red-legged frog, and western spadefoot toad. Surveys did not use the USFWS survey protocol. Surveys included the Santa Clara River between Castaic Creek confluence and Bouquet Canyon Road bridge within the Specific Plan, VCC, and Entrada planning areas.
	Haglund and	June 3 and July 14,	Focused surveys for unarmored threespine stickleback, arroyo

³⁵ ENTRIX, Inc., *Focused Special-Status Aquatic Species Assessment—Santa Clara River, Mission Village Project, Newhall Ranch, California* (2006); ENTRIX, Inc., *Focused Special-Status Aquatic Species Assessment—Santa Clara River, Landmark Village Project, Newhall Ranch, California* (2006).

³⁶ Peter H. Bloom, *Report on Arroyo Toad Surveys on Landmark Village, Newhall Land and Farming Company Property, Los Angeles County, California* (2007).

³⁷ San Marino Environmental Associates (SMEA), *Two-Striped Garter Snake Data, ARCO Natural Resource Damage Assessment* (1994); SMEA, *Southwestern Pond Turtle Data, ARCO Natural Resource Damage Assessment* (1994); SMEA, *Sensitive Aquatic Species Survey; Santa Clara River and San Francisquito Creek; Newhall Land and Farming Company Property; Los Angeles, California* (1995).

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
	Baskin ³⁸	2000	chub, and Santa Ana sucker were conducted using a seine in the Santa Clara River at the I-5 Bridge.
	Aquatic Consulting Services, Inc. ³⁹	May–September 2000	Reconnaissance surveys were conducted along the Santa Clara River within the Specific Plan, Entrada, and VCC planning areas in the following areas: Castaic Junction, Commerce Center Bridge, west of Commerce Center Bridge to the Ventura County line, and Ventura County line to Las Brisas Bridge. Surveys focused on aquatic habitats with emphasis on state and federally listed species. In addition, other species of fish, amphibians, and reptiles were also surveyed.
	Impact Sciences ⁴⁰	March–June 2002	Focused surveys were conducted for unarmored threespine stickleback and other special-status fish species in the portion of the Santa Clara River from near its confluence with Castaic Creek, (east) upstream approximately 7.2 miles.
September 16 and 25, 2002		Focused surveys were conducted for unarmored threespine stickleback and other special-status fish species in the Natural River Management Plan area.	
May 2003		Focused surveys were conducted for unarmored threespine stickleback and other special-status fish species in Castaic Mesa and Castaic Creek.	

³⁸ T.R. Haglund and J.N. Baskin, *Fish and Wildlife Survey and Habitat Assessment of the Santa Clara River at Interstate 5* (2000).

³⁹ Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part II: Commerce Center Bridge Project Area, Los Angeles County, California* (2002); Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part III: West of Commerce Center Bridge to the Ventura County Line, California* (2002); Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part IV: Ventura County Line to Las Brisas Bridge, Ventura County, California* (2002); Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part I: Castaic Junction Project Area, Los Angeles County, California* (2002).

⁴⁰ Impact Sciences, Inc., *Results of Focused Surveys for Unarmored Threespine Stickleback and Other Special-Status Fish Species; Newhall Ranch, Valencia, California* (2003); Impact Sciences, Inc., *Results of Focused Surveys for Unarmored Threespine Stickleback and Other Special-Status Fish Species; Natural River Management Plan Area, Valencia, California* (2003); Impact Sciences, Inc., *Annual Status Report for Unarmored Threespine Stickleback within the Natural River Management Plan Area, Valencia, California* (2003); Impact Sciences, Inc., *Results of Focused Surveys for Unarmored Threespine Stickleback and Other Special-Status Fish Species; Castaic Mesa, Castaic Creek, Los Angeles County, California* (2003).

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
	UCLA, Thomas Haglund, Ph.D. ⁴¹	2004–2005	The report presents the results of a field and laboratory study on the occurrence of threespine stickleback in portions of the Santa Clara River on the Specific Plan site.
	ENTRIX ⁴²	2004–2005	This report summarizes the focused assessment of fish presence, aquatic habitat quality and quantity, and potential project effects on threatened or endangered fish species inhabiting the Newhall Ranch reach of the Santa Clara River as well as tributary drainages to the Santa Clara River. This assessment covered the mainstem Santa Clara River from Salt Creek Canyon upstream to the Middle Canyon confluence and included the Salt Creek and Potrero Creek tributaries. Specifically, this report focused on potential impacts to the state and federally listed unarmored threespine stickleback and other fish species, including arroyo chub and Santa Ana sucker.
Terrestrial Reptiles	Impact Sciences ⁴³	September–October 2004; August 2006	Pitfall trap lines were located throughout the Specific Plan area in representative habitat types in September and October 2004 and August 2006. All pitfall traps were active (open) for five consecutive days and nights, and they were checked once per day (in the morning). All captured animals were identified and released. For surveys for silvery legless lizard, 40 hours of hand raking were conducted in the late afternoons in October 2004 in areas with sandy or loose soil within suitable habitat (scrub,

⁴¹ Thomas Haglund, *Current Status of the Unarmored Threespine Stickleback (Gasterosteus aculeatus williamsoni) along Portions of the Santa Clara River Drainage* (1989).

⁴² ENTRIX, Inc., *Focused Special-Status Fish Species Habitat Assessment—Santa Clara River and Tributary Drainages, Newhall Ranch, Los Angeles County, California* (2009).

⁴³ Impact Sciences, Inc., *2004 and 2006 Reptile Survey Results, Newhall Ranch Specific Plan Area, Los Angeles County, California* (2006).

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
Birds	Daniel Guthrie ⁴⁴	1988–2006; ongoing	chaparral, sycamore, cottonwood, and oak communities). Annual bird surveys, including protocol surveys for California

⁴⁴ Daniel Guthrie, *Status of the Least Bell's Vireo along the Santa Clara River and Its Tributaries near Valencia, California, Spring 1988* (1988); Daniel Guthrie, *Status of the Least Bell's Vireo along the Santa Clara River and Its Tributaries near Valencia, California, Spring 1989* (1989); Daniel Guthrie, *Birds along the Santa Clara River and Its Tributaries near Valencia, California, with Special Reference to Least Bell's Vireo; Spring 1990* (1990); Daniel Guthrie, *Surveys for Least Bell's Vireo Along the Santa Clara River and Its Tributaries near Valencia* (1991); Daniel Guthrie, *Surveys along Castaic Creek for least Bell's Vireo* (1991); Daniel Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California* (1992); Daniel Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California* (1993); Daniel Guthrie, *Bird Surveys along the Santa Clara River, 1993; Castaic Creek Downstream to just below Newhall Ranch* (1993); Daniel Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California* (1994); Daniel Guthrie, *Bird Surveys along the Santa Clara River, 1994; Castaic Creek Downstream to just below Las Brisas Crossing* (1994); Daniel Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1995* (1995); Daniel Guthrie, *Bird Surveys along the Santa Clara River, 1995; Castaic Creek Downstream to just below Las Brisas Crossing* (1995); Daniel Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1996* (1996); Daniel Guthrie, *Bird Surveys along the Santa Clara River, 1996; Castaic Creek Downstream to just below Las Brisas Crossing* (1996); Daniel Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1997* (1997); Daniel Guthrie, *Bird Surveys along the Santa Clara River, 1997; Castaic Creek Downstream to just below Las Brisas Crossing* (1997); Daniel Guthrie, *Bird Surveys along the Santa Clara River, 1998; Castaic Creek Downstream to just below Las Brisas Crossing* (1998); Daniel Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1998* (1998); Daniel Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 1999* (1999); Daniel Guthrie, *Bird Surveys in the Proposed Riverwood Project Area, near Valencia, California* (1999); Daniel Guthrie, *Bird Surveys along the Santa Clara River, 1999; Ventura County Line Downstream to just below Las Brisas Crossing* (1999); Daniel Guthrie, *Bird Surveys along the Santa Clara River, 2000; Mouth of Castaic Creek Downstream to the Los Angeles/Ventura County Line* (2000); Daniel Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2000* (2000); Daniel Guthrie, *Bird Surveys along the Santa Clara River; Los Angeles/Ventura County Line Downstream to Just Below Las Brisas Crossing* (2000); Daniel Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2001* (2001); Daniel Guthrie, *Bird Surveys along the Santa Clara River, 2001; Mouth of Castaic Creek Downstream to just below Las Brisas Crossing* (2001); Daniel Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2002* (2002); Daniel Guthrie, *Bird Surveys along the Santa Clara River, 2002; Mouth of Castaic Creek Downstream to just below Las Brisas Crossing* (2002); Daniel Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2003* (2003); Daniel Guthrie, *Bird Surveys along the Santa Clara River, 2003; Mouth of Castaic Creek Downstream to just below Las Brisas Crossing* (2003); Daniel Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2004* (2004); Daniel Guthrie, *Bird Surveys along the Santa Clara River, 2004; Mouth of Castaic Creek Downstream to just below Las Brisas Crossing* (2004); Daniel Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California* (2005); Daniel Guthrie, *Bird Surveys along the Santa Clara River, 2005; Mouth of Castaic Creek Downstream to just below Las*

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
			gnatcatcher, least Bell's vireo, and southwestern willow flycatcher, have been conducted annually that include the Mission Village project site. Protocol surveys for least Bell's vireo and southwestern willow flycatcher were most recently conducted on the Mission Village project site in 2006, while protocol surveys for California gnatcatcher were most recently conducted on the project site in 2004.
	BonTerra Consulting ⁴⁵	2003	USFWS protocol surveys were conducted in 35 earth-bottom channels for least Bell's vireo and southwestern willow flycatcher. The 1997 report is a follow up to the Labinger <i>et al.</i> 1996 survey and contains an additional section regarding the presence of other special-status species identified during the survey. The 1998 and 1999 reports focused on least Bell's vireo monitoring, as well as documenting other avian species. These surveys focused on impacts to the avian community and impacts to listed species, including monitoring of known least Bell's vireo population; other surveys were conducted for western yellow-billed cuckoo and southwestern willow flycatcher. Although this survey was a follow-up to the 1996 survey, the overall surveyed area was increased in order to understand the distribution of endangered species and subsequent restoration planning.
	PCR ⁴⁶	1998	USFWS protocol surveys for coastal California gnatcatcher surveys were conducted in upland habitats on the east and west

Brisas Crossing (2005); Daniel Guthrie, *White-Tailed Kite Populations along the Upper Santa Clara River* (2005); Daniel Guthrie, *Bird Surveys along the Santa Clara River, 2006*; *Mouth of Castaic Creek Downstream to just below Las Brisas Crossing* (2006); Daniel Guthrie, *Bird Surveys of The Old Road Phase III Environmental Project Study Area, near Valencia, California, 2006* (2006); Daniel Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California* (2006).

⁴⁵ BonTerra Consulting, *Los Angeles County Soft Bottom Channels 2003 Focused Survey Results*.

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
			sides of Castaic Creek (upstream of the VCC planning area).
	Daniel Guthrie ⁴⁷	2000 and 2004	USFWS protocol surveys for coastal California gnatcatcher as well as surveys for other upland birds were conducted in upland portions of the Specific Plan area.
	Haglund and Baskin ⁴⁸	April–July 2000	Surveys using USFWS survey protocol for least Bell’s vireo and southwestern willow flycatcher were conducted along Santa Clara River at the I-5 Bridge.
	Impact Sciences ⁴⁹	May–June 2000	Six USFWS protocol surveys for coastal California gnatcatcher were conducted in a 156-acre portion of the Specific Plan site where California sagebrush scrub occurs.
	Compliance	2003	Six USFWS protocol surveys for coastal California gnatcatcher

⁴⁶ PCR (Planning Consultants Research), “Results of Focused California Gnatcatcher Surveys for the West Creek/East Creek Project Site, Valencia, Los Angeles County “ (1998).

⁴⁷ Daniel Guthrie, *Bird Observations for Spring 2000 in the Proposed Potrero and Long Canyon Development Area near Valencia, California* (2000); Daniel Guthrie, *Bird Observations for Spring 2000 in the Proposed Mesa Development near Valencia, California* (2000); Daniel Guthrie, *Bird Surveys in the Proposed Magic Mountain Entertainment Project Area, near Valencia, California, 2000* (2000); Daniel Guthrie, *Bird Surveys of Castaic Junction, an Area on the North Side of the Santa Clara River at the Junction of State Route 126 and Interstate 5, near Valencia, California* (2000); Daniel Guthrie, *Bird Observations for Spring 2004 in the Proposed Homestead and Chiquito Areas, near Valencia, California* (2004); Daniel Guthrie, *Bird Observations in the Commerce Center Project Site, near Valencia, California, 2004* (2004); Daniel Guthrie, *Bird Observations in the Stevenson Ranch, Phase 5 Area, near Valencia, California, 2004* (2004); Daniel Guthrie, *Bird Observations for Spring 2004 in the Proposed Potrero Valley, Long Canyon, Oak Valley and Onion Fields Development Areas near Valencia, California* (2004); Daniel Guthrie, *Bird Observations for Spring 2004 in the Proposed Mesa East and West Development near Valencia, California* (2004); Daniel Guthrie, *Bird Observations in the Proposed Magic Mountain Entertainment Project Area, near Valencia, California, 2004* (2004); Daniel Guthrie, *Bird Surveys along the Santa Clara River, 2004*.

⁴⁸ Haglund and Baskin, *Fish and Wildlife Survey and Habitat Assessment*.

⁴⁹ Impact Sciences, Inc., “Results of Focused Surveys for the Coastal California Gnatcatcher, ±156-Acre Project Site, Santa Clarita, Los Angeles County, California” (2000).

⁵⁰ Compliance Biology, Inc., *Results of Focused Coastal California Gnatcatcher Surveys; Prospective Water Tank Locations, River Park Project, Los Angeles County, California* (2003); Compliance Biology, Inc., *Results of Focused Survey for Coastal California Gnatcatcher Surveys; River Park Project, Santa Clarita, Los Angeles County, California* (2003); Compliance Biology, Inc., *Results of Focused Coastal California Gnatcatcher Surveys; Castaic Mesa Project, Los Angeles County, California* (2006); Compliance Biology, Inc., *Results of Focused California Gnatcatcher Surveys on the Valencia Commerce Center SCP Site; Los Angeles County, California* (2008).

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
	Biology ⁵⁰		were conducted in a 2-acre area in Riverpark where California sagebrush scrub occurs, upstream of the Specific Plan site by Soledad Canyon.
		2006	Six USFWS protocol surveys for coastal California gnatcatcher were conducted in an 80-acre area in Castaic Mesa where California sagebrush scrub occurs, upstream of the VCC planning area by Castaic Lagoon.
		2008	Six USFWS protocol surveys for coastal California gnatcatcher were conducted in the VCC planning area.
	SAIC ⁵¹	2003	Six USFWS protocol surveys for coastal California gnatcatcher were conducted on the Stevenson Ranch Phase V project site, adjacent to the Specific Plan area.
	Forde Biological Consultants ⁵²	May–July 2006	USFWS protocol surveys for least Bell’s vireo and southwestern willow flycatcher were conducted along Castaic Creek between Castaic Lagoon and Lake Hughes Road and Tapia Canyon Road (upstream of the VCC planning area).
	Bloom Biological, Inc. ⁵³	February–June 2007	Winter and spring bird surveys for special-status avian species and all raptors (both common and special-status) were conducted on portions of the project applicant’s property (including the Mission Village project site). The survey area encompassed all habitats within the riverbed and approximately 0.5 mile on each side of the river. The survey effort included USFWS protocol surveys for least Bell’s vireo and southwestern willow flycatcher, riparian bird surveys, raptor nest surveys, and winter burrowing owl surveys.

⁵¹ Science Applications International Corporation (SAIC), “Results of Focused Coastal California Gnatcatcher Surveys for the Stevenson Ranch Phase V Project Site, Los Angeles, California” (2003).

⁵² Forde Biological Consultants, *Least Bell’s Vireo and Southwestern Willow Flycatcher Presence-Absence Survey; Castaic Creek below Castaic Lagoon to halfway between Lake Hughes Road and Tapia Canyon Road, Castaic, Los Angeles County, California* (2006).

⁵³ P.H. Bloom and C.A. Niemela, *2007 Results of NRMP Annual Riparian Bird Surveys on the Santa Clara River Portion of Newhall Land and Farming Company Property, Los Angeles County, California* (2007).

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
	Bloom Biological, Inc. ⁵⁴	April-June 2007; ongoing	USFWS protocol focused surveys for least Bell's vireo and southwestern willow flycatcher and yellow-billed cuckoo were conducted along 25 miles of the Santa Clara River and its major tributaries.
	Bloom ⁵⁵	November 2007–February 2008	Field surveys were conducted to find special-status avian species, including raptors, with special emphasis placed on surveying abandoned agricultural fields for burrowing owls and oak woodlands for long-eared owls. Survey locations were along a 10-mile reach of the Santa Clara River and on Newhall Ranch property on both sides of SR-126 as well as in lower Salt Creek, Potrero Canyon and upland habitat. Additionally, several nights were spent surveying and camping in selected oak woodlands surrounding the Landmark Village project site in an attempt to detect the presence of long-eared owls. Surveys were conducted during daylight hours as well as up to four hours after sunset.
		November 2007–June 2008	Field surveys were conducted for white-tailed kite along the Santa Clara River from Las Brisas Bridge in Ventura County to I-5 and on all lands within Newhall Ranch, including both sides of SR-126, lower Salt Creek, and Potrero Canyon. Upon detection, foraging and nesting individuals were observed for up to several hours if possible.

⁵⁴ Ibid.

⁵⁵ Bloom Biological, Inc., *Interim Report of Winter Surveys of Special-Status Bird Species on Portions of Newhall Land and Farming Company Property (Including Newhall Ranch)*, Los Angeles County, California (2008); Bloom Biological, Inc., *Report on White-Tailed Kites on Portions of Newhall Land and Farming Company Property (including Newhall Ranch)*; Los Angeles and Ventura Counties, California (2009); Jeff Priest, "Focused California Gnatcatcher Survey, Landmark Village Project, Los Angeles County, California" (2007); Paul Lemons, "Focused California Gnatcatcher Surveys for Mission Village, Los Angeles County, California" (2008).

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
	DUDEK ⁵⁶	April-June 2007 July 2007-January 2008	Six USFWS protocol surveys for coastal California gnatcatcher were conducted in Landmark Village. Nine USFWS protocol surveys for coastal California gnatcatcher were conducted in Mission Village.
Mammals	San Marino Environmental Associates ⁵⁷	August 7-10, 2006 (bats)	Additional bat surveys were conducted within the project area to determine occurrence of, and habitat use by, bat species. Standard visual, acoustic, and mist-netting sampling methods were used to survey bats. Sampling was conducted near roosting sites and in potential foraging areas; acoustic devices and mist nests were deployed where bats were expected to fly low or in a somewhat defined air space; and visual surveys were conducted during the day and night at potential roost sites, and at dusk while observing bats in flight.
		May 1993-September 1994	This report provides results of a number of surveys conducted to document the presence of rare plants and animals within approximately 80 square miles of the Santa Clarita water district service area, which includes a portion of Los Angeles County Sensitive Ecological Area (SEA) 23 (also known as the River Corridor SMA/SEA 23). This document contains lists of anticipated species and indicates the species actually found during the surveys.
	Impact Sciences ⁵⁸	March-September 2004 July 2006	Field surveys were conducted to sample mammal species in dominant vegetation communities throughout the Specific Plan site during 2004. Survey locations were in representative dominant vegetation communities within the Specific Plan area. Five different survey methods were utilized: small mammal trapping, scent/track stations, spotlighting, cameras, and ANABAT bat detector recording.

⁵⁶ Priest, "Focused California Gnatcatcher Survey, Landmark Village Project"; Lemons, "Focused California Gnatcatcher Surveys for Mission Village."

⁵⁷ SMEA, *Rare Plant and Animal Survey; Santa Clarita Water District Service Area, Los Angeles County, California* (1995).

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
General Biological Surveys	RECON and Impact Sciences ⁵⁹	1995	This report provides general biological resources information derived from surveys conducted on the Specific Plan area and its vicinity during the spring and summer months. These surveys included habitat, vegetation identification, percentages and mapping; avian surveys; river surveys that included documentation of fish, reptiles, and amphibian species; plant species documentation; butterfly surveys; and other wildlife surveys that included small mammal trapping methods.
	Impact Sciences ⁶⁰	Spring 1999	This habitat assessment report was created based on the results of vegetation surveys along the Santa Clara River on the portion of the Specific Plan site. Data were collected based on structure and composition of habitat and were used to assess the likelihood or potential for occurrence of special-status species that may occur on this portion of the river. In addition, during this study the potential for mitigation through habitat creation or enhancement of riparian habitat was also assessed.
		1996	This report provides results from a number of surveys conducted at four sites, two of which were located within the Specific Plan area. The focus of these surveys was to study the relation between upland habitat quality and use by riparian bird species and small mammals along the edge of the Santa Clara River in order to make habitat buffer recommendations.
	Dudek ⁶¹	April through July	Biologists conducted general wildlife surveys throughout the

⁵⁸ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area, Los Angeles County, California* (2005); H.L. Johnson, "Bat Survey; August 7-10, 2006 for the Newhall Ranch, Valencia, California" (2006).

⁵⁹ RECON and Impact Sciences, Inc., *Biota Report: Newhall Ranch Specific Plan; Santa Clara River Valley, California; Tentative Tract Map 44831* (1996).

⁶⁰ RECON, *Santa Clara River Corridor Habitat Assessment for Newhall Ranch* (1999); Impact Sciences, Inc., *North Valencia Annexation Buffer Study* (1997).

⁶¹ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*; Dudek and Associates, Inc. *Biological Resources Technical Report for the Newhall Ranch Specific Plan Area*; Dudek and Associates, Inc., *Biological Resources Technical Report for*

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
		2003 November and December 2005 May through August 2006	High Country SMA/SEA 20 portion of the Specific Plan and Salt Creek areas in 2005 and within the VCC and Entrada planning areas in 2006.
	Compliance Biology ⁶²	April and May 2006	This report was conducted upstream of the VCC planning area in Castaic Mesa. The purpose was to assess the existing on-site biological conditions and the suitability of on-site habitats to support sensitive biological resources.
Newhall Ranch Mitigation Feasibility Study	Dudek & Associates ⁶³	November 7–10, November 14–18, December 19–21, 2005; and August 15–16, 2006.	The report evaluates mitigation opportunities within the Newhall Ranch Specific Plan Area, including the High Country Special Management Area, for slender mariposa lily, California sagebrush scrub, oak trees, and wetlands within the High Country Special Management area. Methods included identification, ranking, and prioritization of mitigation opportunities.
Water Quality	GeoSyntec Consultants ⁶⁴	November 2006	The Mission Village Water Quality Technical Report addresses the potential impacts of the proposed project on water quality in the Santa Clara River. Potential changes in water quality are addressed for pollutants of concern based on runoff water quality modeling, literature information, and professional judgment.

the Valencia Commerce Center; Dudek and Associates, Inc., Biological Resources Technical Report for the Entrada Site.

⁶² Compliance Biology, Inc., *Biological Resource Assessment, Castaic Mesa Project, Los Angeles County, California* (2006).

⁶³ Dudek and Associates, Inc., *Newhall Ranch Mitigation Feasibility Study* (2007).

⁶⁴ GeoSyntec Consultants, *Landmark Village Water Quality Technical Report* (2006).

Table 4.3-2 (Continued)
Biological Surveys Conducted on the Mission Village Site and Technical Reports Incorporated into EIR

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	General Methods
Flood Technical Report	PACE ⁶⁵	November 2006	The Mission Village Flood Technical Report assesses the hydrology and hydraulics of the Santa Clara River corridor as a result of proposed floodplain modifications associated with the Mission Village project. The report analyzes impacts to aquatic and riparian habitats downstream of the project site.

⁶⁵ PACE (Pacific Advanced Civil Engineering, Inc), *Flood Technical Report for the Mission Village Project* (2006).

6. BIOLOGICAL RESOURCES

a. Plant Communities and Land Uses

Field investigations identified 27 plant communities (and alliances/subassociations)⁶⁶ and three existing land use types (agriculture, developed areas, and disturbed lands) on the project site. The plant communities and land covers are described below and listed in **Table 4.3-3, Existing Vegetation Communities, Floristic Alliances and Associations, and Land Cover Types in the Project Area**. The plant communities correspond to the *Vegetation Classification and Mapping Program, List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database*⁶⁷ where applicable. Where plant communities do not fit a defined vegetation community classification, they are defined by their dominant plant species. The plant communities and land uses on the project site have been mapped as shown on **Figure 4.3-4-A1 through 4.3-4-A5, Plant Communities and Land Uses on the Mission Village Project Site**, and **Figure 4.3-4B1, Middle Canyon Spring – Existing Conditions**. A list of all plant species observed on the project site is included in **Appendix 4.3**.

⁶⁶ Alliances are named for constant dominants or codominants in the uppermost canopy layer. When a group concept contains two layers of vegetation (e.g., tall temperate grassland with sparse broad-leaved evergreen shrubs), the alliance is named after species in the dominant stratum, while the association name includes species from the dominant and uppermost strata.

Associations are named with species from the alliance name, and have additional species that represent dominants or indicators from any layer of the vegetation. When an association has several layers, an attempt is made to include species that are dominants or indicators from at least the two most dominant layers. Indicator species are those species, other than dominants, which have been chosen to distinguish an association or alliance from others like it, or to indicate specific environmental conditions that have a controlling influence on vegetation in the community. However, the indicator species are seldom limited to controlling influence on vegetation in the community. Descriptive terms such as wetland, mesic, serpentine, etc., are used sparingly, when species composition for a type is not known well enough to provide full representation using species alone.

⁶⁷ CDFG, "List of California Terrestrial Natural Communities."

**Table 4.3-3
Existing Vegetation Communities, Floristic Alliances and Associations, and Land Cover Types in the
Project Area**

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	Acreage
Grass and Herb Dominated Communities	Non-Native Grassland	California annual grassland	Not mapped to association level	82.4
Scrub and Chaparral	Coastal Scrub	California sagebrush scrub	Not mapped to association level	517.2
		California sagebrush – <i>Artemesia</i>		16.1
		California sagebrush–purple sage		132.9
		California sagebrush–black sage scrub	California sagebrush–black sage	12.9
		California sagebrush–California buckwheat scrub	Not mapped to association level	84.7
		California sagebrush scrub–undifferentiated chaparral	Not mapped to association level	15.5
		Disturbed California sagebrush scrub	Not mapped to association level	0.1
	Undifferentiated Chaparral Scrubs	Not mapped to alliance level	Not mapped to association level	35.9
	Chaparral with Chamise	Chamise chaparral	Not mapped to association level	2.6
		Chamise-hoaryleaf ceanothus chaparral	Not mapped to association level	1.8
Other Scrubs	Eriodictyon scrub	Not mapped to association level	0.6	
Broad Leafed Upland Tree Dominated	Oak Woodland and Forest	Coast live oak forest and woodland	Coast live oak woodland	31.7
		Valley oak forest and woodland	Valley oak woodland	2.3
			Valley oak/grass	3.3
Riparian and Bottomland Habitat (60.000.00)	Other Riparian/Wetland	Herbaceous wetland	Not mapped to association level	4.0
		River wash	Not mapped to association level	115.1
		Alluvial scrub	Not mapped to association level	0.5
		Big sagebrush scrub	Not mapped to association level	24.6
		Giant reed	Not mapped to association level	5.6

Table 4.3-3 (Continued)
Existing Vegetation Communities, Floristic Alliances and Associations, and Land Cover Types in the Project Area

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	Acreage
	Low to High Elevation Riparian Scrub	Arrow weed scrub	Not mapped to association level	7.6
		Mexican elderberry scrub	Not mapped to association level	5.8
		Mulefat scrub	Not mapped to association level	1.8
		Disturbed mulefat scrub	Not mapped to association level	1.1
	Riparian Forest and Woodland	Southern willow scrub	Not mapped to association level	1.5
		Tamarisk scrub and woodland	Shrub tamarisk	1.1
		Fremont cottonwood riparian forest and woodland	Southern cottonwood-willow riparian	109.2
Man-Made Land Cover Types	Agriculture	N/A	224.4	
	Developed land	N/A	8.1	
	Disturbed land	N/A	404.3	
			Total	1,854.5

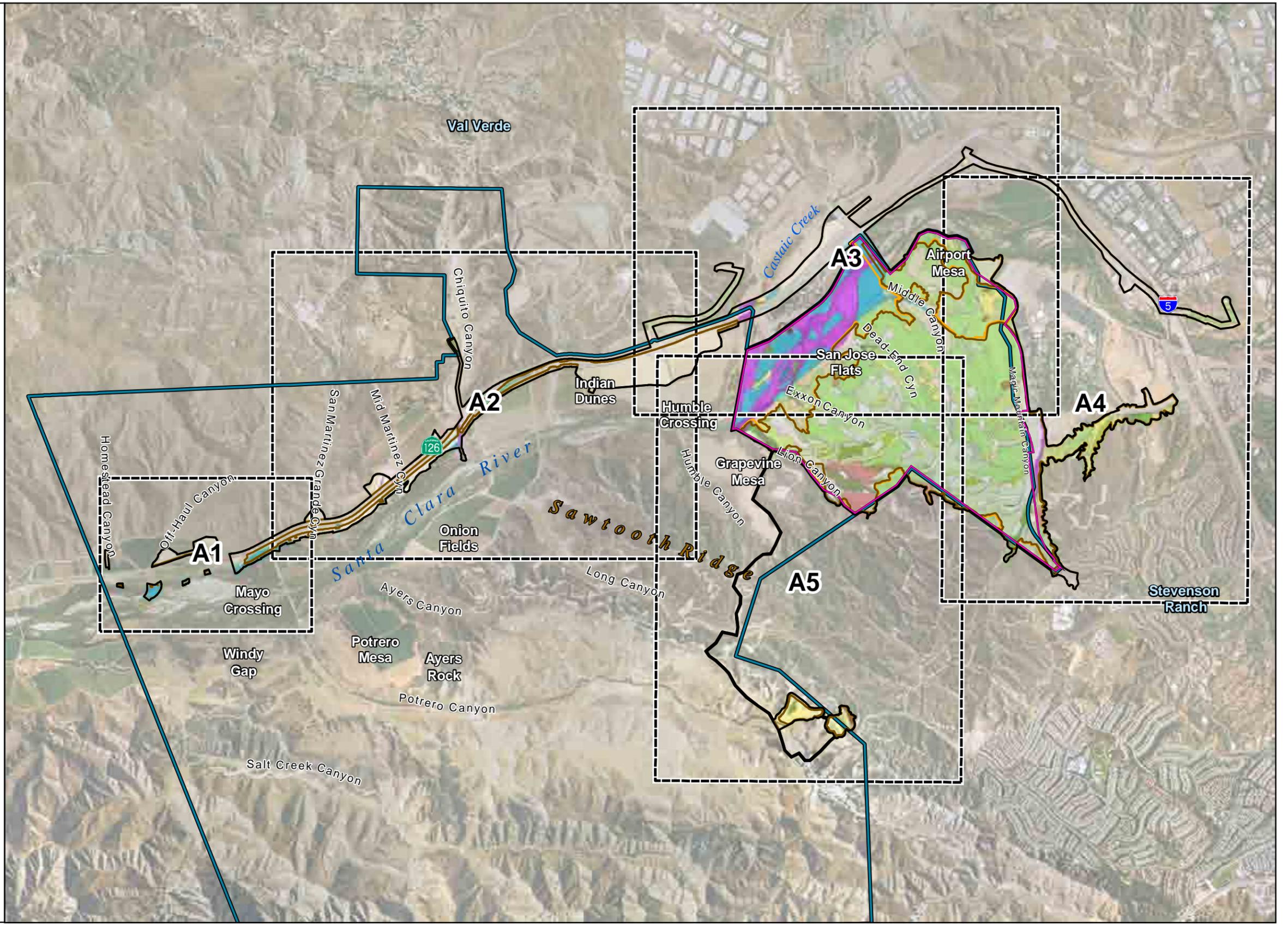
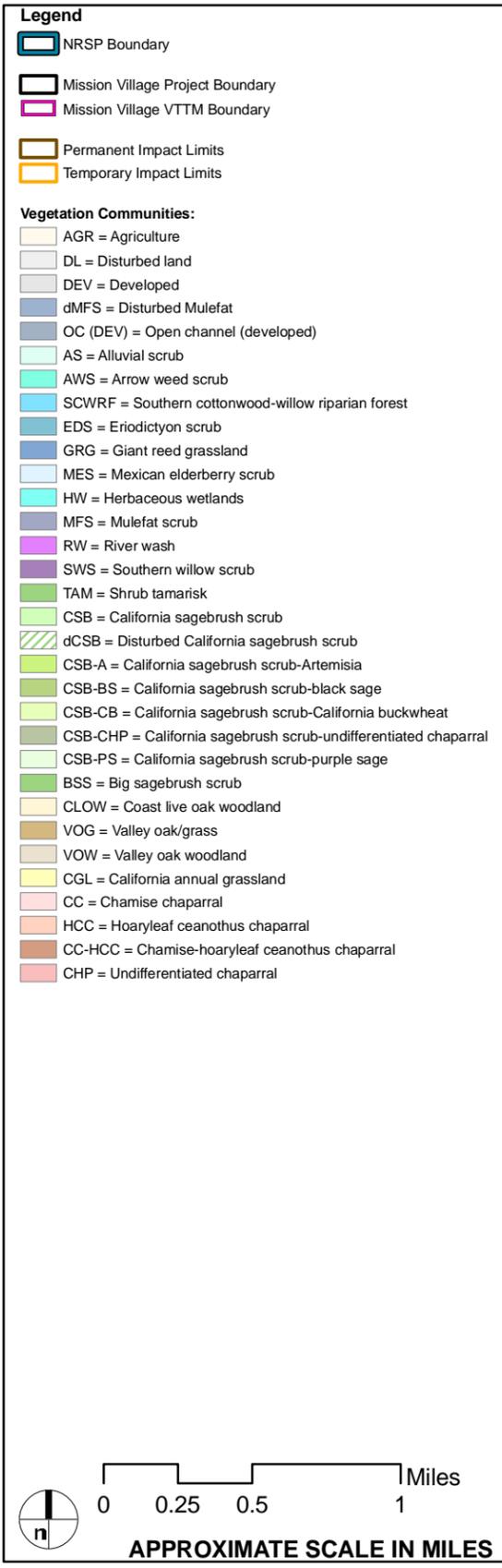


IMAGE SOURCE: DigitalGlobe 2007

FIGURE 4.3-4

Mission Village EIR

Plant Communities and Land Uses at the Mission Village Project Site



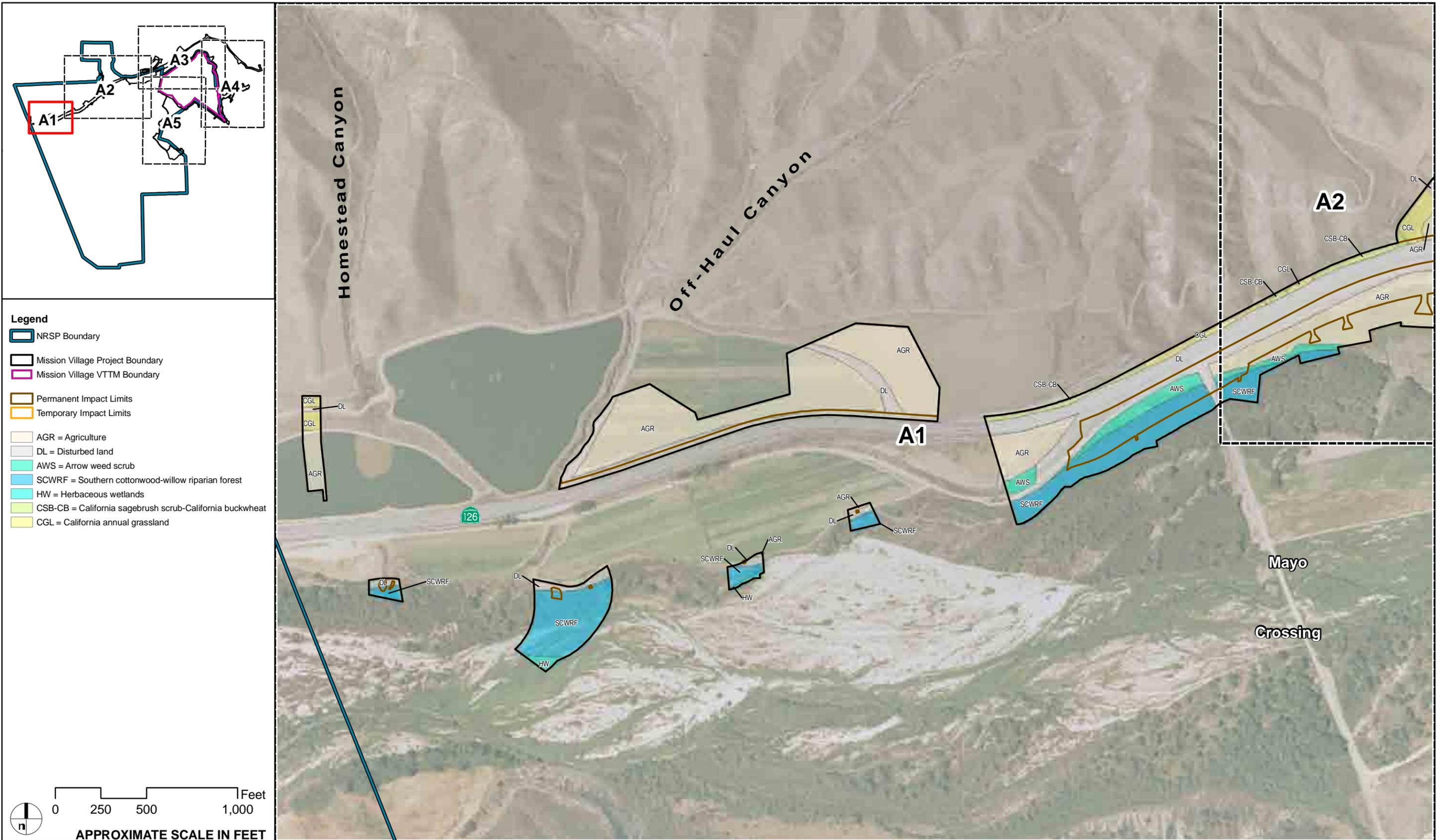


FIGURE 4.3-4-A1

Mission Village EIR

Plant Communities and Land Uses at the Mission Village Project Site

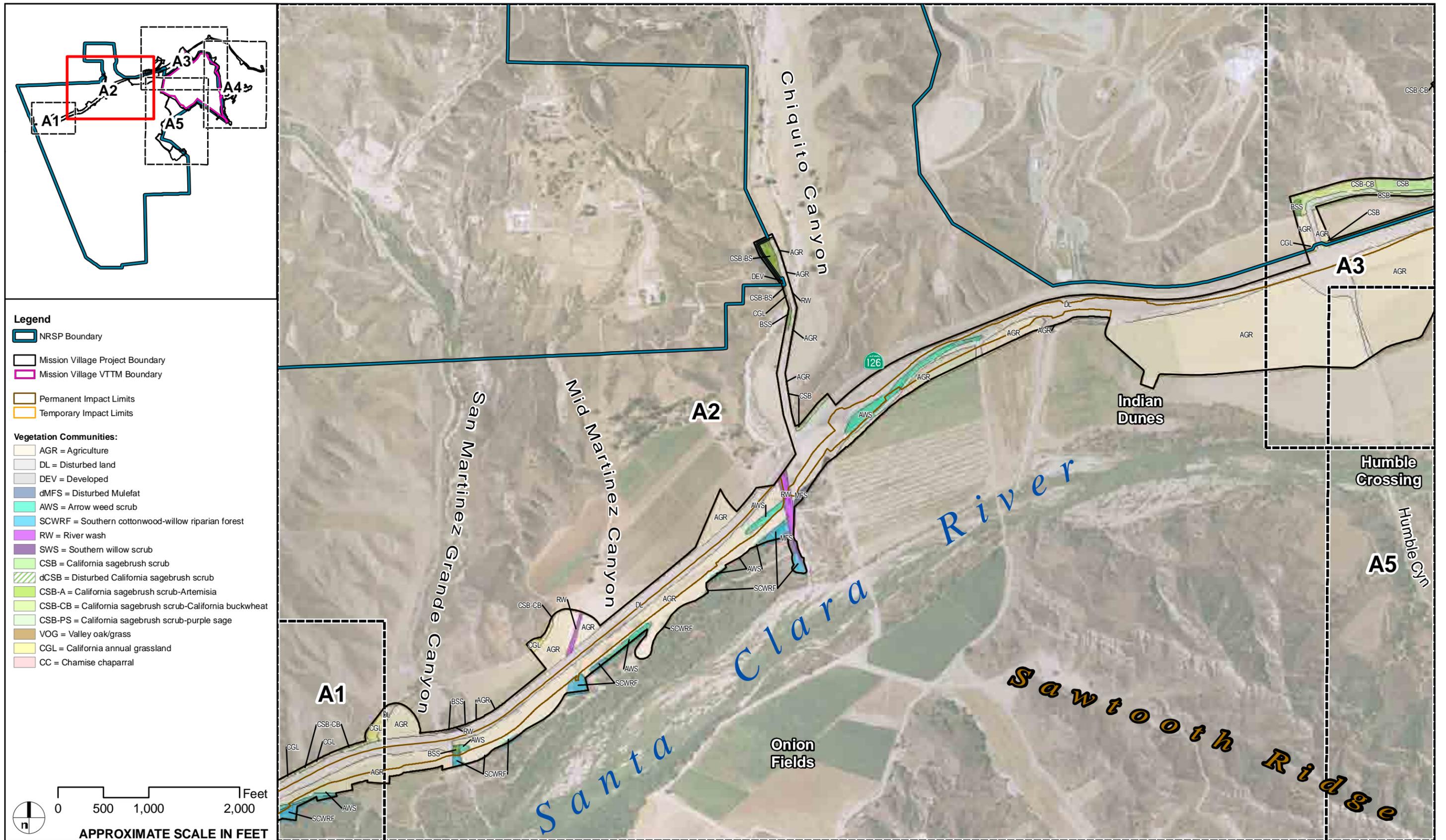


IMAGE SOURCE: DigitalGlobe 2007

FIGURE 4.3-4-A2

Mission Village EIR

Plant Communities and Land Uses at the Mission Village Project Site

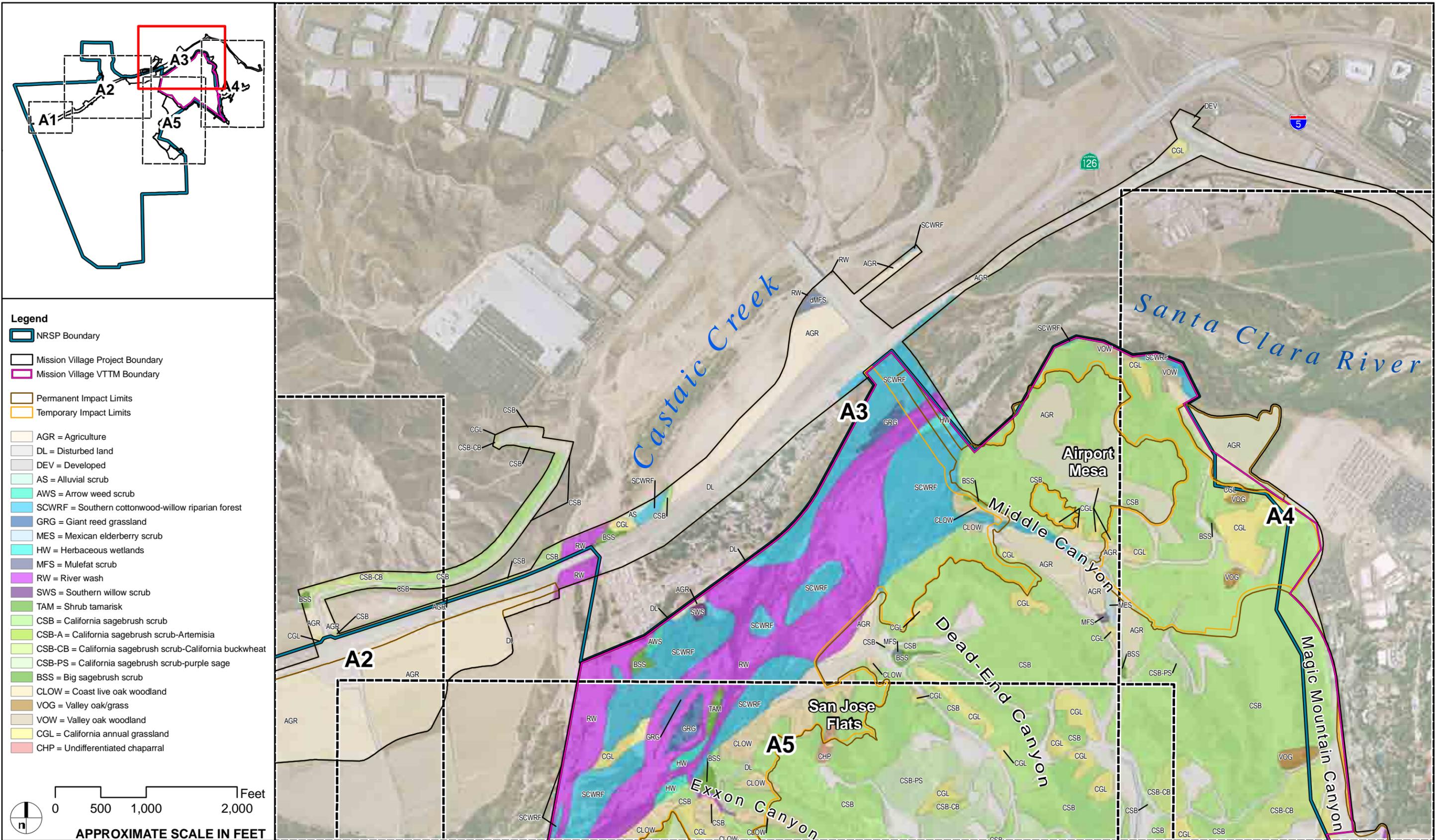


IMAGE SOURCE: DigitalGlobe 2007

FIGURE 4.3-4-A3

Mission Village EIR

Plant Communities and Land Uses at the Mission Village Project Site

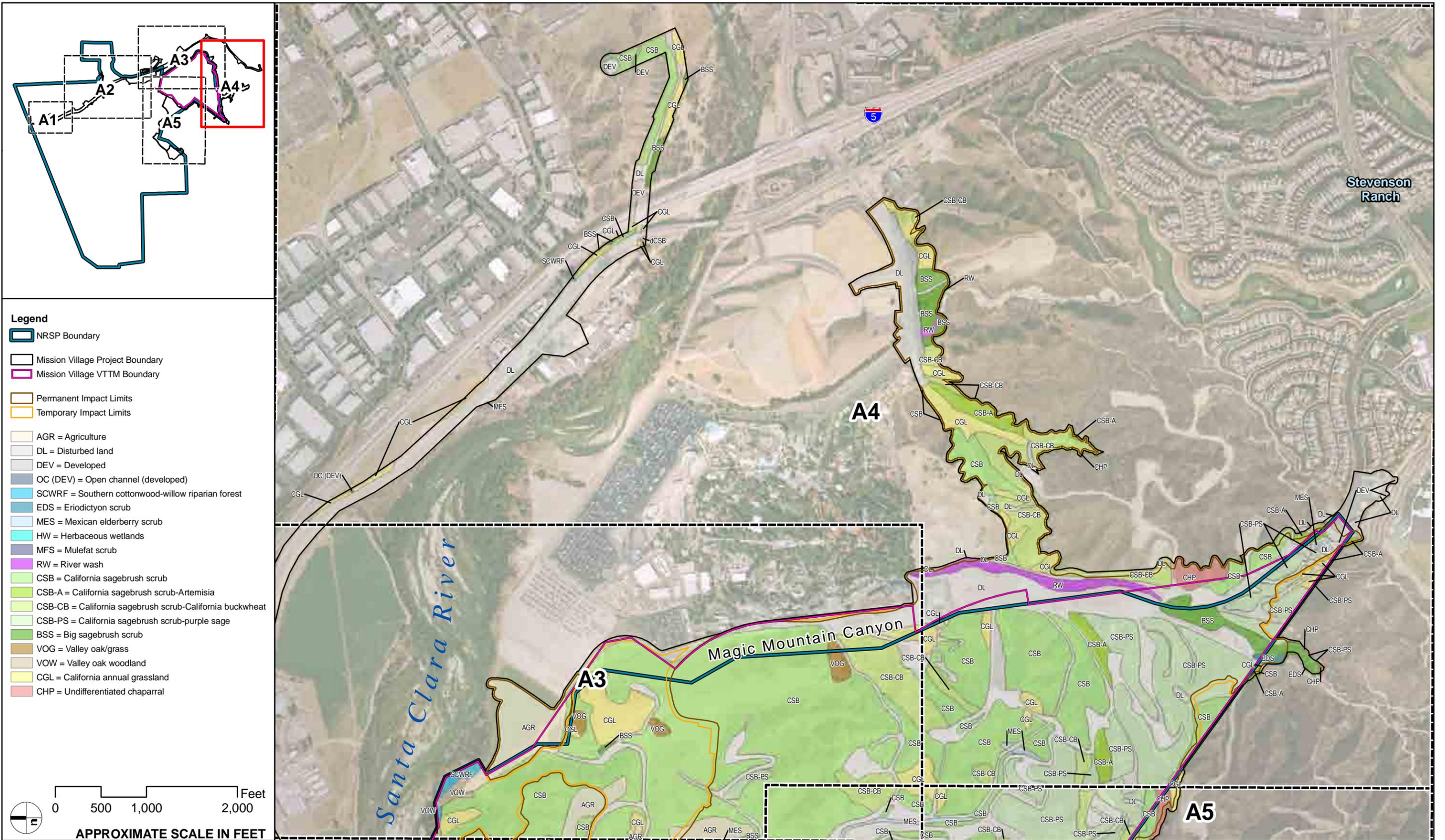


FIGURE 4.3-4-A4

Mission Village EIR

Plant Communities and Land Uses at the Mission Village Project Site

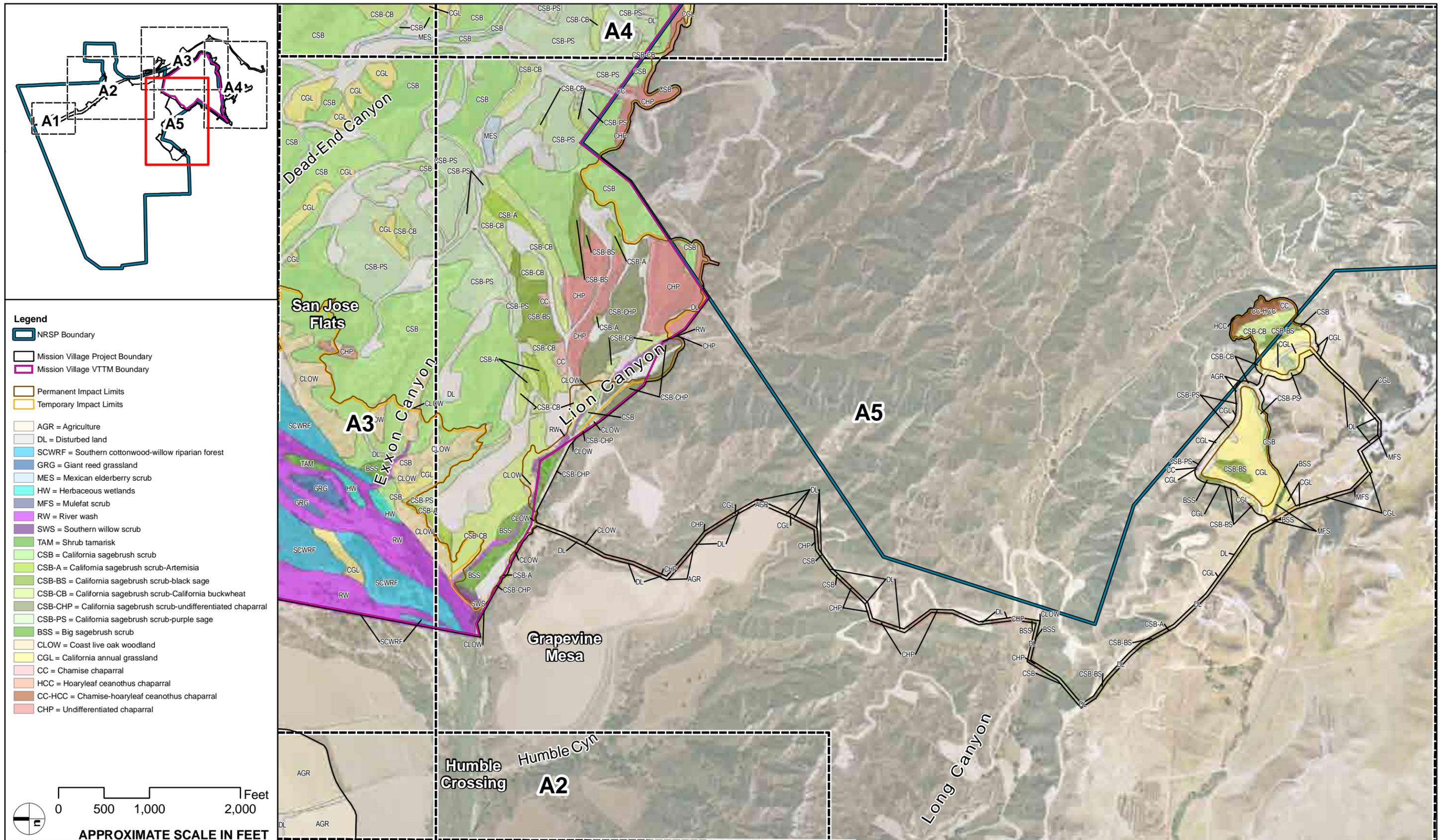


IMAGE SOURCE: DigitalGlobe 2007

FIGURE 4.3-4-A5

Mission Village EIR

Plant Communities and Land Uses at the Mission Village Project Site

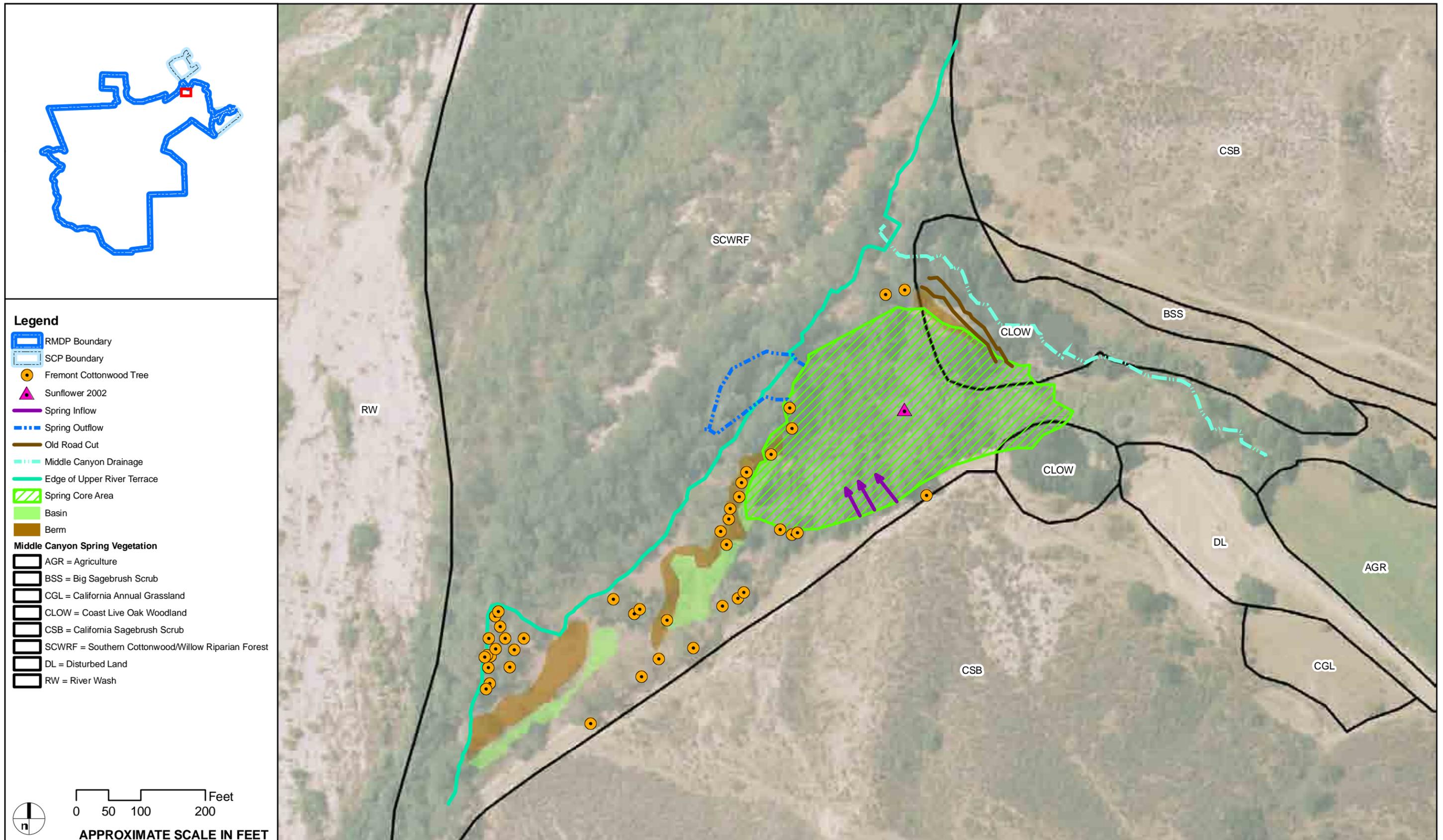


FIGURE 4.3-4-B1

Mission Village EIR

Middle Canyon Spring - Existing Conditions

Grass and herb dominated communities (40.000.00)⁶⁸**Non-Native Grassland (42.000.00)**

California Annual Grassland (42.040.00). There are 82.4 acres of California annual grassland on the project site. This non-native, annual grassland is characterized by a mixture of weedy, introduced annuals, primarily grasses.⁶⁹ On site, grassland areas consist of various annual non-native grasses including wild oat (*Avena* spp.), bromes (*Bromus diandrus*, *B. madritensis* ssp. *rubens*, *B. hordeaceus*), and slender oat (*Avena barbata*). Other herbaceous species include black mustard (*Brassica nigra*), tocalote (*Centaurea melitensis*), Russian thistle (*Salsola tragus*), and dove weed (*Eremocarpus setigerus*). It may occur where disturbance by maintenance (e.g., mowing, scraping, disking, and spraying), grazing, repetitive fire, agriculture, or other mechanical disruption has altered soils and removed native seed sources from areas formerly supporting native vegetation.⁷⁰

Scrub and chaparral (30.000.00)**Coastal Scrub (32.000.00)**

There are 779.3 acres of coastal scrub (including alliances and associations) on the project site. Of this acreage, 262.1 acres are mapped as the California sagebrush scrub alliance, including 149.0 acres of two California sagebrush scrub associations (which are described below); 12.9 acres mapped as the California sagebrush-sage association; 84.7 acres mapped as the California sagebrush-California buckwheat scrub alliance; 15.5 acres mapped as the California sagebrush scrub-undifferentiated chaparral alliance, and 0.1 acre disturbed California sagebrush scrub. Dominant native species found in these plant alliances and associations include California buckwheat (*Eriogonum fasciculatum* var. *foliolosum*) and California sagebrush (*Artemisia californica*). Other common plants include various sages (*Salvia leucophylla*, *S. mellifera*, *S. apiana*), deerweed (*Lotus scoparius*), California aster (*Lessingia filaginifolia* var. *filaginifolia*), California encelia (*Encelia californica*), giant wild-rye (*Leymus condensatus*), and chaparral bushmallow (*Malacothamnus fasciculatus*). The understory generally is sparse and contains native grasses, including valley needlegrass and native herbs such as wishbone bush (*Mirabilis californica*) and morning glory (*Calystegia macrostegia*).

⁶⁸ Species identification numbers refer to California Natural Diversity Database (CNDDDB) vegetation classifications for that species.

⁶⁹ J.O. Sawyer and T. Keeler-Wolf, *Manual of California Vegetation* (Sacramento: California Native Plant Society, 1995); R.F. Holland, *Preliminary Descriptions of the Terrestrial Natural Communities of California*. Sacramento, California: CDFG, 1986.

⁷⁰ Holland, *Preliminary Descriptions*.

Coastal scrub has been mapped to the alliance level, and in some cases to the association level. Each type is dominated by a particular species that characterizes the alliance/association. In some cases, the dominant plant species may be the only species that is readily apparent. These alliances and associations are listed below.

California Sagebrush Scrub (32.010.00). There are 262.1 acres of California sagebrush scrub alliance and 0.07 acres of disturbed California sagebrush scrub on site. The unburned California sagebrush scrub on site includes a mixture of California sagebrush, black sage, purple sage, and California buckwheat. Other native shrubs in this community located on site include our Lord's candle (*Yucca whipplei*), Mexican elderberry (*Sambucus mexicana*), white sage, California encelia, chaparral bushmallow, giant wild-rye (*Elymus condensatus*), bush monkeyflower (*Mimulus aurantiacus*), coastal prickly-pear (*Opuntia littoralis*), and skunk bush (*Rhus trilobata*). Smaller native species that occur on site include yellow pincushion (*Chaenactis glabriuscula*), long-stem golden yarrow (*Eriophyllum confertiflorum*), common forget-me-not (*Cryptantha intermedia*), common owl's clover, deerweed, wild cucumber (*Marah macrocarpus* var. *macrocarpus*), silver puffs (*Uropappus lindleyi*), slender woolly buckwheat (*Eriogonum gracile* var. *gracile*), granny's hairnet (*Pterostegia drymarioides*), cliff malacothrix (*Malacothrix saxatilis*), and California melic (*Melica imperfecta*). Non-native species occurring on the site include red-stemmed filaree (*Erodium cicutarium*), tocalote (*Centaurea melitensis*), Russian thistle (*Salsola tragus*), horehound (*Marrubium vulgare*), and tree tobacco (*Nicotiana glauca*).

Two associations of California sage scrub alliance are also present on site: California sagebrush (32.010.01) and California sagebrush–purple sage (32.010.04). These associations were mapped in areas where California sagebrush and purple sage are the co-dominant species, although lesser amounts of the other species listed above may occur.

- California sagebrush–Artemesia (association of California sagebrush scrub, dominated only by California sagebrush) (32.010.01) – 16.1 acres
- California Sagebrush–Purple Sage (association of California sagebrush scrub, dominated by California sagebrush and purple sage) (32.010.04), including disturbed – 132.9 acres.

California Sagebrush–Black Sage Scrub (32.120.00). There are 12.9 acres of this alliance on site, in the California Sagebrush–Black Sage association. In addition to California sagebrush and black sage, this vegetation community supports the following species on site: shrubs, such as yerba santa (*Eriodictyon crassifolium*), our Lord's candle, Great Basin sagebrush (*Artemisia tridentata*), Mexican elderberry, giant wild-rye, and California encelia; native herbaceous species, including yellow-fiddleneck (*Amsinckia menziesii*), common forget-me-not, common eucrypta (*Eucrypta chrysanthemifolia*), California chicory

(*Rafinesquia californica*), wild cucumber, and southern sun cup (*Camissonia bistorta*); and non-native species such as short-podded mustard, red-stemmed filaree, and horehound.

California Sagebrush–California Buckwheat Scrub (32.110.00). There are 84.7 acres of this alliance present on site. On site, this vegetation community is dominated by California sagebrush and California buckwheat, and also supports native shrubs such as skunk bush, purple sage, Mexican elderberry, goldenbush (*Ericameria palmeri* var. *pachylepis*), and chaparral bushmallow; native wildflowers including wishbone-bush, California poppy (*Eschscholzia californica*), blue dicks (*Dichelostemma capitatum*), coast goldfields (*Lasthenia californica*), globe and angel gilia (*Gilia capitata* and *G. angelensis*); and non-native species, including red-stemmed filaree and short-podded mustard (*Hirschfeldia incana*).

California Sagebrush Scrub–Undifferentiated Chaparral (modified from 32.300.00 Coastal Sage–Chaparral Scrub). There are 15.5 acres of this alliance present on site. On site, this vegetation community includes native shrubs, such as California sagebrush, skunk bush, California buckwheat, purple sage, and chaparral bushmallow; smaller native species, such as coastal lotus (*Lotus salsuginosus*), angel's gilia (*Gilia angelensis*), blue dicks, California peony (*Peonia californica*), California aster, whispering bells (*Emmenanthe penduliflora*), fascicled tarweed (*Hemizonia fasciculata*), and tansy-leaved phacelia (*Phacelia tanacetifolia*); and non-native species, including red-stemmed filaree and short-podded mustard.

Undifferentiated Chaparral Scrubs (37.000.00)

There are 40.3 acres of undifferentiated chaparral scrubs and alliances on the project site, including 35.9 acres of undifferentiated chaparral, 2.6 acres of the alliance chamise chaparral (37.101.00), and 1.8 acres of the chamise-hoaryleaf ceanothus chaparral alliance (37.107.00). Species found on site within this plant community include chamise (*Adenostoma fasciculatum*), hoary leaf ceanothus (*Ceanothus crassifolius*), spiny redberry (*Rhamnus crocea*), sugar bush, black sage, toyon (*Heteromeles arbutifolia*), California buckwheat, California encelia, bush monkey flower, mountain mahogany (*Cercocarpus betuloides* var. *betuloides*), blue elderberry, chaparral bushmallow, holly-leaf redberry (*Rhamnus ilicifolia*), holly-leaf cherry (*Prunus ilicifolia*), and heart-leaved penstemon (*Keckiella cordifolia*). The understory is poorly developed due to the dense vegetation cover.

Chaparral with Chamise (37.100.00)

Chamise Chaparral (37.101.00). The 2.6 acres of the mapped chamise chaparral alliance present on site is dominated by chamise and also supports the following: native shrub species, such as hoaryleaf ceanothus, skunk bush, toyon, bladder pod (*Isomeris arborea*), California buckwheat, giant wild-rye, black sage, and California encelia; smaller native plants, including California peony, California aster, wishbone-

bush, common forget-me-not, globe gilia, wild cucumber, and chaparral nightshade; and non-native species, including black mustard (*Brassica nigra*) and short-podded mustard.

Chamise–Hoaryleaf Ceanothus Chaparral (37.107.00). There are 1.8 acres of mapped chamise–hoaryleaf ceanothus chaparral present on site and dominated by chamise with hoaryleaf ceanothus also very common.

Other Scrubs

Eriodictyon Scrub. Eriodictyon scrub is dominated by yerba santa (*Eriodictyon crassifolium* var. *nigrescens*). It does not conform with CDFG71-defined vegetation communities and is defined here as a scrub community dominated by yerba santa. Eriodictyon scrub occurs in the project area along the southern end of Magic Mountain Canyon and occupies 0.6 acre. On site, eriodictyon scrub is dominated by an almost monotypic stand of yerba santa. This vegetation community does support a few other sparsely distributed native shrubs, including California buckwheat, goldenbush, black sage, and purple sage; native herbaceous species western jimsonweed (*Datura wrightii*) and butterweed (*Senecio flaccidus* var. *douglasii*); and the non-native tocalote.

Broad leafed and upland tree dominated (70.000.00)

Coast Live Oak Forest and Woodland (71.060.00)

This alliance on site is mapped to the association level as coast live oak woodland (71.060.19). There are 31.7 acres of coast live oak woodland on the project site. This community occurs at the base of north-facing slopes along the River Corridor and is dominated by coast live oak (*Quercus agrifolia*). The understory is characterized by annual grasses, spiny redberry (*Rhamnus crocea*), skunkbrush, Mexican elderberry, holly-leaf cherry (*Prunus ilicifolia* ssp. *ilicifolia*), wild cucumber, eucrypta, clarkias (*Clarkia* spp.), and bedstraw (*Galium* spp.).

Valley Oak Forest and Woodland (71.040.00)

There are 5.6 acres of valley oak forest and woodland on the project site. Small patches occur within the Magic Mountain Canyon area. In addition to valley oak trees, valley oak woodland and valley oak/grass support native shrubs (Mexican elderberry and coyote brush); native herbaceous species, including miner's lettuce, California fuchsia (*Epilobium canum* ssp. *canum*), common owl's-clover, blue dicks, common lomatium (*Lomatium utriculatum*), fiesta flower, wild cucumber, yellow fiddleneck, blue dicks,

⁷¹ CDFG, "List of California Terrestrial Natural Communities."

arroyo lupine, California goosefoot, coast paintbrush (*Castilleja affinis*), shrubby phacelia, common forget-me-not, yellow fiddleneck, common eucrypta, and arroyo lupine; as well as non-native species (common chickweed, short-podded mustard, black mustard, common sow-thistle, bull thistle (*Cirsium vulgare*), shepherd's purse, milk thistle, cheeseweed, and non-native grasses).

- Two associations of valley oak forest and woodland are also present on site: valley oak woodland (71.040.08) and valley oak/grass (71.040.05). These associations were mapped in areas where California sagebrush and purple sage are the co-dominant species, although lesser amounts of the other species listed above may occur.
 - Valley oak woodland (association of Valley Oak Forest and Woodland - this community is characterized by a predominance of valley oaks in sufficient numbers to form a greater than 20 percent canopy cover) (32.010.01)—2.3 acres
 - Valley oak/grass (association of Valley Oak Forest and Woodland) - this community is characterized by a predominance of valley oaks in sufficient numbers to form a less than 20 percent canopy cover) (32.010.04)—3.3 acres.

Riparian and bottomland habitat (60.000.00)

Other Riparian/Wetland Communities

Herbaceous Wetland. There are 4.0 acres of herbaceous wetlands on the project site. These wetlands occur within the banks of the Santa Clara River or its tributaries. Commonly occurring species include Hooker's evening primrose (*Oenothera elata*), cocklebur (*Xanthium strumarium*), and immature mulefat (*Baccharis salicifolia*), willows (*Salix* spp.), and Fremont cottonwood (*Populus fremontii*) seedlings and saplings. This community does not fit into a defined plant community classification and was defined on site by the dominant plant species.

River Wash. There are 115.1 acres of river wash on the project site. The stretch of the Santa Clara River occurring within and bordering the location of the proposed bridge and haul routes, as well as areas within Magic Mountain Canyon, are sparsely vegetated and subject to scouring by seasonal storm flows. Soils are sandy riverwash and gravel, and in places form sand bars and low terraces within the channels. Shrub species occurring in and adjacent to the channel include mulefat, sandbar willow, tamarisk, scale-broom, sandwash groundsel (*Senecio flaccidus* var. *douglasii*), big saltbush (*Atriplex lentiformis* ssp. *lentiformis*), and big sagebrush. Smaller species growing in the riverbed include white sweetclover (*Melilotus albus*), buckwheat (*Eriogonum baileyi*), cocklebur, California croton (*Croton californicus*), California evening primrose (*Oenothera californica* ssp. *californica*), Mediterranean schismus (*Schismus barbata*), foxtail chess (*Bromus madritensis* ssp. *rubens*), and annual bur-sage (*Ambrosia acanthicarpa*).

Alluvial Scrub

There is 0.5 acre of alluvial scrub on the project site. This community occurs in creeks and washes on alluvial material. On site, this community occurs solely within the Santa Clara River and its tributaries. Species found include big sagebrush, mule fat, tree tobacco, scalebroom (*Lepidosparum squamatum*), big saltbush (*Atriplex lentiformis*), and California sagebrush. This community does not fit into a defined plant community classification and was defined on site by the dominant plant species.

Big Sagebrush Scrub (35.110.00). There are 24.6 acres of big sagebrush scrub on the project site. As a CDFG⁷²-recognized alliance (35.110.00) of Great Basin Scrub, big sagebrush scrub is a widespread and characteristic shrub of the high desert and Great Basin floristic provinces, where it often occurs with pines and junipers. In the Santa Clarita area, however, it seems to occur in vegetation transitional to more typical cismontane coastal scrub. Big sagebrush scrub occurs along the outer margins of the floodplains of Magic Mountain Canyon, Lion Canyon, and the Santa Clara River. On the site (and within the greater Newhall Ranch landscape), big sagebrush scrub is characterized by almost pure stands of big sagebrush, including *Artemisia tridentata* ssp. *tridentata*, *A. tridentata* ssp. *parishii*, and presumed hybrids of these subspecies.⁷³

Giant Reed (42.080.00)

There are 5.6 acres of giant reed on the project site. This non-native plant community is comprised of monotypic or nearly monotypic stands of the invasive grass giant reed (*Arundo donax*). Typically it occurs on moist soils and in streambeds. Within the project site, giant reed is associated with the Santa Clara River.

Low to High Elevation Riparian Scrub (63.000.00)

Arrow Weed Scrub (63.710.00). There are 7.6 acres of arrow weed scrub on the project site. This community occurs in moderate to dense streamside thickets strongly dominated by arrowweed (*Pluchea sericea*). On site, arrow weed scrub occurs along the banks of the Santa Clara River or its tributaries and is dense, with a few tamarisk individuals interspersed throughout.

⁷² CDFG, "List of California Terrestrial Natural Communities."

⁷³ Dudek and Associates, Inc., *Newhall Ranch High Country Specific Management Area Biological Resources Technical Report* (2006).

Mexican Elderberry Scrub (63.410.00). There are 5.8 acres of Mexican elderberry scrub on the project site. This open scrub community is dominated by Mexican elderberry but also contains scattered laurel sumac, toyon, and lemonadeberry, as well as an understory of grasses.

Mulefat Scrub (63.510.00)

There are 1.8 acres of mulefat scrub and 1.1 acres of disturbed mulefat scrub on the project site. This plant community is a relatively low (two to three m), dense, shrubby plant community that occurs in riparian vegetation, edges of catchment basins, and in canyons. It is dominated by mulefat and may contain a small number of arroyo willow (*Salix lasiolepis*), upland shrubs, and facultative herbs. Mulefat scrub is a seral community that occurs mainly along major drainages and floodplains where the riparian vegetation is open or disturbed. Frequent flooding and/or scouring apparently maintain this community in an early successional state.⁷⁴

Riparian Forest and Woodland (61.000.00)

Southern Willow Scrub (63.130.00). There are 1.5 acres of southern willow scrub on the project site. This plant community is present in locations within the floodplain of Castaic Creek and the Santa Clara River. This community is dominated by willow shrubs, but also includes mulefat and Mexican elderberry. The understory is sparse, with species such as mugwort, shrubby phacelia (*Phacelia ramosissima*), and annual grasses present.

Tamarisk Scrub and Woodland (63.810.00). This alliance on site was mapped at the association level as shrub tamarisk (63.810.02). There are 1.1 acres of shrub tamarisk on the project site. Shrub tamarisk occurs on site in small, fairly monotypic patches in Castaic Creek near the confluence with the Santa Clara River, and just upstream of this confluence in the Santa Clara River. On site, shrub tamarisk is dominated by tamarisk but also includes scattered native shrubs (coyote brush, quail brush, and mulefat), smaller native species (winged three-square, chaparral nightshade, cocklebur), and non-native species (horehound and short-podded mustard).

Southern Cottonwood-Willow Riparian Forest (61.130.02). There are 109.2 acres of southern cottonwood-willow riparian forest on the project site. This community occurs on low terraces above the main channel of the Santa Clara River and along Castaic Creek. It consists of tall, open, broadleaved, winter-deciduous trees, and is dominated by Fremont cottonwood (*Populus fremontii* ssp. *fremontii*) and willows (*Salix laevigata*, *S. exigua*, *S. lasiolepis*). Understory plants include mulefat (*Baccharis salicifolia*), arrow weed (*Pluchea sericea*), Mexican elderberry, mugwort (*Artemisia douglasiana*), hoary nettle (*Urtica*

⁷⁴ Holland, *Preliminary Descriptions*.

dioica ssp. *holosericea*), ripgut grass (*Bromus diandrus*), and alkali rye (*Leymus triticoides*). Two invasive plant species, giant reed (*Arundo donax*) and tamarisk (*Tamarix ramosissima*), are also common throughout this plant community.

The Middle Canyon Spring complex occurs within the southern cottonwood-willow riparian forest plant community on the project site. Current surface size of the spring area can be delimited within an approximately 400-foot by 400-foot polygon. The spring is located on what appears to be an upper terrace of the Santa Clara River. Approximately 4 feet of elevation separates this terrace from the river floodplain. An intermediate elevation terrace or geological structure is present between the spring terrace and the Santa Clara River floodplain. Spring flows currently saturate a core area of the spring and then drain off via two excavated channels that drain water onto the intermediate terrace, whereupon the water sheet flows until spilling over the terrace edge into the Santa Clara River floodplain. The spring vegetation exhibits a clear pattern in response to these characteristic flow patterns. Rushes (*Scirpus* sp.) appear to be associated with more consolidated flow while more dichotomous vegetation appears where sheet flow is present. Within this setting, two sensitive species (the Newhall sunflower (*Helianthus inexpectatus*) and *Pyrgulopsis castaicensis* n. sp.) find habitat conditions that specifically fulfill the needs and tolerances of each species and allow these populations to survive and persist.

Man-Made Land Cover Types

Agriculture. There are 224.4 acres of land on the project site actively used for agricultural purposes. This land cover is regularly disked and generally occurs in the northern portion of the project site.

Developed Land. There are 8.1 acres of developed land on the project site. These areas primarily include road corridors, parking lots, commercial areas, and various impermeable surfaces throughout the project site.

Disturbed Land. There are 404.3 acres of disturbed lands on the project site. These areas include portions of the site that are mostly void of vegetation, consisting primarily of dirt roads and oil pads, and still retain permeable surfaces.

b. Common Wildlife

Discussed below are representative common wildlife species (those not provided a sensitivity status by regulatory agencies) that were observed on the project site during the field surveys. A complete list of wildlife species observed or potentially occurring on the Mission Village project site is provided in **Appendix 4.3**. Special-status wildlife species observed or potentially occurring on the project site are discussed under **subsection 7, Sensitive Biological Resources**, below.

(1) Amphibians and Reptiles

The Santa Clara River and other on-site drainages provide habitat for amphibians, including toads, frogs, and salamanders. Western toad (*Bufo boreas*), Pacific chorus frog (*Pseudacris regilla*) and California chorus frog (*Pseudacris cadaverina*), all of which are common in the project area, have been observed in the portion of the river bordering the project site. Additionally, numerous tadpoles, juveniles, and adult forms of the invasive African clawed frog (*Xenopus laevis*) were observed throughout backwater areas of the Santa Clara River along and adjacent to the project site.⁷⁵ No other common amphibian species have been observed or detected during the site surveys. Three salamander species that are relatively common in suitable habitat within their ranges have some potential to occur on or adjacent to the project site: arboreal salamander (*Aneides lugubris*), black-belly salamander (*Batrochoseps nigriventris*), and ensatina (*Ensatina eschscholtzii*). However, these species are not expected to be common or widespread on the project site because they were not observed during the several amphibian and semi-aquatic reptile surveys in the Newhall Ranch Specific Plan area (see **Table 4.3-2**). Amphibians on or adjacent to the project site are expected to be largely restricted to the riverine and riparian habitats.

Common reptile species observed on the project site include western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), red coachwhip (*Masticophis flagellum piceus*), San Diego alligator lizard (*Elgaria multicaerinata webbii*), western skink (*Eumeces skiltonianus*), San Diego gopher snake (*Pituophis catenifer annectens*), common kingsnake (*Lampropeltis getulus*) and southwestern rattlesnake (*Crotalus viridis helleri*). Common reptiles are expected to be abundant throughout the project site.

(2) Birds

The agricultural, grassland and scrub habitats on the project site provide foraging habitat for a number of raptor species, including turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*) and American kestrel (*Falco sparverius*). The oak trees located throughout the site provide nesting habitat for raptors. Other bird species observed within the upland portions of the project site include American robin (*Turdus migratorius*), house finch (*Carpodacus mexicanus*), savannah sparrow (*Passerculus sandwichensis*), Brewer's blackbird (*Euphagus cyanocephalus*), house sparrow (*Passer domesticus*), northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaidura macroura*), European starling (*Sturnus vulgaris*), white-throated swift (*Aeronautes saxatalis*), California towhee (*Pipilo crissalis*), canyon wren (*Catherpes mexicanus*), rock wren (*Salpinctes obsoletus*), western scrub-jay (*Aphelocoma californica*), California thrasher (*Toxostoma redivivum*), hermit thrush (*Catharus guttatus*),

⁷⁵ Compliance Biology, Inc., *Results of the Focused Western Spadefoot Toad Surveys on the Mission Village Project Site*.

white-crowned sparrow (*Zonotrichia albicollis*), yellow-rumped warbler (*Dendroica coronata*), Say's phoebe (*Sayornis saya*), and California quail (*Callipepla californica*).

The riparian habitats on and bordering the project site provide nesting and foraging habitat for numerous raptor and passerine bird species. Bird species commonly observed within the riparian plant communities include bushtit (*Psaltriparus minimus*), Wilson's warbler (*Wilsonia pusilla*), orange-crowned warbler (*Vermivora celata*), black phoebe (*Sayornis nigricans*), Bewick's wren (*Thryomanes bewickii*), brown-headed cowbird (*Molothrus ater*), wrentit (*Chamaea fasciata*), cliff swallow (*Petrochelidon pyrrhonota*), tree swallow (*Tachycineta bicolor*), American crow (*Corvus brachyrhynchos*), Nuttall's woodpecker (*Picoides nutallii*), song sparrow (*Melospiza melodia*), common yellowthroat (*Geothlypis trichas*), ruby-crowned kinglet (*Regulus calendula*) and numerous other species.

Several bird species that were identified by Los Angeles Audubon Society as Los Angeles County's Sensitive Bird Species⁷⁶ have potential to occur on or adjacent to the Mission Village project site, including Virginia rail (*Rallus limicola*), sora (*Porzana carolina*), greater roadrunner (*Geococcyx californianus*), lesser nighthawk (*Chordeiles acutipennis*), belted kingfisher (*Megaceryle alcyon*), hairy woodpecker (*Picoides villosus*), gray flycatcher (*Empidonax wrightii*), marsh wren (*Cistothorus palustris*), mountain bluebird (*Sialia currucoides*), Swainson's thrush (*Catharus ustulatus*), Wilson's warbler, vesper sparrow (*Pooecetes gramineus*), and western meadowlark (*Sturnella neglecta*). Los Angeles Audubon considers these species at risk locally due to the following factors: they are susceptible to possible extirpation as a winter and/or breeding species in the County; they are sensitive to urbanization; their population trends, if known, may be in decline; the County's importance to the species; and their limited distribution. The species from the County list identified above are not, however, officially designated by federal, state, or local agencies as special-status species. For that reason, they are not analyzed as special-status species in this EIR. Instead, these species are analyzed as part of the common wildlife category, and the mitigation for significant impacts to common bird species applies to these species as well.

(3) Mammals

A variety of common mammal species occur in the vicinity of the project site. During mammal surveys (which included small mammal trapping for rodents) conducted on and bordering the project site in 2004, the following common species were observed or identified by tracks, scat, or other sign: mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), desert cottontail (*Sylvilagus auduboni*), California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), raccoon (*Procyon lotor*), gray fox (*Urocyon cinereoargenteus*), striped skunk (*Mephitis mephitis*), western harvest

⁷⁶ Los Angeles Audubon, *Los Angeles County's Sensitive Bird Species* (2009).

mouse (*Reithrodontomys megalotis*), deer mouse (*Peromyscus maniculatus*), dusky-footed woodrat (*Neotoma fuscipes*), California mouse (*Peromyscus californicus*), California pocket mouse (*Chaetodipus californicus*), California vole (*Microtus californicus*) and Pacific kangaroo rat (*Dipodomys agilis*). The medium to larger mammals observed on the site (i.e., mule deer, coyote, bobcat, desert cottontail, raccoon, fox, striped skunk) do not typically rely on a specific single habitat and are presumed to utilize all of the habitat types on the project site. Similarly, based on the results of the 2004 surveys, small mammals were found to utilize all the habitat types on the project site. In addition, the following common bat species were confirmed in the vicinity of the project site: big brown bat (*Eptesicus fuscus*), western red bat (*Lasiurus blossevillii*), hoary bat (*Lasiurus cinereus*), California myotis (*Myotis californicus*), long-legged bat (*Myotis volans*), pocketed free-tailed bat (*Nyctinomops femorosaccus*), western pipistrelle (*Pipistrellus hesperus*), and Mexican free-tailed bat (*Tadarida brasiliensis*).

(4) Gastropods

Three native species of shoulderband snails were detected during the surveys for the Trask shoulderband snail within the Newhall Ranch Specific Plan area and nearby areas, including Southern California shoulderband snail (*Helminthoglypta tudiculata* cf. *H.t. convicta*), Vasquez rocks shoulderband snail (*Helminthoglypta vasquezi*), and Grapevine shoulderband snail (*Helminthoglypta uvasana*). None of these species are designated by CDFG as special-status species. The Southern California shoulderband snail and Vasquez rocks shoulderband snail were detected in the project area in a variety of habitat types, including California annual grassland, coastal scrub, and in riparian areas. All snails were found in association with their expected microclimates (i.e., under rocks, in leaf litter, woody debris piles, under the decaying bases of yucca bushes, and similar moist environments). Vasquez rocks shoulderband snail was found at several locations in the proposed project area and proposed open space areas, including the mouth of Middle Canyon; portions of upper Middle Canyon; and the Magic Mountain Canyon watershed. Southern California shoulderband snail was found at several locations in the proposed project area, including the Middle Canyon area. Grapevine shoulderband snail was not detected in the project area, but was located in the Piru Creek floodplain near the confluence with the Santa Clara River. This species was previously known only from the type locality near Fort Tejon State Historical Park in Kern County. This detection extends the known range of this species at least 42 miles southwest of the type locality and greatly expands the known distribution of the species. Based on these new occurrences, this species is expected to also occur in the project area.

c. Wildlife Habitat Linkages/Regional Open Space

Wildlife corridors are described as pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural

or human induced factors such as urbanization. The fragmentation of natural habitat creates isolated “islands” of vegetation that may not provide sufficient area or resources to accommodate sustainable populations for a number of species. Wildlife corridors: (1) allow animals to move between remaining habitats to replenish depleted populations and increase the available gene pool; (2) provide live-in habitat for some species; (3) provide escape routes from fire, predators, and human disturbances, which reduce the risk that catastrophic events (such as fire or disease) will result in population or species extinction; and (4) serve as travel paths for individual animals moving throughout their home range in search of food, water, mates, and other needs, or for dispersing juveniles in search of new home ranges.

The following analysis of wildlife movement and habitat linkages between the project site and surrounding open space areas is based on extensive field visits conducted over the past decade in association with the Newhall Ranch Specific Plan Program EIR, the Final Additional Analysis and the related Biological Constraints Analysis (BCA) and Biota Report for the Specific Plan. It is also based on (1) a review of available aerial photography and mapping of the Specific Plan and adjacent watersheds in both Los Angeles County and Ventura County; (2) an evaluation of habitat types and distribution associated with the Mission Village project site and surrounding areas; (3) a review of the animal species known to use or expected to utilize these habitats; and (4) the conceptual regional wildlife habitat linkage design identified in the South Coast Missing Linkages Project.⁷⁷ In this discussion, wildlife movement and habitat linkages are addressed from a watershed and habitat perspective, as the preservation of habitats within watersheds that connect remaining open space areas is critical to providing movement corridors for the variety of wildlife species that occur in the Specific Plan area, inclusive of the Mission Village project site.

The Mission Village project site, indeed the Newhall Ranch Specific Plan area, is part of a larger regional wildlife movement interface that exists between the Los Padres/Angeles National Forest, the Santa Clara River, and the Santa Susana Mountains.⁷⁸ This interface spans a distance of approximately 35 miles, from approximately Saticoy on the west in Ventura County to Castaic Junction on the east in Los Angeles County. The Santa Clara River forms the central east-west corridor of this interface, extending throughout the Newhall Ranch Specific Plan area and west into Ventura County. As shown on **Figure 4.3-5, Potential Wildlife Movement Corridors**, the Newhall Ranch Specific Plan site represents an approximately 2- to 5-mile-wide portion (6 to 14 percent) of this 35-mile-wide interface.

⁷⁷ Penrod et al., *South Coast Missing Linkages Project*.

⁷⁸ e.g., Penrod et al., *South Coast Missing Linkages Project*.



Legend

- NRSP Boundary
- Mission Village Project Boundary
- Mission Village VTTM Boundary
- Permanent Impact Limits
- Temporary Impact Limits

Wildlife Corridor

- 1 - Santa Clara River Corridor
- 2 - Salt Creek Confluence
- 3 - Salt Creek High Country
- 4 - East Fork Salt Creek
- 5 - Potrero Canyon Salt Creek
- 6 - Potrero Canyon
- 7 - Long Canyon
- 8a - Humble Canyon
- 8b - Lion Canyon
- 8c - Exxon Canyon
- 8d - Dead End Canyon
- 8e - Middle Canyon
- 8f - Magic Mountain Canyon
- 9 - Chiquito Canyon
- 10 - San Martinez Grande Canyon
- 11 - Off-Haul Canyon
- 12 - Homestead Canyon
- 13 - Castaic/Hasley Corridor

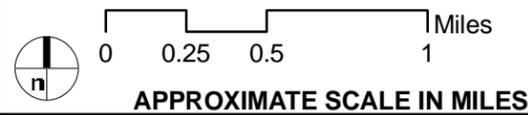


IMAGE SOURCE: DigitalGlobe 2007

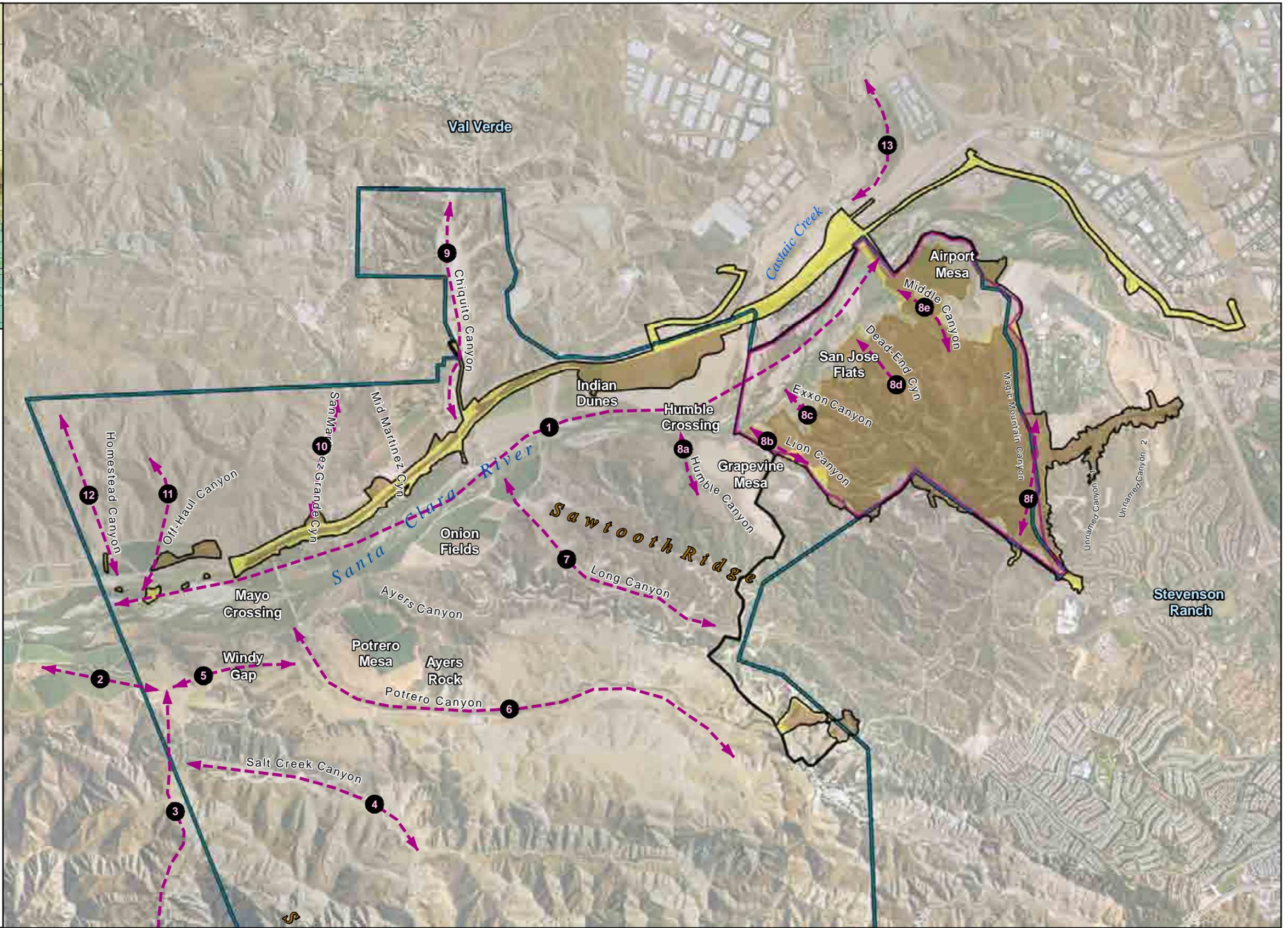


FIGURE 4.3-5

Mission Village EIR

Potential Wildlife Movement Corridors

The Santa Clara River flows from its origins in the San Gabriel Mountains to where it eventually empties into the Pacific Ocean approximately 50 miles to the west. The river is an important migration and genetic dispersion corridor for many wildlife species, including aquatic taxa, riparian obligate species (resident and migratory) and larger, more mobile terrestrial animals.

Penrod et al.⁷⁹ identified regional wildlife habitat linkages that would provide upland landscape-scale habitat connectivity between the Santa Susana Mountains to the south and the Los Padres National Forest to the north (**subsection 4.3.9.b.1.e**). These conceptual linkages encompass the High Country SMA/SEA 20 and the Salt Creek area within the project site and the Santa Clara River west of the project site. Penrod et al.⁸⁰ considered the High Country SMA/SEA 20 and Salt Creek area, along with regional open space conservation areas and initiatives such as “SOAR,”⁸¹ in recommending a linkage design that would connect the Santa Monica Mountains, San Gabriel Mountains, and the Sierra Madre Mountains. This linkage design was also based on a “least cost analysis” that quantitatively models the most efficient routes that target animals could take to travel between these open space areas.⁸²

Within the Newhall Ranch Specific Plan area, south of the Santa Clara River, several drainages, including Long Canyon, Potrero Creek, and Salt Creek, are directly connected to the Santa Clara River through their own drainage systems, providing potential wildlife movement routes between the river and the Santa Susana Mountains to the south. These drainages serve to provide habitat linkages between the High Country areas within the Newhall Ranch Specific Plan and the Santa Clara River. Other drainages, including Chiquito Canyon, San Martinez Grande, and Castaic Creek, connect the river to open space areas to the north and eventually the Angeles National Forest further north and the Los Padres National Forest to the northwest.

Chiquito Canyon is located west of the project site, and the Castaic Creek drainage is chiefly north of the project site. Both of these drainages are tributaries of the Santa Clara River and serve as suitable habitat/movement corridors for wildlife route from the river to the north toward the Angeles and Los Padres National Forests. Given the presence of a culvert underneath SR-126 (located to the north of the Chiquito Canyon-Santa Clara River confluence along the western edge of the project site), wildlife could cross under SR-126 and continue to move north through Chiquito Canyon.

⁷⁹ Ibid.

⁸⁰ Ibid.

⁸¹ Save Open-Space and Agricultural Resources (SOAR) is a non-profit organization that seeks to maintain agricultural, open space, and rural lands within Ventura County and surrounding regions. Development activities within the SOAR boundaries are limited by County Ordinance.

⁸² In this context, “least cost” refers to the amount of energy an animal would expend in traveling between habitat areas.

As previously stated, much of the Mission Village tract map site is used for agricultural purposes and a portion of it is disked regularly. These activities, and existing suburban development located nearby, limit the use of the main portion of the site as a movement corridor for most wildlife. While several species are expected to forage occasionally over and within the project area, most species likely move through the area along the canyons and areas west of the project site. However, the large expanses of habitat (including drainages and woodlands) on the Mission Village project site provide potential movement pathways for wildlife moving between the Santa Susana Mountains and the Santa Clara River (which, as discussed above, is an important migration and genetic dispersion corridor for many wildlife species). Additionally, wildlife traveling along the river corridor (through the project site) can access the Castaic Creek drainage, which serves as a suitable habitat/movement corridor for wildlife from the Santa Clara River (north) towards the Angeles and Los Padres National Forests. Given the above, the Mission Village project site is considered part of a locally and regionally important wildlife movement corridor.

Finally, from a broader regional perspective, Dudek completed a comprehensive study of the Santa Clara River watershed.⁸³

That study analyzed the cumulative impacts of development, including past projects, current land use zoning, and future and approved projects in the Los Angeles County portion of the watershed. Based on that analysis, the study found that while land conversion has occurred in the Santa Clara River Valley and adjacent foothills, and will continue to occur in the future, the vast majority of the watershed is comprised of natural lands. The study also concluded that the additional impacts of the Mission Village project, the Landmark Village project, Newhall Land and Farming projects in general, and other planned and approved projects in the Los Angeles County portion of the watershed are relatively small in proportion to the size of the overall watershed. Key findings of the study include:

- The Santa Clara River watershed is and for the most part will remain undeveloped—lands converted to agriculture and urban development comprise about 10 percent of the Los Angeles County portion of the upper watershed. Planned and approved projects in Los Angeles County (including the City of Santa Clarita) would increase the amount of development in the upper watershed by about 3 percent.
- The watershed includes substantial existing public lands and planned open spaces that will be protected in perpetuity. Based on current public lands and currently zoned open space, approximately 71 percent of the upper watershed (733,526 acres) is existing or zoned open space.

⁸³ Dudek, *Draft Santa Clara River Watershed Study* (2008).

- Under current land use zoning, important biological and physical features of the entire watershed would be retained. The major vegetation communities (coastal scrubs, chaparral, non-native grassland, woodlands and forest, and riparian/wetlands) will remain relatively common in the watershed.
- The Newhall Ranch Specific Plan area comprises a very small portion (less than 2 percent) of the entire watershed and is limited to a small area in the southern portion of the watershed. Planned development on the Newhall Ranch Specific Plan area (including the proposed Mission Village project) would impact 1 percent of the entire watershed.

Although encroachment by past development (including agriculture) has caused habitat loss and fragmentation and impacts to species in the watershed, the Dudek study concluded that the existing and proposed cumulative development in the watershed will not significantly impact sensitive biological resources, based on the findings noted above. In addition, the Dudek study found that the Santa Clara River is still a natural river system and provides habitat for several listed threatened or endangered species such as the least Bell's vireo, southwestern willow flycatcher, unarmored threespine stickleback, and arroyo toad, as well as a number of non-listed special-status species.

7. SENSITIVE BIOLOGICAL RESOURCES

The following discussion focuses on those species and plant communities considered by state and/or federal resource agencies, and by recognized conservation organizations, to be of special status, that are known to occur, or could potentially occur, on the project site. A list of all plant and wildlife species, both common and special status, observed or expected to potentially occur on the project site is found in **Appendix 4.3**.

All of the surveys and reports referenced in this section are incorporated by reference, as permitted in section 15150 of the *State CEQA Guidelines*. All referenced documents are available for public inspection and review upon request to: County of Los Angeles, Department of Regional Planning, 320 West Temple Street Los Angeles, California 90012 (Samuel Dea; (213) 974-4808) or Impact Sciences, Inc., 803 Camarillo Springs Road, Suite A-1, Camarillo, California 93012 (Susan Tebo; (805) 437-1900). Additionally, many of these documents are included in the appendices to the Newhall Ranch Resource Management and Development Plan and the Spineflower Conservation Plan Draft EIS/EIR (SCH No. 2000011025), and can be obtained from the California Department of Fish and Game's Web site at <http://www.dfg.ca.gov/regions/5/newhall/docs/>.

a. Special-Status Plants

For purposes of the analysis presented in this subsection, special-status plants include those species that are: (1) state or federally listed as Rare, Threatened, or Endangered; (2) federal candidates for listing; (3) proposed for state or federal listing; (4) included on Lists 1, 2, 3 or 4 of the CNPS Inventory of Rare and Endangered Plants of California (CNPS Inventory); (5) species of undescribed taxa; or (6) species designated as special-status by the County of Los Angeles. Plants included on the CNPS Inventory are broken down into the following classifications: List 1A is comprised of plants presumed extinct in California; List 1B is comprised of plants that are Rare, Threatened, or Endangered in California and elsewhere; List 2 is comprised of plants that are Rare, Threatened, or Endangered in California, but more common elsewhere; List 3 is comprised of plants about which more information is needed (a review list); and List 4: plants of limited distribution (a watch list).

Additionally, there is a second designation that follows the List classification, denoting the threat classification. When a List number is assigned to a special-status plant, a further designation of “.1” means that the plant is seriously endangered in California, a further designation of “.2” means that the plant is fairly endangered in California, and a further designation of “.3” signifies that the plant is not considered to be very endangered in California. Therefore, for example, the slender mariposa lily discussed below is a CNPS List 1B.2 plant, meaning the CNPS has classified this species as being Rare, Threatened, or Endangered in California and elsewhere, and further, the threat classification means that the plant is fairly endangered in California.

Based on a review of the CNDDDB and CNPS databases and the survey reports prepared for the Newhall Ranch Specific Plan area and the project site, a total of 41 special-status plant species were identified as occurring in the region. This list formed the basis of the following analysis, wherein each of the identified species is addressed in one of the following two sections: **subsection 7.a.(1)** addresses the special-status plant species observed on the site during focused surveys; and **subsection 7.a.(2)** addresses the special-status plant species that are known to occur in the project area, but were not observed on or adjacent to the project site during focused surveys. **Table 4.3-2**, above, details the specificity of the focused surveys.

(1) Special-Status Plant Species Observed on or Adjacent to the Project Site

Special-status plant species that were observed on the project site during focused surveys include San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*), slender mariposa lily (*Calochortus clavatus* var. *gracilis*), mainland cherry (*Prunus ilicifolia* ssp. *ilicifolia*), island mountain-mahogany (*Cercocarpus betuloides* var. *blancheae*), Parish’s sagebrush (*Artemisia tridentata* ssp. *parishii*), southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*), Peirson’s morning-glory (*Calystegia peirsonii*), Southern California

black walnut (*Juglans californica*), and Newhall sunflower (*Helianthus inexpectatus*). In addition, a potentially undescribed species was observed: an undescribed everlasting (*Gnaphalium* sp. *nova*). While these plants currently have no sensitivity status, it is described in this report because of their unique nature and potential to be assigned a sensitivity status in the future. These nine species are discussed in more detail below, and their locations with respect to the project site are shown on **Figure 4.3-6, Special-Status Plant Species Locations**.

San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*) is a federal candidate plant species, is state listed as Endangered, and is a CNPS List 1B species. SFVS occurrences were mapped as polygons. Where plants were less than four meters (13.1 feet) from one another, they were mapped in the same polygon. Where they were four meters or farther from one another, they were mapped as separate polygons. The four-meter distance was selected based on topography, vegetation density, detectability of the plants, the general accuracy of the Global Positioning System (GPS), and time constraints. The distance is not specifically tied to SFVS biology (i.e., reproductive biology, seed dispersal) and thus is not intended to reflect reproductively isolated sub-populations, the total extent of the SFVS seed bank, or any other feature of the species' life history. Field botanists walked around the perimeter of each spineflower polygon, defining the boundary by SFVS occurrence at a less-than-four-meter (13.1-foot) distance. Polygon boundaries were defined by manually storing GPS location data in a hand-held Trimble GPS unit (sub-meter precision) every one to four meters (3.3 to 13.1 feet) along the polygon boundary. Each SFVS polygon was given a unique identifier (i.e., numbers and/or letters) in the field. Field data sheets, which included estimated plant numbers and associated species, were completed for each polygon. GPS data were analyzed using GIS or Computer Assisted Drafting software (e.g., ArcGIS, AutoCAD), then delineated so that the outer boundary was defined as a "minimum convex polygon" (i.e., the smallest polygon whose outer perimeter is made up of convex angles).⁸⁴

⁸⁴ Dudek and Associates, Inc., 2002 *Sensitive Plant Survey Results for Newhall Ranch Specific Plan Area, Los Angeles County, California* (2002); Dudek and Associates, Inc., 2002 *Sensitive Plant Survey Results for Entrada [Magic Mountain Entertainment], Los Angeles County, California* (2003); Dudek and Associates, Inc., 2002 *Sensitive Plant Survey Results for the Valencia Commerce Center, Los Angeles County, California* (2003). Dudek and Associates, Inc., "Survey Results for Sensitive Plant Species within Water Well 206" (2003); Dudek and Associates, Inc., 2003 *Sensitive Plant Survey Results for the Isola and Ventura Homestead Sites, Los Angeles County, California* (2004); Dudek and Associates, Inc., 2003 *Sensitive Plant Survey Results for the Valencia Commerce Center, Los Angeles County, California* (2004); Dudek and Associates, Inc., 2003 *Sensitive Plant Survey Results for Newhall Ranch Specific Plan Area, Los Angeles County, California* (2004); Dudek and Associates, Inc., 2003 *Sensitive Plant Survey Results for the Castaic Junction Site, Los Angeles County, California* (2004); Dudek and Associates, Inc., 2003 *Sensitive Plant Survey Results for the Magic Mountain Entertainment Site, Los Angeles County, California* (2004); Dudek and Associates, Inc., 2004 *Sensitive Plant Survey Results for the Newhall Ranch Specific Plan Area, Los Angeles County, California* (2004); Dudek and Associates, Inc., 2004 *Sensitive Plant Survey Results for the Valencia Commerce Center, Los Angeles County, California* (2004); Dudek and Associates, Inc., 2004 *Sensitive Plant Survey Results for the Entrada Site, Los Angeles County, California* (2004); Dudek and Associates, Inc., 2003 *Sensitive Plant Survey Results for the Salt Creek Site, Los Angeles County, California* (2004). Dudek and Associates, Inc., 2005 *Sensitive Plant Survey Results for the*

San Fernando Valley spineflower (SFVS) occurs on the greater NRSP, including locations on the Mission Village project site. This species has been observed in four general areas within the NRSP, including Airport Mesa, Grapevine Mesa, Potrero Canyon and San Martinez Grande Canyon. Most of the plants occur on slopes with a south-facing aspect within openings in sparsely vegetated in habitat characterized as open California sagebrush scrub and associations, California annual grasslands, or at the edge of agricultural fields on mesas. Most of the observed San Fernando Valley spineflower were found on soils mapped by the USDA as slightly eroded to eroded Castaic-Balcom silty clay loam (30 to 50 percent slopes) or Terrace Escarpments.⁸⁵ Plants in the vicinities of Grapevine and Airport mesas were observed downslope of terrace surfaces capped by Zamora clay loam (2 to 9 percent slopes), with a few plants occurring on artificial fill or alluvium derived from adjacent terrace deposits. Vegetative cover in the area of San Fernando Valley spineflower occurrences ranged from 5 to 100 percent, but was most commonly between 60 and 80 percent. The soil type for all mapped San Fernando Valley spineflower occurrences in the project area consisted of sandy loams. Elevations at San Fernando Valley spineflower locations on site range from approximately 1,000 to 1,300 feet AMSL.

Surveys for SFVS were conducted throughout the NRSP annually from 2002 through 2007. In 2002, the total population of SFVS was estimated to include nearly 8,000 individuals. In 2003, surveys estimated populations of SFVS totaling approximately 5.9 million individuals. In 2004, the total population of SFVS was estimated to be 560,000 individuals. In 2005, the total population of SFVS on the NRSP was estimated to be approximately 7.4 million individuals. In 2006, the total population of SFVS was estimated to be 1.8 million individuals. In 2007, the total population of SFVS was estimated to be 760 individuals.

Newhall Ranch Specific Plan Area, Los Angeles County, California (2006); Dudek and Associates, Inc., 2005 Sensitive Plant Survey Results for the Entrada [Magic Mountain Entertainment] Site, Los Angeles, California (2006); Dudek and Associates, Inc., 2005 Sensitive Plant Survey Results for the Valencia Commerce Center, Los Angeles, California (2006); Dudek and Associates, Inc., 2006 Sensitive Plant Survey Results for the Newhall Ranch Specific Plan Area, Los Angeles County, California (2006); Dudek and Associates, Inc., 2006 Sensitive Plant Survey Results for the Entrada [Magic Mountain Entertainment] Site, Los Angeles, California (2006); Dudek and Associates, Inc., 2006 Sensitive Plant Survey Results for the Valencia Commerce Center, Los Angeles, California (2006).

⁸⁵ U.S. Department of Agriculture (USDA), *Survey, Antelope Valley Area, California: U.S. Department of Agriculture (1969).*



Legend

-  NRSP Boundary
-  Mission Village Project Boundary
-  Mission Village VTTM Boundary
-  Permanent Impact Limits
-  Temporary Impact Limits

Special-Status Plants

-  San Fernando Valley Spineflower
-  Slender Mariposa Lily
-  Undescribed Everlasting

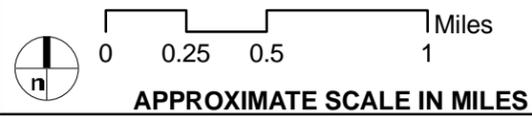


IMAGE SOURCE: DigitalGlobe 2007

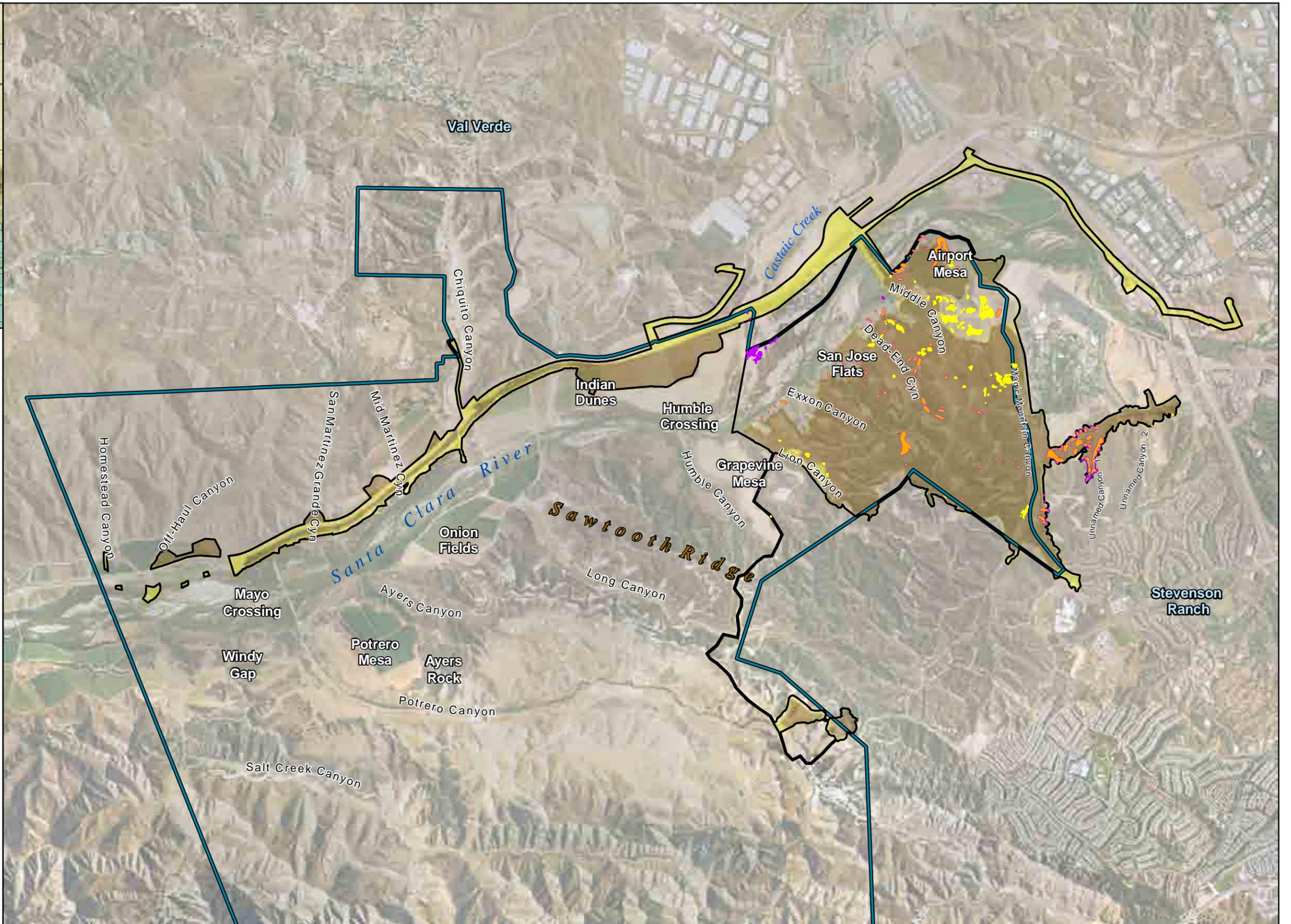


FIGURE 4.3-6

Mission Village EIR

Special-Status Plant Species Locations

On the Mission Village project site, yearly fluctuations of SFVS have also occurred. The acreage of SFVS mapped on the project site has varied significantly between 2002 and 2007, ranging from a low of 0.42 acre up to 7.14 acres, with a cumulative spineflower footprint of 8.57 acres. The variation of spineflower abundance and area occupied from year to year is typical of annual plant species. In the case of spineflower, it appears that climatic conditions influence spineflower abundance and area occupied. On the Newhall Land property, the estimated number of spineflower was lower in 2002, 2004, and 2007, compared to 2003 and 2005, with 2006 falling in between. Years 2002, 2004, and 2007 experienced below-average rainfall; in year 2003, rainfall was considered normal, according to the Western Regional Climate Center. Winter 2004/spring 2005 rainfall was considered to be above normal; in winter 2005/spring 2006, rainfall was slightly below average but was not as low as it was in 2002, 2004, and 2007, according to the Western Regional Climate Center.⁸⁶ The wide annual fluctuations of SFVS on site suggest that the locations would be best characterized by the cumulative area occupied rather than by number of individuals. The cumulative occupied area represents the overlap or intersection of spineflower occupied areas mapped from years 2002 through 2007. The Newhall Ranch Spineflower Conservation Plan (SCP) contains detailed information on the SFVS populations on and surrounding the project site (see **Appendix 4.3**). It should be noted that the SCP describes spineflower preserves proposed under Newhall Ranch RMDP-SCP EIS/EIR Alternative 2, which would create greater impacts than the proposed Mission Village project.

Slender mariposa lily is a CNPS List 1B plant (S1.1),⁸⁷ but has no federal status. This species is typically found in chaparral, California sagebrush scrub, and grasslands, often on clay and/or rocky soils.

⁸⁶ Western Regional Climate Center, "Rainfall data," 2006.

⁸⁷ Bittman, Roxanne, "California Heritage (CNDDDB) Element Ranking," https://transfer.natureserve.org/download/longterm/ERWG/Background_papers/ELEMENT%20RANKING%20with%20explanation%20with%20DT%20edits.doc.

S1: Less than 6 Eos OR less than 1,000 individuals OR less than 2,000 acres

S1.1 = very threatened

S1.2 = threatened

S1.3 = no current threats known.

S2: 6 to 20 Eos OR 1,000 to 3,000 individuals OR 2,000 to 10,000 acres

S2.1 = very threatened

S2.2 = threatened

S2.3 = no current threats known.

S3: 21 to 80 Eos or 3,000 to 10,000 individuals OR 10,000 to 50,000 acres

S3.1 = very threatened

S3.2 = threatened

S3.3 = no current threats known.

S4: Apparently secure within California. This rank is clearly lower than S3, but factors exist to cause some concern; i.e., there is some threat, or somewhat narrow habitat. NO THREAT RANK.

S5: Demonstrably secure to ineradicable in California. NO THREAT RANK.

Populations of this species have been documented and mapped throughout the project site. The mapped acreage of this species on the Mission Village project site in 2003 was 9.68 acres, in 2004 was 6.63 acres, and in 2005 was 6.23 acres. In total (when the 2003–2005 data is unioned), slender mariposa lily occupies a cumulative footprint of 17.43 acres of the project site.

Mainland cherry. The mainland cherry has no state or federal sensitivity status, but it is locally protected through the County of Los Angeles. This large shrub to tree was incidentally observed from 2002 to 2006 in the Specific Plan area, Entrada, and Valencia Commerce Center (VCC) planning areas as an occasional component of undifferentiated chaparral, big sagebrush scrub, and river wash. Given the low sensitivity status of the species, individual mainland cherry trees were not mapped.

Island mountain-mahogany. The island mountain-mahogany is a CNPS List 4 (S3.3) plant, but it has no federal status. It is an evergreen shrub or shrubby tree that is typically found in chaparral and closed-cone coniferous forests in Los Angeles and Ventura counties, as well as on several of the Channel Islands. Within the Specific Plan, Salt Creek, and Entrada areas, island mountain-mahogany occurs as an occasional component of chaparral communities at the base of north-facing slopes. Given the low sensitivity status of the species, individual island mountain-mahogany plants have not been mapped.

Parish's sagebrush is considered special status by the County of Los Angeles, but it has no federal, state, or CNPS status. This species grows intermixed with the big sagebrush scrub community within the Salt Creek watershed,⁸⁸ co-occurring with the more common big sagebrush (*Artemisia tridentata* ssp. *tridentata*). According to The Jepson Manual,⁸⁹ the differentiating characteristics between the two subspecies in question are as follows: drooping inflorescence branches and hairy fruit in subspecies *parishii* and erect to spreading inflorescence branches and glandular fruit in subspecies *tridentata*.⁹⁰ These differences are confirmed by Shultz.⁹¹ Parish's sagebrush occurs along coastal ranges in Baja California and Southern California, extending inland to regions south of the Great Basin.⁹² It is considered regionally rare by local botanists.⁹³ Where big sagebrush scrub occurs along the outer margins of the Magic Mountain Canyon and Santa Clara River floodplains, Parish's sagebrush may be present.

⁸⁸ Dudek and Associates, Inc., 2003 Sensitive Plant Survey Results for the Salt Creek Site.

⁸⁹ James C. Hickman, *The Jepson Manual: Higher Plants of California* (Berkeley: University of California Press, 1993).

⁹⁰ Ibid.

⁹¹ L.M. Shultz, "Artemisia tridentata spp. *parishii*" *Flora of North America North of Mexico* 19 (2006), 517; L.M. Shultz, "Artemisia tridentata spp. *tridentata*" *Flora of North America North of Mexico* 19 (2006), 516.

⁹² Ibid.

⁹³ Mary Meyer, CDFG, personal communication, October 2007.

Southwestern spiny rush. The southwestern spiny rush is a CNPS List 4 (S3.2) plant, but it has no federal status. This species is considered locally and regionally rare by local botanists. This stout, robust perennial herb is found primarily on coastal dunes with mesic soils, meadows and alkaline seeps, and marshes and coastal salt swamps. Within the Specific Plan area, southwestern spiny rush individuals were observed annually from 2001 through 2006 in mesic riparian areas along the Santa Clara River. This species is not numerically abundant on site and given the low sensitivity status of the species, individual plants have not been mapped.

Peirson's morning-glory is a CNPS List 4 (S3.2) plant, but has no federal status. This species is typically found in chaparral, coastal scrub, chenopod scrub, cismontane woodland, lower montane coniferous forest, and grasslands. While never abundant, Peirson's morning-glory is widespread on site and was observed on ridges and slopes, weakly climbing over mixed chaparral, California sagebrush, California buckwheat and in annual grasslands.⁹⁴ Given the low sensitivity status of the species, observations were not mapped.

Southern California black walnut (*Juglans californica*) is a CNPS List 4 plant, but has no state or federal status. This large shrub to tree was incidentally observed on the project site along the Santa Clara River. Given the low sensitivity status of the species, individual southern California black walnut trees were not mapped.

Newhall sunflower. The Newhall sunflower (*Helianthus*) is a CNPS List 1B.1 plant (S1), but has no federal status. For the purposes of this analysis it is considered a special-status species. The Newhall sunflower was found in 2002 at Middle Canyon Spring, on the south side of the Santa Clara River between Middle Canyon and San Jose Flats within the Specific Plan site. Ten or fewer plants were observed rooted in saturated wetland soils in dense vegetation including cattails, tules, stinging nettle, and wild grape. The species is a perennial with a near-surface tuber that produces annual growth stems that are 4 meters or more in length (16 to 20 feet). The stems produce abundant flowers in late summer through the fall and sometimes topple from their weight and lay about on the vegetation beneath. In 2002, more than 300 flowering stems were estimated in an area under 1 acre in size and appeared to be associated with three to five different clumps of sunflower.

⁹⁴ Dudek and Associates, Inc., 2002 *Sensitive Plant Survey Results for Newhall Ranch Specific Plan Area*; Dudek and Associates, Inc., 2003 *Sensitive Plant Survey Results for Newhall Ranch Specific Plan Area*; Dudek and Associates, Inc., 2004 *Sensitive Plant Survey Results for the Newhall Ranch Specific Plan Area*; Dudek and Associates, Inc., 2005 *Sensitive Plant Survey Results for the Newhall Ranch Specific Plan Area*; Dudek and Associates, Inc., 2006 *Sensitive Plant Survey Results for the Newhall Ranch Specific Plan Area*; Dudek, 2007 *Sensitive Plant Survey Results for the Newhall Ranch Specific Plan Area, Los Angeles County, California* (2007).

Undescribed everlasting (*Gnaphalium* sp. *nova*) was documented on the project site during the 2003, 2004, and 2005 field seasons. Because this plant is undescribed (a physical description of the plant with known distribution and species name has not been published in a peer reviewed publication) and its extent and distribution are unknown, for the purposes of this analysis it is considered a special-status species. Two main populations and a number of smaller populations of this undescribed species were documented within the Specific Plan area during the 2003, 2004, 2005, and 2007 field seasons.⁹⁵ Two main populations of this undescribed species, totaling about 530 individuals, were documented in 2003 in the Santa Clara River corridor near the mouth of Long Canyon and in Castaic Creek south of SR-126 within the Specific Plan area. During the 2004 surveys, these two occurrences were noted again with about 700 plants. In addition, a population of about 250 individuals was observed in the portion of Castaic Creek west of the I-5 Bridge and in an area to the north of the I-5 Bridge. In 2005, the two Specific Plan area occurrences consisted of approximately 800 individuals and five individuals, while approximately 65 individuals were found north of the I-5 Bridge in Castaic Creek. During 2007 surveys, the off-site occurrence north of the I-5 Bridge was estimated at approximately 350 individuals; one main occurrence and a number of smaller occurrences were documented within the Specific Plan area, totaling approximately 85 individuals. These occurrences are primarily on secondary alluvial benches. The vegetation around these plants consists of sparsely vegetated open river wash.

(2) Special-Status Plant Species Known to Occur in the Project Area but Not Observed on or Adjacent to the Project Site

The special-status plant species identified in **Table 4.3-4, Special-Status Plant Species Documented in the Project Area but Not Observed on or Adjacent to the Project Site**, are known to occur in the project area and were target species of the focused plant surveys conducted on, and in the vicinity of, the project site. None of these species were observed on or adjacent to the project site. Given the thoroughness of the survey efforts (**Table 4.3-2**), it is unlikely that any of the species identified below are present on the project site, though the potential of some of these species to occur on the site in future seasons cannot be entirely ruled out.

⁹⁵ Dudek and Associates, Inc., 2003 Sensitive Plant Survey Results for Newhall Ranch Specific Plan Area; Dudek and Associates, Inc., 2004 Sensitive Plant Survey Results for the Newhall Ranch Specific Plan Area; Dudek and Associates, Inc., 2005 Sensitive Plant Survey Results for the Newhall Ranch Specific Plan Area; A. Causey, "Focused Surveys for the Undescribed Everlasting Species in Castaic Creek and the Santa Clara River in Los Angeles County, California" (2007); FLx, "Sensitive Plant Species Surveys at the Magic Mountain Entertainment Site Fireworks Area" (2004).

**Table 4.3-4
Special-Status Plant Species Documented in the Project Area but
Not Observed on or Adjacent to the Project Site**

Common Name Scientific Name	Sensitivity Status				Habitat	Growth Form (Blooming)
	Federal	State	CNPS	California Heritage (CNDDDB) Element Ranking		
Marsh sandwort <i>Arenaria paludicola</i>	FE	CE	1B.1	S1.1	Dense freshwater marsh.	PH (May–August)
Braunton's milk-vetch <i>Astragalus brauntonii</i>	FE	—	1B.1	S2.1	Chaparral, coastal sage scrub, grasslands; often on carbonate substrates.	PH-b (March–July)
Coulter's saltbush <i>Atriplex coulteri</i>	—	—	1B.2	S2.2	Coastal sage scrub and grasslands on alkaline or clay substrate.	PH (March–October)
Davidson's saltscale <i>Atriplex serenana</i> var. <i> davidsonii</i>	—	—	1B.2	S2?	Coastal bluff scrub and coastal sage scrub on alkaline substrate.	AH (May–October)
Malibu baccharis <i>Baccharis malibuensis</i>	—	—	1B.1	S1.1	Chaparral, coastal sage scrub, cismontane woodland.	Sh-d (August)
Nevin's barberry <i>Berberis nevinii</i>	FE	CE	1B.1	S2.2	Chaparral, coastal sage scrub, riparian scrub, cismontane woodland on sandy or gravelly substrate.	Sh-e (March–April)
Thread-leaved brodiaea <i>Brodiaea filifolia</i>	FT	CE	1B.1	S2.1	Clay substrate openings in chaparral, sage scrub, and grasslands.	PH-b (March–June)
Catalina mariposa lily <i>Calochortus catalinae</i>	—	—	4.2	S3.2	Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland.	PH (February) March–June); uncommon in February.
Club-haired mariposa lily <i>Calochortus clavatus</i> var. <i> clavatus</i>	—	—	4.3	S3	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/usually serpentinite, clay, rocky.	PH (May–June)
Plummer's mariposa lily <i>Calochortus plummerae</i>	—	—	1B.2	S3.2	Chaparral, coastal sage scrub, cismontane woodland, grasslands on rocky granitic substrate.	PH-b (May–July)
Late-flowering mariposa lily <i>Calochortus weedii</i> var. <i> vestus</i>	—	—	1B.2	S2.2	Chaparral, cismontane and riparian woodland.	PH-b (June–August)

Table 4.3-4 (Continued)
Special-Status Plant Species Documented in the Project Area but
Not Observed on or Adjacent to the Project Site

Common Name Scientific Name	Sensitivity Status				Habitat	Growth Form (Blooming)
	Federal	State	CNPS	California Heritage (CNDDDB) Element Ranking		
Southern tarplant <i>Centromadia</i> [= <i>Hemizonia</i>] <i>parryi</i> ssp. <i>Australis</i>	—	—	1B.1	S2.1	Mesic edges of marshes in grasslands.	AH (May–November)
Parry's spineflower <i>Chorizanthe parryi</i> var. <i>parryi</i>	—	—	1B.1	S2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/sandy or rocky, openings.	AH (April–June)
Santa Susana tarplant <i>Deinandra</i> [= <i>Hemizonia</i>] <i>minthornii</i>	—	CR	1B.2	S2.2	Chaparral and coastal sage scrub on rocky substrate.	Sh-d (July–November)
Slender-horned spineflower <i>Dodecahema leptoceras</i>	FE	CE	1B.1	S1.1	Alluvial scrub on sandy substrate, chaparral and cismontane woodland.	AH (April–June)
Blochman's dudleya <i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	—	—	1B.1	S2.1	Clay openings in chaparral and coastal sage scrub, grasslands.	PH (April–June)
Marcescent dudleya <i>Dudleya cymosa</i> ssp. <i>marcescens</i>	FT	CR	1B.2	S2.2	Chaparral, often on volcanic substrate.	PH (April–June)
Santa Monica Mountains dudleya <i>Dudleya cymosa</i> ssp. <i>ovatifolia</i>	FT	—	1B.2	S2.2	Chaparral and coastal sage scrub, often on volcanic substrate.	PH (March–June)
Many-stemmed dudleya <i>Dudleya multicaulis</i>	—	—	1B.1	S2.1	Coastal bluff scrub, coastal sage scrub, valley and foothill grassland, rocky, often clay substrate.	PH (April–June)
Conejo dudleya <i>Dudleya parva</i>	FT	—	1B.2	S2.1	Coastal sage scrub and grassland on rocky, gravelly clays.	PH (May–June)
Round-leaved filaree <i>Erodium macrophylla</i>	—	—	2.2	S3.1	Cismontane woodland and grasslands on clay substrate.	AH (March–May)
San Gabriel bedstraw <i>Galium grande</i>	—	—	1B.2	S2.2	Broadleaved upland forest, chaparral, cismontane woodland, and lower montane coniferous forest.	Sh-d (January–July)
Palmer's grappling hook <i>Harpagonella palmeri</i> var. <i>palmeri</i>	—	—	4.2	S3.2	Chaparral, coastal scrub, valley and foothill grasslands.	AH (March–May)

Table 4.3-4 (Continued)
Special-Status Plant Species Documented in the Project Area but
Not Observed on or Adjacent to the Project Site

Common Name Scientific Name	Sensitivity Status				Habitat	Growth Form (Blooming)
	Federal	State	CNPS	California Heritage (CNDDDB) Element Ranking		
Los Angeles sunflower <i>Helianthus nuttallii</i> ssp. <i>parishii</i>	—	—	1A	SH	Marshes and swamps.	PH (August–October)
Mesa horkelia <i>Horkelia cuneata</i> var. <i>puberula</i>	—	—	1B.1	S2.1	Chaparral, cismontane woodland, coastal sage scrub on sandy or gravelly substrate.	PH (February–December)
Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	—	—	1B.1	S2.1	Marshes and swamps (coastal salt), playas, vernal pools.	AH (February–June)
Fragrant pitcher sage <i>Lepechinia fragrans</i>	—	—	4.2	S3.2	Chaparral.	Sh (March–October)
Ross's pitcher sage <i>Lepechinia rossii</i>	—	—	1B.2	S1.2	Chaparral.	Sh (May–September)
Ocellated Humboldt lily <i>Lilium humboldtii</i> ssp. <i>ocellatum</i>	—	—	4.2	S3.2	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland/openings.	PH Mar–July(August); uncommon in August.
Davidson's bush mallow <i>Malacothamnus davidsonii</i>	—	—	1B.2	S1.1	Chaparral, coastal sage scrub, riparian woodland.	Sh-d (June–January)
California muhly <i>Muhlenbergia californica</i>	—	—	4.3	S3.3	Chaparral, coastal scrub, lower mountain coniferous forest, meadows and seeps/mesic, seeps and streambanks.	PH-r (June–September)
Mud nama <i>Nama strenocarpum</i>	—	—	2.2	S1S2	Edges of lakes, rivers, ponds, vernal pools.	AH (January–July)
Spreading navarretia <i>Navarretia fossalis</i>	FT	—	1B.1	S2.1	Chenopod scrub, marshes, and swamps, playas, vernal pools.	AH (April–June)
Piute mountains navarretia <i>Navarretia setiloba</i>	—	—	1B.1	S1.1	Cismontane woodland, pinyon and juniper woodland, valley and foothill grassland/clay or gravelly loam.	AH (April–July)
Chaparral nolina <i>Nolina cismontana</i>	—	—	1B.2	S1.1	Chaparral, coastal sage scrub on sandstone or gabbro substrate.	SH-e (April–July)

Table 4.3-4 (Continued)
Special-Status Plant Species Documented in the Project Area but
Not Observed on or Adjacent to the Project Site

Common Name <i>Scientific Name</i>	Sensitivity Status				Habitat	Growth Form (Blooming)
	Federal	State	CNPS	California Heritage (CNDDDB) Element Ranking		
Short-joint beavertail <i>Opuntia basilaris</i> var. <i>brachyclada</i>	—	—	1B.2	S1.2	Chaparral, Joshua tree woodland, Mojavean desert scrub.	Sh-ss (April-June)
California Orcutt grass <i>Orcuttia californica</i>	FE	CE	1B.1	S2.1	Vernal pools.	AH (April-August)
Lyon's pentachaeta <i>Pentachaeta lyonii</i>	FE	CE	1B.1	S1.1	Openings in chaparral and coastal sage scrub, grasslands.	AH (March-August)
Pringle's yampah <i>Perideridia pringlei</i>	—	—	4.3	S3.3	Chaparral, cismontane woodland, coastal scrub, pinyon, and juniper woodlands, serpentinite, clay soils.	PH (April-July)
Gambel's watercress <i>Rorippa gambelii</i>	FE	CT	1B	N/A	Marsh and swamps (freshwater and brackish).	PH-r (April-September)
Rayless ragwort <i>Senecio aphanactis</i>	—	—	2	S1.2	Chaparral, coastal sage scrub, cismontane woodland on alkaline substrate.	AH (January-April)
Salt spring checkerbloom <i>Sidalcea neomexicana</i>	—	—	2	S2S3	Chaparral, coastal sage scrub, and playas on alkaline substrate.	PH (March-June)

Table 4.3-4 (Continued)
Special-Status Plant Species Documented in the Project Area but
Not Observed on or Adjacent to the Project Site

Common Name Scientific Name	Sensitivity Status				Habitat	Growth Form (Blooming)
	Federal	State	CNPS	California Heritage (CNDDDB) Element Ranking		
Greata's aster <i>Symphyotrichum greatae</i>	—	—	1B.3	S2.3	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and riparian woodland/mesic.	PH-r (June–October)
Sonoran maiden fern <i>Thelypteris puberula</i> var. <i>sonorensis</i>	—	—	2	S2.2?	Meadows and seeps.	PH-r (January–September)

Key:

Status:

Federal: FE = Federal Endangered; FT = Federal Threatened; FC = Federal Candidate

State: CE = California Endangered; CT = California Threatened; CR = California Rare

CNPS: List 1A = Presumed extinct

List 1B = Plants Rare and Endangered in California and elsewhere

List 2 = Plants Rare, Threatened, or Endangered in California, but more common elsewhere

List 4 = Plants of limited distribution (watch list)

Threat Code Extensions:

.1: The plant is seriously endangered in California

.2: The plant is fairly endangered in California

.3: The plant is not considered to be very endangered in California.

Growth Form:

AH = Annual Herb, Sh = Shrub, r = rhizomatous, PH = Perennial Herb, b = bulb, e = evergreen, d = deciduous, ss = stem succulent

Note: For CNDDDB element ranking, uncertainty about the rank of an element is expressed in two major ways: First, by expressing the ranks as a range of values: e.g., S2S3 means the rank is somewhere between S2 and S3. Second, by adding a "?" to the rank: e.g., S2? This represents more certainty than S2S3, but less certainty than S2.

b. Oaks

The County of Los Angeles Oak Tree Ordinance (CLAOTO), Sections 22.56.2050–22.56.2260, protects oak trees that are at least 8 inches in diameter, as well as trees that have two trunks totaling at least 12 inches in diameter, as measured 4.5 feet above natural ground. A heritage oak, as defined by CLAOTO, is any species in the genus *Quercus* that measures 36 inches or more in diameter as measured 4.5 feet above natural ground, or any oak of 36 inches or less in diameter having a significant historical or cultural importance to the community. CLAOTO requires that all potential impacts to oak trees regulated by this ordinance be preceded by an application to the County that includes a detailed oak tree report (see

Appendix 4.3). Mitigation for impacts to oak trees is usually required as a condition of an Oak Tree Permit issued by the County.

During 2005 and 2006, an oak tree survey was conducted of the on-site oak trees occurring within 200 feet of the proposed grading limits (see **Appendix 4.3**). The survey identified 564 oaks potentially regulated by CLAOTO within the project boundary, 29 of which are heritage oaks. The vast majority of the oaks on the site are coast live oak, but valley oak (*Quercus lobata*) and scrub oak (*Quercus berberidifolia*) also occur.

In addition, Public Resources Code 21083.4 sets forth the following three analytical and mitigation requirements for oak tree impacts: (a) counties must determine whether a project may result in the conversion of oak woodlands; (b) if it does, the county must determine if the conversion will have a significant impact on the environment; and (c) if there is a conversion, and it has a significant impact, the county must impose one or more of the following mitigation measures:

1. Conserve oak woodlands, through the use of conservation easements
2. Plant an appropriate number of trees, including maintaining plantings and replacing dead trees
 - a. Maintain planted oak trees for seven years
 - b. The planting of oak trees shall not fulfill more than one-half of the mitigation requirement for the project
3. Contribute funds to the Oak Woodlands Conservation fund
4. Other mitigation measures developed by the County.

Public Resources Code 21083.4(a) defines “oak” as a “native tree species in the genus *Quercus*, not designated as Group A or Group B commercial species pursuant to regulations adopted by the State Board of Forestry and Fire Protection pursuant to Section 4526, and that is 5 inches or more in diameter at breast height.” This statute does not provide a definition of “oak woodland,” but Public Resources Code Section 12220(g) indicates that “forest land” is any “land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.”

Using Section 12220(g) as a guide, this EIR defines “oak woodland” as an area with at least 10% cover by oak trees with an understory of non-grass vegetation and at least 20% cover by oak trees with an

understory of grass vegetation. Oak/grass includes areas where oak trees comprise between 10% and 20% of the total cover with an understory of grass vegetation. As part of the Vegetation Communities analysis, biologist surveyed the site and identified all oak woodlands meeting this definition. Note that these surveys not only captured the oak woodland habitat, but also the entire range of oak trees in terms of size and maturity, including all trees with trunk diameters of five (5) inches or more, measured at breast height, as required under Public Resources Code 21083.4(a). These surveys indicate that the project site supports 37.3 acres of oak woodland, as defined.

c. Sensitive Plant Communities

The CDFG Wildlife and Habitat Data Analysis Branch has developed a *List of California Terrestrial Natural Communities*. The most recent version of this list, dated September 2003 (updated 2007), is derived from the California Natural Diversity Database (CNDDDB) and is intended to supersede all other lists developed from the CNDDDB. It is based on the detailed classification put forth in *A Manual of California Vegetation*.⁹⁶ It is also structured to be compatible with previous CNDDDB lists.⁹⁷

The two primary purposes of the CNDDDB classification are to assist in characterizing vegetation in a consistent manner and to identify rare and declining vegetation types. The ranking of natural communities by rarity or threat is an important facet of this system. For the purposes of this Biota analysis, vegetation communities denoted on the October 2007 list as G1, G2, or G3 (high priority for inventory)⁹⁸ or otherwise regulated by local, state, and/or federal resource agencies, are considered to have “special status.”

Of the 23 plant communities and three existing land use types occurring on the Mission Village project site, Mexican elderberry scrub, southern willow scrub, and southern cottonwood–willow riparian are currently denoted as G1, G2, or G3 by CDFG⁹⁹ and, therefore, are considered special status. In addition to those vegetation communities ranked as G1, G2, or G3, riparian and wetland vegetation communities on site are considered special-status, including herbaceous wetland, river wash, arrow weed scrub, and mulefat scrub. Given the occurrence of *Artemisia tridentata* ssp. *parishii* (which is considered special status by the County of Los Angeles) within the big sagebrush scrub community, this EIR treats big sagebrush scrub as a special-status vegetation community. Please see **subsection 6. Biological Resources, a. Plant**

⁹⁶ Sawyer and Keeler-Wolf, *Manual of California Vegetation*.

⁹⁷ e.g., Holland, *Preliminary Descriptions*.

⁹⁸ CDFG, “Vegetation Classification and Mapping Program, List of California Vegetation Alliances” (2007).

⁹⁹ *Ibid.*

Communities and Land Uses, above, for a more detailed discussion of these plant communities and their distribution on the project site.

Note that the Newhall Ranch Specific Plan Program EIR identified coastal sage scrub (coastal scrub) as a special-status plant community. However, this determination was based on a previous CDFG list of terrestrial natural communities, which has been superseded by the current *List of California Terrestrial Natural Communities*.¹⁰⁰ In this new list, coastal sage scrub is not identified as a special-status plant community, although it remains important at a watershed level because it provides habitat for a variety of special-status species and is addressed as such in this EIR.

d. Special-Status Wildlife

Special-status wildlife species include those that are (1) state- or federally listed as Threatened or Endangered, (2) proposed for listing as Threatened or Endangered, (3) designated as state or federal candidates for listing, (4) considered state Species of Special Concern, or (5) considered a state Fully Protected Animal.

Based on a review of the CNDDDB and the biological documentation prepared for the project site and the greater Newhall Ranch Specific Plan area, a total of 99 special-status wildlife species were identified that are known to occur in the project region. This list formed the basis of the following analysis, wherein each of the identified species is addressed in one of the following three headings: (1) **subsection 7.d.(1)** addresses the special-status wildlife species that were observed on or adjacent to the project site during the course of various field surveys; (2) **subsection 7.d.(2)** addresses the special-status wildlife species that have not been observed on the site, but based on the presence of suitable habitat and known occurrences in the area, have the potential to occur on the site as a resident, overwintering or nesting species, and (3) **subsection 7.d.(3)** addresses the special-status wildlife species known to occur in the project area, but for which the project site does not provide suitable habitat to support the species as a resident or nesting species, or for which the species is expected to utilize the site only on rare occasions, such as during migration for bird species.

(1) Special-Status Wildlife Species Observed on the Project Site

During the course of various field surveys conducted for the proposed project or greater Newhall Ranch Specific Plan area (**Table 4.3-2**), 61 special-status wildlife species were observed on or bordering the project site. **Table 4.3-5, Special-Status Wildlife Species Observed on or Adjacent to the Project Site**,

¹⁰⁰ CDFG, "List of California Terrestrial Natural Communities."

identifies these species and provides the species' listing status, habitat requirements, and observation information.

**Table 4.3-5
Special-Status Wildlife Species Observed on or Adjacent to the Project Site**

Common Name <i>Scientific Name</i>	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
INSECTS (BUTTERFLIES)					
Monarch butterfly (wintering sites) <i>Danaus plexippus</i>	—	***	—	Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, Monterey cypress), with nectar and water sources nearby.	Individual monarchs have been observed within the Newhall Ranch Specific Plan area (NRSP), including the High Country ¹⁰¹ ; due to site's distance from coast, it is unlikely that the project site would be used by large numbers of overwintering adults. Not expected to occur in Salt Creek area.
San Emigdio blue butterfly <i>Plebulina emigdionis</i>	—	***	—	Often near streambeds, washes, or alkaline areas. Associated with four-wing saltbush (<i>Atriplex canescens</i>) and quail brush (<i>Atriplex lentiformis</i>).	A colony was observed in Potrero Canyon in NRSP in association with <i>Atriplex lentiformis</i> plants. ¹⁰² Suitable habitat occurs within Salt Creek.
MOLLUSKS					
<i>Pyrgulopsis castaicensis</i> n. sp.	—	—	—	Occupies groundwater-dependent spring, occurring on muddy and gravelly substrate and in water of depths up to several centimeters.	This species was observed on the NRSP in 2006 at the Middle Canyon Spring complex. ¹⁰³

¹⁰¹ Compliance Biology, Inc., *Results of Butterfly Surveys on the Newhall Ranch Project*; Compliance Biology, Inc., *Results of Butterfly Surveys on Newhall Salt Canyon Habitat Preservation Area*; Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*.

¹⁰² Compliance Biology, Inc., *Results of Butterfly Surveys on the Newhall Ranch Project Site*; Compliance Biology, Inc., *Results of Butterfly Surveys on Newhall Salt Canyon Habitat Preservation Area*.

¹⁰³ Dudek, *Draft Middle Canyon Spring Survey and Status Report*.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
	Scientific Name	Federal	State		
FISH					
Santa Ana sucker <i>Catostomus santaanae</i>	—	CSC	—	Occupies small- to medium-sized perennial streams with water ranging in depth from a few centimeters to a meter or more.	This species is known to occur in the Santa Clara River and has been sparsely observed in the portion of the river within NRSP. ¹⁰⁴ Population in the Santa Clara River system is not listed as threatened because it is introduced to the area. Not expected to occur in Salt Creek.
Unarmored threespine stickleback <i>Gasterosteus aculeatus williamsoni</i>	FE	CE, CFP	—	Slow-moving and backwater areas.	This species is known to occur in the Santa Clara River and has been observed evenly distributed in the portion of the river within NRSP ¹⁰⁵ . It was also observed in Castaic Creek. ¹⁰⁶
Arroyo chub <i>Gila orcutti</i>	—	CSC	—		This species is known to occur in the Santa Clara River and has been observed abundantly in the portion of the river within NRSP. ¹⁰⁷ Not

¹⁰⁴ CDFG, "RareFind: California Natural Diversity Database," Version 3, <http://www.dfg.ca.gov/bdb/html/cnddb.html>; Impact Sciences, Inc., *Results of Focused Surveys for Unarmored Threespine Stickleback and Other Special-Status Fish Species; Newhall Ranch*.

¹⁰⁵ Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part III, Aquatic Consulting Services, Inc., Surveys along the Santa Clara River; Part IV; Impact Sciences, Inc., Results of Focused Surveys for Unarmored Threespine Stickleback and Other Special-Status Fish Species, Newhall Ranch; Impact Sciences, Inc., Results of Focused Surveys for Unarmored Threespine Stickleback and Other Special-Status Fish Species; Natural River Management Plan Area; ENTRIX, Inc., Special Status Aquatic Species Habitat Assessment Santa Clara River, Landmark Village Project, Newhall Ranch, California (2005)*.

¹⁰⁶ Haglund, *Current Status of the Unarmored Threespine Stickleback*.

¹⁰⁷ Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part III, Aquatic Surveys along the Santa Clara River; Part IV; Impact Sciences, Inc., Results of Focused Surveys for Unarmored Threespine Stickleback and Other Special-Status Fish Species; Newhall Ranch; Impact Sciences, Inc., Results of Focused Surveys for Unarmored Threespine Stickleback and Other Special-Status Fish Species; Natural River Management Plan Area; ENTRIX, Inc., Special Status Aquatic Species Habitat Assessment*

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
Scientific Name	Federal	State	Other		
					expected to occur in Salt Creek.
AMPHIBIANS					
Arroyo toad <i>Bufo californicus</i>	FE	CSC	—	Restricted to rivers with shallow, gravely pools adjacent to sandy terraces that have a nearly complete closure of cottonwoods, oaks or willows, and almost no herbaceous cover. Requires shallow pools with minimal current, little to no emergent vegetation and a sand or pea gravel substrate overlain with flocculent silt for egg deposition.	Numerous focused surveys have been conducted for the arroyo toad throughout the project site and along the Santa Clara River east of the project site. Surveys include. ¹⁰⁸ Adult toads have been documented in limited numbers upstream of the project area along the Santa Clara River and tributaries. ¹⁰⁹ One study detected three arroyo toad tadpoles in the river within NRSP site, downstream of the

¹⁰⁸ SMEA, *Sensitive Aquatic Species Survey*; RECON, *Survey for Arroyo Southwestern Toad for Newhall Ranch*; Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part II*; Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part III*; Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part IV*; Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part I*; Sandburg, "Field Summary of Santa Clara River Surveys for *Bufo californicus* and *Rana aurora draytonii*"; Impact Sciences, Inc., *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians within the Natural River Management Plan Area, Valencia, California*; Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, Castaic Creek" (2003); Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, Castaic Reservoir Site"; Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, Hart/Pony Baseball Site and Hart/Pony Commercial Site"; Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, NRMP Project Area "; Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, Round Mountain Site"; Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, Soledad Site "; Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, Castaic Creek" (2004); Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, Portions of Santa Clara River/South Fork"; Ecological Sciences, Inc. "Results of Focused Arroyo Toad Surveys, NRMP Soledad/Riverpark Area"; Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, San Francisquito Creek" (2004); Compliance Biology, Inc., *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians, River Village Project*.

¹⁰⁹ Impact Sciences, Inc., *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians within the Natural River Management Plan Area*; Sandburg, "Field Summary of Santa Clara River Surveys for *Bufo californicus* and *Rana aurora draytonii*."

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
	Scientific Name	Federal	State		
					Commerce Center Drive bridge site; ¹¹⁰ and another study detected three arroyo toad tadpoles, two near the Valencia Water Treatment Plant and one upstream of Commerce Center Drive. ¹¹¹
Western spadefoot toad <i>Spea hammondi</i>	—	CSC	—	Open areas in lowland grasslands, chaparral, and pine-oak woodlands; requires temporary rain pools that last approximately three weeks.	Two pools were found with western spadefoot toad tadpoles, one near the western boundary of Mission Village and the other near Grapevine Mesa. ¹¹² Seasonal backwater areas within NRSP, as well as seasonal, stock ponds and depressions within existing dirt roads, provide breeding habitat. Given documented occurrences of the species at several on-site locations, and the presence of suitable breeding habitat, the species could occupy additional suitable on-site habitats.
REPTILES					
Silvery legless lizard <i>Anniella pulchra pulchra</i>	—	CSC	—	Stabilized dunes, beaches, dry washes, chaparral, pine, oak, and riparian woodlands; associated with sparse vegetation and sandy or loose,	This species has been observed within NRSP in 2004 in leaf litter of coast live oak woodland; ¹¹³ suitable habitat occurs within Salt Creek in association

¹¹⁰ Aquatic Consulting Services, Inc., *Surveys along the Santa Clara River; Part II.*

¹¹¹ Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part I.*

¹¹² Compliance Biology, Inc., *Results of the Focused Western Spadefoot Toad Surveys on the Mission Village Project Site.*

¹¹³ Impact Sciences, Inc., *2004 and 2006 Reptile Survey Results, Newhall Ranch Specific Plan Area.*

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name <i>Scientific Name</i>	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
				loamy soils.	with California sagebrush scrub, chaparral, oak woodland, and riverbank habitats.
Coastal western whiptail <i>Aspidoscelis tigris stejnegeri</i>	—	***	—	Open areas in semiarid grasslands, scrublands, and woodlands.	Observed within NRSP in High Country ¹¹⁴ and one was observed off site in Castaic Mesa; ¹¹⁵ suitable habitat occurs within Salt Creek in association with grassland, scrub, oak woodland, and riverbank habitats.
Southwestern pond turtle <i>Actinemys marmorata pallida</i>	—	CSC	—	Streams, ponds, freshwater marshes, and lakes with growth of aquatic vegetation.	This species was observed in the reach of the Santa Clara River within NRSP; ¹¹⁶ and in Salt Creek; ¹¹⁷ river and riparian habitats within NRSP and Salt Creek provide suitable habitat.
Coast horned lizard <i>Phrynosoma coronatum</i>	—	CSC	—	Exposed gravelly-sandy soils with minimal shrubs, riparian woodland clearings, dry chamise chaparral, and annual grasslands with scattered seepweed or saltbush.	This species was also observed during the reptile surveys in 2004 and 2006. ¹¹⁸ Suitable habitat occurs within NRSP and Salt Creek in association with scrub, chaparral, and riverbank habitats; species presumed to occur on

¹¹⁴ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*.

¹¹⁵ Compliance Biology, Inc., *Biological Resource Assessment, Castaic Mesa Project*.

¹¹⁶ SMEA, *Sensitive Aquatic Species Survey*; Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part I*; Impact Sciences, Inc., 2002; Compliance Biology, Inc., *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians, River Village Project*.

¹¹⁷ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*.

¹¹⁸ Impact Sciences, Inc., *2004 and 2006 Reptile Survey Results, Newhall Ranch Specific Plan Area*.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
	Scientific Name	Federal	State		
					site within suitable habitat.
Two-striped garter snake <i>Thamnophis hammondi</i>	—	CSC	—	Perennial and intermittent streams with rocky or sandy beds and artificially-created aquatic habitats (man-made lakes and stock ponds); requires dense riparian vegetation.	This species was observed in the reach of the Santa Clara River within and adjacent to the NRSP ¹¹⁹ ; river and riparian habitats within Salt Creek provide suitable habitat.
BIRDS					
Cooper's hawk (nesting) <i>Accipiter cooperi</i>	—	WL	LC	Dense stands of live oak, riparian woodlands, or other woodland habitats near water.	This species is known to be a year-round resident within the NRSP ¹²⁰ ; it occurs commonly along the Santa Clara River and in Potrero Canyon. ¹²¹ This species has been observed nesting within NRSP near Grapevine Mesa and within active territories in NRSP. ¹²² It has been observed over multiple years foraging within Salt Creek during annual bird surveys. The project site provides foraging and nesting habitat for the species.
Sharp-shinned hawk (nesting)	—	WL	LC	Nests in woodlands and forages over dense	This species has been observed within the

¹¹⁹ Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part IV*; Impact Sciences, Inc., *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians, Newhall Ranch, Valencia, California*; Compliance Biology, Inc., *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians, River Village Project*; Compliance Biology, Inc., "Results of Focused Western Spadefoot Toad Surveys."

¹²⁰ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor (Gymnogyps californianus) on Portions of Newhall Land and Farming Company Property, Los Angeles County, California* (2007).

¹²¹ Bloom Biological, Inc., *Interim Report of Winter Surveys*.

¹²² Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name <i>Scientific Name</i>	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
<i>Accipiter striatus</i>				chaparral and scrublands.	NRSP hunting along agriculture fields along the Santa Clara River ¹²³ and was observed by Guthrie in the NRSP. ¹²⁴ It was also observed east of the site along the Santa Clara River ¹²⁵ and one individual was observed in Salt Creek. ¹²⁶ All observations were thought to be migrants and/or wintering birds. The project site is outside the known breeding range for this species. This species forages in woodlands, chaparral, scrublands, and edge/ecotone areas between habitats which occur throughout the project site.
Tricolored blackbird (nesting colony) <i>Agelaius tricolor</i>	BCC, USBC	CSC	—	Freshwater marshes and riparian scrub (nesting). Grassland and agriculture (foraging).	This species has been observed on the project site during focused bird surveys. A flock of approximately 200 breeding pairs of tricolored blackbirds was observed in Castaic Junction. ¹²⁷ Another flock of approximately 20 breeding pairs of tricolored blackbirds

¹²³ Bloom Biological, Inc., *Interim Report of Winter Surveys*.

¹²⁴ Guthrie, *Bird Surveys along the Santa Clara River, 1997*; Guthrie, *Bird Surveys along the Santa Clara River, 1999*.

¹²⁵ Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia* (1995).

¹²⁶ Bloom Biological, Inc., *Interim Report of Winter Surveys*.

¹²⁷ Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries* (1994).

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
Scientific Name	Federal	State	Other		
					was observed next to Castaic Creek. ¹²⁸ In 1995 and 1996 small flocks visited the Castaic Creek site again in April and May, but did not breed there. ¹²⁹ Labinger <i>et al.</i> observed a small nesting colony within the project site ¹³⁰ (specific location is not known). Migrants have also been observed within the RMDP boundaries during surveys, ¹³¹ but no breeding colonies have been observed since 1994, despite annual surveys through 2007. A flock of 20 tricolored blackbirds was observed in Potrero Canyon in 1994, ¹³² and a flock of 50 birds was seen on the Newhall Ranch property north of Mayo

¹²⁸ Ibid.

¹²⁹ Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California*, 1995; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California*, 1996.

¹³⁰ Z. J. Labinger, J. Greaves, and D. Haupt. *Preliminary Results of Avian Surveys Following the January 17, 1994, ARCO/Four Corners Oil Spill on the Santa Clara River, California* (1995).

¹³¹ Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia California*, 2000; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia California*, 2001; Guthrie, *Bird Surveys along the Santa Clara River*, 2006; Dudek and Associates, Inc., *Biological Resources Technical Report for the Entrada Site*.

¹³² Guthrie, *Bird Surveys along the Santa Clara River*, 1994.

¹³³ County of Los Angeles, *Revised Draft Additional Analysis to the Newhall Ranch Specific Plan and Water Reclamation Plant Final Environmental Impact Report* (Volumes 1 and 2) and *Final Additional Analysis to the Newhall Ranch Specific Plan and Water Reclamation Plant Final Environmental Impact Report* (Volumes 3–7) (Project # 94087, SCH # 95011015. 7 vol., November 2002 to May 2003, Prepared by Impact Sciences, Inc. for Los Angeles County Department of Regional Planning. Agoura Hills, California: Impact Sciences, Inc., 2003).

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
	Scientific Name	Federal	State		
					Crossing. ¹³³
Southern California rufous-crowned sparrow <i>Aimophila ruficeps canescens</i>	—	WL	LC	Coastal scrub.	This species has been observed over multiple years as a fairly common resident within the Coastal scrub within NRSP and Salt Creek during annual bird surveys and has been observed foraging in upland scrub on the south side of the Santa Clara River, and in upland areas, ¹³⁴ and near the Santa Clara River, ¹³⁵ and nesting in 2007; ¹³⁶ the project site provides suitable nesting and foraging habitat with large concentrations of coastal scrub in the northeastern portion of NRSP and southeastern portion of High Country.
Golden eagle (nesting and wintering) <i>Aquila chrysaetos</i>	BCC	WL CFP	—	Nests on cliff-walled canyons and large trees in open areas. Forage in open shrublands, agriculture, and grassland.	One pair was seen frequently in upper Potrero Canyon and a juvenile was seen once in the same area; this is likely a resident pair, but no nests have been observed to date. ¹³⁷ An

¹³⁴Bloom Biological, Inc., *Interim Report of Winter Surveys*.

¹³⁵Guthrie, *Bird Observations for Spring 2000 in the Proposed Potrero and Long Canyon Development Area*; Guthrie, *Bird Observations for Spring 2000 in the Proposed Mesa Development*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia California, 2001*; Guthrie, *Bird Surveys along the Santa Clara River, 2002*; Guthrie, *Bird Observations for Spring 2004 in the Proposed Homestead and Chiquito Areas*; Guthrie, *Bird Observations for Spring 2004 in the Proposed Potrero Valley, Long Canyon, Oak Valley and Onion Fields Development Areas*.

¹³⁶Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

¹³⁷Bloom Biological, Inc., *Interim Report of Winter Surveys*.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
Scientific Name	Federal	State	Other		
					individual was observed over the Santa Clara River corridor in Castaic Junction area in 1993 and 1995 ¹³⁸ and another was flushed in a woodland west of Grapevine Mesa in the NRSP in 2000; ¹³⁹ no nesting eagles have been observed on the project site but suitable nesting and foraging habitat is present within NRSP and Salt Creek. These species have also been observed along Santa Clara River east and west of the project site. ¹⁴⁰
Short-eared owl (nesting) <i>Asio flammeus</i>	USBC	CSC	—	Grassland, prairies, dunes, meadows, irrigated lands, saline and freshwater emergent wetlands.	This species was observed in the Salt Creek area just west of the Ventura/Los Angeles County line in the fall of 2005. ¹⁴¹ A freshly dead individual was found at the edge of a cultivated field just west of I-5 during the Santa Clarita

¹³⁸ Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia* (1993); Guthrie, *Bird Surveys along the Santa Clara River*, 1993; Guthrie, *Bird Surveys along the Santa Clara River*, 1995.

¹³⁹ Guthrie, *Bird Observations for Spring 2000 in the Proposed Mesa Development*.

¹⁴⁰ Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia* (1993); Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California*, 1997; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California*, 2004; Guthrie, *Bird Surveys along the Santa Clara River*, 2006; Z. Labinger, J. Greaves, and D. Haupt. *1996 Avian Survey Results following the ARCO/Four Corners Oil Spill (January 17, 1994) on the Santa Clara River, California* (Draft prepared for the U.S. Fish and Wildlife Service, Goleta, California: Labinger Biological Consulting, January 9, 1997).

¹⁴¹ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
	Scientific Name	Federal	State		
					Bird Count in December 2006. ¹⁴² This species is likely a winter visitor and is not known to nest in the project vicinity.
Long-eared owl (nesting) <i>Asio otus</i>	—	CSC	—	Dense, riparian and live oak thickets near meadow edges, nearby woodland and forest habitats. Also found in dense conifer stands at higher elevations. Forages in grassland and agriculture.	This species was observed within NRSP near Via Canyon in Fall 2005. ¹⁴³ Some suitable nesting habitat is present along the Santa Clara River and Castaic Creek, and foraging habitat is present throughout the NRSP and Salt Creek.
Western burrowing owl (burrowing sites) <i>Athene cunicularia</i>	BCC	CSC	—	Grasslands, open scrub, and agriculture, particularly with ground squirrel burrows.	A single individual was observed with NRSP. ¹⁴⁴ Given the timing of the sighting (winter 2006), the observed individual may have been wintering on site or temporarily using the site during migration. Another individual was observed in December 2006 and on April 11, 2007. ¹⁴⁵ NRSP and Salt Creek provide suitable habitat for the species; California ground squirrel burrows occur on the project site.
Oak titmouse (nesting) <i>Baeolophus inornatus</i>	USBC	***	ABC, LC, Aud	Montane hardwood-conifer, montane hardwood, blue oak,	This species is a common resident and nests on site in

¹⁴² G. Olson, Audubon California, letter containing comments on the Draft Environmental Impact Report for Landmark Village to D. Fierros (County of Los Angeles, Department of Regional Planning), January 19, 2007.

¹⁴³ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*.

¹⁴⁴ Keith Babcock, Dudek, telephone call to Callie Ford, Dudek, October 2007.

¹⁴⁵ Sherri Miller, Dudek, verbal communication with Callie Ford, Dudek, November 2007.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
	Scientific Name	Federal	State		
				valley oak and coastal oak woodlands, montane and valley foothill riparian habitats.	cottonwood riparian and coast live oak communities; it has been observed over multiple years in the NRSP sites. Recent observations have been in 2006 ¹⁴⁶ and 2007 and 2008. ¹⁴⁷
Ferruginous hawk (wintering) <i>Buteo regalis</i>	BCC	WL	NT, Aud	Grasslands, agricultural fields, and open scrublands.	This species is an infrequent seasonal migrant. Individuals of this species were observed almost every day in east alfalfa fields, Wolcott fields, and Potrero Canyon, and other agriculture fields along the Santa Clara River in winter 2008. ¹⁴⁸ Although suitable foraging habitat is present on the project site, this species has not been documented to nest in California and is expected to forage on the site.
Costa's hummingbird (nesting) <i>Calypte costae</i>	USBC	***	—	Shrubs and arid habitats. Edges of desert riparian and valley foothill riparian, coastal scrub, desert scrub, desert succulent scrub, arid shrublands, lower elevation chaparral, and palm oasis.	This species has been observed over multiple years within the NRSP sites; it is thought to be a summer resident, although does not appear to be an abundant species within the project site based on the number of sightings each year. Recent

¹⁴⁶ Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence* (2006).

¹⁴⁷ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*; Bloom Biological, Inc., *Interim Report of Winter Surveys*.

¹⁴⁸ Bloom Biological, Inc., *Interim Report of Winter Surveys*.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
	Scientific Name	Federal	State		
					observations have been in 2006. ¹⁴⁹
Lawrence's goldfinch <i>Carduelis lawrencei</i>	BCC, USBC	—	ABC, LC, Aud	Valley foothill hardwood, valley foothill hardwood-conifer; and, in Southern California, desert riparian, palm oasis, pinyon-juniper and lower montane habitats.	This species has been observed as a resident in the coastal scrub in the northern and northeastern portions of the project site, and has been observed within the riparian habitats of the Santa Clara River over multiple years within NRSP and Entrada during annual bird surveys. Recent observations have been in 2006 ¹⁵⁰ and 2007 and 2008. ¹⁵¹ Suitable nesting and foraging habitat is present within NRSP and Salt Creek.
Turkey vulture <i>Cathartes aura</i>	—	†	—	Rangeland, agriculture, grassland; uses cliffs and large trees for roosting, nesting and resting.	This species has been observed over multiple years within NRSP and Salt Creek; recent observations in the project site have been made in 2006; ¹⁵² nesting opportunities are also present within the project site.
Northern harrier (nesting)	—	CSC	LC	Coastal salt marsh, freshwater marsh,	This species has been observed over multiple

¹⁴⁹ Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence* (2006).

¹⁵⁰ Ibid.

¹⁵¹ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*; Bloom Biological, Inc., *Interim Report of Winter Surveys*.

¹⁵² Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence* (2006); Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
	Scientific Name	Federal	State		
	<i>Circus cyaneus</i>				years within NRSP in 1999 and 2000 ¹⁵³ and in 2007 and 2008 near the Santa Clara River in the NRSP and Entrada sites. ¹⁵⁴ This species has also been observed within the vicinity of the project site; ¹⁵⁵ suitable foraging and nesting habitat is present within NRSP and Salt Creek.
Western yellow-billed cuckoo (nesting)	<i>Coccyzus americanus occidentalis</i>	FC BCC	CE	—	Nests along the broad, lower flood-bottoms of larger river systems. Also nests in riparian forests and riparian jungles of willow often mixed with cottonwoods, with an understory of blackberry, nettles, or wild grape. One individual was heard at the Magic Mountain (Entrada) area in 1997 and thought to be a migrant. ¹⁵⁶ Single individuals (thought to be migrants) were observed along the Santa Clara River east of the project site in 1997 and 1998, ¹⁵⁷ and west of the Ventura county line; ¹⁵⁸ none have been observed since then; species has not been observed nesting on site;

¹⁵³ Guthrie, *Bird Surveys in the Proposed Riverwood Project Area; Guthrie, Bird Observations for Spring 2000 in the Proposed Potrero and Long Canyon Development Area.*

¹⁵⁴ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor; Bloom Biological, Inc., Interim Report of Winter Surveys.*

¹⁵⁵ Compliance Biology, Inc., *Results of Focused Survey for Coastal California Gnatcatcher Surveys; River Park Project; Compliance Biology, Inc., Results of Focused Coastal California Gnatcatcher Surveys; Castaic Mesa Project.*

¹⁵⁶ Z. Labinger, J. Greaves, and D. Haupt. *Results of 1997 Avian Surveys and Least Bell's Vireo Monitoring: Restoration Phase of the ARCO/Four Corners January 17, 1994, Oil Spill on the Santa Clara River, California* (Draft. Prepared for the U.S. Fish and Wildlife Service, Goleta, California: Labinger Biological Consulting. November 30, 1997).

¹⁵⁷ Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1997; Z. Labinger and J. Greaves Results of 1998 Avian Surveys and Least Bell's Vireo Monitoring: Restoration Phase of the ARCO/Four Corners January 17, 1994 Oil Spill on the Santa Clara River, California* (Draft prepared for the U.S. Fish and Wildlife Service, Goleta, California: Labinger Biological Consulting, March 1, 1999).

¹⁵⁸ Guthrie, *Bird Surveys along the Santa Clara River, 1997.*

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
	Scientific Name	Federal	State		
					suitable nesting and foraging habitat present within NRSP. This species has been observed historically in 1979, 1981 and 1992. ¹⁵⁹
Hermit warbler (nesting) <i>Dendroica occidentalis</i>	—	***		Breeds in mature ponderosa pine, montane hardwood-conifer, mixed conifer, Douglas fir, redwood, red fir and Jeffrey pines. Uses live oak woodlands and deciduous trees during migration, and valley foothill hardwood in winter.	Individuals of this species have been observed within or adjacent to the Specific Plan in 1994, 1996, and 2002. ¹⁶⁰ All observations were thought to be migrants. The project site is within this species winter range. Suitable habitat for migration and wintering habitat occurs on site, but no suitable nesting occurs on site.
Yellow warbler (nesting) <i>Dendroica petechia brewsteri</i>	—	CSC	LC	Riparian thickets and woodlands.	This species has been observed over multiple years during annual bird surveys and nests in the riparian areas within NRSP and Salt Creek. These species have been observed both during nesting season and migration. Recent observations of these species within the project site in 2006 ¹⁶¹ and 2007. ¹⁶²
White-tailed kite	—	CFP	—	Inhabits herbaceous	This species has been

¹⁵⁹ Labinger, Greaves, and Haupt. 1996 *Avian Survey Results*.

¹⁶⁰ Guthrie, *Bird Surveys along the Santa Clara River, 1994*; Guthrie, *Bird Surveys along the Santa Clara River, 1996*; Guthrie, *Bird Surveys along the Santa Clara River, 2002*.

¹⁶¹ (Guthrie, *Bird Surveys along the Santa Clara River, 2006*; Guthrie, *Bird Surveys of The Old Road Phase III Environmental Project Study Area*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence* (2006).

¹⁶² Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
	Scientific Name	Federal	State		
(nesting) <i>Elanus leucurus</i>				and open stages of most habitats, common in cismontane in California. Nests are placed near top of dense oak, willow or other tree stand; usually 6 to 20 meters (20 to 100 feet) above ground. Nest located near open foraging area.	observed successfully nesting on site and in the vicinity of the project site along the Santa Clara River over multiple years within NRSP and Salt Creek during annual bird surveys ¹⁶³ and during focused survey; ¹⁶⁴ suitable foraging and nesting habitat is present on the project site. At least three pairs observed nesting along the River in 2007, including a pair downstream of the project site (adjacent to the Landmark Village site). ¹⁶⁵ A small roost of about eight individuals was observed near the Castaic Confluence in 2007. ¹⁶⁶ No roosts and three individuals were observed throughout the NRSP during the 2008 winter bird surveys. ¹⁶⁷
Willow flycatcher (nesting) <i>Empidonax traillii</i>	USBC	CE	—	Riparian woodlands that contain water and low willow thickets.	This species has been observed along the Santa Clara River over

¹⁶³ Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1995*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1997*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1998*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia California, 2000*; Guthrie, *Bird Surveys of Castaic Junction*; Guthrie, *Bird Surveys of The Old Road Phase III Environmental Project Study Area*.

¹⁶⁴ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*; Bloom Biological, Inc., *Report on White-Tailed Kites*.

¹⁶⁵ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

¹⁶⁶ Bloom Biological, *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor (Gymnogyps californianus) on Portions of Newhall Land and Farming Company Property, Los Angeles County, California (2007)*

¹⁶⁷ Bloom Biological, Inc., *Interim Report of Winter Surveys*.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
Scientific Name	Federal	State	Other		
					multiple years within the NRSP project site. The observations have usually been of individual species, thought to be migrants passing through the area based on their behavior and time of year (no observations occurred after June 22). Recent observations along the Santa Clara River within the NRSP have been made in 2005 and 2006. ¹⁶⁸ These species have also been observed adjacent to the project site. No nesting has been observed.
Southwestern willow flycatcher (nesting) <i>Empidonax traillii extimus</i>	FE, USBC	CE	—	Riparian woodlands that contain water and low willow thickets.	Most of the observations of the willow flycatcher have not identified individuals to the subspecies level. Individuals were considered to be migrating through the site as they were not located after June 22. Within the vicinity of the project site, two individuals identified as southwestern willow flycatchers were observed in Castaic Creek in 2006. ¹⁶⁹ These individuals, however, were not displaying any

¹⁶⁸ Guthrie, *Bird Surveys along the Santa Clara River, 2005*; Guthrie, *Bird Surveys of The Old Road Phase III Environmental Project Study Area*.

¹⁶⁹ Forde Biological Consultants, *Least Bell's Vireo and Southwestern Willow Flycatcher Presence-Absence Survey; Castaic Creek below Castaic Lagoon to halfway between Lake Hughes Road and Tapia Canyon Road, Castaic, Los Angeles County, California* (prepared for Compliance Biology, Inc., Camarillo, California, August 14, 2006).

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
Scientific Name	Federal	State	Other		
					nesting behavior. Suitable nesting and foraging habitat is present within NRSP. The most recent observation of this subspecies displaying territorial behavior is downstream approximately 18 miles, near Saticoy. ¹⁷⁰
California horned lark <i>Eremophila alpestris actia</i>	—	WL	LC	Grasslands, disturbed areas, agriculture fields and beach areas.	This species has been observed within NRSP during annual bird surveys foraging in plowed and graded fields over multiple years. In winter 2008 flocks of 250-500 individuals were observed in the Wolcott agriculture fields and east alfalfa field on several occasions, ¹⁷¹ and was observed in agriculture fields in 2007; ¹⁷² this species is thought to be a resident with recent observations, ¹⁷³ no nesting has been observed, but suitable foraging and nesting habitat is present on the project site.
Merlin (wintering) <i>Falco columbarius</i>	—	WL	LC	Coastlines, wetlands, woodlands,	Several individuals observed on different

¹⁷⁰ Labinger and Greaves, *Results of 1998 Avian Surveys and Least Bell's Vireo Monitoring*.

¹⁷¹ Bloom Biological, Inc., *Interim Report of Winter Surveys*.

¹⁷² Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

¹⁷³ Guthrie, *Bird Observations for Spring 2000 in the Proposed Potrero and Long Canyon Development Area*; Guthrie, *Bird Surveys along the Santa Clara River, 2000*; Guthrie, *Bird Surveys along the Santa Clara River, 2005*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence* (2006).

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
	Scientific Name	Federal	State		
				agricultural fields, and grasslands.	occasions hunting over agriculture fields along the Santa Clara River and in Potrero Canyon. ¹⁷⁴ A male and female were observed flying over agriculture fields bordering riparian habitat near Indian Dunes in the NRSP in March 2007. ¹⁷⁵ Although this species does not nest in California, CDFG considers wintering birds to be of Special Concern.
Prairie falcon (nesting) <i>Falco mexicanus</i>	BCC	WL	LC	Grasslands, savannas, rangeland, agricultural fields, and desert scrub; requires sheltered cliff faces for shelter and nesting.	At least 2 individuals were observed on several occasions in Potrero Canyon; and two other individuals were observed along the Santa Clara River on single occasions. ¹⁷⁶ Individuals observed foraging within NRSP in 2000, ¹⁷⁷ along Castaic Creek in 2001, ¹⁷⁸ and Salt Creek in 2005; ¹⁷⁹ it was observed flying

¹⁷⁴ Bloom Biological, Inc., *Interim Report of Winter Surveys*.

¹⁷⁵ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

¹⁷⁶ Bloom Biological, Inc., *Interim Report of Winter Surveys*.

¹⁷⁷ Guthrie, *Bird Observations for Spring 2000 in the Proposed Potrero and Long Canyon Development Area*.

¹⁷⁸ Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, 2001*.

¹⁷⁹ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
Scientific Name	Federal	State	Other		
					north over the NRSP on April 29, 2007; ¹⁸⁰ all of these occurrences were thought to be migrants in the project site. No nesting individuals have been observed and available nesting habitat is marginal.
American peregrine falcon <i>Falco peregrinus anatum</i>	BCC, Delisted	CE ¹ CFP	LC	Nests near wetlands, lakes, rivers, or other water bodies, on cliffs, banks, dunes, and other human-made structures.	One individual was observed on one occasion over Wolcott agriculture field. ¹⁸¹ An individual was observed foraging over the Santa Clara River corridor near the Grapevine Mesa area within NRSP in 2000; ¹⁸² no other occurrences of this species have been documented on site during annual bird surveys. No nesting peregrine falcons have been observed on the project site. Moderate potential for foraging within NRSP and Salt Creek. The species may nest in the Santa Susana Mountains, south of the project site. ¹⁸³
California condor <i>Gymnogyps californianus</i>	FE, USBC	CE CFP	—	Forages over wide areas of open rangelands, roosts on cliffs and in large trees	Until April 2008, California condors had not been known to nest or land within the

¹⁸⁰ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

¹⁸¹ Bloom Biological, Inc., *Interim Report of Winter Surveys*.

¹⁸² Guthrie, *Bird Observations for Spring 2000 in the Proposed Mesa Development*.

¹⁸³ *Ibid*.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
	Scientific Name	Federal	State		
				and snags.	project area within the last 25 years. ¹⁸⁴ In April 2008, a California condor was observed feeding on a dead calf in a Potrero side canyon by wildlife biologist Chris Niemela. ¹⁸⁵ A condor was also directly observed in January 2009 in the Potrero Canyon area, ¹⁸⁶ and there have been other documented landings in the project area between April and July 2008. ¹⁸⁷ It is a wide-ranging species that nests on remote cliffs, but forages over hundreds of square miles and is known to at least fly over the site. ¹⁸⁸
Yellow-breasted chat (nesting) <i>Icteria virens</i>	—	CSC	LC	Riparian thickets and riparian woodlands with a dense understory.	This species was observed nesting in riparian thickets in 2007 ¹⁸⁹ and has been observed over multiple years along the Santa Clara River within dry riparian woodland

¹⁸⁴ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*; Bloom Biological, Inc., *Interim Report of Winter Surveys*.

¹⁸⁵ M. Carpenter, Newhall Land and Farming Company, personal communication reporting that a California condor was observed feeding on a dead calf in a Potrero side canyon by wildlife biologist Chris Niemela in a Potrero side canyon, 2008.

¹⁸⁶ C. Niemela, memo from C. Niemela (Bloom Biological) to Jesse Grantham (USFWS) regarding observations of California condor in Potrero Canyon in January 2009, March 11, 2009.

¹⁸⁷ R.P. Root. "Acknowledgement of Request for Formal Consultation on the Proposed Newhall Ranch Specific Plan, Santa Clarita, Los Angeles County, California." Letter from R.P. Root (USFWS) to A.O. Allen (Corps), November 12, 2008.

¹⁸⁸ Bloom Biological, Inc., *Interim Report of Winter Surveys*.

¹⁸⁹ Bloom Biological, *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
Scientific Name	Federal	State	Other		
					habitat in NRSP and Salt Creek during annual bird surveys. Recent observations were made within the project site in 2006; ¹⁹⁰ suitable foraging and nesting habitat is present on the project site.
Loggerhead shrike <i>Lanius ludovicianus</i>	BCC	CSC	LC	Grasslands and open shrublands with scattered shrubs, trees, fences or other perches.	This species is a resident on site. ¹⁹¹ In winter 2008 it was observed regularly in Potrero Canyon, Tapo Canyon, near Magic Mountain ranch gate, and Wolcott agriculture fields. ¹⁹² Observed to be fairly common within California sagebrush scrub and grasslands in NRSP and also observed within Salt Creek ¹⁹³ ; it was observed nesting near Potrero Canyon and near an agriculture field near the Santa Clara River in 2007; ¹⁹⁴ it was thought to have nested within and adjacent to the Entrada site, ¹⁹⁵ suitable nesting

¹⁹⁰ Guthrie, *Bird Surveys along the Santa Clara River, 2006*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence* (2006).

¹⁹¹ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*; Bloom Biological, Inc., *Interim Report of Winter Surveys* (2006).

¹⁹² Bloom Biological, Inc., *Interim Report of Winter Surveys*.

¹⁹³ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*.

¹⁹⁴ Bloom Biological, *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

¹⁹⁵ Guthrie, *Bird Surveys in the Proposed Magic Mountain Entertainment Project Area*; Guthrie, *Bird Observations in the Proposed Magic Mountain Entertainment Project Area*.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
Scientific Name	Federal	State	Other		
					and foraging habitat is present on the project site.
Black-crowned night-heron (rookery) <i>Nycticorax nycticorax</i>	—	***	LC	Riparian; nests in dense-foliaged trees and dense emergent wetlands.	This species has been observed along the Santa Clara River within the NRSP, most recently in 2007, ¹⁹⁶ and in 2006. ¹⁹⁷ This species was observed early in the year and is thought to be a wintering or migratory species within the project site. No rookery sites have been detected on or near the site. ¹⁹⁸ It is not known if this species has a rookery site within or adjacent to the project site. ¹⁹⁹ Some suitable foraging and nesting habitat is present on site.
Nuttall's woodpecker (nesting) <i>Picoides nuttallii</i>	USBC	***	ABC, LC, Aud	Lower elevation riparian deciduous and oak habitats.	This species is a common, year-round resident in cottonwood and willow riparian habitat along the Santa Clara River and Castaic Creek. ²⁰⁰ It has been observed nearly every year since surveys began in 1988 (see Guthrie and Bloom Biological surveys).

¹⁹⁶ Bloom Biological, Inc., *Interim Report of Winter Surveys*.

¹⁹⁷ Guthrie, *Bird Surveys along the Santa Clara River, 2006*; Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

¹⁹⁸ Bloom Biological, *Interim Report of Winter Surveys*.

¹⁹⁹ Bloom Biological, *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

²⁰⁰ (Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*; Bloom Biological, Inc., *Interim Report of Winter Surveys*).

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name <i>Scientific Name</i>	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
Summer tanager (nesting) <i>Piranga rubra</i>	—	CSC	—	Cottonwood-willow riparian habitats, especially older, dense stands along rivers and streams.	Individuals have been observed during annual bird surveys within NRSP in 1994, ²⁰¹ in Entrada in 1991 and 1993, ²⁰² it has also been observed east of the project site in 2000 and 2003, ²⁰³ suitable nesting and foraging habitat present along the Santa Clara River and Castaic Creek within NRSP.
Coastal California gnatcatcher <i>Poliophtila californica californica</i>	FT, USBC	CSC	—	Various sage scrub communities, often dominated by California sage and buckwheat; generally avoids nesting in areas with a slope of greater than 40%, and typically less than 820 feet in elevation.	Suitable nesting and/or foraging habitat types are present on site, but all at higher elevations and/or with steeper slopes than typical of this species. The species has not been observed on site during numerous annual bird surveys (including USFWS protocol surveys). Focused protocol surveys have been conducted throughout the project site in 2000 ²⁰⁴ and 2007. ²⁰⁵

²⁰¹ Guthrie, *Bird Surveys along the Santa Clara River*, 1994.

²⁰² Guthrie, *Surveys for Least Bell's Vireo*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries* (1993); Guthrie, *Bird Surveys along the Santa Clara River*, 1993.

²⁰³ Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2000*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2003*.

²⁰⁴ Guthrie, *Bird Observations for Spring 2000 in the Proposed Potrero and Long Canyon Development Area*; Guthrie, *Bird Observations for Spring 2000 in the Proposed Mesa Development*; Guthrie, *Bird Surveys in the Proposed Magic Mountain Entertainment Project Area*; Guthrie, *Bird Observations for Spring 2004 in the Proposed Homestead and Chiquito Areas*; Guthrie, *Bird Observations in the Commerce Center Project Site*; Guthrie, *Bird Observations for Spring 2004 in the Proposed Potrero Valley, Long Canyon, Oak Valley and Onion Fields Development Areas*; Guthrie, *Bird Observations for Spring 2004 in the Proposed Mesa East and West Development*; Guthrie, *Bird Observations in the Proposed Magic Mountain Entertainment Project Area*.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
Scientific Name	Federal	State	Other		
					<p>Focused surveys have also been conducted off site in Legacy Village²⁰⁶ and other areas.²⁰⁷ However, during the course of biological monitoring conducted in the VCC planning area, an individual California gnatcatcher was observed on October 5, 2007 by Dudek biologist Jeff Priest and biologist Ron Francis, a sub-consultant to Dave Crawford, Compliance Biology, Inc.²⁰⁸ Given the time of year and the fact that no other California gnatcatchers have been observed within the project site (despite extensive focused and general surveys), this observation is believed to have been that of a dispersing or transient individual.</p>
Vermilion flycatcher (nesting)	—	CSC	—	Breeding habitat includes riparian	A single individual was observed along the

²⁰⁵ Priest, "Focused California Gnatcatcher Survey, Landmark Village Project."

²⁰⁶ Guthrie, *Bird Observations in the Stevenson Ranch*; Impact Sciences, Inc., "Results of Focused Surveys for the Coastal California Gnatcatcher"; SAIC, "Results of Focused Coastal California Gnatcatcher Surveys."

²⁰⁷ Compliance Biology, Inc., *Results of Focused Coastal California Gnatcatcher Surveys; Prospective Water Tank Locations, River Park Project*; Compliance Biology, Inc., *Results of Focused Survey for Coastal California Gnatcatcher Surveys; River Park Project*; Compliance Biology, Inc., *Results of Focused Coastal California Gnatcatcher Surveys; Castaic Mesa Project*; PCR, "Results of Focused California Gnatcatcher Surveys for the West Creek/East Creek Project Site."

²⁰⁸ Jeff Priest, Dudek, "Documentation of California Gnatcatcher Observation at Newhall, Valencia Commerce Center Project on 10/5/07" (memorandum from J. Priest, Dudek, to D. Crawford and R. Francis, Compliance Biology, Inc., October 8, 2007).

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
	Scientific Name	Federal	State		
Allen's/Rufous hummingbird (nesting)	USBC/ USBC, BCC	***	ABC, LC, Aud	Breeds in coastal scrub, valley foothill hardwood, and valley foothill riparian habitats. Migrates in woodland and scrub habitats.	This species has been observed along the Santa Clara River within and adjacent to the NRSP. ²¹⁰ These observations were thought to be of migrants. The project site provides suitable foraging, nesting, and migrating habitat throughout the NRSP. The project site is within this species' year-long range.
Chipping sparrow (nesting)	—	***	LC	Open woodlands with sparse or low shrubs.	This species has been observed as a common migrant in the project site, ²¹¹ additional observations are within and adjacent to the NRSP near the Santa Clara River, ²¹² near
<i>Pyrocephalus rubinus flammeus</i>				woodlands, riparian scrub, and freshwater marshes.	Santa Clara River in 1993, ²⁰⁹ suitable breeding and foraging habitat present on site along the Santa Clara River in the NRSP; some suitable habitat exists in Salt Creek.
<i>Selasphorus sasin/rufus</i>					

²⁰⁹ Guthrie, *Bird Surveys along the Santa Clara River*, 1993.

²¹⁰ Bloom Biological, Inc., *Interim Report of Winter Surveys*; Guthrie, *Bird Surveys along the Santa Clara River*, 1998; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California*, 1998; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California*, 2004.

²¹¹ Bloom Biological, *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

²¹² Guthrie, *Bird Surveys along the Santa Clara River*, 1994; Guthrie, *Bird Surveys along the Santa Clara River*, 1997; Guthrie, *Bird Surveys in the Proposed Riverwood Project Area*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California*, 2002.

²¹³ Guthrie, *Bird Observations for Spring 2000 in the Proposed Mesa Development*.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
	Scientific Name	Federal	State		
					Grapevine Mesa ²¹³ and Homestead Canyon. ²¹⁴ Suitable habitat occurs on site, mostly in High Country with some open woodland areas in Potrero Canyon as well. The project site is within this species' year-long range.
Least Bell's vireo (nesting) <i>Vireo bellii pusillus</i>	FE, USBC, BCC	CE	ABC, NT, Aud	Riparian vegetation with extensive willows below 2,000 ft.	This species has been observed almost every year along the Santa Clara River within the NRSP. It has been observed nesting within NRSP during annual bird surveys; on-site nesting sites in willow riparian habitats associated with the Santa Clara River and Castaic Creek. Suitable nesting and foraging habitat present with NRSP.
Yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	—	CSC	LC	Nests in freshwater marsh and forages in annual grassland, native grassland and agriculture.	This species has been observed within the NRSP. ²¹⁵ All observations were thought to be migrants. While suitable nesting and foraging habitat occurs on the project site, this species is expected to occur very rarely on site.

²¹⁴ Guthrie, *Bird Observations for Spring 2004 in the Proposed Homestead and Chiquito Areas*.

²¹⁵ Guthrie, *Bird Surveys along the Santa Clara River, 1996*; Guthrie, *Bird Surveys along the Santa Clara River, 1997*; Guthrie, *Bird Surveys in the Proposed Riverwood Project Area*; Guthrie, *Bird Surveys along the Santa Clara River, 2001*.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
	Scientific Name	Federal	State		
MAMMALS					
Pallid bat <i>Antrozous pallidus</i>	—	CSC	WBWG High, LC	Arid habitats, including grasslands, shrublands, woodlands and forests; prefers rocky outcrops, cliffs and crevices with access to open habitats for foraging.	This species was detected within NRSP during ANABAT surveys ²¹⁶ and in 2006; on-site habitats and structures (e.g., oak woodlands, buildings, SR-126 bridge) provide suitable roosting habitat within NRSP and Salt Creek.
Western mastiff bat <i>Eumops perotis</i>	—	CSC	LC, WBWG High	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub and urban.	This species was not detected within NRSP during Anabat surveys, ²¹⁷ but it was observed in 2006 within the NRSP; ²¹⁸ suitable roosting and foraging habitat is present within the project site.
Western red bat <i>Lasiurus blossevillii</i>	—	CSC	WBWG High	Occurs in a wide variety of habitats, including scrub, grassland, woodland, and riparian areas.	There were three acoustic detections of the western red bat in the project area. Two 2004 detections ²¹⁹ were in willow riparian habitat, and the 2006 detection was under The Old Road Bridge. ²²⁰ Suitable roosting and foraging habitat is present throughout the project site.
San Diego black-	—	CSC	—	Open chaparral and	Observed at mouth of

²¹⁶ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

²¹⁷ Ibid.

²¹⁸ H.L. Johnson, "Bat Survey; August 7–10, 2006 for the Newhall Ranch, Valencia, California."

²¹⁹ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

²²⁰ Johnson, "Bat Survey; August 7–10, 2006 for the Newhall Ranch, Valencia, California."

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name <i>Scientific Name</i>	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
tailed jackrabbit <i>Lepus californicus bennettii</i>				California sagebrush scrub, grassland and agriculture.	Potrero Canyon within NRSP. ²²¹ Suitable habitat is present within California sagebrush scrub and chaparral habitats within NRSP, Salt Creek, and High Country.
Fringed myotis <i>Myotis thysanodes</i>	—	***	—	Occurs in a wide variety of habitats. Optimal habitats include pinyon-juniper, valley foothill hardwood and hardwood-conifer woodlands. Forms maternity colonies and roosts in caves, mines, buildings and crevices.	This species was detected within NRSP in coast live oak habitat during ANABAT surveys, ²²² suitable roosting and foraging habitat is present within the project site in oak woodlands scattered throughout NRSP and larger concentrations in High Country.
Yuma myotis <i>Myotis yumanensis</i>	—	***	—	Inhabits open forests and woodlands with sources of water. Species is closely tied to bodies of water, over which it feeds. Forms maternity colonies in caves, mines, buildings, or crevices.	This species was not detected within NRSP during ANABAT surveys, ²²³ but it was observed in 2006 within the NRSP, ²²⁴ suitable roosting and foraging habitat is present within the project site.
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	—	CSC	—	Open chaparral, California sagebrush scrub, cactus patches and the understory of tree thickets.	A species of desert woodrat was observed during 2004 small mammal surveys within NRSP. ²²⁵ Single woodrat midden was

²²¹ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

²²² Ibid.

²²³ Ibid.

²²⁴ Johnson, "Bat Survey; August 7–10, 2006 for the Newhall Ranch, Valencia, California."

²²⁵ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name	Status			Habitat Requirements	On-Site Status
	Scientific Name	Federal	State		
					observed within High Country. ²²⁶ Moderate potential to occur within Salt Creek. Based on the known range of this species, it is assumed that the animals observed were the San Diego (<i>intermedia</i>) subspecies.
Pocketed free-tailed bat <i>Nyctinomops femorosaccus</i>	—	CSC	WBWG Medium	Occurs in a wide variety of habitats, including scrub, grassland, woodland, and riparian areas.	The pocketed free-tailed bat was acoustically detected in 2006 in lower Potrero Creek. ²²⁷ It roosts in crevices in cliffs and forages in open air in all habitats. The project area is at the extreme northwestern part of pocketed free-tailed bat range in California and does not contain the desert habitats typically used by this species. Though present on site, it is probably and occasional visitor.
Mule deer <i>Odocoileus hemionus</i>	—	†	—	Variety of habitats including forests, woodlands, brush, meadows and standing waters.	This species has been observed during surveys within Entrada, ²²⁸ NRSP, ²²⁹ and High Country and Salt Creek. ²³⁰ Suitable habitat exists

²²⁶ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area.*

²²⁷ Johnson, "Bat Survey; August 7–10, 2006 for the Newhall Ranch, Valencia, California."

²²⁸ Dudek and Associates, Inc., *Biological Resources Technical Report for the Entrada Site.*

²²⁹ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area.*

²³⁰ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area.*

Table 4.3-5 (Continued)
Special-Status Wildlife Species Observed on or Adjacent to the Project Site

Common Name <i>Scientific Name</i>	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
					throughout the project site.
Mountain lion <i>Puma concolor</i>	—	†	—	Occurs in a variety of scrub and forested habitats.	This species has been observed within NRSP, ²³¹ and High Country and Salt Creek; ²³² the project site is expected to host transient individuals and to be part of local lion(s) home range.
American badger <i>Taxidea taxus</i>	—	CSC	—	Grasslands, agriculture, drier open stages of shrub, forest, and herbaceous habitats with friable soils.	Observed during small mammal surveys within NRSP. ²³³ Suitable habitat exists within central portions of NRSP.
Black bear <i>Ursus americanus</i>	—	†	—	Dense forests; forages in brush forests, valley foothill riparian and wet meadows.	Observed within High Country in 2005. ²³⁴ Some suitable habitat occurs within the southern portion of High Country.

STATUS KEY:

Federal:

FE: Federally Endangered

FT: Federally Threatened

BCC: Bird of Conservation Concern

USBC: United States Bird Conservation

Watch List

State:

CE: California Endangered

CFP: California Fully Protected

CSC: California Species of Special

Concern

WL: Watch List

***: Special Animal

Other:

LC = Least Concern (IUCN)

NT = Near Threatened (IUCN)

Aud = Audubon Watch List

ABC = American Bird Conservancy Green List

WBWG = Western Bat Working Group

†: Trust resource

²³¹ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area.*

²³² Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area.*

²³³ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*; Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area.*

²³⁴ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area.*

(2) **Special-Status Wildlife Species Not Observed but with Potential to Occur on the Project Site**

Fifteen special-status wildlife species have been identified as having the *potential* to occur on the site, based on the presence of suitable habitat and known occurrences in the area, despite the fact that they have not been observed during general or focused surveys of the project site. **Table 4.3-6, Special-Status Wildlife Species with Potential to Occur on the Project Site**, identifies these species and provides the species' listing status, habitat requirements, and an explanation of why the species has the potential to occur on the site as a resident, over-wintering, nesting, or roosting species.

**Table 4.3-6
Special-Status Wildlife Species Not Observed but with *Potential* to Occur on the Project Site**

Common Name <i>Scientific Name</i>	Status		Habitat Requirements	Habitat Suitability
	Federal	State		
MOLLUSKS				
Trask shoulderband snail <i>(Helminthoglypta traskii traskii)</i>	—	***	The ecology and distribution of terrestrial land snails, including shoulderband snails in most of Southern California, are poorly understood. The available literature indicates that Trask shoulderband snail occurs in areas supporting coastal scrub, riparian, and chaparral communities.	Surveys were conducted in the project area for this species from November 2009 to January 2010. Although surveys were negative for this terrestrial mollusk species, the presence of suitable microhabitats, such as a woodrat nests, decaying yucca, downed tree limbs and branches, and two other non-special-status shoulderband snail species—Southern California shoulderband snail and Vasquez rocks shoulderband snail—indicate that the Trask shoulderband potentially occurs in the project area. ²³⁵
FISH				
Southern steelhead <i>Oncorhynchus mykiss</i>	FE	—	As juveniles and for spawning: relatively cool freshwater streams, well oxygenated water with adequate depth and cover in the way of gravel, cobble, boulder, undercut	Within the Santa Clara River drainage, southern steelhead historically inhabited Piru Creek, Sespe Creek, Santa Paula Creek, Hopper Creek, and possibly Pole Creek. ²³⁶ Presently, southern

²³⁵ C. Huntley, "Re: Snail Methods, etc." Email from C. Huntley (Aspen) to P. Behrends (Dudek), A.C. Lynch (Sohagi Law Group), D. Bedford (CDFG), K. Drewe (CDFG), S. White (Aspen), M. Carpenter (Newhall Land), S. Rojas (Newhall Land), and S. Miller (Dudek), March 12, 2010.

²³⁶ R.G. Titus, D.C. Erman, and W.M. Snider. *History and Status of Steelhead in California Coastal Drainages South of San Francisco Bay*. Forthcoming.

Table 4.3-6 (Continued)
Special-Status Wildlife Species Not Observed but with *Potential* to Occur on the Project Site

Common Name <i>Scientific Name</i>	Status		Habitat Requirements	Habitat Suitability
	Federal	State		
			banks, large and small woody debris, and overhanging vegetation. As non-spawning adults: Pacific Ocean.	steelhead occur downstream of the proposed project in the Santa Clara River watershed in Piru Creek between the confluence with the Santa Clara River and Santa Felicia Dam, in Sespe Creek, in Santa Paula Creek, and possibly in Hopper and Pole Creeks. ²³⁷ Although reconnaissance surveys conducted along the Santa Clara River and tributary drainages within the Specific Plan area of the RMDP were negative in 2004 and 2005, ²³⁸ this species was included in this category (Potential to Occur on Site) due to potential downstream effects of the proposed project.
AMPHIBIANS				
California red-legged frog <i>Rana aurora draytonii</i>	FT	CSC	Water sources such as ponds, lakes, reservoirs, streams and adjacent riparian woodlands.	Field investigations indicate that potential breeding or summer habitat is generally absent from the portion of the Santa Clara River within NRSP, ²³⁹ the species generally avoids large river channels with widely fluctuating flows because such habitat does not permit successful reproductive activity. ²⁴⁰ Not documented in the Santa Clara River in 1995 ²⁴¹ and 2001 ²⁴² with negative results.

²³⁷ M. Stoeker and E. Kelly. *Santa Clara River Steelhead Trout: Assessment and Recovery Opportunities* (prepared for The Nature Conservancy and The Santa Clara River Trustee Council).

²³⁸ ENTRIX, Inc., *Focused Special-Status Fish Species Habitat Assessment*.

²³⁹ Ibid.

²⁴⁰ M.P. Hayes and M.R. Jennings, "Habitat Correlates of Distribution of the California Red-Legged Frog (*Rana aurora draytonii*) and the Foothill Yellow-Legged Frog (*Rana boylei*): Implications for Management," in *Proceedings of the Symposium on the Management of Amphibians, Reptiles, and Small Mammals in North America*, technical coordinators R. Sarzo, K.E. Severson, and D.R. Patton, U.S. Forest Service, 144-158)

²⁴¹ SMEA, *Sensitive Aquatic Species Survey*.

²⁴² Sandburg, "Field Summary of Santa Clara River Surveys for *Bufo californicus* and *Rana aurora draytonii*."

Table 4.3-6 (Continued)
Special-Status Wildlife Species Not Observed but with *Potential* to Occur on the Project Site

Common Name <i>Scientific Name</i>	Status		Habitat Requirements	Habitat Suitability
	Federal	State		
				The species has been documented within the Piru Creek and San Francisquito Creek tributaries to the River; given the occurrence of California red-legged frog in nearby upstream and downstream tributaries, non-breeding frogs could occur within the portion of the Santa Clara River (and other drainages) on the project site. Additionally, the stock ponds on the NRSP provide suitable habitat and could support breeding frogs, although none have been found there.
REPTILES				
Rosy boa <i>Charina trivirgata</i> ssp. <i>roseofusca</i>	—	***	Inhabits desert and chaparral habitats with rocky soils in coastal canyons and hillsides, desert canyons, washes and mountains.	Suitable scrub and chaparral habitat occurs within the project site with large concentrations in the northeastern portion of High Country, and some in Potrero Canyon; riverbank habitat occurs on site along the Santa Clara River and Castaic Creek; oak woodlands are sparsely scattered throughout the NRSP with larger concentrations in High Country; this species is known to occur in the project region and is presumed to occur on site.
San Bernardino ringneck snake <i>Diadophis punctatus modestus</i>	--	***	Inhabits open, relatively rocky areas, often in somewhat moist microhabitats near intermittent streams. Avoids moving through open or barren areas by restricting movements to areas of surface litter or herbaceous vegetation.	Suitable habitat occurs within the project site in association with oak woodland and riverbank habitats; riverbank habitat occurs on site along the Santa Clara River and Castaic Creek; oak woodlands are sparsely scattered throughout the NRSP with larger concentrations in High Country; species is known to occur in the project region and is presumed to occur on site.
Coast patch-nosed snake <i>Salvadora hexalepis virgulata</i>	—	CSC	Inhabits brushy or shrubby vegetation. Requires small mammal burrows for refuge and overwintering sites.	Suitable habitat occurs throughout the project site in association with shrub habitats (upland and riparian scrub, chaparral and riverwash); California ground

Table 4.3-6 (Continued)
Special-Status Wildlife Species Not Observed but with *Potential* to Occur on the Project Site

Common Name <i>Scientific Name</i>	Status		Habitat Requirements	Habitat Suitability
	Federal	State		
				squirrel and Botta's pocket gopher burrows occur on site; species is known to occur in the project region and is presumed to occur on site.
South coast garter snake <i>Thamnophis sirtalis</i> spp.	—	CSC	Inhabits scrub, chaparral, annual and native grassland, freshwater marsh, and agriculture.	Suitable habitat occurs throughout the project site in association with scrub, chaparral, grassland, and agriculture habitats.
BIRDS				
Grasshopper sparrow <i>Ammodramus</i> <i>savannarum</i>	—	***	Dense, dry or well-drained annual and native grasslands with mix of grasses and forbs. May occur in fallow agricultural fields, especially those periodically planted in oats and barley.	The project site is just south of the southern edge of the portion of this species' summer range which occurs at approximately the Los Angeles/Kern County boundary. There is at least moderate potential for this species to breed/forage in grasslands and some agricultural areas which occur mostly in the central portion of NRSP, San Martinez Grande, along portions of the Santa Clara River and Castaic Creek.
Bell's sage sparrow (nesting) <i>Amphispiza belli belli</i>	BCC	WL	Coastal scrub and chaparral.	This species has been observed off site in Castaic Mesa, ²⁴³ near Soledad Canyon in 2002, ²⁴⁴ and in the Legacy Village project site, adjacent to the NRSP and Salt Creek area. ²⁴⁵ Suitable nesting and foraging habitat present on the project site with concentrations of coastal scrub and chaparral in the northeastern portion of the NRSP and southeastern portion of High Country.
Black-chinned sparrow (nesting) <i>Spizella atrogularis</i>	BCC, USBC	***	Chaparral and sagebrush scrub.	Suitable habitat occurs within project site in association with chaparral and coastal scrub habitats which are concentrated in the northeastern portion of the

²⁴³ Compliance Biology, Inc., *Results of Focused Coastal California Gnatcatcher Surveys; Castaic Mesa Project*.

²⁴⁴ Compliance Biology, Inc., *Results of Focused Survey for Coastal California Gnatcatcher Surveys; River Park Project*.

²⁴⁵ Guthrie, *Bird Observations in the Stevenson Ranch*.

Table 4.3-6 (Continued)
Special-Status Wildlife Species Not Observed but with *Potential* to Occur on the Project Site

Common Name <i>Scientific Name</i>	Status		Habitat Requirements	Habitat Suitability
	Federal	State		
				NRSP and the southeastern portion of High Country.
MAMMALS				
Ringtail <i>Bassariscus astutus</i>	—	CFP	Mixture of forest and shrubland in close association with rocky areas and riparian habitats; uses hollow trees, snags, and logs for cover and reproduction.	This species was surveyed for during the mammal surveys in 2004. ²⁴⁶ Cameras, scent/track stations and spotlight survey techniques were used to detect these species. Low potential to occur based on lack of suitable habitat, such as hollow trees, logs, snags and abundant rocky areas. In addition, these species are not usually found more than 1 kilometer away from permanent water; therefore these species would most likely have been detected during the numerous studies performed near the Santa Clara River and its tributaries. ²⁴⁷
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	—	CSC	Utilizes a variety of communities, including conifer and oak woodlands and forests, arid grasslands and deserts and high-elevation forests and meadows. Requires appropriate roosting, maternity and hibernacula sites free from human disturbance.	This species was not detected on the project site during ANABAT surveys. ²⁴⁸ Suitable roosting and foraging habitat is present on the site.
Western small-footed myotis <i>Myotis ciliolabrum</i>	—	CSC	Occurs in a wide variety of habitats, including scrub, grassland, woodland, and riparian	Impact Sciences identified the 40 kHz frequency range species in 2004 as the western small-footed myotis, ²⁴⁹ but without additional

²⁴⁶ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

²⁴⁷ Haglund and Baskin, *Fish and Wildlife Survey and Habitat Assessment*; Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*; Dudek and Associates, Inc., *Biological Resources Technical Report for the Valencia Commerce Center*; Dudek and Associates, Inc., *Biological Resources Technical Report for the Entrada Site*.

²⁴⁸ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

²⁴⁹ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

Table 4.3-6 (Continued)
Special-Status Wildlife Species Not Observed but with *Potential* to Occur on the Project Site

Common Name <i>Scientific Name</i>	Status		Habitat Requirements	Habitat Suitability
	Federal	State		
			areas. Requires appropriate roosting, maternity and hibernacula sites free from human disturbance.	information (<i>e.g.</i> , longer time-series recording or capture), this identification could not be confirmed because this frequency is characteristic of at least two other species that could occur on site: long-legged myotis and little brown bat. In 2006, 40 kHz bat species were recorded in all three survey locations along Potrero Creek, along the Santa Clara River at Walcott Road, and at the plant nursery site in upper Long Canyon. Without definitive presence/absence information, for the purpose of this analysis, it is assumed that the western small-footed myotis occurs in the project area.
Long-legged myotis <i>Myotis volans</i>	—	CSC	Occurs in a wide variety of habitats, including scrub, grassland, woodland, and riparian areas. Requires appropriate roosting, maternity and hibernacula sites free from human disturbance.	The presence of the long-legged myotis was not confirmed in the project area during the acoustic and mist netting surveys conducted in 2004 and 2006. ²⁵⁰ However, bats with acoustic signatures in the 40 kHz range, which is the range for the long-legged myotis, were detected on site in 2004 and 2006. Impact Sciences identified the 40 kHz frequency-range species in 2004 as the western small-footed myotis, ²⁵¹ but without additional information (<i>e.g.</i> , longer time-series recording or capture), this identification could not be confirmed. Based on the frequency data alone, the 40 kHz species could be western small-footed myotis, long-legged myotis, or little brown bat; therefore, all three

²⁵⁰ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*; Johnson, "Bat Survey; August 7–10, 2006 for the Newhall Ranch, Valencia, California."

²⁵¹ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

Table 4.3-6 (Continued)
Special-Status Wildlife Species Not Observed but with *Potential* to Occur on the Project Site

Common Name <i>Scientific Name</i>	Status		Habitat Requirements	Habitat Suitability
	Federal	State		
				species should be considered to be potentially present on site. In 2006, 40 kHz bat species were recorded in all three survey locations along Potrero Creek, along the Santa Clara River at Walcott Road, and at the plant nursery site in upper Long Canyon.
Southern grasshopper mouse <i>Onychomys torridus ramona</i>	—	CSC	Inhabits desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	This species has not been detected within the NRSP during small mammal trapping. ²⁵² This species has potential to occur at least in low densities on site within coastal scrub and grassland vegetation communities; it is not expected to occur within other habitats on the project site.

STATUS KEY:**Federal**

FE: Federally Endangered

FT: Federally Threatened

FC: Federal Candidate for listing as Threatened or Endangered

BCC: Bird of Conservation Concern

USBC: United States Bird Conservation Watch List

State

CE: California Endangered

CT: California Threatened

CFP: California Fully Protected

CSC: California Species of Special Concern

**: Over wintering (or roosting) sites should be protected, butterfly probably not at risk currently

***: Special Animal

252 Ibid.

(3) Special-Status Wildlife Species Not Expected or Rarely Occurring on the Project Site

The project site lacks suitable habitat to support the species addressed in **Table 4.3-7, Special-Status Wildlife Species Not Expected or Rarely Occurring on the Project Site**, as a resident or nesting species or is expected to support the species only on rare occasions, such as during migration. **Table 4.3-7** provides the species' regulatory status, habitat requirements, and an explanation of why the species is not expected to reside on or substantially utilize the project site. As these species are not expected to breed, nest, or otherwise reside on or substantially utilize the project site, they are not discussed further in this document.

**Table 4.3-7
Special-Status Wildlife Species Not Expected or Rarely Occuring on the Project Site**

Common Name	Status		Habitat Requirements	Habitat Suitability
Scientific Name	Federal	State	Habitat Requirements	Habitat Suitability
INVERTEBRATES				
Crustacea Order Anostraca (fairy shrimp)				
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT	—	Vernal pools.	Wet season vernal pool surveys were conducted in December 2007 to March 2008 in five previously identified depressions associated with western spadefoot surveys, including three in Potrero Canyon, one between Grapevine Mesa and Lion Canyon, and one east of Lion Canyon ²⁵³ . Two of the five pools retained adequate water for testing, and results were negative. One depression located between Grapevine Mesa and Lion Canyon was a detention basin, and the other depression in Potrero Canyon was located on an oil well pad and storage area where water collected next to a bermed area. Neither of these depressions exhibited typical fairy shrimp habitat characteristics.
San Diego fairy shrimp <i>Branchinecta sandiegonensis</i>	FE	—	Vernal pools.	
Riverside fairy shrimp <i>Streptocephalus woottoni</i>	FE	—	Vernal pools.	

²⁵³ Compliance Biology, Inc., *Results of the Focused Western Spadefoot Toad Surveys on the Mission Village Project Site*; Dave Crawford, Compliance Biology, Inc., telephone call to Sherri Miller (Dudek), November 2007.

²⁵⁴ R.P. Root, "Acknowledgement of Request for Formal Consultation on the Proposed Newhall Ranch Specific Plan, Santa Clarita, Los Angeles County, California" (letter from R.P. Root, USFWS, to A.O. Allen, Corps, November 12, 2008).

Table 4.3-7 (Continued)
Special-Status Wildlife Species Not Expected or Rarely Occuring on the Project Site

Common Name	Status		Habitat Requirements	Habitat Suitability
Scientific Name	Federal	State		
				<p>No discernable depressions that could collect water were found at the other three previously identified locations, and water was not retained at these sites. All three were on dirt access roads.</p> <p>There is no indication of vernal or other seasonal pools on site that are suitable for fairy shrimp. The nearest documented vernal pools in relation to the project area that could be source populations for fairy shrimp include at least two vernal pools located in the Plum Canyon area of Los Angeles County (Cruzan Mesa), approximately 10 miles from the project area, and the Carlsberg vernal pools in Moorpark in Ventura County, approximately 15 miles from the project Area²⁵⁴. Both the Carlsberg and Cruzan Mesa pools support the vernal pool fairy shrimp²⁵⁵. The USFWS is in concurrence that the project is not likely to adversely affect listed fairy shrimp because these species are not known to occur in the project area and suitable habitat is not known to occur in the project area²⁵⁶.</p>
Insecta Order Lepidoptera (butterflies and moths)				
Quino checkerspot butterfly (Wright's <i>Euphydryas</i>) <i>Euphydryas</i> <i>editha quino</i>	FE	—	Occurs in localized colonies, always closely associated with the larval foodplant dot-seed plantain (<i>Plantago erecta</i>) and clay or cryptobiotic	Based on a focused habitat assessment, it was concluded that the primary larval food plant (<i>Plantago erecta</i>) does not occur on the site ²⁵⁷ . This butterfly was last documented in the Santa Susana

²⁵⁵ USFWS. *Vernal Pools of Southern California Recovery Plan* (Portland, Oregon: USFWS, 1998).

²⁵⁶ Root, "Acknowledgement of Request."

²⁵⁷ Compliance Biology, Inc., *Results of Butterfly Surveys on the Newhall Ranch Project Site*; Compliance Biology, Inc. *Results of Butterfly Surveys on Magic Mountain Entertainment Site*.

Table 4.3-7 (Continued)
Special-Status Wildlife Species Not Expected or Rarely Occuring on the Project Site

Common Name	Status		Habitat Requirements	Habitat Suitability
Scientific Name	Federal	State		
			soils.	Mountains, approximately 10 miles south and southwest of the project site in 1954.
AMPHIBIANS				
Sierra Madre (Mountain) yellow-legged frog <i>Rana muscosa</i>	FE	CSC	Southern California, populations are restricted to streams in ponderosa pine, montane hardwood-conifer, and montane riparian habitats at elevations above 1,200 feet.	Does not occur in the project area. project site is outside its range and does not support montane habitats.
Coast range newt <i>Taricha torosa torosa</i>	—	CSC	Often occurs in areas where streams and ponds dry up in the summer. Occurs beneath logs, boards, rocks, and in rodent burrows, but adults must return to water to breed. May be found in drier habitats, such as oak forests, chaparral, and rolling grasslands. Commonly found in or near ditches, ponds, lakes, and streams; however, a permanent water source is not necessary. Stream-breeding populations typically breed in slow moving or stagnant pools in streams.	While suitable habitat occurs in the project area, this species is not known to occur in the project area. The nearest current occurrences range from 20 to 25 miles from the project site, in the Santa Monica Mountains. Other Southern California occurrences are in the Angeles National Forest in the San Gabriel Mountains, the Coast Ranges in Santa Barbara County, and the Cuyamaca Range in San Diego County.
BIRDS				
Coastal (San Diego) cactus wren <i>Campylorhynchus brunneicapillus sandiegensis</i>	BCC	CSC	Southern cactus scrub, maritime succulent scrub, cactus thickets in coastal sage scrub.	No observations of cactus wrens have been made in the project area, and the coastal (San Diego) cactus wren subspecies is not expected to occur on site based on its range. There are no large concentrations of cactus thickets on site that provide the necessary habitat constituent for nest sites.
Great egret (rookery) <i>Ardea alba</i>	—	***	Nests colonially in large trees. Rookery sites are typically located near	Individuals commonly observed over multiple years foraging within the Santa Clara River in NRSP;

Table 4.3-7 (Continued)
Special-Status Wildlife Species Not Expected or Rarely Occuring on the Project Site

Common Name	Status		Habitat Requirements	Habitat Suitability
Scientific Name	Federal	State		
			marshes, tide-flats, irrigated pastures, and margins of rivers and lakes.	moderate potential for foraging within Salt Creek. Recent observations were made in 2006. ²⁵⁸ No rookery sites have been observed on the project site during annual bird surveys.
Great blue heron (rookery) <i>Ardea herodias</i>	—	***	Nests colonially in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites are usually in close proximity to foraging areas such as marshes, lake margins, tide-flats, wet meadows, rivers, and streams.	Individuals commonly observed over multiple years foraging within the Santa Clara River within NRSP; moderate potential for foraging within Salt Creek. Recent observations were made in 2006. ²⁵⁹ No rookery sites have been observed on the project site during annual bird surveys.
Swainson's hawk <i>Buteo swainsoni</i>	BCC, USBC	CT	Open grassland, shrublands, croplands.	This species is a seasonal migrant. One individual (thought to be a migrant) was observed in 2000 in the NRSP. ²⁶⁰ Another observation was made within the vicinity of the project site east of Old Road bridge. ²⁶¹ Although suitable foraging habitat is present on the project site, this species has not been documented to nest in Southern California and is expected to rarely forage over the site.
Mountain plover <i>Charadrius montanus</i>	BCC, USBC	CSC	Nests in open, shortgrass prairies or grasslands; winters in shortgrass plains, plowed fields, open sagebrush, and sandy deserts.	Some suitable habitat exists on site in agriculture and California annual grassland communities, which primarily are located in the central portion of the NRSP, San Martinez Grande, and adjacent to the Santa Clara River riparian areas. These communities have marginal habitat quality on site to

²⁵⁸ Guthrie, *Bird Surveys along the Santa Clara River, 2006*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries* (2006).

²⁵⁹ Guthrie, *Bird Surveys along the Santa Clara River, 2006*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries* (2006).

²⁶⁰ Guthrie, *Bird Surveys along the Santa Clara River, 2000*.

²⁶¹ Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1997*.

Table 4.3-7 (Continued)
Special-Status Wildlife Species Not Expected or Rarely Occuring on the Project Site

Common Name	Status		Habitat Requirements	Habitat Suitability
Scientific Name	Federal	State		
				support this species. This species only winters in Southern California and only rarely occurs. It is not expected to breed on the project site.
Bald eagle <i>Haliaeetus leucocephalus</i>	Delisted	CE, CFP	Seacoasts, rivers, swamps, large lakes; winters at large bodies of water in lowlands and mountains.	No suitable lake habitat exists on the project site and no records of nesting on the project site. There are no large bodies of water, large rivers, or seacoasts within the vicinity of the project site.
Least bittern (nesting) <i>Ixobrychus exilis</i>	—	CSC	Dense emergent wetlands of cattails and tules are essential.	Cattails and tules occur within the Santa Clara River corridor; however, these areas do not contain the dense emergent vegetation characteristic of nesting habitat of this species.
Long-billed curlew (nesting) <i>Numenius americanus</i>	BCC, USBC	WL	Nests in grazed, mixed grass and short-grass prairies. Localized nesting along the California coast. Coastal estuaries, mudflats, open grasslands and croplands are used in winter for foraging.	Some suitable habitat exists on site in agriculture and California annual grassland communities, which primarily are located in the central portion of the NRSP, San Martinez Grande, and adjacent to the Santa Clara River riparian areas. This species may occur rarely in the winter in the project vicinity, but the project site is outside its nesting range.
Osprey (nesting) <i>Pandion haliaetus</i>	—	WL	Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest habitats, but widely observed along the coast.	Ospreys need areas that support fish for long periods of time. There are no large bodies of water on site or adjacent to the project site that could support fish for long periods of time. One individual was observed on March 31 ²⁶² and was probably in migration.
Double-crested cormorant <i>Phalacrocorax auritus</i>	—	WL	Lakes, rivers, reservoirs, estuaries, ocean; nests in tall trees, rock ledges on cliffs, rugged slopes.	No suitable lake habitat exists on the project site and no records of nesting on the project site. There are no large bodies of water, large rivers, estuaries or seacoasts within the vicinity of the project site.
White-faced ibis	—	WL	Nests in dense emergent	Very little marsh habitat exists on

²⁶²Guthrie, *Bird Observations for Spring 2000 in the Proposed Mesa Development*.

Table 4.3-7 (Continued)
Special-Status Wildlife Species Not Expected or Rarely Occuring on the Project Site

Common Name	Status		Habitat Requirements	Habitat Suitability
Scientific Name	Federal	State		
(rookery site) <i>Plegadis chihi</i>			wetlands and marshes; winter foraging in shallow lacustrine waters, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields and estuaries.	site, and is primarily located south of the Santa Clara River in Potrero Canyon. This species is not known to regularly breed in California anymore, and there is not enough suitable habitat on the project site to support rookery sites.
Purple martin (nesting) <i>Progne subis</i>	—	CSC	Nests in tall sycamores, pines, oak woodlands, coniferous forest; forages over riparian, forest and woodland.	This species may occasionally forage in the project vicinity, but the site is outside its nesting range. There is limited suitable nesting habitat because there are no tall sycamores, pines, or coniferous forest communities on the project site, and this species is not expected to nest on site. One individual was observed within NRSP. ²⁶³
Bank swallow (nesting) <i>Riparia riparia</i>	—	CT	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes or the ocean to dig a nesting hole.	The project site is not within this species' range. The required nesting habitat does exist on the project site, and no recent records of nesting in the area. Typically these species nest in areas such as the Sacramento and Feather rivers.
California spotted owl <i>Strix occidentalis occidentalis</i>	BCC, USBC	CSC	Old growth oak and oak-conifer habitats.	The project site is within the species' yearlong range. However, this species generally requires dense, old growth forest areas for foraging and cover; breeds in mature, multi-layered forest stands and nests generally in a tree or snag cavity. No conifer habitats occur on site. Oak woodlands exist on site, but are generally more open and often occur as oak savannahs. Dense, mature coast live oak woodlands exist within canyons in High Country and Salt Creek that may be suitable habitat for these species; however in the Angeles

²⁶³ Guthrie, *Bird Surveys along the Santa Clara River*, 1994.

Table 4.3-7 (Continued)
Special-Status Wildlife Species Not Expected or Rarely Occuring on the Project Site

Common Name	Status		Habitat Requirements	Habitat Suitability
Scientific Name	Federal	State		
				National Forest (east of the project site), these species have been documented using canyon live oak habitats with co-dominant conifer species. ²⁶⁴ In the Cleveland National Forest in San Diego, they have been documented in woodlands dominated by both coast and canyon live oak, but also with co-dominant conifer species. ²⁶⁵ Overall, there is limited dense oak woodland on site to support this species.
MAMMALS				
Mexican long-tongued bat <i>Choeronycteris mexicana</i>	—	CSC	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland. Roosts in caves, mines, and buildings.	The project site is not within this species' range. The closest range (and only known range in California) is in coastal San Diego County, approximately 100 miles southwest. This species requires habitats associated with desert habitats, and these are not found within the project site.
Spotted bat <i>Euderma maculatum</i>	—	CSC	Occupies a wide variety of habitats from arid deserts and grasslands, to mixed conifer forests. Feeds over water and along washes. Needs rock crevices in cliffs or caves for roosting.	The project site is within the species' yearlong range. This species was not detected within NRSP during ANABAT surveys conducted in 2004 ²⁶⁶ or in 2006 ²⁶⁷). There are no cliffs or caves on site; therefore, there is limited suitable roosting habitat on or bordering the project site. Some suitable foraging habitat may occur in grasslands on site; however no desert or mixed conifer habitats occur on site or near the project site. Only rare to occasional spotted

²⁶⁴ Stephenson, John, *Spotted Owl Surveys on the National Forests of Southern California: A Status Report and Recommendations for the Future* (1991).

²⁶⁵ Stephenson, *Spotted Owl Surveys*.

²⁶⁶ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

²⁶⁷ Johnson, "Bat Survey; August 7-10, 2006 for the Newhall Ranch, Valencia, California."

Table 4.3-7 (Continued)
Special-Status Wildlife Species Not Expected or Rarely Occuring on the Project Site

Common Name	Status		Habitat Requirements	Habitat Suitability
Scientific Name	Federal	State		
				bat sightings have been recorded in the project vicinity.
Lodgepole chipmunk <i>Neotamias speciosus speciosus</i>	—	***	Southern California population occurs in mountains in open-canopy forests of mixed conifer, Jeffrey pine, lodgepole and limber pine, and occasionally in chaparral at elevations above 6,400 feet.	Does not occur in the project area. project site is outside its range and does not support montane habitats.
Los Angeles pocket mouse <i>Perognathus longimembris brevinasus</i>	—	CSC	Inhabits lower elevation grasslands and California sagebrush communities on open ground with fine sandy soils. May not dig extensive burrows, hiding instead under weeds and dead leaves.	This species has not been detected within NRSP during small mammal trapping. ²⁶⁸ Some suitable habitat may exist on site in grasslands; however there are no fine sandy soils associated with grassland or coastal scrub communities on site. The coastal scrub communities may be too in high elevation for the species. This species is not expected to occur on other portions of the project site because the known range is south of project site.
Big free-tailed bat <i>Nyctinomops macrotis</i>	—	CSC	Rugged, rocky canyons.	This species has not been observed during wildlife surveys within the project site. The closest range is in southwest San Diego County and is rare in California. This species is not expected to occur on site due to the distance from its known range.
STATUS KEY: Federal FE: Federally listed as Endangered FT: Federally listed as Threatened FC = Federal Candidate for listing as Threatened or Endangered BCC = Bird of Conservation Concern USBC = United States Bird Conservation Watch List			State CE: California-listed as Endangered CT: California-listed as Threatened CFP: California Fully Protected CSC: California Species of Special Concern WL: Watch List ***: Special Animal	

²⁶⁸ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area.*

e. Jurisdictional Wetlands and Drainages

(1) U.S. Army Corps of Engineers Jurisdiction

Wetlands, creeks, streams, and permanent and intermittent drainages are generally subject to the jurisdiction of the Corps under Section 404 of the federal Clean Water Act. The Corps has jurisdiction up to the “ordinary high water mark” of rivers, creeks, and streams that are considered “waters of the U.S.” as defined by the Clean Water Act. If adjacent wetlands occur, the limits of jurisdiction extend beyond the ordinary high water mark to the outer edge of the wetlands. Wetlands are defined by the Corps as “those areas that are inundated or saturated by surface or groundwater at a frequency or duration to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”²⁶⁹ The presence and extent of wetland areas are normally determined by examination of the vegetation, soils, and hydrology of a site. The Corps definition of wetlands requires that all three wetland identification parameters be met.

In 2003, URS staff completed field investigations and conducted a delineation of waters of the United States and CDFG jurisdictional streams present within the RMDP site, which encompasses the Mission Village project site. The 2003 delineation was conducted using sub-meter accurate GPS units and the data were transferred into a GIS database. The URS December 2003 Jurisdictional Delineation report is found in **Appendix 4.3** of this EIR. The corps’ letter, dated February 4, 2004, concurring with the URS delineation also is attached in **Appendix 4.3** of this EIR. Between 2004 and 2009, URS completed multiple delineation efforts on the RMDP and Entrada sites in support of the EIS/EIR process for the RMDP/SCP project. These efforts resulted in subsequent mapping refinements to the jurisdictional boundaries (discussed below).

URS staff delineated Corps jurisdictional wetlands in 2007, which had not been delineated previously. The extent of wetlands within the site was determined through a combination of fieldwork and analysis of high-resolution (6” pixels) aerial photography. Wetlands were identified within the Santa Clara River corridor and in the Potrero Canyon and Salt Creek drainages, as well as in a spring complex near the mouth of Middle Canyon. Where fieldwork was conducted, the wetland delineation was performed in accordance with the Corps’ Wetland Delineation Manual (Environmental Laboratory, 1987) and the Arid West Regional Supplement (Corps, 2006).

In 2008, Glenn Lukos Associates conducted a field delineation of the limits of waters of the United States, Corps jurisdictional wetlands, and CDFG jurisdictional streams within the Entrada planning area. In

²⁶⁹ U.S. Army Corps of Engineers (Corps), *Corps of Engineers Wetlands Delineation Manual*, 1987.

addition to the Entrada planning area, the Glenn Lukos Associates study delineated jurisdictional drainages within the footprint of the extension of Magic Mountain Parkway. The Lukos delineation letter report dated October 18, 2006 (as revised September 15, 2008), is attached in **Appendix 4.3** of this EIR.

In 2009, URS prepared a preliminary jurisdictional determination encompassing the entire RMDP site and Entrada planning area. This report combined the results of previous studies conducted in 2003, 2006, 2007, and 2008 to produce a comprehensive, planning-level delineation. **Appendix 4.3** of this EIR contains the URS preliminary jurisdictional determination, dated April 8, 2009. In addition, as part of the Draft EIS/EIR, URS compiled a “Composite Wetland Delineation” for the RMDP and Entrada sites; this composite delineation is also attached in **Appendix 4.3**.

Subsequent to release of the Draft EIS/EIR in April 2009, the Corps and CDFG received comments from the public regarding the boundary of a riparian area along the Santa Clara River mainstem near the proposed site for the Potrero Canyon Bridge. In the 2009 preliminary composite wetlands delineation, this area had been previously surveyed for wetlands by interpreting aerial photographs. To address these comments, additional wetland delineation field work was performed in this location. In addition, the boundaries of waters of the United States and wetlands at some other locations were refined to reflect the most recent data available (generally, 2006 data replacing 2004 data). A revised preliminary Jurisdictional Determination was submitted to the Corps on June 7, 2010. This Jurisdictional Determination is found in **Appendix 4.3** of this EIR.

The URS preliminary Jurisdictional Determination identified a total of 180.6 acres on the project site as falling under the jurisdiction of the Corps. As shown in **Figure 4.3-7, Jurisdictional Resources**, within the project boundaries Corps jurisdiction includes the Santa Clara River and Castaic Creek, an agricultural ditch, three unnamed seasonal drainages, and seasonal drainages within Middle Canyon, Exxon Canyon, Lion Canyon, Magic Mountain Canyon, Dead-End Canyon, and Mid-Martinez Canyon.

(2) CDFG Jurisdiction

Streambeds within the project site are subject to regulation by CDFG under Section 1602 of the California Fish and Game Code. A stream is defined under these regulations as a body of water that (1) flows at least periodically or intermittently through a bed or channel having banks, and (2) supports fish or other aquatic life. CDFG’s jurisdiction typically overlaps substantially with the Corps jurisdiction, but also includes all riparian vegetation associated with creeks, drainages, and rivers.

The jurisdictional delineation conducted by URS also identified areas under the jurisdiction of CDFG (see **Figure 4.3-7**). CDFG jurisdiction on the project site encompasses the 180.6 acres under Corps jurisdiction (as discussed above), plus an additional 53.4 acres of riparian vegetation on the site.

(3) RMDP/SCP Project

As noted in **Section 1.0, Project Description**, certain permits and approvals from agencies other than the County are needed to implement various project components. These agencies include the USACE and CDFG, the Regional Water Quality Control Board and U.S. Fish and Wildlife Service. Many of these additional approvals are part of the project applicant's Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan (RMDP/SCP) project and related joint EIS/EIR (discussed below).

The RMDP/SCP is a separate but related project that encompasses the Newhall Ranch Specific Plan area (including Mission Village) and two planning areas in the Specific Plan's immediate vicinity, the Valencia Commerce Center (VCC) and Entrada. The RMDP/SCP Project consists of two components. The first is the proposed RMDP, which is a conservation, mitigation, and permitting plan for sensitive biological resources within the previously approved Newhall Ranch Specific Plan area. The RMDP would be relied upon to obtain federal and state permits to implement infrastructure improvements required to facilitate buildout of the approved Specific Plan. The RMDP is intended to direct both resource management and development on the Specific Plan site. The second component is the SCP, which is a conservation and management plan to permanently protect and manage a system of preserves designed to maximize the long-term existence of the San Fernando Valley spineflower (*Chorizanthe parryi* ssp. *fernandina*; spineflower or SFVS), a federal candidate and a state-listed endangered plant species. The SCP would address known spineflower located within the Specific Plan area and the two planning areas, VCC and a portion of Entrada.

The joint EIS/EIR has been prepared to assess the environmental implications of implementing the RMDP/SCP project, with the USACE acting as the lead agency under the NEPA and the CDFG acting as the lead agency under CEQA. The joint EIS/EIR is available for public review at CDFG's website: <http://www.dfg.ca.gov/regions/5/newhall/docs/>.

The Draft EIS/EIR for the RMDP/SCP project was publicly circulated by the USACE and CDFG on April 27, 2009, and the public comment period closed on August 25, 2009 (after an extension). The Final EIS/EIR for the RMDP/SCP project was released for additional public review/comment on June 18, 2010. This additional review period for the Final EIS/EIR began on June 19, 2010 and ended on August 3, 2010 (after an extension). The total public review period on the Final EIS/EIR was 45 days. County staff has been monitoring, and will continue to monitor, the processing of the Mission Village proposed project, as well as the RMDP/SCP project.

f. Characteristics of Surrounding Areas

Plant communities in the immediate vicinity of the Mission Village project site include coastal scrub, coast live oak woodland, valley oak/grass, undifferentiated chaparral, big sagebrush scrub, alluvial scrub, California annual grassland, southern cottonwood-willow riparian, southern willow scrub, and mulefat scrub.

Similar to those on the project site, the surrounding riparian plant communities are of high biological value and provide suitable habitat for numerous common and special-status wildlife species. The latter include the Santa Ana sucker, unarmored threespine stickleback, arroyo chub, southwestern pond turtle, two-striped garter snake, least Bell's vireo, Cooper's hawk, Lawrence's goldfinch, yellow warbler, white-tailed kite, and yellow-breasted chat. (See **Tables 4.3-5 and 4.3-6.**) Additionally, the portion of the Santa Clara River (and associated riparian habitats) that is located on and borders the project site is an important migration and genetic dispersion corridor for many wildlife species, including aquatic taxa, riparian obligate species (resident and migratory) and larger, more mobile terrestrial animals.

The upland habitats surrounding the project site also provide suitable habitat for numerous common and special-status wildlife species, including the silvery legless lizard, coastal western whiptail, coast horned lizard, southern rufous-crowned sparrow, northern harrier, California horned lark, loggerhead shrike, pallid bat, western mastiff bat, pocketed free-tail bat, and San Diego desert woodrat. (**Tables 4.3-5 and 4.3-6.**) The upland habitats surrounding the project site also support populations of San Fernando Valley spineflower, slender mariposa lily, and Peirson's morning glory.

8. PROPOSED PROJECT IMPROVEMENTS

The Mission Village project is proposed on 1,261.8 acres of land, located within the boundaries of the approved Specific Plan. At buildout, the project would contain 4,412 dwelling units, 1,555,100 square feet of commercial space, 9.5-acre elementary school, library, fire station, 25.5 acres of Community and Neighborhood Parks, three private recreation facilities, open space, and trails. To facilitate development of this site, several off-site, project-related components would be implemented within an additional 592.8 acres of land located beyond the tract map site. These off-site improvements include a 396-acre underground utility corridor proposed along State Route (SR)-126 extending from the Valencia Water Reclamation Plan (WRP) (Plant 32) on the east to the proposed Newhall Ranch WRP on the west, which would extend utility services to the tract map site and ultimately the Newhall Ranch Specific Plan development.



Legend

- NRSP Boundary
- Mission Village Project Boundary
- Mission Village VTTM Boundary
- Permanent Impact Limits
- Temporary Impact Limits

Jurisdictional Resources

- USACE/CDFG
- CDFG only

NOTE: A jurisdictional delineation of Castaic Creek has not been conducted; therefore, jurisdictional areas within the boundaries of the project site associated with Castaic Creek have been estimated.

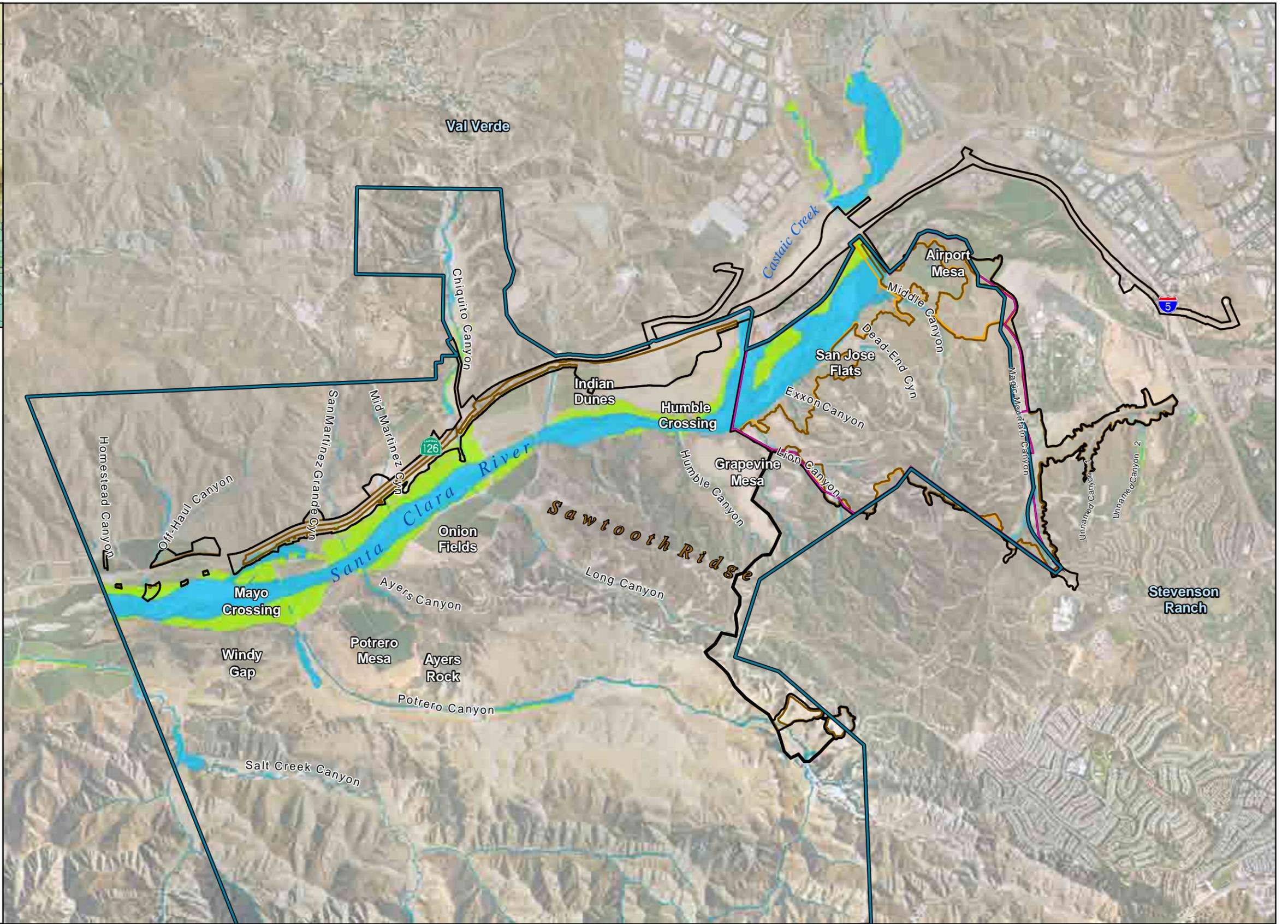
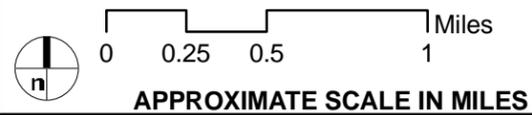


IMAGE SOURCE: DigitalGlobe 2007

FIGURE 4.3-7

Mission Village EIR

Jurisdictional Resources

Project-related off-site components include:

- Magic Mountain Parkway and related improvements would be extended west from the parkway's present terminus to a location within the tract map site.
- Three water tanks are proposed. A portion of two tank sites lie on site.
- Two power substation site options are proposed within the Potrero portion of the Newhall Ranch Specific Plan and Legacy Village.
- A Water Quality Basin is proposed to the northeast of the tract map site. A small portion of the water quality basin and a portion of the access road to the site are located within the tract map site. Most of the basin would be located outside of the tentative tract boundary.
- Two debris basins located south of the site.
- Additional proposed off-site activities include: (1) work associated with Lion Canyon drainage, (2) grading associated with construction of the northerly extension of Westridge Parkway and southerly extension of Commerce Center Drive, and (3) miscellaneous earthwork to tie proposed grades into natural grades.

For the purposes of this report, the "tract map site" refers only to the proposed location of the Mission Village development itself, and the "project site" includes the tract map site, plus the off-site components discussed above.

9. PROJECT IMPACTS

a. Significance Threshold Criteria

The significance criteria listed below derive from Appendix G of the State CEQA Guidelines but have been modified to better suit the proposed project. The lead agencies for the Newhall Ranch RMDP-SCP EIS/EIR applied these criteria when determining the significance of the RMDP/SCP project's impacts on biological resources. Biological impacts would be significant if implementation of the proposed Mission Village project or its alternatives would:

- Have a substantial adverse effect, either directly or via habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS, or violate any federal, state, or local law which protects biological resources;

- Have a substantial adverse effect on any riparian habitat or other special-status natural community identified by federal, local, or state agencies;
- Substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, vernal pool, coastal, etc.) or substantial change to state-protected streambeds through direct removal, filling, hydrological interruption, loss of functions or services, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local plans, policies, or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Cause scouring of the riverbed to the point of removing a substantial amount of aquatic, wetland, or riparian habitats from the river channel;
- Have the potential to 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 substantially reduce the number or restrict the range of an endangered, rare, or threatened species; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

These significance criteria are applied to the proposed project.

b. Impact Analysis

Direct impacts represent the physical alteration (i.e., typically habitat degradation or loss) of biological resources that occur on site as a result of project implementation. Indirect impacts are those reasonably foreseeable effects caused by project implementation on remaining or adjacent biological resources. The significance of this alteration, with respect to CEQA, is determined by evaluating the impact in terms of each of the significance threshold criteria defined above. For example, if habitat alteration results in a direct or indirect loss or causes an otherwise substantial adverse effect on a species identified as a “candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFG or USFWS,” the impacts would be considered significant, assuming appropriate compensatory or other mitigation is not available or feasible. Similarly, if the alteration of habitat results in a substantial

adverse effect on a natural community identified as sensitive "...in local or regional plans, policies, or regulations, or by the CDFG or USFWS," then this alteration would be considered a significant impact.

When evaluating whether an impact on biological resources would be "substantial," and, therefore, a significant impact, this Draft EIR must consider both the resource itself and the significance threshold criteria that apply. For example, because most plant and animal species are dependent on native habitats to satisfy various life cycle requirements, a habitat-based approach that addresses the overall biological value of a particular vegetation community or habitat area is appropriate when determining whether alteration of that habitat will "substantially" affect special-status species, sensitive habitats, wetlands, or movement corridors. The relative biological value of a particular habitat area can be determined by such factors as disturbance history, biological diversity, its importance to particular plant and wildlife species, its uniqueness or sensitivity status, the surrounding environment and the presence or absence of special-status resources.

However, direct impacts to specific plant and wildlife resources (e.g., active nests and individual plants and animals) are also evaluated and discussed when impacts to these resources, in and of themselves, could be considered significant or in conflict with local, state, and federal statutes or regulations. The significance of direct impacts on individuals or populations of plant and animal species takes into consideration the number of individual plants or animals potentially affected, how common or uncommon the species is both on the project site and within the region, and the species' sensitivity status according to resource agencies. These factors are evaluated based on the results of on-site biological surveys and studies, results of literature and database reviews, discussions with biological experts, and recognized theories and assumptions within the fields of ecology and biodiversity.

(1) Direct Impacts

The following section focuses on the direct effects of proposed project implementation on plant communities, common and special-status plant and wildlife species, special-status habitats, and wildlife movement corridors. The calculation of impacts to plant communities includes required fire/fuel management areas. **Table 4.3-8, Plant Community/Land Use Impact Summary**, shows the acreage of each plant community/land use that would be developed and/or temporarily disturbed during construction of the proposed project.

An analysis of the “significance” of project impacts on biological resources is provided below. In addition, each impact discussion notes whether the findings of this analysis are consistent with the findings of the previously certified Newhall Ranch Specific Plan Program EIR. If approved, the Mission Village project would be subject to the mitigation measures/conditions of approval contained in the RMP of the Newhall Ranch Specific Plan and the Newhall Ranch Specific Plan Program EIR. These mitigation measures and conditions were adopted by the County Board of Supervisors in association with approval of the Newhall Ranch Specific Plan and WRP (May 27, 2003). These adopted measures, as well as additional mitigation measures proposed to further mitigate significant impacts, are included in **Section 10.0, Project Mitigation Measures**.

**Table 4.3-8
Plant Community/Land Use Impact Summary**

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	Total Acres Present	Acres Developed	Acres Temporarily Disturbed ¹	Total Acres Developed/Disturbed	Percent Acres Developed or Disturbed
Grass and Herb Dominated Communities (40.000.00)	Non-Native Grassland (42.000.00)	California annual grassland (42.040.00)	Not mapped to association level	82.4	53.3	12.8	66.1	80%
Scrub and Chaparral (30.000.00)	Coastal Scrub (32.000.00)	California sagebrush scrub (32.010.00)	Not mapped to association level	517.2	379.1	34.3	413.4	80%
			California sagebrush– <i>Artemesia</i> (32.010.01)	16.1	14.8	1.3	16.1	100%
			California sagebrush–purple sage (32.010.04)	132.9	124.7	2.2	127.0	96%
		California sagebrush–black sage scrub (32.120.00)	California sagebrush–black sage (32.120.01)	12.9	11.9	1.1	12.9	100%
		California sagebrush–California buckwheat scrub (32.110.00)	Not mapped to association level	84.7	73.2	10.0	83.2	98%
		California Sagebrush–Undifferentiated Chaparral	Not mapped to association level					90%
					15.5	12.6	1.3	13.9

Table 4.3-8 (Continued)
Plant Community/Land Use Impact Summary

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	Total Acres Present	Acres Developed	Acres Temporarily Disturbed ¹	Total Acres Developed/Disturbed	Percent Acres Developed or Disturbed
		(32.300.00)						
		Disturbed California sagebrush scrub	Not mapped to association level	0.1	0	0.1	0.1	100%
	Undifferentiated Chaparral Scrubs (37.000.00)	Not mapped to alliance level	Not mapped to association level	35.9	31.3	3.0	34.3	96%
	Chamise with Chaparral (37.100.00)	Chamise Chaparral (37.101.00)	Not mapped to association level	2.6	2.5	0.1	2.6	100%
		Chamise-hoaryleaf ceanothus chaparral (37.107.00)	Not mapped to association level	1.8	1.5	0.4	1.8	100%
	Other Scrubs	Eriodictyon Scrub	Not mapped to association level	0.6	0.6	0	0.6	100%
Broad Leafed Upland Tree Dominated (70.000.00)	Oak Woodland and Forest (71.000.00)	Coast live oak forest and woodland (71.060.00)	Coast live oak woodland (71.060.19)	31.7	4.4	3.4	7.8	25%
		Valley oak forest and woodland (71.040.00)	Valley oak woodland (71.040.08)	2.3	0	0	0	0%
			Valley oak/grass (71.040.05)	3.3	1.9	0	1.9	58%

Table 4.3-8 (Continued)
Plant Community/Land Use Impact Summary

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	Total Acres Present	Acres Developed	Acres Temporarily Disturbed ¹	Total Acres Developed/Disturbed	Percent Acres Developed or Disturbed
Riparian and Bottomland Habitat (60.000.00)	Other Riparian/Wetland	Herbaceous wetland	Not mapped to association level	4.0	0.4	1.2	1.6	40%
		River wash	Not mapped to association level	115.1	9.7	10.0	19.7	17%
		Alluvial scrub	Not mapped to association level	0.5	0	0.5	0.5	100%
		Big sagebrush scrub (35.110.00)	Not mapped to association level	24.6	15.8	6.5	22.3	91%
		Giant reed (42.080.00)	Not mapped to association level	5.6	0	0.1	0.1	2%
	Low to High Elevation Riparian Scrub (63.000.00)	Arrow weed scrub (63.710.00)	Not mapped to association level	7.6	4.9	2.0	6.9	91%
		Mexican elderberry scrub (63.410.00)	Not mapped to association level	5.8	5.3	0.3	5.6	97%
		Mulefat scrub (63.510.00)	Not mapped to association level	1.8	0.5	1.2	1.8	100%
		Disturbed mulefat scrub	Not mapped to association level	1.1	0	1.1	1.1	100%
			Not mapped to association level	1.1	0	1.1	1.1	100%

Table 4.3-8 (Continued)
Plant Community/Land Use Impact Summary

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	Total Acres Present	Acres Developed	Acres Temporarily Disturbed ¹	Total Acres Developed/Disturbed	Percent Acres Developed or Disturbed
	Riparian Forest and Woodland (61.000.00)	Southern willow scrub (61.208.00)	Not mapped to association level	1.5	0.7	0.1	0.7	47%
		Tamarisk scrub and woodland (63.810.00)	Shrub tamarisk (63.810.02)	1.1	0	0	0	0%
		Fremont cottonwood riparian forest and woodland (61.130.00)	Southern cottonwood-willow riparian (61.130.02)	109.2	6.4	22.4	28.8	26%
Man-Made Land Cover Types	Agriculture	NA	224.4	172.0	48.0	219.9	98%	
	Developed Land	NA	8.1	1.0	7.0	8.0	99%	
	Disturbed Land	NA	404.3	225.2	169.1	394.3	98%	
Total:				1,854.5	1,153.4	339.7	1,493.1	81%

¹ Temporarily disturbed by bank stabilization and/or haul roads, but would be revegetated to native vegetation following completion of construction.

(a) Common Plant Communities and Land Covers

Grass and Herb Dominated Communities (40.000.00)**Non-Native Grassland (42.000.00)**

California Annual Grassland (42.040.00). The project site contains 82.4 acres of California grassland, of which 53.3 acres would be permanently developed and 12.8 acres would be temporarily disturbed by bank stabilization and/or haul roads (but would be revegetated following completion of construction). Given that this plant community already exists in an altered condition and is not considered a sensitive natural community by resource agencies, the loss of California grassland would be a less than significant impact. The Newhall Ranch Specific Plan Program EIR included the loss of this plant community as part of the analysis of the overall loss of wildlife habitat (**subsection b, Wildlife Habitat Loss**, below).

Scrub and Chaparral (30.000.00)**Coastal Scrub (32.000.00)**

California Sagebrush Scrub (32.010.00). The project site contains 517.2 acres of California sagebrush scrub, of which 379.1 acres would be permanently developed and 34.3 acres would be temporarily disturbed by bank stabilization and/or haul roads (but would be revegetated as coastal sage scrub following completion of construction). Of the total acreage present within the boundaries of the SMA/SEA 23, 4.8 acres would be developed and 0.7 acre would be temporarily disturbed.

California Sagebrush–*Artemesia* (32.010.01): The project site contains 16.1 acres of California sagebrush–*Artemesia*, of which 14.8 acres would be permanently developed and 1.3 acres would be temporarily converted.

California Sagebrush–Purple Sage (32.010.04): The project site contains 132.9 acres of California sagebrush–purple sage, of which 124.7 acres would be permanently developed and 2.2 acres would be temporarily converted.

California Sagebrush–Black Sage Scrub (32.120.00): The project site contains 12.9 acres of California sagebrush–black sage scrub, of which 11.9 acres would be permanently developed and 1.1 acres would be temporarily converted.

California Sagebrush–California Buckwheat Scrub (32.110.00). The project site contains 84.7 acres of California sagebrush–California buckwheat scrub, of which 73.2 acres would be permanently developed

and 10.0 acres would be temporarily converted. Of the total acreage present within the boundaries of the River Corridor SMA/SEA 23, 0.1 acre would be temporarily converted.

California Sagebrush–Undifferentiated Chaparral (32.300.00). The project site contains 15.5 acres of California sagebrush–undifferentiated chaparral, of which 12.6 acres would be permanently developed and 1.3 acres would be temporarily converted.

Disturbed California Sagebrush Scrub. The project site contains 0.1 acre of disturbed California sagebrush scrub, of which 0.1 acre would be temporarily converted.

Given the acreage that would be developed (616.3 acres of the 779.4 acres on site) and the habitat value this plant community provides for common and special-status plant and wildlife species, the loss of coastal scrub would be a significant impact. Additionally, the Newhall Ranch Specific Plan Program EIR previously identified a significant unavoidable impact to coastal sage scrub habitat. The magnitude of impacts to this plant community would be reduced by:

Implementation of Specific Plan Mitigation Measures 4.6-37 through 4.6-42 (which would protect 1,311 acres of California sagebrush scrub in the High Country SMA/SEA 20); and

Implementation of additional proposed Mitigation Measures MV²⁷⁰ 4.3-24 (preservation of 616.3 acres of coastal scrub off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village), and

The protection of the Salt Creek Area (which contains 631 acres of this habitat type).

These mitigation measures will reduce impacts to this vegetation type to a level that is less than significant.

Undifferentiated Chaparral Scrub (37.000.00).

The project site contains 35.9 acres of undifferentiated chaparral, of which 31.3 acres would be permanently developed and 3.0 acres would be temporarily disturbed by bank stabilization and/or haul roads (but would be revegetated to native vegetation following completion of construction). This plant community is a common natural vegetation type in the region and is not considered sensitive by resource agencies. Given the small amount of undifferentiated chaparral scrub that would be removed, and the common nature of this plant community in the project region, the impact would be less than significant.

²⁷⁰ Mitigation measures specific to the Mission Village project are denoted by the abbreviation “MV.”

The Newhall Ranch Specific Plan Program EIR included the loss of undifferentiated chaparral scrub as part of the analysis of the overall loss of wildlife habitat (**subsection b, Wildlife Habitat Loss**, below).

Chamise with Chaparral (37.100.00)

Chamise Chaparral (37.101.00). The project site contains 2.6 acres of chamise chaparral, of which 2.5 acres would be permanently developed and 0.1 acre would be temporarily converted. This plant community is a common natural vegetation type in the region and is not considered sensitive by resource agencies. Given the small amount of chamise chaparral that would be removed by the project, and the common nature of this plant community in the project region, the impact would be less than significant. The Newhall Ranch Specific Plan Program EIR included the impacts to chamise with chaparral as part of the analysis of the overall loss of wildlife habitat (**subsection b, Wildlife Habitat Loss**, below).

Chamise–hoaryleaf ceanothus chaparral (37.107.00). The project site contains 1.8 acres of chamise–hoaryleaf ceanothus chaparral, of which 1.5 acres would be permanently developed and 0.4 acre would be temporarily converted. This plant community is a common natural vegetation type in the region and is not considered sensitive by resource agencies. Given the small amount of chamise–hoaryleaf ceanothus chaparral that would be removed by the project, and the common nature of this plant community in the project region, the impact would be less than significant. The Newhall Ranch Specific Plan Program EIR included the impacts to chaparral as part of the analysis of the overall loss of wildlife habitat (**subsection b, Wildlife Habitat Loss**, below).

Other Scrubs

Eriodictyon Scrub. The project site contains 0.6 acre of eriodictyon scrub, all of which would be permanently developed. This plant community is a subset of a common natural vegetation type in the region and is not considered sensitive by resource agencies. Given the small amount of other scrub that would be removed by the project, and the common nature of this plant community in the project region, the impact would be less than significant. The Newhall Ranch Specific Plan Program EIR included the impacts to this plant community as part of the analysis of the overall loss of wildlife habitat (**subsection b, Wildlife Habitat Loss**, below).

Broad Leafed Upland Tree Dominated (70.000.00)

Oak Woodland and Forest (71.000.00)

Coast Live Oak Forest and Woodland (71.060.00). The project site contains 31.7 acres of coast live oak forest and woodland. For purposes of this EIR, oak woodland is defined as areas with 20% to 50% cover

by oak trees. Oak/grass includes areas where oak trees comprise less than 20% of the total cover. The proposed project would result in permanent impacts to 4.4 acres and the temporary conversion of 3.4 acres. Of the total acreage present within the boundaries of the River Corridor SMA/SEA 23, 0.7 acre would be developed and 0.6 acre would be temporarily disturbed. Coast live oak woodlands (71.060.19) are a significant biological resource because they provide nesting and roosting habitat for a number of *special-status* species (including raptors), nesting habitat and food sources for a number of *common* wildlife species, and provide general cover for a number of larger *mammal* species. For these reasons, the removal of coast live oak woodland is considered a significant impact. Implementation of proposed Mitigation Measures **MV 4.3-22** (protective fencing around oaks during clearing and grading activities) and **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation) would reduce impacts on coast live oak woodland to a less than significant level. The Newhall Ranch Specific Plan Program EIR included the impacts to this plant community as part of its analysis of the overall loss of wildlife habitat (**subsection b, Wildlife Habitat Loss**, below).

Valley Oak Forest and Woodland (71.040.00). The project site contains 5.6 acres of valley oak forest and woodland, consisting of the valley oak woodland and valley oak/grass alliances, of which 1.9 acres would be permanently developed and 0 acres would be temporarily converted. Valley oak forest and woodland are significant biological resources because they provide nesting and roosting habitat for a number of *special-status* species (including raptors), nesting habitat and food sources for a number of *common* wildlife species, and provide general cover for a number of larger *mammal* species. For these reasons, the removal of valley oak forest and woodland is considered to be a significant impact. Implementation of proposed Mitigation Measures **MV 4.3-22** (protective fencing around oaks during clearing and grading activities) and **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation) would reduce impacts to coast live oak woodland to a less than significant level. The Newhall Ranch Specific Plan Program EIR included the impacts to this plant community as part of its analysis of the overall loss of wildlife habitat (**subsection b, Wildlife Habitat Loss**, below).

Man-Made Land Cover Types

Agriculture. The project site contains 224.4 acres of agricultural land, of which 172.0 acres would be permanently developed and 48.0 acres would be temporarily disturbed by bank stabilization and/or haul roads (but would be revegetated to native vegetation following completion of construction). Of the total acreage of agricultural land present within the boundaries of the River Corridor SMA/SEA 23, 17.1 acres would be developed and 9.9 acres would be temporarily disturbed. Given that the agricultural land is already disturbed, and that this habitat type is not considered a natural community by resource agencies, the loss of agricultural land would be a less than significant impact. The Newhall Ranch Specific Plan

Program EIR included the loss of this plant community as part of the analysis of the overall loss of wildlife habitat (**subsection b, Wildlife Habitat Loss**, below).

Developed Land. The project site contains 8.1 acres of developed land, of which 1.0 acre would be permanently developed and 7.0 acres would be temporarily disturbed by bank stabilization and/or haul roads (but would be revegetated to native vegetation following completion of construction). Because developed land provides little, if any, wildlife habitat value, the permanent and temporary conversion of 8.0 acres of developed land would be a less than significant impact.

Disturbed Land. The project site contains 404.3 acres of disturbed land, of which 225.2 acres would be permanently developed and 169.1 acres would be temporarily disturbed by bank stabilization and/or haul roads (but would be revegetated to native vegetation following completion of construction). Of the total acreage present within the boundaries of the River Corridor SMA/SEA 23, 9.6 acres would be developed and 7.0 acres would be temporarily disturbed. Given that these lands are already disturbed, and that this habitat type is not considered a natural community by resource agencies, the loss of disturbed land would be a less than significant impact. The Newhall Ranch Specific Plan Program EIR included the loss of this plant community as part of the analysis of the overall loss of wildlife habitat (**subsection, Wildlife Habitat Loss**, below).

(b) Wildlife Habitat Loss

(1) Riparian Habitat

The proposed project would result in the permanent conversion of 43.6 acres of riparian habitat, including 9.7 acres of river wash, 0.4 acre of herbaceous wetland, 15.8 acres of big sagebrush scrub, 4.9 acres of arrow weed scrub, 5.3 acres of Mexican elderberry scrub, 0.5 acre of mulefat scrub, 0.7 acre of southern willow scrub, and 6.4 acres of southern cottonwood–willow riparian. An additional 48.6 acres of riparian habitat would be temporarily disturbed by bank stabilization and/or haul roads, but would be revegetated with native plants following completion of construction activities. As summarized in **Table 4.3-8**, the riparian habitat on the Mission Village project site (and the greater Newhall Ranch Specific Plan area) provides habitat for numerous special-status wildlife species, and is designated critical habitat for least Bell's vireo. Given the amount of riparian habitat to be developed or temporarily disturbed, the loss of habitat for riparian-associated wildlife species would be a significant impact absent mitigation. Implementation of the following mitigation measures would replace any riparian vegetation temporarily or permanently removed:

- RMP Mitigation Measures **SP 4.6-1** through **SP 4.6-16** (habitat restoration/enhancement in the River Corridor SMA/SEA 23);

- RMP Mitigation Measure **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23);
- RMP Mitigation Measures **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23);
- RMP Mitigation Measure **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23); and
- RMP Mitigation Measures **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23).

Additional proposed mitigation measures include:

- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas);
- **MV 4.3-23** (development of a conceptual wetlands mitigation plan);
- **MV 4.3-29** (monitoring and control of invasive, non-native aquatic wildlife species for up to 5 years);
- **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation); and
- **MV 4.3-31** through **MV 4.3-41** (wetlands mitigation plan and riparian restoration activities on the project site).

Further, the River Corridor SMA/SEA 23 (totaling 977.5 acres) would be protected in perpetuity. Combined, these measures would reduce the project impacts on riparian habitat to below a level of significance. This finding is consistent with the findings of the Newhall Ranch Final Additional Analysis (May 2003).

(2) Upland Habitat

The proposed project would permanently convert 1,110.0 acres of upland wildlife habitat into developed uses, including 53.3 acres of California annual grassland, 616.3 acres of coastal scrub alliances and associations, 31.3 acres of undifferentiated chaparral scrubs, 2.5 acres of chamise chaparral, 1.5 acres of chamise-hoaryleaf ceanothus chaparral, 0.6 acre of eriodictyon scrub, 4.4 acres of coast live oak woodland, 1.9 acres of valley oak/grass, 172.0 acres of agricultural land, 1.0 acre of developed land, and 225.2 acres of disturbed land (see **subsection 9.b.(1)(a), Common Plant Communities**, and **9.b.(1)(i)**

Sensitive Plant Communities). An additional 294.1 acres of upland habitat would be temporarily disturbed during construction but would be revegetated with native plants following completion of construction activities. While these upland plant communities vary in botanical value, each provides habitat for a multitude of wildlife species. When viewed in isolation, the impacts on a single plant community within the project site does not represent a substantial loss of wildlife habitat. However, as most wildlife species depend on a variety of habitat types to meet various ecological and life history requirements (i.e., food, shelter, nesting), the project's impact on the habitat provided by these upland plant communities, when considered as a whole, is substantial. To address this potential impact, the Newhall Ranch Specific Plan Program EIR and this EIR recommend mitigation measures which, when implemented, will result in a large, permanent open space system that will conserve habitat for numerous upland-associated common and special-status wildlife species, including silvery legless lizard, rosy boa, San Bernardino ringneck snake, coast horned lizard, coast patch-nosed snake, northern harrier, white-tailed kite, southern rufous-crowned sparrow, Bell's sage sparrow, western burrowing owl, San Diego desert woodrat, pallid bat, and San Diego black-tailed jackrabbit. (See **subsection 9.b.(1)(h), Special-Status Wildlife Species**, for a discussion of direct impacts to these species.) A total of 6,113 acres of potential habitat will be protected and managed in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area. Therefore, after mitigation, the loss of 1,110 acres of currently undeveloped upland habitat would be adverse but not significant.

This finding is not consistent with the findings of the Newhall Ranch Specific Plan Program EIR, which identified the loss of wildlife habitat as a significant unavoidable impact; however, the mitigation required by the Newhall Ranch Specific Plan Program EIR was not as extensive as that recommended in this EIR. Additional mitigation measures proposed in this EIR are set forth below:

- The Newhall Ranch Specific Plan Program EIR identified several mitigation measures that would mitigate permanent and temporary impacts to habitat for general wildlife. The following previously incorporated mitigation measures will reduce impacts to wildlife habitat: **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23); **SP 4.6-27** (removal of grazing and enhancement of riparian habitat in the High Country SMA/SEA 20); **SP 4.6-28** (mitigation banking for various habitat types in the High Country SMA/SEA 20); **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23); **SP 4.6-29** (recreational usage and access restrictions within the High Country SMA/SEA 20); **SP 4.6-33** (protection of transition areas along the High Country SMA/SEA 20, including planting palettes and FMZs); **SP 4.6-20**, **SP 4.6-34**, and **SP 4.6-35** (guidelines for grading activities in the River Corridor SMA/SEA 23 and the High Country SMA/SEA 20); **SP 4.6-36** through **SP 4.6-42** (open space dedication of the High Country SMA/SEA 20); **SP 4.6-43** (Open

Area use for mitigation of riparian or oak resources or elderberry scrub); and **SP 4.6-48** (restoration and enhancement of oak resources in the High Country SMA/SEA 20 and Open Area).

- This EIR recommends additional mitigation measures that would help reduce significant impacts to general wildlife individuals and upland habitat: **MV 4.3-24** (preservation of 616.3 acres of coastal scrub on site within Open Area and/or off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village); **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation); and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation).
- This EIR recommends a mitigation measure that ensures that impacts to nesting birds, including adults, nests, eggs, nestlings, and fledglings, do not occur during construction activities, in accordance with the Migratory Bird Treaty Act (MBTA): **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests).

Implementation of these mitigation measures would reduce impacts to upland habitat to a level that is adverse but not significant.

(c) Buffers/Setbacks from Riparian Resources

Due to their structural diversity, the various riparian and aquatic vegetation communities in the Santa Clara River drainage provide habitat for a large variety of wildlife species, including a number of special-status bird species. Each of these species has a different home range and differing natural history requirements. While some species are riparian-obligate (i.e., satisfy their forage, cover, and breeding habitat needs almost entirely within riparian vegetation communities), other species utilize the riparian habitat as well as adjacent upland vegetation as part of their home range. A number of studies have found that even the more riparian-dependent wildlife species also require adjacent upland habitats to meet home range foraging and breeding requirements.²⁷¹

However, the characteristics, quality, and extent of upland habitat that is necessary to protect the wildlife species dependent upon riparian habitat may differ depending on the geographic region and the particular requirements of the riparian species of concern. A study conducted by Impact Sciences²⁷²

²⁷¹ A.T. Doyle, "Use of Riparian and Upland Habitats by Small Mammals," (1990); J.M. Schaefer and M.T. Brown, "Designing and Protecting River Corridors for Wildlife," (1992).

²⁷² Impact Sciences, Inc., *North Valencia Annexation Buffer Study*.

along the Santa Clara River recommended preserving (and restoring, if necessary) a buffer or setback of at least 100 feet of high-quality upland habitat (upland preserve zone), as measured from the outer edge of the riparian habitat associated with the Santa Clara River (resource line). This upland preserve zone would provide adequate forage and breeding habitat for riparian-associated bird and small mammal species, and would help maintain species diversity within the riparian ecosystem, inclusive of the riparian/upland ecotone. The conclusions of this study were partially based on focused bird surveys (1,100 man-hours over a 62-calendar-day period) and small-mammal trapping (a total of 1,210 cumulative trap-nights were conducted).

Note also that the proposed 100-foot upland preserve zone is consistent with CDFG (Northern California-North Coast [Region 1]) buffer criteria for avoiding significant impacts to riparian species and habitats adjacent to urban development.^{273,274} In developing the buffer criteria, CDFG stated that “[d]epartment biologists have relied on scientific research and literature and professional experience to develop the following recommendations to protect the public’s fish, wildlife and native plant resources.” For example, CDFG recommended a 75-foot buffer from the outside edge of the riparian habitat for the Sacramento River, a 50-foot buffer for main tributaries, and a 25-foot buffer for secondary tributaries. CDFG also stated that “[i]f development restrictions related to mandatory requirements do not allow a project to completely avoid the area of the buffer zone outside the riparian vegetation, the project proponent may average the setback distance along the riparian habitat for the length of the project.” Therefore, there is some flexibility in the minimum buffer width as long as the average width criteria are met.

In addition, the buffer between the Santa Clara River and development was addressed and heavily debated during the Newhall Ranch Specific Plan environmental review and approval process. Prior to final Specific Plan approval, the County Board of Supervisors required that the Specific Plan design be revised to incorporate a 100-foot-wide setback to protect riparian habitat and special-status species within the River Corridor SMA/SEA 23 boundaries. The Board of Supervisors arrived at this conclusion after evaluating the potential impacts of the proposed land uses along the entire length of the River, in light of the existing habitat protection and enhancement provisions contained in the Specific Plan’s Resource Management Plan and Design Guidelines. The overall buffer area is comprised of the following five components: (1) the Salt Creek wildlife corridor connection and the High Country 0.5-mile-wide buffer at

²⁷³ CDFG, *Recommendations to Help Avoid Significant Fish, Wildlife, and Native Plant Resource Impacts for the California Environmental Quality Act (CEQA) Projects in Del Norte, Humboldt, Trinity, Siskiyou, Shasta, Tehama, Lassen, and Modoc Counties* (2001).

²⁷⁴ Please see Appendix A of this Final EIR for the CDFG (Northern California-North Coast, Region 1) buffer criteria.

the westerly end of the Specific Plan on the south side of the River; (2) native upland habitats in the Open Area along the south side of the River; (3) disturbed areas in the River corridor that will be restored or enhanced as riparian habitat; (4) buried bank stabilization that will be revegetated with native riparian and upland plant species; and (5) landscaped open space areas such as community parks, the Regional River Trail, and community trails.

In approving the Specific Plan and Conditional Use Permit No. 94-087-(5), the Board of Supervisors found that the Specific Plan contained sufficient natural vegetative cover and open space to buffer critical resources in the River Corridor SMA/SEA 23 from the development shown in the Specific Plan. The Board of Supervisors further found that the Specific Plan incorporated extensive buffer areas to protect critical resources within the Santa Clara River. The Specific Plan's adopted Resource Management Plan requires a minimum 100-foot-wide setback adjacent to the Santa Clara River between (a) the river side of the top of bank stabilization and (b) development within certain specified land use designations (including those of the Mission Village project site). This requirement may be modified if the Planning Director, in consultation with the County staff biologist, determines that a smaller buffer would adequately protect the riparian resources within the River Corridor SMA/SEA 23, or that a 100-foot-wide setback is infeasible for physical infrastructure planning. Again, these buffer criteria are consistent with the Buffer Study²⁷⁵ and CDFG recommendations described above.

This buffer analysis does not presume that the project's indirect effects on sensitive biological resources in the river corridor will be avoided completely. Therefore, in combination with the 100-foot setback, the Specific Plan's Resource Management Plan provides standards by which biological resources will be managed during construction and for the life of the community, including provisions for (1) restoration and enhancement of disturbed areas; (2) restrictions on pedestrian and vehicular access to the river corridor; (3) design standards for transition areas between development and the river; (4) conveyance of conservation easements; and (5) preparation of a financial plan and the long-term management of the riparian resources by the Center for Natural Lands Management.

As stated above, the Mission Village project would maintain a 100-foot setback between the top of the bank and proposed residential, mixed-use, and commercial development. Based on the site-specific analysis conducted, the Mission Village buffer is consistent with the approved Specific Plan. Again, however, the 100-foot-wide buffer will not eliminate the potential for indirect effects. Specific to the Mission Village project, potential long-term indirect effects are analyzed below, including (1) increased use of pesticides, herbicides, and pollutants; (2) increased lighting and glare; (3) increased potential for introduction of non-native plant and wildlife species; and (4) increased human and domestic pet activity.

²⁷⁵ Impact Sciences, Inc., *North Valencia Annexation Buffer Study*.

The Project Design Features (PDFs) and mitigation measures to reduce these potential indirect impacts are also discussed below.

PDFs to address urban runoff from irrigation and stormwater include site design, source control, treatment control, and hydromodification control Best Management Practices (BMPs). Stormwater runoff from all urban areas within the Mission Village project will be routed to bioretention areas, vegetated swales, and/or extended detention basin treatment controls BMPs. The effectiveness of these water quality PDFs was analyzed by GeoSyntec Consultants.²⁷⁶

The mitigation measures to address the other identified potential indirect effects include previously incorporated measures from the Newhall Ranch Specific Plan Program EIR, and additional measures recommended by this EIR. Significant impacts related to buffers and edge effects and mitigation measures to reduce the level of impact include the following:

- Restriction of Wildlife Habitat Linkages – mitigated by previously incorporated Mitigation Measure **SP 4.6-18** (provision of transition areas adjacent to the River Corridor SMA/SEA 20).
- Increased Light and Glare – mitigated by previously incorporated Mitigation Measure **SP 4.6-56** (downcast lighting design along the boundaries of natural areas).
- Increase in Populations of Non-Native Plant and Wildlife Species – mitigated by this EIR's Mitigation Measures **MV 4.3-21** (installation of waste and recycling receptacles that discourage wildlife foraging in common areas/parks), **MV 4.3-57** (review of plant palettes and inspection of container plants for use within 200 feet of native vegetation for pests and disease; restrictions on invasive plants and irrigation), and **MV 4.3-45** (develop an integrated pest management plan that addresses pesticide use).
- Increased Human and Domestic Animal Presence Within River Corridor SMA/SEA 23 – mitigated by previously incorporated Mitigation Measures **SP 4.6-17** through **SP 4.6-19** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23; transition areas along the River Corridor SMA/SEA 23) and EIR this EIR's Mitigation Measures **MV 4.3-46** (trash and debris removal from riparian habitats) and **MV 4.3-47** (control of pet, stray, and feral cats and dogs in or near open space areas).

²⁷⁶ GeoSyntec Consultants. September 2006. *Landmark Village Water Quality Technical Report* (see Draft EIR, Appendix 4.3).

In regard to the adequacy of the buffer/setback for particular special-status wildlife species, arroyo toads generally burrow within (1) sand or loam substrates with no associated canopy cover, (2) mulefat scrub, (3) willow patches, (4) under woody debris left by fallen, dead willows, or (5) woodrat nests.²⁷⁷ Should arroyo toad occur on the project site, most would be expected to burrow within the preserved riparian habitats. Arroyo toads have been found in agricultural fields²⁷⁸ and can occur within portions of the site outside of the proposed riparian setback zone. However, agricultural fields may constitute “sinks” (areas where mortality rates are higher than reproduction rates) over the long term, due to tilling, pesticide and fertilizer applications, and heavy equipment use, especially during the winter aestivation period.²⁷⁹ Consequently, the agricultural portions of the project site under existing conditions would not be expected to contribute to the species’ persistence on the site.

With regard to western spadefoot, the species rarely moves extensively between breeding ponds and upland areas used for burrowing.²⁸⁰ Accordingly, should western spadefoot breed in seasonal pools located within the riparian zone, the proposed riparian setbacks should preserve associated burrow habitat.

As shown in **Figure 4.3-8, Riparian Habitat Buffer**, below, the proposed project generally maintains a 100-foot setback between top of bank and proposed residential, mixed-use, and commercial development, and up to a 600-foot buffer between top of bank and toe of slope (e.g., riparian resources). One area of reduced buffer width (90 feet) is characterized by disturbed sandy soils and areas of sparse, disturbed riparian vegetation. This area is located south of SR-126 and to the north of the cottonwood-willow riparian forest associated with the confluence of Chiquito Canyon Creek and the Santa Clara River.

Given the proximity of the reduced buffer area to SR-126, and the disturbed condition and limited extent of riparian habitat present, current use of the reduced-buffer area by special-status bird or other wildlife species is expected to be limited. A minimum 100-foot buffer is present along all other portions of the tract map site and in all areas bordering mature cottonwood-willow riparian forest and willow scrub habitats. Furthermore, the vegetation within portions of the setback or buffer area will be restored and/or enhanced to increase habitat values when compared to existing conditions.

²⁷⁷ R. Ramirez, *Arroyo toad (Bufo californicus) Radio Telemetry Study, San Juan Creek, Orange County, California, Final Report* (prepared for Rancho Mission Viejo, Orange County, California, October 2003).

²⁷⁸ P.C. Griffin, “*Bufo californicus*, Arroyo Toad Movement Patterns and Habitat Preferences” (Master’s thesis, University of California, San Diego, 1999).

²⁷⁹ P.C. Griffin, and T. Case. “Terrestrial Habitat Preferences of Adult Arroyo Southwestern Toads,” *Journal of Wildlife Management* 65 (2001), 633–644.

²⁸⁰ CDFG, “California Wildlife Habitat Relationships System,” <http://www.dfg.ca.gov/biogeodata/cwhr/morecwhr.asp>. 2002.

Given the above, the proposed riparian buffers are sufficient to maintain the functions and values of the adjacent riparian habitat and to protect the diversity of riparian-associated wildlife species occurring within these areas. This finding is consistent with the findings of the Newhall Ranch Final Additional Analysis (May 2003) that concluded the proposed land use plan and other design features were sufficient to maintain the function and values of the riparian habitat within the River Corridor SMA/SEA 23.

(d) Impacts to Common Wildlife

In addition to the impacts to vegetation and wildlife habitat, construction and grading activities associated with the proposed project would directly disturb common wildlife species on the project site. In particular, species of low mobility (particularly small mammals, amphibians, reptiles, and gastropods) would be eliminated during site preparation and construction. In addition, some wildlife species may emigrate from the project site and become vulnerable to mortality by predation, auto collisions, and unsuccessful competition for food and territory.

Because of the common nature of wildlife species that would be affected by construction activities, project implementation is not expected to reduce regional populations to below self-sustaining levels. Consequently, impacts to common fish, mammal, amphibian, and reptile species would be less than significant. Nonetheless, implementation of **MV 4.3-7** (surveys to capture and relocate special-status reptiles) would provide more mobile wildlife species the opportunity to move from the disturbance area into adjacent undisturbed habitat. The Newhall Ranch Specific Plan Program EIR did not address the construction-related loss of common wildlife as an individual topic, but did include an analysis of the overall loss of wildlife habitat (**subsection 9.b.1.(b), Wildlife Habitat Loss**).

Construction activities also could result in the direct loss or abandonment of active nests by adult birds of common bird species. These species include several birds that were identified by Los Angeles Audubon Society as Los Angeles County's Sensitive Bird Species.²⁸¹ Although the local Audubon Society considers these birds at risk locally, they are not otherwise designated by federal, state, or local agencies as special-status species. For this reason, the EIR treats these birds as common wildlife species. The Migratory Bird Treaty Act and the California Fish and Game Code protect active nests of native bird species.²⁸² Therefore, any construction-related loss of active nests of common bird species would conflict with these federal and state laws and would constitute a significant impact. Implementation of **Mitigation Measure MV 4.3-15** (pre-construction surveys for nesting native bird species and construction

²⁸¹ Los Angeles Audubon, Los Angeles County's Sensitive Bird Species (2009).

setbacks for active nests) would ensure compliance with state and federal laws protecting active bird nests and would eliminate this potential impact.

(e) Wildlife Habitat Linkages

The proposed project design would *preserve the integrity of the Santa Clara River as a wildlife movement corridor* and minimize impacts on regional wildlife movement by maintaining nearly all of the Santa Clara River as open space with a minimum width of about 1,000 feet. The River corridor will retain sufficient dimensions to convey a variety of larger, mobile wildlife species, such as mule deer, coyote, gray fox, bobcat, and mountain lion, as well as allow for dispersal of many smaller and less mobile species, including birds, small mammals, reptiles, and amphibians that live in the river.

The Specific Plan RMP includes mitigation measures that will minimize impacts to riparian vegetation and replace any vegetation temporarily or permanently removed. These include the following:

- Mitigation Measures **SP 4.6-1** through **SP 4.6-16** (habitat restoration/enhancement in the River Corridor SMA/SEA 23),
- Mitigation Measure **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),
- Mitigation Measures **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23), **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23), and
- Mitigation Measures **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23).

With these mitigation measures in place, the project's impacts on riparian vegetation will not substantially affect the long-term ability of resident and non-resident species to use the river as a movement corridor. When confronted with bridges or overpasses along a preferred movement corridor, wildlife, particularly larger mammals, will generally move under these structures as long as there is adequate vertical and horizontal spacing, a natural (dirt, sand, vegetation) substrate on which to travel while under the structure, and an "openness" effect that allows the animal to detect light, open space and habitat at the exiting end of the structure. Specific Plan measures SP 4.6-37 through SP 4.6-42 would protect a large area of habitat south of the River Corridor SMA/SEA 23 (i.e., the High Country SMA/SEA 20), which would be linked to the River Corridor SMA/SEA 23 by the preservation of the Salt Creek Area. Additionally, the Specific Plan RMP (Mitigation Measure SP 4.6-18) requires a transition area between the

River Corridor SMA/SEA 23 and adjacent development to reduce adverse affects to wildlife use of the river corridor.

The Commerce Center Drive Bridge is proposed to be approximately 1,300 feet in length and a maximum of 129 feet in width. It will range from approximately 11 to 22 feet in height above the riverbed with an estimated 12 vertical support columns or piers extending into the riverbed. The piers will be approximately 100 feet apart from one another. This design should prevent the bridge from obstructing or deterring wildlife movement along the riverbed. In combination with measure **SP-4.6-56**, the proposed bridge will adequately meet these requirements and is not expected to significantly alter wildlife movement along the river corridor.

Further, the conceptual regional open space connectivity identified by Penrod et al.²⁸³ that provides for landscape-scale habitat connectivity between the Santa Susana Mountains to the south and the Los Padres National Forest to the north (see **subsection 4.3.9.b.1.e**) encompasses the High Country SMA/SEA 20 and the Salt Creek area and the Santa Clara River. The High Country SMA/SEA 20 and Salt Creek area comprise an important part of the least cost path linkage design identified by Penrod et al.²⁸⁴ They provide a key part of the east–west linkage that crosses I-5 and connects to the Angeles National Forest in the San Gabriel Mountains to the east and to Ventura County SOAR open space to the southwest. They also provide a significant part of the north–south linkage between the Santa Susana Mountains and the “Fillmore Greenbelt” to the northwest that further links to the Los Padres National Forest and the Angeles National Forest to the north.

Development of the proposed project would preclude wildlife movement between the Santa Clara River and undeveloped lands to the south. Dead-End Canyon, Middle Canyon, and Magic Mountain Canyon would be developed and eliminated as potential wildlife movement corridors. Lion Canyon and Exxon Canyon would not be developed, but would become dead-ends, thus preventing movement between large habitat areas. Although the Mission Village portion of the Specific Plan area would be developed and preclude wildlife movement, regional habitat connectivity would not be significantly affected provided the mitigation measures adopted with the Newhall Ranch Specific Plan are applied. The conceptual regional open space connectivity identified by Penrod et al.²⁸⁵ that provides for landscape-scale habitat connectivity between the Santa Susana Mountains to the south and the Los Padres National Forest to the north (see **Figure 4.3-9, South Coast Wildlands Open Space Connectivity and Linkage**) encompass the High Country SMA/SEA 20 and the Salt Creek area and the Santa Clara River west of Mission Village, as shown in **Figure 4.3-1**. The High Country SMA/SEA 20 and Salt Creek

²⁸³ Penrod et al., *South Coast Missing Linkages Project*.

²⁸⁴ Penrod et al., *South Coast Missing Linkages Project*.

²⁸⁵ Penrod et al., *South Coast Missing Linkages Project*.

area comprise an important part of the least cost path linkage design identified by Penrod et al.²⁸⁶ They provide a key part of the east–west linkage that crosses I-5 and connects to the Angeles National Forest in the San Gabriel Mountains to the east and to Ventura County SOAR open space to the southwest. They also provide a significant part of the north–south linkage between the Santa Susana Mountains and the “Fillmore Greenbelt” to the northwest that further links to the Los Padres National Forest and the Angeles National Forest to the north.

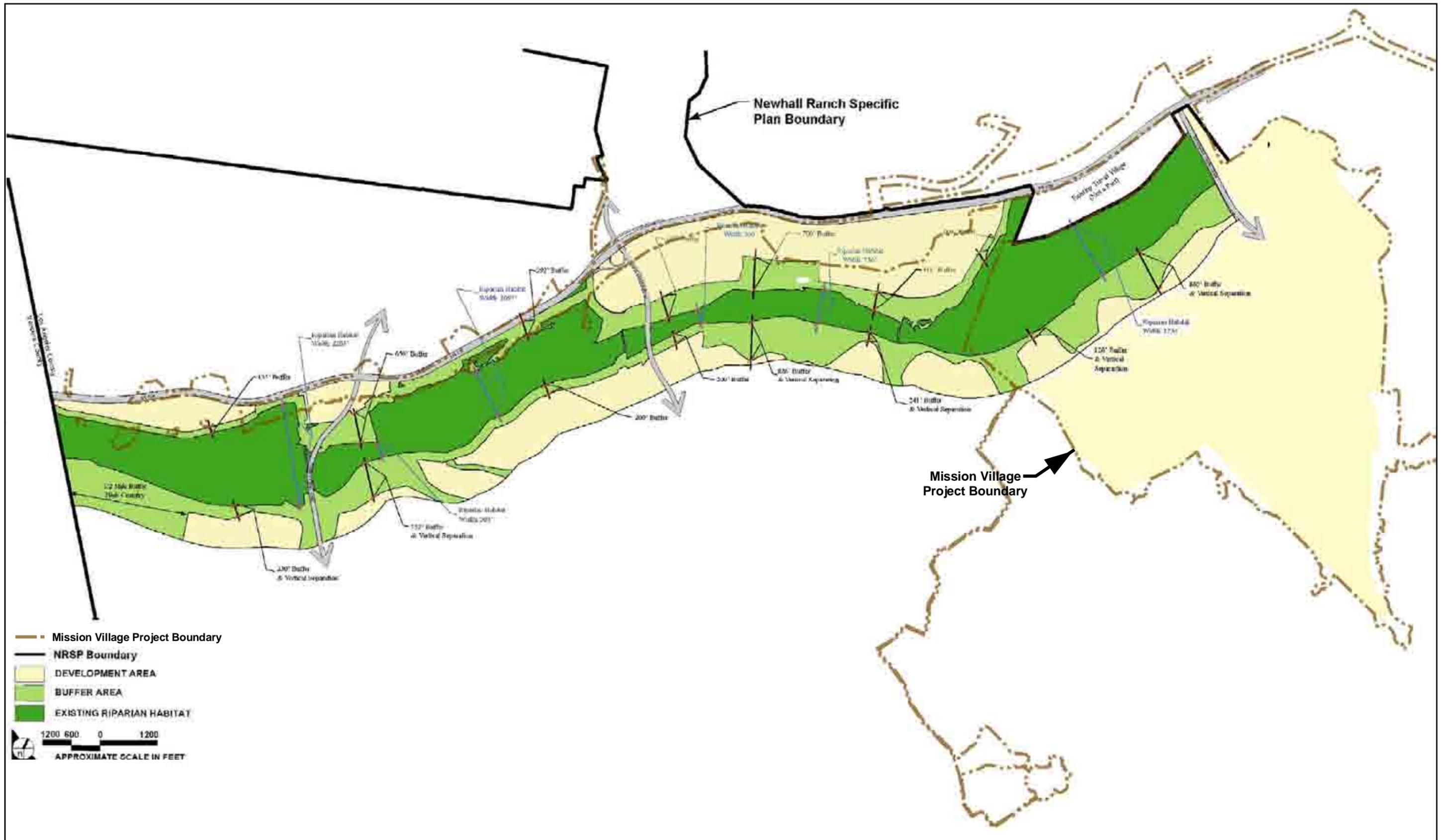
In light of the above, impacts to regional and local wildlife movement would be less than significant.

(f) Special-Status Plant Species

As shown in **Table 4.3-4**, above, the following special-status plant species were eliminated from further consideration because they were not observed on or adjacent to the project site during focused plant surveys conducted on the site in 2001, 2002, 2004, and 2005: marsh sandwort, Braunton’s milk-vetch, Coulter’s saltbrush, Davidson’s saltscale, Malibu baccharis, Nevin’s barberry, thread-leaved brodiaea, Plummer’s mariposa lily, late-flowering mariposa lily, southern tarplant, island mountain-mahogany, Santa Susana tarplant, slender-horned spineflower, Blochman’s dudleya, marcescent dudleya, Santa Monica Mountains dudleya, many-stemmed dudleya, Conejo dudleya, round-leaved filaree, Palmer’s grappling hook, Los Angeles sunflower, mesa horkelia, southwestern spiny rush, Davidson’s bush mallow, California muhly, mud nama, spreading navarretia, chaparral nolina, short-joint beavertail, California orcutt grass, Lyon’s pentachaeta, Pringle’s yampah, Gambel’s watercress, rayless ragwort, salt spring checkerbloom, and Sonoran maiden fern. Given the thoroughness of the previous survey efforts (**Table 4.3-2**), it is unlikely that any of these species are present on the site and, therefore, no significant impacts to these plant species are expected to occur.

Special-status plant species that were observed on the project site during the focused special-status plant surveys include San Fernando Valley spineflower, slender mariposa lily, mainland cherry, Parish’s sagebrush, island mountain-mahogany, southwestern spiny rush, Peirson’s morning-glory, Newhall sunflower, and undescribed everlasting. Given the low sensitivity status of mainland cherry, Parish’s sagebrush, island mountain-mahogany, Peirson’s morning-glory, and southwestern spiny rush, observations were not mapped. Impacts to these species are discussed below.

²⁸⁶ Ibid.



RIPARIAN HABITAT BUFFER SOURCE: Forma Systems 2001

FIGURE 4.3-8

Mission Village EIR

Riparian Habitat Buffer

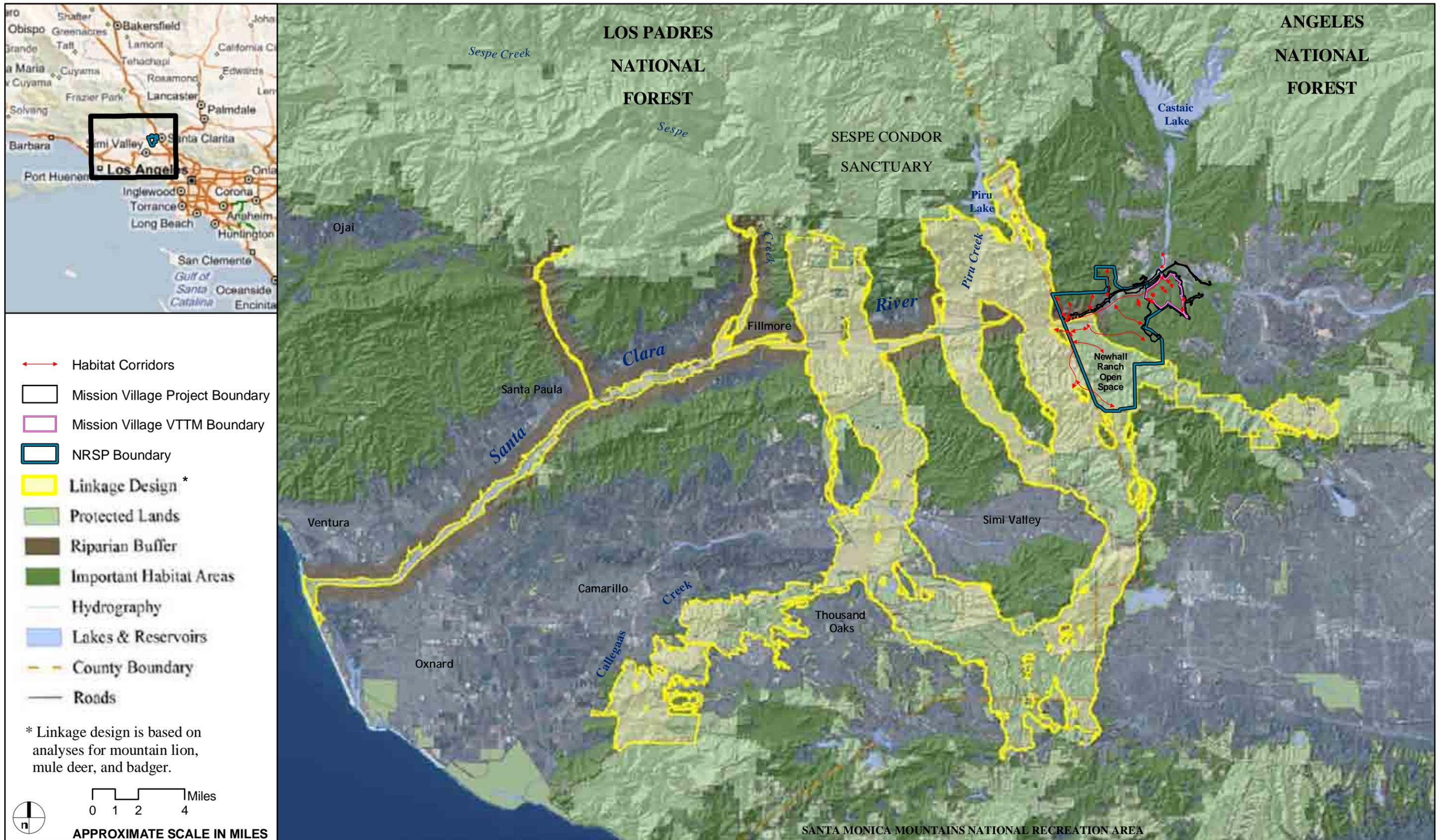
San Fernando Valley spineflower is a federal candidate plant species, is state-listed as endangered, and is a CNPS List 1B species. San Fernando Valley spineflower has been observed in the Airport Mesa area within the Specific Plan area. This species has also been observed on the Entrada and VCC planning areas. Within the Mission Village project area, most of the plants were found on slopes with a south-facing aspect within openings in sparsely vegetated habitat characterized as open California sagebrush scrub and associations, California annual grasslands, or at the edge of agricultural fields on mesas. Most of the observed San Fernando Valley spineflower within the Specific Plan area, Entrada, and VCC were found on soils mapped by the USDA as slightly eroded to eroded Castaic-Balcom silty clay loam (30 to 50 percent slopes) or Terrace Escarpments.²⁸⁷ Within the Mission Village project site, spineflower is associated with Castaic-Balcom silty clay loams (30 percent to 50 percent slopes), terrace escarpments, and Hanford sandy loam (2 percent to 9 percent slopes). Vegetative cover in the area of San Fernando Valley spineflower occurrences ranged from 2 to 60 percent, but was most commonly between 35 and 40 percent.²⁸⁸ Elevations at San Fernando Valley spineflower locations on site range from approximately 1,000 to 1,300 feet AMSL. Based on spineflower occurrence data collected annually from 2002 through 2007, the mapped acreage of this plant species on the project site has varied from a low of 0.42 acre up to 7.14 acres, with a cumulative spineflower footprint of 8.57 acres. The acreage of spineflower on site varies considerably from year to year (see **subsection 7.a.(1)**), most likely based on precipitation levels; therefore, potential impacts to this species are evaluated in terms of loss of occupied habitat, rather than number of individual plants. Based on the 2002–2007 survey data, the proposed project would result in the loss of 3.29 acres of occupied cumulative spineflower footprint. Given the rarity of San Fernando Valley spineflower, without mitigation, the project-related loss of the species would be a significant impact.

When the County of Los Angeles approved the Specific Plan, it adopted a Spineflower Special Study Mitigation Overlay and Preserve Program. To implement this program, the applicant has prepared a Spineflower Conservation Plan (SCP) which ensures the long-term survival of spineflower populations on the project site and greater NRSP. The SCP is included in its entirety in **Appendix 4.3** and is summarized below. The SCP establishes five San Fernando spineflower preserves, four within the Newhall Ranch Specific Plan site and one within a portion of the Entrada planning area. Of these preserves, the Airport Mesa Preserve is located on the Mission Village project site. The locations of the preserves are shown in **Figure 1.0-18, Spineflower Preserves**. As described in the SCP, the five proposed preserves would encompass a total of 164.8 acres of land. The preserve areas have been designed to accommodate natural spineflower population fluctuations and include 13.26 acres of occupied

²⁸⁷ USDA, *Soil Survey*.

²⁸⁸ Dudek, *2007 Sensitive Plant Survey Results for the Entrada Site, Los Angeles County, California* (2007).

spineflower habitat and 152.6 acres of buffer area (unoccupied spineflower habitat). In total, the five proposed preserves encompass 68.6 percent of the cumulative occupied spineflower habitat within the SCP area. No urban development would be permitted within the preserve areas and mitigation funds would be provided for the management and monitoring of the preserves. Each preserve area and incorporated buffer will be placed into a permanent conservation easement to ensure its long-term protection. The conservation easement will be to CDFG and will contain appropriate restrictions to ensure that the preserve land remains in a natural condition in perpetuity. It should be noted that the SCP describes spineflower preserves proposed under Newhall Ranch RMDP-SCP EIS/EIR Alternative 2, which would create greater impacts than the proposed Mission Village project. The Mission Village project includes the proposed Airport Mesa preserve; the Mission Village Airport Mesa preserve as proposed would be larger than the Airport Mesa preserve described in the SCP. The Mission Village Airport Mesa preserve would occupy 65.62 acres, including 5.28 acres of occupied spineflower habitat, 24.39 acres of core expansion area (unoccupied spineflower habitat), and 35.96 acres of buffer area (unoccupied spineflower habitat) (see **Figure 4.3-10, Airport Mesa Preserve Core Population**). It is unknown if any of the unoccupied open space included in the preserves is suitable for spineflowers. The proposed Airport Mesa preserve was designed to conserve the areas of greatest concentration of spineflower within the general Airport Mesa occurrence.

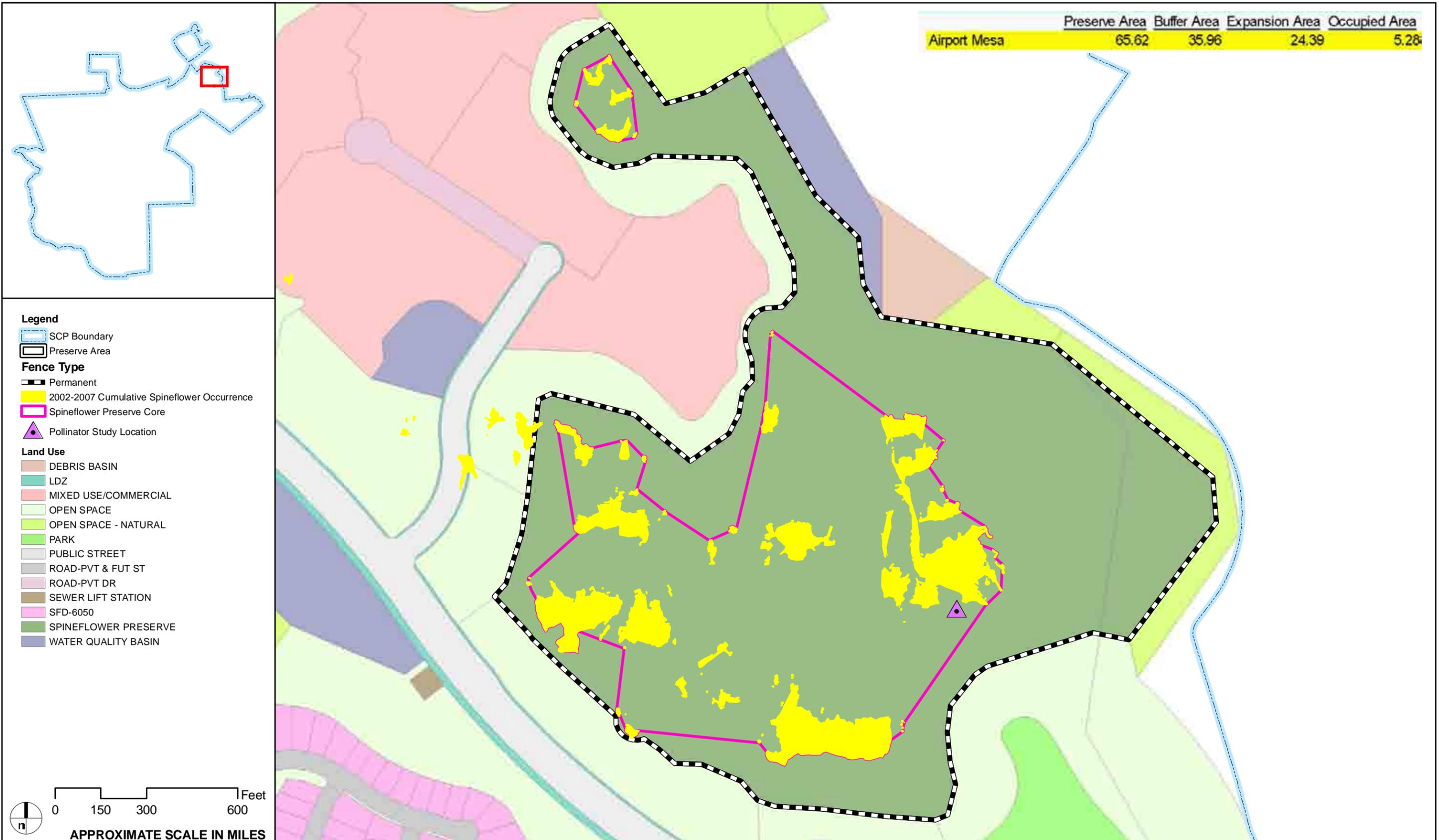


SOURCE: South Coast Wildlands, 2006

FIGURE 4.3-9

Mission Village EIR

South Coast Wildlands Open Space Connectivity and Linkage



AERIAL SOURCE: Digital Globe, 2007

FIGURE 4.3-10

Mission Village EIR

Airport Mesa Preserve Core Population

The proposed preserves would provide habitat for potential spineflower pollinators and dispersal agents. The management of the preserves would include restoration of degraded and/or damaged spineflower habitats and the establishment of site-specific buffers (which are included in the above acreages) aimed at neutralizing and controlling adverse edge effects (including Argentine ants) from adjacent changes in land use. A spineflower preserve manager would be contracted with and funded by the Applicant to perform environmental monitoring, oversee the proposed spineflower preserve areas, and ensure the monitoring and management activities outlined in the proposed SCP are implemented.

In the Draft SCP and this EIR, buffer areas are defined as land within proposed spineflower preserves, between the spineflower cumulative occupied habitat areas and the preserve boundaries. That is, the buffer areas are preserve lands that “buffer” the rare plants from adverse effects of surrounding land uses. Adjacent land uses such as roads, trails, or fuel modification zones were not considered buffer areas.

Based on the professional judgment of staff and consultants with relevant expertise, buffer widths of 80 to 100 feet, in combination with active management activities and other mitigation measures (SP-4.6-53, SP-4.6-59, SP-4.6-65 through SP-4.6-80, MV 4.3-58 through MV 4.3-64, MV 4.3-66 through MV 4.3-72, and MV 4.3-48), were determined to be effective in buffering spineflower from most adverse edge effects, such as: invasion by newly introduced non-native landscaping plants into cumulatively occupied spineflower habitat, adverse effects of adjacent vegetation clearing for fuel modification, trampling or crushing, and overspray of landscaping chemicals from surrounding areas.

Further, in order to expand the effective buffer distance between cumulative occupied spineflower habitat and adverse edge effects of surrounding land uses, the mitigation measures included in this EIR restrict adjacent land uses, including: restrictions on landscape palettes; irrigation; drainage/runoff control; and use of herbicides, pesticides, and fertilizers. These measures are also described in Section 9 of the Draft SCP.

This EIR also includes management actions within the proposed spineflower preserves, such as fencing and signage at the boundaries to prohibit trespass, control of weeds, native habitat restoration, prohibitions against alterations to existing hydrology, excluding fuel modification zones within preserves and preparation of a fire management plan and post-fire rehabilitation plan. These measures are also described in Section 9 of the Draft SCP.

Applicable mitigation measures include the following:

- Mitigation Measures **SP 4.6-53** and **SP 4.6-59** (requires current, updated, site-specific surveys for special-status species in consultation with CDFG),

- Mitigation Measure **SP 4.6-65** (requiring subdivision maps responsive to spineflower characteristics),
- Mitigation Measure **SP 4.6-66** (guidelines for the design, establishment, and management of spineflower preserves),
- Mitigation Measure **SP 4.6-67** (open space connections and setbacks for spineflower preserves; prohibition of disturbance within spineflower preserves or buffers; revegetation requirements),
- Mitigation Measure **SP 4.6-68** (temporary fencing and signage around the spineflower preserve(s), open space connections, and buffer areas; permanent fencing and signage along the spineflower preserve boundary),
- Mitigation Measure **SP 4.6-69** (storm drain system requirements for spineflower preserve areas),
- Mitigation Measure **SP 4.6-70** (road construction requirements to reduce or avoid impacts to spineflowers),
- Mitigation Measure **SP 4.6-71** (engineering, design, and grading modifications around spineflower preserves),
- Mitigation Measure **SP 4.6-72** (fire management plan to avoid and minimize impacts to the spineflower),
- Mitigation Measure **SP 4.6-73** (minimization of changes in surface water flows to spineflower preserves),
- Mitigation Measure **SP 4.6-74** (biweekly biological monitoring of grading and fence/utility installation activities; submission of monthly monitoring reports),
- Mitigation Measure **SP 4.6-75** (water control and stormwater flow redirection during construction activities)
- Mitigation Measure **SP 4.6-76** (reassessment of impacts to spineflower populations)
- Mitigation Measure **SP 4.6-77** (spineflower monitoring and management plan),
- Mitigation Measure **SP 4.6-78** (spineflower translocation and reintroduction program),

- Mitigation Measure **SP 4.6-79** (consultation with the County and CDFG regarding ongoing agricultural operations), and
- Mitigation Measure **SP 4.6-80** (San Martinez Grande spineflower preserve area).

This impact would also be reduced through the implementation of the following:

- Mitigation Measures **MV 4.3-58** and **MV 4.3-59** (spineflower preserve establishment and management),
- Mitigation Measures **MV 4.3-60**, **MV 4.3-61**, **MV 4.3-62**, **MV 4.3-64**, and **MV 4.3-66** (spineflower preserve temporary fencing requirements and education of construction workers),
- Mitigation Measures **MV 4.3-60**, **MV 4.3-62**, **MV 4.3-65**, and **MV 4.3-66** (control of construction-related dust, erosion, and water quality within spineflower preserve, and quarterly monitoring for Argentine ants along the construction–open space interface),
- Mitigation Measures **MV 4.3-68** through **MV 4.3-70** (restricting access to spineflower preserves through fencing and signage),
- Mitigation Measures **MV 4.3-71** and **MV 4.3-72** (restrictions on storm drains within spineflower preserves),
- Mitigation Measure **MV 4.3-63** (pre-construction review of construction plans and specifications),
- Mitigation Measure **MV 4.3-67** (review of plant palettes used within 200 feet of spineflower preserves and inspection of all container plants within 200 feet for disease and pests),
- Mitigation Measure **MV 4.3-73** (guidelines for restoration and enhancement of degraded and/or damaged spineflower habitat), and
- Mitigation Measure **MV 4.3-74** (emergency fire response plan and response strategies for wildfire or mass movement (*e.g.*, landslides, slope sloughing, or other geologic events) within the spineflower preserves).

Given the preservation and protection measures outlined in the SCP (see **Mitigation Measures MV 4.3-58** through **Mitigation Measures MV 4.3-74**), and implementation of Specific Plan RMP Measures **SP 4.6-53**, **SP 4.6-59**, and **SP 4.6-65** through **4.6-80**, all of which are consistent with the Spineflower Overlay and Mitigation Program, impacts to San Fernando Valley spineflower would be reduced to below a level of significance. Additionally, the project would be required to comply with all requirements of the

associated Incidental Take Permit under CESA Section 2081. The finding that impacts to San Fernando Valley spineflower can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR and Additional Analysis.

Slender mariposa lily has no state or federal status, but is a CNPS List 1B (S1.1) plant. This species is typically found in chaparral, coastal scrub, and grasslands, often on clay and/or rocky soils. The proposed project would result in the loss of 15.3 acres of the 17.4 acres of cumulative occupied slender mariposa lily habitat on site (see **Figure 4.3-6**). Given the sensitivity of this species, these impacts would be significant. The Draft RMDP Slender Mariposa Lily Mitigation and Monitoring Plan²⁸⁹ is attached in Appendix 4.3. A Mission Village Slender Mariposa Lily Mitigation and Monitoring Plan will be prepared and submitted to CDFG and the County for review and approval prior to ground disturbance to occupied habitat. Upon approval, the plan will be implemented by the applicant or its designee. The approved plan will demonstrate the feasibility of enhancing or restoring slender mariposa lily habitat in selected areas to be managed as natural open space (i.e., the Salt Creek area or High Country SMA/SEA 20, spineflower preserves, or River Corridor SMA/SEA 23) without conflicting with other resource management objectives. Habitat replacement/enhancement will be at a 1:1 ratio (acres restored/enhanced to acres impacted). In addition, the applicant would implement a number of mitigation measures designed to avoid and minimize construction-related indirect impacts to the slender mariposa lily. Applicable mitigation measures include the following:

- Mitigation Measure **SP 4.6-27** (enhancement of habitat values within the High Country SMA/SEA 20),
- Mitigation Measures **SP 4.6-29** through **SP 4.6-32** (recreation and access restrictions within the High Country SMA/SEA 20),
- Mitigation Measure **SP 4.6-33** (protection of transition areas between the development edge and the High Country SMA/SEA 20),
- Mitigation Measure **SP 4.6-34** (clear marking of grading perimeters within or adjacent to the High Country SMA/SEA 20),
- Mitigation Measures **SP 4.6-37** through **SP 4.6-42** (long-term management of the High Country SMA/SEA 20), and

²⁸⁹Dudek, *Draft RMDP Slender Mariposa Lily Mitigation and Monitoring Plan* (2007).

- Mitigation Measures **SP 4.6-53** and **SP 4.6-59** (requires current, updated, site-specific surveys for special-status species in consultation with CDFG).

This impact would also be reduced through the implementation of the following:

- Mitigation Measure **MV 4.3-27** (implementation of an approved slender mariposa lily mitigation plan) to be implemented by the applicant. The plan shall be subject to the approval of the County prior to the issuance of a grading permit.
- Mitigation Measure **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities).

Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR and Additional Analysis.

Mainland cherry. The mainland cherry has no state or federal sensitivity status, but it is locally protected through the County of Los Angeles. On site, this species is found as an occasional component of undifferentiated chaparral, big sagebrush scrub, and river wash. Given the low sensitivity status of the species, observations were not mapped. In order to reduce direct impacts to this species (loss of individual mainland cherry trees and shrubs), the applicant would implement a series of mitigation measures designed to replace impacted mainland cherry trees and shrubs, and restore, enhance, and maintain natural woodland communities in perpetuity, consistent with the Newhall Ranch Specific Plan Oak Resources Replacement Program.²⁹⁰ Applicable mitigation measures include the following previously incorporated measures:

- Mitigation Measures **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-21** through **SP 4.6-26** (habitat restoration, enhancement, and preservation of the River Corridor SMA/SEA 23);
- Mitigation Measure **SP 4.6-17** (restrictions on human and pet access to the River Corridor SMA/SEA 23);
- Mitigation Measures **SP 4.6-18** and **SP 4.6-19** (establishment of transition areas between the River Corridor SMA/SEA 23 and development);
- Mitigation Measure **SP 4.6-28** (mitigation banking for riparian habitats);

²⁹⁰ County of Los Angeles. *Newhall Ranch Specific Plan* (2003).

- Mitigation Measures **SP 4.6-29** through **SP 4.6-32** (recreation and access restrictions within the High Country SMA/SEA 20);
- Mitigation Measure **SP 4.6-33** (protection of transition areas between the development edge and the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-34** and **SP 4.6-35** (clear marking of grading perimeters and avoidance of inadvertent impacts to biological resources outside the grading area within or adjacent to the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-37** through **SP 4.6-42** (long-term management of the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-43** through **SP 4.6-47** (acceptable uses of and long-term management of the Open Area);
- Mitigation Measure **SP 4.6-48** (standards for the restoration and enhancement of mainland cherry resources) and
- Mitigation Measure **SP 4.6-61** (site-specific survey for mainland cherry at County request).

This impact would also be reduced through the implementation of the following:

- Mitigation Measure **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas);
- Mitigation Measure **MV 4.3-23** (development of a conceptual wetlands mitigation plan);
- Mitigation Measure **MV 4.3-24** (preservation of 616.3 acres of coastal scrub on site within Open Area and/or off site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village);
- Mitigation Measure **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities);
- Mitigation Measure **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation);

- Mitigation Measures **MV 4.3-31** through **MV 4.3-43** (wetlands mitigation plan and riparian restoration activities on the project site); and
- Mitigation Measure **MV 4.3-50** (replacement of mainland cherry trees or shrubs outside riparian areas).

Implementation of these mitigation measures would reduce project impacts to mainland cherry trees to a level that is adverse but not significant. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Island mountain-mahogany. The island mountain-mahogany is a CNPS List 4 (S3.3) plant, but it has no federal status. Within the project site, island mountain-mahogany occurs as an occasional component of chaparral communities at the base of north-facing slopes. Given the low sensitivity status of the species, observations were not mapped. Because of the common occurrence of island mountain-mahogany within the Newhall Ranch Specific Plan area, and because CNPS List 4 plants are not considered Rare from a statewide perspective, are not defined as Rare, Threatened or Endangered, and at this time face low-level threats on a statewide basis,²⁹¹ the loss of island mountain-mahogany would not be considered a substantial adverse effect on a special-status species. Nor would it be expected to reduce regional populations of the species to below self-sustaining numbers. Therefore, impacts to island mountain-mahogany (loss of individual island mountain-mahogany shrubs), would be less than significant. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR and Additional Analysis, which found that impacts to this species would not be significant assuming implementation of Specific Plan Mitigation Measures **SP 4.6-27** (removal of grazing and enhancement of riparian habitat in the High Country SMA/SEA 20), **SP 4.6-34** (marking and inspection of grading perimeters prior to impacts within or adjacent to the High Country SMA/SEA 20), **SP 4.6-35** (avoidance of inadvertent impacts to biological resources within or adjacent to the High Country SMA/SEA 20), and **SP 4.6-53** (updated site-specific surveys for rare, threatened, or endangered plant or animal species at County request).

Parish's sagebrush is considered special status by the County of Los Angeles, but it has no federal, state, or CNPS status. This species grows intermixed with the big sagebrush scrub community within the Salt Creek watershed,²⁹² co-occurring with the more common big sagebrush (*Artemisia tridentata* ssp. *tridentata*). Given the low sensitivity status of the species, observations were not mapped. Implementation

²⁹¹ CNPS, CNPS Vegetation Committee, "California Native Plant Society Relevé Protocol," http://www.cnps.org/cnps/vegetation/pdf/Releve_protocol.pdf. 2004.

²⁹² Dudek and Associates, Inc., *Sensitive Plant Survey Results for the Salt Creek Site*.

of the proposed project would result in the loss of 15.8 of the 24.6 acres of big sagebrush scrub on site, including the loss of individual Parish's sagebrush shrubs. This impact would (1) constitute a substantial direct adverse effect on this species, (2) conflict with local policies and ordinances protecting biological resources, and (3) substantially reduce the number and range of this species. Thus, this impact is significant, absent mitigation. The project applicant would implement a series of mitigation measures designed to reduce the impact to a level that is adverse but not significant. These mitigation measures include the following previously incorporated measures:

- Mitigation Measures **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-21** through **SP 4.6-26** (habitat restoration, enhancement, and preservation of the River Corridor SMA/SEA 23); and
- Mitigation Measure **SP 4.6-28** (mitigation banking for riparian habitats).

This impact would also be reduced through the implementation of the following:

- Mitigation Measure **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas);
- Mitigation Measure **MV 4.3-23** (development of a conceptual wetlands mitigation plan);
- Mitigation Measure **MV 4.3-24** (preservation of 616.3 acres of coastal scrub on site within Open Area and/or off site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village);
- Mitigation Measure **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities); and
- Mitigation Measures **MV 4.3-31** through **MV 4.3-43** (wetlands mitigation plan and riparian restoration activities on the project site).

Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. Impacts to this species were not previously analyzed as part of the Newhall Ranch Specific Plan Program EIR and Additional Analysis because the plant was identified after that environmental documentation was certified.

Southwestern spiny rush. The southwestern spiny rush is a CNPS List 4 (S3.2) plant, but it has no federal status. Within the Specific Plan area, southwestern spiny rush individuals were observed annually from 2001 through 2006 in mesic riparian areas along the Santa Clara River. Given the low sensitivity status of

the species, individual plants have not been mapped. The loss of individual spiny rush plants is not considered a significant impact for the following reasons: the species has a scattered distribution along the Santa Clara River floodplain within the Newhall Ranch Specific Plan area; CNPS List 4 plants are not considered Rare from a statewide perspective, are not defined as Rare, Threatened, or Endangered pursuant to the California Endangered Species Act, and are not eligible for state listing as Threatened or Endangered; and the species faces only low-level threats on a statewide basis.²⁹³ Nor would the impact be expected to reduce regional populations of the species to below self-sustaining numbers. Impacts to this species were not previously analyzed as part of the Newhall Ranch Specific Plan Program EIR and Additional Analysis because the plant was identified after that environmental documentation was certified.

Peirson's morning-glory has no state or federal status, but is a CNPS List 4 (S3.2) plant. This species is typically found in chaparral, coastal scrub, chenopod scrub, cismontane woodland, lower montane coniferous forest, and grasslands. Given the low sensitivity status of the species, observations were not mapped. The proposed project would result in the loss of Peirson's morning-glory from the project site. While never abundant, Peirson's morning-glory occurs throughout the Newhall Ranch Specific Plan area on virtually all ridges and slopes, weakly climbing over chaparral, coastal scrub, and grasslands, including throughout the Mission Village project site.²⁹⁴ Given the low sensitivity status of the species, observations were not mapped. The loss of individual Peirson's morning-glory plants is not considered a significant impact for the following reasons: the species has a common occurrence within the Newhall Ranch Specific Plan area; CNPS List 4 plants are not considered Rare from a statewide perspective, are not defined as Rare, Threatened, or Endangered pursuant to the California Endangered Species Act, and are not eligible for state listing as Threatened or Endangered; and the species faces only low-level threats on a statewide basis.²⁹⁵ Nor would the impact be expected to reduce regional populations of the species to below self-sustaining numbers. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR and Additional Analysis, which found that impacts to this species would not be significant assuming implementation of Specific Plan Mitigation Measures **SP 4.6-27** (removal of grazing and enhancement of riparian habitat in the High Country SMA/SEA 20), **SP 4.6-34** (marking and inspection of grading perimeters prior to impacts within or adjacent to the High Country SMA/SEA 20),

²⁹³ CNPS, "California Native Plant Society Relevé Protocol."

²⁹⁴ Dudek and Associates, Inc., 2002 *Sensitive Plant Survey Results for Newhall Ranch Specific Plan Area*; Dudek and Associates, Inc., 2003 *Sensitive Plant Survey Results for Newhall Ranch Specific Plan Area*; Dudek and Associates, Inc., 2004 *Sensitive Plant Survey Results for the Newhall Ranch Specific Plan Area*; Dudek and Associates, Inc., 2005 *Sensitive Plant Survey Results for the Newhall Ranch Specific Plan Area*; Dudek and Associates, Inc., 2006 *Sensitive Plant Survey Results for the Newhall Ranch Specific Plan Area*; Dudek, 2007 *Sensitive Plant Survey Results for the Newhall Ranch Specific Plan Area*.

²⁹⁵ CNPS, "California Native Plant Society Relevé Protocol."

SP 4.6-35 (avoidance of inadvertent impacts to biological resources within or adjacent to the High Country SMA/SEA 20), and **SP 4.6-53** (updated site-specific surveys for rare, threatened, or endangered plant or animal species at County request).

Newhall sunflower. The Newhall sunflower is a CNPS List 1B.1 plant (S1), but has no federal status. This EIR considers it a special-status species. Approximately 10 individuals of the Newhall sunflower occur at Middle Canyon Spring, on the south side of the Santa Clara River between Middle Canyon and San Jose Flats within the Specific Plan site. Although the spring will be avoided, potential indirect impacts to the Newhall sunflower as a result of implementation of the proposed project (accidental clearing, trampling, and grading; runoff, sedimentation, erosion, and chemical and toxic compound pollution; and exposure to fugitive dust, as well as from hydrologic alterations and water quality impacts), would (1) constitute a substantial direct adverse effect on this species, (2) conflict with local policies and ordinances protecting biological resources, and (3) substantially reduce the number and range of this species. Thus, this impact is significant, absent mitigation. In order to reduce direct impacts to this species, the applicant would implement a series of mitigation measures designed to avoid or minimize the impact of project implementation on Parish's sagebrush to a level that is adverse but not significant. Applicable mitigation measures include the following previously incorporated measures:

- Mitigation Measures **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-21** through **SP 4.6-26** (habitat restoration, enhancement, and preservation of the River Corridor SMA/SEA 23); and
- Mitigation Measure **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23), **SP 4.6-18**(provision of transition areas adjacent to the River Corridor SMA/SEA 23), and **SP 4.6-19** (requirements for transition areas adjacent to the River Corridor SMA/SEA 23).

This impact would also be reduced through the implementation of the following:

- Mitigation Measure **MV 4.3-11** (regulating stream diversion bypass channels and dewatering);
- Mitigation Measure **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities);
- Mitigation Measures **MV 4.3-52** (project design features, construction notes, erosion and dust control, and SWPPP BMPs to ensure protection of vegetation communities and special-status species) and **MV 4.3-53** (dust control measures to protect vegetation communities and special-status aquatic wildlife species);

- Mitigation Measure **MV 4.3-57** (review of plant palettes and inspection of container plants for use within 200 feet of native vegetation for pests and disease; restrictions on invasive plants and irrigation), **MV 4.3-54** (permanent fencing along trails in the River Corridor SMA/SEA 23), and **MV 4.3-55** (fencing and signage around the Middle Canyon Spring); and
- Mitigation Measure **MV 4.3-56** (Middle Canyon Spring Habitat Management Plan (Dudek 2007), which prescribes monitoring and management related to water quality and water quantity) and **MV 4.3-51** (bridges of the Santa Clara River will be designed to minimize impacts to natural areas and riparian resources from associated lighting and stormwater runoff).

Implementation of these mitigation measures would reduce project impacts to the Newhall sunflower to a level that is adverse but not significant. Impacts to this species were not previously analyzed as part of the Newhall Ranch Specific Plan Program EIR and Additional Analysis because the plant was identified after that environmental documentation was certified.

Undescribed everlasting. Because this plant is undescribed (a physical description of the plant with known distribution and species name has not been published in a peer-reviewed publication) and its extent and distribution are unknown, this EIR considers it a special-status species. The undescribed everlasting was documented within the Specific Plan area during the 2003, 2004, 2005, and 2007 field seasons. Two main populations of this undescribed species, totaling about 530 individuals, were documented in 2003 in the Santa Clara River corridor near the mouth of Long Canyon and in Castaic Creek south of SR-126 within the Specific Plan area. During the 2004 surveys, these two occurrences were noted again with about 700 plants. In addition, a population of about 250 individuals was observed in the portion of Castaic Creek west of the I-5 Bridge and east of Commerce Center Drive within the VCC planning area. In 2005, the two Specific Plan area occurrences consisted of approximately 800 individuals and five individuals, while the VCC occurrences consisted of approximately 65 individuals. During 2007 surveys, the VCC occurrence was estimated at approximately 350 individuals; one main occurrence and a number of smaller occurrences were documented within the Specific Plan area, totaling approximately 85 individuals. These occurrences are primarily on secondary alluvial benches. The vegetation around these plants consists of sparsely vegetated open river wash. Implementation of the proposed project would result in temporary impacts at the location where 8 individuals were mapped in 2004 and 3 individuals were mapped in 2007.

Impacts to this species would be reduced through implementation of the following:

- **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities);

- **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation);
- **MV 4.3-75** (surveys in undescribed everlasting habitat prior to grading/construction activities); and
- **MV 4.3-76** (undescribed everlasting mitigation and monitoring plan).

Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. Impacts to this species were not previously analyzed as part of the Newhall Ranch Specific Plan Program EIR and Additional Analysis because the plant was identified after that environmental documentation was certified.

(g) Protected Oaks and Live Oak Woodland

As previously discussed (**subsection 7.b., Oaks**), CLAOTO protects any species in the genus *Quercus* that are at least 8 inches in diameter or has a combined trunk circumference of any two trunks of at least 38 inches (12 inches in diameter), as measured 4.5 feet above the mean natural grade. A heritage oak, as defined by CLAOTO, is an oak tree that measures 36 inches or more in diameter as measured 4.5 feet above natural ground, or any oak of 36 inches or greater in diameter having a significant historical or cultural importance to the community. CLAOTO requires that all potential impacts to oak trees be preceded by an application to the County that includes a detailed oak tree report and that loss of or damage to protected oaks be mitigated at a minimum 2:1 ratio.

With respect to oak woodlands, vegetation community and land cover classifications used in this EIR generally follow the Vegetation Classification and Mapping Program “List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database” system.²⁹⁶ Community classifications were selected based on site factors, descriptions, distribution, and characteristic species present within an area.

Public Resources Code section 21083.4 addresses oak woodlands conservation, and requires counties to mitigate impacts to oak woodlands that would be significant under CEQA. Under this Section, an “oak” is defined as a “native tree species in the genus *Quercus*, not designated as Group A or Group B commercial species pursuant to regulations adopted by the State Board of Forestry and Fire Protection pursuant to Section 4526, and that is 5 inches or more in diameter at breast height.” Although, the statute

²⁹⁶ CDFG, “List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database,” (2003), updated by CDFG, “Vegetation Classification and Mapping Program, List of California Vegetation Alliances” (2007).

does not provide a definition of “oak woodland,” Public Resources Code Section 12220(g) provides helpful guidance. It defines “forest land” – which would include oak woodland -- as any “land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.”

Using Section 12220(g) as a guide, this EIR defines “oak woodland” as an area with at least 10% cover by oak trees with an understory of non-grass vegetation and at least 20 percent cover by oak trees with an understory of grass vegetation. Oak/grass includes areas where oak trees comprise between 10 percent and 20 percent of the total cover with an understory of grass vegetation. As part of this EIR’s Vegetation Communities analysis, biologists surveyed the site and identified all oak woodlands meeting this definition. Note that these surveys not only captured the oak woodland habitat, but also the entire range of oak trees in terms of size and maturity, including all trees with trunk diameters of five (5) inches or more, measured at breast height, as required under Public Resources Code 21083.4(a). These surveys indicate that the project site supports 37.3 acres of oak woodland, as defined.

Based on the proposed grading plan, 7.8 acres of coast live oak woodland would be developed (including permanent and temporary impacts) and 1.9 acres of valley oak/grass would be developed (including permanent and temporary impacts), for a total of 9.7 acres of impact. This is considered a potentially significant effect under CEQA, thus triggering the mitigation requirements set forth in Public Resources Code Section 21083.4.

In addition, the project will remove 12 “heritage” and 131 non-heritage oak trees. Under CLAOTO, an Oak Tree permit will be required to encroach upon and/or remove the 12 heritage oaks and 40 of the non-heritage oaks. However, 214 oak trees (of which 29 are considered heritage) occur within 200 feet from the grading limit line and will be preserved. Given the biological value of oak woodlands and savannah, the project’s impacts to oak trees and oak woodlands are considered a significant impact under CLAOTO.

As discussed in the Newhall Ranch Specific Plan, 2.6 Resource Management Plan, an estimated 13,660 oak trees would be protected within the SMA, particularly in the High Country SMA/SEA 20. Further, as discussed in the *Draft Newhall Ranch Mitigation Feasibility Study*,²⁹⁷ Dudek has identified the opportunity of creating 11 acres of coast live oak woodland and planting an additional 189 oak trees within the High Country SMA/SEA 20 and Salt Creek area (see Appendix A). The actual number of trees to be planted would correspond to that necessary to (1) comply with the Oak Tree Permit issued by the County pursuant to CLAOTO, and (2) provide adequate mitigation acreage for losses to oak woodland per

²⁹⁷ Dudek, *Draft Middle Canyon Spring Survey and Status Report*.

Section 21083.4. Note that Section 21083.4 provides counties and project applicants with a number of mitigation alternatives, including the preservation of oak woodlands under conservation easements and the planting of oak trees to replace those lost or damaged. (Pub. Res. Code Section 21083.4(b)(1) and (2).)

In order to reduce direct impacts to oak resources, the project applicant would implement a series of mitigation measures designed to replace impacted oak trees in accordance with CLAOTO; restore, enhance, and maintain natural woodland communities in perpetuity; and create new woodlands in areas that supported oaks and oak woodlands prior to development, as required under Public Resources Code section 21083.4. Applicable mitigation measures include the following previously incorporated measures:

- Mitigation Measures **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-21** through **SP 4.6-26** (habitat restoration, enhancement, and preservation of the River Corridor SMA/SEA 23);
- Mitigation Measure **SP 4.6-17** (restrictions on human and pet access to the River Corridor SMA/SEA 23);
- Mitigation Measures **SP 4.6-18** and **SP 4.6-19** (establishment of transition areas between the River Corridor SMA/SEA 23 and development);
- Mitigation Measure **SP 4.6-27** (habitat enhancement of the High Country SMA/SEA 20);
- Mitigation Measure **SP 4.6-28** (mitigation banking for oak resources);
- Mitigation Measures **SP 4.6-29** through **SP 4.6-32** (recreation and access restrictions within the High Country SMA/SEA 20);
- Mitigation Measure **SP 4.6-33** (protection of transition areas between the development edge and the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-34** and **SP 4.6-35** (clear marking of grading perimeters and avoidance of inadvertent impacts to biological resources outside of the grading area within or adjacent to the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-37** through **SP 4.6-42** (long-term management of the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-43** through **SP 4.6-47** (acceptable uses of and long-term management of Open Area);

- Mitigation Measure **SP 4.6-48** (standards for the restoration and enhancement of oak resources); and
- Mitigation Measure **SP 4.6-62** (any changes to an approved oak tree permit would require that the oak tree report for that oak tree permit be amended for the area of change).

This impact would also be reduced through the implementation of the following:

- Mitigation Measure **MV 4.3-22** (protective fencing around oaks during clearing and grading activities);
- Mitigation Measure **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities); and
- Mitigation Measure **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation).

Compliance with the permit conditions and implementation of Specific Plan Mitigation Measure **SP 4.6-48**, as well as the Mitigation Measures proposed above, would reduce project impacts to oak trees and oak woodlands to below a level of significance, thereby meeting the requirements of both CLAOTO and Public Resources Code Section 21083.4. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

For discussion of the temporary loss of carbon sequestration through vegetation removal, including oak woodlands, please see **Section 4.23, Global Climate Change**, of this EIR.

(h) Special-Status Wildlife Species

Certain special-status wildlife species known to occur in the project region were eliminated from further consideration in this analysis because the project site lacks suitable habitat to support them or because surveys have established that the species in question is not expected to utilize the project site. As shown in **Table 4.3-7**, these species include the following: vernal pool fairy shrimp, San Diego fairy shrimp, Riverside fairy shrimp, quino checkerspot butterfly, coast range newt, coastal (San Diego) cactus wren, great egret, great blue heron, Swainson's hawk, mountain plover, bald eagle, least bittern, long-billed curlew, osprey, double-crested cormorant, white-faced ibis, purple martin, bank swallow, California spotted owl, Mexican long-tongued bat, spotted bat, Los Angeles pocket mouse, and big free-tailed bat.

As noted in **Table 4.3-5**, above, the following special-status wildlife species were observed during the course of various field surveys conducted on or adjacent to the project site: monarch butterfly, San

Emigdio blue butterfly, *Pyrgulopsis castaicensis* n. sp., Santa Ana sucker, unarmored threespine stickleback, arroyo chub, arroyo toad, western spadefoot toad, silvery legless lizard, coastal western whiptail, southwestern pond turtle, coast horned lizard, two-striped garter snake, Cooper's hawk, sharp-shinned hawk, tricolored blackbird, Southern California rufous-crowned sparrow, golden eagle, short-eared owl, long-eared owl, western burrowing owl, oak titmouse, ferruginous hawk, Costa's hummingbird, Lawrence's goldfinch, turkey vulture, northern harrier, western yellow-billed cuckoo, hermit warbler, yellow warbler, white-tailed kite, willow flycatcher, southwestern willow flycatcher, California horned lark, merlin, prairie falcon, American peregrine falcon, California condor, yellow-breasted chat, loggerhead shrike, black-crowned night-heron, Nuttall's woodpecker, summer tanager, coastal California gnatcatcher, vermilion flycatcher, Allen's/Rufous hummingbird, chipping sparrow, least Bell's vireo, yellow-headed blackbird, pallid bat, western mastiff bat, western red bat, San Diego black-tailed jackrabbit, fringed myotis, Yuma myotis, San Diego desert woodrat, pocketed free-tailed bat, mule deer, mountain lion, American badger, and black bear.

Based on the presence of suitable habitat on the project site, it is reasonable to conclude that certain special-status species could potentially occur on site prior to grading or construction activities associated with project implementation. As noted in **Table 4.3-6**, above, although not observed during surveys, the following species could occur on the project site: Trask shoulderband snail, southern steelhead, California red-legged frog, rosy boa, San Bernardino ringneck snake, coast patch-nosed snake, south coast garter snake, grasshopper sparrow, Bell's sage sparrow, black-chinned sparrow, ringtail, Townsend's big-eared bat, western small-footed myotis, long-legged myotis, and southern grasshopper mouse. For the purposes of the following analysis, these species are presumed to occur on the project site.

Impacts to Species Observed On or Adjacent to the Mission Village Site

Monarch butterfly (*Danaus plexippus*). The monarch butterfly is a listed *California Special Animal*. The species' distribution is controlled by the distribution of its larval host plants (*i.e.*, various milkweeds, genus *Asclepias*). Individual monarch butterflies were observed during surveys conducted in April and May of 2004 and 2005 as well as during various other wildlife and plant surveys. However, no wintering sites were observed, and, due to the site's distance from the coast, it is unlikely that the project area would be used by large numbers of overwintering adults.²⁹⁸ Further, the proposed project does not include any development or construction-related activities that would affect a wintering site. Therefore, impacts to this species would be less than significant. Impacts to this species were not previously analyzed as part of the Newhall Ranch Specific Plan Program EIR and Additional Analysis because the species was identified after that environmental documentation was certified.

²⁹⁸ Compliance Biology, Inc., *Results of Butterfly Surveys on the Newhall Ranch Project Site*.

San Emigdio blue butterfly (*Plebulina emigdionis*). The San Emigdio blue butterfly is designated by CDFG as a *California Special Animal*. This butterfly can be locally abundant in association with its primary host plant, four-wing saltbush (*Atriplex canescens*), but has also been observed in association with quail brush (*A. lentiformis*).²⁹⁹ During the 2004 surveys, San Emigdio blue butterfly was documented within the Specific Plan area in the west-central edge of Potrero Canyon. During the 2005 surveys, five adult San Emigdio blue butterflies were again observed at this location. One San Emigdio blue butterfly was also observed in the High Country SMA/SEA 20 at the northwestern edge of Salt Canyon during the 2005 surveys; however, no additional observations of the species were made at this location or other portions of Salt Canyon during the 2005 surveys.³⁰⁰ The proposed project does not include any development or construction-related activities that would affect a population or a concentration of the host plant. Therefore, impacts to this species would be less than significant. Impacts to this species were not previously analyzed as part of the Newhall Ranch Specific Plan Program EIR and Additional Analysis because the species was identified after that environmental documentation was certified.

***Pyrgulopsis castaicensis* n. sp.** In 2010, the undescribed species of snail was formally described as *Pyrgulopsis castaicensis* n. sp.³⁰¹ and is referred to by its new scientific name herein. The *Pyrgulopsis castaicensis* n. sp. has no current status. In addition, the snail's habitat requirements are unknown, and a comprehensive distribution survey has not yet been attempted. In 2006, the snail was observed within portions of the Middle Canyon Spring within the Mission Village project site. The species was first observed within Middle Canyon Spring by USFWS biologists in 2006. In 2007, Dudek biologists observed over 100 snails (these snails were not identified to genus or species, and it is not known whether they were the *Pyrgulopsis castaicensis* n. sp. or another freshwater snail) in Middle Canyon Spring and the lower-most reach of the Middle Canyon drainage, and immediately below the river terrace where the spring discharges into the upper river floodplain. At the time the unidentified snails were observed in the mouth of the Middle Canyon drainage (non-spring area), agricultural runoff from irrigated fields in the lower valley of Middle Canyon supported flow in the lower portion of the drainage.³⁰² Although the spring will be avoided, potential indirect impacts to *Pyrgulopsis castaicensis* n. sp. as a result of implementation of the proposed project (accidental clearing, trampling, and grading; runoff, sedimentation, erosion, and chemical and toxic compound pollution; and exposure to fugitive dust, as well as from hydrologic alterations and water quality impacts), would (1) constitute a substantial direct adverse effect on this species, (2) conflict with local policies and ordinances protecting biological

²⁹⁹ Compliance Biology, Inc., *Results of Butterfly Surveys on Magic Mountain Entertainment Site*; Compliance Biology, Inc., *Results of Butterfly Surveys on Newhall Salt Canyon Habitat Preservation Area*.

³⁰⁰ Compliance Biology, Inc., *Results of Butterfly Surveys on Newhall Salt Canyon Habitat Preservation Area*.

³⁰¹ Hershler and Liu, *Pyrgulopsis* (Gastropoda: Hydrobiidae).

³⁰² Dudek, *Draft Middle Canyon Spring Survey and Status Report*.

resources, and (3) substantially reduce the number and range of this species. Thus, this impact is significant, absent mitigation. In order to reduce direct impacts to this species, the project applicant would implement a series of mitigation measures designed to avoid or minimize the impact of project implementation on *Pyrgulopsis castaicensis* n. sp. to a level that is adverse but not significant. Applicable mitigation measures include the following previously incorporated measures:

- Mitigation Measures **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-21** through **SP 4.6-26** (habitat restoration, enhancement, and preservation of the River Corridor SMA/SEA 23); and
- Mitigation Measure **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23), **SP 4.6-18**(provision of transition areas adjacent to the River Corridor SMA/SEA 23), **SP 4.6-19** (requirements for transition areas adjacent to the River Corridor SMA/SEA 23).

This impact would also be reduced through the implementation of the following:

- Mitigation Measure **MV 4.3-11** (regulating stream diversion bypass channels and dewatering);
- Mitigation Measure **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities);
- Mitigation Measures **MV 4.3-52** (project design features, construction notes, erosion and dust control, and SWPPP BMPs to ensure protection of vegetation communities and special-status species) and **MV 4.3-53** (dust control measures to protect vegetation communities and special-status aquatic wildlife species);
- **MV 4.3-54** (permanent fencing along trails in the River Corridor SMA/SEA 23) and Mitigation Measure **MV 4.3-55** (fencing and signage around the Middle Canyon Spring);
- Mitigation Measure **MV 4.3-57** (review of plant palettes and inspection of container plants for use within 200 feet of native vegetation for pests and disease; restrictions on invasive plants and irrigation);
- Mitigation Measure **MV 4.3-56** (Middle Canyon Spring Habitat Management Plan (Dudek 2007), which prescribes monitoring and management related to water quality and water quantity) and **MV 4.3-51** (bridges of the Santa Clara River will be designed to minimize impacts to natural areas and riparian resources from associated lighting and stormwater runoff).

- Mitigation Measure **MV 4.3-44** (pre-construction surveys and relocation of the spring snail (*Pyrgulopsis castaicensis* n. sp.))

Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. Impacts to this species were not previously analyzed as part of the Newhall Ranch Specific Plan Program EIR and Additional Analysis because the snail was identified after that environmental documentation was certified.

Santa Ana sucker (*Catostomus santaanae*). The Santa Ana sucker is listed as a *California Species of Special Concern* throughout its range. Outside of the Newhall Ranch Specific Plan area, populations within the species' natural historic range, including the Los Angeles, San Gabriel, and Santa Ana River basins, are listed federally as threatened. It is also considered sensitive by the U.S. Forest Service, critically imperiled by the Natural Heritage Program, and vulnerable by the IUCN World Conservation Union. The fish are most abundant in cool, shallow streams with good water quality and with streamside riparian vegetation that can provide refuge during seasonal floods and repopulation after flooding.³⁰³ This species has been documented within the Specific Plan area throughout the Santa Clara River. . In their collections within the Specific Plan area of the NRSP Project site, ENTRIX found that the Santa Ana sucker was common. ³⁰⁴ Surveys conducted on June 3 and July 14, 2000, found this species within 500 meters upstream and downstream of the I-5 Bridge over the Santa Clara River.³⁰⁵ This species is not expected to occur in Salt Creek. Construction activities associated with the proposed Commerce Center Drive Bridge, bridge, and abutments could result in the loss of individual fish. The location of the proposed bank stabilization features is set back beyond the existing riparian corridor and would not interface with the active stream channel. Nevertheless, some impacts may occur to the fish. Depending on the number and extent of this species that may be disturbed or removed during construction of the bridge, the loss of Santa Ana sucker would be a significant impact. Mitigation measures to reduce these impacts below significant levels include the following:

- **SP 4.6-53** (surveys for special-status species),

³⁰³ D.G. Buth and C.B. Crabtree, "Genetic Variability and Population Structure of *Catostomus santaanae* in the Santa Clara Drainage," *Copeia* 2 (1982), 439–444; NatureServe, NatureServe Explorer: An Online Encyclopedia of Life, Version 6.2, <http://www.natureserve.org/explorer>. 2007.

³⁰⁴ ENTRIX, Inc., *Focused Special-Status Fish Species Habitat Assessment*.

³⁰⁵ (Impact Sciences, Inc., *Results of Focused Surveys for Unarmored Threespine Stickleback and Other Special-Status Fish Species; Newhall Ranch; Impact Sciences, Inc., Results of Focused Surveys for Unarmored Threespine Stickleback and Other Special-Status Fish Species; Natural River Management Plan Area; Haglund and Baskin, Fish and Wildlife Survey and Habitat Assessment*.

- SP 4.6-57 (exclusion/removal of fish from areas of proposed bridge construction),
- SP 4.6-58 (require compliance with water quality permits), and
- SP 4.6-59 (surveys for special-status species).
- MV 4.3-1 (restriction of construction activities in the riverbed to specified areas),
- MV 4.3-2 (pre-construction surveys and coordination with Corps and CDFG for unarmored threespine stickleback, arroyo chub, and Santa Ana sucker),
- MV 4.3-8 (patrol for stranded fish and aquatic organisms),
- MV 4.3-9 (development of a Stream Crossing and Diversion Plan),
- MV 4.3-10 (installation of structures within the riverbed not to impair movement of aquatic life),
- MV 4.3-11 (regulating stream diversion bypass channels and dewatering),
- MV 4.3-12 (creation of habitat for special-status fish during construction),
- MV 4.3-13 (prevention of mud and pollutants from entering streams and storm flows), and
- MV 4.3-53 (dust control measures to protect vegetation communities and special-status plant and aquatic wildlife species).

These mitigation measures would reduce direct impacts to the Santa Ana sucker to less than significant. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*). The unarmored threespine stickleback is listed as both state and federally endangered. It is also a California Fully Protected species. The USFWS notes that the unarmored threespine stickleback can be found in all areas of streams;³⁰⁶ however, they tend to gather in slow-moving and standing water or behind obstructions, at the edges of streams, or in vegetation in faster-moving water. This species has been documented in the portion of the Santa Clara River on and adjacent to the project site and within the Santa Clara River portion of the Specific Plan in 1988, 1995, 2000, 2002–2005, and 2007.³⁰⁷ Construction activities associated with the

³⁰⁶ USFWS, *Unarmored Threespine Stickleback Recovery Plan* (Portland, Oregon: USFWS, 1985)

³⁰⁷ Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part II*; Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part III*; Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part IV*; Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part I*;

proposed Commerce Center Drive Bridge and bridge abutments could result in the loss of individual fish, and there is a potential for significant residual impacts to the unarmored threespine stickleback, including impacts to water quality such as sedimentation, dust, and other pollutants, and interference with natural flows and movement of the stickleback. However, the proposed bank stabilization features are set back beyond the existing riparian corridor at most of the project site and would not interface with the active stream channel. Mitigation measures to reduce impacts on the unarmored threespine stickleback to less than significant include the following:

- **SP 4.6-53** (surveys for special-status species),
- **SP 4.6-54** (consultation with USFWS),
- **SP 4.6-57** (exclusion/removal of fish from areas of proposed bridge construction),
- **SP 4.6-58** (require compliance with water quality permits),
- **SP 4.6-59** (surveys for special-status species).
- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas),
- **MV 4.3-2** (pre-construction surveys and coordination with Corps and CDFG for unarmored threespine stickleback, arroyo chub, and Santa Ana sucker),
- **MV 4.3-8** (patrol for stranded fish and aquatic organisms),
- **MV 4.3-9** (development of a Stream Crossing and Diversion Plan),
- **MV 4.3-10** (installation of structures within the riverbed not to impair movement of aquatic life),
- **MV 4.3-11** (regulating stream diversion bypass channels and dewatering),
- **MV 4.3-12** (creation of habitat for special-status fish during construction),
- **MV 4.3-13** (prevention of mud and pollutants from entering streams and storm flows), and

ENTRIX, Inc., Focused Special-Status Fish Species Habitat Assessment; Haglund, Current Status of the Unarmored Threespine Stickleback; SMEA, Sensitive Aquatic Species Survey; Haglund and Baskin, Fish and Wildlife Survey and Habitat Assessment; Impact Sciences, Inc., Results of Focused Surveys for Unarmored Threespine Stickleback and Other Special-Status Fish Species; Newhall Ranch; Impact Sciences, Inc., Results of Focused Surveys for Unarmored Threespine Stickleback and Other Special-Status Fish Species; Natural River Management Plan Area; Impact Sciences, Inc., Annual Status Report for Unarmored Threespine Stickleback within the Natural River Management Plan Area.

- **MV 4.3-53** (dust control measures to protect vegetation communities and special-status plant and aquatic wildlife species).

Implementation of these mitigation measures would prevent direct impacts to the unarmored threespine stickleback. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Arroyo chub (*Gila orcutti*), The arroyo chub is listed as a California Species of Special Concern, is considered imperiled regionally and globally under the Natural Heritage Program methodology, and is considered sensitive by the U.S. Forest Service. It occurs in slow-moving or backwater sections of warm to cool (10°C to 24°C) streams with mud or sand substrates.³⁰⁸ This species has been documented in the Santa Clara River and could occur in the portion of the river adjacent to the project site. In their collections within the Specific Plan area of the NRSP Project site, ENTRIX found that the arroyo chub was common to abundant.³⁰⁹ ENTRIX describes the arroyo chub as the dominant species of the Santa Clara River within the project area.³¹⁰ Construction activities associated with the proposed Commerce Center Drive Bridge and bridge abutments could result in the loss of individual fish. Although the proposed bank stabilization features are set back beyond the existing riparian corridor at most of the project site and would not interface with the active stream channel, a significant impact could occur, depending on the number and extent of this species that may be disturbed or removed during construction of the bridge. Mitigation measures to reduce impacts to less than significant levels include the following:

- **SP 4.6-44** (soft bottoms for all flows greater than 2,000 cubic feet per second [cfs]),
- **SP 4.6-53** (surveys for special-status species),
- **SP 4.6-54** (consultation with USFWS),
- **SP 4.6-57** (removal of fish from areas of proposed bridge construction),
- **SP 4.6-58** (require compliance with water quality permits),
- **SP 4.6-59** (consultation with County and CDFG before surveys for special-status species).
- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas),

³⁰⁸ ENTRIX, Inc., *Focused Special-Status Fish Species Habitat Assessment*.

³⁰⁹ Ibid.

³¹⁰ Ibid.

- MV 4.3-2 (pre-construction surveys and coordination with Corps and CDFG for unarmored threespine stickback, arroyo chub, and Santa Ana sucker),
- MV 4.3-8 (patrol for stranded fish and aquatic organisms),
- MV 4.3-9 (development of a Stream Crossing and Diversion Plan),
- MV 4.3-10 (installation of structures within the riverbed not to impair movement of aquatic life),
- MV 4.3-11 (regulating stream diversion bypass channels and dewatering),
- MV 4.3-12 (creation of habitat for special-status fish during construction),
- MV 4.3-13 (prevention of mud and pollutants from entering streams and storm flows), and
- MV 4.3-53 (dust control measures to protect vegetation communities and special-status plant and aquatic wildlife species).

Implementation of these mitigation measures would reduce direct impacts to the arroyo chub to less than significant. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Arroyo toad (*Bufo californicus*). The arroyo toad is listed as a California Species of Special Concern and is federally endangered. The species utilizes aquatic, riparian, and upland habitats to different degrees depending on the individual's stage of development and the season. No adult or subadult arroyo toads have been observed in the project area. However, arroyo toad tadpoles were observed in the Specific Plan area during surveys conducted in 2000.³¹¹ Specifically, during the surveys conducted by Aquatic Consulting Services, arroyo toad tadpoles were observed in the Santa Clara River upstream and downstream of the proposed Commerce Center Drive Bridge site and near the Valencia Water Treatment Plant. Arroyo toad was not observed breeding or otherwise utilizing habitats on or bordering the project site during more recent protocol surveys.³¹² In addition, on April 13, 2005, the USFWS issued a revised critical habitat designation for the arroyo toad.³¹³ In that Final Rule, effective May 13, 2005, the USFWS

³¹¹ Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part II*; Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part III*; Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part IV*; Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part I*.

³¹² Compliance Biology, Inc., *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians, Newhall Ranch*; Bloom Biological, Inc., *Report on Arroyo Toad Surveys on Landmark Village, Newhall Land and Farming Company Property, Los Angeles County, California* (2007).

³¹³ 70 FR 19562.

deleted the entire Newhall Ranch Specific Plan area from the designated critical habitat for the arroyo toad. Note, however, that USFWS is currently reassessing the 2005 Final Rule to determine whether the critical habitat designation should be adjusted. The USFWS has proposed changes to the 2005 Final Rule, published in the Federal Register on October 13, 2009.

Given that the site provides suitable habitat for the arroyo toad, that this species has been recorded in low numbers upstream of the project site, and that tadpoles were documented in the river on and adjacent to the project site, construction-related activities could adversely affect individual toads, which would be a significant impact. In order to reduce impacts to this species, the project applicant would implement a series of mitigation measures designed to limit construction activities within high-quality habitat areas and capture and relocate animals away from the work area prior to construction. Equipment would not be operated within areas of ponded or flowing water (unless otherwise approved by the Corps and CDFG), and water containing mud, silt, and other pollutants would not be allowed to enter flowing water. Further, any arroyo toads potentially present would be removed from the disturbance footprint by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the project applicant would conduct biological monitoring during ground disturbing activities in an effort to salvage animals that may be uncovered during construction activities. Applicable mitigation measures include the following:

- **SP 4.6-53** and **SP 4.6-59** (surveys for special-status species within the project area),
- **SP 4.6-55** (federal and state permits for wetland impacts), and
- **SP 4.6 58** (NPDES and water quality permits).
- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas),
- **MV 4.3-4** (surveys of riverbed area for arroyo toad),
- **MV 4.3-9** (development of a Stream Crossing and Diversion Plan),
- **MV 4.3-10** (installation of structures within the riverbed not to impair movement of aquatic life),
- **MV 4.3-11** (regulating stream diversion bypass channels and dewatering),
- **MV 4.3-12** (creation of habitat for special-status fish during construction),
- **MV 4.3-13** (prevention of mud and pollutants from entering streams and storm flows), and

- **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities).

Implementation of these mitigation measures would reduce impacts to arroyo toad to a less than significant level. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Western spadefoot toad (*Spea hammondi*). The western spadefoot toad is listed as a California Species of Special Concern. The species prefers open areas with sandy or gravelly soils in a variety of habitats, including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, river floodplains, alluvial fans, playas, and alkali flats.³¹⁴ In total, there have been four separate documented occurrences of the western spadefoot toad in the Specific Plan area based on the focused surveys and incidental observations. Two occurrences of tadpoles are known from the Mission Village development area.³¹⁵ A western spadefoot toad was also observed within an isolated pool along the Santa Clara River upstream of the Commerce Center Bridge.³¹⁶ Western spadefoot toads were observed off-site in the adjacent Potrero Village development area within a rain pool in winter 2005; this location is believed to be extant.³¹⁷ As western spadefoot toads have been observed in various locations in the Specific Plan area, and because suitable conditions for the species are expected elsewhere in unsurveyed portions of the Specific Plan area, there is a high potential for this species to occur on the project site where seasonal pools develop. Depending on the number and extent of western spadefoot on the site that would be disturbed or removed, the loss of this species would be a potentially significant impact. Mitigation measures to reduce these impacts below significant levels include the following:

- **SP 4.6-53** and **SP 4.6-59** (surveys for special-status species within the project area),
- **SP 4.6-55** (federal and state permits for wetland impacts), and
- **SP 4.6 58** (NPDES and water quality permits).
- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas),
- **MV 4.3-9** (development of a Stream Crossing and Diversion Plan),

³¹⁴ Robert C. Stebbins, *Western Reptiles and Amphibians*, 3rd ed. (New York: Houghton Mifflin, 2003); D.C. Holland and R.H. Goodman, *A Guide to the Amphibians and Reptiles of MCB Camp Pendleton, San Diego County, California* (1998).

³¹⁵ Compliance Biology, Inc., *Results of the Focused Western Spadefoot Toad Surveys on the Mission Village Project Site*.

³¹⁶ Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part II*.

³¹⁷ Dave Crawford, Compliance Biology, Inc., telephone call to Sherri Miller (Dudek), November 2007.

- **MV 4.3-10** (installation of structures within the riverbed not to impair movement of aquatic life),
- **MV 4.3-25** (pre-construction surveys for western spadefoot toad), and
- **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities).

Implementation of these mitigation measures would reduce impacts to western spadefoot to a less than significant level. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Silvery legless lizard (*Anniella pulchra pulchra*). The silvery legless lizard is listed as a California Species of Special Concern. This species may be found in sparsely vegetated areas in a variety of habitats, including beach dunes, chaparral, California sagebrush scrub, oak woodlands, pine forests, pine-oak woodland, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks.³¹⁸ This species has been observed on the project site within the leaf litter of coast live oak woodlands in Chiquito Canyon. Overall, 23 individual silvery legless lizards were captured and released.³¹⁹ Silvery legless lizard was also observed at two locations in Long Canyon in 2005.³²⁰ Because suitable habitat occurs on site in the form of riparian and riverbank habitats within the River Corridor SMA/SEA 23, as well as scrub, chaparral, and oak woodland habitats outside of the SMA/SEA boundary, silvery legless lizard could occur throughout those portions of the site with these habitat types. Construction-related activities could result in impacts to individual lizards.

In order to reduce impacts to this species, the project applicant would implement a series of mitigation measures designed to capture and relocate animals away from the work area prior to construction. The fossorial behavior of the silvery legless lizard would prevent the capture and relocation of all individuals occurring. Therefore, specific measures (e.g., seasonal timing and hand raking) are required to maximize capture rates. The captured animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the project applicant would conduct biological monitoring during ground disturbing activities in an effort to salvage silvery legless lizards that may be uncovered during construction activities. Implementation of proposed **Mitigation Measures MV 4.3-7** (surveys to capture and relocate special-status reptiles) and **MV 4.3-26** (pre-construction

³¹⁸ D.C. Zeiner, W.F. Laudenslayer Jr., and K.E. Mayer. *California's Wildlife: Volume I. Amphibians and Reptiles* (Sacramento: California Department of Fish and Game, 1988); Stebbins, *Western Reptiles and Amphibians*; Holland and Goodman, *A Guide to the Amphibians and Reptiles of MCB Camp Pendleton*.

³¹⁹ Impact Sciences, Inc., *2004 and 2006 Reptile Survey Results, Newhall Ranch Specific Plan Area*.

³²⁰ Chris Huntley, Aspen, personal communication with Sherri Miller, Dudek, October 2006.

educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) would reduce this impact to a level that is adverse but not significant.

The Newhall Ranch Specific Plan Program EIR concluded that the substantial loss of habitat, and potentially the direct loss of individuals of this species, would be considered an unavoidable significant impact; however, the mitigation proposed in the Newhall Ranch Specific Plan Program EIR was not as extensive as the mitigation recommended in this Draft EIR. In addition to the project-specific mitigation measures described above, a total of 6,113 acres of potential habitat will be protected and managed in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area. Applicable mitigation measures include **MV 4.3-24** (preservation of 616.3 acres of coastal scrub on site within Open Area and/or off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village); **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation); and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). As a result, this EIR's finding that impacts on the silvery legless lizard can be mitigated to a less than significant level is consistent with the findings set forth in the Newhall Ranch Specific Plan Program EIR. Also, see **Wildlife Habitat Loss** for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Coastal western whiptail (*Aspidoscelis tigris stehnegeri*). The coastal western whiptail is designated as a California Special Animal. The coastal western whiptail is found in a variety of habitats, primarily in areas where plants are sparse and there are open areas for running. The species is also found in woodland and streamside growth and avoids dense grassland and thick shrub growth. While coastal western whiptails were not trapped or otherwise observed during pitfall trap surveys, the subspecies was identified as having the potential to occur in the project area.³²¹ The coastal western whiptail is assumed to be present in the project area because (1) the species has been observed in the High Country SMA/SEA 20 and nearby locations,³²² (2) the project site provides suitable habitat, (3) the project area is within the range of the subspecies as described by Stebbins,³²³ and (4) the entire project area was not surveyed by Impact Sciences³²⁴ at a level of detail necessary to determine presence or absence of a particular reptile species. Construction-related activities could result in impacts to individual whiptails.

³²¹ Impact Sciences, Inc., 2004 and 2006 Reptile Survey Results, Newhall Ranch Specific Plan Area.

³²² Compliance Biology, Inc., Results of Focused the Western Spadefoot Toad Surveys on the Mission Village Project Site; Dudek and Associates, Inc., Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area.

³²³ Stebbins, *Western Reptiles and Amphibians*.

³²⁴ Impact Sciences, 2004 and 2006 Reptile Survey Results, Newhall Ranch Specific Plan Area.

In order to reduce impacts to this species, the project applicant would implement four mitigation measures designed to capture and relocate animals away from the work area prior to construction. The captured animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the subspecies. In addition, the project applicant would conduct biological monitoring during ground disturbing activities in an effort to salvage animals that may be uncovered during construction activities. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (surveys for special-status species within the project area). Additional applicable mitigation measures are **MV 4.3-7** (surveys to capture and relocate special-status reptiles) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant.

Although the Newhall Ranch Specific Plan Program EIR concluded the substantial loss of habitat, and potential impacts to individuals of this species would be considered an unavoidable significant impact, the mitigation proposed in the Newhall Ranch Specific Plan Program EIR was not as extensive as that recommended in this EIR. In addition to the project-specific mitigation measures described above, a total of 6,113 acres of potential habitat will be protected and managed in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area. Applicable mitigation measures include **MV 4.3-24** (preservation of 616.3 acres of coastal scrub on site within Open Area and/or off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village); **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation); and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). This additional open space would reduce impacts to a level that is adverse, but not significant. As a result, this EIR's finding that impacts on the whiptail can be mitigated to a less than significant level is consistent with the findings set forth in the Newhall Ranch Specific Plan Program EIR. Also, see **Wildlife Habitat Loss** for a discussion of project-related impacts to special-status wildlife due to habitat loss. Impacts to this species were not previously analyzed as an individual topic at the program level in the Newhall Ranch Specific Plan Program EIR. **Southwestern pond turtle** (*Clemmys marmorata pallida*). The southwestern pond turtle is listed as a California Species of Special Concern. Western pond turtles use a variety of aquatic habitats, including lakes, natural ponds, rivers, oxbows, streams (perennial/ephemeral), marshes, vernal pools, freshwater and brackish estuaries, drainage ditches, reservoirs, mill ponds, ornamental park ponds, stock ponds, abandoned gravel pits, and sewage treatment plants.³²⁵ This species has been observed during visual surveys in the portion of the Santa

³²⁵ James Buskirk, "The Western Pond Turtle, *Emys marmorata*," *Radiata* 11(3) (May 2002), 30; NatureServe, "An

Clara River within the Newhall Ranch Specific Plan area.³²⁶ As these visual surveys were not conducted for purposes of estimating turtle populations, they did not follow U.S. Geological Survey (USGS) protocols for determining habitat suitability³²⁷ or for trapping individuals,³²⁸ neither of which is required under CEQA. However, these surveys have effectively documented the consistent presence of the southwestern pond turtle in the Santa Clara River. There are four documented occurrences of the southwestern pond turtle in the main channel of the Santa Clara River adjacent to the project site upstream and at the mouth of Castaic Junction. The species could also occur within the riparian habitats on and immediately bordering the project site. The removal of riparian vegetation and construction activities associated with the proposed bridge and/or bank protection could result in impacts to individual pond turtles. These impacts may be significant, depending on the number and extent of this species that may be disturbed or removed. To address these impacts, the following mitigation measures would be implemented:

- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas),
- **MV 4.3-5** (surveys of riverbed area for southwestern pond turtle),
- **MV 4.3-10** (installation of structures within the riverbed not to impair movement of aquatic life),
- **MV 4.3-13** (prevention of mud and pollutants from entering streams and storm flows), and
- **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities).

These mitigation measures would reduce impacts to the southwestern pond turtle to a less-than-significant level. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Coast horned lizard (*Phrynosoma coronatum*). The coast horned lizard is listed as a California Species of Special Concern. The species is found in a wide variety of vegetation types with the requisite loose sandy soils, including California sagebrush scrub, annual grassland, chaparral, oak woodland, riparian

Online Encyclopedia of Life.”

³²⁶ Compliance Biology, Inc., *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians, River Village Project*.

³²⁷ U.S. Geological Survey, *Western Pond Turtle (Emys marmorata) Visual Survey Protocol for the Southcoast ecoregion* (2006).

³²⁸ U.S. Geological Survey, *Western Pond Turtle (Emys marmorata) Trapping Survey Protocol for the Southcoast Ecoregion*, (2006).

woodland, and coniferous forest.³²⁹ One coast horned lizard was captured during the 2006 pitfall trap surveys and five additional coast horned lizards were incidentally observed during the 2004 reptile surveys.³³⁰ The coast horned lizard observed during the 2006 surveys was captured in the eastern portion of the Specific Plan area (in the vicinity of the Potrero Village development) at a location containing sandy soils and riparian and non-native grassland vegetation.³³¹ No location or habitat association information was provided for the coast horned lizards incidentally observed during the 2004 surveys. Coast horned lizard was also observed along the Santa Clara River floodplain, approximately 500 feet south of The Old Road Bridge in 2006.³³² Construction-related activities could result in impacts to individual horned lizards.

In order to reduce these impacts, the project applicant would implement a series of mitigation measures designed to capture and relocate animals away from the work area prior to construction. The captured animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the project applicant would conduct biological monitoring during ground-disturbing activities in an effort to salvage animals that may be uncovered during construction activities. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (surveys for special-status species within the project area). Additional applicable mitigation measures are **MV 4.3-7** (surveys to capture and relocate special-status reptiles) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce this impact to a level that is less than significant.

The Newhall Ranch Specific Plan Program EIR concluded that the substantial loss of habitat, and potential impacts to individuals of this species, would be considered an unavoidable significant impact; however, the mitigation proposed in the Newhall Ranch Specific Plan Program EIR was not as extensive as the mitigation recommended in this EIR. In addition to the mitigation measures described above, a total of 6,113 acres of potential habitat will be protected and managed in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area. Additional mitigation to that in the Newhall Ranch Specific Plan Program EIR includes **MV 4.3-24** (preservation of 616.3 acres of coastal scrub on site within Open Area and/or off-site within the High Country SMA/SEA

³²⁹ L.M. Klauber, "Studies of Reptiles Life in the Arid Southwest: Part I, Night Collecting on the Desert with Ecological Statistics; Part II, Speculations on Protective Coloration and Protective Reflectivity; Part III, Notes on Some Lizards of the Southwestern United States," *Bulletin of the Zoological Society of San Diego* 14 (1939); Robert C. Stebbins, *Amphibians and Reptiles of Western North America* (Boston: McGraw Hill, 1954).

³³⁰ Impact Sciences, Inc., *2004 and 2006 Reptile Survey Results, Newhall Ranch Specific Plan Area*.

³³¹ Impact Sciences, Inc., *2004 and 2006 Reptile Survey Results, Newhall Ranch Specific Plan Area*.

³³² Chris Huntley, Aspen, personal communication with Sherri Miller, Dudek, October 2006.

20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village); **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation); and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). This additional open space would reduce impacts to a level that is adverse, but not significant. Therefore, this EIR's finding that impacts to the coast horned lizard can be mitigated to a less than significant level is consistent with the finding set forth in the Newhall Ranch Specific Plan Program EIR. Also, see **Wildlife Habitat Loss** for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Two-striped garter snake (*Thamnophis hammondi*). The two-striped garter snake is a California Species of Special Concern. Two-striped garter snakes are found in a variety of perennial and intermittent freshwater streams within oak woodlands, shrublands, and sparse coniferous forests from sea level to 2,400 meters (7,874 feet) AMSL.³³³ This species was observed in the reach of the Santa Clara River within and adjacent to the Specific Plan area.³³⁴ The removal of riparian vegetation and construction activities associated with the proposed bridge and/or bank protection could result in impacts to individual two-striped garter snakes. This may be a significant impact, depending on the number and extent of this species that may be disturbed or removed. In order to reduce these impacts, the project applicant would implement a series of mitigation measures designed to limit construction activities within high quality habitat areas and capture and relocate animals away from the work area prior to construction. Mitigation measures to reduce impacts below significant levels include **SP 4.6-53** (surveys for special-status species) and **SP 4.6-58** (require compliance with water quality permits). In addition, equipment would not be operated within areas of ponded or flowing water (unless otherwise approved by the Corps and CDFG) and water containing mud, silt, and other pollutants would not be allowed to enter flowing water. Further, any two-stripe garter snakes potentially present would be removed from the disturbance footprint by qualified biologists and placed in a pre approved area capable of supporting the species. The project applicant would also conduct biological monitoring during ground disturbing activities in an effort to salvage animals that may be uncovered during construction activities. Other applicable mitigation measures recommended in this EIR include the following:

- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas),
- **MV 4.3-6** (surveys of riverbed area for two-striped garter snake and south coast garter snake),

³³³ Stebbins, *Western Reptiles and Amphibians*; Zeiner, Laudenslayer Jr., and Mayer. *California's Wildlife: Volume I. Amphibians and Reptiles*.

³³⁴ Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part IV*; Compliance Biology, Inc., *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians, River Village Project*; ENTRIX, Inc., *Focused Special-Status Aquatic Species Assessment*.

- MV 4.3-9 (development of a Stream Crossing and Diversion Plan),
- MV 4.3-10 (installation of structures within the riverbed not to impair movement of aquatic life),
- MV 4.3-11 (regulating stream diversion bypass channels and dewatering),
- MV 4.3-12 (creation of habitat for special-status fish during construction),
- MV 4.3-13 (prevention of mud and pollutants from entering streams and storm flows), and
- MV 4.3-26 (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities).

Implementation of these mitigation measures would reduce impacts to the two-striped garter snake to a less than significant level. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Cooper's hawk (*Accipiter cooperii*). The Cooper's hawk is on the CDFG Watch List. Cooper's hawks are found in areas with dense stands of live oak, riparian, or other forest communities near water.³³⁵ The Cooper's hawk frequents landscapes where wooded areas occur in patches and groves and often uses patchy woodlands and edges with snags for perching.³³⁶ The Cooper's hawk has been regularly observed within riparian and oak woodland habitats over multiple years during bird surveys conducted from 1988 through 2006 along the Santa Clara River.³³⁷ This species is known to be a year-round resident

³³⁵ D.C. Zeiner et al., *California's Wildlife: Volume II. Birds* (Sacramento: California Department of Fish and Game, 1990).

³³⁶ Frank L. Beebe, *Field Studies of the Falconiformes of British Columbia: Vultures, Hawks, Falcons, Eagles* (Victoria, British Columbia: the British Columbia Provincial Museum, 1974).

³³⁷ Guthrie, *Status of the Least Bell's Vireo along the Santa Clara River and Its Tributaries near Valencia, California, Spring 1988*; Guthrie, *Status of the Least Bell's Vireo along the Santa Clara River and Its Tributaries near Valencia, California, Spring 1989*; Guthrie, *Birds along the Santa Clara River and Its Tributaries near Valencia, California, with Special Reference to Least Bell's Vireo*; Guthrie, *Surveys for Least Bell's Vireo*; Guthrie, *Surveys along Castaic Creek for least Bell's Vireo*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries* (1992); Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries* (1993); Guthrie, *Bird Surveys along the Santa Clara River, 1993*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries* (1994); Guthrie, *Bird Surveys along the Santa Clara River, 1994*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1995*; Guthrie, *Bird Surveys along the Santa Clara River, 1995*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1996*; Guthrie, *Bird Surveys along the Santa Clara River, 1996*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1997*; Guthrie, *Bird Surveys along the Santa Clara River, 1997*; Guthrie, *Bird Surveys along the Santa Clara River, 1998*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1998*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 1999*; Guthrie, *Bird Surveys in the Proposed Riverwood Project Area*; Guthrie, *Bird Surveys along the Santa Clara River, 1999*; Guthrie, *Bird Observations for Spring 2000 in the Proposed Mesa Development*; Guthrie, *Bird Surveys along the Santa Clara River, 2000*; Guthrie,

within the project area.³³⁸ If active hawk nests are present, the proposed removal of riparian vegetation and/or construction-related noise could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of this species' bird nests on the site that may be disturbed or removed, the loss of active nests would be a significant impact. In order to reduce impacts to this species, the project applicant would implement mitigation measures to reduce impacts to Cooper's hawk before and during construction. Previously incorporated mitigation measures include **SP 4.6-53** (updated site specific surveys) and **SP 4.6-59** (consultation with County and CDFG at important benchmarks). This impact would also be reduced through the implementation of **Mitigation Measures MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce impacts to nesting Cooper's hawks to a level that is adverse but not significant. The finding that impacts to Cooper's hawk can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Sharp-shinned hawk (*Accipiter striatus*). The sharp-shinned hawk is on the CDFG Watch List. Sharp-shinned hawks prefer riparian forest and woodlands.³³⁹ They are found in a variety of ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats.³⁴⁰ During migration, sharp-

Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2000; Guthrie, Bird Surveys of Castaic Junction; Guthrie, Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2001; Guthrie, Bird Surveys along the Santa Clara River, 2001; Guthrie, Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2002; Guthrie, Bird Surveys along the Santa Clara River, 2002; Guthrie, Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2003; Daniel Guthrie, Bird Surveys along the Santa Clara River, 2003; Guthrie, Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2004; Guthrie, Bird Surveys along the Santa Clara River, 2004; D.A. Guthrie, Bird Observations during 2004 at Castaic Junction, an Area on the North Side of the Santa Clara River at the Junction of State Route 126 and Interstate 5, near Valencia, California (2004); Guthrie, Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence (2005); Guthrie, Bird Surveys along the Santa Clara River, 2005; Guthrie, Bird Surveys along the Santa Clara River, 2006; Guthrie, Bird Surveys of The Old Road Phase III Environmental Project Study Area; Guthrie, Bird Surveys along a Portion of the Santa Clara River and Its Tributaries (2006); Labinger, Greaves, and Haupt. Preliminary Results of Avian Surveys; Z. J. Labinger, J. Greaves, and D. Haupt. Results of 1995 Avian Surveys following the January 17, 1994, ARCO/Four Corners Oil Spill on the Santa Clara River, California (1996); Labinger, Greaves, and Haupt, 1996 Avian Survey Results; Labinger, Greaves, and Haupt, Results of 1997 Avian Surveys and Least Bell's Vireo Monitoring; Labinger and Greaves, Results of 1998 Avian Surveys and Least Bell's Vireo Monitoring.

³³⁸ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

³³⁹ NatureServe, "An Online Encyclopedia of Life."

³⁴⁰ S.M. Joy et al., "Feeding Ecology of Sharp-Shinned Hawks Nesting in Deciduous and Coniferous Forests in Colorado," *Condor* 96(2) (March 1984), 455-467; Zeiner et al., *California's Wildlife: Volume II*; NatureServe, "An Online Encyclopedia of Life."

shinned hawks also may forage in agricultural areas, scrub, and chaparral habitats.³⁴¹ Sharp-shinned hawks have been observed several times during the course of the avian surveys conducted along the Santa Clara River corridor. Guthrie observed two adults on two separate occasions in 1995 and again in 1997 and 1999.³⁴² Another sharp-shinned hawk was observed in March 2007 by Bloom Biological.³⁴³ Because sharp-shinned hawks are highly mobile and are a rare winter visitor on the site, the proposed project would not result in mortality of individuals occupying this habitat during construction and/or grading activities. Furthermore, because the species does not nest on site, construction and grading activities associated with the proposed project would not result in impacts to nesting birds of this species. Implementation of the proposed project would not directly impact this species. The Newhall Ranch Specific Plan Program EIR concludes that due to the substantial loss of habitat resulting from buildout of the Specific Plan, impacts to sharp-shinned hawk would be considered a significant unavoidable impact; however, the mitigation proposed in the Newhall Ranch Specific Plan Program EIR was not as extensive as the mitigation recommended in this EIR. For example, a total of 6,113 acres of potential habitat will be protected and managed in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area. Additional mitigation to that in the Newhall Ranch Specific Plan Program EIR includes **MV 4.3-24** (preservation of 616.3 acres of coastal scrub on site within Open Area and/or off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village); **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation); and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). This additional open space would reduce impacts to a level that is adverse, but not significant. Also, see **Wildlife Habitat Loss** for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Tricolored blackbird (*Agelaius tricolor*). The tricolored blackbird is a California Species of Special Concern and a Bird of Conservation Concern with regard to its nesting colony status. These birds prefer to breed in freshwater marshes with dense growths of emergent vegetation dominated by cattails (*Typha* spp.) or bulrushes (*Schoenoplectus* spp.), but have also established colonies in willows (*Salix* spp.), blackberries (*Rubus* spp.), thistles (*Cirsium* and *Centaurea* spp.), and nettles (*Urtica* spp.). This species has been observed on the project site during focused bird surveys. Labinger et al. observed a small nesting colony within the project site,³⁴⁴ however, the specific location is not known and was not mapped. Migrants

³⁴¹ D.C. Zeiner et al., *California's Wildlife: Volume II. Birds* (1990).

³⁴² Guthrie, *Bird Surveys along the Santa Clara River*, 1995; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries, near Valencia, California*, 1997; Guthrie, *Bird Surveys in the Proposed Riverwood Project Area*.

³⁴³ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

³⁴⁴ Labinger, Greaves, and Haupt, *Preliminary Results of Avian Surveys*.

have also been observed within the Specific Plan area along the Santa Clara River³⁴⁵ and within Potrero Canyon in 1994.³⁴⁶ Tricolored blackbird has been observed offsite along Castaic Creek,³⁴⁷ and at Castaic Junction.³⁴⁸ No breeding colonies have been observed since 1994, despite annual surveys through 2007 as described above. However, should this species nest on the site prior to development, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of bird nests on the site that may be disturbed or removed, the loss of active nests would be a potentially significant impact. In order to avoid impacts to this species, the project applicant would implement mitigation measures to reduce the loss of or harm to tricolored blackbird before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of **Mitigation Measures MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant.

The Newhall Ranch Specific Plan Program EIR concludes that given the potential to successfully relocate breeding colonies at new locations is relatively low, impacts to breeding colonies (if present) of tricolored blackbird would remain significant. However, given that no breeding colonies have been documented on or adjacent to the project site during annual bird surveys, and the requirements of proposed **Mitigation Measures MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), impacts to nesting tricolored blackbird (if present) can be reduced to below a level of significance at the project level.

³⁴⁵ Guthrie, *Bird Surveys along the Santa Clara River*, 1996; Guthrie, *Bird Surveys in the Proposed Riverwood Project Area*; County of Los Angeles, *Newhall Ranch Specific Plan* (2003).

³⁴⁶ County of Los Angeles, *Newhall Ranch Specific Plan*.

³⁴⁷ Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries* (1994); Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California*, 1995; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California*, 1996; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California*, 1999; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries* (2006).

³⁴⁸ Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries* (1994); Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California*, 2000; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California*, 2001; Guthrie *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries* (2006); Dudek and Associates, Inc., *Biological Resources Technical Report for the Entrada Site*.

Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*). The Southern California rufous-crowned sparrow is on the CDFG Watch List. This species is not federally listed as threatened or endangered within any part of its range.³⁴⁹ The rufous-crowned sparrow occupies moderate to steep hillsides that are rocky, grassy, or covered by coastal sage scrub or chaparral. The Southern California rufous-crowned sparrow has been observed over multiple years as a fairly common resident in the coastal scrub within the Specific Plan area during annual bird surveys. It has been observed foraging upland and near the Santa Clara River³⁵⁰ and was observed nesting in 2007.³⁵¹ Construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of this species' bird nests on the site that may be disturbed or removed, the loss of active nests would be a significant impact. In order to reduce impacts to this species, the project applicant would implement mitigation measures to reduce impacts to Southern California rufous-crowned sparrow before and during construction. Previously incorporated mitigation measures include **SP 4.6-53** (updated site specific surveys) and **SP 4.6-59** (consultation with County and CDFG at important benchmarks). This impact would also be reduced through the implementation of **Mitigation Measures MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce impacts to nesting Southern California rufous-crowned sparrows to a level that is adverse but not significant.

The Newhall Ranch Specific Plan Program EIR concludes that due to the substantial loss of habitat resulting from buildout of the Specific Plan (loss of 1,820 acres of coastal sage scrub), impacts to Southern California rufous-crowned sparrow would be considered an unavoidably significant impact; however, the mitigation proposed in the Newhall Ranch Specific Plan Program EIR was not as extensive as the mitigation recommended in this EIR. In addition to the mitigation measures described above, a total of 6,113 acres of potential habitat will be protected and managed in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area. Additional mitigation to that in the Newhall Ranch Specific Plan Program EIR includes **MV 4.3-24** (preservation of

³⁴⁹ Paul W. Collins, "Rufous-Crowned Sparrow," *The Birds of North America Online*, ed. A. Poole, 472 (1999), <http://bna.birds.cornell.edu/bna/species/472>.

³⁵⁰ Guthrie, *Bird Observations for Spring 2000 in the Proposed Potrero and Long Canyon Development Area*; Guthrie, *Bird Observations for Spring 2000 in the Proposed Mesa Development*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2001*; Guthrie, *Bird Surveys along the Santa Clara River, 2002*; Guthrie, *Bird Observations for Spring 2004 in the Proposed Homestead and Chiquito Areas*; Guthrie, *Bird Observations for Spring 2004 in the Proposed Potrero Valley, Long Canyon, Oak Valley and Onion Fields Development Areas*.

³⁵¹ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

616.3 acres of coastal scrub on site within Open Area and/or off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village); **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation); and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). This additional open space would reduce impacts to a level that is adverse, but not significant. Also, see **Wildlife Habitat Loss** for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Golden eagle (*Aquila chrysaetos*). The golden eagle is on the CDFG Watch List and is a California Fully Protected species. The golden eagle requires rolling foothills, mountain terrain, and wide arid plateaus deeply cut by streams and canyons, open mountain slopes and cliffs, and rock outcrops.³⁵² On site, this species has been occasionally observed during the annual bird surveys conducted from 1988 through 2007 along the Santa Clara River. Observation of a single golden eagle soaring over the Santa Clara River was recorded on April 22, 1993.³⁵³ In addition, two golden eagles were observed in the coast live oak woodlands west of Grapevine Mesa on the RMDP project site.³⁵⁴ No known nests occur on site or in the immediate vicinity, and the project site is not considered suitable for nesting eagles. However, suitable foraging habitat occurs on the project site. Because this species is not expected to nest or otherwise substantially utilize the project site, no significant impacts to golden eagle are expected to occur as a result of the Mission Village development. Despite no significant impacts, applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Any impacts also would be reduced through the implementation of Mitigation Measures **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would avoid impacts to nesting golden eagle if nests were located in the future.

The Newhall Ranch Specific Plan Program EIR concluded that due to the substantial loss of habitat, and potential impacts to individuals resulting from buildout of the Specific Plan, impacts to golden eagle would be considered significant and unavoidable; however, because the species is not expected to nest or otherwise substantially utilize the Mission Village project site, as stated above, no significant impacts to golden eagle are expected to occur as a result of the Mission Village development. In addition, since the Newhall Ranch Specific Plan Program EIR was certified, new mitigation measures have been added to

³⁵² Zeiner et al., *California's Wildlife: Volume II*.

³⁵³ Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries* (1993).

³⁵⁴ Guthrie, *Bird Observations for Spring 2000 in the Proposed Mesa Development*.

this EIR. Those measures, referenced above, ensure that any impacts to golden eagle are minimized to less than significant levels.

Short-eared owl (*Asio flammeus*). The short-eared owl is a federally listed Bird of Conservation Concern as well as a CDFG-designated California Species of Special Concern. The short-eared owl is a resident of mixed and tall grass habitats. The species is usually found in open areas with few trees, such as annual and perennial grasslands, prairies, tundra, dunes, meadows, agricultural lands, and saline and fresh emergent wetlands.³⁵⁵ Short-eared owls have never been documented in the project area. However, an individual was observed just outside the project boundary in the Salt Creek area immediately west of the Ventura/Los Angeles County line in the fall of 2005.³⁵⁶ Short-eared owl could potentially forage on site in grasslands during the winter months. Because short-eared owls are highly mobile and are a rare winter visitor on the site, the proposed project would not result in impacts to individuals occupying this habitat during construction and/or grading activities. Furthermore, because the species does not nest on site, construction and grading activities associated with the proposed project would not result in impacts to young or eggs. Implementation of the proposed project would not directly impact this species. Impacts to this species were not addressed by the Newhall Ranch Specific Plan Program EIR, as the species was not identified on the Specific Plan site until more recent surveys. See **Wildlife Habitat Loss** for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Long-eared owl (*Asio otus*). The long-eared owl has been designated by CDFG as a California Species of Special Concern. The long-eared owl primarily uses riparian habitat for roosting and nesting, but can also use live oak thickets and other dense stands of trees.³⁵⁷ It appears to be more associated with forest edge habitat than with open habitat or forest habitat.³⁵⁸ Dudek observed a long-eared owl during wildlife transect surveys within the Specific Plan area in live oak woodland south of Via Canyon during fall 2005.³⁵⁹ The observed individual was not nesting. The species was not observed during 2007 surveys despite several nights spent camping in oak woodlands surrounding the Landmark Village project area.³⁶⁰ Should this species occur on the site, construction-related activities could result in the loss or

³⁵⁵ Zeiner et al., *California's Wildlife: Volume II*; J.K. Terres, *The Audubon Society Encyclopedia of North American Birds* (New York: Alfred A. Knopf, 1980).

³⁵⁶ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*.

³⁵⁷ Zeiner et al., *California's Wildlife: Volume II*.

³⁵⁸ D.W. Holt, "The Long-Eared Owl (*Asio otus*) and Forest Management: A Review of the Literature," *Journal of Raptor Research* 31:175–186 (1997).

³⁵⁹ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*.

³⁶⁰ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

abandonment of active nests during that year's nesting season. Depending on the number and extent of bird nests on site that may be disturbed or removed, the loss of active nests could be a significant impact. The project applicant would implement mitigation measures to reduce impacts to long-eared owl before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of **Mitigation Measures MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Western burrowing owl (*Athene cunicularia*). The western burrowing owl is a Bird of Conservation Concern and a California Species of Special Concern. In California, western burrowing owls are yearlong residents of flat, open, dry grassland and desert habitats at lower elevations.³⁶¹ They can inhabit annual and perennial grasslands and scrublands, including open coastal scrub, characterized by low-growing vegetation.³⁶² On site, the western burrowing owl has been observed anecdotally at two locations (i.e., the species has not been observed during focused avian surveys). A single western burrowing owl individual was observed twice at the same location within a four-week period (November and December 2006) in the northern portion of Middle Canyon, east of Airport Mesa, in ruderal habitat. Another individual was observed in December 2006 in Middle Canyon, and again on April 11, 2007.³⁶³ Construction-related activities could result in the loss or abandonment of active burrows. Depending on the number and extent of active burrows on the site that may be disturbed or removed, the loss of active burrows could be a significant impact. The project applicant would implement mitigation measures to reduce impacts to western burrowing owl before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of **Mitigation Measures MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-20** (pre-construction surveys for burrowing owl). Implementation of these mitigation measures would

³⁶¹ C. Bates, "Burrowing Owl (*Athene cunicularia*)," *California Partners in Flight Desert Bird Conservation Plan*, http://www.prbo.org/calpif/htmldocs/species/desert/burrowing_owl.htm. 2006.

³⁶² D.C. Zeiner et al., *California's Wildlife: Volume II. Birds* (1990).

³⁶³ Sherri Miller, Dudek, verbal communication with Callie Ford, Dudek, November 2007.

reduce impacts to nesting and wintering western burrowing owls to a level that is adverse but not significant.

The Newhall Ranch Specific Plan Program EIR concluded that due to the substantial loss of habitat, and potential impacts to individuals resulting from buildout of the Specific Plan, impacts to western burrowing owl would be considered a significant unavoidable impact; however, the mitigation proposed in the Newhall Ranch Specific Plan Program EIR was not as extensive as the mitigation recommended in this EIR. In addition to the mitigation measures described above, a total of 6,113 acres of potential habitat will be protected and managed in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area. Additional mitigation to that in the Newhall Ranch Specific Plan Program EIR includes **MV 4.3-24** (preservation of 616.3 acres of coastal scrub on site within Open Area and/or off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village); **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation); and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). This additional open space would reduce impacts to a level that is adverse, but not significant. Also, see **Wildlife Habitat Loss** for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Oak titmouse (*Baeolophus inornatus*). The oak titmouse is a California Special Animal. This species is not federally listed as threatened or endangered within any part of its range. Oak titmice inhabit a variety of habitat types, but are primarily associated with oaks, especially those in warm, dry habitats.³⁶⁴ The oak titmouse is common and abundant in the project area, nesting on site in cottonwood riparian and coast live oak communities. It has been observed over multiple years along the Santa Clara River in the Specific Plan area. The oak titmouse was observed most recently by Guthrie in 2006³⁶⁵ and by Bloom Biological in 2007.³⁶⁶ Bloom Biological reported seeing between two and 14 individuals of this species daily. Most observations of this species were not mapped, but individuals have been sighted along the Santa Clara River and its tributaries. Construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of this species' bird nests on the site that may be disturbed or removed, the loss of active nests would be a significant impact. In order to avoid impacts to this species, the project applicant would implement mitigation measures to reduce impacts to oak titmouse before and during construction. Applicable mitigation measures include

³⁶⁴ Carla Cicero, "Oak Titmouse," *The Birds of North America Online*, ed. A. Poole, 485a (2000), <http://bna.birds.cornell.edu/bna/species/485a>.

³⁶⁵ Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries* (2006).

³⁶⁶ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (require surveys of special-status species within the project site). This impact would also be reduced through the implementation of **Mitigation Measures MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce impacts to nesting oak titmouse to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Ferruginous hawk (*Buteo regalis*). The ferruginous hawk is on the CDFG Watch List as a Bird of Conservation Concern. The ferruginous hawk forages in open grasslands, agriculture, sagebrush flats, desert scrub, surrounding valleys in low foothills, and fringes of pinyon–juniper habitats.³⁶⁷ On site, has been observed in the eastern alfalfa fields, Wolcott agricultural fields, Potrero Canyon, and other agriculture fields along the Santa Clara River in winter 2008.³⁶⁸ The project area is outside of the species' breeding range and it is not expected to nest on site. Because ferruginous hawks are highly mobile and are a winter visitor on the site, the proposed project would not result in mortality of individuals occupying this habitat during construction and/or grading activities. Furthermore, because the species does not nest on site, construction and grading activities associated with the proposed project would not result in impacts to young or eggs of this species. Implementation of the proposed project would not directly impact this species. The Newhall Ranch Specific Plan Program EIR concluded that due to the substantial loss of habitat resulting from buildout of the Specific Plan, impacts to ferruginous hawk would be considered a significant unavoidable impact; however, the mitigation proposed in the Newhall Ranch Specific Plan Program EIR was not as extensive as the mitigation recommended in this EIR. For example, a total of 6,113 acres of potential habitat will be protected and managed in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area. Additional mitigation to that in the Newhall Ranch Specific Plan Program EIR includes **MV 4.3-24** (preservation of 616.3 acres of coastal scrub on site within Open Area and/or off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village); **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation); and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). This

³⁶⁷ C. Polite and J. Pratt, Life History Accounts and Range Maps—California Wildlife Habitat Relationships System, <http://www.dfg.ca.gov/biogeodata/cwhr/cawildlife.aspx>, 1999.

³⁶⁸ Bloom Biological, Inc., *Interim Report of Winter Surveys*.

additional open space would reduce impacts to a level that is adverse, but not significant. Also, see **Wildlife Habitat Loss** for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Costa's hummingbird (*Calypte costae*). The Costa's hummingbird is a California Special Animal. It is not federally listed as threatened or endangered within any part of its range. Primary habitats are desert wash, edges of desert riparian and valley foothill riparian areas, coastal scrub, desert scrub, desert succulent scrub, lower-elevation chaparral, and palm oasis.³⁶⁹ The species has been observed over multiple years during bird surveys conducted from 1988 through 2006 along the Santa Clara River within riparian scrub and woodland habitat; however, there are no mapped locations for observations. This species likely occurs as a migrant and could nest in suitable habitats on the borrow and grading sites. If nesting were to occur within or adjacent to the project site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of nests on the site that may be disturbed or removed, the loss of active nests could be a significant impact. Implementation of proposed **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) would reduce impacts to nesting hummingbirds to below a level of significance. Impacts to this species were not previously analyzed in the Newhall Ranch Specific Plan Program EIR.

Lawrence's goldfinch (*Carduelis lawrencei*). The Lawrence's goldfinch is as a California Special Animal. Additionally, this species is recognized under the NatureServe system of Natural Heritage Programs as vulnerable at the state level throughout its range and is listed as a Bird of Conservation Concern by the USFWS. Lawrence's goldfinches are found in cropland and hedgerows, shrubland and chaparral, conifer, hardwood and mixed woodlands.³⁷⁰ On site, this species was observed in upland areas and riparian thickets in 2007³⁷¹ and has been observed over multiple years during the bird surveys conducted from 1988 through 2006 along the Santa Clara River.³⁷² Two to 70 were recorded daily throughout March,

³⁶⁹ Zeiner et al., *California's Wildlife: Volume II*.

³⁷⁰ NatureServe, "An Online Encyclopedia of Life."

³⁷¹ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

³⁷² Compliance Biology, Inc., *Results of Focused Coastal California Gnatcatcher Surveys; Castaic Mesa Project; Guthrie, Status of the Least Bell's Vireo along the Santa Clara River and Its Tributaries near Valencia, California, Spring 1988; Guthrie, Birds along the Santa Clara River and Its Tributaries near Valencia, California, with Special Reference to Least Bell's Vireo; Guthrie, Bird Surveys along the Santa Clara River and Its Tributaries (1992); Guthrie, Bird Surveys along the Santa Clara River and Its Tributaries (1993); Guthrie, Bird Surveys along the Santa Clara River, 1993; Guthrie, Bird Surveys along the Santa Clara River and Its Tributaries (1994); Guthrie, Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1996; Guthrie, Bird Surveys along the Santa Clara River, 1996; Guthrie, Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1997; Guthrie, Bird Surveys along the*

mostly in migrant flocks.³⁷³ If present, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of bird nests on the site that may be disturbed or removed, the loss of active nests would be a significant impact. In order to avoid impacts to this species, the project applicant would implement mitigation measures to reduce impacts to Lawrence's goldfinch before and during construction. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (require surveys of special-status species within the project site). This impact would also be reduced through the implementation of Mitigation Measures **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce impacts to nesting Lawrence's goldfinches to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Turkey vulture (*Cathartes aura*). Although the turkey vulture has no federal or state status, it is being discussed, for the purposes of this report, as a CDFG trust resource. Turkey vultures use a variety of habitats while foraging for both wild and domestic carrion. They prefer open stages of most habitats. In the western United States, they tend to occur regularly in areas of hilly pastured rangeland, nonintensive

Santa Clara River, 1997; Guthrie, Bird Surveys along the Santa Clara River, 1998; Guthrie, Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1998; Guthrie, Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 1999; Guthrie, Bird Surveys in the Proposed Riverwood Project Area; Guthrie, Bird Observations for Spring 2000 in the Proposed Potrero and Long Canyon Development Area; Guthrie, Bird Observations for Spring 2000 in the Proposed Mesa Development; Guthrie, Bird Surveys along the Santa Clara River, 2000; Guthrie, Bird Surveys in the Proposed Magic Mountain Entertainment Project Area; Guthrie, Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2000; Guthrie, Bird Surveys of Castaic Junction; Guthrie, Bird Surveys along the Santa Clara River; Los Angeles/Ventura County Line; Guthrie, Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2001; Guthrie, Bird Surveys along the Santa Clara River, 2001; Guthrie, Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2002; Guthrie, Bird Surveys along the Santa Clara River, 2002; Guthrie, Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2003; Guthrie, Bird Surveys along the Santa Clara River, 2003; Guthrie, Bird Observations in the Stevenson Ranch; Guthrie, Bird Observations for Spring 2004 in the Proposed Potrero Valley, Long Canyon, Oak Valley and Onion Fields Development Areas; Guthrie, Bird Observations for Spring 2004 in the Proposed Mesa East and West Development; Guthrie, Bird Observations in the Proposed Magic Mountain Entertainment Project Area; Guthrie, Bird Surveys along the Santa Clara River, 2004; Guthrie, Bird Observations during 2004; Guthrie, Bird Surveys along a Portion of the Santa Clara River and Its Tributaries (2006); Labinger, Greaves, and Haupt, Results of 1995 Avian Surveys; Labinger, Greaves, and Haupt, 1996 Avian Survey Results; Labinger, Greaves, and Haupt, Results of 1997 Avian Surveys and Least Bell's Vireo Monitoring; Labinger and Greaves, Results of 1998 Avian Surveys and Least Bell's Vireo Monitoring.

³⁷³ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

agriculture, and areas with rock outcrops suitable for nesting, although they are not generally found in high-elevation mountain areas.³⁷⁴ On site, this species has been observed over multiple years during bird surveys conducted from 1988 through 2007 along the Santa Clara River,³⁷⁵ and off site in the Castaic Junction area by Guthrie³⁷⁶ and Haglund and Baskin.³⁷⁷ However, no mapped occurrences of this species were recorded. If present, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of bird nests on the site that may be disturbed or removed, the loss of active nests would be a significant impact. In order to avoid impacts to this species, the project applicant would implement mitigation measures to reduce

³⁷⁴ David A. Kirk and Michael J. Mossman. "Turkey Vulture," *The Birds of North America Online*, ed. A. Poole, 339 (1998), <http://bna.birds.cornell.edu/bna/species/339>; Zeiner et al., *California's Wildlife: Volume II*.

³⁷⁵ Guthrie, *Bird Surveys along the Santa Clara River, 1993*; Guthrie, *Bird Surveys along the Santa Clara River, 1994*; Guthrie, *Bird Surveys along the Santa Clara River, 1996*; Guthrie, *Bird Surveys along the Santa Clara River, 1997*; Guthrie, *Bird Surveys in the Proposed Riverwood Project Area*; Guthrie, *Bird Surveys along the Santa Clara River, 1999*; Guthrie, *Bird Observations for Spring 2000 in the Proposed Potrero and Long Canyon Development Area*; Guthrie, *Bird Observations for Spring 2000 in the Proposed Mesa Development*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2000*; Guthrie, *Bird Surveys of Castaic Junction*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2001*; Guthrie, *Bird Surveys along the Santa Clara River, 2001*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2002*; Guthrie, *Bird Surveys along the Santa Clara River, 2003*; Guthrie, *Bird Observations for Spring 2004 in the Proposed Homestead and Chiquito Areas*; Guthrie, *Bird Observations for Spring 2004 in the Proposed Potrero Valley, Long Canyon, Oak Valley and Onion Fields Development Areas*; Guthrie, *Bird Observations for Spring 2004 in the Proposed Mesa East and West Development*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2004*; Guthrie, *Bird Surveys along the Santa Clara River, 2004*; Guthrie, *Bird Surveys along the Santa Clara River, 2005*; Guthrie, *Bird Surveys along the Santa Clara River, 2006*; Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*; Lemons, "Focused California Gnatcatcher Surveys for Mission Village"; Labinger, Greaves, and Haupt, *Preliminary Results of Avian Surveys*; Labiner, Greaves, and Haupt, *1996 Avian Survey Results*; Labiner, Greaves, and Haupt, *Results of 1997 Avian Surveys and Least Bell's Vireo Monitoring*; and Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

³⁷⁶ Guthrie, *Status of the Least Bell's Vireo along the Santa Clara River and Its Tributaries near Valencia, California, Spring 1988*; Guthrie, *Birds along the Santa Clara River and Its Tributaries near Valencia, California, with Special Reference to Least Bell's Vireo*; Guthrie, *Surveys for Least Bell's Vireo*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries (1993)*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries (1994)*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1995*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1996*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1997*; Guthrie, *Bird Surveys along the Santa Clara River, 1998*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 1999*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2001*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2002*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2003*; Guthrie, *Bird Observations during 2004*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries (2005)*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries (2006)*.

³⁷⁷ Haglund and Baskin, *Fish and Wildlife Survey and Habitat Assessment*.

impacts to turkey vulture before and during construction. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (require surveys of special-status species within the project site). This impact would also be reduced through the implementation of Mitigation Measures **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant.

Northern harrier (*Circus cyaneus*). The northern harrier is a California Species of Special Concern. Northern harriers use a wide variety of open habitats in California, including deserts, coastal sand dunes, pasturelands, croplands, dry plains, grasslands, estuaries, flood plains, and marshes.³⁷⁸ The species can also forage over coastal sage scrub or other open scrub communities.³⁷⁹ The northern harrier has been observed in or near the project area infrequently during the 20 years when surveys were conducted.³⁸⁰ More recently, Dudek observed a northern harrier in the Mission Village area,³⁸¹ and in March 2007, Bloom Biological made three separate observations of a single male at different locations in or near the project area along the Santa Clara River.³⁸² While no active nests were observed during surveys, suitable nesting habitat occurs in association within the agricultural and grassland habitats on site. Should this species nest on the project site, construction-related activities could result in the loss or abandonment of active nests. Depending on the number and extent of this species' active nests on site that may be disturbed or removed, the loss of active nests would be a significant impact. In order to avoid impacts to this species, the project applicant would implement mitigation measures to reduce impacts to the northern harrier before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** (requiring updated surveys of special-status species within the project area) and **SP 4.6-59** (consultation with Los Angeles County and CDFG at important benchmarks). This impact would also be reduced by the implementation of Mitigation Measures **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce this impact to a less than significant level.

³⁷⁸ R. Bruce Macwhirter and Keith L. Bildstein. "Northern Harrier," *The Birds of North America Online*, ed. A. Poole, 210 (1996), <http://bna.birds.cornell.edu/bna/species/210>.

³⁷⁹ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

³⁸⁰ Guthrie, *Bird Surveys in the Proposed Riverwood Project Area; Guthrie, Bird Observations for Spring 2000 in the Proposed Potrero and Long Canyon Development Area*.

³⁸¹ Lemons, "Focused California Gnatcatcher Surveys for Mission Village."

³⁸² Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

The Newhall Ranch Specific Plan Program EIR concludes that due to the substantial loss of habitat resulting from buildout of the Specific Plan, impacts to northern harrier would be considered a significant unavoidable impact; however, the mitigation proposed in the Newhall Ranch Specific Plan Program EIR was not as extensive as the mitigation recommended in this EIR. In addition to the mitigation measures described above, a total of 6,113 acres of potential habitat will be protected and managed in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area. Additional mitigation to that in the Newhall Ranch Specific Plan Program EIR includes **MV 4.3-24** (preservation of 616.3 acres of coastal scrub on site within Open Area and/or off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village); **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation); and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). This additional open space would reduce impacts to a level that is adverse, but not significant. Also, see **Wildlife Habitat Loss** for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). The western yellow-billed cuckoo is a candidate for listing under the federal ESA, is a CESA-listed endangered species, and is a Bird of Conservation Concern with regard to its nesting status. The eastern yellow-billed cuckoo prefers a diverse variety of habitats, including open woodland with clearings and low, dense, scrubby vegetation as well as abandoned farmland, overgrown fruit orchards, successional shrubland, dense thickets along streams and marshes, shade trees, and gardens.³⁸³ The habitat preference of the western yellow-billed cuckoo, in contrast, is much more restricted in both species composition and size of the patch of preferred habitat. The habitat of the western yellow-billed cuckoo primarily consists of large blocks of riparian habitat, particularly cottonwood–willow riparian woodlands.³⁸⁴ The western yellow-billed cuckoo has occasionally been documented within the Santa Clara River corridor during focused bird surveys in the RMDP area, although the locations of these observations were not mapped. Single individuals (thought to be migrants) were observed along the Santa Clara River east of the project site in 1997 and 1998³⁸⁵ and west of the Ventura county line in 1997.³⁸⁶ However, none has been observed in the project area since then. In addition, suitable habitat does occur in association with the riparian habitats on site, and western

³⁸³ Janice M. Hughes, "Yellow-Billed Cuckoo," *The Birds of North America Online*, ed. A. Poole, 418 (1999), <http://bna.birds.cornell.edu/bna/species/418>.

³⁸⁴ 66 FR 38611–38626.

³⁸⁵ Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1997*; Labinger, Greaves, and Haupt, *Results of 1997 Avian Surveys and Least Bell's Vireo Monitoring*; Labinger and Greaves, *Results of 1998 Avian Surveys and Least Bell's Vireo Monitoring*.

³⁸⁶ Guthrie, *Bird Surveys along the Santa Clara River, 1997*.

yellow-billed cuckoo could nest in those areas. Should this species occur on the site, construction-related activities could result in the loss or abandonment of active nests. Depending on the number and extent of active nests on site that may be disturbed or removed, the loss of active nests could be a significant impact. The project applicant would implement mitigation measures to reduce impacts to western yellow-billed cuckoo before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of Mitigation Measures **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Hermit warbler (*Dendroica occidentalis*). The hermit warbler is considered a CDFG trust resource for the purposes of this analysis. Hermit warblers are found in conifer and mixed forests, shrubland, chaparral, and conifer and mixed woodlands.³⁸⁷ On site, this species was observed over multiple years during bird surveys conducted from 1988 through 2006 along the Santa Clara River within woodland habitat;³⁸⁸ however, there are no mapped occurrences of these observations. All observed individuals were thought to be migrants. If nests occur on site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of this species' bird nests on the site that may be disturbed or removed, the loss of active nests would be a potentially significant impact. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of proposed **Mitigation Measures MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce impacts to hermit warbler to a less than significant level. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Yellow warbler (*Dendroica petechia brewsteri*). The yellow warbler has no federal or state sensitivity status but is designated as a California Species of Special Concern. In general, the yellow warbler breeds most

³⁸⁷ NatureServe, "An Online Encyclopedia of Life."

³⁸⁸ Guthrie, *Bird Surveys along the Santa Clara River, 1994*; Guthrie, *Bird Surveys along the Santa Clara River, 1996*; Guthrie, *Bird Surveys along the Santa Clara River, 2002*.

commonly in wet, deciduous thickets, especially those dominated by willows, and in disturbed and early successional habitats.³⁸⁹ A single migrant was observed in the Entrada planning area in 2000.³⁹⁰ This species has been observed within the riparian habitats on the project site and is presumed to nest on site. If the species is present, the proposed removal of riparian vegetation and/or construction-related noise could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of bird nests on the site that may be disturbed or removed, the loss of active nests would be a significant impact. In order to avoid impacts to this species, the project applicant would implement mitigation measures to reduce impacts to the yellow warbler before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** (special-status species presence/absence survey requirements) and **SP 4.6-59** (consultation with the CDFG prior to surveys to establish appropriate survey methodology). This impact would also be reduced through implementation of proposed **Mitigation Measures MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce impacts to nesting yellow warblers to a level that is adverse but not significant. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

White-tailed kite (*Elanus leucurus*). The white-tailed kite is a California Fully Protected species. The white-tailed kite is commonly associated with agriculture areas.³⁹¹ It also inhabits low-elevation grasslands, savannah-like habitats, open sage scrub, meadows, wetlands, and oak woodlands, particularly in areas with a dense population of voles.³⁹² On the project site, white-tailed kite has been observed primarily along the Santa Clara River, where it nests in associated riparian woodlands and forages in adjacent grasslands, open sage scrub, and agricultural fields.³⁹³ If nesting kites are present during construction, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Due to the kite's status as a California Fully Protected species, the loss of active nests would be a significant impact. In order to avoid such impacts, the project applicant would implement mitigation measures to reduce impacts to the white-tailed kite before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** (special-status species presence/absence survey requirements) and **SP 4.6-59** (consultation with the CDFG prior to

³⁸⁹ Lowther et al., "Yellow Warbler (*Dendroica petechia*)," in *The Birds of North America*, ed. A. Poole and F. Gill, 454 (Washington, D.C.: Cornell Laboratory of Ornithology and the Academy of Natural Sciences, 1999).

³⁹⁰ Guthrie, *Bird Surveys in the Proposed Magic Mountain Entertainment Project Area*.

³⁹¹ J. Grinnell and A.H. Miller. "The Distribution of the Birds of California." *Pacific Coast Avifauna* 27 (1944). Reprinted in Lee Vining, California: Artemisia Press. April 1986.

³⁹² L.B. Waian and R.C. Stendell. "The White-Tailed Kite in California with Observations of the Santa Barbara Population." *California Fish and Game* 56 (1970), 188-198.

³⁹³ Guthrie, *White-Tailed Kite Populations*; Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*; Bloom Biological, Inc., *Report on White-Tailed Kites*.

surveys to establish appropriate survey methodology). This impact would also be reduced through implementation of proposed **Mitigation Measures MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would avoid impacts to nesting white-tailed kites. The Newhall Ranch Specific Plan Program EIR concludes that due to the substantial loss of habitat resulting from buildout of the Specific Plan, impacts to white-tailed kite would be considered a significant unavoidable impact; however, the mitigation proposed in the Newhall Ranch Specific Plan Program EIR was not as extensive as this EIR. A total of 6,113 acres of potential habitat will be protected and managed in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area. In addition to the mitigation measures set forth in the Newhall Ranch Specific Plan Program EIR, this EIR includes the following mitigation measures which, when implemented, will reduce impacts to flycatcher: **MV 4.3-24** (preservation of 616.3 acres of coastal scrub on site within Open Area and/or off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village); **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation); and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). This additional open space would reduce impacts to a level that is adverse, but not significant. Also, see **Wildlife Habitat Loss** for a discussion of project-related impacts to special-status wildlife due to habitat loss. **Willow flycatcher** (*Empidonax traillii*)/**Southwestern willow flycatcher** (*Empidonax traillii extimus*). The full species of willow flycatcher, including its subspecies—the southwestern willow flycatcher, little willow flycatcher (*E. t. brewsteri*), and *E. t. adastus* (no common name other than willow flycatcher subspecies, was listed as state endangered by CDFG in 1991. The subspecies southwestern willow flycatcher was listed as federally endangered species by the USFWS in 1995. The willow flycatcher has been detected almost every year within the River corridor in the project area during the focused bird surveys. However, because all observations were early in the breeding season with none occurring after June 22, the start of the nesting season, all individuals are assumed to have been migrants and were probably either the little willow flycatcher or *E. t. adastus*. No southwestern willow flycatchers have been observed to nest on site. Along the Santa Clara River in the NRSP, willow flycatchers were observed by Guthrie,³⁹⁴ Labinger *et al.*,³⁹⁵ and Bloom Biological, Inc.,³⁹⁶

³⁹⁴ Guthrie, *Bird Surveys along the Santa Clara River*, 1993; Guthrie, *Bird Surveys along the Santa Clara River*, 1997; Guthrie, *Bird Surveys along the Santa Clara River*, 1998; Guthrie, *Bird Surveys in the Proposed Riverwood Project Area*; Guthrie, *Bird Surveys along the Santa Clara River*, 2000; Guthrie, *Bird Surveys along the Santa Clara River*, 2001; Guthrie, *Bird Surveys along the Santa Clara River*, 2002; Guthrie, *Bird Surveys along the Santa Clara River*, 2004; Guthrie, *Bird Surveys along the Santa Clara River*, 2005.

³⁹⁵ Labinger, Greaves, and Haupt, *Preliminary Results of Avian Surveys*.

³⁹⁶ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

along Castaic Creek in VCC by Guthrie,³⁹⁷ and adjacent to Entrada in the Castaic Junction area by Guthrie³⁹⁸ and Dudek.³⁹⁹ No southwestern willow flycatchers exhibiting nesting, paired, or territorial behavior have been observed in the project site or vicinity. The most recent observation of the southwestern willow flycatcher displaying territorial behavior is downstream approximately 18 miles, near Saticoy.⁴⁰⁰ The CNDDDB⁴⁰¹ lists one occurrence of nesting southwestern willow flycatchers in the Santa Clara River corridor upstream of the project area, along Soledad Canyon Road near Agua Dulce, in 1997. A single willow flycatcher was observed east of the project site foraging along the Santa Clara River on May 31, 2004,⁴⁰² however, given the timing of this observation and the lack of any subsequent evidence of nesting, the observed willow flycatcher cannot be positively identified as belonging to the southwestern category of willow flycatchers.⁴⁰³ Similarly, several adult willow flycatchers were observed during recent surveys, but no nesting was confirmed.⁴⁰⁴ However, as suitable nesting habitat does occur in association with the riparian habitats on site, southwestern willow flycatcher could nest in those areas. Should this species occur on site, construction-related activities could result in the loss or abandonment of active nests. The loss of active nests of this species would be a significant impact. The project applicant would implement mitigation measures to reduce or avoid impacts to southwestern willow flycatcher before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the

³⁹⁷ Guthrie, *Status of the Least Bell's Vireo along the Santa Clara River and Its Tributaries near Valencia, California, Spring 1988*; Guthrie, *Birds along the Santa Clara River and Its Tributaries near Valencia, California, with Special Reference to Least Bell's Vireo*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2000*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2001*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2002*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2003*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2004*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries* (2005).

³⁹⁸ Guthrie, *Birds along the Santa Clara River and Its Tributaries near Valencia, California, with Special Reference to Least Bell's Vireo*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1997*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 1999*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2000*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2002*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2003*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries* (2006).

³⁹⁹ Dudek and Associates, Inc., *Biological Resources Technical Report for the Entrada Site*.

⁴⁰⁰ Labinger and Greaves, *Results of 1998 Avian Surveys and Least Bell's Vireo Monitoring*.

⁴⁰¹ CDFG, "RareFind."

⁴⁰² Guthrie, *Bird Surveys along the Santa Clara River, 2004*.

⁴⁰³ Guthrie, *Bird Surveys along the Santa Clara River, 2004*.

⁴⁰⁴ Bloom, *Report on Arroyo Toad Surveys*.

County and CDFG at important benchmarks). This impact would also be reduced through implementation of **Mitigation Measures MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

California horned lark (*Eremophila alpestris*). The California horned lark is on the CDFG Watch List. California horned larks are common and abundant residents in a variety of open habitats, usually where trees and shrubs are absent. California horned larks have been observed regularly foraging in plowed and graded fields near the Santa Clara River within the NRSP Project area Guthrie,⁴⁰⁵ Labinger *et al.*,⁴⁰⁶ Labinger and Greaves,⁴⁰⁷ and Bloom Biological, Inc.,⁴⁰⁸ in the VCC planning area;⁴⁰⁹ and off site in the Castaic Junction area.⁴¹⁰ More recent surveys have observed several individuals in the agricultural fields along the Santa Clara River and a flock of approximately 20 individuals was observed adjacent to the

⁴⁰⁵ Guthrie, *Bird Surveys along the Santa Clara River*, 1994; Guthrie, *Bird Surveys along the Santa Clara River*, 1995; Guthrie, *Bird Surveys along the Santa Clara River*, 1996; Guthrie, *Bird Surveys along the Santa Clara River*, 1998; Guthrie, *Bird Surveys in the Proposed Riverwood Project Area*; Guthrie, *Bird Surveys along the Santa Clara River*, 1999; Guthrie, *Bird Observations for Spring 2000 in the Proposed Potrero and Long Canyon Development Area*; Guthrie, *Bird Observations for Spring 2000 in the Proposed Mesa Development*; Guthrie, *Bird Surveys along the Santa Clara River*, 2000; Guthrie, *Bird Surveys along the Santa Clara River*, 2005.

⁴⁰⁶ Labinger, Greaves, and Haupt, *Preliminary Results of Avian Surveys*; Labinger, Greaves, and Haupt, *Results of 1995 Avian Surveys*; Labinger, Greaves, and Haupt, *Results of 1997 Avian Surveys and Least Bell's Vireo Monitoring*.

⁴⁰⁷ Labinger and Greaves, *Results of 1998 Avian Surveys and Least Bell's Vireo Monitoring*.

⁴⁰⁸ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

⁴⁰⁹ Guthrie, *Birds along the Santa Clara River and Its Tributaries near Valencia, California, with Special Reference to Least Bell's Vireo*; Guthrie, *Surveys along Castaic Creek for least Bell's Vireo*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California* (1992); Guthrie, *Bird Surveys along the Santa Clara River*, 1996; Guthrie, *Bird Surveys along the Santa Clara River*, 1997; Guthrie, *Bird Surveys along the Santa Clara River*, 2000; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California*, 2001; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California*, 2002; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California*, 2003; Guthrie, *Bird Observations in the Commerce Center Project Site*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries* (2005); Guthrie, *Bird Surveys along the Santa Clara River*, 2005; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries* (2006); Dudek and Associates, Inc., *Biological Resources Technical Report for the Valencia Commerce Center*.

⁴¹⁰ Guthrie, *Surveys along Castaic Creek for least Bell's Vireo*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries* (1993); Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries* (1994); Guthrie, *Bird Surveys along the Santa Clara River*, 1994; Guthrie, *Bird Surveys along the Santa Clara River*, 1995; Guthrie, *Bird Surveys of Castaic Junction*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California*, 2003; Guthrie, *Bird Observations during 2004 at Castaic Junction*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries* (2005).

project site foraging in a dirt agricultural field within the Landmark Village impact area.⁴¹¹ Should this species nest on site, construction-related activities could result in the loss or abandonment of active nests. Depending on the number and extent of active nests on site that may be disturbed or removed, the loss of active nests could be a significant impact. In order to avoid such impacts, the project applicant would implement mitigation measures to reduce impacts to the California horned lark before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** (special-status species presence/absence survey requirements) and **SP 4.6-59** (consultation with the CDFG prior to surveys to establish appropriate survey methodology). This impact would also be reduced through the implementation of **Mitigation Measure MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. Impacts to this species were not addressed by the Newhall Ranch Specific Plan Program EIR, as it was not identified on site until later surveys.

Merlin (*Falco columbarius*). The merlin is on the CDFG Watch List. The merlin uses a wide variety of semi-open to open habitats during breeding and wintering.⁴¹² Individuals frequent coastlines, grasslands, savannahs, open woodlands, lakes, wetlands, edges, and communities in early successional stages while foraging. In 2007, Bloom Biological made four observations of wintering or migrating merlins between March 4 and March 23.⁴¹³ One male and one female were documented hunting over agriculture fields bordering riparian habitat near Indian Dunes, which is located in the Specific Plan area. Merlins were not observed during bird surveys in any other year between 1988 and 2007. Merlins are highly mobile and visit the site only during the winter. For these reasons, the proposed project would not result in mortality of individuals occupying this habitat during construction and/or grading activities. Furthermore, because the species does not nest on site, construction and grading activities associated with the proposed project would not result in impacts to young birds or eggs. Implementation of the proposed project would not directly impact this species. Impacts to this species were not addressed by the Newhall Ranch Specific Plan Program EIR, as it was not identified on site until later surveys.

Prairie falcon (*Falco mexicanus*). North America's only endemic falcon, the prairie falcon is a Bird of Conservation Concern and is on the CDFG Watch List. Additionally, USFWS identified the prairie falcon

⁴¹¹ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

⁴¹² K. Garrett and J. Dunn. *The Birds of Southern California: Status and Distribution* (Los Angeles Audubon Society, 1981); Sodhi et al., "Merlin," *The Birds of North America Online*, ed. A. Poole, 044 (February 2005), <http://bna.birds.cornell.edu/bna/species/044>.

⁴¹³ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

as a Bird of Conservation Concern.⁴¹⁴ Prairie falcons inhabit open habitats in North America, including arid plains and steppe habitats. In the western states they prefer chaparral, desert grasslands, and creosote bush habitats. Surveys conducted by Guthrie detected two individual prairie falcons foraging during various surveys; one prairie falcon was detected on April 7, 2000, in the Potrero Canyon and Long Canyon area, and the other on July 2, 2001, along Castaic Creek between the confluence with the Santa Clara River and I-5.⁴¹⁵ Dudek biologists detected a prairie falcon within the Salt Creek watershed in late November 2005 and again in late August 2007 over Salt Creek within the High Country SMA/SEA 20.⁴¹⁶ Prairie falcons are highly mobile and visit the site only during the winter. For these reasons, the proposed project would not result in mortality of individuals occupying this habitat during construction and/or grading activities. Furthermore, because the species does not nest on site, construction and grading activities associated with the proposed project would not result in impacts to young birds or eggs. Implementation of the proposed project would not directly impact this species. Impacts to this species were not addressed by the Newhall Ranch Specific Plan Program EIR, as it was not identified on site until later surveys.

American peregrine falcon (*Falco peregrinus anatum*). A subspecies of the peregrine falcon, the American peregrine falcon is listed as endangered under the California Endangered Species Act (CESA) and is also a California Fully Protected species. On October 11, 2007, the California Fish and Game Commission designated the American peregrine falcon as a candidate for delisting under CESA.⁴¹⁷ Peregrine falcons in general use a large variety of open habitats for foraging, including tundra, marshes, seacoasts, savannahs, grasslands, meadows, open woodlands, and agricultural areas. One American peregrine falcon was observed hunting along the Santa Clara River Corridor near the Grapevine Mesa area within the Specific Plan area by Guthrie in July 2000.⁴¹⁸ No other occurrences of this species have been documented on site during annual bird surveys between 1988 and 2007. American peregrine falcons are highly mobile and visit the site only during the winter. For these reasons, the proposed project would not result in mortality of individuals occupying this habitat during construction and/or grading activities. Furthermore, because the species does not nest on site, construction and grading activities associated

⁴¹⁴ USFWS, *Birds of Conservation Concern 2002* (Arlington, Virginia: Division of Migratory Bird Management, 2002).

⁴¹⁵ Guthrie, *Bird Surveys in the Proposed Magic Mountain Entertainment Project Area; Guthrie, Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2001.*

⁴¹⁶ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*; J. Trow, personal observation of prairie falcon by J. Trow (Dudek) over Salt Creek within the High Country SMA, August 2007.

⁴¹⁷ California Regulatory Notice Register, Notice of Findings Regarding the Removal of the American Peregrine Falcon from the Endangered Species List, 44-Z (November 2, 2007) 1856.

⁴¹⁸ Guthrie, *Bird Surveys along the Santa Clara River, 2000.*

with the proposed project would not result in impacts to young or eggs. Implementation of the proposed project would not directly impact this species. Impacts to this species were not addressed by the Newhall Ranch Specific Plan Program EIR, as it was not identified on site until later surveys.

California condor (*Gymnogyps californianus*). The California condor is federally and state listed as endangered and is also a California Fully Protected species. California condors require vast expanses of open savannah, grasslands, and foothill chaparral, with cliffs, large trees, and snags for roosting and nesting.⁴¹⁹ Until April 2008, California condors had not been known to nest or land within the project area in the last 25 years.⁴²⁰ In April 2008, a California condor was observed feeding on a dead calf in a Potrero side canyon by Bloom Biological, Inc. wildlife biologist Chris Niemela.⁴²¹ A condor was also observed in January 2009 in the Potrero Canyon area,⁴²² and there have been other documented landings in the project area between April and July 2008.⁴²³ Additional 2009 flight data provided to CDFG by the USFWS indicate that the condor frequently flies over the project area when moving between the Sespe Wilderness area to the northwest and the San Gabriel Mountains to the southeast of the project area, and that the species appears to be increasing its use of the Santa Clarita Valley area. Observations of California condors within the Newhall Ranch Specific Plan area have been associated with areas where cattle grazing currently occurs and dead calves have provided feeding opportunities. Because grazing does not occur within the proposed project site, there is a lack of carcasses. However, with increasing use of the Santa Clarita Valley area, the condor is expected to continue to forage opportunistically in portions of the Specific Plan, VCC, and Entrada planning areas for dead cattle and other large mammal carcasses. Implementation of the proposed project would not directly impact this species. Impacts to this species were not addressed by the Newhall Ranch Specific Plan Program EIR, as it was not identified on site until later surveys.

Yellow-breasted chat (*Icteria virens*). The yellow-breasted chat is a California Species of Special Concern. This species is not federally listed as threatened or endangered, but has been listed as threatened, endangered, or of special concern in some states and provinces on the periphery of its range (e.g.,

⁴¹⁹ Zeiner et al., *California's Wildlife: Volume II*.

⁴²⁰ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*; Bloom Biological, Inc., *Interim Report of Winter Surveys*.

⁴²¹ M. Carpenter, Newhall Ranch, personal communication reporting that a California condor was observed feeding on a dead calf in a Potrero side canyon by wildlife biologist Chris Niemela in a Potrero side canyon, 2008.

⁴²² C. Niemela, memo from C. Niemela (Bloom Biological) to Jesse Grantham (USFWS) regarding observations of California condor in Potrero Canyon in January 2009, March 11, 2009.

⁴²³ R.P. Root. "Acknowledgement of Request for Formal Consultation on the Proposed Newhall Ranch Specific Plan, Santa Clarita, Los Angeles County, California." Letter from R.P. Root (USFWS) to A.O. Allen (Corps), November 12, 2008.

Connecticut, New Jersey, New York, Ontario, and British Columbia).⁴²⁴ In Southern California, the yellow-breasted chat is primarily found in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. On site, this species has been observed nesting in riparian thickets in 2007⁴²⁵ and has also been observed over multiple years during bird surveys conducted from 1988 through 2006.⁴²⁶ The proposed removal of riparian vegetation and/or construction-related noise could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of bird nests on the site that may be disturbed or removed, the loss of active nests would be a significant impact. In order to avoid impacts to this species, the project applicant would implement mitigation measures to reduce the impacts to yellow-breasted chat before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** (special-status species presence/absence survey requirements) and **SP 4.6-59** (consultation with the CDFG prior to surveys to establish appropriate survey methodology). This impact

⁴²⁴ K.P. Eckerle and C.F. Thompson. "Yellow-Breasted Chat (*Icteria virens*)." In *The Birds of North America*, ed. A. Poole and F. Gill, 575 (Philadelphia: The Birds of North America, Inc., 2001).

⁴²⁵ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

⁴²⁶ Guthrie, *Status of the Least Bell's Vireo along the Santa Clara River and Its Tributaries near Valencia, California, Spring 1988*; Guthrie, *Status of the Least Bell's Vireo along the Santa Clara River and Its Tributaries near Valencia, California, Spring 1989*; Guthrie, *Birds along the Santa Clara River and Its Tributaries near Valencia, California, with Special Reference to Least Bell's Vireo*; Guthrie, *Surveys for Least Bell's Vireo*; Guthrie, *Surveys along Castaic Creek for least Bell's Vireo*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries* (1992); Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries* (1993); Guthrie, *Bird Surveys along the Santa Clara River, 1993*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries* (1994); Guthrie, *Bird Surveys along the Santa Clara River, 1994*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1995*; Guthrie, *Bird Surveys along the Santa Clara River, 1995*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1996*; Guthrie, *Bird Surveys along the Santa Clara River, 1996*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries, near Valencia, California 1997*; Guthrie, *Bird Surveys along the Santa Clara River, 1997*; Guthrie, *Bird Surveys along the Santa Clara River, 1998*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1998*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 1999*; Guthrie, *Bird Surveys in the Proposed Riverwood Project Area*; Guthrie, *Bird Surveys along the Santa Clara River, 1999*; Guthrie, *Bird Observations for Spring 2000 in the Proposed Mesa Development*; Guthrie, *Bird Surveys along the Santa Clara River, 2000*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2000*; Guthrie, *Bird Surveys of Castaic Junction*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2001*; Guthrie, *Bird Surveys along the Santa Clara River, 2001*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2002*; Guthrie, *Bird Surveys along the Santa Clara River, 2002*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2003*; Guthrie, *Bird Surveys along the Santa Clara River, 2003*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2004*; Guthrie, *Bird Surveys along the Santa Clara River, 2004*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries* (2005); Guthrie, *Bird Surveys along the Santa Clara River, 2005*; Guthrie, *Bird Surveys along the Santa Clara River, 2006*; Labinger, Greaves, and Haupt, *Preliminary Results of Avian Surveys*; Labinger, Greaves, and Haupt, *Results of 1997 Avian Surveys and Least Bell's Vireo Monitoring*; Labinger and Greaves, *Results of 1998 Avian Surveys and Least Bell's Vireo Monitoring*.

would also be reduced through the implementation of Mitigation Measures **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce impacts to nesting yellow-breasted chats to a level that is adverse but not significant. Impacts to this species were not addressed by the Newhall Ranch Specific Plan Program EIR, as it was not identified on site until later surveys.

Loggerhead shrike (*Lanius ludovicianus*). The loggerhead shrike is a Bird of Conservation Concern and a California Species of Special Concern. The species occurs most frequently in riparian areas along the woodland edge, grasslands with sufficient perching and butchering sites, scrublands, and open-canopied woodlands, although they can be quite common in agricultural and grazing areas and can sometimes be found in mowed roadsides, cemeteries, and golf courses. The loggerhead shrike is a breeding resident on site.⁴²⁷ It has been observed to be fairly common within California sagebrush scrub and grasslands in the Specific Plan area⁴²⁸ and has been observed within the VCC planning area;⁴²⁹ however, no mapped locations were recorded. Should this species occur on site, construction-related activities could result in the loss or abandonment of active nests. Depending on the number and extent of active nests on the site that may be disturbed or removed, the loss of active nests could be a significant impact. In order to avoid this impact to the loggerhead shrike, the project applicant would implement mitigation measures to reduce the impacts to loggerhead shrike before and during construction. Applicable mitigation measures include **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks), Mitigation Measures **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would result in the avoidance of impacts and, therefore, a significant impact would not occur. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

⁴²⁷ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

⁴²⁸ Guthrie, *Bird Surveys along the Santa Clara River, 1993*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1996*; Guthrie, *Bird Observations for Spring 2000 in the Proposed Potrero and Long Canyon Development Area*; Guthrie, *Bird Observations for Spring 2000 in the Proposed Mesa Development*; Guthrie, *Bird Surveys along the Santa Clara River, 2002*; Guthrie, *Bird Observations for Spring 2004 in the Proposed Homestead and Chiquito Areas*; Guthrie, *Bird Observations for Spring 2004 in the Proposed Mesa East and West Development*; Guthrie, *Bird Surveys along the Santa Clara River, 2005*; Labinger, Greaves, and Haupt, *Preliminary Results of Avian Surveys*; Lemons, "Focused California Gnatcatcher Surveys for Mission Village"; Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

⁴²⁹ Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries, near Valencia, California, 1995*; Guthrie, *Bird Observations in the Commerce Center Project Site*.

Black-crowned night-heron (*Nycticorax nycticorax*). The black-crowned night heron is a California Special Animal. This species is not federally listed as threatened or endangered within any part of its range. Its habitat requirements are varied, including all types of wetland areas, including fresh, brackish, and salt water ecosystems and even man-made ditches, canals, reservoirs, and wet agricultural fields.⁴³⁰ On site, this species was observed early in the year and is thought to be a wintering or migratory species within the project site. In the most recent survey, several adults and juveniles were observed along the Santa Clara River after dusk and before dawn.⁴³¹ Observations of the species were mapped along the Santa Clara River in the RMDP/SCP project area south of Landmark Village and near the Ventura County line.⁴³² No roosts or rookeries (nesting colonies) have been detected during the surveys within or adjacent to the project site during any of the surveys that have been conducted over the years. Should nesting occur adjacent to the site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of this species' bird nests on the site that may be disturbed or removed, the loss of active nests could be a significant impact. In order to avoid this impact to the black-crowned night-heron, the project applicant would implement mitigation measures to reduce impacts to the black-crowned night-heron before and during construction. Applicable mitigation measures include **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks), **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would result in the avoidance of impacts and, therefore, a significant impact would not occur. This is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Nuttall's woodpecker (*Picoides nuttallii*). The Nuttall's woodpecker is a California Special Animal. This species is not federally listed as threatened or endangered within any part of its range. The Nuttall's woodpecker is primarily found in oak woodlands, to a lesser extent in riparian woodlands, and rarely in conifer forests. Nuttall's woodpecker has been described as a species characteristic of, if not confined to, oak woodlands in California.⁴³³ It has been observed nearly every year along the Santa Clara River since surveys began in 1988. Nuttall's woodpeckers are common residents in cottonwood and willow riparian habitat along Santa Clara River, Castaic Creek and other tributaries, and in coast live oak woodlands in adjoining canyons. Bloom Biological recorded three to 14 daily within the RMDP/SCP project area in

⁴³⁰ County of Riverside, "Birds," <http://www.rctlma.org/mshcp/volume2/birds.html>. 2008.

⁴³¹ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

⁴³² Ibid.

⁴³³ Peter E. Lowther, "Nuttall's Woodpecker," *The Birds of North America Online*, ed. A. Poole, 555 (2000), <http://bna.birds.cornell.edu/bna/species/555>.

2007.⁴³⁴ Should nesting occur within or adjacent to the project site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of this species' bird nests on the site that may be disturbed or removed, the loss of active nests could be a significant impact. Applicable mitigation measures include **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks), **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would result in the avoidance of impacts and, therefore, a significant impact would not occur. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Summer tanager (*Piranga rubra*). The summer tanager is not state or federally endangered, but is a California Species of Special Concern. Western populations of summer tanagers occupy riparian woodlands dominated by willows and cottonwoods (*Populus* spp.) at lower elevations;⁴³⁵ and at higher elevations they utilize mesquite (*Prosopis* spp.) and salt cedar (*Tamarix* spp.) habitats.⁴³⁶ No individuals have been observed within the project site during annual bird surveys. One individual was observed off site west of the Ventura County line in 1993 and 1994,⁴³⁷ within Castaic Junction in 1991;⁴³⁸ in April, May, and July 1993 in dense cottonwoods downstream of the Valencia Wastewater Plant (Castaic Junction area);⁴³⁹ and it has also been observed east of the project site in 2000 and 2003.⁴⁴⁰ These observations were not mapped. If nesting occurs on site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of this species' bird nests on the site that may be disturbed or removed, the loss of active nests could be a significant impact. The project applicant would implement mitigation measures to reduce or avoid impacts to summer tanager before and during construction. Applicable mitigation measures

⁴³⁴ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

⁴³⁵ W. Douglas Robinson, "Summer Tanager." *The Birds of North America Online*. ed. A. Poole, 248 (1996), <http://bna.birds.cornell.edu/bna/species/248>; K.V. Rosenberg et al., "Community Organization of Riparian Breeding Birds: Response to an Annual Resource Peak," *Auk* 99 (1982):260-274; K.V. Rosenberg et al., *Birds of the Lower Colorado River Valley* (Tucson, Arizona: University of Arizona Press, 1991).

⁴³⁶ Robinson, "Summer Tanager."

⁴³⁷ Guthrie, *Bird Surveys along the Santa Clara River, 1993*; Guthrie, *Bird Surveys along the Santa Clara River, 1994*.

⁴³⁸ Guthrie, *Surveys for Least Bell's Vireo*.

⁴³⁹ Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries* (1993).

⁴⁴⁰ Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2000*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2003*.

include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of Mitigation Measures **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce impacts to summer tanager to a level that is adverse but not significant. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Coastal California gnatcatcher (*Poliioptila californica californica*). The coastal California gnatcatcher is a federally listed threatened species and a California Species of Special Concern. It occurs in coastal Southern California and Baja California year-round, where it depends on a variety of arid scrub habitats. While isolated occurrences of California gnatcatchers occur off site to the east and southwest, no California gnatcatchers have been observed during the course of the focused surveys conducted for this species within the Specific Plan or Entrada areas. However, during the course of surveys conducted within the VCC planning area, an individual California gnatcatcher was observed on October 5, 2007, by Dudek biologist Jeff Priest and biologist Ron Francis, a subconsultant to Dave Crawford, Compliance Biology, Inc.⁴⁴¹ Should this species occur on site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of this species' bird nests on the site that may be disturbed or removed, the loss of active nests could be a significant impact. The project applicant would implement mitigation measures to reduce or avoid impacts to California gnatcatcher before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of Mitigation Measures **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce impacts to coastal California gnatcatcher to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Vermilion flycatcher (*Pyrocephalus rubinus*). The vermilion flycatcher is a California Species of Special Concern. This species is found in riparian thickets near open, mesic habitats. It breeds in cottonwood,

⁴⁴¹ Priest, "Documentation of California Gnatcatcher Observation."

willow, mesquite, oak, sycamore, and other vegetation in desert riparian communities that are located adjacent to irrigated fields, irrigated ditches, or pastures.⁴⁴² A single individual was observed along the Santa Clara River on June 19, 1993.⁴⁴³ This is the only observation of a vermilion flycatcher from any of the many years of surveys both within and adjacent to the project site, and its location was not mapped. If nesting occurs on site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of this species' bird nests on the site that may be disturbed or removed, the loss of active nests could be a significant impact. The project applicant would implement mitigation measures to reduce or avoid impacts to vermilion flycatcher before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of Mitigation Measures **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce impacts to vermilion flycatcher to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Rufous hummingbird (*Selasphorus rufus*). The rufous hummingbird is a California Special Animal and is a Bird of Conservation Concern with regard to its nesting colony status. The rufous hummingbird uses a variety of vegetation communities that provide nectar-producing flowers. In its breeding range, the species uses open areas as well as coniferous forests, deciduous woods, riparian thickets, swamps, meadows, agricultural areas, parks, and residential areas.⁴⁴⁴ Rufous hummingbirds have been observed within and near the project area in several different years. Three rufous hummingbirds were observed in early April of 1999 by Guthrie north of SR-126 in what is now the Homestead West area.⁴⁴⁵ Another individual was observed in late March 2004 by Guthrie within Potrero Valley, Oak Valley, Long Canyon, or Onion Fields.⁴⁴⁶ Another individual was observed in early April of that year in the southern half of the

⁴⁴² Zeiner et al., *California's Wildlife: Volume II*; B.O. Wolf and S.L. Jones, Vermilion Flycatcher." The Birds of North America Online, ed. A. Poole, 484 (2000), <http://bna.birds.cornell.edu/bna/species/484>.

⁴⁴³ Guthrie, *Bird Surveys along the Santa Clara River, 1993*.

⁴⁴⁴ S. Healy and W.A. Calder, "Rufous Hummingbird." The Birds of North America Online, ed. A. Poole, 053 (2006), <http://bna.birds.cornell.edu/bna/species/053>.

⁴⁴⁵ Guthrie, *Bird Surveys in the Proposed Riverwood Project Area*.

⁴⁴⁶ Guthrie, *Bird Observations for Spring 2004 in the Proposed Potrero Valley, Long Canyon, Oak Valley and Onion Fields Development Areas*.

Legacy Village area,⁴⁴⁷ which is adjacent to the project area just south of Mission Village and east of Potrero Village. No mapped occurrences of this species were recorded. If nesting occurs on site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of this species' bird nests on the site that may be disturbed or removed, the loss of active nests could be a significant impact. In order to avoid impacts to these species, the project applicant would implement mitigation measures to reduce impacts to the rufous/Allen's hummingbird before and during construction. Applicable mitigation measures include **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks), **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce impacts to rufous hummingbirds to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Chipping sparrow (*Spizella passerina*). The chipping sparrow is a California Special Animal. This species is not federally listed as threatened or endangered within any part of its range and Sauer *et al.* have concluded that continental populations appear healthy.⁴⁴⁸ Chipping sparrows prefer open wooded habitats with a sparse or low herbaceous layer and few shrubs, if any.⁴⁴⁹ On site, this species has been observed as a common migrant in the project area, and one to 12 individuals were observed near edges of agricultural fields most days in early March.⁴⁵⁰ The chipping sparrow has been observed over multiple years during bird surveys conducted from 1988 through 2007 along the Santa Clara River within riparian scrub and woodland habitat. In order to avoid impacts to this species, the project applicant would implement mitigation measures to reduce the impacts to chipping sparrow before and during construction. Applicable mitigation measures include **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks), **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests), and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program

⁴⁴⁷ Guthrie, *Bird Observations in the Stevenson Ranch*.

⁴⁴⁸ J.R. Sauer et al., *The North American Breeding Bird Survey, Results and Analysis 1966–2000*. Version 2001.2. (Laurel, Maryland: U.S. Geological Survey, Patuxent Wildlife Research Center, 1997).

⁴⁴⁹ Zeiner et al., *California's Wildlife: Volume II*.

⁴⁵⁰ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Least Bell's vireo (*Vireo bellii pusillus*). The least Bell's vireo was state listed as endangered in 1980 and federally listed as endangered by the USFWS in 1986.⁴⁵¹ The USFWS made a final critical habitat designation for the least Bell's vireo in 1994.⁴⁵² Least Bell's vireos primarily occupy riverine riparian habitats that feature dense cover within one to two meters of the ground and a dense, stratified canopy. The least Bell's vireo inhabits low, dense riparian growth along water or along dry parts of intermittent streams and is typically associated with southern willow scrub, cottonwood forest, mulefat scrub, sycamore alluvial woodland, southern coast live oak riparian forest, arroyo willow riparian forest, wild blackberry, or mesquite in desert localities. The least Bell's vireo has been observed almost every year along the Santa Clara River within the Specific Plan area,⁴⁵³ and off site in Castaic Junction⁴⁵⁴ and has also been observed over multiple years within the VCC planning area.⁴⁵⁵ Most recently, Bloom Biological

⁴⁵¹ 51 FR 16474.

⁴⁵² 59 FR 4845.

⁴⁵³ Guthrie, *Bird Surveys along the Santa Clara River, 1993*; Guthrie, *Bird Surveys along the Santa Clara River, 1995*; Guthrie, *Bird Surveys along the Santa Clara River, 1996*; Guthrie, *Bird Surveys along the Santa Clara River, 1997*; Guthrie, *Bird Surveys along the Santa Clara River, 1998*; Guthrie, *Bird Surveys in the Proposed Riverwood Project Area*; Guthrie, *Bird Surveys along the Santa Clara River, 2000*; Guthrie, *Bird Surveys along the Santa Clara River, 2001*; Guthrie, *Bird Surveys along the Santa Clara River, 2002*; Guthrie, *Bird Surveys along the Santa Clara River, 2003*; Guthrie, *Bird Surveys along the Santa Clara River, 2004*; Guthrie, *Bird Surveys along the Santa Clara River, 2005*; Guthrie, *Bird Surveys along the Santa Clara River, 2006*; Labinger, Greaves, and Haupt, *Preliminary Results of Avian Surveys*; Labinger, Greaves, and Haupt, *Results of 1995 Avian Surveys*; Labinger, Greaves, and Haupt, *1996 Avian Survey Results*; Labinger, Greaves, and Haupt, *Results of 1997 Avian Surveys and Least Bell's Vireo Monitoring*; Labinger and Greaves, *Results of 1998 Avian Surveys and Least Bell's Vireo Monitoring*; Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

⁴⁵⁴ Guthrie *Status of the Least Bell's Vireo along the Santa Clara River and Its Tributaries near Valencia, California, Spring 1988*; Guthrie, *Birds along the Santa Clara River and Its Tributaries near Valencia, California, with Special Reference to Least Bell's Vireo*; Guthrie, *Surveys for Least Bell's Vireo*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1996*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1997*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1998*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2000*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2001*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2002*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2003*; Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2004*; Guthrie, *Bird Observations during 2004*, Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries* (2005); Guthrie, *Bird Surveys along a Portion of the Santa Clara River and Its Tributaries* (2006); Dudek and Associates, Inc., *Biological Resources Technical Report for the Entrada Site*; Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

⁴⁵⁵ Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries* (1994); Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1995*; Guthrie, *Bird Surveys along the Santa Clara River and Its Tributaries*

observed at least 56 territories and three active nests within the Specific Plan area and adjacent areas.⁴⁵⁶ If least Bell's vireos are nesting during development of the site, the proposed removal of riparian vegetation and/or construction-related noise could result in the loss or abandonment of active nests during that year's nesting season. In light of the vireo's status as a federal- and state-listed endangered species, loss of active nests of this species would be a significant impact. In order to avoid this impact to the least Bell's vireo, the project applicant would implement mitigation measures for the least Bell's vireo before and during construction. Applicable mitigation measures include **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks), **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests), and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would avoid impacts to least Bell's vireos adults, nests, eggs, nestlings, and fledglings. As a result, no significant impact would occur because no individual birds would be affected. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Yellow-headed blackbird (*Xanthocephalus xanthocephalus*). The yellow-headed blackbird is a California Species of Special Concern. This species is not federally listed as threatened or endangered within any part of its range. It is found primarily within prairie wetlands, but it is also commonly found in wetlands associated with quaking aspen parks, mountain meadows, and arid regions. This species has been observed within the Specific Plan area.⁴⁵⁷ Bloom Biological observed one individual in an agriculture field within a flock of red-winged blackbirds on April 1, 2007.⁴⁵⁸ No nesting colonies have been observed within the project site. If nesting occurs on site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of this species' bird nests on the site that may be disturbed or removed, the loss of active nests could be a significant impact. In order to avoid impacts to these species, the project applicant would implement mitigation measures to reduce impacts to the yellow-headed blackbird before and during construction. Applicable mitigation measures include **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks), **MV 4.3-15** (pre-

Tributaries near Valencia, California, 1996; Guthrie, Bird Surveys along a Portion of the Santa Clara River and Its Tributaries Upstream from the Castaic Creek Confluence, near Valencia, California, 2003; Guthrie, Bird Surveys along a Portion of the Santa Clara River and Its Tributaries (2006).

⁴⁵⁶ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

⁴⁵⁷ Guthrie, *Bird Surveys along the Santa Clara River, 1996; Guthrie, Bird Surveys along the Santa Clara River, 1997; Guthrie, Bird Surveys along the Santa Clara River and Its Tributaries near Valencia, California, 1998; Guthrie, Bird Surveys along the Santa Clara River, 2001; Bloom Biological, Inc., Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

⁴⁵⁸ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*.

construction surveys for nesting native bird species and construction setbacks for active nests), and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce impacts to yellow-headed blackbird to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Pallid bat (*Antrozous pallidus*), California Species of Special Concern; **western mastiff bat** (*Eumops perotis*), California Species of Special Concern; **western red bat** (*Lasiurus blossevillii*), California Species of Special Concern; **fringed myotis** (*Myotis thysanodes*), California Special Animal; **Yuma myotis** (*Myotis yumanensis*), California Special Animal; and **pocketed free-tailed bat** (*Nyctinomops femorosaccus*), California Species of Special Concern. These species were detected on or in the vicinity of the project site during active Anabat surveys and mist net surveys conducted in 2004 and 2006 by Impact Sciences. Suitable roosting habitat for western mastiff bat and pocketed free-tailed bat is not present, as the project site lacks rugged rocky areas and cliffs, and suitable made-structures. However, pallid bat could roost within hollow oak trees on the site. Suitable western red bat roosting habitat and fringed myotis habitat occurs throughout the project site. Forests and woodlands are primary habitats for the Yuma myotis. Should active bat roosts be present, construction-related activities could result in the direct loss or abandonment of active roost sites. In order to reduce these impacts, the project applicant would avoid direct effects on pallid bat individuals during construction and establish new day roosts (including maternity roosts) should any existing day roosts be permanently lost as a result of the project. Depending on the number and extent of day roosts that may be disturbed or removed, impacts to pallid bat could be significant. In order to reduce these impacts, the project applicant would avoid direct effects on pallid bat individuals during construction and establish new day roosts should any existing day roosts be permanently lost as a result of the project. In addition, the applicable mitigation measure for impacts during construction is **Mitigation Measure MV 4.3-18** (pre-construction surveys for active roosts of special-status bats), which requires that, no earlier than 30 days prior to the commencement of construction activities, a pre-construction survey be conducted by a qualified biologist to determine whether active roosts of special-status bats, including the pallid bat, are present on or within 300 feet of the project disturbance boundaries. Should an active maternity roost be identified (the breeding season of native bat species in California, including the pallid bat, generally occurs from April 1 through August 31), the roost shall not be disturbed and construction within 300 feet shall be postponed or halted, at the discretion of the biological monitor, until the roost is vacated and juveniles have fledged, as determined by the biologist. The applicable mitigation measures for permanent loss of roost sites are **MV 4.3-19** (day roost site replacement), which requires the project applicant to prepare and implement a bat roost site

creation plan that would establish (an) alternative roost site(s) within suitable preserved open space located at an adequate distance from sources of human disturbance and **MV 4.3-78** (culvert and bridge design to provide roosting habitat for bats), which requires a qualified biologist shall work with the project engineer to identify and incorporate structures into the design that provide suitable roosting habitat for bat species occurring in the project area. Implementation of these mitigation measures would reduce this impact to a level that is not significant. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

San Diego black-tailed jackrabbit (*Lepus californicus*). The San Diego black-tailed jackrabbit is listed as a California Species of Special Concern. The black-tailed jackrabbit occupies many diverse habitats, but is primarily found in arid regions supporting shortgrass and open or early succession scrub and chaparral habitats.⁴⁵⁹ Systematic surveys of the project area have not been conducted, but the San Diego black-tailed jackrabbit has been anecdotally observed on site.⁴⁶⁰ Based on the Impact Sciences report of the San Diego black-tailed jackrabbit in the project area,⁴⁶¹ it is assumed that the species potentially occurs in suitable habitat throughout the site. Construction-related activities could result in the impacts to individual black-tailed jackrabbit. In order to reduce impacts to this species, the project applicant would implement four mitigation measures designed to avoid impacts and otherwise capture and relocate animals away from the work area prior to construction. These animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the project applicant would conduct biological monitoring during ground-disturbing activities, in an effort to salvage animals that may be discovered during construction activities. These measures will reduce impacts to San Diego black tailed jackrabbit individuals to the extent feasible and practicable. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable mitigation measures are **MV 4.3-16** (pre-construction surveys and relocation of San Diego black-tailed jackrabbit and San Diego woodrat), **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant.

The Newhall Ranch Specific Plan Program EIR concluded that the substantial loss of habitat, and potential impacts to individuals of this species, would be considered a significant unavoidable impact;

⁴⁵⁹D.C. Zeiner et al., *California's Wildlife: Volume III.Mammals* (1990).

⁴⁶⁰Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

⁴⁶¹Ibid.

however, the mitigation proposed in the Newhall Ranch Specific Plan Program EIR was not as extensive as the mitigation recommended in this EIR. In addition to the mitigation measures described above, a total of 6,113 acres of potential habitat will be protected and managed in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area. Additional mitigation to that in the Newhall Ranch Specific Plan Program EIR includes **MV 4.3-24** (preservation of 616.3 acres of coastal scrub on site within Open Area and/or off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village); **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation); and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). This additional open space would reduce impacts to a level that is adverse, but not significant. Also, see **Wildlife Habitat Loss** for a discussion of project-related impacts to special-status wildlife due to habitat loss.

San Diego desert woodrat (*Neotoma lepida intermedia*). The San Diego desert woodrat is a California Species of Special Concern. Desert woodrats are found in a variety of shrub and desert habitats and are primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth.⁴⁶² The mammal assessment conducted by Impact Sciences⁴⁶³ found that the San Diego desert woodrat is a relatively common rodent within the Specific Plan area of the NRSP site. Dudek observed a single midden in the High Country SMA/SEA 20.⁴⁶⁴ San Diego desert woodrat was observed in Long and Potrero canyons in 2005.⁴⁶⁵ Construction-related activities would result in the direct loss of individual woodrats or active woodrat nests (stick houses). Implementation of proposed **Mitigation Measures MV 4.3-16** (pre-construction surveys and relocation of San Diego black-tailed jackrabbit and San Diego woodrat) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) would reduce the magnitude of impacts to the San Diego desert woodrat to less than significant.

⁴⁶² V.C. Bleich, "Ecology of Rodents at the United States Naval Weapons Station; Seal Beach, Fallbrook Annex, San Diego County, California" (Master's thesis, California State University, Long Beach, 1973); V.C. Bleich and O.A. Schwartz. "Observations on the Home Range of the Desert Woodrat," *Journal of Mammalogy* 56 (1975), 518–519; J. H. Brown, G.A. Lieberman, and W.F. Dengler. "Woodrats and Cholla: Dependence of a Small Population on the Density of Cacti," *Ecology* 53 (1972), 310–313; G.N. Cameron and D.G. Rainey. "Habitat Utilization by *Neotoma lepida* in the Mojave Desert," *Journal of Mammalogy* 53 (1972), 251–266; S.D. Thompson, Spatial Utilization and Foraging Behavior of the Desert Woodrat, *Neotoma lepida lepida*." *Journal of Mammalogy* 63 (1982), 570–581.

⁴⁶³ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

⁴⁶⁴ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*.

⁴⁶⁵ Chris Huntley, Aspen, personal communication with Sherri Miller, Dudek, October 2006.

The Newhall Ranch Specific Plan Program EIR concluded that the substantial loss of habitat, and potentially the direct loss of individuals of this species, would be considered a significant unavoidable impact; however, the mitigation proposed in the Newhall Ranch Specific Plan Program EIR was not as extensive as the mitigation recommended in this EIR. In addition to the mitigation measures described above, a total of 6,113 acres of potential habitat will be protected and managed in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area. Additional mitigation to that in the Newhall Ranch Specific Plan Program EIR includes **MV 4.3-24** (preservation of 616.3 acres of coastal scrub on site within Open Area and/or off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village); **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation); and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). This additional open space would reduce impacts to a level that is adverse, but not significant. Also, see **Wildlife Habitat Loss** for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Mule deer (*Odocoileus hemionus*). The mule deer is considered a CDFG trust resource and is considered a special-status species for the purposes of this analysis, because take of the species requires a game permit. Mule deer have been documented within and adjacent to the project area during focused surveys in 2004 for mammals by Impact Sciences.⁴⁶⁶ Mule deer were also observed in the High Country SMA/SEA 20 in 2005.⁴⁶⁷ Construction-related activities could result in impacts to individual mule deer. Potentially significant impacts to mule deer could occur without mitigation, depending on the number and extent of the species on site that may be disturbed or removed. In order to reduce impacts to this species, the project applicant would implement several mitigation measures designed to avoid impacts during the rearing season (i.e., the period from birth to dispersal of young) and otherwise capture and relocate animals away from the work area prior to construction. These animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the project applicant would conduct biological monitoring during ground disturbing activities, in an effort to salvage animals that may be discovered during construction activities. These measures will reduce impacts to mule deer individuals to the extent feasible and practicable. Applicable mitigation measures include the previously incorporated measures SP 4.6-53 and SP 4.6-59 (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable

⁴⁶⁶ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

⁴⁶⁷ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*.

mitigation measures are MV 4.3-26 (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and MV 4.3-30 (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Mountain lion (*Odocoileus hemionus*). The mountain lion is designated by CDFG as a Specially Protected Mammal, which means it may not be taken, injured, possessed, transported, imported, or sold without a depredation permit. The mountain lion is considered a special-status species for the purposes of this analysis. Mountain lions prefer habitats that provide cover, such as thickets of brush and timber in woodland vegetation communities.⁴⁶⁸ They also utilize caves and other natural cavities for cover and breeding. Mountain lions have been documented within and adjacent to the project area during focused surveys in 2004 for mammals by Impact Sciences.⁴⁶⁹ Specific locations for mountain lions in the project area were not provided, but it is assumed that mountain lions could occur anywhere in the project area where deer also occur. Construction-related activities could result in impacts to individual mountain lion. Potentially significant impacts to mountain lion could occur without mitigation, depending on the number and extent of the species on site that may be disturbed or removed. In order to reduce impacts to this species, the project applicant would implement several mitigation measures designed to avoid impacts during the rearing season (i.e., the period from birth to dispersal of young) and otherwise capture and relocate animals away from the work area prior to construction. These animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the project applicant would conduct biological monitoring during ground-disturbing activities, in an effort to salvage animals that may be discovered during construction activities. These measures will reduce impacts to mountain lion individuals to the extent feasible and practicable. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable mitigation measures are **MV 4.3-14** (pre-construction surveys for mountain lion natal dens and establishment of appropriate setbacks), **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of

⁴⁶⁸ D.C. Zeiner et al., *California's Wildlife: Volume III. Mammals* (Sacramento: California Department of Fish and Game, 1990).

⁴⁶⁹ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

vegetation). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

American badger (*Taxidea taxus*). The American badger is a California Species of Special Concern (CSC). Badgers are generally associated with dry, open, treeless regions, prairies and grasslands, low-intensity agriculture (e.g., pasture and dryland crops), drier open shrublands and forest, parklands, and cold desert areas.⁴⁷⁰ The badger, although not common on site, has been documented through systematic surveys and anecdotal observations of badger dens and tracks in three locations in the project area, including the Specific Plan area,⁴⁷¹ Potrero Creek in the Specific Plan area,⁴⁷² and High Country SMA/SEA 20.⁴⁷³ Construction-related activities could result in impacts to individual American badger. Potentially significant impacts to American badgers could occur without mitigation, depending on the number and extent of the species on site that may be disturbed or removed. In order to reduce impacts to this species, the project applicant would implement several mitigation measures designed to avoid impacts during the rearing season (i.e., the period from birth to dispersal of young) and otherwise capture and relocate animals away from the work area prior to construction. These animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the project applicant would conduct biological monitoring during ground-disturbing activities, in an effort to salvage animals that may be discovered during construction activities. These measures will reduce impacts to badger individuals to the extent feasible and practicable. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable mitigation measures include **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities.), **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and **MV 4.3-17** (American badger natal den avoidance). Implementation of these mitigation measures would reduce impacts to the American badger to a less than significant level. Impacts to this species were not addressed by the Newhall Ranch Specific Plan Program EIR.

⁴⁷⁰ C.A. Long, "Taxidea taxus," *Mammalian Species* 26 (1973), 1–4; Zeiner et al., *California's Wildlife: Volume III. Mammals*.

⁴⁷¹ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

⁴⁷² P. Behrends (Dudek and Associates, Inc.), personal observation of badger den in Potrero Creek during wetland delineation, August, 1, 2006.

⁴⁷³ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*.

Black bear (*Ursus americanus*). The American black bear is considered special status as a trust resource by CDFG for the purposes of this report. The black bear is found in dense, mature stands of a variety of forest types. It can utilize valley foothill riparian forests, wet meadows, and brushy stands of forests. The black bear was anecdotally observed within High Country SMA/SEA 20 in 2005.⁴⁷⁴ The specific location was not recorded, but it is assumed that black bears utilize portions of the High Country SMA/SEA 20 due to its connection to the Santa Susana Mountains to the south. Construction-related activities could result in impacts to individual black bear. Potentially significant impacts to black bear could occur without mitigation, depending on the number and extent of the species on site that may be disturbed or removed. In order to reduce impacts to this species, the project applicant would implement several mitigation measures designed to avoid impacts during the rearing season (i.e., the period from birth to dispersal of young) and otherwise capture and relocate animals away from the work area prior to construction. These animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the project applicant would conduct biological monitoring during ground disturbing activities, in an effort to salvage animals that may be discovered during construction activities. These measures will reduce impacts to badger individuals to the extent feasible and practicable. Applicable mitigation measures include the previously incorporated measures SP 4.6-53 and SP 4.6-59 (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable mitigation measures are **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Impacts to Species Potentially Occurring on the Mission Village Site

Trask shoulderband snail (*Helminthoglypta traskii traskii*). The Trask shoulderband snail is listed as a California Special Animal. Surveys of the project area for Trask shoulderband snail between November 2009 and January 2010⁴⁷⁵ were negative. However, three non-special-status shoulderband snail species were detected in the project area or surrounding areas. These included specimens tentatively identified as Southern California shoulderband snail, Vasquez rocks shoulderband snail, and Grapevine shoulderband snail. Based on these survey results, the presence of coastal scrub, riparian and chaparral vegetation communities, and the occurrence of the Trask shoulderband snail downstream along the Santa Clara

⁴⁷⁴ Ibid.

⁴⁷⁵

River in the Fillmore area, it was concluded that the Trask shoulderband snail potentially occurs in the project area. Potential direct impacts (loss of individual snails and/or microhabitats) and indirect impacts (construction-related dust and ground vibration; habitat fragmentation; off-road vehicles; cattle grazing; altered wildfire regimes; invasive plant species; increased human activity; Argentine ants; other introduced non-native snails such as decollate snails; increased activity by pet, stray, and feral cats and dogs; and pesticides) to Trask shoulderband snail, if it occurs, as a result of implementation of the proposed project would, (1) constitute a substantial direct adverse effect on this species, (2) conflict with local policies and ordinances protecting biological resources, and (3) substantially reduce the number and range of this species. Thus, this impact is significant, absent mitigation. In order to reduce direct impacts to this species, the project applicant would implement a series of mitigation measures designed to avoid or minimize the impact of project implementation on Trask shoulderband snail, if it occurs, to a level that is adverse but not significant. Applicable mitigation measures include the following previously incorporated measures:

- Mitigation Measures **SP 4.6-1** through **SP 4.6-16**, **SP 4.6-21** through **SP 4.6-26**, and **SP 4.6-63** (habitat restoration, enhancement, and preservation of the River Corridor SMA/SEA 23);
- Mitigation Measure **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23), **SP 4.6-18**(provision of transition areas adjacent to the River Corridor SMA/SEA 23), **SP 4.6-19** (requirements for transition areas adjacent to the River Corridor SMA/SEA 23).
- Mitigation Measures **SP 4.6-20**, **SP 4.6-34**, and **SP 4.6-35** (guidelines for grading activities in the River Corridor SMA/SEA 23 and the High Country SMA/SEA 20);
- Mitigation Measure **SP 4.6-27** (habitat enhancement of the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-29** through **SP 4.6-32** (recreation and access restrictions within the High Country SMA/SEA 20);
- Mitigation Measure **SP 4.6-33** (protection of transition areas between the development edge and the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-36** through **SP 4.6-42** (open space dedication of the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks); and

This impact would also be reduced through the implementation of the following:

- Mitigation Measure **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas)
- Mitigation Measure **MV 4.3-23** (development of a conceptual wetlands mitigation plan),
- Mitigation Measure **MV 4.3-24** (preservation of 616.3 acres of coastal scrub on site within Open Area and/or off site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village);
- Mitigation Measures **MV 4.3-31** through **MV 4.3-43** (wetlands mitigation plan and riparian restoration activities on the project site);
- Mitigation Measure **MV 4.3-45** (develop an integrated pest management plan that addresses pesticide use)
- Mitigation Measure **MV 4.3-47** (control of pet, stray, and feral cats and dogs in or near open space areas)
- Mitigation Measure **MV 4.3-48** (quarterly monitoring and control measures for Argentine ants for up to 5 years),
- Mitigation Measure **MV 4.3-53** (dust control measures to protect vegetation communities and special-status aquatic wildlife species);
- Mitigation Measure **MV 4.3-54** (permanent fencing along trails in the River Corridor SMA/SEA 23);
- Mitigation Measure **MV 4.3-57** (review of plant palettes and inspection of container plants for use within 200 feet of native vegetation for pests and disease; restrictions on invasive plants and irrigation).

Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. Impacts to this species were not previously analyzed as part of the Newhall Ranch Specific Plan Program EIR and Additional Analysis because the snail was identified after that environmental documentation was certified.

Southern steelhead (*Oncorhynchus mykiss*). The southern steelhead is listed as federally endangered and is a California Species of Special Concern. Within the Santa Clara River drainage, southern steelhead historically inhabited Piru Creek, Sespe Creek, Santa Paula Creek, Hopper Creek, and possibly Pole Creek.⁴⁷⁶ Presently, southern steelhead occur downstream of the proposed project in the Santa Clara River watershed in Piru Creek, between the confluence with the Santa Clara River and Santa Felicia Dam, in Sespe Creek, in Santa Paula Creek, and possibly in Hopper Creek and Pole Creek.⁴⁷⁷ Habitat for juveniles and spawning adults is described as relatively cool freshwater streams, well-oxygenated water with adequate depth and cover in the way of gravel, cobble, boulder, undercut banks, large and small woody debris, and overhanging vegetation. As non-spawning adults, southern steelhead are found in the Pacific Ocean.⁴⁷⁸ Reconnaissance surveys conducted along the Santa Clara River and tributary drainages within the Specific Plan area of the RMDP were negative in 2004 and 2005.⁴⁷⁹ This species is not expected to occur in the project area and the requisite habitat features to support spawning and rearing are not present on site. Implementation of the proposed project would not directly impact this species. Impacts to this species were not addressed by the Newhall Ranch Specific Plan Program EIR.

California red-legged frog (*Rana draytonii*). The California red-legged frog is a federally threatened species and is a California Species of Special Concern. Breeding occurs in streams, deep pools, backwaters within streams and creeks, ponds, marshes, sag ponds, dune ponds, lagoons, and stock ponds. California red-legged frogs can occur in ephemeral ponds or permanent streams and ponds; however, populations probably cannot persist in ephemeral streams. The California red-legged frog has not been observed in the project area. While there are no records of California red-legged frog from the project site in the numerous wildlife surveys conducted since 1992, the species is known from the project region. The San Marino Environmental Associates report states that Thomas Haglund observed red-legged frogs in the mid-1970s in the Santa Clara River at Fillmore and that “this may represent the last sighting of this species in the Santa Clara River” (p. 37).⁴⁸⁰ Given that this species has been documented upstream of the project site within tributaries of the river, it is possible that non-breeding frogs could move through the river corridor within the project site. Should construction and/or grading activities occur during a time period that individual frogs are moving through the river corridor, the species may be adversely affected. In order to reduce impacts to this species, the project applicant would implement a series of mitigation measures designed to limit construction activities within aquatic habitats and capture and relocate

⁴⁷⁶ Titus, Erman, and Snider. *History and Status of Steelhead*.

⁴⁷⁷ Stoeker and Kelly, *Santa Clara River Steelhead Trout*.

⁴⁷⁸ D. McEwan and T.A. Jackson. *Steelhead Restoration and Management Plan for California* (Sacramento: CDFG, 1996); P. Moyle, *Inland Fishes of California*. (Berkeley and Los Angeles: University of California Press, 2002).

⁴⁷⁹ ENTRIX, Inc., *Focused Special-Status Fish Species Habitat Assessment*.

⁴⁸⁰ SMEA, *Sensitive Aquatic Species Survey*.

animals away from the work area prior to construction. Equipment would not be operated within areas of ponded or flowing water (unless otherwise approved by the Corps and CDFG), and water containing mud, silt, and other pollutants would not be allowed to enter flowing water. Further, any California red legged frogs potentially present would be removed from the disturbance footprint by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the project applicant would conduct biological monitoring during ground disturbing activities in an effort to salvage animals that may be uncovered during construction activities.

Applicable mitigation measures include the following previously incorporated measures:

- Mitigation Measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks); and
- Mitigation Measures **SP 4.6-55** (federal and state permits for wetland impacts), and **SP 4.6-58** (NPDES and water quality permits).

Additional applicable mitigation measures include:

- Mitigation Measure **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas);
- Mitigation Measure **MV 4.3-3** (surveys of riverbed for California red-legged frog);
- Mitigation Measure **MV 4.3-8** (patrol for stranded fish and aquatic organisms);
- Mitigation Measure **MV 4.3-9** (development of a Stream Crossing and Diversion Plan);
- Mitigation Measure **MV 4.3-10** (installation of structures within the riverbed not to impair movement of aquatic life);
- Mitigation Measure **MV 4.3-11** (regulating stream diversion bypass channels and dewatering);
- Mitigation Measure **MV 4.3-12** (creation of habitat for special-status fish during construction);
- Mitigation Measure **MV 4.3-13** (prevention of mud and pollutants from entering streams and storm flows);
- Mitigation Measure **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities).

Implementation of these mitigation measures would reduce impacts to California red-legged frog to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to California red-legged frog, due to the species' limited potential to occur on the project site.

Rosy boa (*Charina trivirgata*). The rosy boa is a California Special Animal. The rosy boa inhabits rocky shrubland and desert habitats and is attracted to oases and streams but does not require permanent water.⁴⁸¹ Rosy boas were not trapped or otherwise observed during surveys conducted on portions of the Specific Plan area in 2004 and 2006.⁴⁸² Suitable habitat occurs in association with scrub, chaparral, riverbank, and oak woodland habitats, and rosy boa is presumed to occur in portions of the site supporting these habitat types. Construction-related activities could result in the direct impacts to individual animals. In order to reduce impacts to this species, the project applicant would implement four mitigation measures designed to capture and relocate animals away from the work area prior to construction. The captured animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the project applicant would conduct biological monitoring during ground-disturbing activities in an effort to salvage animals that may be uncovered during construction activities. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable mitigation measures are **MV 4.3-7** (surveys to capture and relocate special-status reptiles) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR concluded that the substantial loss of habitat, and potential impacts to individuals of this species, would be considered an unavoidable significant impact; however, the mitigation proposed in the Newhall Ranch Specific Plan Program EIR was not as extensive as the mitigation recommended in this EIR. In addition to the mitigation measures described above, a total of 6,113 acres of potential habitat will be protected and managed in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area. Additional mitigation to that in the Newhall Ranch Specific Plan Program EIR includes **MV 4.3-24** (preservation of 616.3 acres of coastal scrub on site within Open Area and/or off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village); **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement

⁴⁸¹ Stebbins, *Western Reptiles and Amphibians*.

⁴⁸² Impact Sciences, Inc., *2004 and 2006 Reptile Survey Results, Newhall Ranch Specific Plan Area*.

and creation); and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). This additional open space would reduce impacts to a level that is adverse, but not significant. Also, see **Wildlife Habitat Loss** for a discussion of project-related impacts to special-status wildlife due to habitat loss.

San Bernardino ringneck snake (*Diadophis punctatus modestus*). The San Bernardino ringneck snake is a California Special Animal. The ringneck snake is found in moist habitats, including woodlands, hardwood and conifer forest, grassland, sage scrub, chaparral, croplands/hedgerows, and gardens.⁴⁸³ San Bernardino ringneck snakes were not trapped or otherwise observed during surveys conducted on portions of the Specific Plan area in 2004 and 2006.⁴⁸⁴ Suitable habitat occurs at the project site in association with scrub, chaparral, riverbank and oak woodland habitats, and San Bernardino ringneck snake is presumed to occur in portions of the site supporting these habitat types. Construction-related activities could result in direct impacts to individual animals. In order to reduce impacts to this subspecies, the project applicant would implement two mitigation measures designed to capture and relocate animals away from the work area prior to construction. The captured animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the subspecies. In addition, the project applicant would conduct biological monitoring during ground disturbing activities in an effort to salvage animals that may be uncovered during construction activities. Applicable mitigation measures are **MV 4.3-7** (surveys to capture and relocate special-status reptiles) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce the impacts to the San Bernardino ringneck to a level that is adverse but not significant.

The Newhall Ranch Specific Plan Program EIR concluded that the substantial loss of habitat, and potential impacts to individuals of this species, would be considered an unavoidable significant impact; however, the mitigation proposed in the Newhall Ranch Specific Plan Program EIR was not as extensive as the mitigation recommended in this EIR. In addition to the mitigation measures described above, a total of 6,113 acres of potential habitat will be protected and managed in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area. Additional mitigation to that in the Newhall Ranch Specific Plan Program EIR includes **MV 4.3-24** (preservation of 616.3 acres of coastal scrub on site within Open Area and/or off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village); **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable

⁴⁸³ NatureServe, "An Online Encyclopedia of Life." Stebbins, *Western Reptiles and Amphibians*.

⁴⁸⁴ Impact Sciences, Inc., *2004 and 2006 Reptile Survey Results, Newhall Ranch Specific Plan Area*.

for oak woodland enhancement and creation); and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). This additional open space would reduce impacts to a level that is adverse, but not significant. Also, see **Wildlife Habitat Loss** for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Coast patch-nosed snake (*Salvadora hexalepis virgultea*). The coast patch-nosed snake is listed as a California Species of Special Concern. It occupies desert scrub, coastal chaparral, washes, sandy flats, and rocky areas. Coast patch-nosed snakes were not trapped or otherwise observed during surveys conducted on portions of the Specific Plan area in 2004 and 2006.⁴⁸⁵ The project area is located towards the northern extent of the subspecies' range,⁴⁸⁶ and based on the CNDDDB, the coast patch-nosed snake has been documented only south of the project area. Suitable habitat occurs in association with scrub habitat on site, and coast patch-nosed snake is presumed to occur in areas supporting this habitat type. Construction-related activities could result in direct impacts to individual animals. In order to reduce impacts to this species, the project applicant would implement a series of mitigation measures designed to capture and relocate animals away from the work area prior to construction. The captured animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the project applicant would conduct biological monitoring during ground disturbing activities in an effort to salvage animals that may be uncovered during construction activities. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable mitigation measures are **MV 4.3-7** (surveys to capture and relocate special-status reptiles) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce this impact to the coast patch-nosed snake to a level that is adverse but not significant.

The Newhall Ranch Specific Plan Program EIR concluded that the substantial loss of habitat, and potential impacts to individuals of this species, would be considered an unavoidable significant impact; however, the mitigation proposed in the Newhall Ranch Specific Plan Program EIR was not as extensive as the mitigation recommended in this EIR. In addition to the mitigation measures described above, a total of 6,113 acres of potential habitat will be protected and managed in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area. Additional mitigation to that in the Newhall Ranch Specific Plan Program EIR includes **MV 4.3-24** (preservation of

⁴⁸⁵ Impact Sciences, Inc., 2004 and 2006 Reptile Survey Results, Newhall Ranch Specific Plan Area.

⁴⁸⁶ Stebbins, *Western Reptiles and Amphibians*.

616.3 acres of coastal scrub on site within Open Area and/or off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village); **MV 4.3-28** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation); and **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). This additional open space would reduce impacts to a level that is adverse, but not significant. Also, see **Wildlife Habitat Loss** for a discussion of project-related impacts to special-status wildlife due to habitat loss.

South coast garter snake (*Thamnophis sirtalis*). The south coast garter snake is a California Species of Special Concern. No focused surveys have been conducted for this species, and no observations have been noted in previous wildlife surveys for other riparian and aquatic species.⁴⁸⁷ Natural history records for the south coast garter snake in California include sightings from Santa Clara River Valley (Ventura County), south to San Pasqual (San Diego County).⁴⁸⁸ Suitable habitat for the species occurs on-site in association with marsh, riparian and adjacent habitats. The removal of riparian vegetation and construction activities associated with the proposed bridge and/or bank protection could result in impacts to individual south coast garter snakes. Impacts to the south coast garter snake would be potentially significant, depending on the number and extent of this species that may be disturbed or removed. Implementation of proposed Mitigation Measures **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas), **MV 4.3-9** (development of a Stream Crossing and Diversion Plan), **MV 4.3-10** (installation of structures within the riverbed not to impair movement of aquatic life), **MV 4.3-11** (regulating stream diversion bypass channels and dewatering), **MV 4.3-13** (prevention of mud and pollutants from entering streams and storm flows), and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), would reduce impacts to the species to a less than significant level. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

⁴⁸⁷ SMEA, *Sensitive Aquatic Species Survey*; Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part II*; Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part III*; Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part IV*; Aquatic Consulting Services, Inc., *Aquatic Surveys along the Santa Clara River; Part I*; Impact Sciences, Inc., *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians, Newhall Ranch, Valencia, California*; Compliance Biology, Inc., *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians, River Village Project*; Impact Sciences, Inc., *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians within the Natural River Management Plan Area, Valencia, California*; Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, Castaic Creek" (2004).

⁴⁸⁸ NatureServe, "An Online Encyclopedia of Life."

Grasshopper sparrow (*Ammodramus savannarum*). The grasshopper sparrow is a California Species of Special Concern. The species frequents dense, dry or well-drained grassland, especially native grassland with a mix of grasses and forbs for foraging and nesting. Grasshopper sparrows require fairly continuous native grassland areas with occasional taller grasses, forbs, or shrubs for song perches.⁴⁸⁹ No observations of the grasshopper sparrow have been made within the project area, but potential habitat exists on site. Depending on the number and extent of this species' bird nests that may be disturbed or removed, the loss of active nests would be a potentially significant impact. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of Mitigation Measures **MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant.

Black-chinned sparrow (*Spizella atrogularis*). The black-chinned sparrow is a California Special Animal and is a USFWS Bird of Conservation Concern. This species is not federally listed as threatened or endangered within any part of its range. The black-chinned sparrow occupies arid brushlands and chaparral, although it occurs less commonly within coastal sage scrub.⁴⁹⁰ The species may use open chaparral⁴⁹¹ but usually favors moderately dense but not overgrown chaparral of mixed species and shows in lowest numbers in thick old chaparral on north-facing slopes.⁴⁹² The black-chinned sparrow was not detected within the project area or region. The species has not been detected in the area for over a dozen years; it is not believed to occur within the project area. However, the species is likely to occur as a migrant on sage scrub- and chaparral-covered hillsides and a few could remain to breed on more rugged slopes on the borrow and grading sites. Should this species occur on the site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of this species' bird nests that may be disturbed or removed, the loss of active nests would be a potentially significant impact. The project applicant would implement mitigation measures to reduce or avoid impacts to black-chinned sparrow before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP**

⁴⁸⁹ Garrett and Dunn, *The Birds of Southern California*.

⁴⁹⁰ P. Unitt, *San Diego County Bird Atlas*. No. 39. October 31, 2004 *Proceedings of the San Diego Society of Natural History* (Ibis Publishing Company, 2004); Garrett and Dunn, *The Birds of Southern California*.

⁴⁹¹ Garrett and Dunn, *The Birds of Southern California*.

⁴⁹² Chris R. Tenney, "Black-Chinned Sparrow." *The Birds of North America Online*, ed. A. Poole, 270 (1997), <http://bna.birds.cornell.edu/bna/species/270>; Unitt, *San Diego County Bird Atlas*.

4.6-59 (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of **Mitigation Measures MV 4.3-15** (pre-construction surveys for nesting native bird species and construction setbacks for active nests) and **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Ringtail Cat (*Bassariscus astutus*). The ringtail cat (ringtail) is a California Fully Protected species. Suitable habitat for ringtails consists of broken semi-arid country with a mixture of hardwood forest and shrubland in close association with rocky areas or riparian habitats.⁴⁹³ Although no ringtails were documented during the mammal survey, Impact Sciences concluded that the species has a moderate potential to occur on site in dense woodland or riparian areas.⁴⁹⁴ However, this species has never been observed in the numerous wildlife surveys conducted in the Specific Plan area, including recent wildlife surveys conducted by Dudek.⁴⁹⁵ Should ringtail be present, construction-related activity could result in direct impacts to individual ringtail. Potentially significant impacts to ringtail could occur without mitigation, depending on the number and extent of the species on site that may be disturbed or removed. In order to reduce impacts to this species, the project applicant would implement several mitigation measures designed to avoid impacts, including conducting pre-construction surveys for ringtail in suitable habitat in and within 300 feet of the construction zone and, if the species is observed in the breeding and rearing period, no construction-related activities shall occur within 300 feet until it has been determined that construction activities would not adversely affect the rearing of young. In addition, the project applicant would conduct biological monitoring during ground disturbing activities, in an effort to salvage animals that may be discovered during construction activities. These measures will reduce impacts to badger individuals to the extent feasible and practicable. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable mitigation measures include **MV 4.3-26** (pre-construction educational meetings, construction-limit

⁴⁹³ I. Poglayen-Neuwall and D.E. Toweill. "Bassariscus astutus," *Mammalian Species* 327 (1988), 1-8; Zeiner et al., *California's Wildlife: Volume III. Mammals*.

⁴⁹⁴ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

⁴⁹⁵ Dudek and Associates, Inc., *2006 Spineflower Monitoring Pilot Study* (2006); Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*; Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch Specific Plan Area*; Dudek and Associates, Inc., *Biological Resources Technical Report for the Valencia Commerce Center*.

staking, and biological monitoring during vegetation clearing and grading activities), **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and **MV 4.3-49** (ringtail avoidance). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Townsend's big-eared bat (*Corynorhinus townsendii townsendii*), California Species of Special Concern; **western small-footed myotis** (*Myotis ciliolabrum*), California Special Animal; and **long-legged myotis** (*Myotis volans*), California Special Animal. These bat species have not been observed on the project site, but given the presence of suitable habitat, these species could roost and/or forage on or adjacent to the site. Should active bat roosts be present, construction-related activity could result in the direct loss or abandonment of active roost sites. In order to reduce impacts to this species, the project applicant would implement mitigation measures designed to avoid direct impacts to bat individuals during construction and to establish new day roosts should any existing day roosts be permanently lost as a result of the project. The applicable mitigation measure for impacts during construction is **MV 4.3-18** (pre-construction surveys for active roosts of special-status bats), which requires that, no earlier than 30 days prior to the commencement of construction activities, a pre-construction survey be conducted by a qualified biologist to determine whether active roosts of special-status bats are present on or within 300 feet of the project disturbance boundaries. Should an active maternity roost be identified (the breeding season of native bat species in California generally occurs from April 1 through August 31), the roost shall not be disturbed and construction within 300 feet shall be postponed or halted, at the discretion of the biological monitor, until the roost is vacated and juveniles have fledged, as determined by the biologist. The applicable mitigation measures for permanent loss of roost sites are **MV 4.3-19** (day roost site replacement), which requires the project applicant to prepare and implement a bat roost site creation plan that would establish (an) alternative roost site(s) within suitable preserved open space located at an adequate distance from sources of human disturbance and **MV 4.3-78** (culvert and bridge design to provide roosting habitat for bats), which requires a qualified biologist shall work with the project engineer to identify and incorporate structures into the design that provide suitable roosting habitat for bat species occurring in the project area. Implementation of these mitigation measures would reduce impacts to roosting bats to below a level of significance. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Southern grasshopper mouse (*Onychomys torridus*). The southern grasshopper mouse is a California Species of Special Concern. The southern grasshopper mouse is found rangewide in low arid scrub and

semi-scrub vegetation,⁴⁹⁶ and the subspecies *O. t. ramona* (which is the subspecies designated as a California Species of Special Concern) occurs in grasslands and sparse coastal scrub habitats. The mammal assessment conducted by Impact Sciences did not document the southern grasshopper mouse in the project area.⁴⁹⁷ The species also was not captured in pitfall trapping studies in 2004 and 2006 that were conducted primarily to inventory the reptiles and amphibians in the project area.⁴⁹⁸ However, this species has the potential to occur on site in scrub and grassland habitat. Should this species occur on site, construction-related activities could result in direct impacts to the individual southern grasshopper mouse. In order to reduce impacts to this species, the project applicant would conduct biological monitoring during ground-disturbing activities, in an effort to salvage animals that may be discovered during construction activities. These measures will reduce impacts southern grasshopper mouse individuals to the extent feasible and practicable. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable Mitigation Measure **MV 4.3-26** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) would also be implemented. Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis. See **Wildlife Habitat Loss**, for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Impacts to Special-Status Wildlife Species Occurring Downstream of the Project Site

The following special-status wildlife species are known to, or could, occur within the Santa Clara River downstream of the Mission Village project site: Santa Ana sucker, unarmored threespine stickleback, arroyo chub, arroyo toad, California red-legged frog, southwestern pond turtle, and two-striped garter snake. The *Flood Technical Report for the Mission Village Project*⁴⁹⁹ found that there would be no significant changes in water flows, velocities, depth, sedimentation or floodplain and channel conditions downstream of the project site as a result of the proposed project (see **Appendix 4.2**). These hydraulic effects were also found to be insufficient to alter the amount, location, and nature of aquatic and riparian

⁴⁹⁶ D.H. Frank and E.J. Heske. "Seasonal Changes in Space Use Patterns in the Southern Grasshopper Mouse, *Onychomys torridus torridus*," *Journal of Mammalogy* 73 (1992), 292–298; R. McCarty, "Onychomys torridus," *Mammalian Species* 59 (1975), 1–5.

⁴⁹⁷ Impact Sciences, Inc., *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

⁴⁹⁸ Impact Sciences, Inc., *2004 and 2006 Reptile Survey Results, Newhall Ranch Specific Plan Area*.

⁴⁹⁹ PACE, *Flood Technical Report for the Mission Village Project*.

habitats in the project area and downstream into Ventura County. The technical analysis further determined that the river would still retain sufficient width to allow natural fluvial processes to continue; consequently the mosaic of habitats in the river that support various sensitive species would be maintained and the population of the species within and immediately adjacent to the river corridor would not be significantly affected. Based on that technical assessment, and the analysis of these species and their habitat described in the PACE 2006 report⁵⁰⁰ (these conclusions were reached by ENTRIX based upon the PACE report), no significant impacts to downstream populations of these special-status wildlife species are expected to occur.

(i) Sensitive Plant Communities

As discussed under **subsection 7.c**, CDFG has identified as sensitive four of the plant communities found within the Mission Village project site: big sagebrush scrub, Mexican elderberry scrub, southern willow scrub, and southern cottonwood–willow riparian. In addition to those vegetation communities ranked as G1, G2, or G3, riparian and wetland vegetation communities on site are considered special-status, including herbaceous wetland, river wash, alluvial scrub, giant reed, arrow weed scrub, and mulefat scrub. Given the occurrence of *Artemisia tridentata* ssp. *parishii* (which is considered special status by the County of Los Angeles) within the big sagebrush scrub community, this EIR treats big sagebrush scrub as a special-status vegetation community as well. Impacts to these sensitive plant communities are discussed below.

Herbaceous Wetland (NA/NA⁵⁰¹). The project site contains 4.0 acres of herbaceous wetland. The proposed project would result in the permanent conversion of 0.4 acre of herbaceous wetland, and 1.0 acre would be temporarily disturbed by bank stabilization and/or haul roads; however, this area would be revegetated following completion of construction. Of the total 1.2 acres present within the boundaries of the River Corridor SMA/SEA 23, 0.4 acre would be developed and 0.8 acre would be temporarily disturbed. Given the riparian nature of this plant community, the loss of herbaceous wetland would be a significant impact. To address this impact, the following mitigation measures are recommended:

- **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-63** (habitat restoration/enhancement in the River Corridor SMA/SEA 23; 1:1 riparian resource replacement),
- **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),

⁵⁰⁰ PACE, *Flood Technical Report for the Mission Village Project*.

⁵⁰¹ A conservation status rank is not applicable because the species is not a suitable target for conservation activities.

- **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23),
- **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23),
- **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23),
- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas),
- **MV 4.3-23** (development of a conceptual wetlands mitigation plan),
- **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and
- **MV 4.3-31** through **MV 4.3-41** (wetlands mitigation plan and riparian restoration activities on the project site).

Once implemented, these mitigation measures would reduce impacts to this plant community to below a level of significance. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR, which analyzed impacts on this plant community as part of its assessment of the overall loss of wildlife habitat (**subsection 9.b.1.(b), Wildlife Habitat Loss**).

River Wash (NA/NA). The project site contains 115.1 acres of river wash. The proposed project would result in the permanent conversion of 9.7 acres of river wash. An additional 10.0 acres would be temporarily disturbed by bank stabilization and/or haul roads, but would be revegetated following completion of construction. Of the total acreage present within the boundaries of the River Corridor SMA/SEA 23, 2.3 acres would be developed and 5.5 acres would be temporarily disturbed. The river wash in the project study area occurs in CDFG and Corps jurisdiction where it is associated with (1) wetlands, (2) state and/or U.S. waters, and (3) seasonally wetted portions of river wash. These areas may provide breeding habitat for aquatic species. Because river wash is a riparian vegetation community, the losses resulting from the project would represent a significant impact on biological resources absent mitigation. Impacts to this vegetation community also would be considered significant due to their potential to affect numerous sensitive species, which use this habitat, including the unarmored threespine stickleback, arroyo chub, arroyo toad, and others. To address this impact, the following mitigation measures are recommended:

- **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-63** (habitat restoration/enhancement in the River Corridor SMA/SEA 23; 1:1 riparian resource replacement),

- **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),
- **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23),
- **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23),
- **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23),
- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas),
- **MV 4.3-23** (development of a conceptual wetlands mitigation plan),
- **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and
- **MV 4.3-31** through **MV 4.3-41** (wetlands mitigation plan and riparian restoration activities on the project site).

Once implemented, these mitigation measures would reduce impacts to this plant community to below a level of significance. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR, which analyzed impacts to this plant community as part of its assessment of the overall loss of wildlife habitat (see **subsection 9.b.1.(b), Wildlife Habitat Loss**).

Alluvial Scrub (NA/NA). The project site contains 0.5 acre of alluvial scrub. The proposed project would result in no permanent conversion of alluvial scrub; however, 0.5 acre would be temporarily disturbed by bank stabilization and/or haul roads, but would be revegetated following completion of construction. The alluvial scrub in the project study area occurs in CDFG and Corps jurisdiction where it is associated with (1) wetlands, (2) state and/or U.S. waters, and (3) seasonally wetted portions of alluvial scrub. These areas may provide breeding habitat for aquatic species. Because alluvial scrub is a riparian vegetation community, the losses resulting from the project would represent a significant impact on biological resources absent mitigation. Impacts to this vegetation community also would be considered significant due to their potential to affect numerous sensitive species, which use this habitat, including the unarmored threespine stickleback, arroyo chub, arroyo toad, and others. To address this impact, the following mitigation measures are recommended:

- **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-63** (habitat restoration/enhancement in the River Corridor SMA/SEA 23; 1:1 riparian resource replacement),

- **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),
- **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23),
- **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23),
- **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23),
- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas),
- **MV 4.3-23** (development of a conceptual wetlands mitigation plan),
- **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and
- **MV 4.3-31** through **MV 4.3-41** (wetlands mitigation plan and riparian restoration activities on the project site).

Once implemented, these mitigation measures would reduce impacts to this plant community to below a level of significance. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR, which analyzed impacts to this plant community as part of its assessment of the overall loss of wildlife habitat (see **subsection 9.b.1.(b), Wildlife Habitat Loss**).

Big Sagebrush Scrub (35.110.00). The project site contains 24.6 acres of big sagebrush scrub, of which 15.8 acres would be developed and 6.5 acres would be temporarily disturbed by bank stabilization and/or haul roads (but would be revegetated following completion of construction). Of the total acreage present within the boundaries of the River Corridor SMA/SEA 23, 0.8 acre would be developed and 0.2 acre would be temporarily disturbed. Given that *Artemisia tridentata* ssp. *parishii* (which is considered sensitive by the County of Los Angeles) occurs within the big sagebrush scrub community, and that this plant community is considered sensitive by the CDFG, the loss of big sagebrush scrub would be a significant impact. Implementation of the following mitigation measures will address these impacts:

- **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-63** (habitat restoration/enhancement in the River Corridor SMA/SEA 23; 1:1 riparian resource replacement),
- **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),

- **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23),
- **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23),
- **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23),
- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas),
- **MV 4.3-23** (development of a conceptual wetlands mitigation plan),
- **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and
- **MV 4.3-31** through **MV 4.3-41** (wetlands mitigation plan and riparian restoration activities on the project site).

Once implemented, these mitigation measures would reduce impacts to big sagebrush scrub to a less than significant level. The Newhall Ranch Specific Plan Program EIR analyzed this impact as part of its assessment of the overall loss of wildlife habitat (see **subsection 9.b.1.(b), Wildlife Habitat Loss**).

Giant Reed (42.080.00). The project site contains 5.6 acres of giant reed. The proposed project would not result in the permanent conversion of giant reed; however, 0.1 acre would be temporarily disturbed by bank stabilization and/or haul roads, but would be revegetated following completion of construction. Of the total acreage present within the boundaries of the River Corridor SMA/SEA 23, 0.1 acre would be temporarily disturbed. Given the riparian nature of this plant community, the impacts to giant reed would be significant. To address this impact, the following mitigation measures are recommended:

- **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-63** (habitat restoration/enhancement in the River Corridor SMA/SEA 23; 1:1 riparian resource replacement),
- **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),
- **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23),
- **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23),
- **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23),

- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas),
- **MV 4.3-23** (development of a conceptual wetlands mitigation plan),
- **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and
- **MV 4.3-31 through MV 4.3-41** (wetlands mitigation plan and riparian restoration activities on the project site).

Once implemented, these mitigation measures would reduce impacts to this plant community to below a level of significance. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR, which analyzed impacts to this plant community as part of its assessment of the overall loss of wildlife habitat (see **subsection 9.b.1.(b), Wildlife Habitat Loss**).

Arrow Weed Scrub (63.710.00). The project site contains 7.6 acres of arrow weed scrub. The proposed project would result in the permanent conversion of 4.9 acres of arrow weed scrub. An additional 2.0 acres would be temporarily disturbed by bank stabilization and/or haul roads, but would be revegetated following completion of construction. Of the total acreage present within the boundaries of the River Corridor SMA/SEA 23, 2.1 acres would be developed and 1.1 acres would be temporarily disturbed. Given the riparian nature of this plant community, the impacts to arrow weed scrub would be significant. To address this impact, the following mitigation measures are recommended:

- **SP 4.6-1 through SP 4.6-16 and SP 4.6-63** (habitat restoration/enhancement in the River Corridor SMA/SEA 23; 1:1 riparian resource replacement),
- **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),
- **SP 4.6-18 and SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23),
- **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23),
- **SP 4.6-21 through SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23),
- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas),
- **MV 4.3-23** (development of a conceptual wetlands mitigation plan),

- **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and
- **MV 4.3-31 through MV 4.3-41** (wetlands mitigation plan and riparian restoration activities on the project site).

Once implemented, these mitigation measures would reduce impacts to this plant community to below a level of significance. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR, which analyzed impacts to this plant community as part of its assessment of the overall loss of wildlife habitat (see **subsection 9.b.1.(b), Wildlife Habitat Loss**).

Mexican Elderberry Scrub (63.410.00). The project site contains 5.8 acres of Mexican elderberry scrub. Given that this plant community is relatively uncommon in the project area and is considered sensitive by the CDFG, without mitigation, the permanent loss of 5.3 acres, in addition to the temporary loss of 0.3 acre of Mexican elderberry scrub would be a significant impact. To address this impact, the following mitigation measures are recommended:

- **SP 4.6-1 through SP 4.6-16 and SP 4.6-63** (habitat restoration/enhancement in the River Corridor SMA/SEA 23; 1:1 riparian resource replacement),
- **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),
- **SP 4.6-18 and SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23),
- **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23),
- **SP 4.6-21 through SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23),
- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas),
- **MV 4.3-23** (development of a conceptual wetlands mitigation plan),
- **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and
- **MV 4.3-31 through MV 4.3-41** (wetlands mitigation plan and riparian restoration activities on the project site).

Once implemented, these mitigation measures would reduce impacts to this plant community to below a level of significance. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Mulefat Scrub (63.410.00). The project site contains 1.8 acres of mulefat scrub, of which 0.5 acre would be developed and 1.2 acres would be temporarily disturbed by bank stabilization and/or haul roads (but would be revegetated following completion of construction). Of the total acreage present within the boundaries of the River Corridor SMA/SEA 23, 0.2 acre would be developed and 0.4 acre would be temporarily disturbed. Given the biological value of this riparian habitat, and because this plant community is considered sensitive and is under the jurisdiction of the CDFG, the loss of mulefat scrub would be a significant impact. To address this impact, the following mitigation measures are recommended:

- **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-63** (habitat restoration/enhancement in the River Corridor SMA/SEA 23; 1:1 riparian resource replacement),
- **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),
- **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23),
- **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23),
- **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23),
- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas),
- **MV 4.3-23** (development of a conceptual wetlands mitigation plan),
- **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and
- **MV 4.3-31** through **MV 4.3-41** (wetlands mitigation plan and riparian restoration activities on the project site).

Once implemented, these mitigation measures would reduce impacts to this plant community to below a level of significance. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Southern Willow Scrub (61.208.00). The project site contains 1.5 acres of southern willow scrub, of which 0.7 acre would be developed and 0.1 acre would be temporarily disturbed by bank stabilization and/or haul roads (but would be revegetated following completion of construction). Of the total acreage present within the boundaries of the River Corridor SMA/SEA 23, 0.1 acre would be developed and <0.1 acre would be temporarily disturbed. Given the biological value of this habitat, and because this plant community is considered sensitive and is under the jurisdiction of the CDFG, the loss of southern willow scrub would be a significant impact. To address this impact, the following mitigation measures are recommended:

- **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-63** (habitat restoration/enhancement in the River Corridor SMA/SEA 23; 1:1 riparian resource replacement),
- **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),
- **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23),
- **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23),
- **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23),
- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas),
- **MV 4.3-23** (development of a conceptual wetlands mitigation plan),
- **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and
- **MV 4.3-31** through **MV 4.3-41** (wetlands mitigation plan and riparian restoration activities on the project site).

Once implemented, these mitigation measures would reduce impacts to this plant community to below a level of significance. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Southern Cottonwood–Willow Riparian (61.130.02). The project site contains 109.2 acres of southern cottonwood–willow riparian forest, of which 6.4 acres would be developed and 22.4 acres would be temporarily disturbed by bank stabilization and/or haul roads (but would be revegetated following completion of construction). Of the total acreage present within the boundaries of the River Corridor SMA/SEA 23, 4.8 acres would be developed and 14.1 acres would be temporarily disturbed. Given the biological value of this riparian habitat, and because this plant community is considered sensitive and is under the jurisdiction of the CDFG, the loss of southern cottonwood willow riparian forest would be a significant impact. To address this impact, the following mitigation measures are recommended:

- **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-63** (habitat restoration/enhancement in the River Corridor SMA/SEA 23; 1:1 riparian resource replacement),
- **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),
- **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23),
- **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23),
- **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23),
- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas),
- **MV 4.3-23** (development of a conceptual wetlands mitigation plan),
- **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and
- **MV 4.3-31** through **MV 4.3-41** (wetlands mitigation plan and riparian restoration activities on the project site).

Once implemented, these mitigation measures would reduce impacts to this plant community to below a level of significance. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

(j) Jurisdictional Resources

The proposed project would result in the permanent fill of 20.76 acres and the temporary disturbance of an additional 12.06 acres of drainages under the jurisdiction of the Corps and CDFG (**Figures 4.3-11 through 4.3-11-A5, Impacted Jurisdictional Resources**). Areas to be permanently filled include 0.27 acre within Exxon Canyon, 2.69 acres within Lion Canyon, 6.56 acres within Magic Mountain Canyon, 1.30 acres within Dead-End Canyon, 4.03 acres within Middle Canyon, and 5.91 acres within the Santa Clara River and in the off-site areas: 0.32 acre within Unnamed Canyon 1, 0.31 acre within Unnamed Canyon 2, 0.69 acre within Unnamed Canyon D, and 0.19 acre within Mid Martinez Canyon.

The proposed project would also result in impacts to 2.38 acres (permanent impacts) and 13.25 acres (temporary impacts) of CDFG-only jurisdictional areas. Areas to be permanently filled include 2.16 acres within the Santa Clara River and 0.17 acre within Unnamed Canyon 2. The fill/removal/disturbance of these jurisdictional resources would be a significant impact.

Within the Corps and/or CDFG jurisdictional boundaries, the proposed project would affect the following vegetation communities and land covers:

- Santa Clara River: primarily river wash, southern cottonwood-willow riparian forest, California sagebrush scrub, coast live oak woodland, herbaceous wetlands, arrow weed scrub, giant reed grasslands, agriculture, and disturbed land.
- Exxon Canyon: primarily California sagebrush scrub, California sagebrush scrub-purple sage and California buckwheat, undifferentiated chaparral, isolated pockets of annual grasslands, and disturbed land.
- Lion Canyon: primarily California sagebrush scrub and chaparral.
- Dead-End Canyon: primarily California sagebrush scrub, California sagebrush scrub-purple sage and California buckwheat, undifferentiated chaparral, isolated pockets of annual grasslands, riparian, and disturbed land.
- Middle Canyon: primarily California sagebrush scrub, California sagebrush scrub-purple sage and California buckwheat, undifferentiated chaparral, isolated pockets of annual grasslands, and disturbed land.
- Mid-Martinez Canyon: primarily California sagebrush scrub, annual grasslands, and disturbed land.

- Magic Mountain Canyon: primarily California sagebrush scrub, California sagebrush scrub-purple sage and California buckwheat, undifferentiated chaparral, isolated pockets of annual grasslands, agriculture, and disturbed land.
- Unnamed Canyon 1: primarily California sagebrush scrub, California sagebrush scrub-California buckwheat, undifferentiated chaparral, and annual grasslands.
- Unnamed Canyon 2: primarily California sagebrush scrub, California sagebrush scrub-California buckwheat, annual grasslands, riparian, and developed and disturbed land.
- Unnamed Canyon D: primarily California sagebrush scrub, annual grasslands, riparian, and agriculture.
- Agricultural ditch: disturbed land.



Legend

- NRSP Boundary
- Mission Village Project Boundary
- Mission Village VTTM Boundary
- Permanent Impact Limits
- Temporary Impact Limits

Jurisdictional Areas

- Corps/CDFG
- CDFG only

NOTE: A jurisdictional delineation of Castaic Creek has not been conducted; therefore, jurisdictional areas within the boundaries of the project site associated with Castaic Creek have been estimated.

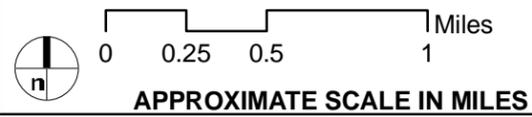


IMAGE SOURCE: DigitalGlobe 2007

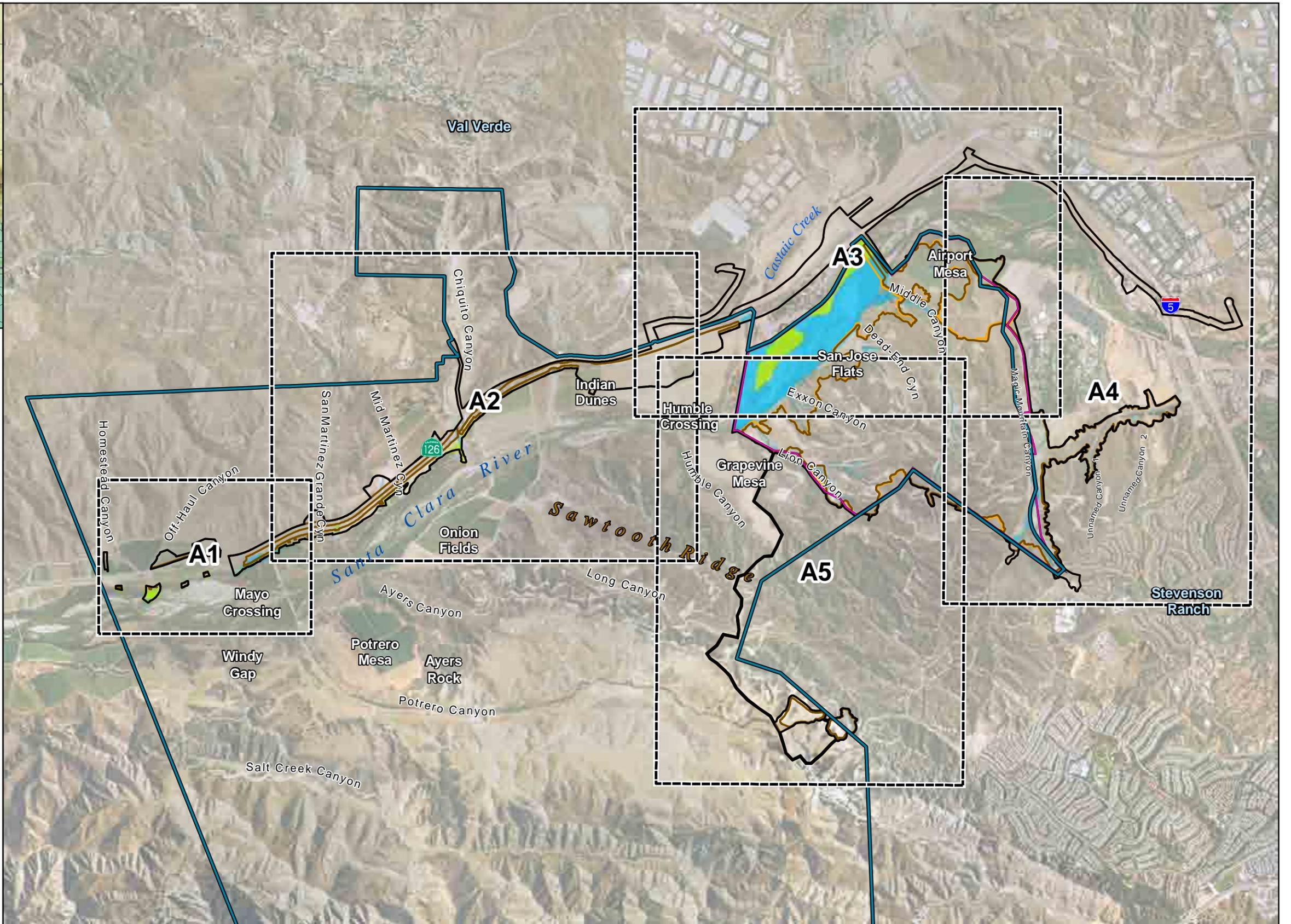


FIGURE 4.3-11

Mission Village EIR

Impacted Jurisdictional Resources

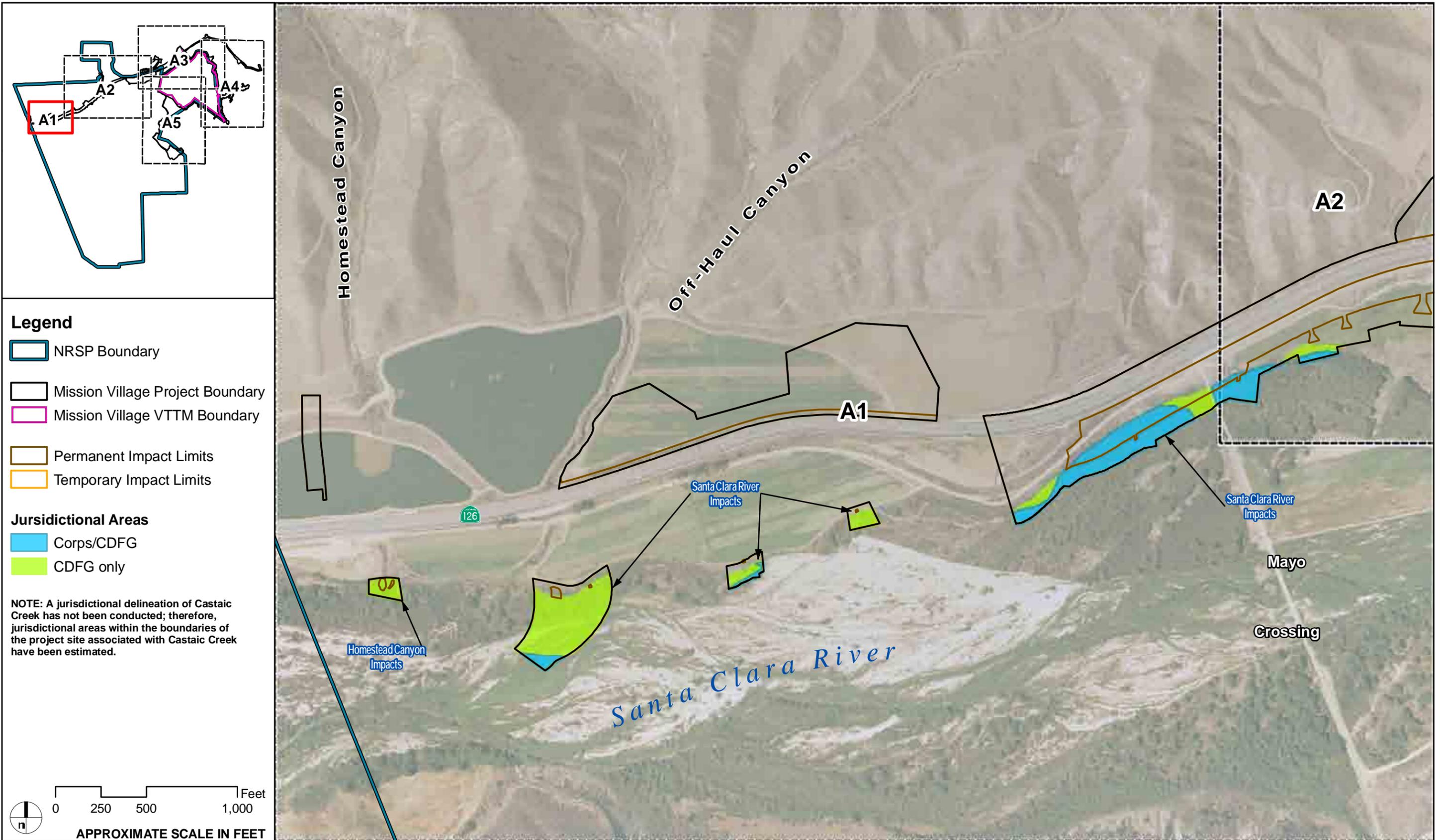


FIGURE 4.3-11-A1

Mission Village EIR

Impacted Jurisdictional Resources

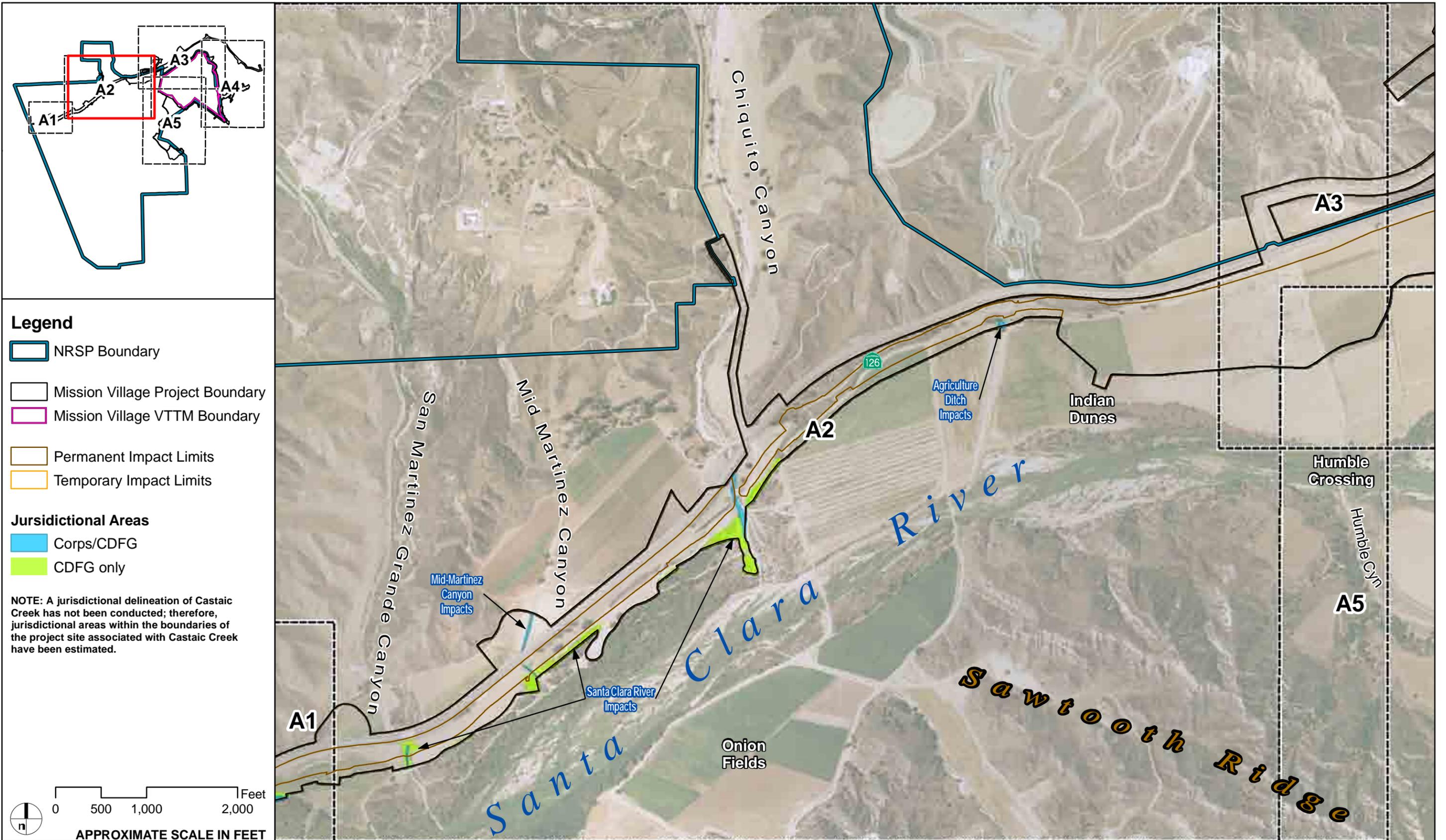


IMAGE SOURCE: DigitalGlobe 2007

FIGURE 4.3-11-A2

Mission Village EIR

Impacted Jurisdictional Resources

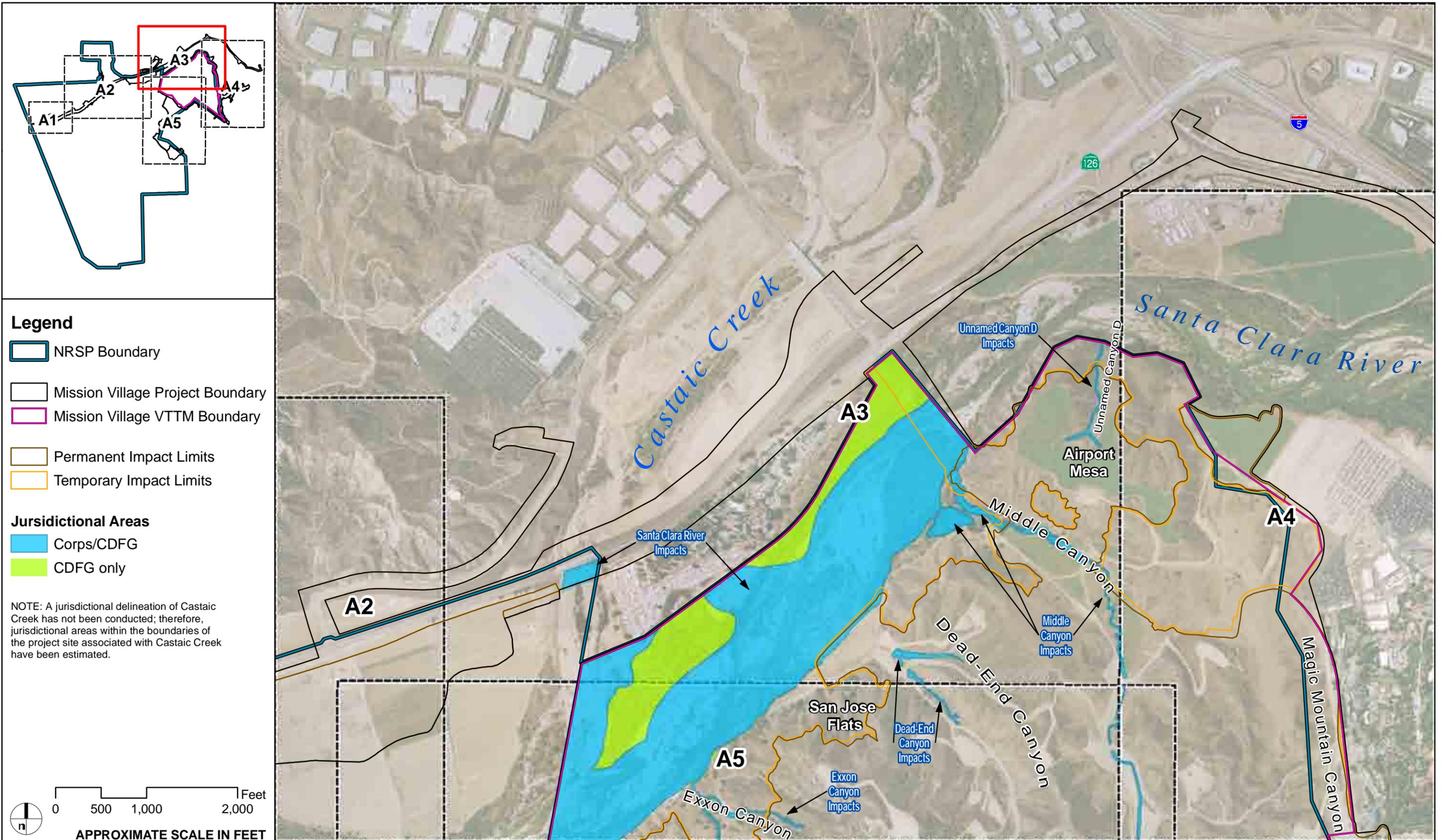


IMAGE SOURCE: DigitalGlobe 2007

FIGURE 4.3-11-A3

Mission Village EIR

Impacted Jurisdictional Resources

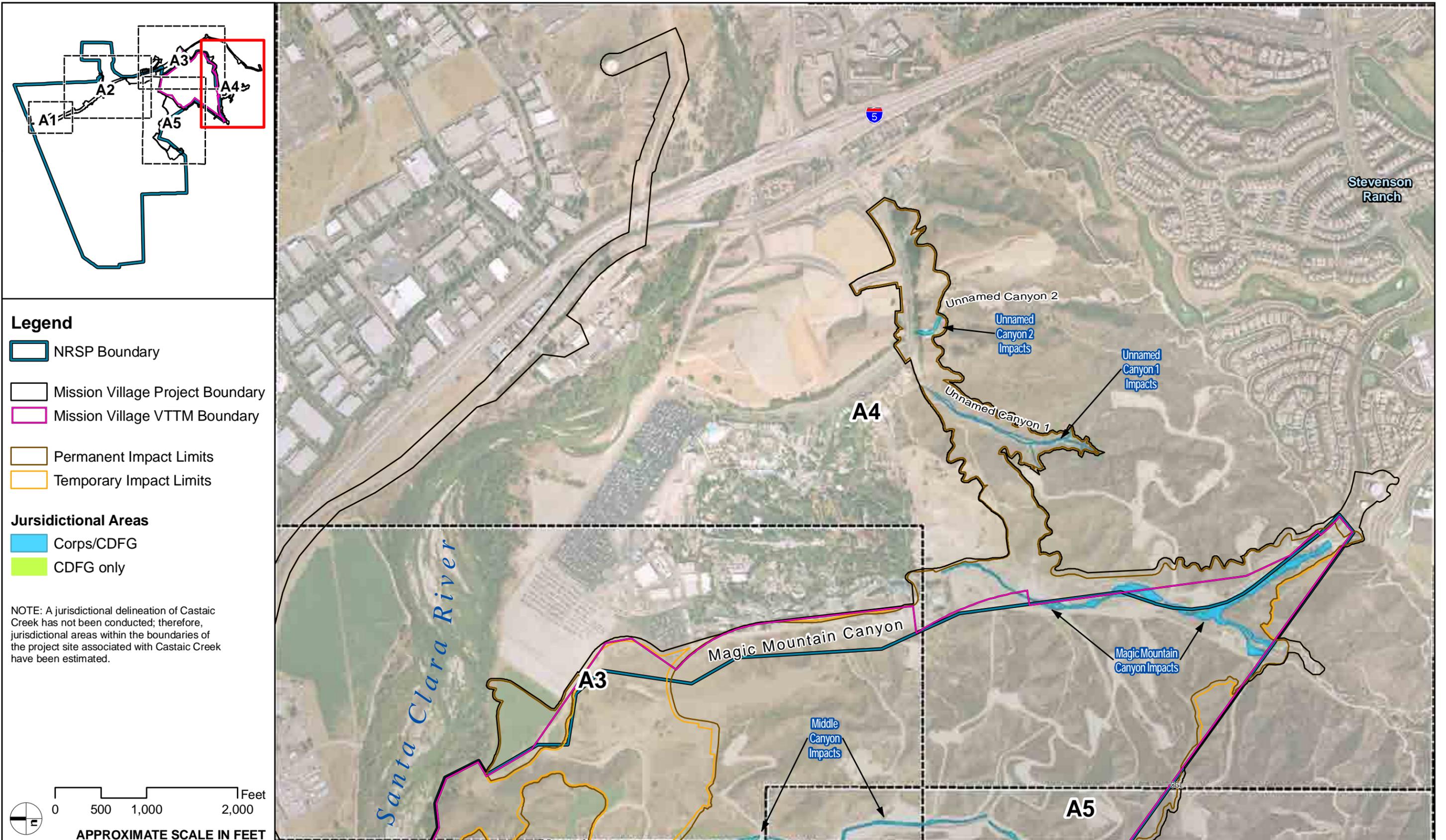


FIGURE 4.3-11-A4

Mission Village EIR

Impacted Jurisdictional Resources

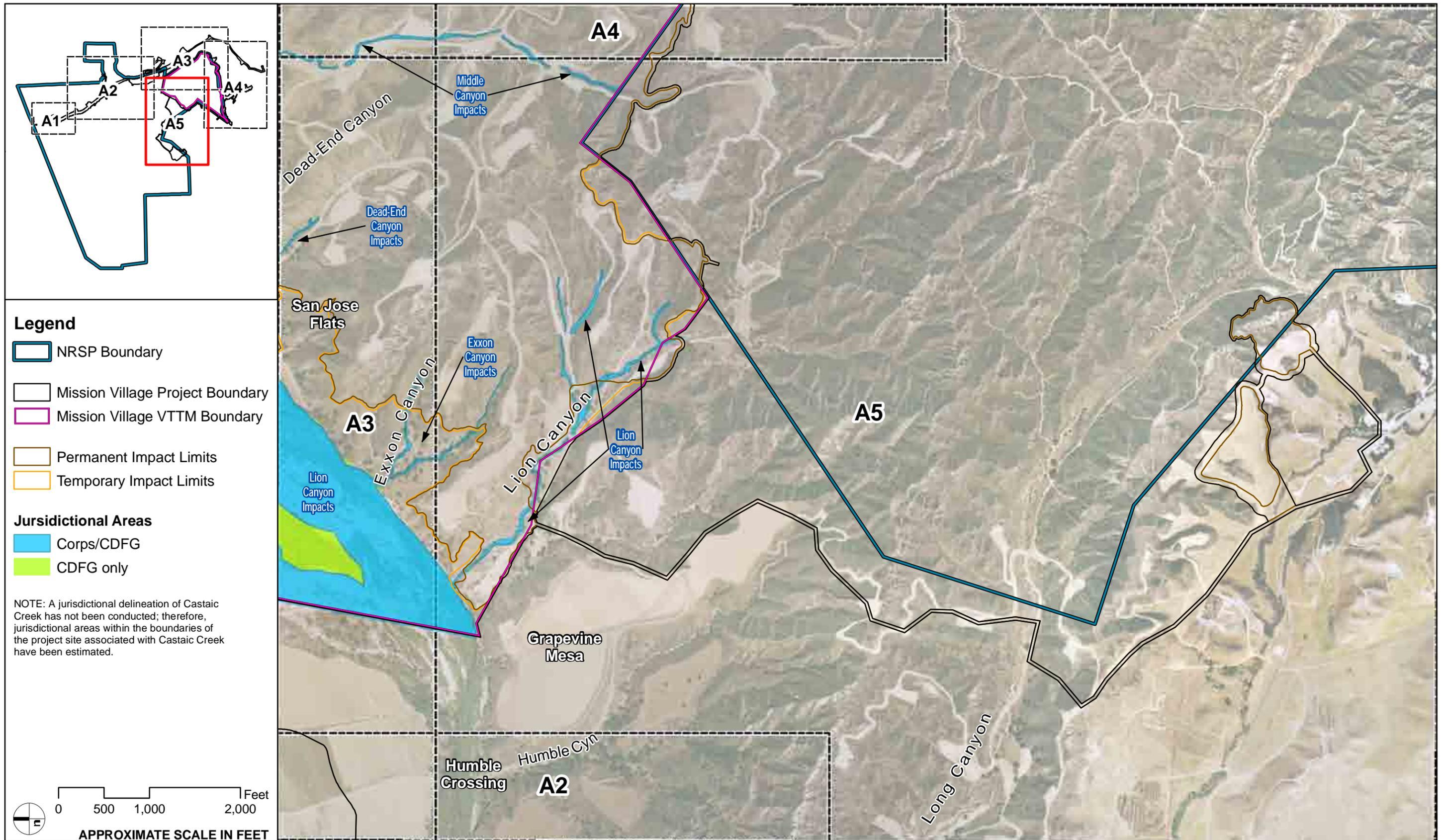


IMAGE SOURCE: DigitalGlobe 2007

FIGURE 4.3-11-A5

Mission Village EIR

Impacted Jurisdictional Resources

To address the project's potential impacts to resources within the jurisdiction of the Corps and/or CDFG, the following mitigation measures are recommended:

- **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-63** (habitat restoration/enhancement in the River Corridor SMA/SEA 23; 1:1 riparian resource replacement),
- **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),
- **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23),
- **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23),
- **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23), and
- **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas),
- **MV 4.3-23** (development of a conceptual wetlands mitigation plan),
- **MV 4.3-30** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and
- **MV 4.3-31** through **MV 4.3-41** (wetlands mitigation plan and riparian restoration activities on the project site).

Once implemented, these mitigation measures would reduce impacts to jurisdictional resources to below a level of significance. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

The Mission Village applicant is seeking approval of a Clean Water Act (CWA) long-term, individual Section 404 permit from the Corps and a Master Streambed Alteration Agreement under Fish and Game Code section 1600, *et seq.* from CDFG for the Newhall Ranch Specific Plan area, including the Mission Village site. The environmental review for these permits is in process at this time and a Final EIS/EIR was released for final public comment in June 2010. The applicant would also be subject to all measures contained in these agreements/permits, if approved. Although it is expected that these measures would feasibly mitigate impacts to jurisdictional resources, they cannot be relied upon for CEQA compliance because they have not yet been adopted by the resource agencies. Therefore, consistent with the requirements of CEQA, the applicant shall, at a minimum, also implement the above measures.

(2) Indirect Impacts

Indirect impacts to biological resources would occur in those habitat areas surrounding the development envelope, as well as in remaining habitat areas within the proposed development area, both during and after the completion of the proposed project. Indirect impacts on biological resources as a result of project development on the site can include the following: (1) increased lighting and glare effects on wildlife species in remaining and adjacent open space areas; (2) a potential increase in pesticides, herbicides and pollutants into adjacent drainages, creeks, rivers and wetlands, as a result of landscaping irrigation and stormwater runoff; (3) an increase in non-native plant and wildlife species that are adapted to more urban environments and can out compete native species for available resources, thus reducing the distribution and population of native species; (4) increased human activity and domestic animal presence that can disturb natural habitat areas and displace wildlife populations; and (5) erosion and dust resulting from construction/grading activities.

Indirect impacts associated with the proposed project are not quantifiable, but are reasonably foreseeable. As such, the following discussion identifies expected types of secondary impacts and their relative magnitude, such that decision makers and the general public are aware of the indirect impact potential associated with implementation of the proposed project. This type of analysis is consistent with the requirements of CEQA.

(a) Increased Light and Glare

The development of a residential community would increase the number of nighttime light and glare sources on the site over current levels, which are very low to non-existent. Nighttime lighting can disturb resting and foraging behavior and can potentially alter breeding cycles and nesting behavior. If uncontrolled, such light where proximal to riparian areas associated with the Santa Clara River could adversely impact the composition and behavior of the animal species that occur in the area. Because of the potential disruption to breeding, movement, and foraging behavior of wildlife species, without mitigation, increased nighttime lighting and glare associated with the proposed project is a significant impact. Implementation of Newhall Ranch Specific Plan Program EIR Mitigation Measure 4.6-56 would reduce potential impacts resulting from increased light and glare to below a level of significance.

(b) Landscaping Irrigation and Stormwater Runoff

Overirrigation of landscaped areas, especially when combined with the use of chemicals, could lead to runoff that contains pesticides, herbicides, nitrates, and other contaminants. Any runoff that flows into the river corridor containing high levels of nutrients, particularly fertilizers and waste products such as nitrogen and phosphorous, could result in eutrophication (excessive nutrient buildup). This, in turn,

could result in a depletion of available oxygen due to increased biological oxygen demand (BOD) and reduce available dissolved oxygen for aquatic organisms. Other chemicals, pesticides, and herbicides could also adversely affect aquatic systems. In addition, paved surfaces would contribute runoff into the river corridor during storm events. Depending on the magnitude and frequency of storm events and the overall level of water quality, this runoff could cause increased eutrophication, depleted oxygen levels, long-term buildup of toxic compounds and heavy metals, and other adverse effects to biological resources associated with aquatic systems.

Project Design Features (PDFs) incorporated into the project to address water quality and hydrologic impacts include site design, source control, treatment control, hydromodification control, and Best Management Practices (BMPs). Stormwater runoff from all urban areas within the proposed project will be routed to bioretention areas, media filtration, and/or dry extended detention basin treatment control PDFs. Catch basin inserts will also be used in high use parking lots to address trash and debris and petroleum hydrocarbons. A detailed discussion of the PDFs is contained in **Appendix 4.22, Draft Mission Village Water Quality Technical Report**.⁵⁰² Collectively, the water quality treatment control PDFs will treat the pollutants of concern in runoff from the project site.

The effectiveness of these proposed measures to maintain water quality in the Santa Clara River was analyzed by GeoSyntec Consultants.⁵⁰³ The following summarizes the efficacy of these PDFs in reducing impacts on surface water quality; further details of each of these analyses are included in **Appendix 4.22**.

Sediments: MS4 Permit, Construction General Permit, Dewatering General Permit, and SUSMP-compliant BMPs will be incorporated into the project to address sediment in both the construction phase and post-development phase. Mean total suspended solids concentration and loads are predicted to be less in the post-development condition than in the existing conditions. Turbidity in stormwater runoff will be controlled through implementation of a Construction SWPPP and will be permanently reduced through the stabilization of erodible soils with development. On this basis, the impact of the project on biological resources due to increased sediments is considered less than significant.

Nutrients (Phosphorous and Nitrogen (Nitrate+Nitrite-N and Ammonia-N)): MS4 Permit, Construction General Permit, Dewatering General Permit, and SUSMP-compliant BMPs will be incorporated into the project to address nutrients in both the construction phase and post-development. Although average annual loads for total phosphorous, nitrate plus nitrite, and ammonia are predicted to increase from the project (due to increased average annual runoff volumes), average concentrations are predicted to

⁵⁰² GeoSyntec Consultants, *Mission Village Water Quality Technical Report* (2006).

⁵⁰³ GeoSyntec Consultants, *Mission Village Water Quality Technical Report* (**Appendix 4.3**).

decrease. Average concentrations are also predicted to be below or in the low range of observed wet weather values for Santa Clara River Reach 5. Average nitrate-N plus nitrite-N and ammonia-N concentrations are predicted to decrease with development to values well below LA Basin Plan objectives and TMDL wasteload allocations. The predicted nutrient concentrations are not expected to cause increased algae growth. On this basis, the impact of the project on biological resources due to increased nutrients is considered less than significant.

Trace Metals: MS4 Permit, Construction General Permit, General Dewatering Permit, and SUSMP-compliant BMPs will be incorporated into the project to address trace metals in both the construction phase and post-development phase. The average annual trace metal concentrations are predicted to decrease with project development (dissolved copper are predicted to be unchanged). Average annual trace metal loads are predicted to increase due to the increase in average annual runoff volume. Predicted average annual concentrations of dissolved copper, total lead, dissolved zinc, and total aluminum are below benchmark Basin Plan objectives, California Toxics Rule (CTR) criteria, and National Ambient Water Quality Criteria (NAWQC) criteria. Cadmium is not expected to be present at significant levels in runoff discharges from the project. On this basis, the impact of the project on biological resources due to increased trace metals is considered less than significant.

Chloride: MS4 Permit, Construction General Permit, Dewatering General Permit, and SUSMP-compliant BMPs will be incorporated into the project to address chloride loads (via volume reduction) in both the construction phase and post-development phase. The mean predicted concentration and load of chloride is predicted to increase with development, although the predicted concentration is well below the LA Basin Plan objective and is near the low end of the range of observed values in the Santa Clara River Reach 5. On this basis, the impact of the project on biological resources due to increased chloride is considered less than significant.

Pesticides: Pesticides in runoff may or may not increase in the post-development phase as a result of landscape applications. Proposed pesticide management practices, including source control, removal with sediments in treatment control PDFs, and advanced irrigation controls, in compliance with the requirements of the MS4 Permit and the SUSMP will minimize the presence of pesticides in runoff. During the Construction phase of the project, erosion and sediment control BMPs implemented per General Permit and General De-Watering Permit requirements will prevent pesticides associated with sediment from being discharged. Final site stabilization will limit mobility of legacy pesticides that may be present in pre-development conditions. On this basis, the impact of the project on biological resources due to increased pesticides is considered less than significant.

Pathogens: Post-development pathogen sources include both natural and anthropogenic sources. The natural sources include bird and mammal excrement. Anthropogenic sources include leaking septic and sewer systems and pet wastes. A reduction in agriculture and open space within the project area will reduce the bacteria produced by wildlife. The project will not include septic systems and the sewer system will be designed to current standards which minimizes the potential for leaks. Thus pet wastes are the primary source of concern. The PDFs will include source controls and treatment controls which in combination should help to reduce pathogen indicator levels in post-construction stormwater runoff. Pathogens are not expected to occur at elevated levels during the construction-phase of the project. On this basis, the project's impact on biological resources due to increased pathogen and pathogen indicators is considered less than significant.

Hydrocarbons: Hydrocarbon concentrations will likely increase post-development because of vehicular emissions and leaks. In stormwater runoff, hydrocarbons are often associated with soot particles that can combine with other solids in the runoff. Such materials are subject to treatment in the proposed extended detention basins, bioretention areas, and vegetated swales. Source control BMPs incorporated in compliance with the MS4 Permit and the SUSMP requirements will also minimize the presence of hydrocarbons in runoff. During the construction phase of the project, pursuant to the Construction General Permit, the Construction Stormwater Pollution Prevention Plan must include BMPs that address proper handling of petroleum products on the construction site, such as proper petroleum product storage and spill response practices, and those BMPs must effectively prevent the release of hydrocarbons to runoff per the Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology standards. On this basis, the impact of the project on biological resources due to increased on hydrocarbons is considered less than significant.

Trash and debris: Trash and debris in runoff are likely to increase post-development if left unaddressed. However, the project PDFs, including source control and treatment BMPs incorporated in compliance with the MS4 Permit and the SUSMP requirements, will minimize the adverse impacts of trash and debris. Source controls such as street sweeping, public education, fines for littering, covered trash receptacles, and storm drain stenciling are effective in reducing the amount of trash and debris that is available for mobilization during wet weather. Trash and debris will be captured in catch basin inserts in the commercial area parking lot and in the treatment control PDFs. During the Construction phase of the project, PDFs implemented per General Permit and General De-Watering Permit requirements will remove trash and debris through the use of BMPs such as catch basin inserts and by general good housekeeping practices. Trash and debris are not expected to significantly impact receiving waters or biological resources due to the implementation of the project PDFs.

Methylene Blue Activated Substances (MBAS): In the post-development phase, the presence of soap in runoff from the project will be controlled through the source control PDFs, including a public education program on residential and charity car washing and a centralized car wash area directed to sanitary sewer in the multi-family residential areas. Other sources of MBAS, such as cross connections between sanitary and storm sewers, are unlikely given modern sanitary sewer installation methods and inspection and maintenance practices. During the construction phase of the project, equipment and vehicle washing will not use soaps or any other MBAS sources. Therefore, MBAS are not expected to significantly impact the receiving waters or biological resources under the proposed project.

Cyanide: In addition to the expected relatively low level of cyanide in untreated stormwater, cyanide in runoff from the project would be readily removed by biological uptake, degradation by microorganisms, and by volatilization in the treatment PDFs, especially the dry extended detention basins. Therefore cyanide is not expected to significantly impact the receiving waters or biological resources under the project.

Bioaccumulation: In the literature, the primary pollutants that are of concern with regard to bioaccumulation are mercury and selenium, neither of which will be introduced by the project or is naturally present at levels of concern in Santa Clara River watershed.⁵⁰⁴ On this basis, the potential for bioaccumulation in the project PDFs or in the Santa Clara River and adverse effects on waterfowl and other species is considered less than significant.

(c) Increase in Populations of Non-Native Plant and Wildlife Species

After project completion, a number of non-native plant species that are more adapted to urban environments could increase in population and potentially displace native species within the riparian corridor because of the ability of non-natives to compete more effectively for resources. It is unknown to what degree non-native plant species will displace native species in adjacent habitat areas. However, because non-native and exotic plants are commonly included in landscaping plans of both common areas and private lots of new development projects, it is reasonable to expect that project development will result in identifiable increases in non-native and/or exotic plant populations.

In particular, these plant species are often more adapted to a wider variety of growing conditions and can out-compete native plant populations for available nutrients, prime growing locations and other resources. Because these plants reproduce so quickly and in such large numbers, these species can quickly replace many native plant populations, resulting in lower species diversity, loss of suitable

⁵⁰⁴ GeoSyntec Consultants, *Mission Village Water Quality Technical Report*.

breeding and/or nesting habitat for common and special-status wildlife species, changes to the riparian ecosystem and overall reductions in habitat values. Therefore, the impact on native biological resources as a result of increased non-native plant species is considered potentially significant. Implementation of proposed Mitigation Measure **MV 4.3-57** (review of plant palettes and inspection of container plants for use within 200 feet of native vegetation for pests and disease; restrictions on invasive plants and irrigation) would reduce the magnitude of impacts resulting from an increased non-native population to below a level of significance.

Urban development also tends to attract wildlife species that are more typical of, and more adaptable to, urban settings, including house sparrows, European starlings, rock doves, brown-headed cowbirds, American crows, ravens, striped skunks, opossum, red fox, raccoons, and Norway rats. An increase in meso-predators (i.e., skunk, opossum, fox) in an area can adversely impact native rodent and bird populations. Additionally, a number of native species are not adapted to urban development and their populations tend to decrease in the vicinity of residential or recreational developments.

Developed areas also attract and encourage non-native Argentine ants. These ants have the potential to negatively impact native ant populations, which serve as secondary pollinators and seed dispersers of many native flower species. Additionally, as coast horned lizard primarily feed on native ants, the reduction of native ant populations due to the introduction of Argentine ants could adversely affect the local coast horned lizard population. As discussed in the Newhall Ranch Specific Plan Program EIR, wildlife species typical of an urban environment currently occur in the area. Accordingly, development of the proposed project would further exacerbate an already adverse condition. Therefore, the impact on native biological resources as a result of increased non-native animal species is considered significant. Implementation of proposed Mitigation Measures **MV 4.3-21** (installation of waste and recycling receptacles that discourage wildlife foraging in common areas/parks), **MV 4.3-45** (develop an integrated pest management plan that addresses pesticide use), **MV 4.3-29** (monitoring and control of invasive, non-native aquatic wildlife species for up to 5 years), **MV 4.3-48** (quarterly monitoring and control measures for Argentine ants for up to 5 years), **MV 4.3-77** (cowbird monitoring and trapping program); and **MV 4.3-79** (prevention of Argentine ant invasion) would reduce the magnitude of the project's contribution towards an already adverse condition to below a level of significance.

(d) Increased Human and Domestic Animal Presence

The proposed project would increase the number of people living and recreating adjacent to the Santa Clara River. The effect of this increase in human population would be the potential for increased human disturbances to, and ongoing degradation of, adjacent riparian habitats associated with the Santa Clara River. Increased recreation and other human activity along proposed trails and unauthorized entry into

the riparian area could result in increased noise disturbances to wildlife (especially during the breeding season of birds) which can result in nest abandonment; the harassment and/or capture of slower moving species, including certain reptiles and amphibians; the displacement of other wildlife species; an increase in the amount of refuse and pollutants in the area; compaction of soils; and trampling of ground-dwelling flora and fauna.

Increased use of the project site by future residents of Mission Village would also result in a corresponding increase in use of the area by domestic animals. Dogs can disturb nesting or roosting sites and disrupt the normal foraging activities of wildlife in adjacent habitat areas. Should this activity occur frequently, and over a long period, these disturbances may have a long-term effect on the behavior of both common and special-status species and can result in their extirpation from the area. Feral cats and house cats can cause substantial damage to the species composition of natural areas, including the populations of special-status species, through predation. Additionally, the use of anticoagulant-based rodenticides to control pest animals attracted to development areas can lead to secondary poisoning of native wildlife. Implementation of Specific Plan Mitigation Measures SP 4.6-17 through 4.6-19 (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23; transition areas along the River Corridor SMA/SEA 23), as well as proposed Mitigation Measures **MV 4.3-21** (installation of waste and recycling receptacles that discourage wildlife foraging in common areas/parks), **MV 4.3-45** through **MV 4.3-47** (develop an integrated pest management plan that addresses pesticide use; trash and debris removal from riparian habitats; and control of pet, stray, and feral cats and dogs in or near open space areas), **MV 4.3-29** (monitoring and control of invasive, non-native aquatic wildlife species for up to 5 years), and **MV 4.3-54** (permanent fencing along trails in the River Corridor SMA/SEA 23) would reduce the magnitude of impacts related to increased human and domestic animal presence. The Newhall Ranch Specific Plan Program EIR concluded that impacts caused by increased human and domestic and feral animal presence would be significant. However, with implementation of the new mitigation measures, referenced above, the proposed project's impacts resulting from increased human, domestic, and pet animal presence is considered less than significant.

(e) Construction and Grading Activities

Construction and grading activities associated with project implementation that are proposed adjacent to or within the Santa Clara River ecosystem could adversely affect sensitive vegetation and wildlife within portions of the ecosystem not directly affected. These activities can result in the following impacts: (1) siltation and erosion into creek and river drainages that could adversely affect fish spawning and movement; (2) excessive dust accumulation on vegetation that could result in the degradation or loss of some plant species; and (3) soil compaction around remaining trees. These impacts will be minimized through implementation of construction BMPs that will meet or exceed measures required by the General

Construction Permit. A Stormwater Pollution and Prevention Plan (SWPPP) will be developed as required by, and in compliance with, the General Construction Permit and Los Angeles County Standard Conditions. The General Permit requires the SWPPP to include a menu of BMPs to be selected, implemented and maintained based on the phase of construction and weather conditions to effectively control erosion and sediment to the Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology (BAT/BCT).⁵⁰⁵ BMPs to be included in this menu include, among others: slope stabilization using rock or vegetation, re-vegetation, hydro-seeding or using tackifiers on exposed areas, installation of energy dissipaters, drop structures, catch basin inlet protection, construction materials management, and cover and containment of construction materials and wastes. On this basis, the project's construction-related impacts to biological resources are considered less than significant.

10. PROJECT MITIGATION MEASURES

While development of the Newhall Ranch Specific Plan has the potential to result in significant biological impacts, the County of Los Angeles adopted mitigation measures to address these impacts as part of the Newhall Ranch Specific Plan. The mitigation measures are found in the certified Newhall Ranch Specific Plan Program EIR and the adopted Mitigation Monitoring Plan for the Specific Plan (May 2003). The project applicant has committed to implementing these mitigation measures. **Table 4.3-9** identifies previously adopted Specific Plan mitigation measures as they relate to project-specific impacts. Plant communities to be protected in perpetuity are summarized in **Table 4.3-10, Total Conservation Area and Preserved Plant Communities**.

⁵⁰⁵ BAT/BCT are Clean Water Act technology-based standards that are applicable to construction site stormwater discharges. Federal law specifies factors relating to the assessment of BAT including: age of the equipment and facilities involved; the process employed; the engineering aspects of the application of various types of control techniques; process changes; the cost of achieving effluent reduction; non-water quality environmental impacts (including energy requirements); and other factors as the administrator of the U.S. EPA deems appropriate. Clean Water Act Section 304(b)(2)(B). Factors relating to the assessment of BCT include reasonableness of the relationship between the costs of attaining a reduction in effluent and the effluent reduction benefits derived; comparison of the cost and level of reduction of such pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources; the age of the equipment and facilities involved; the process employed; the engineering aspects of the application of various types of control techniques; process changes; non-water quality environmental impact (including energy requirements); and other factors as the administrator deems appropriate. Clean Water Act Section 304(b)(4)(B). The administrator of the U.S. EPA has not issued regulations specifying BAT or BCT for construction site discharges.

a. Mitigation Measures Required by the Adopted Newhall Ranch Specific Plan, as they Relate to the Mission Village Project

The Los Angeles County Board of Supervisors adopted the following mitigation measures in connection with its approval of the Newhall Ranch Specific Plan (May 2003). Those mitigation measures applicable to the Mission Village project will be implemented, as appropriate.

**Table 4.3-9
Significant Impact and Mitigation Summary**

Significant Impact	Relevant Previously Adopted Measures	Additional Measures Proposed by This EIR	Significance After Mitigation	Consistency with Findings of Newhall Ranch Specific Plan Program EIR
Impacts to Coastal Scrub	SP 4.6-17 to SP 4.6-19, SP 4.6-21-27, SP 4.6-36 to SP 4.6-42. These measures would protect in perpetuity 1,311 acres of coastal scrub in the High Country SMA. The protection of the Salt Creek Area would preserve and additional 631 acres of this community type.	MV 4.3-24	Less than Significant	Inconsistent
Impacts to Riparian Plant Communities (i.e., Herbaceous Wetland, River Wash, Big Sagebrush Scrub, Giant Reed, Arrow Weed Scrub, Mexican Elderberry Scrub, Mulefat Scrub, Southern Willow Scrub, Tamarisk Scrub and Woodland, Southern Cottonwood-Willow Riparian).	SP 4.6-1 to SP 4.6-26, SP 4.6-63. These measures would protect in perpetuity 977.5 acres of habitat along the Santa Clara River.	MV 4.3-1, MV 4.3-23, MV 4.3-30, and MV 4.3-31 through MV 4.3-41	Less than Significant	Consistent
Impacts to Big Sagebrush Scrub	SP 4.6-1 through SP 4.6-16, SP 4.6-21 through SP 4.6-26, SP 4.6-28	MV 4.3-1, MV 4.3-23, MV 4.3-26, and MV 4.3-31 through MV 4.3-41	Less than Significant	Consistent
Impacts to Wildlife Riparian Habitat, and Buffers/Setbacks from Riparian Habitat	SP 4.6-1 through SP 4.6-26, SP 4.6-56	MV 4.3-1, MV 4.3-21, MV 4.3-23, MV 4.3-29 through MV 4.3-41, MV 4.3-45 through MV 4.3-47, and MV 4.3-57	Less than Significant	The Newhall Ranch Specific Plan Program EIR did not specifically address potential impacts to wildlife riparian habitat and buffers/setbacks from riparian habitat,
Impacts to Wildlife Upland Habitat	SP 4.6-17, SP 4.6-20 through SP 4.6-29, SP 4.6-33 through SP 4.6-43, and SP 4.6-48. The preservation of the River Corridor SMA and High Country SMA would protect approximately 5,182 acres of wildlife habitat in perpetuity. The preservation of the Salt Creek Area would protect an additional 1,518 acres of wildlife habitat in perpetuity.	MV 4.3-15, MV 4.3-24, MV 4.3-28, and MV 4.3-30.	Less than Significant	Inconsistent
Restrictions of Wildlife Movement Corridors/Habitat Linkages	SP 4.6-1 to SP 4.6-26, SP 4.6-37 to SP 4.6-42, SP 4.6-56. The preservation of the River Corridor SMA would protect a regionally important wildlife movement corridor. The preservation of the High Country SMA would protect a large area of habitat south of the River Corridor SMA (which would be linked to the River Corridor SMA by the preservation of the Salt Creek Area).	None proposed.	Less than Significant	Inconsistent. Given that the tract map site is currently used for agriculture and is frequently devoid of cover, the tract map site is not expected to be a substantial part of a regional north-south wildlife movement corridor.
Impacts to Slender Mariposa Lily	SP 4.6-27, SP 4.6-29 to SP 4.6-32, SP 4.6-33, SP 4.6-34, SP 4.6-37 to SP 4.6-42, SP 4.6-53, SP 4.6-59.	MV 4.3-26 and MV 4.3-27. Approximately 559 acres considered suitable for slender mariposa lily mitigation have been identified in the High Country SMA/SEA 20 and Salt Creek Area ⁵⁰⁶ .	Less than Significant	Consistent

⁵⁰⁶Dudek, Draft RMDP Slender Mariposa Lily Mitigation and Monitoring Plan.

**Table 4.3-9 (Continued)
Significant Impact and Mitigation Summary**

Significant Impact	Relevant Previously Adopted Measures	Additional Measures Proposed by This EIR	Significance After Mitigation	Consistency with Findings of Newhall Ranch Specific Plan Program EIR
Impacts to Southern California Black Walnut	SP 4.6-1 to SP 4.6-19, SP 4.6-21 to SP 4.6-35, SP 4.6-37 to SP 4.6-48. The preservation of the River Corridor SMA and the High Country SMA would protect approximately 585 acres of oak woodland and 300 acres of valley oak/grass in perpetuity. The preservation of the Salt Creek Area would protect approximately 266 acres of oak woodland and 113 acres of valley oak/grassland in perpetuity. In total, conservation easements would be placed over 851 acres of oak woodland and 413 acres of oak savannah (including the River Corridor SMA, the High Country SMA, and the Salt Creek Area).	MV 4.3-1, MV 4.3-23, MV 4.3-24, MV 4.3-26, MV 4.3-28, and MV 4.3-31 through MV 4.3-41.	Less than Significant	Consistent
Impacts to Parish's Sagebrush	SP 4.6-1 to SP 4.6-16, SP 4.6-21 to SP 4.6-26, SP 4.6-28.	MV 4.3-1, MV 4.3-26, MV 4.3-23, MV 4.3-24, and MV 4.3-31 through MV 4.3-41.	Less than Significant	The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.
Impacts to Undescribed Everlasting	SP 4.6-16, SP 4.6-20, SP 4.6-24, SP 4.6-53, SP 4.6-59.	MV 4.3-26, MV 4.3-28, MV 4.3-75, and MV 4.3-76.	Less than Significant	The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species as it was not known to occur on site; however, detection during more recent surveys warrants its inclusion in this analysis.
Impacts to San Fernando Valley Spineflower	SP 4.6-65 to SP 4.6-80.	MV 4.3-58 through MV 4.3-74.	Less than Significant	Consistent
Impacts to Newhall Sunflower	SP 4.6-1 through SP 4.6-16, SP 4.6-17 through SP 4.6-19, SP 4.6-21 through SP 4.6-26.	MV 4.3-11, MV 4.3-26, MV 4.3-51 through MV 4.3-57.	Less than Significant	The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species as it was not known to occur on site; however, detection during more recent surveys warrants its inclusion in this analysis.

**Table 4.3-9 (Continued)
Significant Impact and Mitigation Summary**

Significant Impact	Relevant Previously Adopted Measures	Additional Measures Proposed by This EIR	Significance After Mitigation	Consistency with Findings of Newhall Ranch Specific Plan Program EIR
Impacts to Protected Oaks Coast Live Oak Woodland, and Southern Coast Live Oak Riparian Forest	SP 4.6-1 to SP 4.6-19, SP 4.6-21 to SP 4.6-35, SP 4.6-37 to SP 4.6-48. The preservation of the River Corridor SMA and the High Country SMA would protect approximately 585 acres of oak woodland and 300 acres of oak savannah in perpetuity. The preservation of the Salt Creek Area would protect approximately 266 acres of oak woodland and 113 acres of oak savannah in perpetuity. In total, conservation easements would be placed over 851 acres of oak woodland and 413 acres of oak savannah (including the River Corridor SMA, the High Country SMA, and the Salt Creek Area).	MV 4.3-1, MV 4.3-22, MV 4.3-26, MV 4.3-23, MV 4.3-30, MV 4.3-31 through MV 4.3-41.	Less than Significant	Consistent
Impacts to Aquatic Mollusks (<i>Pyrgulopsis castaicensis</i> n. sp.)	SP 4.6-1 through SP 4.6-16, SP 4.6-17 through SP 4.6-19, SP 4.6-21 through SP 4.6-26.	MV 4.3-11, MV 4.3-26, MV 4.3-51 through MV 4.3-57, MV 4.3-44.	Less than Significant	The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species as it was not known to occur on site; however, detection during more recent surveys warrants its inclusion in this analysis.
Impacts to Terrestrial Mollusks (Trask shoulderband snail)	SP 4.6-1 through SP 4.6-27, SP 4.6-32 through SP 4.6-42, SP 4.6-53, SP 4.6-59, SP 4.6-63,	MV 4.3-1, MV 4.3-23, MV 4.3-24, MV 4.3-31 through MV 4.3-43, MV 4.3-45, MV 4.3-47, MV 4.3-48, MV 4.3-53, MV 4.3-54. MV 4.3-57.	Less than Significant	The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species as it was not known to occur on site; however, detection of other shoulderband snails in the project area during more recent surveys warrants its inclusion in this analysis.
Impacts to Special-Status Fish Species (i.e., Santa Ana Sucker, Unarmored Threespine Stickleback, and Arroyo Chub)	SP 4.6-53 SP 4.6-54, SP 4.6-57, SP 4.6-58, SP 4.6-59, SP 4.6-44.	MV 4.3-1, MV 4.3-2, MV 4.3-8 through MV 4.3-10, MV 4.3-53.	Less than Significant	Consistent
Impacts to Special-Status Amphibians and Aquatic-Associated Reptiles (i.e., Arroyo Toad, Two-Striped Garter Snake, South Coast Garter Snake, and Southwestern Pond Turtle)	SP 4.6-53, SP 4.6-55, SP 4.6-58, SP 4.6-59.	MV 4.3-1, MV 4.3-2, MV 4.3-4 through MV 4.3-8, MV 4.3-10, and MV 4.3-26.	Less than Significant	Consistent
Impacts to Western Spadefoot Toad and California Red-Legged Frog	SP 4.6-53, SP 4.6-55, SP 4.6-58, SP 4.6-59.	MV 4.3-3, MV 4.3-9, MV 4.3-10, MV 4.3-13, MV 4.3-25, and MV 4.3-26.	Less than Significant	Consistent
Impacts to Upland-Associated Special-Status Reptiles (i.e., Coast Horned Lizard, Silvery Legless Lizard, Coastal Western Whiptail, Rosy Boa, San Bernardino Ringneck Snake, and Coast Patch-Nosed Snake)	SP 4.6-37 to SP 4.6-42, SP 4.6-53, SP 4.6-59. The preservation of High Country SMA would protect in perpetuity 4,205 acres of habitat. The preservation of the Salt Creek Area would preserve an additional 1,518 acres of habitat.	MV 4.3-7 and MV 4.3-26.	Less than significant	Inconsistent

**Table 4.3-9 (Continued)
Significant Impact and Mitigation Summary**

Significant Impact	Relevant Previously Adopted Measures	Additional Measures Proposed by This EIR	Significance After Mitigation	Consistency with Findings of Newhall Ranch Specific Plan Program EIR
Impacts to Special-Status Bird Species (i.e., Least Bell's Vireo, Willow Flycatcher, Southwestern Willow Flycatcher, Western Yellow-Billed Cuckoo, Cooper's Hawk, Sharp-Shinned Hawk, Ferruginous Hawk, Tricolored Blackbird, Lawrence's Goldfinch, Turkey Vulture, Northern Harrier, Yellow Warbler, White-Tailed Kite, Yellow-Breasted Chat, Southern California Rufous-Crowned Sparrow, Western Burrowing Owl, California Horned Lark, Merlin, Prairie Falcon, American Peregrine Falcon, California Condor, Loggerhead Shrike, Long-Eared Owl, Summer Tanager, Coastal California Gnatcatcher, Vermilion Flycatcher, Golden Eagle, Short-Eared Owl, Costa's Hummingbird, Yellow-Headed Blackbird, Allen's/Rufous Hummingbird, Nuttall's Woodpecker, Chipping Sparrow, Black-Crowned Night Heron, and Oak Titmouse)	SP 4.6-53, SP 4.6-59	MV 4.3-15, MV 4.3-20, and MV 4.3-26.	Less than Significant	Inconsistent – the Tricolored Blackbird, Northern Harrier, White-Tailed Kite, Southern California Rufous-Crowned Sparrow, Western Burrowing Owl, Golden Eagle, Mountain Plover, Ferruginous Hawk and Sharp Shinned Hawk were found to be significantly impacted in the Newhall Ranch Specific Plan Program EIR, prior to the additional mitigation measures incorporated in this EIR.
Impacts to San Diego Desert Woodrat, San Diego Black-Tailed Jackrabbit, Mountain Lion, Mule Deer, American Badger, and Black Bear	SP 4.6-53, SP 4.6-59	MV 4.3-14, MV 4.3-16, MV 4.3-26, MV 4.3-17, and MV 4.3-30.	Less than Significant	Inconsistent
Impacts to Pallid Bat, Western Mastiff Bat, Western Red Bat, Long-Legged Myotis, Pocketed Free-Tailed Bat, Townsend's Big-Eared Bat, Western Small-Footed Myotis, Fringed Myotis, Yuma Myotis	No applicable measures.	MV 4.3-18, MV 4.3-19, and MV 4.3-78.	Less than Significant	Consistent (The Newhall Ranch Specific Plan Program EIR did not address potential impacts to each of these species, given their limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.)
Restriction of Wildlife Habitat Linkages	SP 4.6-18	None proposed.	Less than Significant	Consistent
Increased Light and Glare	SP 4.6-56	None proposed.	Less than Significant	Consistent
Increase in Populations of Non-Native Plant and Wildlife Species	No applicable measures.	MV 4.3-21, MV 4.3-45, MV 4.3-29, MV 4.3-48, MV 4.3-57, MV 4.3-77, and MV 4.3-79.	Less than Significant	Consistent
Increased Human and Domestic Animal Presence	SP 4.6-17 to SP 4.6-19	MV 4.3-16, MV 4.3-17, MV 4.3-29, MV 4.3-47, MV 4.3-57	Less than Significant	Inconsistent

Table 4.3-10
Total Conservation Area and Preserved Vegetation Communities, Floristic Alliances, Associations,
and Land Cover Type

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	River Corridor SMA/SEA 23 Acreage ¹	High Country SMA/SEA 20 Acreage ²	Salt Creek Acreage ³	Total Conservation Area ⁴ Acreage
Grass and Herb Dominated Communities	Non-Native Grassland	California annual grassland	Not mapped to association level	9.4	465.0	187.9	662.3
	Native Grassland	Purple needlegrass	Not mapped to association level	0.0	0.6	0.0	0.6
Scrub and Chaparral	Coastal Scrub	California sagebrush scrub	Not mapped to association level	22.3	437.0	11.8	471.1
			Burned California sagebrush scrub	0.0	784.8	615.5	1,400.3
		California sagebrush	0.4	0.3	0.0	0.7	
		California sagebrush–purple sage	31.4	84.1	2.1	117.6	
			0	0	0	0	
		Burned California sagebrush scrub–undifferentiated chaparral	2.6	5.2	0.0	7.8	
		Coyote brush scrub	Not mapped to association level	0.0	2.2	0.0	2.2
	Undifferentiated Chaparral Scrubs	Not mapped to alliance level	Not mapped to association level	1.5	537.1	9.1	547.7
			Burned undifferentiated chaparral	0.0	831.2	115.5	946.7
	Chaparral with Oak	Scrub oak chaparral	Not mapped to association level	0.0	0.2	0.0	0.2
Broad Leafed Upland Tree Dominated	Upland Walnut Woodland and Forest	California walnut woodland and forest	California walnut woodland	0.0	6.8	20.4	27.2
	Oak Woodland and Forest	Coast live oak forest and woodland	Coast live oak woodland	16.1	446.7	148.0	610.8
			Not mapped to association level	0.0	74.2	94.6	168.8
		Valley oak forest and woodland	Valley oak woodland	0.0	47.8	23.9	71.7
			Valley oak/grass	0.0	300.3	113.4	413.7

Table 4.3-10 (Continued)
Total Conservation Area and Preserved Vegetation Communities, Floristic Alliances, Associations,
and Land Cover Types

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	River Corridor SMA/SEA 23 Acreage ¹	High Country SMA/SEA 20 Acreage ²	Salt Creek Acreage ³	Total Conservation Area ⁴ Acreage
Bog and Marsh	Marsh	Bulrush-cattail wetland	Not mapped to association level	0.0	1.4	0.0	1.4
		Cismontane alkali marsh	Not mapped to association level	0.0	3.3	0.0	3.3
Riparian and Bottomland Habitat	Other Riparian/Wetland	Herbaceous wetland	Not mapped to association level	182.2	0.0	0.0	182.2
		River wash	Not mapped to association level	201.1	33.3	7.4	241.8
		Alluvial scrub	Not mapped to association level	0.0	0.5	0.4	0.9
		Big sagebrush scrub	Big sagebrush-California buckwheat	2.7	8.5	0.0	11.2
		Giant reed	Not mapped to association level	5.6	0.0	0.0	5.6
	Low to High Elevation Riparian Scrub	Arrow weed scrub	Not mapped to association level	12.6	0.0	0.7	13.3
		Mexican elderberry	Not mapped to association level	0.0	3.2	1.4	4.6
		Mulefat scrub	Not mapped to association level	15.0	14.1	20.1	49.2
	Riparian Forest and Woodland	Southern willow scrub	Not mapped to association level	13.1	4.3	2.5	19.9
		Tamarisk scrub and woodland	Shrub tamarisk	2.3	0.0	0.2	2.5
		Coast live oak forest and woodland	Southern coast live oak riparian forest	0.6	0.0	0.0	0.6
		Fremont cottonwood riparian forest and woodland	Southern cottonwood-willow riparian	318.5	0.9	0.0	319.4

Table 4.3-10 (Continued)
Total Conservation Area and Preserved Vegetation Communities, Floristic Alliances, Associations,
and Land Cover Types

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	River Corridor SMA/SEA 23 Acreage ¹	High Country SMA/SEA 20 Acreage ²	Salt Creek Acreage ³	Total Conservation Area ⁴ Acreage
Manmade Land Cover Types	Agriculture	NA		101.8	59.8	99.1	260.7
	Disturbed land	NA		37.1	52.7	43.9	133.7
			Total	976.4	4,205.5	1517.9	6,699.8

¹ The acreages and vegetation types depicted for the River Corridor SMA/SEA 23 were determined during field mapping.⁵⁰⁷

² The acreages and vegetation types depicted for the High Country SMA/SEA 20 were determined during field mapping.⁵⁰⁸

³ The acreages and vegetation types depicted for Salt Creek were determined during field mapping.⁵⁰⁹

⁴ The Conservation Area includes areas to be protected in perpetuity by conservation easements, inclusive of the River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek Area.

Mitigation measures are separated into three categories. The first includes an overview of those design features that are incorporated as part of the Specific Plan to reduce the biological impact potential. The second category includes specific mitigation measures incorporated as part of the Resource Management Plan. The last category includes additional mitigation measures recommended as part of the Newhall Ranch Specific Plan Program EIR. The specific mitigation measures in each of these categories are defined below.

(1) Specific Plan Mitigation Measures

The Specific Plan was designed to partially mitigate potential impacts to sensitive biological resources through avoidance, thus allowing maximum conservation of important biological features at the site.

⁵⁰⁷ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch Specific Plan Area*.

⁵⁰⁸ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*.

⁵⁰⁹ Ibid.

Under the Specific Plan design, development will take place in a way that minimizes the effects on sensitive biological resources. An important aspect of this approach was an analysis of the conservation value of habitats on the property, which used conservation principles and a GIS mapping methodology. An additional component of the conservation strategy was the consideration of the larger regional context in the design of biological preserves on the site. Newhall Ranch, which extends from the ridgeline of the Santa Susana Mountains across the Santa Clara River to the uplands on the north, offers the potential for significant habitat contributions to a Santa Susana Mountains open area and a key segment of the Santa Clara River system, as well as regionally important connections between these habitat areas and across the river.

The biological resource conservation strategy developed for the Newhall Ranch property addresses the sequencing recommended by the resource agencies: avoidance, minimization, and mitigation for unavoidable impacts to key sensitive resources. The proposed large, open areas on the Newhall Ranch property avoid impacts to many of the highly sensitive species present or potentially occurring on the site and their habitats. Further design, with respect to potential unavoidable impacts to biological resources, has minimized encroachments into key areas of the property, decreasing the overall impacts. Indirect impacts to biological resources are minimized through the dedication of large blocks of habitat that decreases the edge-area ratio, and thus, buffers the habitat from noise, lighting, and encroachment by domestic pets, non-native plants, and humans. As a result of these design priorities, the project's biological resource conservation efforts have been focused on two Special Management Areas and the habitat corridor that connects them:

- The Santa Clara River Corridor (River Corridor SMA/SEA 23);
- The large block of relatively undisturbed habitats on higher elevations into the Santa Susana Mountains (High Country SMA/SEA 20); and
- The connection between these two areas along the Salt Creek drainage.

In this design, the Conceptual Grading Plan (see **Appendix 4.1, Geotechnical and Soil Resources**) preserves large areas of sensitive native habitats associated with the natural drainage areas of the site and maintains major landforms. The Conceptual Grading Plan also avoids large contiguous blocks of valuable habitat while providing direct linkage between them. The Specific Plan places the two key habitat resource areas into consolidated blocks (connected by the Salt Creek drainage), resulting in minimal boundaries with developed areas. The assembly of these three elements allows them to be managed as a single resource system within the Specific Plan Area. It also facilitates coordination with other programs outside the boundary of Newhall Ranch. The transitions between development and the special

management areas will be the focus of special design treatments to protect the integrity of the conserved areas. As indicated above, the “edges” of urban development areas have been minimized to reduce the indirect impacts of the Specific Plan. Native and compatible species will be used for landscaping in these areas.

The open area system for Newhall Ranch includes the most important habitat areas of the Santa Clara River (River Corridor SMA/SEA 23) and the areas which have been least affected by agricultural, oil, and natural gas production activities (High Country SMA/SEA 20). It also includes the largest, least fragmented patches of each habitat type that remain on Newhall Ranch. A critical component of the open area system within the Newhall Ranch property, and in the region as a whole, is the connection between the High Country and the River Corridor along Salt Creek. The corridor will provide continuity between the habitats and the wildlife populations within the property, as well as forming a permanent regional linkage between the Santa Clara River and the Santa Susana Mountains. Salt Creek is the most appropriate location for such a wildlife corridor connection because of several distinguishing characteristics. Specifically, Salt Creek (1) provides a direct link between the two major open areas; (2) is less disturbance than any of the other potential connections; (3) is bound through most of its length by open area on the north side and, therefore, will not be surrounded by development in the future; (4) is the only drainage that would provide more than a discontinuous, narrow connection; (5) includes both upland and riparian vegetation through most of the corridor; and (6) is topographically isolated from areas of development on Newhall Ranch. Currently, a portion of the wildlife corridor is situated in Ventura County. Future land use decisions will be required to define the corridor’s final configuration in areas that occur outside the County of Los Angeles. The incorporation of the river, the mountains, and the connection between them provides for conservation of the entire range of terrain and vegetation types on Newhall Ranch. By connecting the open areas into two major blocks with a major linkage, the land use plan for the Ranch minimizes edge-to-area ratio within the Specific Plan area.

(2) Specific Plan Resource Management Plan Mitigation

Approval of the Specific Plan and its associated Resource Management Plan (RMP) involved an amendment to the Los Angeles County zoning ordinance such that the provisions of the Specific Plan and RMP are binding. Specific measures to mitigate impacts to biological resources are incorporated as part of the RMP that is part of the Newhall Ranch Specific Plan. These measures are identified below: These measures are preceded by “SP,” which stands for Specific Plan.

(3) Santa Clara River (River Corridor) SMA/SEA 23

To mitigate impacts of the Specific Plan on riparian resources, riparian habitat will be restored and, where appropriate, enhanced. In addition, a mitigation bank may be established as discussed in this section. The general areas in which riparian mitigation activities may take place are shown on Exhibit 2.6-3, Candidate Riparian Restoration/Enhancement Areas, of the Specific Plan.

The mitigation of Specific Plan impacts through restoration of habitat and enhancement of existing habitat quality shall conform to the requirements set forth below:

(a) Mitigation through Restoration

In the Specific Plan, habitat restoration means the revegetation of native plant communities on sites that have had the habitat removed due to past activities, such as agricultural or oil and natural gas operations.

Affected riparian resources along the Santa Clara River will require restoration of similar habitat and values. Avoidance of impacts to riparian resources shall be the primary goal during the design of the individual stages of the Specific Plan. Unavoidable impacts to riparian resources shall be minimized through Specific Plan design, and then mitigated by the implementation of a revegetation plan. The revegetation plan may be prepared as part of a California Department of Fish and Game 1603 Streambed Alteration Agreement or Corps Section 404 Permit and shall include the following:

- SP 4.6-1 The restoration mitigation areas located within the River Corridor SMA shall be in areas that have been disturbed by previous uses or activities. Mitigation shall be conducted only on sites where soils, hydrology, and microclimate conditions are suitable for riparian habitat. First priority will be given to those restorable areas that occur adjacent to existing patches (areas) of native habitat that support sensitive species, particularly Endangered or Threatened species. The goal is to increase habitat patch size and connectivity with other existing habitat patches while restoring habitat values that will benefit sensitive species.
- SP 4.6-2 A qualified biologist shall prepare or review revegetation plans. The biologist shall also monitor the restoration effort from its inception through the establishment phase.
- SP 4.6-3 Revegetation Plans may be prepared as part of a California Department of Fish and Game 1603 Streambed Alteration Agreement and/or an U.S. Army Corps of Engineers Section 404 Permit, and shall include:

- Input from both the Project proponent and resource agencies to assure that the Project objectives applicable to the River Corridor SMA and the criteria of this RMP are met.
- The identification of restoration/mitigation sites to be used. This effort shall involve an analysis of the suitability of potential sites to support the desired habitat, including a description of the existing conditions at the site(s) and such base line data information deemed necessary by the permitting agency.

SP 4.6-4 The revegetation effort shall involve an analysis of the site conditions such as soils and hydrology so that site preparation needs can be evaluated. The revegetation plan shall include the details and procedures required to prepare the restoration site for planting (i.e., grading, soil preparation, soil stockpiling, soil amendments, etc.), including the need for a supplemental irrigation system, if any.

SP 4.6-5 Restoration of riparian habitats within the River Corridor SMA shall use plant species native to the Santa Clara River. Cuttings or seeds of native plants shall be gathered within the River Corridor SMA or purchased from nurseries with local supplies to provide good genetic stock for the replacement habitats. Plant species used in the restoration of riparian habitat shall be listed on the approved project plant palette (Specific Plan Table 2.6-1, Recommended Plant Species for Habitat Restoration in the River Corridor SMA) or as approved by the permitting State and Federal agencies.

SP 4.6-6 The final revegetation plans shall include notes that outline the methods and procedures for the installation of the plant materials. Plant protection measures identified by the project biologist shall be incorporated into the planting design/layout.

SP 4.6-7 The revegetation plan shall include guidelines for the maintenance of the mitigation site during the establishment phase of the plantings. The maintenance program shall contain guidelines for the control of non-native plant species, the maintenance of the irrigation system, and the replacement of plant species.

SP 4.6-8 The revegetation plan shall provide for monitoring to evaluate the growth of the developing habitat. Specific performance goals for the restored habitat shall be defined by qualitative and quantitative characteristics of similar habitats on the river (e.g., density, cover, species composition, structural development). The monitoring effort shall include an evaluation of not only the plant material installed, but the use of the site by

wildlife. The length of the monitoring period shall be determined by the permitting State and/or Federal agency.

- SP 4.6-9 Monitoring reports for the mitigation site shall be reviewed by the permitting State and/or Federal agency.
- SP 4.6-10 Contingency plans and appropriate remedial measures shall also be outlined in the revegetation plan.

(b) Mitigation through Enhancement

- SP 4.6-11 Habitat enhancement as referred to in this document means the rehabilitation of areas of native habitat that have been moderately disturbed by past activities (e.g., grazing, roads, oil and natural gas operations, etc.) or have been invaded by non-native plant species such as giant cane (*Arundo donax*) and tamarisk (*Tamarix* sp.).
- SP 4.6-12 Removal of grazing is an important means of enhancement of habitat values. Without ongoing disturbance from cattle, many riparian areas will recover naturally. Grazing except as permitted as a long-term resource management activity will be removed from the River Corridor SMA pursuant to the Long-Term Management Plan set forth in Section 4.6 of the Specific Plan EIR.
- SP 4.6-13 To provide guidelines for the installation of supplemental plantings of native species within enhancement areas, a revegetation plan shall be prepared prior to implementation of mitigation (see guidelines for revegetation plans above). These supplemental plantings will be composed of plant species similar to those growing in the existing habitat patch (see Specific Plan Table 2.6-1).
- SP 4.6-14 Not all enhancement areas will necessarily require supplemental plantings of native species. Some areas may support conditions conducive for rapid “natural” reestablishment of native species. The revegetation plan may incorporate means of enhancement to areas of compacted soils, poor soil fertility, trash or flood debris, and roads as a way of enhancing riparian habitat values.
- SP 4.6-15 Removal of non-native species such as giant cane (*Arundo donax*), salt cedar or tamarisk (*Tamarix* sp.), tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), if included in a revegetation plan to mitigate impacts, shall be subject to the following standards:

- First priority shall be given to those habitat patches that support or have a high potential for supporting sensitive species, particularly Endangered or Threatened species.
- All non-native species removals shall be conducted according to a resource agency approved exotics removal program.
- Removal of non-native species in patches of native habitat shall be conducted in such a way as to minimize impacts to the existing native riparian plant species.

(c) Mitigation Banking

SP 4.6-16 Mitigation banking activities for riparian habitats will be subject to State and Federal regulations and permits. Mitigation banking for oak resources shall be conducted pursuant to the Oak Resources Replacement Program. Mitigation banking for elderberry scrub shall be subject to approval of plans by the County Forester.

(d) Management Requirements

(1) Recreation and Access

The quality of the habitat values that are conserved in the River Corridor SMA will benefit from the control of access to riparian areas. Guidelines for the control of access to the River Corridor SMA include the following:

SP 4.6-17 Access to the River Corridor SMA for hiking and biking shall be limited to the river trail system (including the Regional River Trail and various Local Trails) as set forth in this Specific Plan.

- The River trail system shall be designed to avoid impacts to existing native riparian habitat, especially habitat areas known to support sensitive species. Where impacts to riparian habitat are unavoidable, disturbance shall be minimized and mitigated as outlined above under Mitigation Measures 4.6-1 through 4.6-8.
- Access to the River Corridor SMA will be limited to day time use of the designated trail system.

- Signs indicating that no pets of any kind will be allowed within the River Corridor SMA, with the exception that equestrian use is permitted on established trails, shall be posted along the River Corridor SMA.
- No hunting, fishing, or motor or off-trail bike riding shall be permitted.
- The trail system shall be designed and constructed to minimize impacts on native habitats.

(2) *Transition Areas*

SP 4.6-18 Where development lies adjacent to the boundary of the River Corridor SMA a transition area shall be designed to lessen the impact of the development on the conserved area. Transition areas may be comprised of Open Area, natural or revegetated manufactured slopes, other planted areas, bank areas, and trails. Exhibits 2.6-4, 2.6-5, and 2.6-6 indicate the relationship between the River Corridor SMA and the development (disturbed) areas of the Specific Plan. The SMAs and the Open Area as well as the undisturbed portions of the development areas are shown in green. As indicated on the exhibits, on the south side of the river the River Corridor SMA is separated from development by the river bluffs, except in one location. The Regional River Trail will serve as transition area on the north side of the river where development areas adjoin the River Corridor SMA (excluding Travel Village).

SP 4.6-19 The following are the standards for design of transition areas:

- In all locations where there is no steep grade separation between the River Corridor SMA and development, a trail shall be provided along this edge.
- Native riparian plants shall be incorporated into the landscaping of the transition areas between the River Corridor SMA and adjacent development areas where feasible for their long-term survival. Plants used in these areas shall be those listed on the approved plant palette (Specific Plan Table 2.6-2 of the Resource Management Plan [Recommended Plants for Transition Areas Adjacent to the River Corridor SMA]).
- Roads and bridges that cross the River Corridor SMA shall have adequate barriers at their perimeters to discourage access to the River Corridor SMA adjacent to the structures.

- Where bank stabilization is required to protect development areas, it shall be composed of ungrouted rock, or buried bank stabilization as described in Section 2.5.2.a, except at bridge crossings and other locations where public health and safety requirements necessitate concrete or other bank protection.
- A minimum 100-foot-wide buffer adjacent to the Santa Clara River should be required between the top river side of bank stabilization and development within the Land Use Designations Residential Low Medium, Residential Medium, Mixed-Use and Business Park unless, through Planning Director review in consultation with the staff biologist, it is determined that a lesser buffer would adequately protect the riparian resources within the River Corridor, or that a 100-foot-wide buffer is infeasible for physical infrastructure planning. The buffer area may be used for public infrastructure, such as: flood control access; sewer, water, and utility easements; abutments; trails and parks, subject to findings of consistency with the Specific Plan and applicable County policies.

SP 4.6-20 The following guidelines shall be followed during any grading activities that take place within the River Corridor SMA:

- Grading perimeters shall be clearly marked and inspected by the project biologist prior to grading occurring within or immediately adjacent to the River Corridor SMA.
- The project biologist shall work with the grading contractor to avoid inadvertent impacts to riparian resources.

(4) Grading Activities Long-Term Management Plan

SP 4.6-21 Upon final approval of the Newhall Ranch Specific Plan, the Special Management Area designation for the River Corridor SMA shall become effective. The permitted uses and development standards for the SMA are governed by the Development Regulations, Chapter 3 of the Specific Plan.

SP 4.6-22 Upon completion of development of all land uses, utilities, roads, flood control improvements, bridges, trails, and other improvements necessary for implementation of the Specific Plan within the River Corridor in each subdivision allowing construction within or adjacent to the River Corridor, a permanent, non-revocable *conservation and public access easement* shall be offered to the County of Los Angeles pursuant to Mitigation

Measure 4.6-23, below, over the portion of the River Corridor SMA within that subdivision.

SP 4.6-23 The River Corridor SMA *Conservation and Public Access Easement* shall be offered to the County of Los Angeles prior to the transfer of the River Corridor SMA ownership, or portion thereof to the management entity described in Mitigation Measure 4.6-26, below.

SP 4.6-24 The River Corridor SMA *Conservation and Public Access Easement* shall prohibit grazing, except as a long-term resource management activity, and agriculture within the River Corridor and shall restrict recreation use to the established trail system.

Agricultural land uses and grazing for purposes other than long-term resource management activities within the River Corridor shall be extended in the event of the filing of any legal action against Los Angeles County challenging final approval of the Newhall Ranch Specific Plan and any related project approvals or certification of the Final EIR for Newhall Ranch. Agricultural land uses and grazing for purposes other than long-term resource management activities within the River Corridor shall be extended by the time period between the filing of any such legal action and the entry of a final judgment by a court with appropriate jurisdiction, after exhausting all rights of appeal, or execution of a final settlement agreement between all parties to the legal action, whichever occurs first.

SP 4.6-25 The River Corridor SMA conservation and public access easement shall be consistent in its provisions with any other conservation easements to State or Federal resource agencies which may have been granted as part of mitigation or mitigation banking activities.

SP 4.6-26 Prior to the recordation of the River Corridor SMA *Conservation and Public Access Easement* as specified in Mitigation Measure 4.6-23, above, the land owner shall provide a plan to the County for the permanent ownership and management of the River Corridor SMA, including any necessary financing. This plan shall include the transfer of ownership of the River Corridor SMA to the Center for Natural Lands Management, or if the Center for Natural Lands Management is declared bankrupt or dissolved, ownership will transfer or revert to a *joint powers authority* consisting of Los Angeles County (4 members), the City of Santa Clarita (2 members), and the Santa Monica Mountains Conservancy (2 members).

(5) High Country Special Management Area (SMA)

SP 4.6-26a Two types of habitat restoration may occur in the High Country SMA: (1) riparian revegetation activities principally in Salt Creek Canyon; and (2) oak tree replacement in, or adjacent to, existing oak woodlands and savannas.

- Mitigation requirements for riparian revegetation activities within the High Country SMA are the same as those for the River Corridor SMA and are set forth in Mitigation Measures 4.6-1 through 4.6-11 and 4.6-13 through 4.6-16, above.
- Mitigation requirements for oak tree replacement are set forth in Mitigation Measure 4.6-48, below.

(a) Mitigation Requirements

Mitigation activities that may occur in the High Country SMA, either for impacts associated with the construction of Estate lots, trails, or access roads, or for impacts identified during the subdivision process in other portions of the Specific Plan Area, include restoration of habitat and enhancement to existing habitat (see discussion below). Mitigation banking may be established as provided below. In addition, Salt Creek Canyon is a high priority area for riparian mitigation.

(1) Mitigation through Restoration

Two types of habitat restoration may occur in the High Country SMA: (1) riparian revegetation activities principally in Salt Creek Canyon; and (2) oak resource replacement in, or adjacent to, existing oak woodlands and savannas.

Mitigation requirements for riparian revegetation activities within the High Country SMA are the same as those for the River Corridor SMA and are set forth above.

Mitigation requirements for oak resource replacement are set forth in Specific Plan Section 2.6, paragraph 3b of the Oak Tree Replacement Program of the Resource Management Program.

(2) Enhancement of Habitat

SP 4.6-27 Removal of grazing from the High Country SMA except for those grazing activities associated with long-term resource management programs, is a principal means of enhancing habitat values in the creeks, brushland, and woodland areas of the SMA. The removal of grazing in the High Country SMA is discussed below under (b)4 Long Term Management. All enhancement activities for riparian habitat within the High Country

SMA shall be governed by the same provisions as set forth for enhancement in the River Corridor SMA. Specific Plan Table 2.6-3 of the Resource Management Plan provides a list of appropriate plant species for use in enhancement areas in the High Country SMA.

(3) Mitigation Banking

SP 4.6-28 Mitigation banking activities for riparian habitats will be subject to State and Federal regulations and permits. Mitigation banking for oak resources shall be conducted pursuant to the Oak Resource Replacement Program. Mitigation banking for elderberry scrub shall be subject to approval of plans by the County Forester. *(This measure is not applicable to the Mission Village project because the measure addresses management activities in the High Country SMA, which is located outside the boundaries of the proposed Mission Village project.)*

(b) Management Requirements

(1) Recreation and Access

A major public benefit of the High Country SMA is that it provides excellent recreational opportunities. However, recreational needs must be balanced with the preservation of the habitat values, which are conserved in the SMA. Recreation and access will be governed by the following standards:

SP 4.6-29 Access to the High Country SMA will be limited to day time use of the designated trail system. *(This measure is not applicable to the Mission Village project because the measure addresses access and management activities in the High Country SMA, which is located outside the boundaries of the proposed Mission Village project.)*

SP 4.6-30 No pets of any kind will be allowed within the High Country SMA, with the exception that equestrian use is permitted on established trails. *(This measure is not applicable to the Mission Village project because the measure addresses access and management activities in the High Country SMA, which is located outside the boundaries of the proposed Mission Village project.)*

SP 4.6-31 No hunting, fishing, or motor or trail bike riding shall be permitted. *(This measure is not applicable to the Mission Village project because the measure addresses access and management activities in the High Country SMA, which is located outside the boundaries of the proposed Mission Village project.)*

SP 4.6-32 The trail system shall be designed and constructed to minimize impacts on native habitats. *(This measure is not applicable to the Mission Village project because the measure addresses management activities in the High Country SMA, which is located outside the boundaries of the proposed Mission Village project.)*

(2) Transition/Fuel Modification Areas

Development areas are generally separated from the High Country SMA by steep slopes. Specific Plan Exhibit 2.6-7 of the Resource Management Program, Salt Creek Wildlife Corridor Land Use Perspective, illustrates that development adjacent to the Salt Creek Wildlife Corridor is significantly separated vertically from the corridor.

SP 4.6-33 Construction of buildings and other structures (such as patios, decks, etc.) shall only be permitted upon developed pads within Planning Areas OV-04, OV-10, PV-02, and PV-28 and shall not be permitted on southerly slopes facing the High Country SMA (Planning Area HC-01) or in the area between the original SEA 20 boundary and the High Country boundary. If disturbed by grading, all southerly facing slopes which adjoin the High Country SMA within those Planning Areas shall have the disturbed areas revegetated with compatible trees, shrubs, and herbs from the list of plant species for south and west facing slopes as shown in Table 2.6-3, Recommended Plant Species For Use In Enhancement Areas In The High Country.

Transition from the development edge to the natural area shall also be controlled by the standards of wildfire fuel modification zones as set forth in Mitigation Measure 4.6-49. Within fuel modification areas, trees and herbs from Table 2.6-3 of the Resource Management Plan should be planted toward the top of slopes; and trees at lesser densities and shrubs planted on lower slopes. *(This measure is not applicable to the Mission Village project because the measure addresses access and management activities in the High Country SMA, which is located outside the boundaries of the proposed Mission Village project.)*

(3) Grading Activities

SP 4.6-34 Grading perimeters shall be clearly marked and inspected by the project biologist prior to impacts occurring within or adjacent to the High Country SMA.

SP 4.6-35 The project biologist shall work with the grading contractor to avoid inadvertent impacts to biological resources outside of the grading area.

(4) *Long-Term Management*

SP 4.6-36 Upon final approval of the Newhall Ranch Specific Plan, the Special Management Area designation for the High Country SMA shall become effective. The permitted uses and development standards for the SMA are governed by the Development Regulations, Chapter 3. *(This measure is not applicable to the Mission Village project because the measure addresses access and management activities in the High Country SMA, which is located outside the boundaries of the proposed Mission Village project.)*

SP 4.6-37 The High Country SMA shall be offered for dedication in three approximately equal phases of approximately 1,400 acres each proceeding from north to south, as follows:

1. The first offer of dedication will take place with the issuance of the 2,000th residential building permit of Newhall Ranch;
2. The second offer of dedication will take place with the issuance of the 6,000th residential building permit of Newhall Ranch; and
3. The remaining offer of dedication will be completed by the 11,000th residential building permit of Newhall Ranch.
4. The Specific Plan applicant shall provide a quarterly report to the Departments of Public Works and Regional Planning which indicates the number of residential building permits issued in the Specific Plan area by subdivision map number.

SP 4.6-38 Prior to dedication of the High Country SMA, a *conservation and public access easement* shall be offered to the County of Los Angeles and a conservation and management easement offered to the Center for Natural Lands Management. The High Country SMA *Conservation and Public Access Easement* shall be consistent in its provisions with any other *conservation easements* to State or Federal resource agencies which may have been granted as part of mitigation or mitigation banking activities.

SP 4.6-39 The High Country SMA conservation and public access easement shall prohibit grazing within the High Country, except for those grazing activities associated with the long-term resource management programs, and shall restrict recreation to the established trail system.

SP 4.6-40 The High Country SMA conservation and public access easement shall be consistent in its provisions with any other conservation easements to State or Federal resource agencies which may have been granted as part of mitigation or mitigation banking activities.

SP 4.6-41 The High Country SMA shall be offered for dedication in fee to a *joint powers authority* consisting of Los Angeles County (4 members), the City of Santa Clarita (2 members), and the Santa Monica Mountains Conservancy (2 members). The *joint powers authority* will have overall responsibility for recreation within and conservation of the High Country.

SP 4.6-42 An appropriate type of service or assessment district shall be formed under the authority of the Los Angeles County Board of Supervisors for the collection of up to \$24 per single family detached dwelling unit per year and \$15 per single family attached dwelling unit per year, excluding any units designated as Low and Very Low affordable housing units pursuant to Section 3.10, Affordable Housing Program of the Specific Plan. This revenue would be assessed to the homeowner beginning with the occupancy of each dwelling unit and distributed to the *joint powers authority* for the purposes of recreation, maintenance, construction, conservation and related activities within the *High Country Special Management Area*.

(6) Open Area Mitigation Requirements

SP 4.6-43 Suitable portions of *Open Area* may be used for mitigation of riparian, *oak resources*, or elderberry scrub. Mitigation activities within *Open Area* shall be subject to the following requirements, as applicable.

- River Corridor SMA Mitigation Requirements, including: Mitigation Measures 4.6-1 through 4.6-11 and 4.6-13 through 4.6-16; and
- High Country SMA Mitigation Requirements, including: Mitigation Measures 4.6-27, 4.6-29 through 4.6-42, and
- Mitigation Banking—Mitigation Measure 4.6-16.

(a) Management Requirements

SP 4.6-44 Drainages with flows greater than 2,000 cfs will have soft bottoms. Bank protection will be of ungrouted rock, or buried bank stabilization as described in Section 2.5.2.a, except

at bridge crossings and other areas where public health and safety considerations require concrete or other stabilization. SP 4.6-45 The precise alignments and widths of major drainages will be established through the preparation of drainage studies to be approved by the County at the time of subdivision maps which permit construction.

SP 4.6-46 While Open Area is generally intended to remain in a natural state, some grading may take place, especially for parks, major drainages, trails, and roadways. Trails are also planned to be within Open Area.

SP 4.6-47 At the time that final subdivision maps permitting construction are recorded, the *Open Area* within the map will be offered for dedication to the Center for Natural Lands Management. Community Parks within *Open Area* are intended to be public parks. Prior to the offer of dedication of *Open Area* to the Center for Natural Lands Management, all necessary *conservation and public access easements*, as well as easements for infrastructure shall be offered to the County.

(b) Mitigation Banking

SP 4.6-47a Mitigation Banking will be permitted within the River Corridor SMA, the High Country SMA, and the *Open Area land use designations*, subject to the following requirements:

- Mitigation banking activities for riparian habitats will be subject to State and Federal regulations, and shall be conducted pursuant to the mitigation requirements set forth in Mitigation Measure 4.6-1 through 4.6-15 above.
- Mitigation banking for oak resources shall be conducted pursuant to 4.6-48, below.
- Mitigation banking for elderberry scrub shall be subject to approval of plans by the County Forester.

(c) Oak Resources Replacement Program

SP 4.6-48 Standards for the restoration and enhancement of oak resources within the High Country SMA and the Open Area include the following (oak resources include oak trees of the sizes regulated under the County Oak Tree Ordinance, Southern California black walnut trees, and mainland cherry trees/shrubs):

- To mitigate the impacts to oak resources that may be removed as development occurs in the Specific Plan Area, replacement trees shall be planted in conformance with the oak tree ordinance in effect at that time.
- Oak resource species obtained from the local gene pool shall be used in restoration or enhancement.
- Prior to recordation of construction-level final subdivision maps, an oak resource replacement plan shall be prepared that provides the guidelines for the oak tree planting and/or replanting. The Plan shall be reviewed by the Los Angeles Department of Regional Planning and the County Forester and shall include the following: site selection and preparation, selection of proper species including sizes and planting densities, protection from herbivores, site maintenance, performance standards, remedial actions, and a monitoring program.
- All plans and specifications shall follow County oak tree guidelines, as specified in the County Oak Tree Ordinance.

(7) Wildfire Fuel Modification

The Specific Plan Area is located within the extreme and moderate fire hazard zones as identified in the County of Los Angeles General Plan. The moderate fire hazard zone extends to those areas of Newhall Ranch where native brush can be found growing in its natural state. This is most common in the hillside areas. The extreme fire hazard zone includes high brush and woodlands, and all steep slopes regardless of vegetation (refer to **Section 4.12, Fire Protection Services**, for a detailed description of on-site fire zones).

Development of Newhall Ranch will reduce the amount of native flammable vegetation present within the Specific Plan Area. Fire fighting capabilities will be provided by two fire stations on the Specific Plan site, other nearby stations, a network of improved roads and an urban water system with fire flows as required by the County Fire Department. Existing and proposed off-site fire facilities will also serve the Specific Plan Area.

Property damage and public safety risks associated with wildfire are greatest where homes and other structures will be located adjacent to large open areas dominated by native vegetation. This condition will occur primarily in the southern portion of the Specific Plan site and where portions of the development area in the northwest section of Riverwood Village abut large natural open areas.

Emergency access to the site is currently provided to the Los Angeles County Fire Department for fire prevention control of the Specific Plan Area. Access will continue to be provided as the Specific Plan is implemented.

Fuel modification mitigation includes:

- SP 4.6-49 To minimize the potential exposure of the development areas, Open Area, and the SMAs to fire hazards, the Specific Plan is subject to the requirements of the Los Angeles County Fire Protection District (LACFPD), which provides fire protection for the area. At the time of final subdivision maps permitting construction in development areas that are adjacent to Open Area and the High Country SMA, a wildfire fuel modification plan shall be prepared in accordance with the fuel modification ordinance standards in effect at that time and shall be submitted for approval to the County Fire Department.
- SP 4.6-50 The wildfire fuel modification plan shall depict a fuel modification zone the size of which shall be consistent with the County fuel modification ordinance requirements. Within the zone, tree pruning, removal of dead plant material and weed and grass cutting shall take place as required by the fuel modification ordinance.
- SP 4.6-51 In order to enhance the habitat value of plant communities that require fuel modification, fire retardant plant species containing habitat value may be planted within the fuel modification zone. Typical plant species suitable for Fuel Modification Zones are indicated in Specific Plan Table 2.6-5 of the Resource Management Plan. Fuel modification zones adjacent to SMAs and Open Areas containing habitat of high value such as oak woodland and savannas shall utilize a more restrictive plant list, which shall be reviewed by the County Forester.
- SP 4.6-52 The wildfire fuel modification plan shall include the following construction period requirements: (a) a fire watch during welding operations; (b) spark arresters on all equipment or vehicles operating in a high fire hazard area; (c) designated smoking and non-smoking areas; and (d) water availability pursuant to the County Fire Department requirements.

(8) EIR Mitigation Measures

To further reduce impacts to biological resources that would result from Specific Plan implementation the following mitigation measures are proposed:

SP 4.6-53 If, at the time any subdivision map proposing construction is submitted, the County determines through an Initial Study, or otherwise, that there may be Rare, Threatened or Endangered, plant or animal species on the property to be subdivided, then, in addition to the prior surveys conducted on the Specific Plan site to define the presence or absence of sensitive habitat and associated species, current, updated site-specific surveys for all such animal or plant species shall be conducted in accordance with the consultation requirements set forth in Mitigation Measure 4.6-59 within those areas of the Specific Plan where such animal or plant species occur or are likely to occur.

The site-specific surveys shall include the unarmored three-spine stickleback, the arroyo toad, the Southwestern pond turtle, the California red-legged frog, the southwestern willow flycatcher, the least Bell's vireo, the San Fernando Valley spineflower and any other Rare, Sensitive, Threatened, or Endangered plant or animal species occurring, or likely to occur, on the property to be subdivided. All site-specific surveys shall be conducted during appropriate seasons by qualified botanists or qualified wildlife biologists in a manner that will locate any Rare, Sensitive, Threatened, or Endangered animal or plant species that may be present. To the extent there are applicable protocols published by either the United States Fish and Wildlife Service or the California Department of Fish and Game, all such protocols shall be followed in preparing the updated site-specific surveys.

All site-specific survey work shall be documented in a separate report containing at least the following information: (a) project description, including a detailed map of the project location and study area; (b) a description of the biological setting, including references to the nomenclature used and updated vegetation mapping; (c) detailed description of survey methodologies; (d) dates of field surveys and total person-hours spent on the field surveys; (e) results of field surveys, including detailed maps and location data; (f) an assessment of potential impacts; (g) discussion of the significance of the Rare, Threatened or Endangered animal or plant populations found in the project area, with consideration given to nearby populations and species distribution; (h) mitigation measures, including avoiding impacts altogether, minimizing or reducing impacts, rectifying or reducing impacts through habitat restoration, replacement or enhancement, or compensating for

impacts by replacing or providing substitute resources or environments, consistent with CEQA;⁵¹⁰ (i) references cited and persons contacted; and (j) other pertinent information, which is designed to disclose impacts and mitigate for such impacts.”

- SP 4.6-54 Prior to development within or disturbance to occupied unarmored threespine stickleback habitat, a formal consultation with the USFWS shall occur.
- SP 4.6-55 Prior to development or disturbance within wetlands or other sensitive habitats, permits shall be obtained from pertinent Federal and State agencies and the Specific Plan shall conform to the specific provisions of said permits. Performance criteria shall include that described in Mitigation Measures 4.6-1 through 4.6-16 and 4.6-42 through 4.6-47 for wetlands, and Mitigation Measures 4.6-27, 4.6-28, and 4.6-42 through 4.6-48 for other sensitive habitats.
- SP 4.6-56 All lighting along the perimeter of natural areas shall be downcast luminaries with light patterns directed away from natural areas.
- SP 4.6-57 Where bridge construction is proposed and water flow would be diverted, blocking nets and seines shall be used to control and remove fish from the area of activity. All fish captured during this operation would be stored in tubs and returned unharmed back to the river after construction activities were complete.
- SP 4.6-58 To limit impacts to water quality the Specific Plan shall conform with all provisions of required NPDES permits and water quality permits that would be required by the State of California Regional Water Quality Control Board.
- SP 4.6-59 Consultation shall occur with the County of Los Angeles (“County”) and California Department of Fish and Game (“CDFG”) at each of the following milestones:
1. Before Surveys. Prior to conducting sensitive plant or animal surveys at the Newhall Ranch subdivision map level, the applicant, or its designee, shall consult with the County and CDFG for purposes of establishing and/or confirming the appropriate survey methodology to be used.
 2. After Surveys. After completion of sensitive plant or animal surveys at the subdivision map level, draft survey results shall be made available to the County

⁵¹⁰ *State CEQA Guidelines* Sec. 15370.

and CDFG within sixty (60) calendar days after completion of the field survey work.

3. Subdivision Map Submittal. Within thirty (30) calendar days after the applicant, or its designee, submits its application to the County for processing of a subdivision map in the Mesas Village or Riverwood Village, a copy of the submittal shall be provided to CDFG. In addition, the applicant, or its designee, shall schedule a consultation meeting with the County and CDFG for purposes of obtaining comments and input on the proposed subdivision map submittal. The consultation meeting shall take place at least thirty (30) days prior to the submittal of the proposed subdivision map to the County.
4. Development/Disturbance and Further Mitigation. Prior to any development within, or disturbance to, habitat occupied by Rare, Threatened, or Endangered plant or animal species, or to any portion of the Spineflower Mitigation Area Overlay, as defined below, all required permits shall be obtained from both USFWS and CDFG, as applicable. It is further anticipated that the Federal and State permits will impose conditions and mitigation measures required by Federal and State law that are beyond those identified in the Newhall Ranch Final EIR (March 1999), the Newhall Ranch DAA (April 2001) and the Newhall Ranch Revised DAA (2002). It is also anticipated that conditions and mitigation measures required by Federal and State law for project-related impacts on Endangered, Rare or Threatened species and their habitat will likely require changes and revisions to Specific Plan development footprints, roadway alignments, and the limits, patterns, and techniques associated with project-specific grading at the subdivision map level.

SP 4.6-60 If at the time subdivisions permitting construction are processed, the County determines through an Initial Study that there may be elderberry scrub vegetation on the property being subdivided, then a site-specific survey shall be conducted to define the presence or absence of such habitat and any necessary mitigation measures shall be determined and applied.

SP 4.6-61 If at the time subdivisions permitting construction are processed, the County determines through an Initial Study that there may be mainland cherry trees and/or mainland cherry shrubs on the property being subdivided, then a site-specific survey shall be conducted to define the presence or absence of such habitat and any necessary mitigation measures

shall be determined and applied. *(This measure is not applicable to Mission Village because the project would not impact "mainland cherry trees and/or mainland cherry shrubs.")*

- SP 4.6-62 When a map revision or Substantial Conformance determination on any subdivision map or Conditional Use Permit would result in changes to an approved oak tree permit, then the oak tree report for that oak tree permit must be amended for the area of change, and the addendum must be approved by the County Forester prior to issuance of grading permits for the area of the map or CUP being changed. *(This measure is not applicable to the Mission Village project because the project does not propose any change to an existing oak tree permit.)*
- SP 4.6-63 Riparian resources that are impacted by buildout of the Newhall Ranch Specific Plan shall be restored with similar habitat at the rate of 1 acre replaced for each acre lost
- SP 4.6-64 The operator of the golf course shall prepare a Golf Course Maintenance Plan which shall include procedures to control storm water quality and ground water quality as a result of golf course maintenance practices, including irrigation, fertilizer, pesticide and herbicide use. This Plan shall be prepared in coordination with the County biologist and approved by the County Planning Director prior to the issuance of a Certificate of Occupancy. *(This measure is not applicable to the Mission Village project because the project does not include construction and operation of a golf course.)*

(9) Spineflower Special Study Mitigation Overlay

To address the Specific Plan's potential to adversely affect on-site populations of the state-listed San Fernando Valley spineflower, the County of Los Angeles, as a condition of plan approval, required the Applicant to develop a Spineflower Special Study Area Overlay, which includes the mitigation measures set forth below. Note that the Spineflower Conservation Plan (SCP) prepared as part of the RMDP/SCP project currently under review by CDFG and the Corps, has been designed to implement the terms and mandates of the overlay. In addition, the spineflower-related mitigation measures that are specific to the Mission Village site are also consistent with the overlay and SCP.

- SP 4.6-65 In order to facilitate the conservation of the spineflower on the Newhall Ranch Specific Plan site, the applicant, or its designee, shall, concurrent with Specific Plan approval, agree to the identified special study areas shown below in Figure 2.6-8, Spineflower Mitigation Area Overlay. The applicant, or its designee, further acknowledges that, within and around the Spineflower Mitigation Area Overlay (Figure 2.6-8), changes will likely occur to Specific Plan development footprints, roadway alignments, and the limits,

patterns and techniques associated with project-specific grading at the subdivision map level. The applicant, or its designee, shall design subdivision maps that are responsive to the characteristics of the spineflower and all other Endangered plant species that may be found on the Specific Plan site.

(a) Spineflower Preserves

SP 4.6-66 Direct impacts to known spineflower populations within the Newhall Ranch Specific Plan area shall be avoided or minimized through the establishment of one or more on-site preserves that are configured to ensure the continued existence of the species in perpetuity. Preserve(s) shall be delineated in consultation with the County and CDFG, and will likely require changes and revisions to Specific Plan development footprints for lands within and around the Spineflower Mitigation Area Overlay (Figure 2.6-8).

Delineation of the boundaries of Newhall Ranch spineflower preserve(s) for the entire Specific Plan area shall be completed in conjunction with approval of the first Newhall Ranch subdivision map filed in either the Mesas Village, or that portion of Riverwood Village in which the San Martinez spineflower population occurs.

A sufficient number of known spineflower populations shall be included within the Newhall Ranch spineflower preserve(s) in order to ensure the continued existence of the species in perpetuity. The conservation of known spineflower populations shall be established in consultation with the County and CDFG, and as consistent with standards governing issuance of an incidental take permit for spineflower pursuant to Fish and Game Code Section 2081, subdivision (b).

In addition to conservation of known populations, spineflower shall be introduced in appropriate habitat and soils in the Newhall Ranch preserve(s). The creation of introduced populations shall require seed collection and/or top soil at impacted spineflower locations and nursery propagation to increase seed and sowing of seed. The seed collection activities, and the maintenance of the bulk seed repository, shall be approved in advance by the County and CDFG.

Once the boundaries of the Newhall Ranch spineflower preserve(s) are delineated, the project applicant, or its designee, shall be responsible for conducting a spineflower population census within the Newhall Ranch spineflower preserve(s) annually for 10 years. (These census surveys shall be in addition to the surveys required by Mitigation Measure 4.6-53, above.) The yearly spineflower population census documentation shall

be submitted to the County and CDFG, and maintained by the project applicant, or its designee. If there are any persistent population declines documented in the annual population census reports, the project applicant, or its designee, shall be responsible for conducting an assessment of the ecological factor(s) that are likely responsible for the decline, and implement management activity or activities to address these factors where feasible. In no event, however, shall project-related activities jeopardize the continued existence of the Newhall Ranch spineflower populations. If a persistent population decline is documented, such as a trend in steady population decline that persists for a period of 5 consecutive years, or a substantial drop in population is detected over a 10-year period, spineflower may be introduced in consultation with CDFG in appropriate habitat and soils in the Newhall Ranch preserve(s), utilizing the bulk spineflower seed repository, together with other required management activity or activities. These activities shall be undertaken by a qualified botanist/biologist, subject to approval by the County and CDFG. The project applicant, or its designee, shall be responsible for the funding and implementation of the necessary management activity or activities, including monitoring, as approved by the County and CDFG.

Annual viability reports shall be submitted to the County and CDFG for 10 years following delineation of the Newhall Ranch spineflower preserve(s) to ensure long-term documentation of the spineflower population status within the Newhall Ranch preserve(s). In the event annual status reports indicate the spineflower population within the Newhall Ranch preserve(s) is not stable and viable 10 years following delineation of the spineflower preserve(s), the project applicant, or its designee, shall continue to submit annual status reports to the County and CDFG for a period of no less than an additional 5 years.

(b) Connectivity, Reserve Design, and Buffers

SP 4.6-67

Indirect impacts associated with the interface between the preserved spineflower populations and planned development within the Newhall Ranch Specific Plan shall be avoided or minimized by establishing open space connections with Open Area, River Corridor, or High Country land use designations. In addition, buffers (i.e., setbacks from developed, landscaped or other use areas) shall be established around portions of the delineated preserve(s) not connected to Open Area, the River Corridor or the High Country land use designations. The open space connections and buffer configurations shall take into account local hydrology, soils, existing and proposed adjacent land uses, the presence of non-native invasive plant species, and seed dispersal vectors.

Open space connections shall be configured such that the spineflower preserves are connected to Open Area, River Corridor, or High Country land use designations to the extent practicable. Open space connections shall be of adequate size and configuration to achieve a moderate to high likelihood of effectiveness in avoiding or minimizing indirect impacts (e.g., invasive plants, increased fire frequency, trampling, chemicals, etc.) to the spineflower preserve(s). Open space connections for the spineflower preserve(s) shall be configured in consultation with the County and CDFG. Open space connections for the spineflower preserve(s) shall be established for the entire Specific Plan area in conjunction with approval of the first Newhall Ranch subdivision map filed in either the Mesa Village, or that portion of the Riverwood Village in which the San Martinez spineflower location occurs.

For preserves and/or those portions of preserves not connected to Open Area, River Corridor, or High Country land use designations, buffers shall be established at variable distances of between 80 and 200 feet from the edge of development to achieve a moderate to high likelihood of effectiveness in avoiding or minimizing indirect impacts (e.g., invasive plants, increased fire frequency, trampling, chemicals, etc.) to the spineflower preserve(s). The buffer size/configuration shall be guided by the analysis set forth in the *“Review of Potential Edge Effects on the San Fernando Valley Spineflower,”* prepared by Conservation Biology Institute, January 19, 2000, and other sources of scientific information and analysis, which are available at the time the preserve(s) and buffers are established. Buffers for the spineflower preserve(s) shall be configured in consultation with the County and CDFG for the entire Specific Plan area. Buffers for the spineflower preserve(s) shall be established in conjunction with approval of the first Newhall Ranch subdivision map filed in either the Mesa Village, or that portion of the Riverwood Village in which the San Martinez spineflower location occurs.

Roadways and road rights-of-way shall not be constructed in any spineflower preserve(s) and buffer locations on Newhall Ranch unless constructing the road(s) in such location is found to be the environmentally superior alternative in subsequently required tiered EIRs in connection with the Newhall Ranch subdivision map(s) process. No other development or disturbance of native habitat shall be allowed within the spineflower preserve(s) or buffer(s).

The project applicant, or its designee, shall be responsible for revegetating open space connections and buffer areas of the Newhall Ranch spineflower preserve(s) to mitigate temporary impacts due to grading that will occur within portions of those open space

connections and buffer areas. The impacted areas shall be reseeded with a native seed mix to prevent erosion, reduce the potential for invasive non-native plants, and maintain functioning habitat areas within the buffer area. Revegetation seed mix shall be reviewed and approved by the County and CDFG.

(c) Preserve Protection/Fencing

SP 4.6-68 To protect the preserved Newhall Ranch spineflower populations, and to further reduce potential direct impacts to such populations due to unrestricted access, the project applicant, or its designee, shall erect and maintain temporary orange fencing and prohibitive signage around the Newhall Ranch preserve(s), open space connections and buffer areas, which are adjacent to areas impacted by proposed development prior to and during all phases of construction. The areas behind the temporary fencing shall not be used for the storage of any equipment, materials, construction debris, or anything associated with construction activities.

Following the final phase of construction of any Newhall Ranch subdivision map adjacent to the Newhall Ranch spineflower preserve(s), the project applicant, or its designee, shall install and maintain permanent fencing along the subdivision tract bordering the preserve(s). Permanent signage shall be installed on the fencing along the preservation boundary to indicate that the fenced area is a biological preserve, which contains protected species and habitat, that access is restricted, and that trespassing and fuel modification are prohibited within the area. The permanent fencing shall be designed to allow wildlife movement.

The plans and specifications for the permanent fencing and signage shall be approved by the County and CDFG prior to the final phase of construction of any Newhall Ranch subdivision map adjacent to a Newhall Ranch spineflower preserve(s).

(d) Preserve Protection/Hydrological Alterations

SP 4.6-69 Indirect impacts resulting from changes to hydrology (i.e., increased water runoff from surrounding development) at the interface between spineflower preserve(s) and planned development within the Newhall Ranch Specific Plan shall be avoided or mitigated to below a level of significance.

Achievement of this standard will be met through the documented demonstration by the project applicant, or its designee, that the storm drain system achieves pre-development

hydrological conditions for the Newhall Ranch spineflower preserve(s). To document such a condition, the project applicant, or its designee, shall prepare a study of the pre- and post-development hydrology, in conjunction with Newhall Ranch subdivision maps adjacent to spineflower preserve(s). The study shall be used in the design and engineering of a storm drain system that achieves pre-development hydrological conditions. The study must conclude that proposed grade changes in development areas beyond the buffers will maintain pre-development hydrology conditions within the preserve(s). The study shall be approved by the Planning Director of the County, and the resulting conditions confirmed by CDFG.

The storm drain system for Newhall Ranch subdivision maps adjacent to any spineflower preserves must be approved by the County prior to the initiation of any grading activities.

(e) Road Construction Measures

SP 4.6-70

Consistent with the Spineflower Mitigation Area Overlay reflected in Mitigation Measure 4.6-65, direct impacts to known Newhall Ranch spineflower populations associated with proposed road construction or modifications to existing roadways shall be further assessed for proposed road construction at the Newhall Ranch subdivision map level, in conjunction with the tiered EIR required for each subdivision map. To avoid or substantially lessen direct impacts to known spineflower populations, Specific Plan roadways shall be redesigned or realigned, to the extent practicable, to achieve the spineflower preserve and connectivity/preserve design/buffer standards set forth in Mitigation Measures 4.6-66 and 4.6-67. The project applicant, or its designee, acknowledges that that road redesign and realignment is a feasible means to avoid or substantially lessen potentially significant impacts on the now known Newhall Ranch spineflower populations. Road redesign or alignments to be considered at the subdivision map level include:

- (a) Commerce Center Drive;
- (b) Magic Mountain Parkway;
- (c) Chiquito Canyon Road;
- (d) Long Canyon Road;

- (e) San Martinez Grande Road;
- (f) Potrero Valley Road;
- (g) Valencia Boulevard; and
- (h) Any other or additional roadways that have the potential to significantly impact known Newhall Ranch spineflower populations.

Roadways and road rights-of-way shall not be constructed in any spineflower preserve(s) and buffer locations on Newhall Ranch, unless constructing the road(s) in such location is found to be the environmentally superior alternative in subsequently required tiered EIRs in connection with the Newhall Ranch subdivision map(s) process.

(f) Engineering, Design and Grading Modifications

SP 4.6-71 Consistent with the Spineflower Mitigation Area Overlay reflected in Mitigation Measure 4.6-65, direct impacts to known Newhall Ranch spineflower populations shall be further assessed at the Newhall Ranch subdivision map level, in conjunction with the required tiered EIR process. To avoid or substantially lessen impacts to known spineflower populations at the subdivision map level, the project applicant, or its designee, may be required to adjust Specific Plan development footprints, roadway alignments, and the limits, patterns and techniques associated with project-specific grading to achieve the spineflower preserve and connectivity/preserve design/buffer standards set forth in Mitigation Measures 4.6-66 and 4.6-67 for all future Newhall Ranch subdivision maps that encompass identified spineflower populations.

(g) Fire Management Plan

SP 4.6-72 A Fire Management Plan shall be developed to avoid and minimize direct and indirect impacts to the spineflower, in accordance with the adopted Newhall Ranch Resource Management Plan (RMP), to protect and manage the Newhall Ranch spineflower preserve(s) and buffers.

The Fire Management Plan shall be completed by the project applicant, or its designee, in conjunction with approval of any Newhall Ranch subdivision map adjacent to a spineflower preserve.

The final Fire Management Plan shall be approved by the County of Los Angeles Fire Department through the processing of subdivision maps.

Under the final Fire Management Plan, limited fuel modification activities within the spineflower preserves will be restricted to selective thinning with hand tools to allow the maximum preservation of Newhall Ranch spineflower populations. No other fuel modification or clearance activities shall be allowed in the Newhall Ranch spineflower preserve(s). Controlled burning may be allowed in the future within the Newhall Ranch preserve(s) and buffers, provided that it is based upon a burn plan approved by the County of Los Angeles Fire Department and CDFG. The project applicant, or its designee, shall also be responsible for annual maintenance of fuel modification zones, including, but not limited to, removal of undesirable non-native plants, revegetation with acceptable locally indigenous plants and clearing of trash and other debris in accordance with the County of Los Angeles Fire Department.

(h) Water Flow Diversion and Management

SP 4.6-73

At the subdivision map level, the project applicant, or its designee, shall design and implement project-specific design measures to minimize changes in surface water flows to the Newhall Ranch spineflower preserve(s) for all Newhall Ranch subdivision maps adjacent to the preserve(s) and buffers, and avoid and minimize indirect impacts to the spineflower. Prior to issuance of a grading permit for each such subdivision map, the project applicant, or its designee, shall submit for approval to the County plans and specifications that ensure implementation of the following design measures:

- (a) During construction activities, drainage ditches, piping or other approaches will be put in place to convey excess storm water and other surface water flows away from the Newhall Ranch spineflower preserve(s) and connectivity/preserve design/buffers, identified in Mitigation Measures 4.6-66 and 4.6-67;
- (b) Final grading and drainage design will be developed that does not change the current surface and subsurface hydrological conditions within the preserve(s);
- (c) French drains will be installed along the edge of any roadways and fill slopes that drain toward the preserve(s);
- (d) Roadways will be constructed with slopes that convey water flows within the roadway easements and away from the preserve(s);

- (e) Where manufactured slopes drain toward the preserve(s), a temporary irrigation system would be installed to the satisfaction of the County in order to establish the vegetation on the slope area(s). This system shall continue only until the slope vegetation is established and self sustaining;
- (f) Underground utilities will not be located within or through the preserve(s). Drainage pipes installed within the preserve(s) away from spineflower populations to convey surface or subsurface water away from the populations will be aligned to avoid the preserve(s) to the maximum extent practicable; and
- (g) Fencing or other structural type barriers that will be installed to reduce intrusion of people or domestic animals into the preserve(s) shall incorporate footing designs that minimize moisture collection.

(i) Biological Monitor

SP 4.6-74 A knowledgeable, experienced botanist/biologist, subject to approval by the County and CDFG, shall be required to monitor the grading and fence/utility installation activities that involve earth movement adjacent to the Newhall Ranch spineflower preserve(s) to avoid the incidental take through direct impacts of conserved plant species, and to avoid disturbance of the preserve(s). The biological monitor will conduct biweekly inspections of the project site during such grading activities to ensure that the mitigation measures provided in the adopted Newhall Ranch Mitigation Monitoring Program (Biota section) are implemented and adhered to.

Monthly monitoring reports, as needed, shall be submitted to the County verifying compliance with the mitigation measures specified in the adopted Newhall Ranch Mitigation Monitoring Program (Biota section).

The biological monitor will have authority to immediately stop any such grading activity that is not in compliance with the adopted Newhall Ranch Mitigation Monitoring Program (Biota section), and to take reasonable steps to avoid the take of, and minimize the disturbance to, spineflower populations within the preserve(s).

(j) Construction Impact Avoidance Measures

SP 4.6-75 The following measures shall be implemented to avoid and minimize indirect impacts to Newhall Ranch spineflower populations during all phases of project construction:

- (a) **Water Control.** Watering of the grading areas would be controlled to prevent discharge of construction water into the Newhall Ranch preserve(s) or on ground sloping toward the preserve(s). Prior to the initiation of grading operations, the project applicant, or its designee, shall submit for approval to the County an irrigation plan describing watering control procedures necessary to prevent discharge of construction water into the Newhall Ranch preserve(s) and on ground sloping toward the preserve(s).
- (b) **Storm Water Flow Redirection.** Diversion ditches would be constructed to redirect storm water flows from graded areas away from the Newhall Ranch preserve(s). To the extent practicable, grading of areas adjacent to the preserve(s) would be limited to spring and summer months (May through September) when the probability of rainfall is lower. Prior to the initiation of grading operations, the project applicant, or its designee, would submit for approval to the County a storm water flow redirection plan that demonstrates the flow of storm water away from the Newhall Ranch spineflower preserve(s).
- (c) **Treatment of Exposed Graded Slopes.** Graded slope areas would be trimmed and finished as grading proceeds. Slopes would be treated with soil stabilization measures to minimize erosion. Such measures may include seeding and planting, mulching, use of geotextiles and use of stabilization mats. Prior to the initiation of grading operations, the project applicant, or its designee, would submit for approval to the County the treatments to be applied to exposed graded slopes that would ensure minimization of erosion.

(k) Reassessment Requirement

SP 4.6-76

In conjunction with submission of the first Newhall Ranch subdivision map in either Mesas Village or that portion of Riverwood Village in which the San Martinez spineflower location occurs, the project applicant, or its designee, shall reassess project impacts, both direct and indirect, to the spineflower populations using subdivision mapping data, baseline data from the Newhall Ranch Final EIR and data from the updated plant surveys (see, Specific Plan EIR Mitigation Measure 4.6-53).

This reassessment shall take place during preparation of the required tiered EIR for each subdivision map. If the reassessment results in the identification of new or additional impacts to Newhall Ranch spineflower populations, which were not previously known

or identified, the mitigation measures set forth in this program, or a Fish and Game Code Section 2081 permit(s) issued by CDFG, shall be required, along with any additional mitigation required at that time.

(l) Newhall Ranch Monitoring and Management

SP 4.6-77

Direct and indirect impacts to the preserved Newhall Ranch spineflower populations shall require a monitoring and management plan, subject to the approval of the County. The applicant shall consult with CDFG with respect to preparation of the Newhall Ranch spineflower monitoring/management plan. This plan shall be in place when the preserve(s) and connectivity/preserve design/buffers are established (see Mitigation Measures 4.6-66 and 4.6-67). The criteria set forth below shall be included in the plan.

Monitoring. The purpose of the monitoring component of the plan is to track the viability of the Newhall Ranch spineflower preserve(s) and its populations, and to ensure compliance with the adopted Newhall Ranch Mitigation Monitoring Program (Biota section).

The monitoring component of the plan shall investigate and monitor factors such as population size, growth or decline, general condition, new impacts, changes in associated vegetation species, pollinators, seed dispersal vectors, and seasonal responses. Necessary management measures will be identified. The report results will be sent annually to the County, along with photo documentation of the assessed site conditions.

The project applicant, or its designee, shall contract with a qualified botanist/biologist, approved by the County, with the concurrence of CDFG, to conduct quantitative monitoring over the life of the Newhall Ranch Specific Plan. The botanist/biologist shall have a minimum of three years experience with established monitoring techniques and familiarity with Southern California flora and target taxa. Field surveys of the Newhall Ranch spineflower preserve(s) will be conducted each spring. Information to be obtained will include: (a) an estimate of the numbers of spineflowers in each population within the preserve(s); (b) a map of the extent of occupied habitat at each population; (c) establishment of photo monitoring points to aid in documenting long-term trends in habitat; (d) aerial photographs of the preserved areas at five-year intervals; (e) identification of significant impacts that may have occurred or problems that need attention, including invasive plant problems, weed problems and fencing or signage repair; and (f) overall compliance with the adopted mitigation measures.

For a period of three years from Specific Plan re-approval, all areas of potential habitat on the Newhall Ranch site will be surveyed annually in the spring with the goal of identifying previously unrecorded spineflower populations. Because population size and distribution limits are known to vary depending on rainfall, annual surveys shall be conducted for those areas proposed for development in order to establish a database appropriate for analysis at the project-specific subdivision map level (rather than waiting to survey immediately prior to proceeding with the project-specific subdivision map process). In this way, survey results gathered over time (across years of varying rainfall) will provide information on ranges in population size and occupation. New populations, if they are found, will be mapped and assessed for inclusion in the preserve program to avoid impacts to the species.

Monitoring/Reporting. An annual report will be submitted to the County and CDFG by December 31st of each year. The report will include a description of the monitoring methods, an analysis of the findings, effectiveness of the mitigation program, site photographs, and adoptive management measures, based on the findings. Any significant adverse impacts, signage, fencing or compliance problems identified during monitoring visits will be reported to the County and CDFG for corrective action by the project applicant, or its designee.

Management. Based on the outcome of ongoing monitoring and additional project-specific surveys addressing the status and habitat requirements of the spineflower, active management of the Newhall Ranch spineflower preserve(s) will be required in perpetuity. Active management activities will be triggered by a downward population decline over five consecutive years, or a substantial drop in population over a 10-year period following County re-approval of the Specific Plan. Examples of management issues that may need to be addressed in the future include, but are not limited to, control of exotic competitive non-native plant species, herbivory predation, weed control, periodic controlled burns, or fuel modification compliance.

After any population decline documented in the annual populations census following County re-approval of the Specific Plan, the project applicant, or its designee, shall be responsible for conducting an assessment of the ecological factor(s) that are likely responsible for the decline, and implement management activity or activities to address these factors where feasible. If a persistent population decline is documented, such as a trend in steady population decline persistent for a period of 5 consecutive years, or a substantial drop in population detected over a 10-year period, spineflower may be

introduced in appropriate habitat and soils in the Newhall Ranch preserve(s), utilizing the bulk spineflower seed repository, together with other required management activity or activities. In connection with this monitoring component, the project applicant, or its designee, shall contract with a qualified botanist/biologist, approved by the County, to complete: (a) a study of the breeding and pollination biology of the spineflower, including investigation into seed physiology to assess parameters that may be important as management tools to guarantee self-sustainability of populations, which may otherwise have limited opportunity for germination; and (b) a population genetics study to document the genetic diversity of the Newhall Ranch spineflower population. The criteria for these studies shall be to develop data to make the Newhall Ranch spineflower management program as effective as possible. These studies shall be subject to approval by the County's biologist, with the concurrence of CDFG. These activities shall be undertaken by a qualified botanist/biologist, subject to approval by the County with the concurrence of CDFG. The project applicant, or its designee, shall be responsible for the funding and implementation of the necessary management activity or activities, as approved by the County and CDFG.

The length of the active management components set forth above shall be governed by attainment of successful management criteria set forth in the plan rather than by a set number of years.

(m) Translocation/Reintroduction Program

SP 4.6-78 To the extent project-related direct and indirect significant impacts on spineflower cannot be avoided or substantially lessened through establishment of the Newhall Ranch spineflower preserve(s), and other avoidance, minimization, or other compensatory mitigation measures, a translocation and reintroduction program may be implemented in consultation with CDFG to further mitigate such impacts. Direct impacts (i.e., take) to occupied spineflower areas shall be fully mitigated at a 4:1 ratio. Impacts to occupied spineflower areas caused by significant indirect effects shall be mitigated at a 1:1 ratio.

Introduction of new spineflower areas will be achieved through a combination of direct seeding and translocation of the existing soil seed bank that would be impacted by grading. Prior to any development within, or disturbance to, spineflower populations, on-site and off-site mitigation areas shall be identified and seed and top soil shall be collected. One-third of the collected seed shall be sent to the Rancho Santa Ana Botanical Garden for storage. One third of the seed shall be sent to the USDA National Seed

Storage Lab in Fort Collins, Colorado for storage. One third shall be used for direct seeding of the on-site and off-site mitigation areas.

Direct seeding. Prior to the initiation of grading, the project applicant, or its designee, shall submit to the County a program for the reintroduction of spineflower on Newhall Ranch. The reintroduction program shall include, among other information: (a) location map with scale; (b) size of each introduction polygon; (c) plans and specifications for site preparation, including selective clearing of competing vegetation; (d) site characteristics; (e) protocol for seed collection and application; and (f) monitoring and reporting. The program shall be submitted to CDFG for input and coordination. The project applicant, or its designee, shall implement the reintroduction program prior to the initiation of grading. At least two candidate spineflower reintroduction areas will be created within Newhall Ranch and one candidate spineflower reintroduction area will be identified off site. Both on-site and off-site reintroduction areas will be suitable for the spineflower in both plant community and soils, and be located within the historic range of the taxon. Success criteria shall be included in the monitoring/management plan, with criteria for the germination, growth, and production of viable seeds of individual plants for a specified period.

Although the reintroduction program is experimental at this stage, the County considers such a program to be a feasible form of mitigation at this juncture based upon available studies. Botanists/biologists familiar with the ecology and biology of the spineflower would prepare and oversee the reintroduction program.

Translocation. Prior to the initiation of grading, the project applicant, or its designee, shall submit to the County a translocation program for the spineflower. Translocation would salvage the topsoil of spineflower areas to be impacted due to grading. Salvaged spineflower soil seed bank would be translocated to the candidate spineflower reintroduction areas. The translocation program shall include, among other information: (a) location map with scale; (b) size of each translocation polygon; (c) plans and specifications for site preparation, including selective clearing of competing vegetation; (d) site characteristics; (e) protocol for topsoil collection and application; and (f) monitoring and reporting. The translocation program shall be submitted to CDFG for input and coordination. Translocation shall occur within the candidate spineflower reintroduction areas on site and off site. Successful criteria for each site shall be included in the monitoring/management plan/with criteria for the germination and growth to reproduction of individual plants for the first year a specified period.

Although the translocation program is experimental at this stage, the County considers such a program to be a feasible form of mitigation at this juncture based upon available studies. Botanists/biologists familiar with the ecology and biology of the spineflower would prepare and oversee the translocation program.

(n) Ongoing Agricultural Activities

SP 4.6-79 The project applicant, or its designee, shall engage in regular and ongoing consultation with the County and CDFG in connection with its ongoing agricultural operations in order to avoid or minimize significant direct impacts to the spineflower.

In addition, the project applicant, or its designee, shall provide 30 days advance written notice to the County and CDFG of the proposed conversion of its ongoing rangeland operations on Newhall Ranch to more intensive agricultural uses. The purpose of the advance notice requirement is to allow the applicant, or its designee, to coordinate with the County and CDFG to avoid or minimize significant impacts to the spineflower prior to the applicant's proposed conversion of its ongoing rangeland operations to more intensive agricultural uses. This coordination component will be implemented by or through the County's Department of Regional Planning and/or the Regional Manager of CDFG. Implementation will consist of the County and/or CDFG conducting a site visit of the proposed conversion area(s) within the 30-day period, and making a determination of whether the proposed conversion area(s) would destroy or significantly impact spineflower population in or adjacent to those areas. If it is determined that the conversion area(s) do not destroy or significantly impact spineflower populations, then the County and/or CDFG will authorize such conversion activities in the proposed conversion area(s). However, if it is determined that the conversion area(s) may destroy or significantly impact spineflower populations, then the County and/or CDFG will issue a stop work order to the applicant, or its designee. If such an order is issued, the applicant, or its designee, shall not proceed with any conversion activities in the proposed conversion area(s). However, the applicant, or the designee, may take steps to relocate the proposed conversion activities in an alternate conversion area(s). In doing so, the applicant, or its designee, shall follow the same notice and coordination provisions identified above. This conversion shall not include ordinary pasture maintenance and renovation or dry land farming operations consistent with rangeland management. *(This measure is not applicable to the Mission Village project because the project does not include an agricultural component.)*

(o) San Martinez Population

SP 4.6-80 Upon approval of tentative tract map(s) impacting the San Martinez portion of the Specific Plan site, the applicant shall work with the Department of Regional Planning staff and SEATAC to establish an appropriately sized preserve area to protect the spineflower population at San Martinez Canyon. *(This measure is not applicable to the Mission Village project because the project is not proposed within the San Martinez portion of the Newhall Ranch Specific Plan.)*

b. Additional Mitigation Measures Proposed by This EIR

The following project-specific mitigation measures are recommended to reduce the potentially significant biological impacts that may occur with implementation of the Mission Village project. These mitigation measures are in addition to those adopted in the certified Newhall Ranch Specific Plan Program EIR. All mitigation measures that relate specifically to the Mission Village project are identified with the designation "MV."

MV 4.3-1 Temporary impacts from construction activities in the riverbed shall be restricted to the following areas of disturbance: (1) an 85-foot-wide zone that extends into the river from the base of the rip-rap or gunite bank protection where it intercepts the river bottom; (2) 100 feet on either side of the outer edge of a new bridge or bridge to be modified; (3) a 60-foot-wide corridor for utility lines; (4) 20-foot-wide temporary access ramps; and (5) 60-foot roadway width temporary construction haul routes. The locations of these temporary construction sites and the routes of all access roads shall be shown on maps submitted with the sub-notification letter submitted to the Corps and CDFG for individual project approval. Any variation from these limits shall be submitted, with a justification for a variation for Corps and CDFG approval. The construction plans should indicate what type of vegetation, if any, would be temporarily disturbed or removed and the post-construction activities to facilitate revegetation of the temporarily impacted areas. The boundaries of the construction site and any temporary access roads within the riverbed shall be marked in the field with stakes and flagging. No construction activities, vehicular access, equipment storage, stockpiling, or significant human intrusion shall occur outside the work area and access roads.

MV 4.3-2 Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities that result in any disturbance to the banks or wetted channel, aquatic habitats within construction sites and

access roads, as well as all aquatic habitats within 300 feet of construction sites and access roads, shall be surveyed by a qualified biologist for the presence of the unarmored threespine stickleback, arroyo chub, and Santa Ana sucker. The Corps and CDFG shall be notified at least 14 days prior to the survey and shall have the option of attending. The biologist shall file a written report of the survey with both agencies within 14 days of the survey and no later than 10 days prior to any construction work in the riverbed. If there is evidence that fish spawn has occurred in the survey area, then surveys shall cease unless otherwise authorized by USFWS. If surveys determine that gravid fish are present, that spawning has recently occurred, or that juvenile fish are present in the proposed construction areas, all activities within aquatic habitat will be suspended. Construction within aquatic habitats shall only occur when it is determined that juvenile fish are not present within the project area.

MV 4.3-3 Conduct focused surveys for California red-legged frogs. Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities, all construction sites and access roads within the riverbed as well as all riverbed areas within 1,000 feet of construction sites and access roads shall be surveyed at the appropriate season for California red-legged frogs. The applicant shall contract with a qualified biologist to conduct focused surveys for California red-legged frogs. If detected in or adjacent to the project area, no work will be authorized within 500 feet of occupied habitat until the applicant provides concurrence from the USFWS to CDFG and Corps. If present, the applicant shall implement measures required by the USFWS Biological Opinion for California red-legged frog that either supplement or supercede these measures. If present, the applicant shall develop and implement a monitoring plan that includes the following measures in consultation with the USFWS and CDFG.

- 1) The applicant shall retain a qualified biologist with demonstrated expertise with California red-legged frogs to monitor all construction activities in potential red-legged frog habitat and assist the applicant in the implementation of the monitoring program. This person will be approved by the USFWS prior to the onset of ground-disturbing activities. This biologist will be referred to as the authorized biologist hereafter. The authorized biologist will be present during all activities immediately adjacent to or within habitat that supports populations of California red-legged frogs.

- 2) Prior to the onset of construction activities, the applicant shall provide all personnel who will be present on work areas within or adjacent to the project area the following information:
 - a. A detailed description of the California red-legged frogs, including color photographs;
 - b. The protection the California red-legged frog receives under the Endangered Species Act and possible legal action that may be incurred for violation of the Act;
 - c. The protective measures being implemented to conserve the California red-legged frogs and other species during construction activities associated with the proposed project; and
 - d. A point of contact if California red-legged frogs are observed.
- 3) All trash that may attract predators of the California red-legged frogs will be removed from work sites or completely secured at the end of each work day.
- 4) Prior to the onset of any construction activities, the applicant shall meet on site with staff from the USFWS and the authorized biologist. The applicant shall provide information on the general location of construction activities within habitat of the California red-legged frogs and the actions taken to reduce impacts to this species. Because California red-legged frogs may occur in various locations during different seasons of the year, the applicant, USFWS, and authorized biologist will, at this preliminary meeting, determine the seasons when specific construction activities would have the least adverse effect on California red-legged frogs. The goal of this effort is to reduce the level of mortality of California red-legged frogs during construction.
- 5) Work areas will be fenced in a manner that prevents equipment and vehicles from straying from the designated work area into adjacent habitat. The authorized biologist will assist in determining the boundaries of the area to be fenced in consultation with the USFWS/CDFG. All workers will be advised that equipment and vehicles must remain within the fenced work areas.

- 6) The authorized biologist will direct the installation of the fence and conduct a minimum of three nocturnal surveys to move any California red-legged frogs from within the fenced area to suitable habitat outside of the fence. If California red-legged frogs are observed on the final survey or during subsequent checks, the authorized biologist will conduct additional nocturnal surveys if he or she determines that they are necessary in concurrence with the USFWS/CDFG.
- 7) Fencing to exclude California red-legged frogs will be at least 24 inches in height.
- 8) The type of fencing must be approved by the authorized biologist and the USFWS/CDFG.
- 9) Construction activities that may occur immediately adjacent to breeding pools or other areas where large numbers of California red-legged frogs may congregate will be conducted during times of the year (fall/winter) when individuals have dispersed from these areas. The authorized biologist will assist the applicant in scheduling its work activities accordingly.
- 10) If California red-legged frogs are found within an area that has been fenced to exclude California red-legged frogs, activities will cease until the authorized biologist moves the California red-legged frog(s).
- 11) If California red-legged frogs are found in a construction area where fencing was deemed unnecessary, work will cease until the authorized biologist moves the California red-legged frogs. The authorized biologist in consultation with USFWS/CDFG will then determine whether additional surveys or fencing are needed. Work may resume while this determination is being made, if deemed appropriate by the authorized biologist and USFWS.
- 12) Any California red-legged frogs found during clearance surveys or otherwise removed from work areas will be placed in nearby suitable, undisturbed habitat. The authorized biologist will determine the best location for their release, based on the condition of the vegetation, access to deep perennial pools, soil, and other habitat features and the proximity to human activities. Clearance surveys shall occur on a daily basis in the work area.
- 13) The authorized biologist will have the authority to stop all activities until appropriate corrective measures have been completed.

- 14) Staging areas for all construction activities will be located on previously disturbed upland areas, if possible, designated for this purpose. All staging areas will be fenced.
- 15) To ensure that diseases are not conveyed between work sites by the authorized biologist or his or her assistants, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force (DAPTF 2009) will be followed at all times.

MV 4.3-4 Focused surveys for arroyo toad shall be conducted. Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities, all construction sites and access roads within the riverbed as well as all riverbed areas within 1,000 feet of construction sites and access roads shall be surveyed at the appropriate season for arroyo toad. The applicant shall contract with a qualified biologist to conduct focused surveys for arroyo toad. If detected in or adjacent to the project area, no work will be authorized within 500 feet of occupied habitat until the applicant provides concurrence from the USFWS to CDFG and the Corps. The applicant shall implement measures required by the USFWS Biological Opinion that either supplement or supercede these measures. If arroyo toads are determined to be present, the applicant shall develop and implement a monitoring plan that includes the following measures in consultation with the USFWS and CDFG:

- 1) The applicant shall retain a qualified biologist with demonstrated expertise with arroyo toads to monitor all construction activities in potential arroyo toad habitat and assist the applicant in the implementation of the monitoring program. This person will be approved by the USFWS prior to the onset of ground-disturbing activities. This biologist will be referred to as the authorized biologist hereafter. The authorized biologist will be present during all activities immediately adjacent to or within habitat that supports populations of arroyo toad.
- 2) Prior to the onset of construction activities, the applicant shall provide all personnel who will be present on work areas within or adjacent to the project area the following information:
 - a. A detailed description of the arroyo toad, including color photographs;

- b. The protection the arroyo toad receives under the Endangered Species Act and possible legal action that may be incurred for violation of the Act;
 - c. The protective measures being implemented to conserve the arroyo toad and other species during construction activities associated with the proposed project; and
 - d. A point of contact if arroyo toads are observed.
- 3) All trash that may attract predators of the arroyo toad will be removed from work sites or completely secured at the end of each work day.
- 4) Prior to the onset of any construction activities, the applicant shall meet on site with staff from the USFWS and the authorized biologist. The applicant shall provide information on the general location of construction activities within habitat of the arroyo toad and the actions taken to reduce impacts to this species. Because arroyo toads may occur in various locations during different seasons of the year, the applicant, USFWS, and authorized biologists will, at this preliminary meeting, determine the seasons when specific construction activities would have the least adverse effect on arroyo toads. The goal of this effort is to reduce the level of mortality of arroyo toads during construction. The parties realize that, if arroyo toads are present, complete prevention of all mortality is likely not possible because some arroyo toads may occur anywhere within suitable habitat during any given season; the detection of every individual over large areas is impossible because of the small size, fossorial habits, and cryptic coloration of the arroyo toad.
- 5) Where construction can occur in habitat where arroyo toads are widely distributed, work areas will be fenced in a manner that prevents equipment and vehicles from straying from the designated work area into adjacent habitat. The authorized biologist will assist in determining the boundaries of the area to be fenced in consultation with the USFWS/CDFG. All workers will be advised that equipment and vehicles must remain within the fenced work areas.
- 6) The authorized biologist will direct the installation of the fence and conduct a minimum of three nocturnal surveys to move any arroyo toads from within the fenced area to suitable habitat outside of the fence. If arroyo toads are observed

on the final survey or during subsequent checks, the authorized biologist will conduct additional nocturnal surveys if he or she determines that they are necessary in concurrence with the USFWS/CDFG.

- 7) Fencing to exclude arroyo toads will be at least 24 inches in height.
- 8) The type of fencing must be approved by the authorized biologist and the USFWS/CDFG.
- 9) Construction activities that may occur immediately adjacent to breeding pools or other areas where large numbers of arroyo toads may congregate will be conducted during times of the year (fall/winter) when individuals have dispersed from these areas. The authorized biologist will assist the applicant in scheduling its work activities accordingly.
- 10) If arroyo toads are found within an area that has been fenced to exclude arroyo toads, activities will cease until the authorized biologist moves the arroyo toads.
- 11) If arroyo toads are found in a construction area where fencing was deemed unnecessary, work will cease until the authorized biologist moves the arroyo toads. The authorized biologist in consultation with USFWS/CDFG will then determine whether additional surveys or fencing are needed. Work may resume while this determination is being made, if deemed appropriate by the authorized biologist and USFWS.
- 12) Any arroyo toads found during clearance surveys or otherwise removed from work areas will be placed in nearby suitable, undisturbed habitat. The authorized biologist will determine the best location for their release, based on the condition of the vegetation, soil, and other habitat features and the proximity to human activities. Clearance surveys shall occur on a daily basis in the work area.
- 13) The authorized biologist will have the authority to stop all activities until appropriate corrective measures have been completed.
- 14) Staging areas for all construction activities will be located on previously disturbed upland areas designated for this purpose. All staging areas will be fenced within potential toad habitat.

- 15) To ensure that diseases are not conveyed between work sites by the authorized biologist or his or her assistants, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force (DAPTF 2009) will be followed at all times.
- 16) Drift fence/pitfall trap surveys will be implemented in toad sensitive areas prior to construction in an effort to reduce potential mortality to this species. Prior to any construction activities in the project area, silt fence shall be installed completely around the proposed work area and a qualified biologist should conduct a preconstruction/clearance survey of the work area for arroyo toads. Any toads found in the work area should be relocated to suitable habitat. The silt fence shall be maintained for the duration of the work activity.
- 17) The applicant shall restrict work to daylight hours, except during an emergency, in order to avoid nighttime activities when arroyo toads may be present on the access road. Traffic speed should be maintained at 15 mph or less in the work area.

MV 4.3-5 Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities, all construction sites and access roads within the riverbed as well as all riverbed areas within 500 feet of construction sites and access roads shall be surveyed at the appropriate season for southwestern pond turtle. Focused surveys shall consist of a minimum of four daytime surveys, to be completed between April 1 and June 1. The survey schedule may be adjusted in consultation with CDFG to reflect the existing weather or stream conditions. The applicant shall develop a Plan to address the relocation of southwestern pond turtle. The Plan shall include but not be limited to the timing and location of the surveys that would be conducted for this species; identify the locations where more intensive efforts should be conducted; identify the habitat and conditions in the proposed relocation site(s); the methods that would be utilized for trapping and relocating individuals; and provide for the documentation/recordation of the numbers of animals relocated. The Plan shall be submitted to CDFG for approval 60 days prior to any ground-disturbing activities within potentially occupied habitat.

If southwestern pond turtles are detected in or adjacent to the project, nesting surveys shall be conducted. Focused surveys for evidence of southwestern pond turtle nesting shall be conducted in, or adjacent to, the project when suitable nesting habitat

exists within 1,300 feet of occupied habitat in an area where project-related ground disturbance will occur (*e.g.*, development, ground disturbance). If both of those conditions are met, a qualified biologist shall conduct focused, systematic surveys for southwestern pond turtle nesting sites. The survey area shall include all suitable nesting habitat within 1,300 feet of occupied habitat in which project-related ground disturbance will occur. This area may be adjusted based on the existing topographical features on a case-by-case basis with the approval of CDFG. Surveys will entail searching for evidence of pond turtle nesting, including remnant eggshell fragments, which may be found on the ground following nest depredation.

If a southwestern pond turtle nesting area would be adversely impacted by construction activities, the applicant shall avoid the nesting area. If avoidance of the nesting area is determined to be infeasible, the authorized biologist shall coordinate with CDFG to identify if it is possible to relocate the pond turtles. Eggs or hatchlings shall not be moved without written authorization from CDFG.

The qualified biologist shall be present during all activities immediately adjacent to or within habitat that supports populations of southwestern pond turtle. Clearance surveys for pond turtles shall be conducted within 500 feet of potential habitat by the authorized biologist prior to the initiation of construction each day. The resume of the proposed biologist will be provided to CDFG for approval prior to conducting the surveys.

MV 4.3-6 Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities, all construction sites and access roads within the riverbed as well as all riverbed areas within 300 feet of construction sites and access roads shall be surveyed at the appropriate season for two-striped garter snake and south coast garter snake. Focused surveys shall consist of a minimum of four daytime surveys, to be completed between April 1 and September 1. The survey schedule may be adjusted in consultation with CDFG to reflect the existing weather or stream conditions. If located, the species will be relocated to suitable pre-approved locations identified in the two-striped garter snake and/or south coast garter snake Relocation Plan.

The applicant shall develop a Plan to address the relocation of two-striped garter snake and south coast garter snake. The Plan shall include but not be limited to the timing and location of the surveys that would be conducted for each species, identify the locations where more intensive efforts should be conducted, identify the habitat and conditions in

the proposed relocation site(s), identify the methods that would be utilized for trapping and relocating the individual species, and provide for the documentation/recordation of the species and number of animals relocated. The Plan shall be submitted to CDFG for approval 60 days prior to any ground-disturbing activities, within potentially occupied habitat.

The qualified biologist shall be present during all activities immediately adjacent to or within habitat that supports populations of two-striped garter snake and/or south coast garter snake. Clearance surveys for garter snakes shall be conducted within 200 feet of potential habitat by the authorized biologist prior to the initiation of construction each day. The resume of the proposed biologists will be provided to CDFG for approval prior to conducting the surveys.

MV 4.3-7

Prior to construction the applicant shall develop a relocation plan for coast horned lizard, silvery legless lizard, coastal western whiptail, rosy boa, San Bernardino ringneck snake, and coast patch-nosed snake. The Plan shall include but not be limited to the timing and location of the surveys that would be conducted for each species; identify the locations where more intensive efforts should be conducted; identify the habitat and conditions in the proposed relocation site(s); the methods that would be utilized for trapping and relocating the individual species; and provide for the documentation/recordation of the species and number of the animals relocated. The Plan shall be submitted to CDFG for approval 60 days prior to any ground disturbing activities within potentially occupied habitat.

The Plan shall include the specific survey and relocation efforts that would occur for construction activities that occur both during the activity period of the special status species (generally March to November) and for periods when the species may be present in the work area but difficult to detect due to weather conditions (generally December through February). Thirty days prior to construction activities in coastal scrub, chaparral, oak woodland, riparian habitats, or other areas supporting these species qualified biologists shall conduct surveys to capture and relocate individual coast horned lizard, silvery legless lizard, coastal western whiptail, rosy boa, San Bernardino ringneck snake, and coast patch-nosed snake in order to avoid or minimize take of these special-status species. The plan shall require a minimum of three (3) surveys conducted during the time of year/day when each species is most likely to be observed. Individuals shall be relocated to nearby undisturbed areas with suitable habitat. If construction is scheduled to occur during the low activity period (generally December through February) the

surveys shall be conducted prior to this period if possible and exclusion fencing shall be placed to limit the potential for re-colonization of the site prior to construction. The qualified biologist will be present during ground-disturbing activities immediately adjacent to or within habitat that supports populations of these species. Clearance surveys for special-status reptiles shall be conducted by a qualified biologist prior to the initiation of construction each day.

Results of the surveys and relocation efforts shall be provided to CDFG in the annual mitigation status report. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

MV 4.3-8 During any stream diversion or culvert installation activity, a qualified biologist(s) shall be present and shall patrol the areas within, upstream, and downstream of the work area. The biologists shall inspect the diversion and inspect for stranded fish or other aquatic organisms. Under no circumstances shall the unarmored threespine stickleback be collected or relocated, unless USFWS personnel or their agents implement this measure. Any event involving stranded fish shall be recorded and reported to CDFG and USFWS within 24 hours.

MV 4.3-9 Temporary bridges, culvert crossings, or other feasible methods of providing access across the river shall be constructed outside of the winter season and not during periods when spawning is occurring. Prior to the construction of any temporary or permanent crossing of the Santa Clara River, the applicant shall develop a Stream Crossing and Diversion Plan. The plan shall include the following elements: the timing and methods for pre-construction aquatic species surveys; a detailed description of the diversion methods (e.g., berms shall be constructed of on-site alluvium materials of low silt content, inflatable dams, sand bags, or other approved materials); special-status species relocation; fish exclusion techniques, including the use of block netting and fish relocation; methods to maintain fish passage during construction; channel habitat enhancement, including the placement of vegetation, rocks, and boulders to produce riffle habitat; fish stranding surveys; and the techniques for the removal of crossings prior to winter storm flows. The Plan shall be submitted to the USFWS and CDFG for approval at least 30 days prior to implementation.

If adult special-status fishes are present and spawning has not occurred, they shall be relocated prior to the diversion or crossing. Block nets of 0.125-inch woven mesh will be set upstream and downstream. On days with possible high temperature or low humidity

(temperatures in excess of 80° F), work will be done in the early morning hours, as soon as sufficient light is available, to avoid exposing fishes to high temperatures and/or low humidity. If high temperatures are present, the fishes will be herded to downstream areas past the block net. Once the fishes have been excluded by herding, a USFWS staff member or his or her agents shall inspect the site for remaining or stranded fish. A USFWS staff member or his or her agents shall relocate the fish to suitable habitat outside the project area (including those areas potentially subject to high turbidity). During the diversion/relocation of fishes, the USFWS or his or her agents shall be present at all times.

MV 4.3-10 Installation of bridges, culverts, or other structures shall not impair the movement of fish and aquatic life. Bottoms of temporary culverts shall be placed at or below channel grade. Bottoms of permanent culverts shall be placed below channel grade. Culvert crossings shall include provisions for a low flow channel where velocities are less than two feet per second to allow fish passage.

MV 4.3-11 a. **Stream diversion bypass channels:**

Stream diversion bypass channels will be constructed when the active wetted channel is within the work zone. Diversion bypass channels will be built in accordance with **MV 4.3-9** and in consultation with CDFG/USFWS. Equipment shall not be operated in areas of ponded or flowing water unless authorized by CDFG/USFWS.

The diversion channel shall be of a width and depth comparable to the natural river channel. In all cases where flowing water is diverted from a segment of the stream channel, the bypass channel will be constructed prior to the diversion of the active stream. The bypass channel will be constructed prior to diverting the stream, beginning in the downstream area and continuing in an upstream direction. Where feasible and in consultation with CDFG/USFWS, the configuration of the diversion channel will be curved (sinuous) with multiple sets of obstructions (*i.e.*, boulders, large logs, or other CDFG/USFWS-approved materials) placed in the channel at the point of each curve (*i.e.*, on alternating sides of the channel). If emergent aquatic vegetation is present in the original channel, the applicant will transplant suitable vegetation into the diversion channel and on the banks prior to or at the time of the water diversion. A qualified restoration ecologist will supervise the construction of the diversion channels on site. The integrity of the channel and diversion shall be maintained throughout the intended diversion period. Channel bank or barrier construction shall be adequate to prevent seepage into or from the work area.

Construction of diversion channels shall not occur if surveys determine that gravid fish are present, spawning has recently occurred, or juvenile fish are present in the proposed construction areas.

At the conclusion of the diversion, either at the commencement of the winter season, or the completion of construction, the applicant will coordinate with CDFG/USFWS to determine if the diversion should be left in place or the stream returned to the original channel. If CDFG/USFWS determine the stream should be diverted to the original channel, the original channel will be modified prior to re-diversion (*i.e.*, while dry) to construct curves (sinuosity) into that channel, including the placement of obstructions (*i.e.*, boulders, large logs, or other CDFG/USFWS-approved materials). The original channel will be replanted with emergent vegetation as the diversion channel was planted. If the diversion channel is abandoned, the boulders will remain in place.

b. Dewatering:

Construction dewatering in close proximity to stream flow shall implement the following:

Assess local stream and groundwater conditions, including flow depths, groundwater elevations, and anticipated dewatering cone of influence (radius of draw down).

Assess surface water elevations upstream, adjacent to, and downstream of the extraction points, to assess any critical flow regimes susceptible to excessive draw down and therefore fish stranding issues.

Assess surface water elevations downstream of the discharge locations (if discharge is proposed to the flowing stream) to assess any flow regimes and overbank areas that may be susceptible to flooding and therefore fish stranding at the cessation of discharge. Discharge locations shall also be assessed for potential channel bed erosion from dewatering discharge, and appropriate BMPs must be implemented to prevent excessive erosion or turbidity in the discharge.

The information above shall be summarized and provided in a plan approved by CDFG and Corps.

Fish shall be excluded from any artificial flowing channels from dewatering discharge. Methods to ensure separation may include, but are not limited to: block netting at the

confluence; creation of a physical drop greater than 4 inches at the confluence; or maintaining a velocity range unsuitable for fish passage, such as a berm at the confluence with small diameter pipes for discharge.

- MV 4.3-12 Slow-moving water habitats shall be constructed upstream and downstream of any river crossing or bridge construction area to provide refuge for special-status fishes during construction. Where feasible and in consultation with CDFG and USFWS, the applicant shall enhance slow-moving water habitats for each linear foot disturbed by hand-excavating shallow side channels and placing multiple sets of obstructions (*e.g.*, boulders, large logs, or other CDFG- and USFWS-approved materials) in the channel.
- MV 4.3-13 Water containing mud, silt, or other pollutants from construction activities shall not be allowed to enter a flowing stream or be placed in locations that may be subject to normal storm flows during periods when storm flows can reasonably be expected to occur.
- MV 4.3-14 Thirty days prior to construction activities, a qualified biologist shall conduct a pre-construction survey for mountain lion natal dens. The survey area shall include the construction footprint and the area within 2,000 feet of the project disturbance boundaries. Should an active natal den be located, the applicant shall cease work within 2,000 feet and inform CDFG within 24 hours. No construction activities shall occur in the 2,000-foot buffer until a qualified biologist in consultation with CDFG establishes an appropriate setback from the den that would not adversely affect the successful rearing of the cubs. No construction activities or human intrusion shall occur within the established setback until the cubs have been successfully reared or the cats have left the area.
- MV 4.3-15 Within 30 days of ground-disturbing activities associated with construction or grading that would occur during the nesting/breeding season of native bird species potentially nesting on the site (typically March through August in the project region, or as determined by a qualified biologist), the applicant shall have weekly surveys conducted by a qualified biologist to determine if active nests of bird species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code are present in the disturbance zone or within 300 feet (500 feet for raptors) of the disturbance zone. The surveys shall continue on a weekly basis, with the last survey being conducted no more than 7 days prior to initiation of disturbance work. If ground-disturbing activities are delayed, then additional pre-disturbance surveys shall be conducted such that no more than 7 days will have elapsed between the survey and ground-disturbing activities.

If active nests are found, clearing and construction within 300 feet of the nest (500 feet for raptors) shall be postponed or halted, at the discretion of the biologist in consultation with CDFG, until the nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting. In the event that golden eagles establish an active nest in the River Corridor SMA/SEA 23, the buffers will be established in consultation with CDFG. Potential golden eagle nesting will be reported to CDFG within 24 hours. Limits of construction to avoid an active nest shall be established in the field with flagging, fencing, or other appropriate barriers, and construction personnel shall be instructed on the sensitivity of nest areas. The biologist shall serve as a construction monitor during those periods when construction activities will occur near active nest areas to ensure that no inadvertent impacts to these nests occur. Results of the surveys shall be provided to CDFG in the annual mitigation status report.

For listed riparian songbirds (least Bell's vireo, southwestern willow flycatcher, yellow-billed cuckoo) USFWS protocol surveys shall be conducted. If active nests are found, clearing and construction within 300 feet of the nest shall be postponed or halted, at the discretion of the biologist in consultation with CDFG and USFWS, until the nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting. If no active nests are observed, construction may proceed. If active nests are found, work may proceed provided that construction activity is located at least 300 feet from active nests (or as authorized through the context of the Biological Opinion and 2081b Incidental Take Permit). This buffer may be adjusted provided noise levels do not exceed 60 dB(A) hourly L_{eq} at the edge of the nest site as determined by a qualified biologist in coordination with a qualified acoustician.

If the noise meets or exceeds the 60 dB(A) L_{eq} threshold, or if the biologist determines that the construction activities are disturbing nesting activities, the biologist shall have the authority to halt the construction and shall devise methods to reduce the noise and/or disturbance in the vicinity. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nest site and the construction activities, and working in other areas until the young have fledged. If noise levels still exceed 60 dB(A) L_{eq} hourly at the edge of nesting territories and/or a no-construction buffer cannot be maintained, construction shall be deferred in that area until the nestlings have fledged. All active nests shall be monitored on a weekly basis until the nestlings fledge. The qualified

biologist shall be responsible for documenting the results of the surveys and the ongoing monitoring and for reporting these results to CDFG and USFWS.

For coastal California gnatcatcher, the applicant shall conduct USFWS protocol surveys in suitable habitat within the project area and all areas within 500 feet of access or construction-related disturbance areas. Suitable habitats, according to the protocol, include "coastal sage scrub, alluvial fan, chaparral, or intermixed or adjacent areas of grassland and riparian habitats." A permitted biologist shall perform these surveys according to the USFWS' (1997a) Coastal California Gnatcatcher Presence/Absence Survey Guidelines. If a territory or nest is confirmed, the USFWS and CDFG shall be notified immediately. If present, a 500-foot disturbance-free buffer shall be established and demarcated by fencing or flagging. No project activities may occur in these areas unless otherwise authorized by USFWS and CDFG. Construction activities in suitable gnatcatcher habitat will be monitored by a full-time qualified biologist. The monitoring shall be of a sufficient intensity to ensure that the biologist could detect the presence of a bird in the construction area.

MV 4.3-16 Thirty days prior to construction activities in grassland, scrub, chaparral, oak woodland, riverbank, and agriculture habitats, or other suitable habitat a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for San Diego black-tailed jackrabbit and San Diego desert woodrat.

If San Diego black-tailed jackrabbits are present, non-breeding rabbits shall be flushed from areas to be disturbed. Dens, depressions, nests, or burrows occupied by pups shall be flagged and ground-disturbing activities avoided within a minimum of 200 feet during the pup-rearing season (February 15 through July 1). This buffer may be reduced based on the location of the den upon consultation with CDFG. Occupied maternity dens, depressions, nests, or burrows shall be flagged for avoidance, and a biological monitor shall be present during construction. If unattended young are discovered, they shall be relocated to suitable habitat by a qualified biologist. The applicant shall document all San Diego black-tailed jackrabbit identified, avoided, or moved and provide a written report to CDFG within 72 hours. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

If active San Diego desert woodrat nests (stick houses) are identified within the disturbance zone or within 100 feet of the disturbance zone, a fence shall be erected

around the nest site adequate to provide the woodrat sufficient foraging habitat at the discretion of the qualified biologist in consultation with CDFG. Clearing and construction within the fenced area will be postponed or halted until young have left the nest. The biologist shall serve as a construction monitor during those periods when disturbance activities will occur near active nest areas to ensure that no inadvertent impacts to these nests will occur. If avoidance is not possible, the applicant will take the following sequential steps: (1) all understory vegetation will be cleared in the area immediately surrounding active nests followed by a period of one night without further disturbance to allow woodrats to vacate the nest, (2) each occupied nest will then be disturbed by a qualified wildlife biologist until all woodrats leave the nest and seek refuge off site, and (3) the nest sticks shall be removed from the project site and piled at the base of a nearby hardwood tree (preferably a coast live oak or California walnut). Relocated nests shall not be spaced closer than 100 feet apart, unless a qualified wildlife biologist has determined that a specific habitat can support a higher density of nests. The applicant shall document all woodrat nests moved and provide a written report to CDFG.

All woodrat relocation shall be conducted by a qualified biologist in possession of a scientific collecting permit.

MV 4.3-17 Thirty days prior to construction activities in grassland, scrub, chaparral, oak woodland, riverbank, and agriculture habitats, or other suitable habitat a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for American badger.

If American badgers are present, occupied habitat shall be flagged and ground-disturbing activities avoided within 50 feet of the occupied den. Maternity dens shall be avoided during the pup-rearing season (February 15 through July 1) and a minimum 200 foot buffer established. This buffer may be reduced based on the location of the den upon consultation with CDFG. Maternity dens shall be flagged for avoidance, identified on construction maps, and a qualified biologist shall be present during construction. If avoidance of a non-maternity den is not feasible, badgers shall be relocated either by trapping or by slowly excavating the burrow (either by hand or mechanized equipment under the direct supervision of the biologist, removing no more than 4 inches at a time) before or after the rearing season (February 15 through July 1). Any relocation of badgers shall occur only after consultation with CDFG. A written

report documenting the badger removal shall be provided to CDFG within 30 days of relocation.

Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

MV 4.3-18 No earlier than 30 days prior to the commencement of construction activities, a pre-construction survey shall be conducted by a qualified biologist to determine if active roosts of special-status bats are present on or within 300 feet of the project disturbance boundaries. Should an active maternity roost be identified (in California, the breeding season of native bat species is generally from April 1 through August 31), the roost shall not be disturbed and construction within 300 feet shall be postponed or halted, until the roost is vacated and juveniles have fledged. Surveys shall include rocky outcrops, caves, structures, and large trees (particularly trees 12 inches in diameter or greater at 4.5 feet above grade with loose bark or other cavities). Trees and rocky outcrops shall be surveyed by a qualified bat biologist (i.e., a biologist holding a CDFG collection permit and a Memorandum of Understanding with CDFG allowing the biologist to handle bats). If active maternity roosts or hibernacula are found, the rock outcrop or tree occupied by the roost shall be avoided (i.e., not removed) by the project. If avoidance of the maternity roost must occur, the bat biologist shall survey (through the use of radio telemetry or other CDFG approved methods) for nearby alternative maternity colony sites. If the bat biologist determines in consultation with and with the approval of CDFG that there are alternative roost sites used by the maternity colony and young are not present then no further action is required.

If a maternity roost will be impacted by the project, and no alternative maternity roosts are in use near the site, substitute roosting habitat for the maternity colony shall be provided on, or in close proximity to, the project site no less than three months prior to the eviction of the colony. Large concrete walls (e.g., on bridges) on south or southwestern slopes that are retrofitted with slots and cavities are an example of structures that may provide alternative potential roosting habitat appropriate for maternity colonies. Alternative roost sites must be of comparable size and proximal in location to the impacted colony. CDFG shall also be notified of any hibernacula or active nurseries within the construction zone.

If non-breeding bat hibernacula are found in trees scheduled to be removed or in crevices in rock outcrops within the grading footprint, the individuals shall be safely evicted,

under the direction of a qualified bat biologist, by opening the roosting area to allow airflow through the cavity or other means determined appropriate by the bat biologist (e.g., installation of one-way doors). In situations requiring one-way doors, a minimum of one week shall pass after doors are installed and temperatures should be sufficiently warm for bats to exit the roost because bats do not typically leave their roost daily during winter months in southern coastal California. This action should allow all bats to leave during the course of one week. Roosts that need to be removed in situations where the use of one-way doors is not necessary in the judgment of the qualified bat biologist in consultation with CDFG shall first be disturbed by various means at the direction of the bat biologist at dusk to allow bats to escape during the darker hours, and the roost tree shall be removed or the grading shall occur the next day (*i.e.*, there shall be no less or more than one night between initial disturbance and the grading or tree removal). These actions should allow bats to leave during nighttime hours, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight.

If an active maternity roost is located on the project site, and alternative roosting habitat is available, the demolition of the roost site must commence before maternity colonies form (*i.e.*, prior to March 1) or after young are flying (*i.e.*, after July 31) using the exclusion techniques described above.

MV 4.3-19 Any special-status species bat day roost sites found by a qualified biologist during pre-construction surveys conducted per **MV 4.3-18**, to be directly (within project disturbance footprint) or indirectly (within 300 feet of project disturbance footprint) impacted are to be mitigated with creation of artificial roost sites. The project applicant shall establish (an) alternative roost site(s) within suitable preserved open space located at an adequate distance from sources of human disturbance.

MV 4.3-20 Thirty days prior to construction activities, a qualified biologist shall conduct CDFG protocol surveys to determine whether the burrowing owl is present at the site. The surveys shall consist of three site visits and shall be conducted in areas dominated by field crops, disturbed habitat, grasslands, and along levee locations, or if such habitats occur within 500 feet of a construction zone. If located, occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFG verifies through non-invasive methods that either the birds have not begun egg-laying and incubation or that juveniles from the occupied burrows are foraging independently and are capable of independent survival. If the burrowing owl is detected but nesting is not occurring, construction work can proceed after any

owls have been evacuated from the site using CDFG-approved burrow closure procedures and after alternative nest sites have been provided in accordance with the CDFG Staff Report on Burrowing Owl Mitigation (10-17-95).

Unless otherwise authorized by CDFG, a 500-foot buffer, within which no activity will be permissible, will be maintained between project activities and nesting burrowing owls during the nesting season. This protected area will remain in effect until August 31 or at CDFG's discretion and based upon monitoring evidence, until the young owls are foraging independently.

Results of the surveys and relocation efforts shall be provided to CDFG in the annual mitigation status report.

- MV 4.3-21 Waste and recycling receptacles that discourage foraging by wildlife species adapted to urban environments shall be installed in common areas and parks throughout the Mission Village site.
- MV 4.3-22 All oaks that will not be removed that are regulated under CLAOTO with driplines within 50 feet of land clearing (including brush clearing) or areas to be graded shall be enclosed in a temporary fenced zone for the duration of the clearing or grading activities. Fencing shall extend to the root protection zone (i.e., the area at least 15 feet from the trunk or 5 feet beyond the drip line, whichever distance is greater). No parking or storage of equipment, solvents, or chemicals that could adversely affect the trees shall be allowed within 25 feet of the trunk at any time. Removal of the fence shall occur only after the project arborist or qualified biologist confirms the health of preserved trees.
- MV 4.3-23 Mitigation Measures **SP 4.6-1** through **SP 4.6-16** specify requirements for riparian mitigation conducted in the High Country SMA/SEA 20, Salt Creek area, and Open Area. The applicant will prepare and implement a plan for mitigation of both riparian and upland habitats (such as riparian adjacent big sagebrush scrub), and incorporates these Mitigation Measures (**SP 4.6-1** through **SP 4.6-16**). A Comprehensive Mitigation Implementation Plan (CMIP) has been developed by Applicant that provides an outline of mitigation to offset impacts. The CMIP demonstrates the feasibility of creating the required mitigation acreage to offset project impacts (see **MV 4.3-31**). However, the CMIP does not identify mitigation actions specifically for impacts to waters of the United

States. But since these waters are a subset of CDFG jurisdiction, the applicable Corps mitigation requirements would be met or exceeded.⁵¹¹

Detailed riparian/wetland mitigation plans, in accordance with the CMIP, shall be submitted to, and are subject to the approval of, the Corps and CDFG as part of the sub-notification letters for individual projects. Individual project submittals shall include applicable CMIP elements, complying with the requirements outlined below. The detailed wetlands mitigation plan shall specify, at a minimum, the following: (1) the location of mitigation sites; (2) site preparation, including grading, soils preparation, irrigation installation, (2a) the quantity (seed or nursery stock) and species of plants to be planted (all species to be native to region); (3) detailed procedures for creating additional vegetation communities; (4) methods for the removal of non-native plants; (5) a schedule and action plan to maintain and monitor the enhancement/restoration area; (6) a list of criteria by which to measure success of the mitigation sites (*e.g.*, percent cover and richness of native species, percent survivorship, establishment of self-sustaining native plantings, maximum allowable percent of non-native species); (7) measures to exclude unauthorized entry into the creation/enhancement areas; and (8) contingency measures in the event that mitigation efforts are not successful. The detailed wetlands mitigation plans shall also classify the biological value (as “high,” “moderate,” or “low”) of the vegetation communities to be disturbed as defined in these conditions, or may be based on an agency-approved method (*e.g.*, Hybrid Assessment of Riparian Communities (HARC)). The biological value shall be used to determine mitigation replacement ratios required under **MV 4.3-31** and **MV 4.3-39**. The detailed wetlands mitigation plans shall provide for the 3:1 replacement of any Southern California black walnut to be removed from the riparian corridor for individual projects. The plan shall be subject to the approval of the CDFG and the Corps and approved prior to the impact to riparian resources. **MV 4.3-33** describes that the functions and values will be assessed for the riparian areas that will be removed, and **MV 4.3-31** and **MV 4.3-39** describe the replacement ratios for the habitats that will be impacted.

MV 4.3-24 Approximately 616.3 acres of coastal scrub shall be preserved on site within Open Area and/or off site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village. This measure ensures that preserved areas will be part of a greater

⁵¹¹ For detailed information concerning the Corps compensatory mitigation program for impacts to waters of the United States, please reference Appendix 11.0 of the Section 404(b)1 Alternatives Analysis, included in Appendix F1.0 of the Final EIS/EIR.

managed preserved system of numerous natural vegetation communities meant to support both common and special-status wildlife species. These areas support the same types of habitat that would be lost through construction and would be further enhanced through management and monitoring activities.

MV 4.3-25 Prior to ground disturbance, construction, or site preparation activities, the applicant shall retain the services of a qualified biologist to conduct pre-construction surveys for western spadefoot toad within all portions of the project site containing suitable breeding habitat. Surveys shall be conducted during a time of year when the species could be detected (e.g., the presence of rain pools). If western spadefoot toad is identified on the project site, the following measures will be implemented:

- (1) Under the direct supervision of the qualified biologist, western spadefoot toad habitat shall be created within suitable natural sites on the Specific Plan site outside of the proposed development envelope. The amount of occupied breeding habitat to be impacted by the project shall be replaced at a 2:1 ratio. The actual relocation site design and location shall be approved by CDFG. The location shall be in a suitable habitat as far away as feasible from any of the homes and roads to be built. The relocation ponds shall be designed such that they only support standing water for several weeks following seasonal rains in order that aquatic predators (e.g., fish, bullfrogs, and crayfish) cannot become established. Terrestrial habitat surrounding the proposed relocation site shall be as similar in type, aspect, and density to the location of the existing ponds as feasible. No site preparation or construction activities shall be permitted in the vicinity of the currently occupied ponds until the design and construction of the pool habitat in preserved areas of the site has been completed and all western spadefoot toad adult, tadpoles, and egg masses detected are moved to the created pool habitat.
- (2) Based on appropriate rainfall and temperatures, generally between the months of February and April, the biologist shall conduct pre-construction surveys in all appropriate vegetation communities within the development envelope. Surveys will include evaluation of all previously documented occupied areas and a reconnaissance-level survey of the remaining natural areas of the site. All western spadefoot adults, tadpoles, and egg masses encountered shall be collected and released in identified/created relocation ponds described above.

- (3) The qualified biologist shall monitor the relocation site for five years, involving annual monitoring during and immediately following peak breeding season such that surveys can be conducted for adults as well as for egg masses and larval and post-larval toads. Further, survey data will be provided to CDFG by the monitoring biologist following each monitoring period and a written report summarizing the monitoring results will be provided to CDFG at the end of the monitoring effort. Success criteria for the monitoring program shall include verifiable evidence of toad reproduction at the relocation site.

MV 4.3-26 Prior to ground disturbance, vegetation clearing, construction, or site preparation activities, a qualified biologist shall be retained to conduct a Worker Environmental Awareness Program (WEAP) for all construction/contractor personnel. A list of construction personnel who have completed training prior to the start of construction shall be maintained on site and this list shall be updated as required when new personnel start work. No construction worker may work in the field for more than five days without participating in the WEAP. The qualified biologist shall provide ongoing guidance to construction personnel and contractors to ensure compliance with environmental/permit regulations and mitigation measures. The qualified biologist shall perform the following:

- Provide training materials and briefings to all personnel working on site. The material shall include but not be limited to the identification and status of plant and wildlife species, significant natural plant community habitats (e.g., riparian), fire protection measures, and review of mitigation requirements.
- A discussion of the federal and state Endangered Species Acts, Bald and Golden Eagle Protection Act, Migratory Bird Treaty Act, other state or federal permit requirements and the legal consequences of non-compliance with these acts.
- Attend the pre-construction meeting to ensure that timing/location of construction activities do not conflict with other mitigation requirements (e.g., seasonal surveys for nesting birds, pre-construction surveys, or relocation efforts).
- Conduct meetings with the contractor and other key construction personnel describing the importance of restricting work to designated areas. Maps showing the location of special-status wildlife or populations of rare plants, exclusion areas, or other construction limitations (e.g., limitations on nighttime work) will be provided

to the environmental monitors and construction crews prior to ground disturbance. This applies to preconstruction activities, such as site surveying and staking, natural resources surveying or reconnaissance, establishment of water quality BMPs, and geotechnical or hydrological investigations.

- Discuss procedures for minimizing harm to or harassment of wildlife encountered during construction and provide a contact person in the event of the discovery of dead or injured wildlife.
- Review/designate the construction area in the field with the contractor in accordance with the final grading plan.
- Ensure that haul roads, access roads, and on-site staging and storage areas are sited within grading areas to minimize degradation of vegetation communities adjacent to these areas (if activities outside these limits are necessary, they shall be evaluated by the biologist to ensure that no special-status species habitats will be affected).
- Conduct a field review of the staking (to be set by the surveyor) designating the limits of all construction activity.
- Flag or temporarily fence any construction activity areas immediately adjacent to riparian areas.
- Ensure and document that required pre-construction surveys and/or relocation efforts have been implemented.
- To reduce the potential for the spread of New Zealand mud snails and weeds (including weed seeds) during project preconstruction and construction, all heavy equipment proposed for use on the project site shall be verified cleaned (including wheels, tracks, undercarriages, and bumpers, as applicable) before delivery to the project site. Equipment must be documented as mud snail and weed free upon delivery to the project site initial staging area, including: (1) vegetation clearing equipment (skid steer loaders, loaders, dozers, backhoes, excavators, chippers, grinders, and any hauling equipment, such as off-road haul trucks, flat bed, or other vehicles); (2) earth-moving equipment (scrapers, dozers, excavators, loaders, motor-graders, compactors, backhoes, off-road water trucks, and off-road haul trucks); and (3) all project-associated vehicles (including personal vehicles) that, upon inspection by the monitoring biologist, are deemed to present a risk for

spreading mud snails or weeds. Equipment shall be cleaned at existing construction yards or at a wash station. The biological monitor shall document that all construction equipment (as described above) has been cleaned prior to working within the project work site. Any equipment/vehicles determined to not be free of mud snails and weeds shall immediately be sent back to the originating construction yard for washing, or wash station where rinse water is collected and disposed of in either a sanitary sewer or other legal point of disposal. Equipment/vehicles moved from the site must be inspected, and re-washed as necessary, prior to re-engaging in construction activities in the project work area. A written daily log shall be kept for all vehicle/equipment washing that states the date, time, location, type of equipment washed, methods used, and location of work;

- Be present during initial vegetation clearing and grading.
- Submit to the CDFG an immediate report (within 72 hours) of any conflicts or errors resulting in impacts to special-status biological resources.

MV 4.3-27 The Draft RMDP Slender Mariposa Lily Mitigation and Monitoring Plan (Dudek 2007) shall be revised and submitted to CDFG for review and approval prior to ground disturbance to occupied habitat. Upon approval, the plan will be implemented by the applicant or its designee. The revised plan will demonstrate the feasibility of enhancing or restoring slender mariposa lily habitat in selected areas to be managed as natural open space (i.e., the Salt Creek area or High Country SMA/SEA 20, spineflower preserves, or River Corridor SMA/SEA 23) without conflicting with other resource management objectives. Habitat replacement/enhancement will be at a 1:1 ratio (acres restored/enhanced to acres impacted).

The revised plan will describe habitat improvement/restoration measures to be completed prior to introducing slender mariposa lily. Habitat improvement/restoration will be based on native occupied slender mariposa lily habitat. The revised plan will specify: (1) the location of mitigation sites (may be selected from among 559 acres of suitable mitigation land in the High Country SMA/SEA 20 and Salt Creek area identified in the Draft Newhall Ranch Mitigation Feasibility Study (Dudek 2007); (2) a description of “target” vegetation (native shrubland or grassland) to include estimated cover and abundance of native shrubs and grasses in occupied slender mariposa lily habitat on Newhall Ranch land (either at sites to be destroyed by construction or at sites to be preserved); (3) site preparation measures to include topsoil treatment, soil decompaction,

erosion control, temporary irrigation systems, or other measures as appropriate; (4) methods for the removal of non-native plants (*e.g.*, mowing, weeding, raking, herbicide application, or burning); (5) the source of all plant propagules (seed, potted nursery stock, *etc.*), the quantity and species of seed or potted stock of all plants to be introduced or planted into the restoration/enhancement areas; (6) a schedule and action plan to maintain and monitor the enhancement/restoration areas, to include at minimum, qualitative annual monitoring for revegetation success and site degradation due to erosion, trespass, or animal damage for a period no less than two years; (7) as needed where sites are near trails or other access points, measures such as fencing, signage, or security patrols to exclude unauthorized entry into the restoration/enhancement areas; and (8) contingency measures such as replanting, weed control, or erosion control to be implemented if habitat improvement/restoration efforts are not successful.

Habitat restoration/enhancement will be judged successful when (1) percent cover and species richness of native species reach 50 percent of their cover and species richness at undisturbed occupied slender mariposa lily habitat at reference sites; and (2) the replacement vegetation has persisted at least one summer without irrigation. At that point slender mariposa lily propagules (seed or bulbs) will be introduced onto the site.

The revised plan will specify methods to collect propagules and introduce slender mariposa lily into these mitigation sites. Introductions will use source material (seeds or bulbs) from no more than 1.0 mile distant, similar slope exposures, and no more than 500 ft. elevational difference from the mitigation site, unless otherwise approved by CDFG. Bulbs may be salvaged and transplanted from slender mariposa lily occurrences to be lost; alternately, seed may be collected from protected occurrences, following CDFG-approved seed collection guidelines (*i.e.*, MOU for rare plant seed collection). No bulbs will be translocated into areas within 300 feet of proposed or existing development. The Applicant or its designee will monitor the reintroduction sites for no fewer than five additional years to estimate slender mariposa lily survivorship (for bulbs) or seedling establishment (for seeded sites).

Annual monitoring reports will be prepared and submitted to CDFG and will be made available to the public to guide future mitigation planning for slender mariposa lily. Monitoring reports will describe all restoration/enhancement measures taken in the preceding year; describe success and completion of those efforts and other pertinent site conditions (erosion, trespass, animal damage) in qualitative terms; and describe mariposa lily survival or establishment in quantitative terms.

A minimum of 133 acres of slender mariposa lily cumulative occupied area will be conserved and managed in the RMDP and SCP project boundaries. Of these 133 acres, approximately 103 acres of slender mariposa lily cumulative occupied area will be conserved and managed in the RMDP and SCP project boundary in the High Country SMA/SEA 20 and Salt Creek area, and 2 acres occur within the River Corridor SMA/SEA 23 and/or proposed spineflower preserves. Additional cumulative occupied area will be conserved and managed in the San Martinez Grande Canyon area at a 1:1 ratio (acres conserved and managed to acres impacted) based on impacts to cumulative occupied area within the Entrada planning area, as a means to ensure regional biodiversity of the species. Up to an additional 28 acres of slender mariposa lily cumulative occupied area can be conserved and managed in the San Martinez Grande Canyon area for this purpose.

MV 4.3-28 The Oak Resource Replacement Plan to be prepared (as described in Newhall Ranch Specific Plan Program EIR Mitigation Measure SP 4.6-48) shall include measures to create, enhance, and/or restore 9.7 acres of coast live oak woodland and valley/oak savannah within the High Country SMA/SEA 20. The plan shall be subject to the requirements outlined in **SP 4.6-48**.

The applicant shall prepare an Oak Resource Management Plan that incorporates the findings of the Draft Newhall Ranch Mitigation Feasibility Report (Dudek 2007) and areas identified (in the technical report) as being suitable for oak woodland enhancement and creation shall be used as mitigation. Other mitigation sites may be used upon approval by the County. The plan shall be reviewed by the County Forester. The plan shall include the following: (1) site selection and preparation; (2) selection of proper species, including sizes and planting densities; (3) protection from herbivores; (4) site maintenance; (5) success criteria; (6) remedial actions; and (7) a monitoring program.

MV 4.3-29 The project applicant will retain a qualified biologist to develop an Exotic Wildlife Species Control Plan and implement a control program for bullfrog, African clawed frog, and crayfish. The program will require the control of these species during construction within the River corridor and modified tributaries (bridges, diversions, bank stabilization, drop structures). The Plan shall include a description of the species targeted for eradication, the methods of harvest that will be employed, the disposal methods, and the measures that would be employed to avoid impacts to sensitive wildlife (*e.g.*, stickleback, arroyo toad, nesting birds) during removal activities (*i.e.*, timing, avoidance of specific areas). Annual monitoring shall occur for the first five years after construction

of project facilities. Monitoring will be conducted within sentinel locations along the River Corridor SMA/SEA 23 and where the project provides potential habitat for these species (e.g., future ponds and water features). Control shall be conducted within project facilities where monitoring results indicate that exotic species have colonized an area. After the first 5 years, the NLMO or other entity will be responsible for controlling exotic aquatic species.

- MV 4.3-30 In order to reduce impacts to biological resources from grading and construction activities, all related activities will be conducted to facilitate the escape of animals to natural areas. Construction and grading activities will begin in disturbed areas in order to avoid stranding animals in isolated patches of vegetation. Trenches will be covered at night or escape routes provided to prevent animals from falling into and being trapped in trenches. If escape routes are provided in lieu of covering trenches, the excavations will be inspected by a qualified biologist prior to restart of work.
- MV 4.3-31 The permanent removal of existing habitats in Corps and/or CDFG jurisdictional areas in the Santa Clara River and tributaries shall be replaced by creating habitats of similar functions and values/services (see **MV 4.3-33**) on the project site, or as allowed under **MV 4.3-39**. The riparian habitat mitigation will meet CDFG mitigation requirements listed in **Table 4.3-11**, consistent with success criteria for mitigation in **MV 4.3-36**.
- MV 4.3-32 Creation of new vegetation communities and restoration of impacted vegetation communities shall occur at suitable sites in or adjacent to jurisdictional areas or in areas where bank stabilization would occur. Locations where the excavation of uplands for bank protection/stabilization results in creation of new, unvegetated riverbed or other disturbance shall receive the highest level of priority for vegetation community restoration. Restoration sites may also occur at locations outside the riverbed where there are appropriate hydrologic conditions to create a self-sustaining riparian vegetation community and where upland and riparian vegetation community values are absent or very low. All sites shall contain suitable hydrological conditions and surrounding land uses to ensure a self-sustaining functioning riparian vegetation community. Candidate restoration sites shall be described in the annual mitigation status report (see **MV 4.3-43**). Sites will be approved when the detailed wetlands mitigation plans are submitted to the Corps and CDFG as part of the sub-notification letters submitted for individual projects. Status of the sites will be addressed through agency review of the annual mitigation status report and mitigation accounting form. Each mitigation plan will include acreages,

maps and site specific descriptions of the proposed revegetation site, including analysis of soils, hydrologic suitability, and present and future adjacent land uses.

Table 4.3-11
CDFG Jurisdictional Permanent Impacts Mitigation Ratios

Ratios Listed by Vegetation Types & Quality				
Vegetation Community	Veg Code / ID	HIGH Reach Value*	MEDIUM Reach Value**	LOW Reach Value***
		(Mit. Ratio)	(Mit. Ratio)	(Mit. Ratio)
Southern Cottonwood-Willow Riparian Forrest	SCRWF	4:1	3:1	2:1
Southern Willow Scrub	SWS	3:1	2.5:1	2:1
Oak Woodland (Coast Live, Valley)	CLOW / VOW	3:1	2.5:1	2:1
Big Sagebrush Scrub	BSS	2.5:1	2:1	1.5:1
Mexican Elderberry Scrub	MES	2.5:1	2:1	1.5:1
Cismontane Alkaline Marsh	CAM	2.5:1	2:1	1.5:1
Coastal and Valley Fresh Water Marsh	CFWM	2:1	1.5:1	1:1
Mulefat Scrub	MFS	2:1	1.5:1	1.25:1
Arrowweed Scrub	AWS	2:1	1.5:1	1:1
California Sagebrush scrub, and CSB-dominated habitats	CSB, CSB-A, -BS, -CB, -CHP, and -PS	2:1	1.5:1	1:1
Herbaceous Wetland	HW	1.5:1	1.25:1	1:1
River Wash, emergent veg.	RW	1.5:1	1.25:1	1:1
Chaparral, Chamise Chaparral	CHP, CC	1.5:1	1.25:1	1:1
Coyote Brush Scrub	CYS	1.5:1	1.25:1	1:1
Eriodictyon Scrub	EDS	1.5:1	1.25:1	1:1
California Grass Lands	CGL	1:1	1:1	1:1
Agricultural/Disturbed/Developed	AGR/DL/DEV	1:1	1:1	1:1

Notes:

* HIGH reach value indicates a portion of the Santa Clara River or main tributary that scored above 0.79 Total Score utilizing the HARC methodology described in **Section 4.2, Geomorphology and Riparian Resources**, of the Draft RMDP-SCP EIS/EIR.

** MEDIUM reach value indicates a portion of the Santa Clara River or main tributary that scored between 0.4 and 0.79 Total Score utilizing the HARC methodology described in **Section 4.2**.

*** LOW reach value indicates a portion of the Santa Clara River or main tributary that scored below 0.4 Total Score utilizing the HARC methodology described in **Section 4.2**.

MV 4.3-33 Replacement vegetation communities shall be designed to replace the functions and values of the vegetation communities being removed. The replacement vegetation communities shall have similar dominant trees and understory shrubs and herbs (excluding exotic species) to those of the affected vegetation communities (see **Table 4.3-12** for example of recommended plant species for the River Corridor SMA/SEA 23 and

tributaries). In addition, the replacement vegetation communities shall be designed to replicate the density and structure of the affected vegetation communities once the replacement vegetation communities have met the mitigation success criteria.

Table 4.3-12
Potential Plant Species for Vegetation Community Restoration in the River Corridor SMA/SEA 23 and Tributaries

Trees	
red willow	<i>Salix laevigata</i>
arroyo willow	<i>Salix lasiolepis</i>
Fremont cottonwood	<i>Populus fremontii</i>
black cottonwood	<i>Populus balsamifera</i> ssp. <i>Trichocarpa</i>
western sycamore	<i>Platanus racemosa</i>
Shrubs	
Mulefat	<i>Baccharis salicifolia</i>
sandbar willow	<i>Salix exigua</i>
arrow weed	<i>Pluchea sericea</i>
Herbs	
Mugwort	<i>Artemisia douglasiana</i>
western ragweed	<i>Ambrosia psilostachya</i>
Cattail	<i>Typha latifolia</i>
Bulrush	<i>Scirpus americanus</i>
prairie bulrush	<i>Scirpus maritimus</i>

Note: This is a recommended list. Other species may be found suitable based on site conditions and state and federal permits.

MV 4.3-34 Average plant spacing shall be determined based on an analysis of vegetation communities to be replaced. The applicant shall develop plant spacing specifications for all riparian vegetation communities to be restored. Plant spacing specifications shall be reviewed and approved by the Corps and CDFG when restoration plans are submitted to the agencies as part of the sub-notification letters submitted to the Corps and CDFG for individual projects or as part of the annual mitigation status report and mitigation accounting form.

MV 4.3-35 If at any time prior to CDFG/Corps approval of the restoration area, the site is subject to an act of God (flood, fires, or drought), the applicant shall be responsible for replanting the damaged area. The site will be subject to the same success criteria as provided for **MV 4.3-36**. Should a second act of God occur prior to CDFG/Corps approval of the restoration area, the applicant shall coordinate with the CDFG/Corps to develop an

alternative restoration strategy(ies) to meet success requirements. This may include restoration elsewhere in the River corridor or tributaries.

MV 4.3-36 The revegetation site will be considered “complete” upon meeting all of the following success criteria. In a sub-notification letter, the applicant may request modification of success criteria on a project by project basis. Acceptance of such request will be at the discretion of CDFG and the Corps.

1. Regardless of the date of initial planting, any restoration site must have been without active manipulation by irrigation, planting, or seeding for a minimum of three years prior to Agency consideration of successful completion.
2. The percent cover and species richness of native vegetation shall be evaluated based on local reference sites established by CDFG and the Corps for the plant communities in the impacted areas.
3. Native shrubs and trees shall have at least 80 percent survivorship after two years beyond the beginning of the success evaluation start date. This may include natural recruitment.
4. Non-native species cover will be no more than 5 percent absolute cover through the term of the restoration.
5. Giant reed (*Arundo donax*), tamarisk (*Tamarix ramosissima*), perennial pepperweed (*Lepidium latifolium*), tree of heaven (*Ailanthus altissimus*), pampas grass (*Cortaderia selloana*) and any species listed on the California State Agricultural list, or Cal-IPC list of noxious weeds will not be present on the revegetation site as of the date of completion approval.
6. Using the HARC assessment methodology, the compensatory mitigation site shall meet or exceed the baseline functional scores of the impact area in Corps’ jurisdictional waters, as described in the Conceptual Mitigation Plan⁵¹² for Waters of the United States.

MV 4.3-37 Temporary irrigation shall be installed as necessary for plant establishment. Irrigation shall continue as needed until the restoration site becomes self sustaining regarding

⁵¹²For detailed information concerning the Corps compensatory mitigation program for impacts to waters of the United States, please reference Appendix 11.0 of the Section 404(b)1 Alternatives Analysis, included in Appendix F1.0 of the Final EIS/EIR.

survivorship and growth. Irrigation shall be terminated in the fall to provide the least stress to plants. Following irrigation termination, the irrigation piping will be removed where not destructive to the established plants.

- MV 4.3-38 In areas where invasive exotic plant species control is authorized by CDFG in lieu of creating or restoring other riparian habitat mitigation (**MV 4.3-31**), removal areas shall be kept free of exotic plant species for 5 years after initial treatment. In areas where extensive exotic removal occurs, revegetation with native plants or natural recruitment shall be documented.
- MV 4.3-39 The exotics control program may utilize methods and procedures in accordance with the provisions in the Upper Santa Clara River Watershed Arundo/Tamarisk Removal Plan Final Environmental Impact Report, dated February 2006, or the applicant may propose alternative methods and procedures for Corps and CDFG review and approval pursuant to a sub-notification letter. By example: a 10-acre site occupied by 10% exotic species will be credited for 1 acre of mitigation.
- MV 4.3-40 All native riparian trees with a 3-inch diameter at breast height (dbh) or greater in temporary construction areas shall be replaced using 1- or 5-gallon container plants, containered trees, or pole cuttings in the temporary construction areas in the winter following the construction disturbance. The growth and survival of the replacement trees shall meet the performance standards specified in **MV 4.3-36**. In addition, the growth and survival of the planted trees shall be monitored until they meet the self-sustaining success criteria in accordance with the methods and reporting procedures specified in **MV 4.3-36**, **MV 4.3-42**, and **MV 4.3-43**.
- MV 4.3-41 Vegetation communities temporarily impacted by the proposed project shall be revegetated as described in **MV 4.3-31**. Large trunks of removed trees may also remain on site to provide habitat for invertebrates, reptiles, and small mammals or may be anchored within the project site for erosion control. To facilitate restoration, mulch, or native topsoil (the top 6- to 12-inch deep layer containing organic material), may be salvaged from the work area prior to construction. Following construction, salvaged topsoil shall be returned to the work area and placed in the restoration site. Within one year, the project biologist will evaluate the progress of restoration activities in the temporary impact areas to determine if natural recruitment has been sufficient for the site to reach performance goals. In the event that native plant recruitment is determined by the project biologist to be inadequate for successful habitat establishment, the site shall be

revegetated in accordance with the methods designed for permanent impacts (i.e., seeding, container plants, and/or a temporary irrigation system may be recommended). This will help ensure the success of mitigation areas. The applicant shall restore the temporary construction area per the success criteria and ratios described in **MV 4.3-23**, **MV 4.3-31**, and **MV 4.3-36**. Annual monitoring reports on the status of the recovery or temporarily impacted areas shall be submitted to the Corps and CDFG as part of the annual mitigation status report (**MV 4.3-42** and **MV 4.3-43**).

MV 4.3-42 To provide an accurate and reliable accounting system for mitigation, the applicant shall file a mitigation accounting form annually with the Corps and CDFG by April 1.

MV 4.3-43 An annual mitigation status report shall be submitted to the Corps and CDFG by April 1 of each year until satisfaction of success criteria identified in **MV 4.3-36**. This report shall include any required plans for plant spacing, locations of candidate restoration and weed control sites or proposed “in-lieu fees,” restoration methods, and vegetation community restoration performance standards. For active vegetation community creation sites, the report shall include the survival, percent cover, and height of planted species; the number by species of plants replaced; an overview of the revegetation effort and its success in meeting performance criteria; the method used to assess these parameters; and photographs. For active exotics control sites, the report shall include an assessment of weed control; a description of the relative cover of native vegetation, bare areas, and exotic vegetation; an accounting of colonization by native plants; and photographs. The report shall also include the mitigation accounting form (see **MV 4.3-42**), which outlines accounting information related to species planted or exotics control and mitigation credit remaining. The annual mitigation and monitoring report shall document the current functional capacity of the compensatory mitigation site using the HARC assessment methodology, as well as documenting the baseline functional scores of the impact site in jurisdictional waters of the United States.

MV 4.3-44 Require focused surveys for the spring snail (*Pyrgulopsis castaicensis* **n. sp.**) by a qualified biologist prior to the commencement of grading/construction activities in any drainage area supporting perennial flow. Any individuals of the *Pyrgulopsis castaicensis* **n. sp.** found within the Middle Canyon drainage shall be relocated to appropriate habitat within Middle Canyon Spring. If *Pyrgulopsis castaicensis* **n. sp.** are discovered during aquatic and semi-aquatic pre-construction surveys in any other perennial flowing water, the applicant shall consult with CDFG prior to initiating disturbance of the area. A report documenting the number of *Pyrgulopsis castaicensis* **n. sp.** located, the conditions of the

area, and where the species has been relocated to, if applicable, shall be submitted to CDFG within 60 days following the relocation.

- MV 4.3-45 An Integrated Pest Management (IPM) plan that addresses the use of pesticides (including rodenticides and insecticides) on site will be prepared prior to the issuance of building permits for the initial tract map. The IPM will implement appropriate Best Management Practices to avoid and minimize adverse effects on the natural environment, including vegetation communities, special-status species, species without special status, and associated habitats, including prey and food resources (*e.g.*, insects, small mammals, seeds). Potential management practices include cultural (*e.g.*, planting pest-free stock plants), mechanical (*e.g.*, weeding, trapping), and biological controls (*e.g.*, natural predators or competitors of pest species, insect growth regulators, natural pheromones, or biopesticides), and the judicious use of chemical controls, as appropriate (*e.g.*, targeted spraying versus broadcast applications). The IPM will establish management thresholds (*i.e.*, not all incidences of a pest require management); prescribe monitoring to determine when management thresholds have been exceeded; and identify the most appropriate and efficient control method that avoids and minimizes risks to natural resources. Preparation of the covenants, conditions, and restrictions (CC&Rs) for each tract map shall include language that prohibits the use of anticoagulant rodenticides in the project site.
- MV 4.3-46 The Natural Lands Management Organization (NLMO) shall fund or otherwise coordinate the regular removal of trash and debris from riparian habitats on or adjacent to the project site. The removal of trash shall be conducted in a manner as to not disturb sensitive habitats.
- MV 4.3-47 Each tract map Home Owners' Association shall supply educational information to future residents regarding pets, wildlife, and open space areas. The material shall discuss the presence of native animals (*e.g.*, coyote, bobcat, mountain lion), indicate that those native animals could prey on pets, indicate that no actions shall be taken against native animals should they prey on pets allowed outdoors, indicate that residents should not feed wildlife intentionally or unintentionally by leaving pet food outside, and indicate that pets must be leashed while using the designated trail system and/or in any areas within or adjacent to open space. Control of stray and feral cats and dogs will be conducted in open space areas on an as-needed basis by the NLMO(s) or the Newhall Ranch *joint powers authority* (JPA) managing the River Corridor SMA/SEA 23, High Country SMA/SEA 20, or Salt Creek area or by the HOAs managing the Open

Areas. Feral cats and dogs may be trapped and deposited with the local Society for the Prevention of Cruelty to Animals or the Los Angeles County Department of Animal Control.

MV 4.3-48 Upon completion of landscaping within a development area, quarterly monitoring shall be initiated for Argentine ants along the urban–open space interface at sentinel locations where invasions could occur (e.g., where moist microhabitats that attract Argentine ants may be created). A qualified biologist shall determine the monitoring locations. Ant pitfall traps will be placed in these sentinel locations and operated on a quarterly basis to detect invasion by Argentine ants. If Argentine ants are detected during monitoring, direct control measures will be implemented immediately to help prevent the invasion from worsening. These direct controls may include but are not limited to nest/mound insecticide treatment, or available natural control methods being developed. A general reconnaissance of the infested area would also be conducted to identify and correct the possible source of the invasion, such as uncontrolled urban runoff, leaking pipes, or collected water. Monitoring and control of Argentine ants would occur for a 5-year period. After the first 5 years, the NLMO or other entity will be responsible for controlling Argentine ants.

MV 4.3-49 Thirty days prior to construction activities, a qualified biologist shall conduct a preconstruction survey for ringtail. The survey area shall include suitable riparian and woodland habitat (southern coast live oak riparian forest, southern cottonwood–willow riparian forest, southern willow scrub, coast live oak woodland, valley oak woodland, and mixed oak woodland) within the construction disturbance zone and a 300-foot buffer around the construction site. Should the ringtail be observed in the breeding and rearing period of February 1 through August 31, no construction-related activities shall occur within 300 feet of the occupied area for the period of February 1 through August 31 or until the ringtail has been determined by a qualified biologist (in consultation with CDFG) to no longer occupy areas within 300 feet of the construction zone and/or that construction activities would not adversely affect the successful rearing of young. If the ringtail is observed within the construction disturbance zone or in the 300-foot buffer around the construction site in the nonbreeding/rearing period of September 1 through January 31, and avoidance is not possible, denning ringtail shall be safely evicted under the direction of a qualified biologist (as determined by a Memorandum of Understanding with CDFG). All activities that involve the ringtail shall be documented and reported to CDFG.

- MV 4.3-50 Any Southern California black walnut and mainland cherry trees or shrubs outside riparian areas greater than 1-inch dbh shall be replaced in the ratio of at least 2:1. Multi-trunk trees/shrub dbh shall be calculated based on combined trunk dbh. Mitigation shall be deemed complete when each replacement tree attains at least 1 inch in diameter 1 foot above the base.
- MV 4.3-51 Bridges over the Santa Clara River shall be designed to minimize impacts to natural areas and riparian resources from associated lighting and stormwater runoff. All lighting will be designed to be directed away from natural areas (pursuant to SP-4.6-56) using shielded lights, low sodium-vapor lights, bollard lights, or other available light and glare minimization methods. Bridges will be designed to minimize normal vehicular lighting from trespassing into natural areas using side walls a minimum of 24 inches high. All stormwater from the bridges will be directed to water treatment facilities for water quality treatment.
- MV 4.3-52 Construction plans shall include necessary design features and construction notes to ensure protection of vegetation communities and special-status plant and aquatic wildlife species adjacent to construction. In addition to applicable erosion control plans and performance under SCAQMD Rule 403d dust control (SCAQMD 2005), the project stormwater pollution prevention plan (SWPPP) shall include the following minimum BMPs. Together, the implementation of these requirements shall ensure protection of adjacent habitats and wildlife species during construction. At a minimum, the following measures/restrictions shall be incorporated into the SWPPP, and noted on construction plans where appropriate, to avoid impacting special-status species during construction:
- Avoid planting or seeding invasive species in development areas within 200 feet of native vegetation communities.
 - Provide location and details for any dust control fencing along project boundaries (MV 4.3-53).
 - Vehicles shall not be driven or equipment operated in areas of ponded or flowing water, or where wetland vegetation, riparian vegetation, or aquatic organisms may be destroyed, except as otherwise provided for in the 404 Permit or 1603 Agreement.
 - Silt settling basins installed during the construction process shall be located away from areas of ponded or flowing water to prevent discolored, silt-bearing water from reaching areas of ponded or flowing water during normal flow regimes.

- If a stream channel has been altered during the construction and/or maintenance operations, its low flow channel shall be returned as nearly as practical to pre-project topographic conditions without creating a possible future bank erosion problem or a flat, wide channel or sluice-like area. The gradient of the streambed shall be returned to pre-project grade, to the extent practical, unless it represents a wetland restoration area.
- Temporary structures and associated materials not designed to withstand high seasonal flows shall be removed to areas above the high water mark before such flows occur.
- Staging/storage areas for construction equipment and materials shall be located outside of the ordinary high water mark.
- Any equipment or vehicles driven and/or operated within or adjacent to the stream shall be checked and maintained daily, to prevent leaks of materials that could be deleterious to aquatic life if introduced to water.
- Stationary equipment such as motors, pumps, generators, and welders which may be located within the riverbed construction zone shall be positioned over drip pans. No fuel storage tanks shall be allowed in the riverbed.
- No debris, bark, slash sawdust, rubbish, cement or concrete or washing thereof, oil, petroleum products, or other organic material from any construction, or associated activity of whatever nature, shall be allowed to enter into, or be placed where it may be washed by rainfall or runoff into, watercourses included in the permit. When construction operations are completed, any excess materials or debris shall be removed from the work area.
- No equipment maintenance shall be done within or near any stream where petroleum products or other pollutants from the equipment may enter these areas with stream flow.
- The operator shall install and use fully covered trash receptacles to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Trash will be regularly picked up in construction areas.
- The operator shall not permit pets on or adjacent to the construction site.

- No guns or other weapons are allowed on the construction site during construction, with the exception of the security personnel and only for security functions. No hunting shall be authorized/permitted during construction.

MV 4.3-53 Development areas shall have dust control measures implemented and maintained to prevent dust from impacting vegetation communities and special-status plant and aquatic wildlife species. Dust control shall comply with SCAQMD Rule 403d (SCAQMD 2005). Where construction activities occur within 100 feet of known special-status plant species locations, chemical dust suppression shall not be utilized. Where determined necessary by a qualified biologist, a screening fence (*i.e.*, a six-foot-high chain link fence with green fabric up to a height of 5 feet) shall be installed to protect special-status species locations. See **MV 4.3-65** for dust control requirements related to spineflower preserves.

MV 4.3-54 Permanent fencing shall be installed along all River Corridor SMA/SEA 23 trails adjacent to the Santa Clara River, or other sensitive resources, in order to minimize impacts associated with increased human presence on protected vegetation communities and special-status plant and wildlife species. The fencing will be split rail to avoid inhibiting wildlife movement. Viewing platforms will be located in land covers currently mapped as agriculture, disturbed land, or developed land.

MV 4.3-55 To protect Middle Canyon Spring and to reduce potential direct impacts to any special-status species that may be located within the spring complex due to unrestricted access, the project applicant or its designee shall avoid all construction-related activities within the Middle Canyon Spring complex and erect and maintain temporary orange fencing and prohibitive signage around the Middle Canyon Spring prior to and during all phases of construction within 200 feet of the spring and, if applicable, around the Middle Canyon drainage within 100 feet of flowing water. A qualified biologist will be present to monitor construction activities within 200 feet of the spring and, if applicable, around the Middle Canyon drainage within 100 feet of flowing water. The areas behind the temporary fencing shall not be used for the storage of any equipment, materials, construction debris, or anything associated with construction activities. Any upslope runoff from construction areas will be directed away from the Middle Canyon Spring.

Following the final phase of construction of any Newhall Ranch subdivision tract adjacent to Middle Canyon Spring, the project applicant or its designee shall install and maintain permanent fencing along the subdivision tract bordering the spring. Permanent

signage shall be installed on the fencing along the spring boundary to indicate that the fenced area is a biological preserve that contains protected species and habitat. No trail shall be constructed that passes within 100 feet of the Middle Canyon Spring (see **Figure 4.3-4B** above).

- a. The Commerce Center Drive Bridge will be designed to minimize secondary impacts associated with lighting and water quality impacts through the installation of indirect and downcast lighting, and routing of stormwater to water quality treatment facilities.

MV 4.3-56 A Middle Canyon Spring Habitat Management Plan will be developed that details the measures to be implemented to maintain the populations of the spring snail (*Pyrgulopsis castaicensis* n. sp.) and Newhall sunflower species. The plan shall be subject to the approval of CDFG and implemented by the Applicant prior to disturbance within 100 feet of flowing water in Middle Canyon Creek and/or 200 feet of Middle Canyon Spring.

.MV 4.3-57 Plant palettes proposed for use on landscaped slopes, street medians, park sites, and other public landscaped and fuel modification zone (FMZ) areas within 200 feet of native vegetation communities shall be reviewed by a qualified restoration specialist to ensure that the proposed landscape plants will not naturalize and require maintenance or cause vegetation community degradation in the open space areas (River Corridor SMA/SEA 23, High Country SMA/SEA 20, Salt Creek area, and natural portions of the Open Area). Container plants to be installed within public areas within 200 feet of the open space areas shall be inspected by a qualified restoration specialist for the presence of disease, weeds, and pests, including Argentine ants. Plants with pests, weeds, or diseases shall be rejected. In addition, landscape plants within 200 feet of native vegetation communities shall not be on the Cal-IPC California Invasive Plant Inventory (most recent version) or on the list of Invasive Ornamental Plants listed in Appendix B of the Spineflower Conservation Plan (SCP). The current Cal-IPC list can be obtained from the Cal-IPC web site (<http://www.cal-ipc.org/ip/inventory/index.php>). Landscape plans will include a plant palette composed of native or non-native, non-invasive species that do not require high irrigation rates. Except as required for fuel modification, irrigation of perimeter landscaping shall be limited to temporary irrigation (*i.e.*, until plants become established).

MV 4.3-58 A final SCP shall be adopted and implemented after approval by CDFG, including the permanent dedication of preserves (see draft in Appendix 4.3). The proposed spineflower

preserve areas shall be offered to CDFG as a permanent conservation easement within one year after issuance of the requested 2081 Permit to ensure long-term protection. The conservation easement shall be to CDFG and contain appropriate funding and restrictions to help ensure that the spineflower preserve lands are protected in perpetuity.

- MV 4.3-59 The spineflower preserves shall be managed by Applicant and their preserve manager(s) and/or natural lands management organization(s) (NLMO). Applicant shall submit a statement of qualifications for their proposed preserve manager(s)/NLMO(s) for approval by CDFG. Applicant will fund in full all implementation of spineflower preserve management as described in the SCP and all mitigation measures listed in this document.
- MV 4.3-60 Spineflower preserve temporary fencing shall be shown on construction plans and installed prior to initiating construction clearing and grubbing activities within 500 feet of spineflower preserves, including the buffers. The spineflower preserve manager or a qualified biologist shall monitor fence installation. Clearing for fence installation shall be minimized to what is necessary to install the fence and, where possible, shall leave the roots of native plants in place to allow regrowth. As necessary, native vegetation will be restored and weed management will be performed following fence installation to ensure temporarily cleared native plant areas do not become weed dominated after installation. General project clearing and grubbing within 500 feet of the fence may commence upon verification by the spineflower preserve manager or the qualified biologist that protective fencing is in place and is adequate. Appropriate BMPs shall be installed at the edge of development manufactured slopes when the spineflower preserve is within 500 feet and down-slope of proposed development.
- MV 4.3-61 Construction documents shall indicate that the grading contractor is responsible for protecting spineflower preserves during construction work. The construction documents shall indicate that the contractor is responsible for informing all employees and subcontractors of the environmentally sensitive areas and the proper conduct of work when working near (e.g., within 500 feet) of these areas. The construction documents shall require a pre-construction meeting to perform an “environmental education session” with the grading contractor/contractor’s employees, subcontractors, and equipment operators prior to commencing construction work within 500 feet of the spineflower preserves. The environmental education session shall be conducted by the spineflower preserve manager or a qualified biologist and focus on informing workers of

the location and sensitivity of the spineflower and the requirements for protecting it. The construction documents shall indicate that the grading contractor shall be responsible for mitigating any impacts to spineflower preserves due to the negligence of the grading contractor/contractor's employees, subcontractors, or equipment operators. If accidental trespass into a spineflower preserve occurs during construction, the violation shall be documented by the preserve manager and immediately reported to CDFG. Follow-up action will be taken in accordance with the Section 2081 of the Fish and Game Code, Incidental Take Permit issued by CDFG.

MV 4.3-62

Construction plans shall include necessary design features and construction notes to demonstrate consistency of development in the vicinity of spineflower preserves with the Spineflower Conservation Plan (SCP). In addition to applicable erosion control plans and performance under SCAQMD Rule 403d dust control (SCAQMD 2005), the project stormwater pollution prevention plan (SWPPP). Together, the implementation of these requirements shall ensure that spineflower preserve populations are protected during construction. At a minimum, the following measures/restrictions shall be incorporated into the SWPPP and noted on construction plans, where appropriate, to avoid impacting spineflower preserves during construction:

- Avoid planting or seeding invasive species in development areas during construction phases.
- Do not use erosion control devices that may contain weeds, such as hay bales, etc., within 200 feet of spineflower preserves, or anywhere upstream of spineflower preserves.
- Do not windrow or stockpile soil within 200 feet of spineflower preserve boundaries or anywhere upstream of spineflower preserves.
- Do not locate staging areas, maintenance, or concrete washout areas within 500 feet (unless otherwise authorized by CDFG, and no closer than 200 feet in any instance), where adjacent to or anywhere upstream of spineflower preserves.
- Do not store toxic compounds, including fuel, oil, lubricants, paints, release agents, or any other construction materials that could damage spineflower habitat if spilled near spineflower preserve areas, or anywhere upstream of spineflower preserves, or along spineflower preserve boundaries.

- Provide location and details for any fencing for temporary and permanent access control along preserve boundaries (per **MV 4.3-64** for temporary fencing and **MV 4.3-69** for permanent fencing).
- Provide location and details for any dust control fencing along preserve boundaries (per **MV 4.3-65**).
- Provide location and details for any stormwater run-on controls/BMPs coming from development area to spineflower preserve (per **MV 4.3-71** and **MV 4.3-72**).

MV 4.3-63 The spineflower preserve manager or qualified biologist shall review construction plans and specifications, SWPPP, and, where appropriate, erosion control plans and implementation of SCAQMD Rule 403d dust control measures (SCAQMD 2005) prior to construction within 500 feet of spineflower preserves for compliance with the Spineflower Conservation Plan and associated permits and project-related environmental documents. A copy of the SWPPP and associated monitoring reports will be provided to CDFG.

MV 4.3-64 Spineflower preserves shall be protected prior to clearing and during construction with temporary construction fencing as described in **MV 4.3-60**. Openings shall be included in the fence when located within wildlife corridors and vegetation community connectivity areas to allow for the safe passage of wildlife. The spineflower preserve manager or a qualified biologist shall indicate the location and width of each of these openings. The fencing shall be three-strand non-barbed wire fence or bright orange ultraviolet stabilized polyethylene construction “snow” fencing, attached to metal t-posts that extend at least 4 feet above grade or equivalent. Protective fencing shall be maintained in good condition until completion of project construction. Where construction activities occur within 500 feet of a spineflower preserve, the spineflower preserve manager or qualified biologist shall review fencing weekly during construction monitoring visits and note any fencing that is in need of repair. Repairs shall be completed within three working days of notification by the spineflower preserve manager or qualified biologist.

MV 4.3-65 Development areas shall have dust control measures implemented and maintained to prevent dust from impacting vegetation within the spineflower preserve areas. Dust control shall be implemented during construction in compliance with SCAQMD Rule 403d (SCAQMD 2005). Where construction activities occur within 100 feet of a spineflower location, chemical dust suppression shall not be utilized. Where determined

necessary by the spineflower preserve manager or qualified biologist, a screening fence (i.e., a 6-foot-high chain link fence with green fabric up to a height of 5 feet) shall be installed to protect spineflower locations.

MV 4.3-66 The spineflower preserve manager or qualified biologist shall perform weekly construction monitoring for all construction activities within 500 feet of spineflower preserve areas. The spineflower preserve manager's or qualified biologist's construction monitoring tasks shall include reviewing and approving protective fencing, dust control measures, and erosion control devices before construction work begins; conducting a contractor education session at the preconstruction meeting; reviewing the site weekly (minimum) during construction to ensure the fencing, dust control, and BMP measures are in place and functioning correctly and that work is not directly or indirectly impacting spineflower plants; and quarterly monitoring shall be initiated for Argentine ants along the construction–open space interface at sentinel locations where invasions could occur (*e.g.*, where moist microhabitats that attract Argentine ants may be created). A qualified biologist shall determine the monitoring locations. Ant pitfall traps will be placed in these sentinel locations and operated on a quarterly basis to detect invasion by Argentine ants. If Argentine ants are detected during monitoring, direct control measures will be implemented immediately to help prevent the invasion from worsening. These direct controls may include but are not limited to nest/mound insecticide treatment, or available natural control methods being developed. A general reconnaissance of the infested area would also be conducted to identify and correct the possible source of the invasion, such as uncontrolled urban runoff, leaking pipes, or collected water. Each site visit shall be followed up with a summary monitoring report sent electronically to Applicant indicating the status of the site. Monthly monitoring reports, as needed, shall be submitted to CDFG and the County of Los Angeles). Monitoring reports shall include remedial recommendations and issue resolution discussions when necessary.

MV 4.3-67 Plant palettes proposed for use on landscaped slopes, street medians, park sites, and other landscaped and FMZ areas within 200 feet of a spineflower preserve shall be reviewed and approved within 30 days by the spineflower preserve manager or qualified biologist and CDFG to ensure that the proposed landscape plants will not naturalize and require maintenance or cause vegetation community degradation in the spineflower preserve and buffer areas. Container plants to be installed within public areas within 200 feet of the spineflower preserves shall be inspected by the spineflower preserve manager or qualified biologist for the presence of disease, weeds, and pests, including Argentine

ants. Plants with pests, weeds, or diseases shall be rejected. In addition, for public areas within 200 feet of spineflower preserves, landscape plants shall not be on the Cal-IPC California Invasive Plant Inventory (most recent version) or on the list of Invasive Ornamental Plants listed in Appendix B of the SCP. The current Cal IPC list can be obtained from the Cal-IPC web site (<http://www.cal-ipc.org/ip/inventory/index.php>).

MV 4.3-68 All portions of the spineflower preserves shall be closed, with the exception of pre-identified existing dirt roads and utility easements. The pre-identified existing dirt roads and utility easement access roads shall function as access routes for the spineflower preserve manager, spineflower preserve maintenance personnel, utility personnel, and emergency services vehicles only (e.g., police, fire, and medical). No other vehicle or foot traffic, including nature or recreational trails, will be permitted in the preserve, including the buffer. The dirt roads shall be gated and locked at the outside edges of the buffer zone. Signs discouraging unauthorized access shall be posted. The only persons or entities issued gate keys shall be the spineflower preserve managers and their employees, easement holding utility companies, emergency services, the Applicant, and CDFG.

MV 4.3-69 Fencing shall be installed along the outside edge of the spineflower preserve and buffer areas adjacent to proposed developments, parks, golf courses, or other “active land uses” to prevent unauthorized access. Specific areas that are adequately protected by steep terrain (1.5:1 or steeper) and/or dense vegetation may not require fencing but would require signage. The determination of the need for fencing in these areas shall be subject to the approval of the spineflower preserve manager or qualified biologist. If monitoring determines that slope and/or vegetation is not effective at deterring unauthorized access, additional fencing may be required to be added by the spineflower preserve manager or qualified biologist. Fencing is not required in areas bordered by large parcels of conserved natural open space areas or the Santa Clara River riparian corridor, as installing fencing in these areas would be unnecessary and damaging to existing vegetation and wildlife corridors.

Fencing must extend a minimum of 4 feet above grade and include wood-doweled split rail fencing, exterior grade heavy-duty vinyl three-railed fencing, three-strand non-barbed wire, or approved alternate. Fencing installed adjacent to native vegetation communities and natural open space areas will allow for the passage of animals.

MV 4.3-70 Outdoor all-weather signs measuring approximately 12 by 16 inches shall be posted on all spineflower preserve access gates and along spineflower preserve fencing at

approximately 800 feet on center, except adjacent to road crossings, where signs will be posted. The placement will take topography into account, emphasizing placement on ridgelines where signs will be visible to emergency fire personnel and others. Signs shall state in English and Spanish that the area is a biological preserve that hosts a state-listed endangered and federal candidate plant species and that trespassing is prohibited (in accordance with Newhall Ranch Specific Plan Program EIR Mitigation Measure SP 4.6-68). Signs shall indicate that fuel modification and management work is not allowed within the spineflower preserve (including buffer areas). The signage shall state that people who do not abide by these rules or who damage the protected species will be subject to prosecution, including fines and/or imprisonment. All signage shall include emergency contact information and shall be reviewed and approved by the spineflower preserve manager or qualified biologist.

MV 4.3-71 Storm drain outfalls from proposed development areas shall only be installed uphill from spineflower preserve areas where necessary to retain pre-construction hydrological conditions within the spineflower preserves, sustain existing riparian and wetland vegetation communities, and/or allow for the restoration of currently disturbed areas to native riparian/alluvial vegetation communities. When located in a spineflower preserve area, storm drains must meet the following criteria:

- Storm drains must not impact spineflower either directly or indirectly, and
- Under no circumstances shall storm drains daylight onto steeply sloped areas or other areas that would cause erosion.

MV 4.3-72 Any surface water entering a spineflower preserve area from development areas during construction is required to pass through BMP measures, which will be described in the SWPPP. Storm drain outlets must contain hydrologic controls (e.g., adequate energy dissipaters) to prevent downstream erosion and stream channel down-cutting. Additionally, storm drain outlets must be designed based on pre- and post-construction hydrological studies (in accordance with Newhall Ranch Specific Plan Program EIR Mitigation Measure SP 4.6-69). Storm drains and permanent structural BMPs shall be designed by a licensed civil engineer. Requirements of MV 4.3-62 and MV 4.3-71, where applicable, shall be incorporated into the facility design and shall be subject to approval by the spineflower manager or qualified biologist. Long-term maintenance of storm drain BMPs will be the responsibility of the designated maintenance entity.

MV 4.3-73 Disturbed portions (*i.e.*, agricultural lands, disturbed lands, and developed lands) of the spineflower preserves, including buffers, will be restored through revegetation with native plant communities. In summary, areas that have greater than 30 percent relative cover by weeds will be restored to have relative cover comparable to that of existing occupied spineflower habitat. Habitat restoration and enhancement plans (including restoration plans) for areas within the preserves shall be prepared at the direction of the preserve manager by a qualified biologist and submitted to the County and CDFG for approval prior to implementation. In addition, Cal-IPC List A and B plants that are present within the spineflower preserve will be controlled. Restoration and enhancement efforts within the spineflower preserve areas shall be in conformance with the Spineflower Conservation Plan and will not include permanent irrigation.

MV 4.3-74 In the event that a spineflower preserve, or buffer, or a portion of a spineflower preserve, or buffer burns in a wildfire or suffers from mass movements (*e.g.*, landslides, slope sloughing, or other geologic events), the spineflower preserve manager and the Applicant shall promptly review the site and determine what action, if any, should be taken. The primary anticipated post-fire spineflower preserve management activity involves monitoring the site and controlling annual weeds that may invade burned areas following a fire event, especially when such weeds (that were not previously present or not present in similar densities) exceed the 30 percent maximum threshold (see **MV 4.3-73**). If fire-control lines or other forms of bulldozer damage occur in the spineflower preserves, these areas will be repaired and revegetated to pre-burn conditions or better. An emergency fire response plan will be prepared (in accordance with Mitigation Measure SP-4.6-72) prior to the establishment of the spineflower preserves and approved by CDFG and Los Angeles County Fire Department. The preserve manager will contact the Los Angeles County Fire Department at least once every 5 years to review the plan and consult with them on implementation of the plan.

The same methods will be applied to mass-movement, landslide, or slope-sloughing types of events. This measure shall be implemented in conformance with the Spineflower Conservation Plan.

MV 4.3-75 Focused surveys for the undescribed species of everlasting (a special-status plant species) shall be conducted by a qualified botanist prior to the commencement of grading/construction activities wherever suitable habitat (primarily river terraces) could be affected by direct, indirect, or secondary construction impacts. The surveys shall be conducted no more than one year prior to commencement of construction activities

within suitable habitat, and the surveys shall be conducted at a time of year when the plants can be located and identified. Should the species be documented within the project boundary, avoidance measures shall be implemented to minimize impacts to individual plants wherever feasible. These measures shall include minor adjustments to the boundaries/location of haul routes and other project features. If, due to project design constraints, avoidance of all plants is not possible, then further measures, described in **MV 4.3-76**, shall be implemented to salvage seeds and/or transplant individual plants. All seed collection and/or transplantation methods, as well as the location of the receptor site for seeds/plants (assumed to be within preserved open space areas of Newhall Ranch along the Santa Clara River), shall be coordinated with CDFG prior to impacting known occurrences of the undescribed everlasting.

MV 4.3-76 For any individual project, or any phase of an individual project, to be located where undescribed everlasting plants may occur, the Applicant shall prepare and implement an Undescribed Everlasting Mitigation and Monitoring Plan prior to the issuance of grading permits.

The Plan shall provide for replacement of individual plants to be removed at a minimum 1:1 ratio, within suitable habitat at a site where no future construction-related disturbance will occur. The plan shall specify the following: (1) the location of the mitigation site in protected/preserved areas within the Specific Plan site; (2) methods for harvesting seeds or salvaging and transplantation of individual plants to be impacted; (3) measures for propagating plants (from seed or cuttings) or transferring living specimens from the salvage site to the introduction site; (4) site preparation procedures for the mitigation site; (5) a schedule and action plan to maintain and monitor the mitigation area; (6) the list of criteria and performance standards by which to measure the success of the mitigation site (below); (7) measures to exclude unauthorized entry into the mitigation areas; and (8) contingency measures such as erosion control, replanting, or weeding to implement in the event that mitigation efforts are not successful. The performance standards for the Undescribed Everlasting Mitigation and Monitoring Plan shall be the following:

- (a) Within four years after reintroducing the undescribed everlasting to the mitigation site, the extent of occupied acreage and the number of established, reproductive plants will be no smaller than at the site lost for project construction.

- (b) Non-native species cover will be no more than 5 percent absolute cover through the term of the restoration.
- (c) Giant reed (*Arundo donax*), tamarisk (*Tamarix ramosissima*), perennial pepperweed (*Lepidium latifolium*), tree of heaven (*Ailanthus altissimus*), pampas grass (*Cortaderia selloana*), and any species listed on the California State Agricultural list (CDFA 2009) or Cal-IPC list of noxious weeds (Cal-IPC 2006, 2007) will not be present on the revegetation site as of the date of completion approval.

MV 4.3-77 A cowbird trapping program shall be implemented once vegetation clearing begins and maintained throughout the construction, maintenance, and monitoring period of the riparian restoration sites. A minimum of five traps shall be utilized, with at least one trap adjacent to the project site and one or two traps located at feeding areas or other CDFG-approved location. The trapping contractor may consult with CDFG to request modification of the trap location(s). CDFG must approve any relocation of the traps. Traps will be maintained beginning each year on April 1 and concluding on/or about November 1 (may conclude earlier, depending upon weather conditions and results of capture). The trapping contractor may also consult CDFG on a modified, CDFG-approved trapping schedule modification. The applicant shall follow CDFG and USFWS protocol. In the event that trapping is terminated after the first few years, subsequent phases of the development will require initiation of trapping surveys to determine whether re-establishment of the trapping program is necessary.

MV 4.3-78 Bridge and culvert designs, where practicable, shall provide roosting habitat for bats. A qualified biologist shall work with the project engineer in identifying and incorporating structures into the design that provide suitable roosting habitat for bat species occurring in the project area. The final design of the roosting structures would be chosen in consultation with CDFG.

MV 4.3-79 To preclude the invasion of Argentine ants into the spineflower preserves and their associated buffers, controls will be implemented using an integrated pest management (IPM) approach in accordance with the approved SCP. The controls include (1) providing “dry zones” between urban development and spineflower populations; (2) building dry areas such as parking lots and roadways next to preserve boundaries, and sloping these areas away from the spineflower preserves; (3) constructing pedestrian pathways next to preserves out of decomposed granite or other gravel to minimize the holding of moisture; (4) ensuring that landscape container plants installed within 200 feet of

spineflower preserves are ant free prior to installation; (5) maintaining natural hydrological conditions in the spineflower preserves, including the buffers, through project design features; and (6) using drought-resistant plants in FMZs and minimizing irrigation to the extent feasible.

11. CUMULATIVE IMPACTS

a. Introduction

The Mission Village project is a component of the Newhall Ranch Specific Plan. The Specific Plan guides the long-term development of the 11,999-acre Newhall Ranch community, comprising a broad range of residential, mixed-use, and non-residential land uses developed within five village areas. Buildout of the Newhall Ranch Specific Plan will occur through submission of individual tentative subdivision maps. Landmark Village was the first subdivision map filed within the Specific Plan area, and Mission Village represents the second subdivision map. Other subdivision maps on file with the County or that are considered reasonably foreseeable include Potrero and Homestead.

Buildout of the Specific Plan would permanently convert acreage from a natural, albeit partially disturbed habitat condition, to that of an urban environment. Buildout of individual tracts filed under the Specific Plan would significantly impact the following vegetation communities absent mitigation: coastal scrub, big sagebrush scrub, oak communities, Mexican elderberry scrub, riparian scrub, riparian woodland, coastal and valley freshwater marsh, southern cottonwood-willow riparian, alluvial scrub, and cismontane alkali marsh.

Construction and operation of uses developed within the Specific Plan would directly disturb wildlife on and near the site. Within the planned development areas, species of low mobility would be lost during site preparation. Conversion of existing open space to developed uses consisting of structures and ornamental landscaping would eliminate natural communities on developed portions of the site and result in a reduction in native wildlife species diversity. Buildout of uses within the Specific Plan would also limit the local movement of wildlife species that currently make use of areas proposed for development.

Other proposed and reasonably foreseeable projects beside those in the Newhall Ranch Specific Plan are described below. Where the potential impacts are known, the impacts likely to be associated with these projects are first identified. The potential for these impacts to combine with similar impacts due to the proposed project is also evaluated. This list of projects is not intended to include all projects that are proposed in the project region. Instead, the analysis focuses on those projects that support or would potentially affect similar plant communities, jurisdictional resources, and special-status plant and animal

species that occur on the Mission Village project site. The analysis also focuses on those related projects that would likely be constructed during the same timeframe as Mission Village. Those projects that also are adjacent to or that otherwise may affect resources associated with the Santa Clara River were included.

In close proximity to the proposed Mission Village site is the VCC. The VCC project consists of a light industrial and commercial development over 1,500 acres on undeveloped farmlands north of the Newhall Ranch Specific Plan site and SR-126, and west of I-5. Castaic Creek traverses the VCC site. The County approved this VCC project in 1992, and a considerable portion of the site is now developed. A 404 Permit was issued for the VCC project by the Corps to line the existing banks with gunite bank protection. Castaic Creek contains dense riparian woodland and supports the least Bell's vireo and arroyo toad. As such, construction of the VCC and the development projects associated with the proposed Valencia Company 404 Permit could cause the following potentially significant cumulative impacts: (1) loss of riparian habitat from the study area; (2) disturbance of riparian wildlife due to the proximity of urban development; (3) potential degradation of water quality in the Santa Clara River due to urban stormwater runoff; (4) permanent loss of prime farmlands; (5) temporary and permanent disturbance to habitat for the least Bell's vireo; (6) impacts to mariposa lily, everlasting, and San Fernando Valley spineflower; and (7) modification of visual qualities due to urban development, bank protection, and bridges. The remaining undeveloped portion of the VCC project is assessed as a part of the Mission Village applicant's RMDP/SCP project.

Also in proximity to the proposed Mission Village project is the proposed Entrada project. The Entrada project, consisting of approximately 505 acres, is located within unincorporated Los Angeles County in the Santa Clarita Valley. More specifically, the project site is located directly west of I-5, both north and south of Magic Mountain Parkway. The project applicant proposes to develop the property with up to 3,300 residential units and 3.1 million square feet of commercial floor area. Approximately 48 percent of the site would be retained as open space. Bank stabilization along a portion of the Santa Clara River would be constructed in conjunction with the project. Construction and development of this project could cause potentially significant cumulative impacts to mariposa lily, everlasting, San Fernando Valley spineflower, and valley oak savannah. As stated, a portion of Entrada includes spineflower. To facilitate a portion of the development within Entrada, the project applicant is currently seeking a Section 2081 permit authorizing the take of spineflower as part of the RMDP/SCP project. This separate project is being evaluated in a Draft EIS/EIR prepared under the direction of the Corps and CDFG.

In addition, the project applicant is currently processing federal and state permit applications and the preparation of a combined EIS/EIR under both the National Environmental Policy Act (NEPA) and CEQA to assess the environmental implications of implementing the Newhall Ranch Resource

Management and Development Plan/Spineflower Conservation Plan (RMDP/SCP) project. The project's RMDP component consists of those improvements, facilities, and activities associated with implementation of the Newhall Ranch Specific Plan, which will require federal and state permits and agreements from the Corps and the CDFG. The RMDP consists specifically of various flood control improvements, stream bank protection, drainage facilities, roads, building pads, pipeline and utility river crossings, nature trails, new and widened bridges, and the Newhall Ranch WRP outfall facilities. The proposed SCP component consists of a conservation management framework to permanently protect and manage designated preserve areas designed to maximize the long-term persistence of the spineflower, and to authorize the take of spineflower located outside of the preserve system.

The proposed federal action required to implement the RMDP/SCP project consists of the issuance of a long-term Section 404 permit for the Newhall Ranch RMDP facilities and improvements associated with the Newhall Ranch Specific Plan that would potentially result in the discharge of fill or dredged material in and adjacent to the Santa Clara River and its side drainages. As part of the federal permit review process, the Corps also will comply with Section 7 of the Endangered Species Act, which requires consultation with the USFWS for any federal permit that may affect an ESA-listed species or its critical habitat. In addition, a federal Clean Water Act Section 401 water quality certification will be required from the Los Angeles Regional Water Quality Control Board (RWQCB) as part of the Corps permit review process. The USFWS also will review a candidate conservation agreement and the SCP for the spineflower and consider whether to enter into such an agreement for the long-term conservation of the spineflower.

The proposed state action required to implement the RMDP/SCP project consists of the issuance by CDFG of a long-term master streambed alteration agreement under Section 1600 of the California Fish and Game Code for Newhall Ranch RMDP construction activities associated with the Newhall Ranch Specific Plan that occur within the bed, bank, or streambed channel of the Santa Clara River and its side drainages. The proposed state action also would include issuance by CDFG of an incidental take permit for Newhall Ranch RMDP construction activities that impact state-listed species under the California Endangered Species Act. The proposed state action also includes CDFG's review and possible approval of the SCP and issuance of a Section 2081 incidental take permit for spineflower.

b. Cumulative Impact Analysis Study Area

Under the *State CEQA Guidelines*,⁵¹³ the lead agency should provide a reasonable explanation of the geographic limitation used in the cumulative impacts analysis. As permitted under California Code of

⁵¹³ 14 C.C.R. Sec. 15130(b)(3)

Regulations, Title 14, section 15130, this cumulative impacts analysis uses a “project list” approach.⁵¹⁴ Under such an approach, the proposed project’s impacts are considered in conjunction with impacts from past, present, and reasonably foreseeable projects within a designated study area, which, in this case, is the Santa Clara River Watershed (SCRW). Because the SCRW is so large and spans across multiple jurisdictions, the project list for this cumulative impacts analysis includes projects only in the watershed from: (1) Los Angeles County and the City of Santa Clarita; and (2) Ventura County, extending west to the City of Santa Paula and including the community of Piru and the City of Fillmore. Note that this analysis generally addresses past, present, and reasonably foreseeable projects located within the watershed itself; however, for some biological resources other scales are more applicable and are used as appropriate. For certain species, the scope of analysis extends beyond the watershed boundary (e.g., San Fernando Valley spineflower), and for other species the scope of analysis is more focused based on limited distribution and use of habitat within the watershed (e.g., unarmored threespine stickleback).

This cumulative analysis describes the effects of past, present, and reasonably foreseeable projects on the biological resources of SCRW. The list of past, present, and reasonably foreseeable cumulative development projects used to conduct this cumulative impact analysis was prepared for the Santa Clara River Watershed Study.⁵¹⁵ The Watershed Study is provided in **Appendix 4.3** of this EIR. The Watershed Study, which forms the basis of this cumulative impacts analysis, includes a review of cumulative impacts within the Santa Clara River watershed based on information from permits issued between 1988 and 2006⁵¹⁶ by the Corps and CDFG regarding impacts to jurisdictional wetlands and waters and mitigation for those impacts. In addition, 14 cumulative development projects with potential impacts to biological resources were added to the analysis because they were not included on the Watershed Study project list. In general, the additional projects are located in the Santa Clarita area and are small- to moderately sized (i.e., 1 to 100 acres) urban “infill” projects. In total, the 14 additional projects encompass an area of 337 acres.

For this EIR, the geographic scope of the cumulative impacts analysis is shown on **Figure 4.3-12, Cumulative Individual Project Location Map**.⁵¹⁷ The “Project Area” shown on this figure is the

⁵¹⁴ 14 C.C.R. Sec. 15130(b)(1)(A)

⁵¹⁵ Dudek, *Santa Clara River Watershed Study* (Encinitas, California: Dudek, 2008).

⁵¹⁶ The permits from CDFG date back to 1983, but the information provided on those permits was insufficient to quantify impacts. Therefore, impacts were quantified beginning from 1988.

⁵¹⁷ This scope was used for analysis of the following resource categories: Hydrology, Geomorphology, Water Quality, Cultural Resources, Paleontological Resources, Geology, Land Use, Visual Resources, Parks and Recreation, Hazards and Hazardous Materials, Public Services, Socioeconomics and Environmental Justice, and Solid Waste.

Newhall Ranch Specific Plan and the VCC and Entrada planning areas, including the Mission Village project site.

An analysis of CDFG section 2081 Permits and USFWS section 7 and 10a Permits is also included. This review included, but was not limited to, the subset geographic area used for the analysis of the remainder of the cumulative analysis. This analysis thus included data from a watershed perspective. (See, e.g., Santa Clara River Watershed Study.)⁵¹⁸

This analysis also reviewed major NCCPs and HCPs for other areas of Southern California, including Kern, Riverside, Orange, and San Diego Counties, but found those areas to be so geographically distant (e.g., greater than 25 to 30 miles) from the Mission Village project area as to have little bearing on the resource issues in the SCRW. (See **subsection 4.3.11.a.(1.9)** below.)

In order to present a reasonable cumulative impacts analysis in this EIR, the local development and infrastructure projects lists were reduced and consolidated according to the following parameters: (1) projects outside the geographic scope, with the exception of a few large projects, were excluded from further analysis due to their distance from the proposed project; (2) projects more than 5 miles away from the project area (but within the roughly 10-mile geographic scope) and/or smaller-scale projects are listed in a consolidated manner, and are grouped by local jurisdiction (note that due to the approximately 12,000-acre size of the Newhall Ranch Specific Plan area, including the proposed Mission Village project, “smaller-scale” projects in this context include projects roughly 700 acres and smaller); and (3) large projects within 5 miles of the Newhall Ranch Specific Plan area are listed individually. Projects selected for individual listing also are included in the consolidated lists, to reflect overall development patterns in the geographic study area. The consolidated project lists are grouped according to the following jurisdictions: City of Santa Clarita; unincorporated areas of Los Angeles County; City of Fillmore (Ventura County); City of Santa Paula (Ventura County); Corps (section 404 permit); USFWS biological opinions; CDFG (streambed); and CDFG (take authorizations).⁵¹⁹

⁵¹⁸ Dudek, *Santa Clara River Watershed Study*.

⁵¹⁹ The geographic study areas utilized in this cumulative impacts analysis are more comprehensive than the study area currently being used by the City of Santa Clarita and Los Angeles County to create a General Plan document and EIR for the entire Santa Clarita Valley Planning Area, called “One Valley, One Vision” or “OVOV.” Although this EIR cannot rely on the City and County’s joint OVOV effort as it has not yet been finalized and adopted, it is worth noting that the OVOV planning effort will cover the City, including its four communities: Canyon Country, Newhall, Saugus, and Valencia, as well as County communities of Agua Dulce, Castaic, Newhall Ranch, Stevenson Ranch, and Val Verde. City of Santa Clarita and Los Angeles County, “Notice of Preparation for General Plan document and EIR for the Santa Clarita Valley Planning Area: One Valley, One Vision,” (2008).

(1) Consolidated Projects

(a) City of Santa Clarita Consolidated Projects

Table 4.3-13, City of Santa Clarita Consolidated Projects (Includes Individually Reviewed Projects), contains the City of Santa Clarita consolidated projects analysis. Projects more than 5 miles away from the Newhall Ranch Specific Plan area and/or smaller-scale projects (less than 700 acres) are listed in a consolidated manner, and are grouped by local jurisdiction. **Table 4.3-13** also includes the projects selected for individual listing, which are discussed further in **subsection 4.3.11.a.(2)**, below.

**Table 4.3-13
City of Santa Clarita Consolidated Projects (Includes Individually Reviewed Projects)**

Name	Location	Dwelling Units	Commercial/Industrial (sf)	Acres ¹	Status
Residential/Mixed Use Projects					
Golden Valley Ranch (TR 52414)	Newly annexed area southeast of SR-14 and north of Placerita Canyon Road; 8 miles east of the RMDP/SCP project.	498	618,759	1,259 (974 open space)	Approved 2002; Under Construction
Whittaker Bermite/Porta Bella Project (TR 51599)	Map ID #8 - West of Golden Valley Road, south of Soledad Canyon Road, and east of San Fernando Road; 3 miles east of the RMDP/SCP project.	2,911	609,832	996 (407 open space)	On Hold Pending Remediation Activities
River Park (TR 53425)	Map ID #12 - Located at the eastern terminus of Newhall Ranch Road, east of Bouquet Canyon Road, and north of Soledad Canyon Road and the Santa Clara River; 4 miles east of the RMDP/SCP project.	1,089	16,000	695	Under Construction
North Valencia Specific Plan No. II (MC 04-205)	Two miles east of the Newhall Ranch Specific Plan along the east side of San Francisquito Creek, north of Newhall Ranch Road, south of Decoro Drive, east of Rye Canyon Road, and west of McBean Parkway; 2 miles east of the RMDP/SCP project.	1,900	210,000	596	Approved 2000; Near Buildout
Keystone/Synergy Project (TR 60258)	South of Bouquet Canyon Road, adjacent to the River Park project; 5 miles east of the RMDP/SCP project.	499	30,476	246 (137 open space)	Approved 2006
Stonecrest Annexation	Annexation of existing developed area on the far east side of the City of Santa Clarita, north of Soledad Canyon Road, and east of Shadow Pines Boulevard; 10 miles east of the RMDP/SCP project; no new construction.	631	0	427	Annexed 2006; Existing Development

Table 4.3-13 (Continued)
City of Santa Clarita Consolidated Projects (Includes Individually Reviewed Projects)

Name	Location	Dwelling Units	Commercial/Industrial (sf)	Acres ¹	Status
Downtown Newhall Specific Plan	Redevelopment of downtown Newhall area (along San Fernando Road), 3 miles southeast of the RMDP/SCP project.	1,092	1,017,000	320	Approved
North Newhall Specific Plan	Redevelopment along San Fernando Road in Newhall, 3 miles southeast of the RMDP/SCP project.	673	660,500 (Comm.) 261,000 (Elem. School)	213	Pending
Lyons Ranch (TR 53653)	West of I-5 and south of Pico Canyon Road; 2 miles east of the RMDP/SCP project.	186	800	235	Approved
Stetson Ranch (TR 49621)	East of Sand Canyon Road at the northern terminus of Gary and Marilyn Drives; 9 miles east of the RMDP/SCP project.	265	0	176	Approved
Sand Canyon Joint Venture (TT 53255, 53074)	The northeast corner of Soledad Canyon Road and Sand Canyon Road; 9 miles east of the RMDP/SCP project.	87	110,000	89	Approved
DR Horton (TR 48892)	Northeast corner of Sierra Highway and Golden Valley Road; 6 miles east of the RMDP/SCP project.	148	0	61	Approved
Centex Homes (TR 61811)	Located north of Golden Valley Road, west of Sierra Highway; 6 miles east of the RMDP/SCP project.	52	0	14	Under Construction
Soledad Village Project (MC 04-444)	North of Soledad Canyon Road, south of Santa Clara River, approximately 1 mile east of Bouquet Canyon Road; 6 miles east of the RMDP/SCP project.	407	8,000	30	Approved 2006
Friendly Valley Association 11 (TR 52385)	Generally located north of Sierra Highway and east of Via Princessa; 6 miles east of the RMDP/SCP project.	43	0	22	Proposed
Valle de Oro (TR 53419)	Located at the northwest corner of Sierra Highway and Golden Valley Road; 6 miles east of the RMDP/SCP project.	111	0	21	Completed
Soledad Circle Estates	South of Soledad Canyon Road at Penlon Court, 4 miles east of the RMDP/SCP project.	147	0	20	Pending
Flying Tiger (TR 259166)	North of Via Princessa and east of Sierra Highway; 7 miles east of the RMDP/SCP project.	200	0	13	Approved
Total Santa Clarita Residential/Mixed Use		10,939	3,542,367	5,433	

Table 4.3-13 (Continued)
City of Santa Clarita Consolidated Projects (Includes Individually Reviewed Projects)

Name	Location	Dwelling Units	Commercial/Industrial (sf)	Acres ¹	Status
Commercial/Industrial Projects					
Rye Canyon Business Park (TR 23916, 51826)	At the northeast corner of Rye Canyon Road and Newhall Ranch Road; 2 miles northeast of the RMDP/SCP project.	0	4,400,000	376	Under Construction
Gate King (TR 50283)	Southern Santa Clarita, west of SR-14 and Sierra Highway, south of San Fernando Road; 6 miles southeast of the proposed project.	0	4,200,000	682	Approved
Centre Pointe Business Park (TR 42670)	South of Soledad Canyon road, east of Bouquet Canyon Road, west of Golden Valley Road; 5 miles east of the RMDP/SCP project.	0	2,300,000	45	Near Buildout
North Valencia Specific Plan No. I	Map ID #11 - South of Newhall Ranch Road, north of Magic Mountain Parkway, east of Rye Canyon Road, west of Bouquet Canyon Road; 0.5 mile east of the RMDP/SCP project.	2,000	803,000	707 (365 open space)	Near Buildout
Valencia Town Center Expansion	Northeast corner of Valencia Boulevard and McBean Parkway; 2 miles east of the RMDP/SCP project.	0	491,860	10	Proposed
Bridgeport Market Place	Northeast corner of McBean Parkway and Newhall Ranch Road, 2 miles east of the RMDP/SCP project.	0	160,000	32	Under Construction
Henry Mayo Newhall Memorial Master Plan (MC 04-325)	23845 West McBean Parkway; 2 miles east of the RMDP/SCP project.	0	600,000	21	Proposed
Tourney North	Magic Mountain Parkway west of The Old Road and I-5; 1 mile east of the RMDP/SCP project.	0	450,000	100	Under Construction
Tourney South	Wayne Mills Place east of I-5; 1 mile east of the RMDP/SCP project.	0	165,000	12	Under Construction
Aspen Investment Company (MC 02-273)	North of Soledad Canyon Road and west of Valley Center Drive; 6 miles east of the RMDP/SCP project.	0	109,000	6	Proposed
Chinque Terra Office Park	On Sierra Highway between Dockweiler Drive and San Fernando Road, 4 miles southeast of the RMDP/SCP project.	0	90,900	6	Pending
Rice Self Storage (MC 02-231)	Southwest corner of Seco Canyon Road and Copperhill Drive; 3 miles north east of the RMDP/SCP project.	0	84,000	3	Completed
Facey Medical Building	26357 McBean Parkway; 2 miles east of the RMDP/SCP project.	0	79,000	4	Completed

Table 4.3-13 (Continued)
City of Santa Clarita Consolidated Projects (Includes Individually Reviewed Projects)

Name	Location	Dwelling Units	Commercial/Industrial (sf)	Acres ¹	Status
HH Seco II LLC (MC 01-317)	Southwest corner of Seco Canyon Road and Copperhill Drive; 3 miles northeast of the RMDP/SCP project.	0	40,000	2	Completed
VTC Square	Northwest corner of McBean Parkway and Valencia Boulevard, 2 miles east of the RMDP/SCP project.	10	37,000	1	Pending
Rodgers Development Master Case 02-232	Northeast corner of Bouquet Canyon Road and Plum Canyon Road; 7 miles northeast of the RMDP/SCP project.	0	34,000	4	Completed
Total Santa Clarita Commercial/Industrial		2,010	14,043,760	2,011	
Institutional Projects					
College of the Canyons Expansion	South of Valencia Boulevard and west of Rockwell Canyon Road, 1.5 miles east of the RMDP/SCP project.	n/a	180,000	5	Pending
Master's College Master Plan and TM 66503	21726 Placerita Canyon Road; 2 miles east of the RMDP/SCP project.	54	0	95	Pending
UCLA Film Archives	North of McBean Parkway and west of Rockwell Canyon Road, 3 miles northeast of the RMDP/SCP project.	n/a	368,730	65	Pending
Total Santa Clarita Institutional		54	548,730	165	
Infrastructure Projects					
Sand Canyon Road Bridge Widening	Tentative Tract Map No. 52004 filed with City of Santa Clarita, Robinson Ranch Golf Course project. Crosses the Santa Clara River 6 miles upstream of the RMDP/SCP project area where riverbed is dry. Two new lanes are proposed for an existing bridge.	n/a	n/a	n/a	Approved
Wiley Canyon Road/Via Princessa Bridge (South fork)	1,100-foot bridge, crosses South Fork of Santa Clara River near city of Santa Clarita; 5 miles east of the RMDP/SCP project.	n/a	n/a	n/a	Permitted
Saugus Water Reclamation Plant	Near Bouquet Canyon Road, discharges to Santa Clara River; 3 miles east of the RMDP/SCP project.	n/a	n/a	n/a	Completed

Table 4.3-13 (Continued)
City of Santa Clarita Consolidated Projects (Includes Individually Reviewed Projects)

Name	Location	Dwelling Units	Commercial/Industrial (sf)	Acres ¹	Status
City of Santa Clarita General Plan Circulation Element Amendment, all watercourses	City of Santa Clarita.	n/a	n/a	n/a	City General Plan Circulation Element
Total Santa Clarita Infrastructure		n/a	n/a	n/a	
Total Santa Clarita		13,003	18,134,857	7,609	(includes at least 1,883 acres of open space)

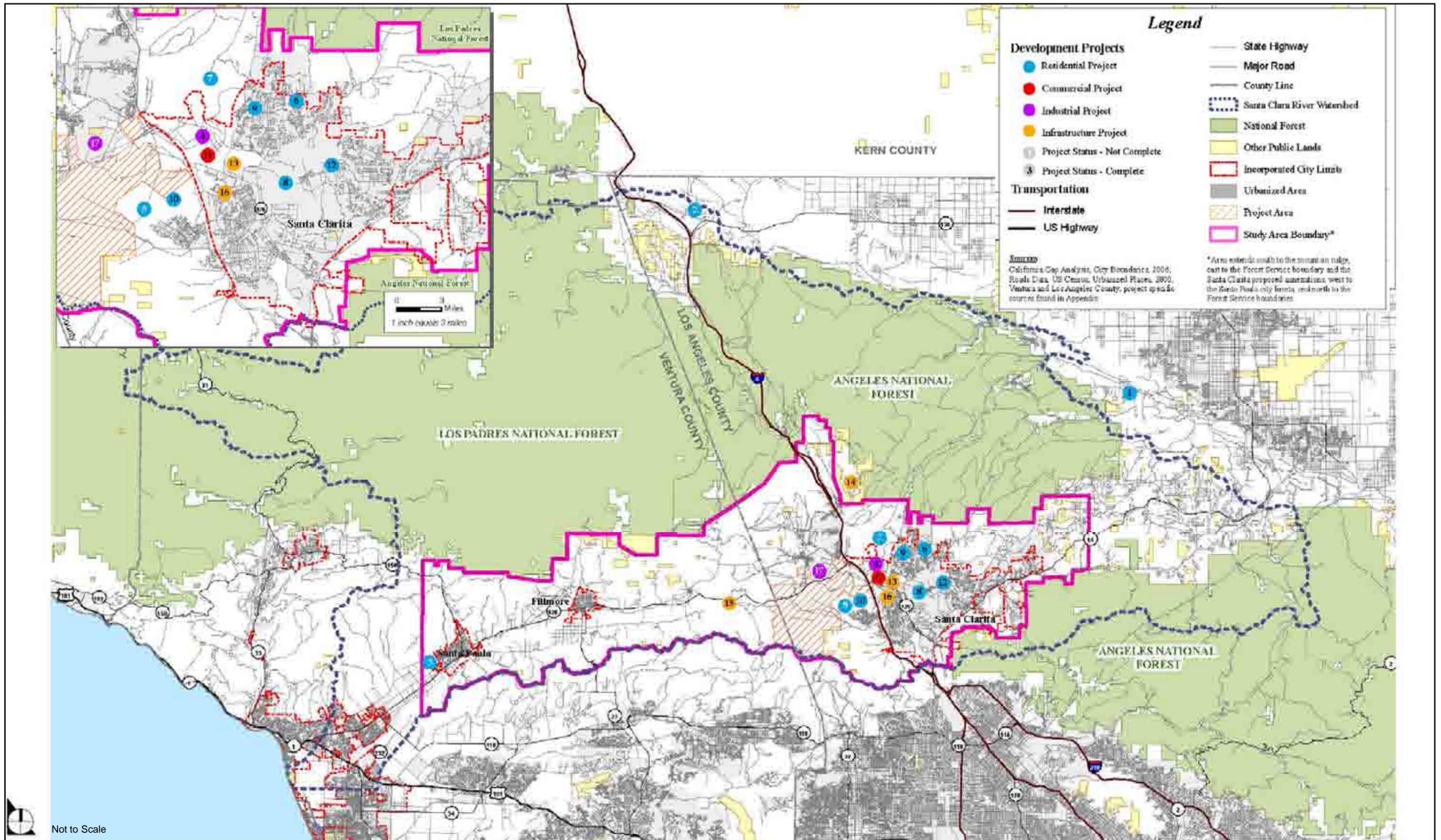
¹ Open space acreage information was not available for all projects, but is provided where available.

Source:

City of Santa Clarita.

(b) Unincorporated Los Angeles County Consolidated Projects

Table 4.3-14 contains the Los Angeles County consolidated projects analysis. Projects more than 5 miles away from the Newhall Ranch Specific Plan area and/or smaller-scale projects (less than 700 acres) are listed in a consolidated manner, and are grouped by local jurisdiction. **Table 4.3-14** also includes the projects selected for individual listing, which are discussed further in **subsection 4.3.11.a.(2)**, below.



SOURCE: URS 2008; Impact Sciences Inc. 2009

FIGURE 4.3-12

Mission Village EIR

Cumulative Individual Project Location Map

**Table 4.3-14
Los Angeles County Consolidated Projects**

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Residential/Mixed Use Projects					
Ritter Ranch ³	Map ID #1 - South of Bouquet Canyon Road and Elizabeth Lake Road, west of Antelope Valley Freeway, and north of Sierra Highway; 40 miles east of the RMDP/SCP project.	7,200	3,000,000	10,258	Partially Built Out
Centennial ³	Map ID #2 - Located on the Tejon Ranch, approximately 60 miles north of Los Angeles, just south of the Kern County/Los Angeles County border, located next to SR-138, just east of I-5; 40 miles north of the RMDP/SCP project.	23,000	14,000,000	11,700	Pending
Fair Oaks Ranch (TR 47200, 52833, 52938)	East of SR-14, northeast of Via Princessa, and west of Sand Canyon Road; 7 miles east of the RMDP/SCP project.	1,476	19 acres [827,640 sf]	839 (497 open space)	Under Construction
Stevenson Ranch Phase IV (PD #2528; TR 52796, 43896)	West of I-5 and southwest of Magic Mountain Parkway; 0.5 mile east of the RMDP/SCP project.	1,130	0	488 (113 open space)	Built out
Plum Canyon (TR 46018)	East of Bouquet Canyon Road and north of the northern terminus of Whites Canyon Road; 6 miles northeast of the RMDP/SCP project.	4,051	150,000	603	Under Construction
Skyline Ranch (TR 060922)	East of Whites Canyon Road, west of Sierra Highway; 8 miles northeast of the RMDP/SCP project.	1,325	0	2,196 (1,604 open space)	Pending
Plum Canyon (SunCal) (TR 31803)	South of Plum Canyon Road, east of Bouquet Canyon Road; 5 miles east of the RMDP/SCP project.	499	0	209 (90 open space)	Under Construction
Legacy Village (formerly Stevenson Ranch V)	Map ID #5 - Adjacent to/southeast of the Newhall Ranch Specific Plan area.	3,425	840,200	1,759	Pre-Application
Tesoro del Valle (TR 51644)	Map ID #6 - West side of San Francisquito Creek, north of Copperhill Drive; 5 miles northeast of the RMDP/SCP project.	1,791	0	1,793	Under Construction
West Creek/West Hills Valencia Project (TR 52445)	Map ID #9 - West side of San Francisquito Creek, north of Newhall Ranch Road and south of the Copperhill Drive bridge; 4 miles northeast of the RMDP/SCP project.	2,545	180,000	966	Under Construction

Table 4.3-14 (Continued)
Los Angeles County Consolidated Projects

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Westridge Project (TR 45433 & MP 19050)	Map ID #10 - Just west of I-5, north of Stevenson Ranch, and directly south of Six Flags Magic Mountain Amusement Park; 0.5 mile east of the RMDP/SCP project.	1,939	192,000	794	Under Construction
Northlake (TR 51852)	Near Castaic Lake; 7 miles north of the RMDP/SCP project.	1,698	388,775	1,330 (312 open space)	Pending
Tapia Ranch (TR 53822)	Map ID #7 - Tapia Canyon Road, west of Tesoro Residential Development. Access to the site currently via Parker Road exit from I-5; 4 miles east of the RMDP/SCP project.	405	0	1167	Pending
Spring Canyon (TR 48086)	East of city of Santa Clarita boundary, south of Sierra Highway, north of SR-14 and Soledad Canyon Road; 14 miles east of the RMDP/SCP project.	542	0	548 (279 open space)	Approved
Bee Canyon (TR 54020)	East of city of Santa Clarita boundary, south of SR-14; 12 miles east of the RMDP/SCP project.	556	0	211 (76 open space)	On Hold
Tick Canyon/Park Place (TR 060259)	Along Shadow Pines Boulevard just east of city of Santa Clarita boundary, north of Stonecrest Annexation area and SR-14; miles east of the RMDP/SCP project.	492	0	523 (272 open space)	Pending
Hasley Golf Course (TR 52584)	North of Hasley Canyon Road, west of I-5; 3 miles north of the RMDP/SCP project.	209	0	438 (67 open space)	Approved
Meadow Peak Project (TT 47760)	South of the Angeles National Forest, north of the city of Santa Clarita boundary, and northeast of the intersection of Copperhill Drive and Haskell Canyon Road; 6 miles east of the RMDP/SCP project.	495	0	454	Pending
Tincher (TR 060319)	Located at The Old Road and Villa Canyon Road; 2 miles north of the RMDP/SCP project.	36	0	8	Pending
G. H. Palmer and Associates (TR 45023)	North of Fair Oaks Ranch, east of SR-14; 7 miles east of the RMDP/SCP project.	752	0	8	Map Recorded

Table 4.3-14 (Continued)
Los Angeles County Consolidated Projects

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
North Park (TR 46389)	West of Seco Canyon Road, east of Mc Bean Parkway, north of Decoro Drive; 2 miles east of the RMDP/SCP project.	744	0	350	Map Recorded
Pacific Bay Homes (TR 36943)	East of city of Santa Clarita boundary and Stonecrest Annexation area, north of Highway 14; 12 miles east of the RMDP/SCP project.	636	0	213	Completed
Stevenson Ranch III (TR 33608)	North of Pico Canyon Road, west of The Old Road; 1 mile southeast of the RMDP/SCP project.	972	0	112	Built Out
Fair Oaks Ranch (TR 44492)	East of Sierra Highway, north of Via Princessa; 9 miles east of the RMDP/SCP project.	634	0	37	Map Recorded
Centex Homes Bouquet Canyon (TR 46908)	South of the Angeles National Forest, north of Copperhill Drive, west of the Meadow Peak project; 6 miles northeast of the RMDP/SCP project.	594	0	381	Completed
Ion Communities, Castaic (Tract 46443)	West of I-5 in Castaic; 3 miles north of the RMDP/SCP project.	95	0	159	Pending
Johannes Van Tiburge (TR 43570)	West of I-5, east of Hasley Golf Course; 3 miles north of the RMDP/SCP project.	540	0	8	Map Recorded
Curtis Development Corporation (TR 47657)	North of Haskell Canyon Road and Copperhill Drive; 6 miles northeast of the RMDP/SCP project.	223	0	63	Map Recorded
G. H. Palmer and Associates (TR 45287)	On Sandy Drive and Jakes Way, between Sierra Highway and SR-14, south of the Santa Clara River; 10 miles east of the RMDP/SCP project.	463	0	23	Map Recorded
Davidon Homes (TR 35783)	North of Copperhill Drive and east of Seco Canyon Road; 5 miles east of the RMDP/SCP project.	419	0	149	Map Recorded
Green Valley Ranch Residential (TR 62000, 60257, and 062275)	Located south of Del Valle Road near Cromwell Avenue. The property is located approximately 0.5 mile west of the intersection of Hasley Canyon Road and Del Valle Road, and approximately 1.5 miles north of SR-126; 1 mile north of the RMDP/SCP project.	233	30,000	224 (25 open space)	Pending Approval

Table 4.3-14 (Continued)
Los Angeles County Consolidated Projects

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Newhall Land (TR 44429)	Along Ridge Route Road, east of I-5 in Castaic; 3 miles north of the RMDP/SCP project.	293	0	113	Map Recorded
Valencia Company (TR 48202)	Northeast corner of Decoro Drive and Copperhill Drive; 3 miles northeast of the RMDP/SCP project.	458	3.5 acres [152,460 sf]	9	Map Recorded
Valencia Company (TR 45084)	Corner of Commerce Center Drive and Hasley Canyon Road; 2 miles north of the RMDP/SCP project.	294	0	150	Completed
Valencia Company (TR 36668)	West of The Old Road, north of Commerce Center Drive; 2 miles north of the RMDP/SCP project.	359	one lot	134	Completed
Curtis Development Corporation (TR 45958)	West of I-5 in Castaic; 5 miles north of the RMDP/SCP project.	296	0	357	Map Recorded
Gerald Nordeman (TR 44373)	Along Hillcrest Parkway, west of I-5, north of Hasley Golf Course; 2 miles north of the RMDP/SCP project.	1,114	4 acres [174,240 sf]	376	Map Recorded
Vista Canyon Ranch	Along Lost Canyon Road and the Santa Clara River, east of the Fair Oaks Ranch community, south of the 14 Freeway and west of Sand Canyon Road, 7 miles east of the RMDP/SCP project.	1,600	1,500,000	217 (80 open space)	Pending
Davidon Homes (TR 46183)	West of Haskell Canyon Road, north of Copperhill Drive; 5 miles northeast of the RMDP/SCP project.	213	0	80	Completed
Forest Edge Project (Western Pacific Housing, TR 51789)	West of Haskell Canyon Road, north of Copperhill Drive; 5 miles northeast of the RMDP/SCP project.	194	0	79 (30 open space)	Map Recorded

Table 4.3-14 (Continued)
Los Angeles County Consolidated Projects

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Bouquet Canyon Land Fund 8, LLC (TR 52193)	Located west of Bouquet Canyon Road near the intersection of Bouquet and Vasquez Canyon Road; 6 miles northeast of the RMDP/SCP project.	179	20,000	260	Pending
Westshire (Pardee Homes, TR 063483)	Located immediately south of SR-14, southwest of Via Princessa and north of Lost Canyon Road; 7 miles east of the RMDP/SCP project.	190	0	13 (3 open space)	Pending
Overland National Land Fund (TR 52192)	Southwest of the intersection of Bouquet Canyon Road and Vasquez Canyon Road; 6 miles northeast of the RMDP/SCP project.	155	0	204	Pending
Condo III Development, Larwin Company, Val Verde (TR 51995)	West of I-5, south of Hillcrest Parkway; 3 miles north of the RMDP/SCP project.	114	0	15	Map Recorded
Forecast Homes (TR 46353)	Located in Mint Canyon just southeast of Sierra Highway and west of Sand Canyon Road, just north of the city of Santa Clarita boundary; 9 miles east of the RMDP/SCP project.	110	0	65	Map Recorded
Golden Valley Ranch (TR 52535)	West of I-5 in Castaic; 6 miles north of the RMDP/SCP project.	80	0	260	Pending
Decoro Drive Residential (TR 45440)	West of McBean, east of San Francisquito Creek; 3 miles northeast of the RMDP/SCP project.	182	0	99	Completed
Dierckman & Mayh (PM 19784)	West of Commerce Center Drive, north of SR-126; 0.25 mile north of the RMDP/SCP project.	115	0	288	Map Recorded
(TR 42537)	West of I-5 in Castaic; 4 miles north of the RMDP/SCP project.	95	0	553	Approved
Sierra Way Estates (TR 47573)	Located northeast of the intersection of Sierra Highway and Vasquez Canyon Road; 12 miles northeast of the RMDP/SCP project.	75	0	246 (179 open space)	Pending
(TR 47807)	West of Sloan Canyon Road and I-5 in Castaic; 3 miles north of the RMDP/SCP project.	77	0	197	Approved
SunCal Burnam Project (TR 53189)	Along San Francisquito Creek, west of McBean Parkway and north of Copperhill Drive; 5 miles northeast of the RMDP/SCP project.	60	0	186	Pending

Table 4.3-14 (Continued)
Los Angeles County Consolidated Projects

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Hasley Ranch Co. Greystone Homes Inc. (TR 45645)	Hasley Canyon Road and Romero Canyon Road, west of the Hasley Canyon Golf Course and I-5; 2 miles north of the RMDP/SCP project.	67	0	160	Approved
Arciero and Sons, Inc. (TR 53725)	West of Hasley Canyon Golf Course and I-5; 2 miles north of the RMDP/SCP project.	42	0	139	Pending
Del Valle Project (TR 060665)	South of Hasley Canyon Golf Course; 0.5 mile north of the RMDP/SCP project.	111	0	134	Pending
Tract 52475	North of Hasley Canyon Road, west of Del Valle Road, 3 miles north of the RMDP/SCP project.	46	0	70	Pending
Sterling Gateway (TR 60030)	Located east of Chiquita Canyon Road, just north of the RMDP/SCP project area; 0.5 mile north of the RMDP/SCP project.	21	1,300,000	108	Pending
Total Los Angeles County Residential/Mixed Use³		35,459	5,755,315	20,565	
Industrial/Commercial Projects					
Castaic Junction (PM 26574)	North of Henry Mayo Drive, west of The Old Road, north of the I-5 and SR-126 interchange; 0.25 mile northeast of the RMDP/SCP project.	0	1,879,500	114	Under Construction
Valencia Industrial Center	Map ID #4 - East of I-5, south of Newhall Ranch Road, north of Magic Mountain Parkway; 0.25 mile northeast of the RMDP/SCP project.	0	12,900,000	1,840	Approved
PM 18654	Northwest of The Old Road and Magic Mountain Parkway, near Six Flags Magic Mountain Amusement Park; 0.25 mile east of the RMDP/SCP project.	0	200,000	9	Approved
Curtis Sand and Gravel Mine and Aggregate Plant	Upper Santa Clara River, about 10 miles upstream from Newhall Ranch Specific Plan area.	0	n/a	185	Operating since 1955
Transit Mix (CEMEX) Soledad Canyon Mine	East of City of Santa Clarita boundary, at the entrance to Soledad Canyon; 16 miles east of the RMDP/SCP project.	0	n/a	300	Suspended pending federal legislation
Chiquita Canyon Landfill Expansion	Map ID #17 - West of I-5, north of SR-126 at Wolcott Way; 0.5 mile north of the RMDP/SCP project.	0	n/a	98	Pending
Industrial/Commercial Subtotal		0	14,879,500	2,546	

Table 4.3-14 (Continued)
Los Angeles County Consolidated Projects

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Institutional Projects					
Castaic High School	North of Lake Hughes Road, east of Ridge Route Road, 4 miles north of the RMDP/SCP project.	0	500,000	50	Pending
Total Los Angeles County Institutional		0	500,000	50	
Infrastructure Projects					
CLWA Reclaimed Water Master Plan (Santa Clara River)	Map ID #14 - Los Angeles County and city of Santa Clarita; 6 miles north of the RMDP/SCP project.	n/a	n/a	n/a	Pending
Bouquet Canyon Bridge Widening	Adding one lane in each direction on Bouquet Canyon Bridge at Santa Clara River; 2 miles east of the RMDP/SCP project.	n/a	n/a	n/a	Completed
Copperhill Drive Bridge	Upper San Francisco Creek, 565-foot bridge, 6 lanes; 3 miles northeast of the RMDP/SCP project.	n/a	n/a	n/a	Completed
Commerce Center Drive Extension	Extension of Commerce Center Drive and Bridge over Castaic Creek; 0.25 mile east of the RMDP/SCP project.	n/a	n/a	n/a	Completed
Cross Valley Connector	Two-mile extension of Newhall Ranch Road to east of Bouquet Canyon Road, including approximately 120-foot-wide bridge over Santa Clara River, connecting with Golden Valley Road; 3 miles east of the RMDP/SCP project.	n/a	n/a	n/a	Approved; estimated completion 2008
Santa Clara Valley Joint Sewerage Facilities Plan	Map ID #16—Los Angeles County.	n/a	n/a	n/a	Approved
DPW Channel maintenance (South Fork)	70 acres of channel excavation, center of Santa Clara River, South Fork.	n/a	n/a	n/a	Provisional Corps permit in 1997
Natural River Management Plan (NRMP)	Map ID #13—Natural River Management Plan for 1,200 acres along the Santa Clara River.	n/a	n/a	n/a	Approved in 1998; half built-out

Table 4.3-14 (Continued)
Los Angeles County Consolidated Projects

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Santa Clara River Enhancement and Management Plan	Map ID #15—Santa Clara River from Acton to Pacific Ocean, in Los Angeles and Ventura Counties.	n/a	n/a	n/a	Approved
I-5 and SR-126	I-5/SR-126 interchange; 0.5 mile northeast of the RMDP/SCP project.	n/a	n/a	n/a	Completed
I-5/Hasley Canyon Road	Within Valencia Commerce Center, I-5 at the I-5/Hasley Canyon Road interchange; within the RMDP/SCP project area.	n/a	n/a	n/a	Under Construction since 10/07
I-5/Magic Mountain Parkway Interchange Project	Modify the I-5/Magic Mountain Parkway interchange, reconstruct the Santa Clara River Bridge, realign The Old Road, and realign and widen Magic Mountain Parkway from six to eight lanes; 0.5 mile northeast of the RMDP/SCP project.	n/a	n/a	n/a	Construction scheduled to be complete Spring 2009
Valencia Water Reclamation Plant	Immediately downstream of the I-5 bridge, discharges to the Santa Clara River; 0.5 mile east of the RMDP/SCP project.	n/a	n/a	n/a	Completed
I-5 Santa Clara River Bridge Replacement	Santa Clara River and I-5; 0.5 mile east of the RMDP/SCP project.	n/a	n/a	n/a	Completed
Castaic Junction Project	I-5/SR-126 interchange improvement project; 0.25 mile east of the RMDP/SCP project.	n/a	n/a	n/a	Under Construction
DPW Del Valle Sediment Placement Site	Near intersection of SR-126 and Chiquito Canyon Road; 0.5 mile north of the RMDP/SCP project	n/a	n/a	n/a	Pending
Soledad Canyon Road Trail (Santa Clara River)	South side of Santa Clara River from Metro Link Station to west side of Bouquet Canyon Bridge, continuing along the west side of Valencia Boulevard across South Fork at the Valencia Bridge; 3 miles east of the RMDP/SCP project.	n/a	n/a	n/a	Pending
Infrastructure Subtotal		n/a	n/a	n/a	
Total		35,459	21,134,815	23,161	(includes at least 3,627 acres of open space)

Table 4.3-14 (Continued)
Los Angeles County Consolidated Projects

Note: The Las Lomas Project (PM 060792) application was denied, and thus, it was not included in this list because it is currently not reasonably foreseeable.

¹ *In some instances, commercial/industrial square footage was not available but an acreage for such uses was provided. That acreage was converted to square footage [shown in brackets] to provide an estimated basis for aggregating square footage totals.*

² *Open space acreage information was not available for all projects, but is provided where available.*

³ *Ritter Ranch and Centennial are not included in the totals because they are located in a different watershed.*

Source:

Los Angeles County.

(c) City of Fillmore (Ventura County) Consolidated Projects

Table 4.3-15 contains the City of Fillmore consolidated project list. Projects more than 5 miles away from the Newhall Ranch Specific Plan area and/or smaller-scale projects (less than 700 acres) are listed in a consolidated manner, and are grouped by local jurisdiction.

**Table 4.3-15
City of Fillmore Consolidated Projects**

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Residential/Mixed Use Projects					
Heritage Valley Parks Specific Plan	Located within and adjacent to the southeastern boundary of the city of Fillmore; 10 miles east of the RMDP/SCP project.	750	0	301 (52 open space)	Under Construction
North Fillmore Specific Plan	North of B Street and 7th Street; 11 miles east of the RMDP/SCP project.	350	15,000	101 (2 open space)	Pending
Residential Subtotal		1,100	15,000	402	
Commercial/Industrial Projects					
South West Business Park Master Plan Commercial	South West corner of the city of Fillmore; 10 miles west of the RMDP/SCP project.	0	90 acres [3,920,400 sf]	90	Under Construction
Commercial/Industrial Subtotal		0	3,920,400	90	
Infrastructure Projects					
Fillmore Water Recycling Plant	SR-126 and "E" Street, city of Fillmore; 10 miles west of the RMDP/SCP project.	n/a	n/a	n/a	Under Construction
Total		1,100	3,935,400	492	(includes at least 54 acres of open space)

¹ In some instances, commercial/industrial square footage was not available but an acreage for such uses was provided. That acreage was converted to square footage [shown in brackets] to provide an estimated basis for aggregating square footage totals.

² Open space acreage information was not available for all projects, but is provided where available.

Source:

City of Fillmore.

(d) City of Santa Paula (Ventura County) Consolidated Projects

Table 4.3-16 contains the City of Santa Paula consolidated project list. Projects more than 5 miles away from the Newhall Ranch Specific Plan area and/or smaller-scale projects (less than 700 acres) are listed in a consolidated manner, and are grouped by local jurisdiction.

**Table 4.3-16
City of Santa Paula Consolidated Projects**

Name	Location	Units	Commercial (sf)	Acres	Status
Residential Projects					
Adams Canyon	Map ID #3—West of SR-150; 22 miles west of the RMDP/SCP project.	450	unknown	6,578	Pending (See Table 4.3-21)
East Area 1 Specific Plan	The property is bounded by hillside agricultural land to the north, Haun Creek to the east, Main Street and Southern Pacific Railroad to the south, and Santa Paula Creek to the west; 20 miles west of the RMDP/SCP project.	900	810,800	541	Annexation Pending
Residential Subtotal		1,350	810,800	7,119	
Total		1,350	810,800	7,119	

Source:
City of Santa Paula.

(e) Unincorporated Ventura County Consolidated Projects

Table 4.3-17 contains the unincorporated Ventura County consolidated project list. Projects more than 5 miles away from the Newhall Ranch Specific Plan area and/or smaller-scale projects (less than 700 acres) are listed in a consolidated manner, and are grouped by local jurisdiction.

**Table 4.3-17
Ventura County Consolidated Projects**

Name	Location	Units	Commercial/ Industrial (sf)	Status
Residential/Mixed Use Projects				
Permit No. LU08-0062	Located within the Piru area of Ventura County; approximately 7 miles west of the RMDP/SCP project.	66	0	Pending
Residential Subtotal		66	0	
Commercial/Industrial Projects				
Permit No. LU08-0047	Located in the Piru area of Ventura County; approximately 7 miles west of the RMDP/SCP project.	0	19,300	Pending
Commercial/Industrial Subtotal		0	19,300	
Recreational Projects				
Permit No. LU07-0088	Located in the Piru area of Ventura County; approximately 8 miles northwest of the RMDP/SCP project.	0	(1)	Approved
Total		66	19,300	

(1) This project consists of minor improvements to existing buildings, structures and utilities at Lake Piru

Source:

Ventura County

(f) Consolidated Projects Overview

Table 4.3-18 contains a summary of the consolidated project information contained in **Tables 4.3-13 to 4.3-16**, above.

**Table 4.3-18
Summary of Total City/County/Caltrans Consolidated Projects**

Agency	Units	Comm./Ind (sf)¹	Total Acres/Open Space Acres²
Santa Clarita	13,003	18,134,857	7,609/1,883
Los Angeles County	35,459	21,134,815	23,161/3,627
Fillmore	1,100	3,935,400	492/54
Santa Paula	1,350	810,800	7,119
Ventura County	66	19,300	unknown
Total	50,978	44,035,172	59,929/5,564

Notes:

¹ Includes some instances where commercial/industrial acreages were converted to square footage [shown in brackets in **Tables 4.3-13 to 4.3-15**] to provide an estimated basis for aggregating square footage totals.

² Open space acreage information was not available for all projects; therefore, the "Open Space Acres" number represents the minimum open space that is planned for the projects in **Tables 4.3-13 to 4.3-15**.

Source:

Tables 4.3-13 to 4.3-17.

(g) Corps (Section 404 Permit) Projects

Between 1988 and 2006, the Corps issued an average of approximately 12.6 section 404 permits per year within the Santa Clara River watershed. (See **Figure 4.3-13, Consolidated Corps Projects (1988 and 2006)**, and **Figure 4.3-14, Consolidated Corps Permits, Acreage of Impacts and Mitigation (1988 to 2006)**, below.) The greatest number of permits was issued in 1998 and 2005, respectively, which were both El Nino years. As a result, the amount of jurisdictional area affected, in terms of acreage, was greatest in these 2 years. This is likely due to the fact that dramatic flood events necessitate the need for repairs and maintenance of existing facilities, and may also underscore the general need to construct additional flood and erosion facilities for protection against future disasters.

Of the 228 projects permitted by the Corps under section 404 permits in the Santa Clara River watershed between 1988 and 2006, more were associated with emergency repairs and maintenance than any other type of activity. Combined, the permits issued for emergency repairs and maintenance of existing facilities accounted for a 25 percent of the total permits issued (16 percent were emergency repairs, 9 percent maintenance). Flood protection activities, including bank protection, riprap, rock groin, and culver/levee improvements, accounted for 25 percent of the total permits issued. Another 17 percent of the permits issued were associated with residential development. Unknown activities (largely from older permits with minimal available data) comprised 15 percent of the permits. The remaining 18 percent include bridges, channel alterations, sediment removal, storm drains, and other projects. (See **Figure 4.3-15, Corps Permitted Activities by Types (1998-2006)**.)

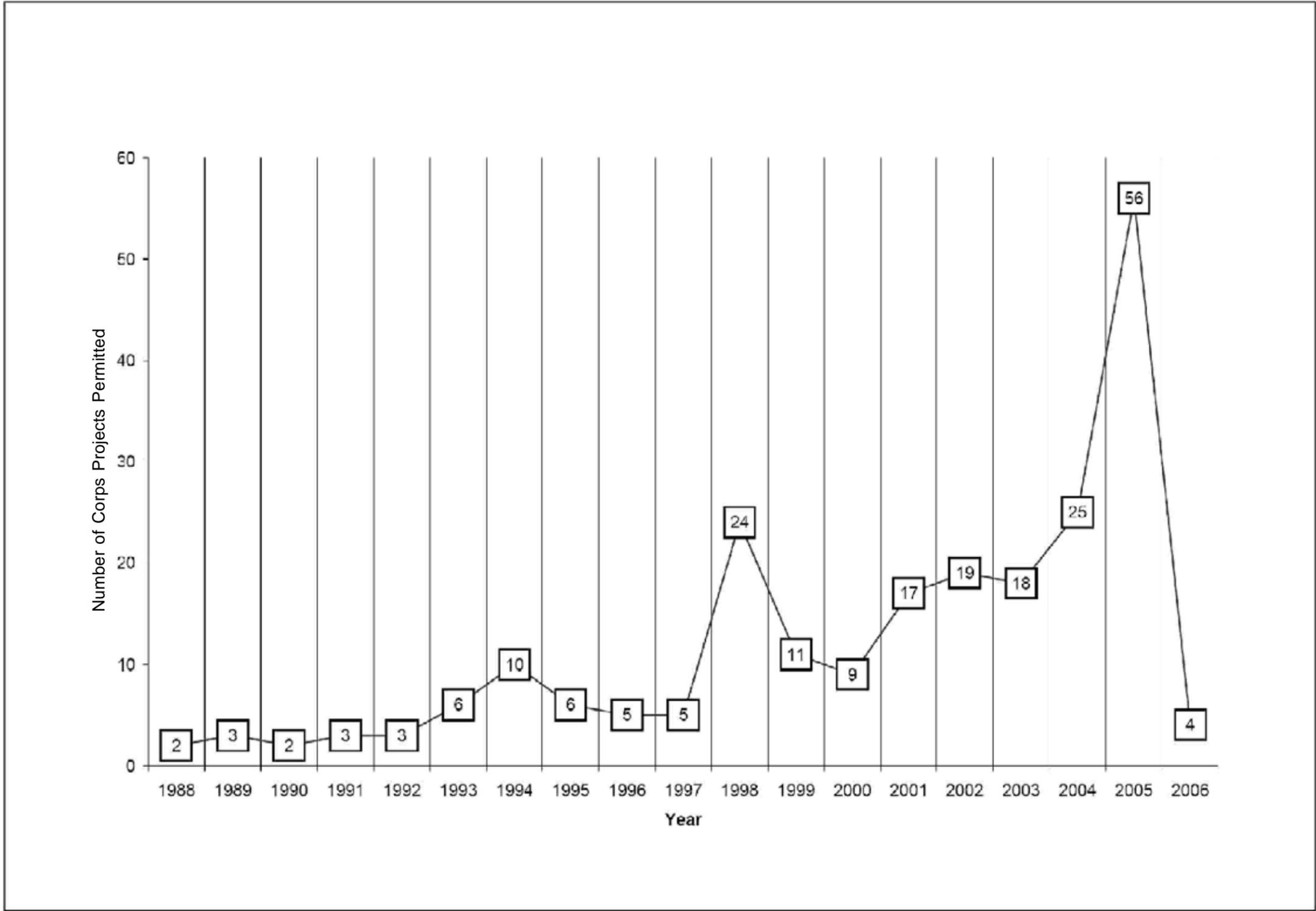
(h) Federal Biological Opinions

Table 4.3-19 summarizes federal biological opinions issued in the Santa Clara River watershed between 1993 and 2006 as they relate to the species that are the most likely to be reviewed by the USFWS and CDFG as part of the species-related determinations and/or authorizations that are being sought as part of the Newhall Ranch Specific Plan process. A total of 25 USFWS biological opinions were reviewed. One of those opinions is not incorporated below because it did not affect any species of primary concern. Three opinions have been combined into one entry below because they concern the same request.

(i) CDFG Streambed Projects

Between 1983 and 2006, CDFG issued an average of 21 streambed alteration agreements per year in the Santa Clara River watershed. (See **Figure 4.3-16, Consolidated CDFG Streambed Projects (1983-2006)**, and **Figure 4.3-17, Consolidated CDFG Streambed Permits, Acreages of Impacts and Mitigation (1983-2006)**.) In general, the acreages of jurisdictional streambeds affected by projects authorized under the Fish and Game Code section 1600 program, in a given year, were related to the number of projects authorized that year. The years following the 1998 and 2005 El Niño events showed peaks in the number of authorizations granted, and a corresponding trend with respect to acreages of jurisdictional areas impacted. This is likely due to the fact that dramatic flood events necessitate the need for repairs and maintenance of existing facilities, and may also underscore the need to construct additional flood and erosion facilities for protection against future disasters.

Of the 503 projects permitted under the section 1600 program in the Santa Clara River watershed between 1983 and 2006, 32 percent of the project activities were associated with bridges and maintenance activities. The combined number of streambed alteration agreements issued for the installation of riprap, bank protection, and miscellaneous flood/erosion control facilities accounted for 19 percent of the total authorizations issued. Sediment removal and fill activities accounted for 12 percent of the authorized activities, while channel alterations account for 11 percent of the total authorized activities. Unknown activities (largely from older permits with minimal available data) comprised 3 percent of the permits. (See **Figure 4.3-18, Consolidated CDFG Streambed Permits by Type (1983-2006)**.) The remaining 23 percent include culverts, storm drains, vegetation removal, and other projects.



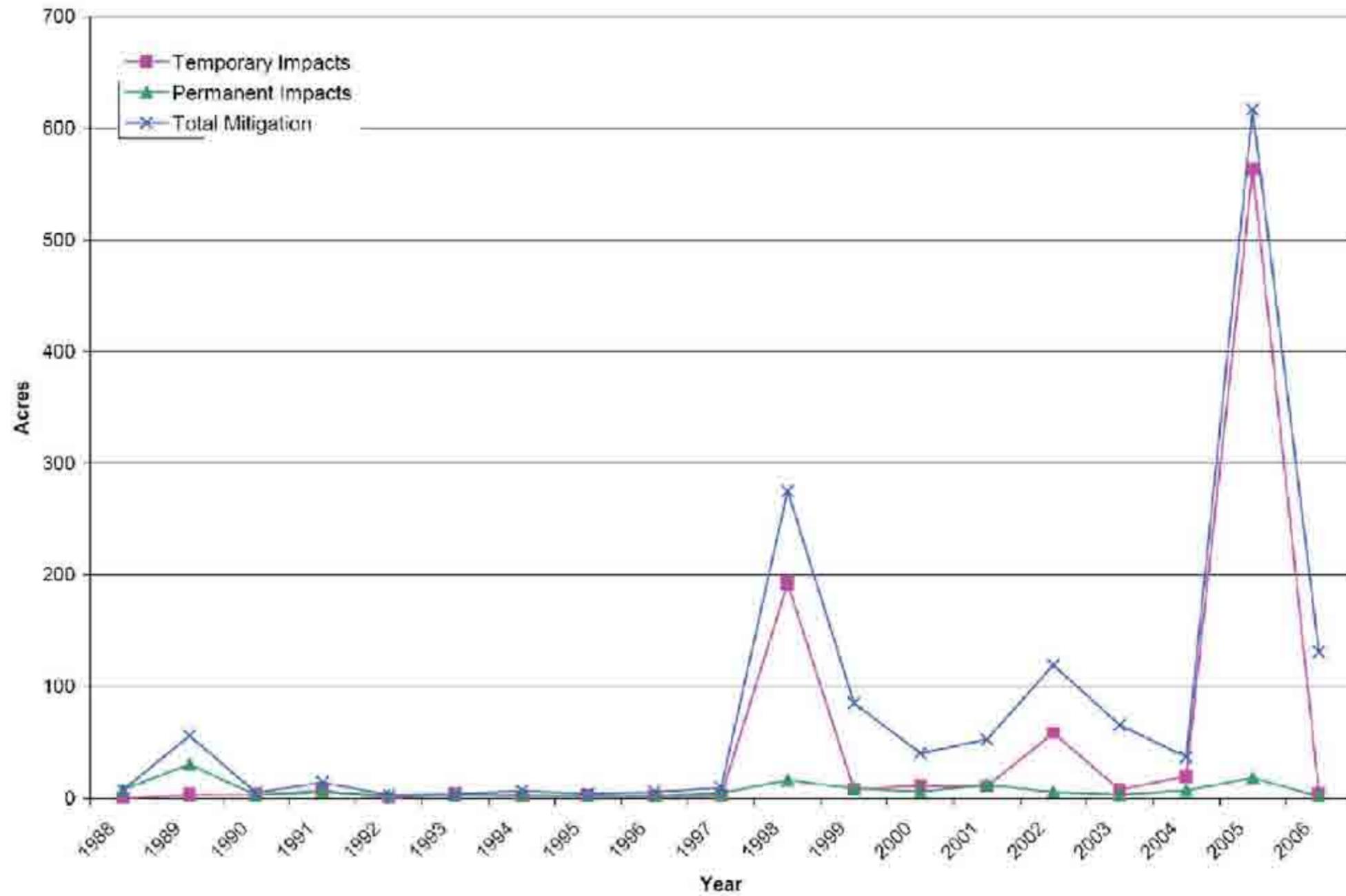
SOURCE: Corps 2008; Impact Sciences Inc. 2009

FIGURE 4.3-13

Mission Village EIR

Consolidated Corps Projects (1988 and 2006)



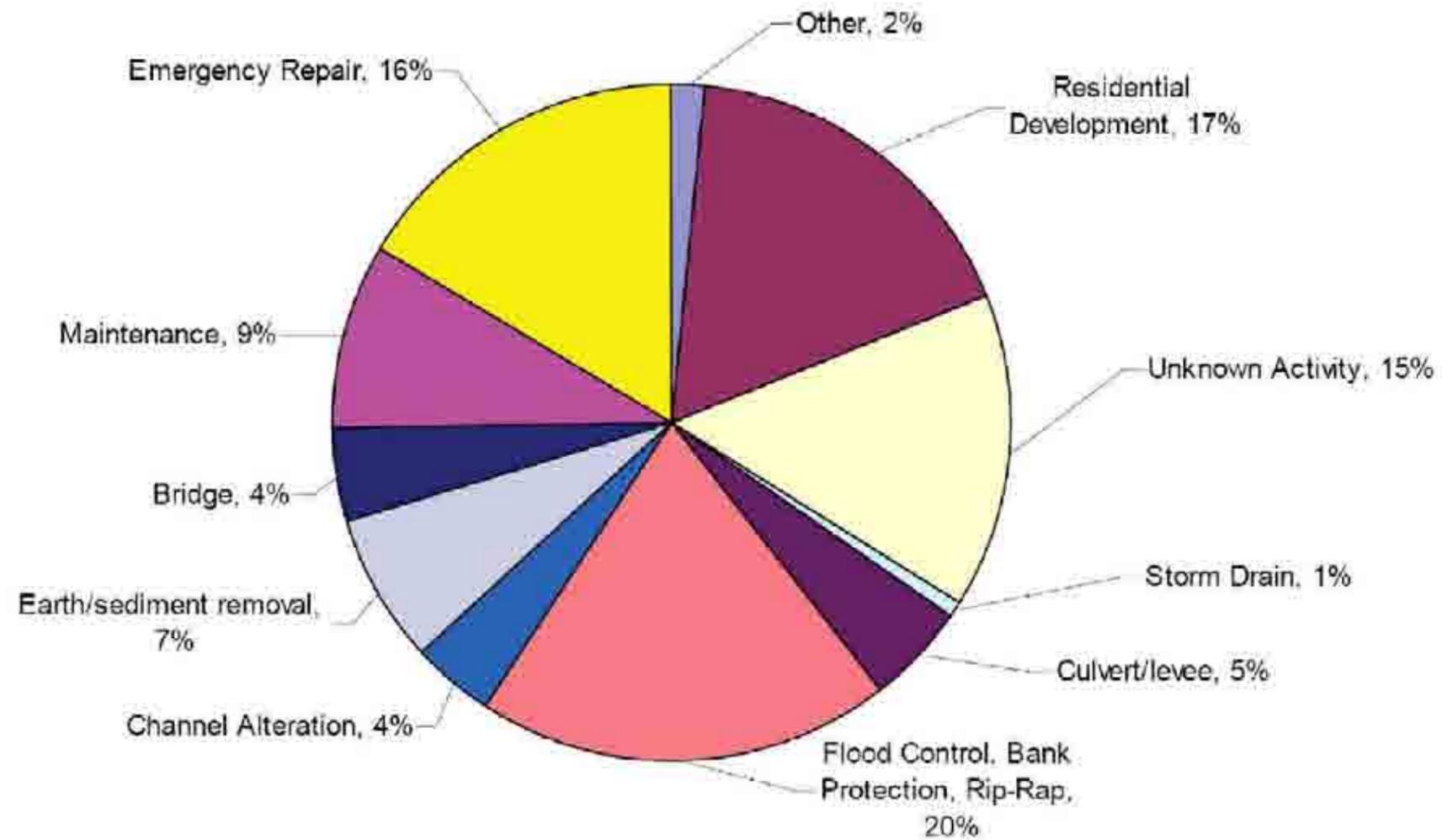


SOURCE: Corps 2008; Impact Sciences Inc. 2009

FIGURE 4.3-14

Mission Village EIR

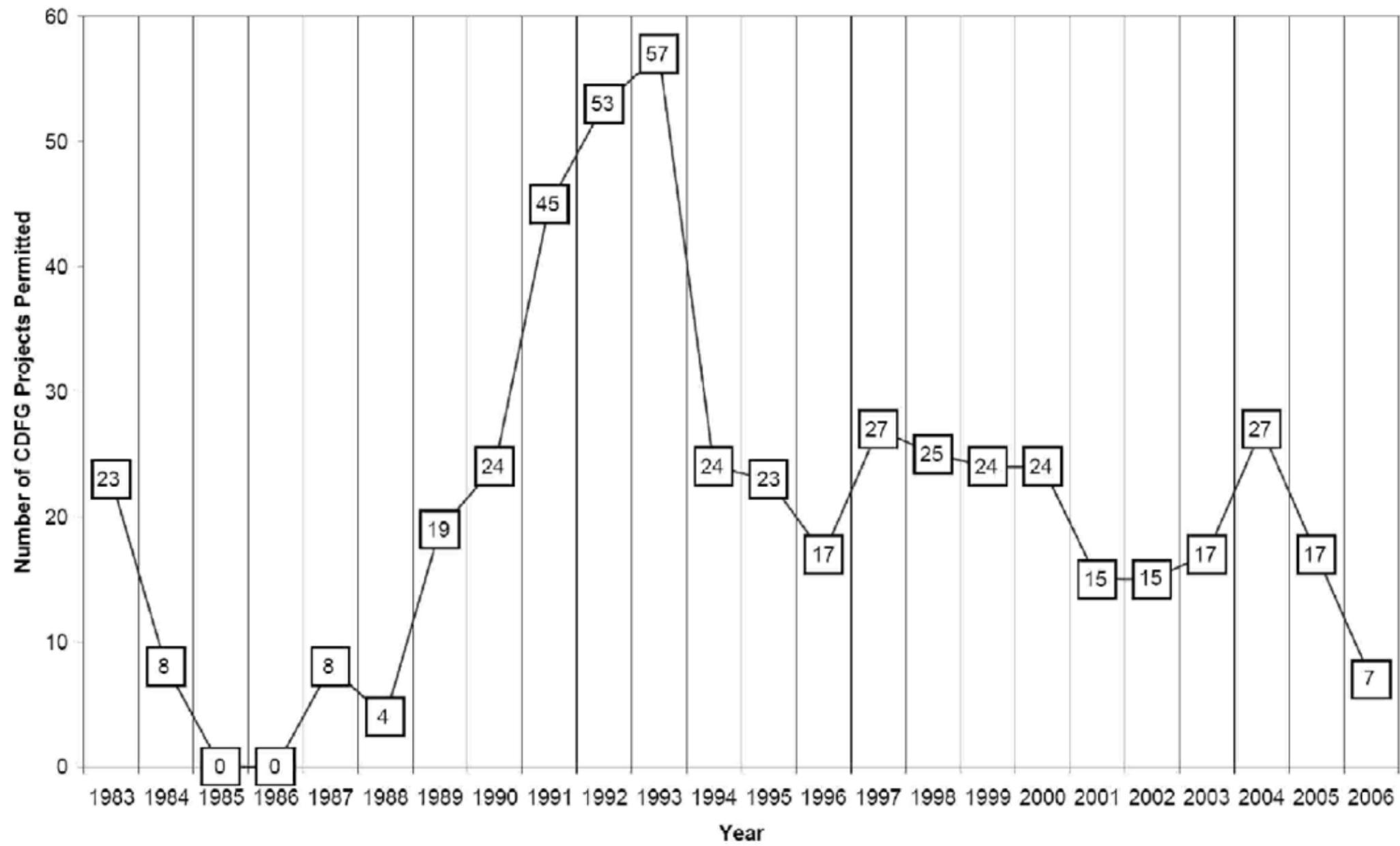
Consolidated Corps Permits, Acreage of Impacts and Mitigation (1988 to 2006)



SOURCE: Corps 2008; Impact Sciences Inc. 2009

FIGURE 4.3-15

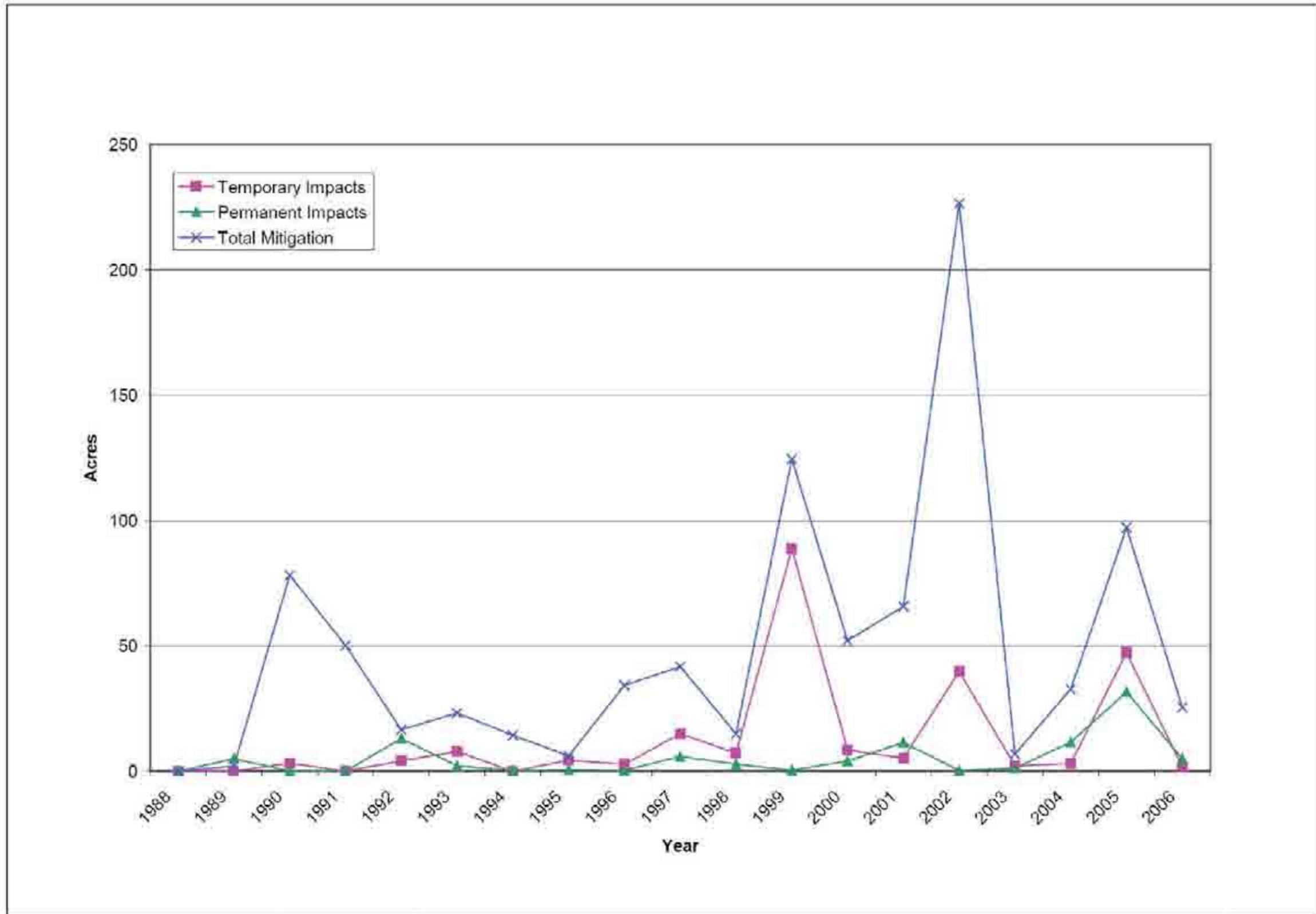
Mission Village EIR



SOURCE: Impact Sciences Inc. 2009

FIGURE 4.3-16

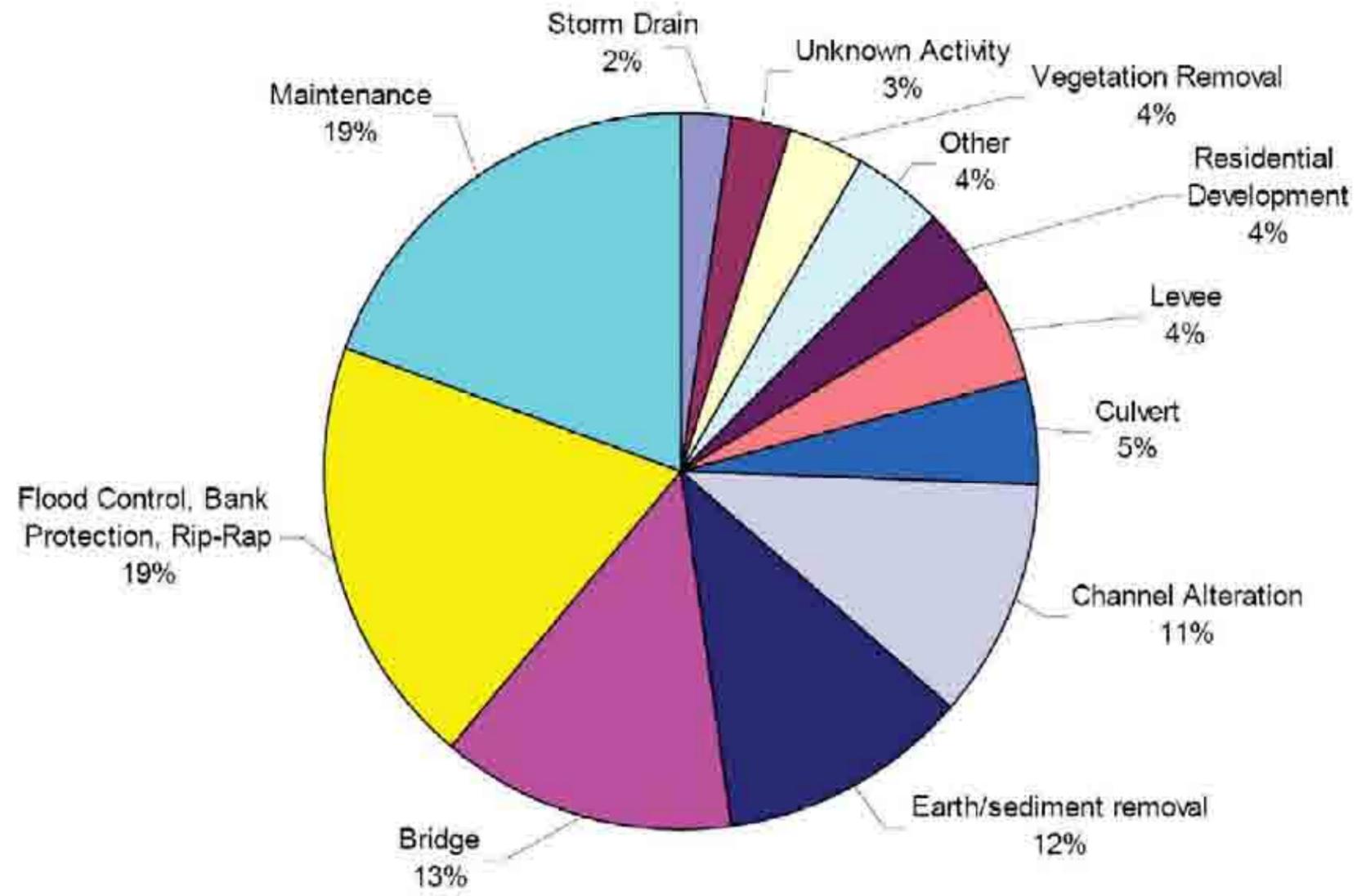
Mission Village EIR



SOURCE: Impact Sciences Inc. 2009

FIGURE 4.3-17

Mission Village EIR



SOURCE: Impact Sciences Inc. 2009

FIGURE 4.3-18

Mission Village EIR

**Table 4.3-19
Federal Biological Opinion Summary, Santa Clara Watershed (19932006)**

Project	Species Covered	Acres Permanently (P) or Temporarily (T) Disturbed	Location	Description	Conclusion
Temporary Diversion Berm on the Santa Clara River on the Newhall Ranch Op. 1065.1163.1544 October 26, 1993	UTS ⁵²⁰	0 P 0.09 T (est.)	Along the Santa Clara River on the Newhall Ranch.	Construction of a 2' x 10' x 400' berm to divert water away from an exempt levee which is to be rebuilt.	Project is not likely to jeopardize the continued existence of the UTS; no adverse modification of critical habitat.
Southern Pacific Milling Company Sand and Gravel Mine Op. 1025.1129.1492 February 7, 1994	LBV ⁵²¹	19 P T-unknown	Within and adjacent to the Santa Clara River from the western edge of the city of Santa Paula downstream to the confluence with the Lindsay Barranca in Ventura County.	The applicant proposes to install a sand and gravel mine.	Project is not likely to jeopardize the continued existence of the LBV; no adverse modification of critical habitat.
Installation of a Southern California Gas Company Pipeline Op. 1380.1517.2051 August 28, 1995	UTS	0 P .23 (est.) T	Santa Clara River at Castaic Creek.	Installation of an 8 mile gas line that crosses the Santa Clara River and Castaic Creek.	Project is not likely to jeopardize the continued existence of the UTS; no adverse modification of critical habitat.

520 UTS = Unarmored three-spine stickleback

521 LBV = Least Bell's vireo

Table 4.3-19 (Continued)
Federal Biological Opinion Summary, Santa Clara Watershed (19932006)

Project	Species Covered	Acres Permanently (P) or Temporarily (T) Disturbed	Location	Description	Conclusion
Installation of Irrigation Pipelines on the Santa Clara River in Newhall Ranch Op. 1392.1533.2075 October 23, 1995	UTS	0.005 P 1.45 T	Santa Clara River at Summer Crossing.	Installation of 18" x 12" PVC irrigating pipe and removal of fill that comprises Summer Crossing; purpose is to irrigate nearby Citrus Orchards.	Project is not likely to jeopardize the continued existence of the UTS; no adverse modification of critical habitat.
Construction of Erosion Control Facilities for the Valencia Water Reclamation Plant Op. 1406.1547.2098 February 29, 1996	UTS & LBV	1.4 P T-unknown	Santa Clara River near the Valencia Water Reclamation Plant.	Construction of a 50' x 12' x 630' keystone retaining wall.	Project is not likely to jeopardize the continued existence of either species; no adverse modification of critical habitat.
Repair of I-5 Bridge Over Santa Clara River Op. 1443.1591.2158 September 6, 1996	UTS ~LBV & ~SWF ⁵²²	1.4 P T-unknown	The Intersection of I-5 and the Santa Clara River.	The repair of two pier footings of the I-5 bridge crossing the Santa Clara River.	Project is not likely to jeopardize the continued existence of the UTS; no adverse modification of critical habitat.
Widening of SR-126 Op. 1472.1623.2199	LBV	0.5 P T-unknown	SR-126 just east of Rancho Camulos, from city of Piru to Los Angeles County line.	Grubbing, vegetation removal, and installation of retaining walls for ROW expansion.	Project is not likely to jeopardize the continued existence of the LBV; no adverse modification of critical

⁵²² SWF = Southwestern willow flycatcher

Table 4.3-19 (Continued)
Federal Biological Opinion Summary, Santa Clara Watershed (19932006)

Project	Species Covered	Acres Permanently (P) or Temporarily (T) Disturbed	Location	Description	Conclusion
April 20, 1997					habitat.
Sewer Line and Force Main Op. 2390.3666.4402 September 28, 1998	UTS ~LBV	0.7 P T-unknown	Near the intersection of the Santa Clara River and Old Road Bridge in the city of Santa Clarita.	Replacement of two underground sewer lines that cross the Santa Clara River.	Not likely to jeopardize the continued existence of the species or adversely affect critical habitat.
Newhall Land and Farming's Summer Crossings and Water Diversions Op. 911.1015.1329, 911.1015.1330, & 911.1351.1804 September 25, 1998 Note: Duplicate Letters	UTS	0 P 14 T	Santa Clara River from the Castaic Creek confluence to the Rancho Camulos vicinity.	Installation of six temporary vehicle crossings and four water diversions along the Santa Clara River from native materials.	The action as is not likely to jeopardize the continued existence of the UTS or modify critical habitat.
Natural River Management Plan Op. 116.122.166 Nov. 27, 1998	UTS, LBV & SWF	96 P 71 T	Along the Santa Clara River and its tributaries in Valencia and Santa Clarita and adjacent unincorporated areas of Los Angeles County at the inlet of the San Francisquito Creek and confluence with the South Fork of the Santa Clara River.	81,150 lf of bank protection along the River and San Francisquito Creek; a 1,700 foot long inlet structure at the confluence with the South Fork; approximately 85 storm drain outlets; eight new bridges; a replacement for an existing bridge; and upgrades to six existing bridges.	Activities are not likely to jeopardize the continued existence of these species or result in destruction or adverse modification of critical habitat.
Replacement of	UTS &	1.18 P	Where I-5 crosses the Santa	Caltrans (with FHWA funding),	Not likely to jeopardize the

Table 4.3-19 (Continued)
Federal Biological Opinion Summary, Santa Clara Watershed (19932006)

Project	Species Covered	Acres Permanently (P) or Temporarily (T) Disturbed	Location	Description	Conclusion
the I-5 Bridge over the Santa Clara River, Los Angeles County Op. 148.155.1274 December 26, 2000	LBV	0.42	Clara River.	proposes to replace the existing bridges where I-5 crosses the Santa Clara River, with a single structure, consisting of 10 traffic lanes. Construction activities would include major and minor grading, installing pier supports, and the demolition and removal of the existing bridges.	existence of these three species and is not likely to destroy or adversely modify the critical habitat of the LBV or the proposed critical habitat of the UTS.
Replacement of the Highway 101 Bridge over the Santa Clara River, Ventura County, California Op. 852.921.1190 May 3, 2001	LBV & SWF	1.18 P 0.42 T	Highway 101 and the Santa Clara River; activities are expected to occur only on and under the bridge, and within 100 feet up- and downstream of the bridge.	Caltrans, (with FHWA funding) proposes to replace existing Highway 101 bridges over the Santa Clara River with a single concrete bridge with 12 lanes, a bike path, 12 piers and two abutments.	The action as is not likely to jeopardize the continued existence of these species; no critical habitat present.
Amendment to the Biological Opinion for the Santa Clara River Bridge Replacement Project Op. 852.921.1195 April 3, 2002	LBV & SWF	1.18 P 0.42 T	Interstate 101 and the Santa Clara River (although the opinion inadvertently references I-5).	Caltrans was unable to comply with term and condition 7 of the May 3, 2001 opinion requiring removal of riparian vegetation within 100 yards of the bridge before March 15 of each construction year.	Qualified ornithologists conducted surveys for breeding birds in the project area and concluded that no LBV or SWF had been detected. Therefore, the biological opinion can be amended without resulting in additional take of the species.

Table 4.3-19 (Continued)
Federal Biological Opinion Summary, Santa Clara Watershed (19932006)

Project	Species Covered	Acres Permanently (P) or Temporarily (T) Disturbed	Location	Description	Conclusion
Hardluck Campground Low Water Crossing Replacement Op. 2409.3697.4463 September 10, 2002	AT ⁵²³	0.25 P T - unknown	Piru Creek near Hardluck Campground in Los Padres National Forest.	Replacement of a concrete low water crossing.	Not likely to jeopardize the continued existence of the AT or adversely affect critical habitat.
Natural River Management Plan (NRMP) (Supplement to previous application dated November 27, 1998) Op. 116.154.212 Nov. 15, 2002	AT	66 P 71 T (smaller acreage for permanent reflects that a portion of the project had already been completed)	Same as previous.	Same as previous.	The NRMP, as proposed, is not likely to jeopardize the continued existence of the AT.
Castaic Creek Bank Protection, Valencia Commerce Center, Los Angeles County, California Op. 189.203.342 December 17, 2002	UTS & AT ~LBV	135 P 8.3 T	Castaic and Hasley creeks adjacent to the Santa Clara River.	Installation of approximately 19,400 feet of bank protection along Castaic and Hasley creeks over a period of 4 years.	The project, as proposed, is not likely to jeopardize the continued existence of either of these species.

523 AT = Arroyo Toad

Table 4.3-19 (Continued)
Federal Biological Opinion Summary, Santa Clara Watershed (19932006)

Project	Species Covered	Acres Permanently (P) or Temporarily (T) Disturbed	Location	Description	Conclusion
Re-initiation of the replacement of the I-5 Bridge over the Santa Clara River, Los Angeles County Op. 148.156.215 August 1, 2003	UTS, LBV, SWF, & AT	1.28 P 0.42 T	Where I-5 crosses the Santa Clara River.	Same as above, but permanently impacted area will be expanded by 0.1 acres.	Action is not likely to jeopardize the continued existence of the species.
Santa Clara River Reaches 71 & 82 Op. 884.976.1397 October 24, 2004	UTS & AT	5.81 P T-unknown	Reaches 71 & 82 of the Santa Clara River.	Clearing of soft-bottom channels using both heavy mechanical equipment and hand clearing.	The action is not likely to jeopardize the continued existence of these species.
Townhomes at the River Development and Construction of a Flood Control Levee Op. 1726.2067.3266 March 31, 2005	LBV	11.4 P T-unknown	City of Fillmore.	66 residential units on an 11.4 acre site and 26' x 730' x 10' x 90' levee installation.	Not likely to jeopardize the continued existence of the LBV; critical habitat will not be adversely affected.
I-5 Hasley Canyon Interchange Improvement Op. 2141.3126.3703 May 31, 2005	UTS & AT	0.01 P 0.42 T (est)	I-5 at Castaic Creek and Hasley Canyon.	Replacement of existing over-crossings, ramps, and supports.	Not likely to jeopardize the continued existence of either species; critical habitat will be adversely affected.

Table 4.3-19 (Continued)
Federal Biological Opinion Summary, Santa Clara Watershed (19932006)

Project	Species Covered	Acres Permanently (P) or Temporarily (T) Disturbed	Location	Description	Conclusion
Amendment to Biological Opinion for Santa Clara Bridge Replacement Op. 852.921.4942 February 16, 2006	LBV & SWF	1.18 P 0.42 T	Interstate 101 and the Santa Clara River.	Proposed revision of project description to include underground drainage and outlet.	The revised project is not likely to adversely affect these species.
Santa Paula Water Recycling Facility Op. 2260.3483.5550 September 5, 2006	LBV	0 P 9.4 T	Approximately 58 acres immediately south of SR-126 and west of Peck Road in Santa Paula.	Construction of a new water recycling facility including new percolation ponds that would discharge into the Santa Clara River.	Not likely to jeopardize the continued existence of the LBV; critical habitat will not be adversely affected.

Notes:

UTS - Unarmored Threespine Stickleback

SWF - Southwestern Willow Flycatcher

LBV - Least Bell's Vireo

AT - Arroyo toad

~ - species mentioned but not discussed

Source:

USFWS.

(j) **CDFG Take Authorizations**

Prior to 1997, CDFG issued Memoranda of Understanding and a few permits for authorization of incidental take of species listed under the California ESA. Between 1988 and 1997, CDFG considered 273 incidental take authorizations statewide, of which 174 were ultimately signed. Of those 174 authorizations, three were for western yellow-billed cuckoo, 11 for least Bell's vireo, and one for unarmored threespine stickleback. In the bioregion that includes the proposed project (the South Coast bioregion), approximately 20 take authorizations were issued during that time period, which authorized a total of roughly 1,000 acres of habitat impacts (including coastal sage scrub, alluvial fan sage scrub, non-native grassland, riparian, and wetland habitat types) and required 2,000 acres of mitigation.⁵²⁴

More recently, CDFG has issued 48 take authorizations in the general regional vicinity of the project (i.e., generally within Los Angeles, Ventura, and Santa Barbara Counties, but also including some authorizations in San Diego County). Most of those authorizations were for projects that are a significant distance from the Newhall Ranch Specific Plan area, including the proposed Mission Village project (e.g., greater than 25-30 miles), and/or for species that are not of primary concern for the proposed project. The four most relevant authorizations are summarized in **Table 4.3-20**, below. Relevancy was determined by proximity to the proposed project and shared species impacts.

⁵²⁴ The California Department of Fish and Game and U.S. Army Corps of Engineers, "Final Environmental Impact Report/Environmental Impact Statement: 404 Permit and 1603 Streambed Alteration Agreement for Portions of the Santa Clara River and its Tributaries, Los Angeles County (SCH No. 1997061090)" (August 1998) is incorporated by reference, as permitted in section 15150 of the *State CEQA Guidelines*. All referenced documents are available for public inspection and review upon request to: County of Los Angeles, Department of Regional Planning, 320 West Temple Street Los Angeles, California 90012 (Samuel Dea; (213) 974-6461) or Impact Sciences, Inc., 803 Camarillo Springs Road, Suite A-1, Camarillo, California 93012 (Susan Tebo; (805) 437-1900).

Table 4.3-20
Recent CDFG Take Authorizations in Project Vicinity

Project Number	Project Name	Project Location	Project Impact Description	Relevant Species
2080-2001-029-05	I-5/Santa Clara River Bridge Replacement	City of Santa Clarita.	Unknown.	LBV, SWF, UTS*
2081-2002-008-05	SR 101 Santa Clara River Bridge Replacement	Santa Clara River Bridge where it is crossed by SR 101, between Post miles 22 and 24 in Ventura County.	The permanent destruction of 1.0 acres of habitat and temporary impacts to 0.9 acres of habitat during 4 breeding seasons.	LBV, SWF
2080-2003-018-05	I-5 Santa Clara River Bridge Replacement Additional Work Area	City of Santa Clarita.	Permanent acres-1.28; temporary acres-3.30.	LBV, SWF, UTS*
2081-1998-49-5	NRMP	Santa Clara River in Los Angeles County by City of Santa Clarita.	74 acres.	LBV, SWF, UTS*

UTS - Unarmored Threespine Stickleback. *Discussed, but no take authorized.

SWF - Southwestern Willow Flycatcher.

LBV - Least Bell's Vireo.

Source:

CDFG 2007.

In addition, several NCCPs have recently been proposed and/or approved in the Southern California area. These NCCPs (or combination HCP/NCCPs) would provide comprehensive take authorizations for larger planning areas in parts of Kern, Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties. However, none of these proposed or approved planning/take authorization documents were deemed to be relevant for analysis in this EIR because of their distance from the proposed project (e.g., greater than 25-30 miles) and/or their lack of similarity of species of primary concern.

(2) Individual Projects

Major residential/mixed use, commercial, and industrial projects of 700 or more acres within 5 miles of the project area, as well as larger-scale infrastructure projects involving the Santa Clara River, are listed below. A summary of these projects' size, location, and current status appears in the following table (Table 4.3-21). These projects are identified by the same numbers used in Figure 4.3-12, Cumulative Individual Project Location Map.

**Table 4.3-21
Individual Project Summary**

Map ID	Name	Jurisdiction	Project Type	Location and Distance from Proposed Project	Residential Units/Comm./Ind. Square Feet	Size (Acres)	Status
1	Ritter Ranch	City of Palmdale (Los Angeles County)	Residential/Mixed Use	South of Bouquet Canyon Road and Elizabeth Lake Road, west of Antelope Valley Freeway, and north of Sierra Highway; 40 miles east of the proposed project.	7,200	10,258	Partially Built Out
2	Centennial	Northern Los Angeles County	Residential/Mixed Use	Located on the Tejon Ranch, just south of the Kern County/Los Angeles County border, located next to SR-138, just east of I-5; 40 miles north of the proposed project.	23,000	11,700	Pending
3	Adams Canyon	City of Santa Paula	Residential/Mixed Use	West of SR-150; 22 miles west of the proposed project.	450	6,578	Pending
4	Valencia Industrial Center	Los Angeles County	Industrial Park and Commercial Retail	East of I-5, south of Newhall Ranch Road, and north of Magic Mountain Parkway; 0.25 mile northeast of the proposed project.	12,900,000	1,840	Completed
5	Legacy Village (Stevenson Ranch V)	Los Angeles County	Residential/Mixed Use	Adjacent to/southeast of the Newhall Ranch Specific Plan area..	3,425/ 840,200	1,759	Pre-Application
6	Tesoro del Valle (TR 51644)	Los Angeles County	Residential/Mixed Use	West side of San Francisquito Creek, north of Copperhill Drive; 5 miles northeast of the proposed project.	1,791	1,793	Under construction

Table 4.3-21 (Continued)
Individual Project Summary

Map ID	Name	Jurisdiction	Project Type	Location and Distance from Proposed Project	Residential Units/Comm./Ind. Square Feet	Size (Acres)	Status
7	Tapia Ranch (TR 53822)	Los Angeles County	Residential/Mixed Use	Tapia Canyon Road, west of Tesoro Residential Development. Access to the site currently via Parker Road exit from I-5; 4 miles east of the proposed project.	405	1167	Pending
8	Whittaker Bermite / Porto Bello Project (TR 51599)	City of Santa Clarita	Residential/Mixed Use	West of Golden Valley Road, south of Soledad Canyon Road, and east of San Fernando Road; 3 miles east of the proposed project.	2911/ 609,832	996 (407 open space)	On hold pending remediation activities and bankruptcy proceedings.
9	West Creek/West Hills Valencia Project (TR 52445)	Los Angeles County	Residential/Mixed Use	West side of San Francisquito Creek, north of Newhall Ranch Road, and south of the Copperhill Drive bridge; 4 miles northeast of the proposed project.	2,545/ 180,000	966	Near buildout.
10	Westridge Project (TR 45433 & MP 19050)	Los Angeles County	Residential/Mixed Use	Just west of I-5, north of Stevenson Ranch, and directly south of Six Flags Magic Mountain Amusement Park; 0.5 mile east of the proposed project.	1,939/ 192,000	794	Under Construction

Table 4.3-21 (Continued)
Individual Project Summary

Map ID	Name	Jurisdiction	Project Type	Location and Distance from Proposed Project	Residential Units/ Comm./Ind. Square Feet	Size (Acres)	Status
11	North Valencia Specific Plan No. 1 (Industrial Park)	City of Santa Clarita	Industrial and Business Park	South of Newhall Ranch Road, north of Magic Mountain Parkway, east of Rye Canyon Road, and west of Bouquet Canyon Road; 0.5 mile east of the proposed project.	2,000/ 803,000	707 (365 open space)	Completed
12	RiverPark (TR 53425)	City of Santa Clarita	Residential/Mixed Use	Located at the eastern terminus of Newhall Ranch Road, east of Bouquet Canyon Road, and north of Soledad Canyon Road and the Santa Clara River; 4 miles east of the proposed project.	1,089/ 16,000	695	Under Construction
13	NRMP	Los Angeles County	Infrastructure	Approved NRMP for 1,200 acres of the Santa Clara River.	NA	NA	Approved and Partially Built Out
14	CLWA Reclaimed Water Master Plan (SCR)	Los Angeles County and the City of Santa Clarita	Infrastructure	Los Angeles County and the City of Santa Clarita; 6 miles north of the proposed project.	NA	NA	Approved
15	Santa Clara River Enhancement and Management Plan	Los Angeles and Ventura Counties	Infrastructure/Environmental	Santa Clara River from Acton to Pacific Ocean.	NA	NA	Approved
16	Santa Clarita Valley Joint Sewerage Facilities Plan	Los Angeles County	Infrastructure	Los Angeles County	NA	NA	Approved

Table 4.3-21 (Continued)
Individual Project Summary

Map ID	Name	Jurisdiction	Project Type	Location and Distance from Proposed Project	Residential Units/Comm./Ind. Square Feet	Size (Acres)	Status
17	Chiquita Canyon Landfill Expansion	Los Angeles County	Industrial	West of I-5, north of SR-126 at Wolcott Way; 0.5 mile north of the proposed project.	NA	98	Pending

Source:

1. City of Palmdale Planning Department, Ritter Ranch Specific Plan Final EIR, SCH No. 1990010124 (March 1992).
2. Los Angeles County Regional Planning Department, Notice of Preparation for Centennial Specific Plan, SCH No. 2004031072 (March 2004).
3. Two different projects have been proposed for this site. The Ventura County version would provide for 34 single-family lots ranging in size from 40 to 160 acres (Notice of Preparation for SD05-0035 (Adams Canyon), SCH No. 2007021073, February 2007). In May 2007, City of Santa Paula voters amended the City's urban restriction boundary to include Adams Canyon and amended the City's General Plan to allow 495 residential units, 100 acres of public recreation facilities, open space, a 40-acre school site, a hotel and a golf course on the site. (See <http://www.ci.santa-paula.ca.us/adamscanyon/>; <http://recorder.countyofventura.org/Results/050807/Election%20Result.htm>.) According to City planning staff, as of February 2009, the current proposal for the site is 450 estate homes. Any proposed development on the site would still require discretionary approvals from the City Council (e.g., a specific plan and development agreement), and would require annexation to the City's jurisdiction before it could be developed with City approvals. (See http://www.ci.santa-paula.ca.us/adamscanyon/ImpartialAnalysis_A7.pdf.)
4. Applicant provided information.
5. Applicant provided information.
6. Los Angeles County Regional Planning, Tesoro del Valle/Project No. 92-074/Vesting Tentative Tract Map No. 51644-01 Initial Study, SCH No. 1993021007 (February 2007).
7. Los Angeles County Regional Planning, Tapia Ranch Project/Project No. 02-196/Tentative Tract Map No. 53822 Initial Study, SCH No. 2006121016 (November 2006).
8. City of Santa Clarita, Porta Bella Development Project Notice of Determination, SCH No. 1995101595 (cleanup being processed as Former Whittaker-Bermite (Porta Bella Development Project) SCH No. 2001051089); more information can be found at <http://www.santa-clarita.com/cityhall/cd/planning/bermite.asp>.
9. Los Angeles County, CEQA findings for West Creek Project 98-008 (CUP Zone Change, Oak Tree Permit, Plan Amendments & Tract 52455), SCH No. 1998021052 (July 2005).
10. Los Angeles County Regional Planning, Revised Draft EIR for Westridge Residential Project Unnamed Tributary to Santa Clara River, SCH No. 1990011146 (May 1999), containing text revisions to Draft EIR text based on comments received during the project review process. Los Angeles County certified the Final EIR for this project in May 1999.
11. City of Santa Clarita Planning Department, North Valencia Annexation and Specific Plan Draft EIR, SCH No. 1996071077 (August 1997).
12. City of Santa Clarita, Vesting Tentative Tract Map 53425 Draft EIR, SCH No. 2002091081 (March 2004). The City of Santa Clarita certified a Final EIR for this project in May 2005. The Final EIR did not change the Draft EIR's conclusions regarding impacts and their significance.
13. California Department of Fish and Game, CEQA findings for Valencia Company Master 1603 Lake or Streambed Alteration, SCH No. 1997061090 (August 2003).
14. Castaic Lake Water Agency (CLWA), East Valley Water District's Perchlorate Treatment and Water Distribution Project Draft EIR, SCH No. 2005041138 (November 2006). The CLWA certified a Final EIR for this project in March 2007. The Final EIR did not change the Draft EIR's conclusions regarding impacts and their significance.
15. Document and information available at: <http://www.santaclaritariverparkway.org/wkb/projects/scremp>, last visited on September 9, 2008.
16. County Sanitation Districts 26 and 32 of Los Angeles, 2015 Santa Clarita Valley Joint Sewerage System Final EIR, SCH No. 1998109408 (January 1998).
17. Los Angeles County Regional Planning, Chiquita Canyon Landfill, Project No. RENV200400039 NOP/IS, SCH No. 2005081071 (July 2005).

b. Cumulative Impacts on Biological Resources

The Mission Village proposed project's impacts to biological resources are summarized in **Table 4.3-9, Significant Impacts and Mitigation Summary**.

The following discussion evaluates the proposed Mission Village project's cumulative impacts on biological resources located within the SCRW. The cumulative impacts analysis relies heavily on the Watershed Study (see Appendix 4.3), which addresses impacts related to the Newhall Ranch Resource Management and Development Plan/Spineflower Conservation Plan (RMDP/SCP) project, because the Mission Village project site is included within the RMDP/SCP project area. The RMDP/SCP project area also encompasses the Entrada South project and the VCC project, both of which are located outside the Newhall Ranch Specific Plan area.

The RMDP/SCP project's contribution to a cumulative impact will always include any Mission Village contribution, as the latter is a subset of the former. In some cases, however, the Mission Village project's share of the RMDP/SCP contribution will be so small (or non-existent) that it qualifies as "less than cumulatively considerable," as that term is used in CEQA Guidelines section 15130. Where this occurs, the cumulative impact analysis differentiates the Mission Village contribution from the RMDP/SCP contribution.

The evaluation of cumulative impacts also was based on two vegetation and land cover data sets: (1) for the RMDP/SCP project area, including the proposed Mission Village project site, the project-level vegetation and land covers data were used, as summarized in **Table 4.3-22**; and (2) for areas outside of the RMDP/SCP project area boundaries, data provided by the California Gap Analysis Program (GAP) database⁵²⁵ were used, as these were the only other vegetation and land cover data available for the entire SCRW. The California GAP data were compiled in 1998 by overlaying existing land use maps, vegetation maps, and forest inventory data. The minimum mapping unit for upland vegetation communities was 100 hectares (247 acres), the minimum mapping unit for major wetland areas was 40 hectares (99 acres), and smaller wetlands were included with the same attributes as larger upland polygons. Thus, the California GAP vegetation database was mapped at a broader scale and necessarily lower precision than the RMDP/SCP project-level vegetation community and land cover mapping. Nonetheless, the GAP data provide reasonable estimates of watershed-wide vegetation community conditions (i.e., acreage) that existed *prior* to 1998, and, in conjunction with the project-level data, have been used as a starting point for this assessment's quantitative evaluation of cumulative impacts to

⁵²⁵ University of California, Santa Barbara (UCSB), Biogeography Lab, *California Gap Analysis Project (GAP)* (Santa Barbara, California: Donald Bren School of Environmental Science and Management, coordinated through the U.S. Geological Survey Biological Resources Division, 1999).

various types of vegetation communities and land covers. To estimate cumulative impacts to vegetation communities and land covers that have occurred *since* 1998, this analysis has relied on an assessment of the development projects included on the list of past, present, and reasonably foreseeable future development projects. This list includes development projects located in the watershed area that were under consideration by Los Angeles County and the City of Santa Clarita during a period that generally extends between the late 1990s and 2008. Cumulative development projects within the study area located in Ventura County and the cities of Santa Paula and Fillmore include projects under consideration by those jurisdictions in late 2008 and early 2009.

The surveys, reports, studies, and maps referenced in this section are incorporated by reference, as permitted in section 15150 of the *State CEQA Guidelines*. All referenced documents are available for public inspection and review upon request to: County of Los Angeles, Department of Regional Planning, 320 West Temple Street Los Angeles, California 90012 (Samuel Dea; (213) 974-4808) or Impact Sciences, Inc., 803 Camarillo Springs Road, Suite A-1, Camarillo, California 93012 (Susan Tebo; (805) 437-1900). Additionally, many of these documents are included in the appendices to the Newhall Ranch Resource Management and Development Plan and the Spineflower Conservation Plan Draft EIS/EIR (SCH No. 2000011025), and can be obtained from the California Department of Fish and Game's website at <http://www.dfg.ca.gov/regions/5/newhall/docs/>.

No other readily available sources of habitat data would facilitate the analysis of cumulative impacts on a watershed-wide basis. By estimating impacts to vegetation communities and land covers reasonably expected to occur as a result of the identified past, present, and reasonably foreseeable development projects, and comparing those impact estimates to the available GAP data,⁵²⁶ reasonable characterizations of impact trends throughout the SCRW have been provided. Cumulative impacts have been characterized to reflect the "severity of the impacts and their likelihood occurrence" as required by the *State CEQA Guidelines*.⁵²⁷ Although cumulative impacts are often expressed in this analysis in terms of acres and proportion of habitat loss, etc., it should be recognized that these numbers are meant to be estimates of cumulative impact conditions and trends, and not project-specific evaluations of impacts to biological resources in the watershed. Where acreages are reported for those areas outside of the RMDP/SCP project area, they should be considered approximations and not precise measurements. Because the California GAP data are general and the minimum mapping units are very coarse, these data cannot be used to provide specific analyses of impacts to habitats for wildlife and plant species. However,

⁵²⁶ UCSB, *California Gap Analysis Project*.

⁵²⁷ 14 C.C.R. Sec. 15130(b).

these data can be used to provide the context of the size of the watershed in relation to the impact associated with present and reasonably foreseeable projects.

Where acreages are reported throughout this cumulative impact analysis for the SCRW as a whole, and the California GAP vegetation database⁵²⁸ is referenced, the project-level mapping for the RMDP/SCP boundary has been incorporated into the reported acreage.

This cumulative biology impacts analysis is organized into four separate discussions. The first addresses cumulative impacts to vegetation communities and land covers. The second addresses cumulative impacts to general wildlife (by species guild).⁵²⁹ The third addresses impacts to wildlife habitat linkages, wildlife corridors, and wildlife crossings (again, by species guilds). The fourth addresses impacts to special-status species, as such species are defined in **subsection 4.3.7(d)** of this EIR.

It should be noted that impacts associated with the RMDP/SCP are assessed as direct, indirect, and secondary. Direct and indirect impacts differ in regard to the project component resulting in the impacts. As used here, direct impacts are those that would occur as a result of implementation of the RMDP/SCP project and include temporary disturbance and/or permanent loss of vegetation communities, including sensitive vegetation communities, general wildlife, and special-status plant and animal species. Indirect impacts are those that would occur as a result of buildout of the Newhall Ranch Specific Plan, VCC, and Entrada planning areas. Indirect impacts also include permanent loss of vegetation communities, including sensitive vegetation communities, general wildlife, and special-status plant and animal species. For purposes of analyzing indirect impacts, any temporary disturbance areas are included in the permanent footprint. (There are no temporary impacts identified for buildout of the Specific Plan, VCC, and Entrada planning areas.) Note that in this cumulative impact analysis, the total loss of habitat for direct and indirect effects is evaluated in its entirety.

⁵²⁸ UCSB, *California Gap Analysis Project*.

⁵²⁹ Species guilds are groups of species that use or exploit similar resources or have similar life history characteristics even though they may represent different taxonomic groups.

**Table 4.3-22
Existing Vegetation Communities, Floristic Alliances and Associations, and Land Cover Types in Project Area**

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	RMDP Acreage	VCC Planning Area Acreage	Entrada Planning Area Acreage
Grass and Herb Dominated Communities	Non-Native Grassland	California annual grassland	Not mapped to association level	2,175.5	71.1	53.2
	Native Grassland	Purple needlegrass	Not mapped to association level	0.6	0.0	0.0
Scrub and Chaparral	Coastal Scrub	California sagebrush scrub	Not mapped to association level	1,529.3	35.6	59.0
			Burned California sagebrush scrub	1,469.3	0.0	0.0
			California sagebrush– <i>Artemisia californica</i>	82.5	0.0	3.4
			California sagebrush–purple sage	393.5	0.0	0.0
			Disturbed California sagebrush–purple sage	4.5	0.0	0.0
		California sagebrush–black sage scrub	California sagebrush–black sage	196.3	0.0	0.0
		California sagebrush–California buckwheat scrub	Not mapped to association level	310.0	6.0	97.5
		California sagebrush scrub–undifferentiated chaparral	Not mapped to association level	135.0	0.0	0.0
			Burned California sagebrush scrub–undifferentiated chaparral	5.2	0.0	0.0
		Coyote brush scrub	Not mapped to association level	9.2	0.0	0.0
	Undifferentiated Chaparral Scrubs	Not mapped to alliance level	Not mapped to association level	1,106.9	0.0	24.5
			Burned undifferentiated chaparral	957.2	0.0	0.0
	Chaparral with Chamise	Chamise chaparral	Not mapped to association level	55.7	0.0	0.0
			Burned chamise chaparral	0.0	0.0	0.0
Chaparral with Oak	Scrub oak chaparral	Not mapped to association level	1.5	0.0	0.0	
Other Scrubs	Eriodictyon scrub	Not mapped to association level	0.2	0.0	0.0	

Table 4.3-22 (Continued)
Existing Vegetation Communities, Floristic Alliances and Associations, and Land Cover Types in Project Area

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	RMDP Acreage	VCC Planning Area Acreage	Entrada Planning Area Acreage
Broad Leafed Upland Tree Dominated	Upland Walnut Woodland and Forest	California walnut woodland and forest	California walnut woodland	27.2	0.0	0.0
	Oak Woodland and Forest	Coast live oak forest and woodland	Coast live oak woodland	757.8	0.0	0.0
		Mixed oak woodland and forest	Not mapped to association level	168.9	0.0	0.0
		Valley oak forest and woodland	Valley oak woodland	79.4	0.0	0.0
			Valley oak/grass	461.4	0.0	0.0
Bog and Marsh	Marsh	Bulrush-cattail wetland	Not mapped to association level	1.4	0.0	0.0
		Cismontane alkali marsh	Not mapped to association level	18.6	0.0	0.0
		Fresh-brackish water marsh	Coastal and valley freshwater marsh	2.0	0.0	0.0
Riparian and Bottomland Habitat	Other Riparian/Wetland	Herbaceous wetland	Not mapped to association level	183.1	0.9	0.0
		River wash	Not mapped to association level	290.0	37.5	4.9
		Alluvial scrub	Not mapped to association level	1.0	0.0	0.5
		Big sagebrush scrub	Not mapped to association level	76.5	0.0	14.8
		Big sagebrush scrub	Big sagebrush-California buckwheat	0.5	0.0	0.0
		Giant reed	Not mapped to association level	5.6	0.0	0.0
	Low to High Elevation Riparian Scrub	Arrow weed scrub	Not mapped to association level	18.7	0.0	0.0
		Mexican elderberry	Not mapped to association level	12.8	0.0	0.0
		Mexican elderberry	Disturbed Mexican elderberry	0.3	0.0	0.0
		Mulefat scrub	Not mapped to association level	71.5	0.5	0.0
	Riparian Forest and Woodland	Southern willow scrub	Not mapped to association level	22.7	0.0	0.0
		Tamarisk scrub and woodland	Shrub tamarisk	2.8	0.0	0.0
		Coast live oak forest and woodland	Southern coast live oak riparian forest	0.7	0.0	0.0
		Fremont cottonwood riparian forest and woodland	Southern cottonwood-willow riparian	358.3	63.4	0.0

Table 4.3-22 (Continued)
Existing Vegetation Communities, Floristic Alliances and Associations, and Land Cover Types in Project Area

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	RMDP Acreage	VCC Planning Area Acreage	Entrada Planning Area Acreage
Man-Made Land Cover Types	Agriculture		NA	1,576.4	40.5	0.0
	Developed land		NA	0.5	2.2	2.0
	Disturbed land		NA	1,080.6	63.7	56.2
Total				13,651.1	321.4	316.0

Secondary impacts are those reasonably foreseeable effects caused by project implementation on remaining or adjacent biological resources outside the construction disturbance zone. Secondary impacts may affect areas that are within the defined project area but outside the construction disturbance zone, including open space. Secondary impacts may also occur outside the project area, such as downstream. Secondary impacts include short-term effects immediately related to construction activities and long-term or chronic effects related to the human occupation of developed areas. Both implementation of the RMDP/SCP project and buildout of the Specific Plan, VCC, and Entrada planning areas would result in short-term construction-related secondary impacts and long-term secondary impacts.

(1) Impacts to Vegetation Communities and Land Covers

As indicated in **subsection 4.3.9.b.1.(a)**, Project Impacts, the following vegetative communities and land covers may be affected by the proposed Mission Village project and are assessed for cumulative impacts: riparian communities; California annual grassland; coastal scrub communities; chaparral communities; oak woodlands; agricultural land; and disturbed land. See **Table 4.3-8, Plant Community/Land Use Impact Summary**.

There are, however, a host of vegetation communities and land covers that do not occur in the RMDP/SCP project area, which encompasses the Mission Village project, but occur elsewhere in the SCRW and are included in the California GAP vegetation database.⁵³⁰ These include coniferous forests, black oak forest, Mojavean pinyon and juniper woodlands, bare exposed rock, and sandy areas other than beaches. Because the RMDP/SCP project, including the proposed Mission Village project, would not affect these vegetation communities and land covers, they are not included in this cumulative analysis.

The Santa Clara River Watershed is Relatively Undeveloped and Has Substantial Existing and Designated Open Space. Based on the California GAP data,⁵³¹ as of 1998, approximately 52,000 acres of the 1,038,100-acre SCRW⁵³² had been converted to agricultural uses and approximately 47,300 acres had been converted to industrial, commercial, and urban uses. Combined, these developed uses comprise about 99,000 acres of the total watershed.⁵³³ Based on the project-level mapping for the RMDP/SCP project area, including the Mission Village project area, and the California GAP data for areas outside of the RMDP/SCP project area, chaparral is the dominant vegetation community in the SCRW, accounting for about approximately

⁵³⁰ UCSB, *California Gap Analysis Project*.

⁵³¹ UCSB, *California Gap Analysis Project*.

⁵³² The study area is defined as the Santa Clara River Watershed within Los Angeles and Ventura Counties (CalWater Version 2.2; <http://gis.ca.gov/meta.ep1?oid=22174>)

⁵³³ **Table 4.3-23** provides a summary of vegetation communities and land covers based on the California GAP data and the project-level mapping for the RMDP/SCP project area, including the Mission Village project area.

550,300 acres of the watershed. Coastal scrub comprises approximately 174,340 acres in the watershed. The third most common grouping includes higher elevation coniferous and black oak forests and Mojavean pinyon and juniper woodlands, which together account for about 14 percent of the SCRW; as noted above, however, none of these vegetation communities occur within the RMDP/SCP project area, including the Mission Village project area. Riparian and lower elevation oak woodlands account for about 3 percent of the watershed. The remainder is made up of disturbed (but not developed) lands, annual grasslands, and other land covers.

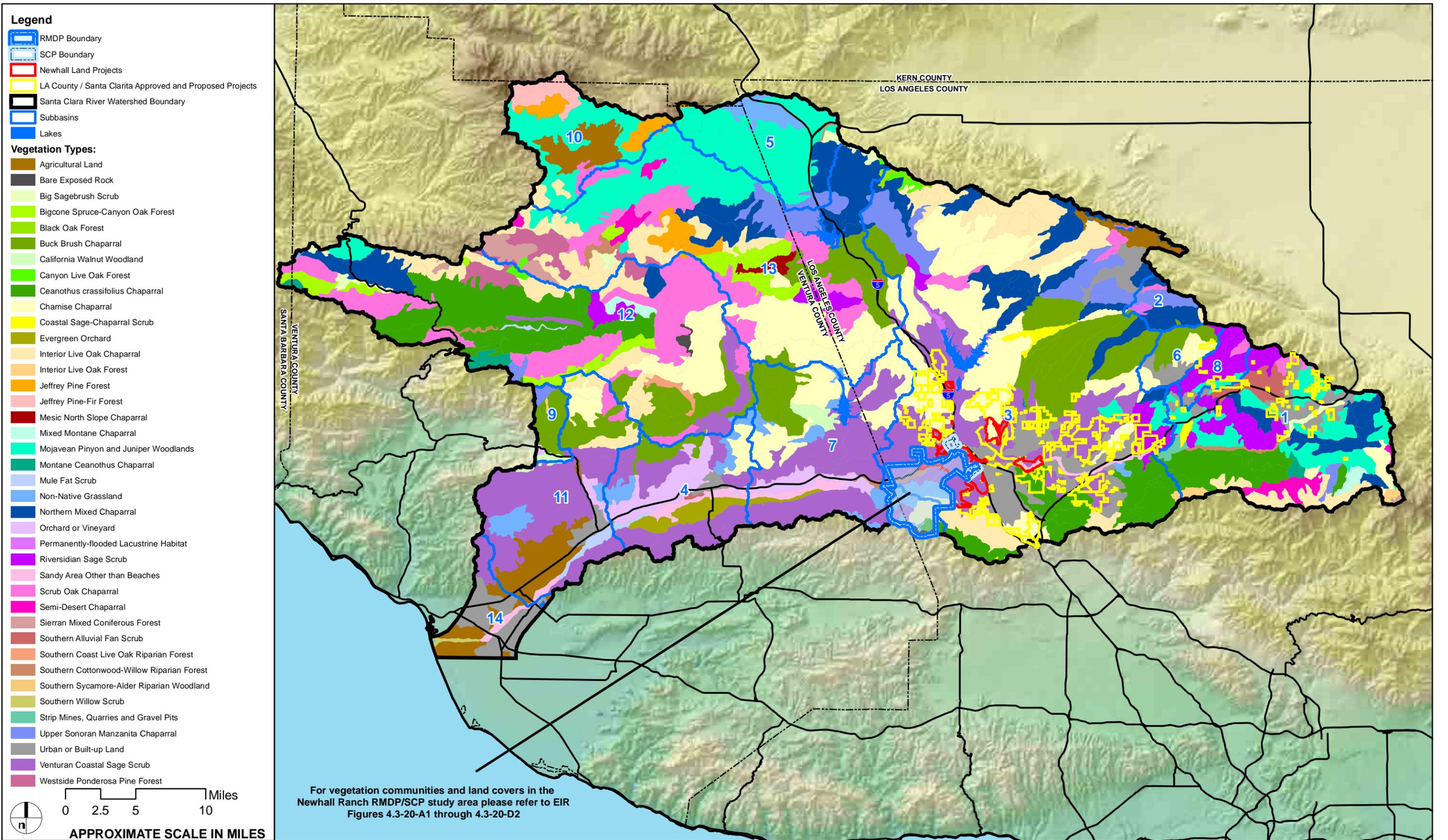
Figure 4.3-19, Santa Clara River Watershed - Existing Vegetation Types, shows that most of the approximately 99,000 acres of land converted to development land uses (i.e., agriculture, and residential, commercial, industrial, infrastructure development) has occurred: (1) in the southern portion of the watershed along the Santa Clara River, where agricultural uses dominate; and (2) in the cities of Ventura, Santa Paula, Santa Clarita, and the communities of Valencia and Acton, where urban development dominates. It should be noted that **Figure 4.3-19** shows the California GAP data for the watershed outside of the RMDP/SCP project area. Because of large scale of the vegetation and land covered data shown in **Figure 4.3-19**, the project-level data for the RMDP/SCP project, including the proposed Mission Village project, cannot be clearly shown on this figure. The reader is referred to **Figures 4.3-20-A1 through 4.3-20-D2, RMDP/SCP – Vegetation Communities and Land Covers**, for the project-level detail. **Figure 4.3-21** is also provided to reflect the vegetation community categories of **Table 4.3-22**.

Approximately 734,000 acres of the SCRW either currently exist as open space or are classified as open space under available zoning information (**Figure 4.3-22, Santa Clara River Watershed - Current Land Use Classifications**).⁵³⁴ Approximately 635,000 acres of the SCRW of this open space currently have a land use designation of federal (Bureau of Land Management, USFWS, U.S. Forest Service) and state (CDFG, Department of Parks and Recreation, State Lands Commission) public lands, as well as privately held reserves (The Nature Conservancy). The approximately 98,000 acres classified as open space under available zoning information is not currently protected as natural open space, and could be subject to several uses that are allowed under some open space designation, such as active recreation. Relatively large sub-basins with substantial existing and/or classified open space include Eastern (sub-basin 3), Hungry Valley (sub-basin 5), Topa Topa (sub-basin 12), and Upper Piru (sub-basin 13) (**Figure 4.3-22**). Most of the land within each of these sub-basins is open space: 55 percent of Eastern, 93 percent of Hungry Valley, 97 percent of Topa Topa, and 98 percent of Upper Piru. In terms of overall acreage, Eastern is the largest sub-basin. As a result, this sub-basin's approximately 160,000 acres of open space is second only to Upper Piru, which has approximately 165,000 acres of open space. Smaller sub-basins with

⁵³⁴ University of California, Davis (UCD), "General Plans" (Davis, California: UCD, distributed through the California Resources Agency, 2004).

high percentages of open space include Bouquet (sub-basin 2), Mint Canyon (sub-basin 6), Sisar (sub-basin 9), and Stauffer (sub-basin 10). Along the Santa Clara River mainstem, the NRMP upstream is conserving 4.7 miles, and the RMDP project will conserve 5 miles. An additional 13.7 miles are conserved within the County of Los Angeles, and approximately 33 miles are conserved within the County of Ventura.

Land Use Classification and Past, Present, and Reasonably Foreseeable Projects. To assess the Mission Village project's cumulative impacts on vegetation communities and land covers, **Table 4.3-8** provides a breakdown of the potential permanent loss of the different vegetation communities and land covers that would occur as a result of the proposed Mission Village project alone, and **Table 4.3-23** provides a breakdown of the potential permanent loss of vegetation communities and land covers that would occur as a result of: (1) the RMDP/SCP project, which encompasses the Newhall Ranch Specific Plan; and (2) present and reasonably foreseeable projects elsewhere in the SCRW.



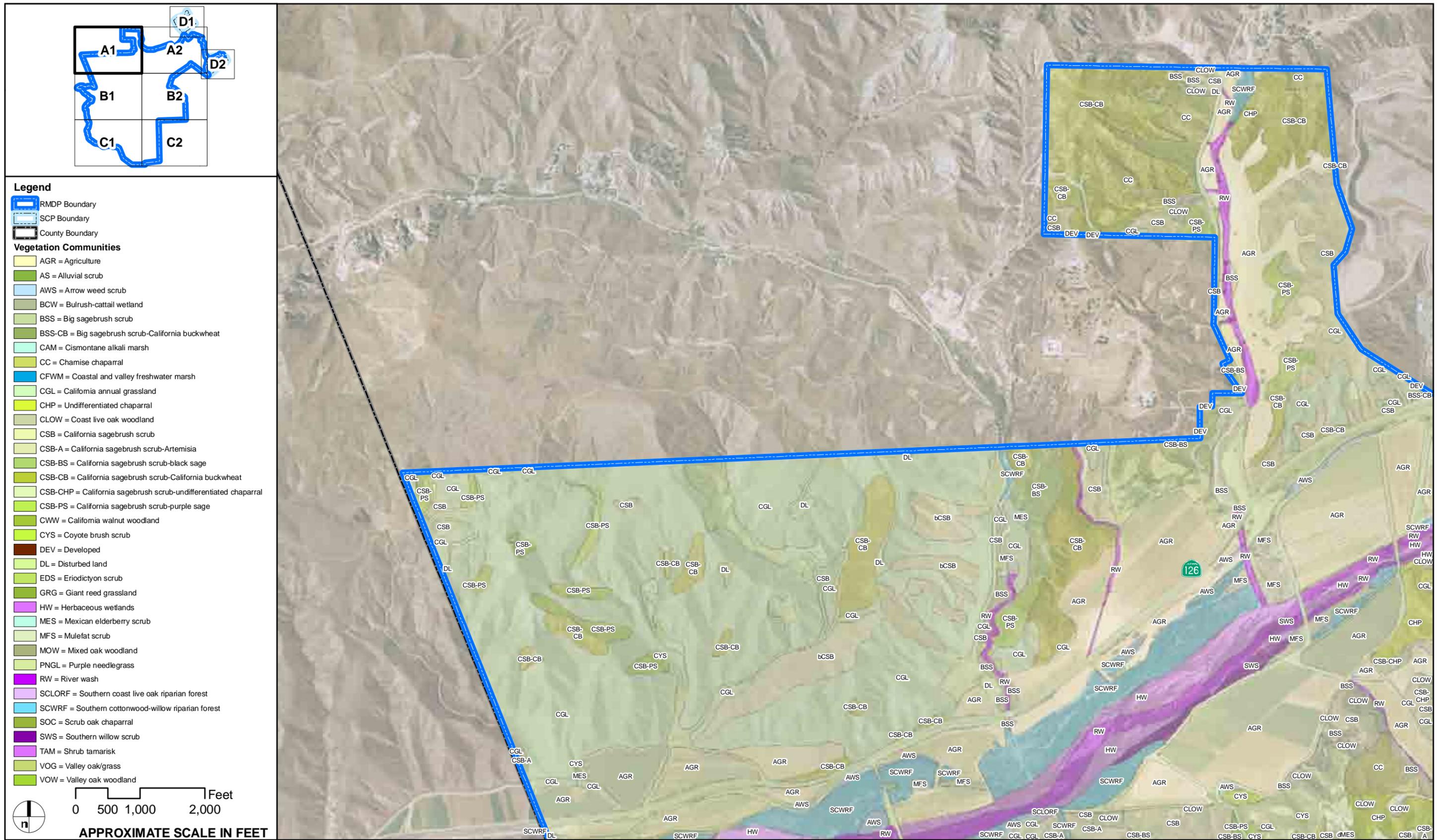
SOURCE: GAP Analysis Project, Generalized Land Cover of California 1998

FIGURE 4.3-19

Mission Village EIR

Santa Clara River Watershed - Existing Vegetation Types



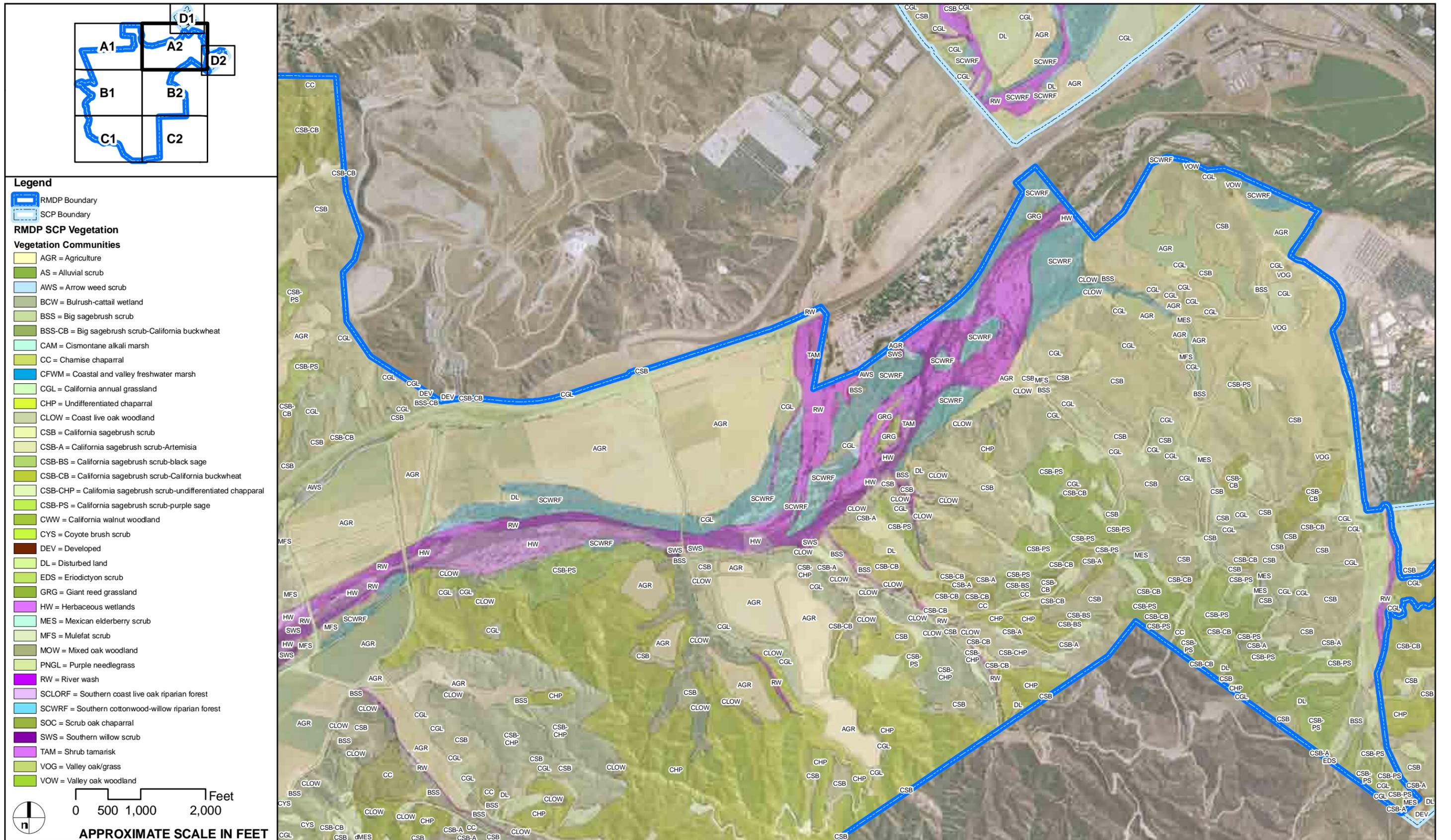


AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.3-20-A1

Mission Village EIR

RMDP/SCP - Vegetation Communities and Land Covers

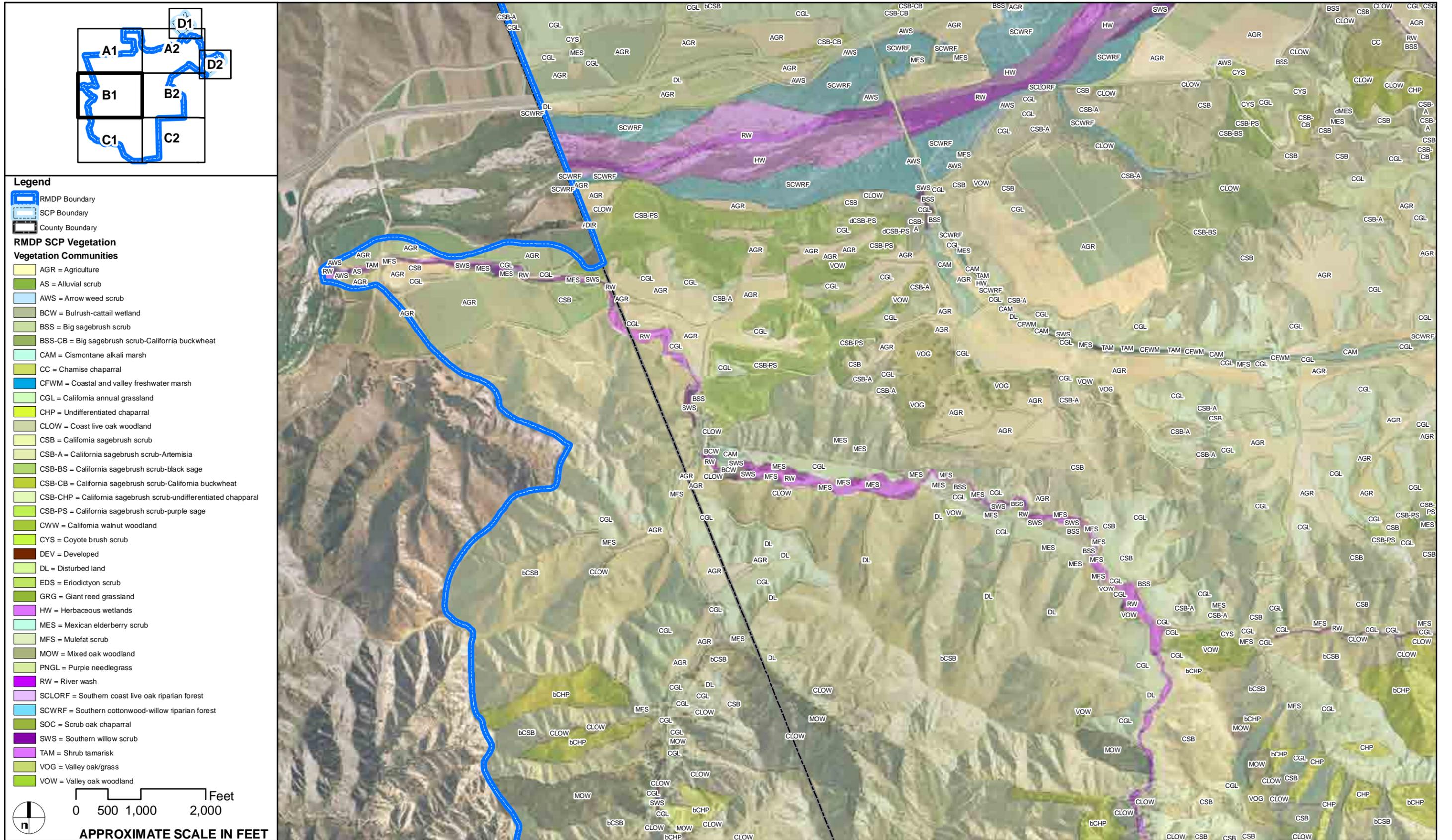


AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.3-20-A2

Mission Village EIR

RMDP/SCP - Vegetation Communities and Land Covers



AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.3-20-B1

Mission Village EIR

RMDP/SCP - Vegetation Communities and Land Covers

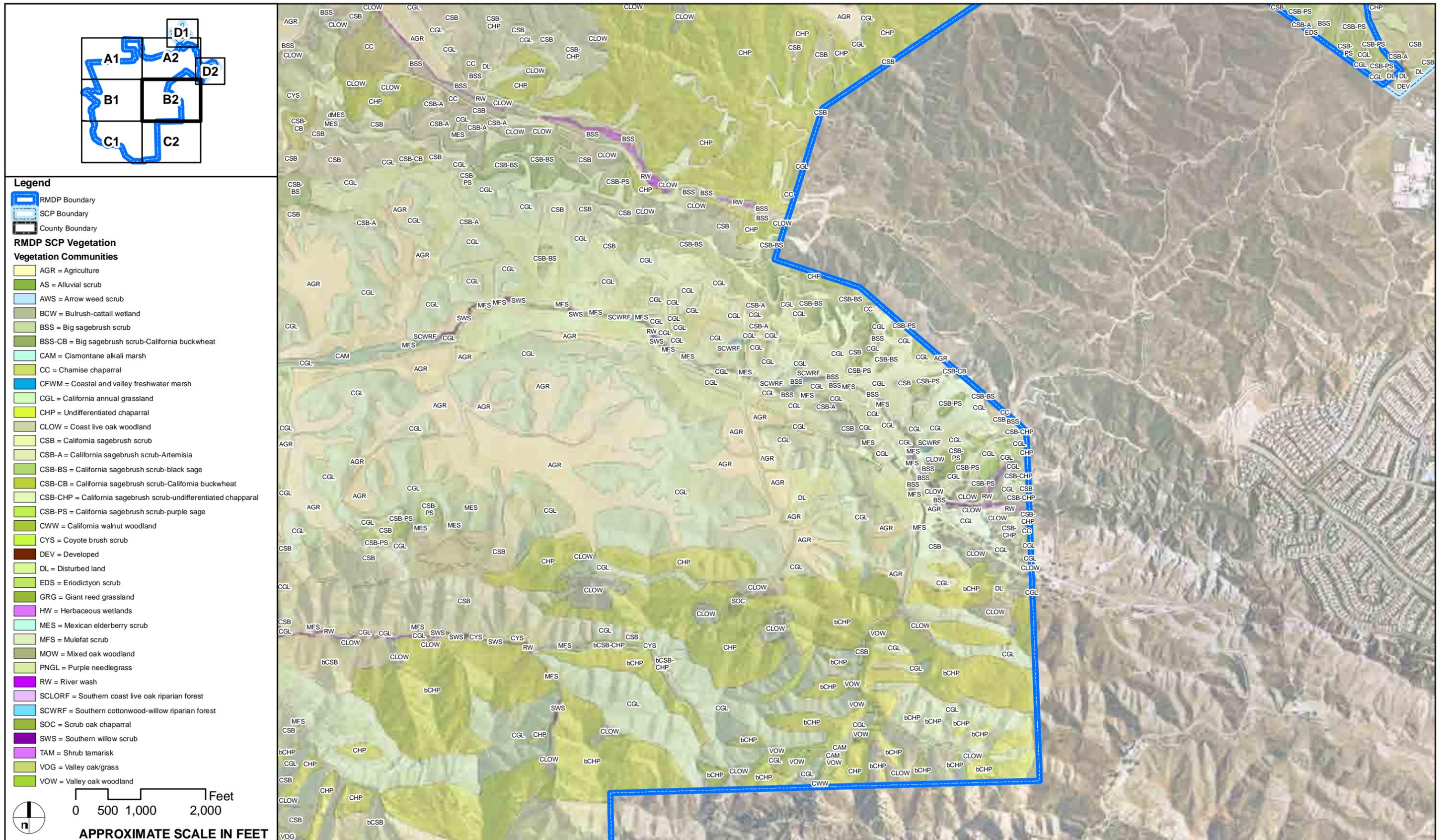


FIGURE 4.3-20-B2

Mission Village EIR

RMDP/SCP - Vegetation Communities and Land Covers



AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.3-20-C1

Mission Village EIR

RMDP/SCP - Vegetation Communities and Land Covers

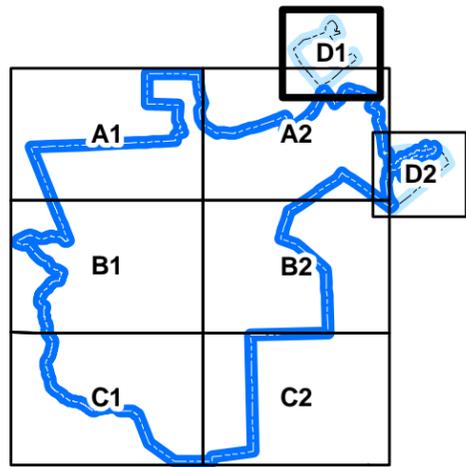


AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.3-20-C2

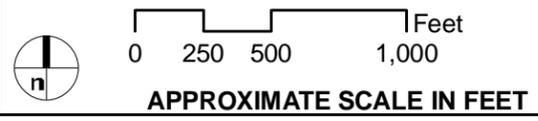
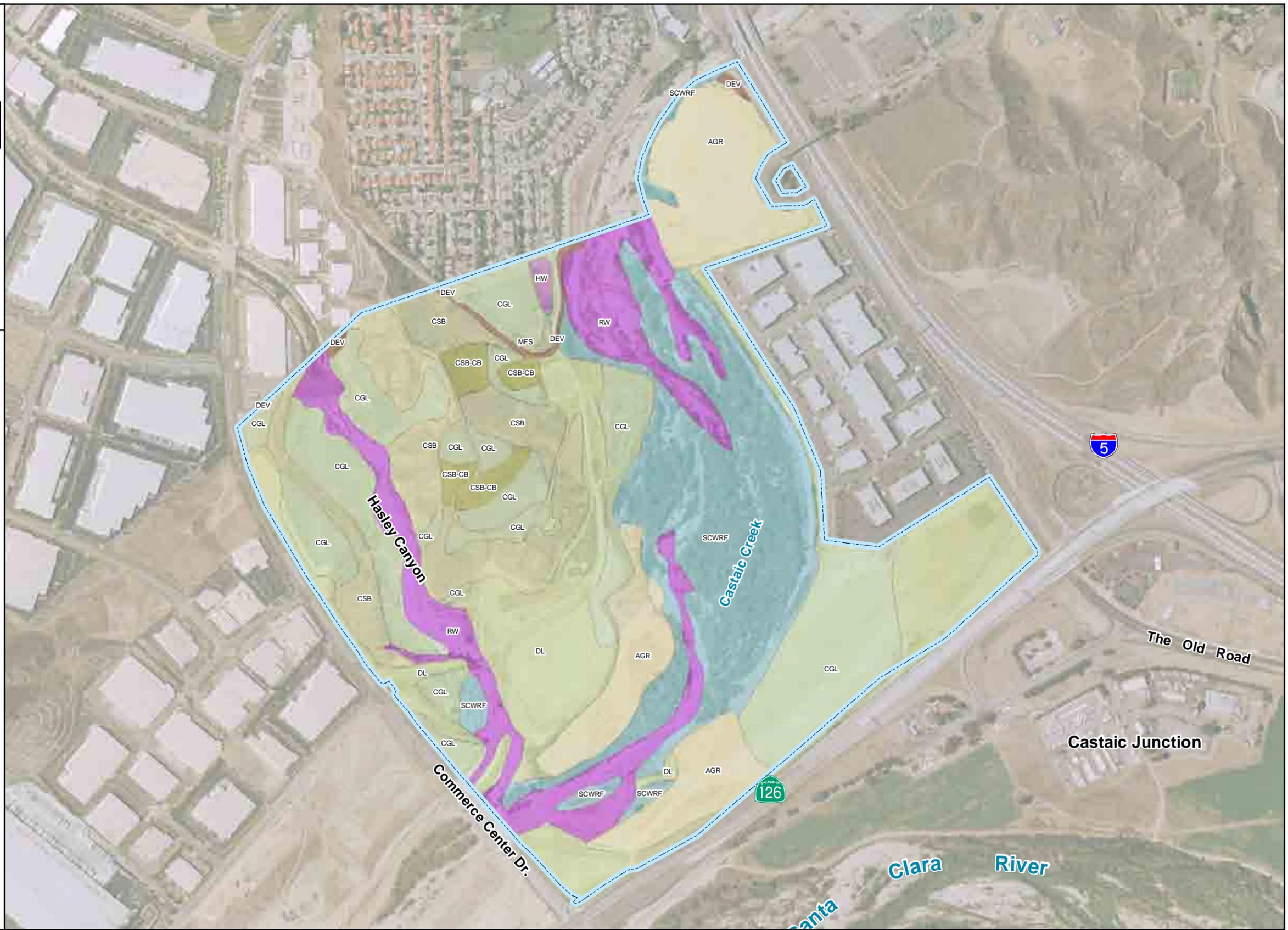
Mission Village EIR

RMDP/SCP - Vegetation Communities and Land Covers



Legend

- RMDP Boundary
- SCP Boundary
- Vegetation Communities**
- AGR = Agriculture
- AS = Alluvial scrub
- BSS = Big sagebrush scrub
- CGL = California annual grassland
- CHP = Undifferentiated chaparral
- CSB = California sagebrush scrub
- CSB-A = California sagebrush scrub-Artemisia
- CSB-CB = California sagebrush scrub-California buckwheat
- DEV = Developed
- DL = Disturbed land
- HW = Herbaceous wetlands
- MFS = Mulefat scrub
- RW = River wash
- SCWRF = Southern cottonwood-willow riparian forest



AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.3-20-D1

Mission Village EIR

RMDP/SCP - Vegetation Communities and Land Covers



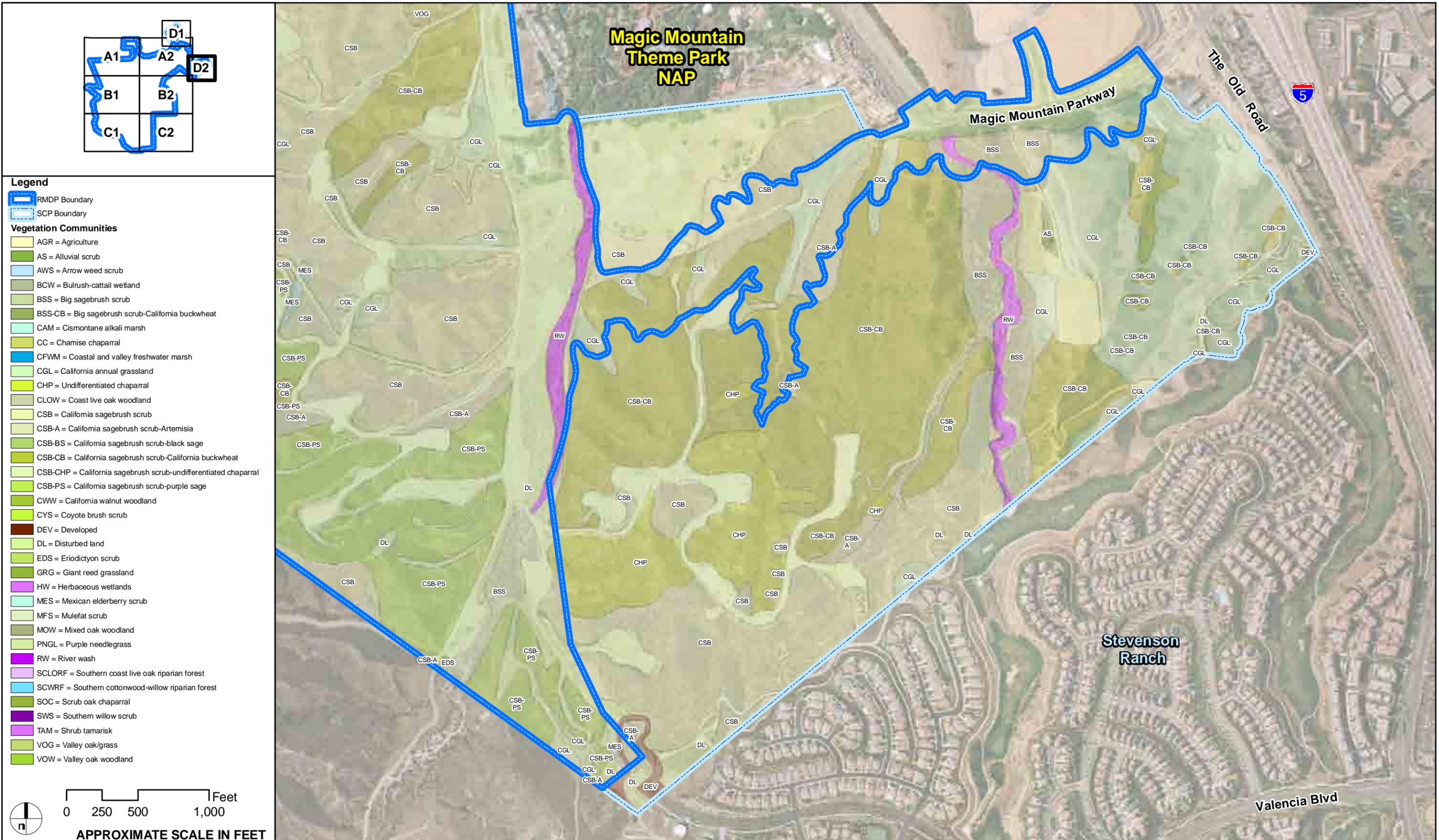
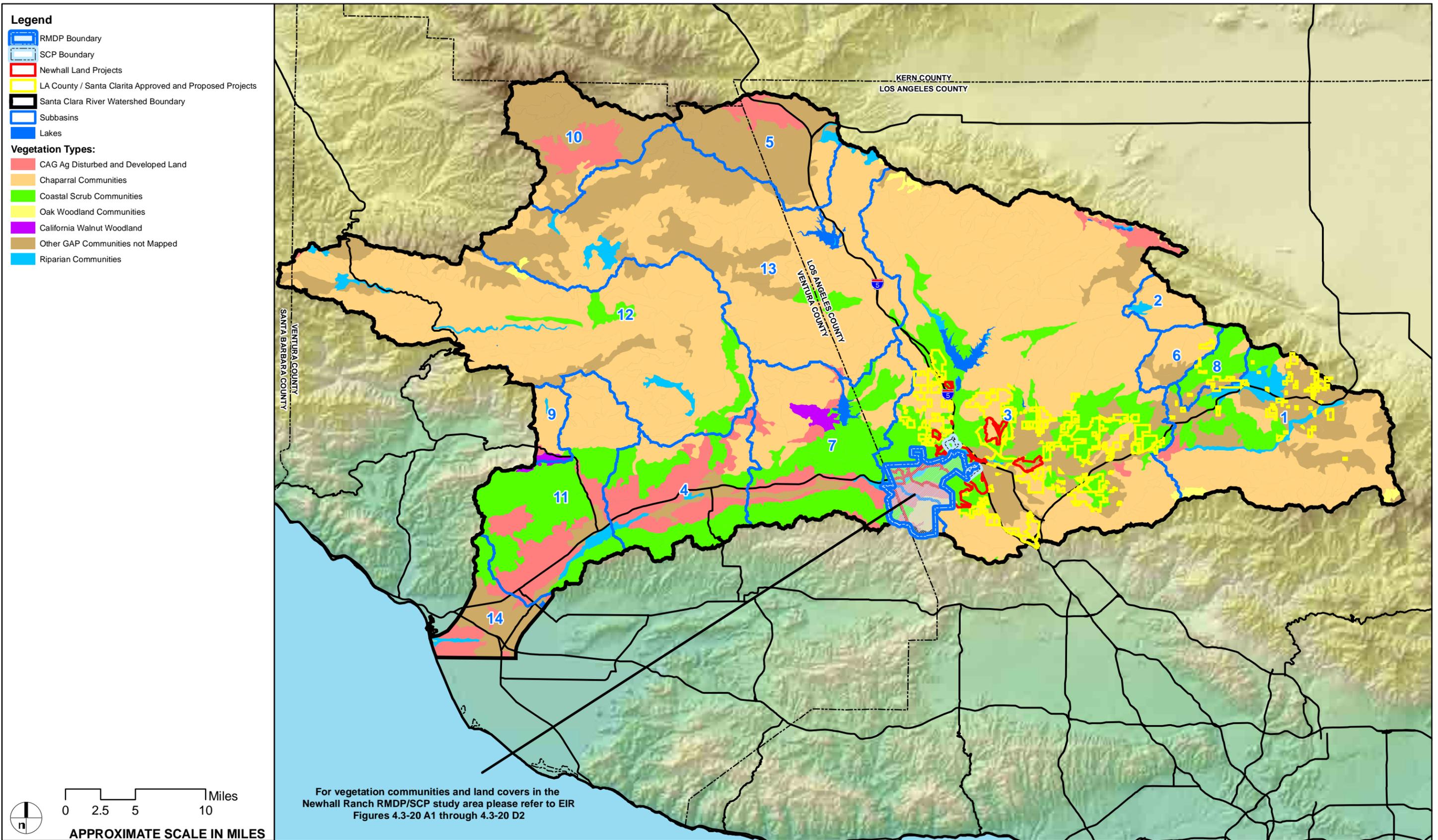


FIGURE 4.3-20-D2

Mission Village EIR

RMDP/SCP - Vegetation Communities and Land Covers





SOURCE: GAP Analysis Project, Generalized Land Cover of California 1998

FIGURE 4.3-21

Mission Village EIR



Santa Clara River Watershed - Existing Vegetation Types by General Physiognomic Category

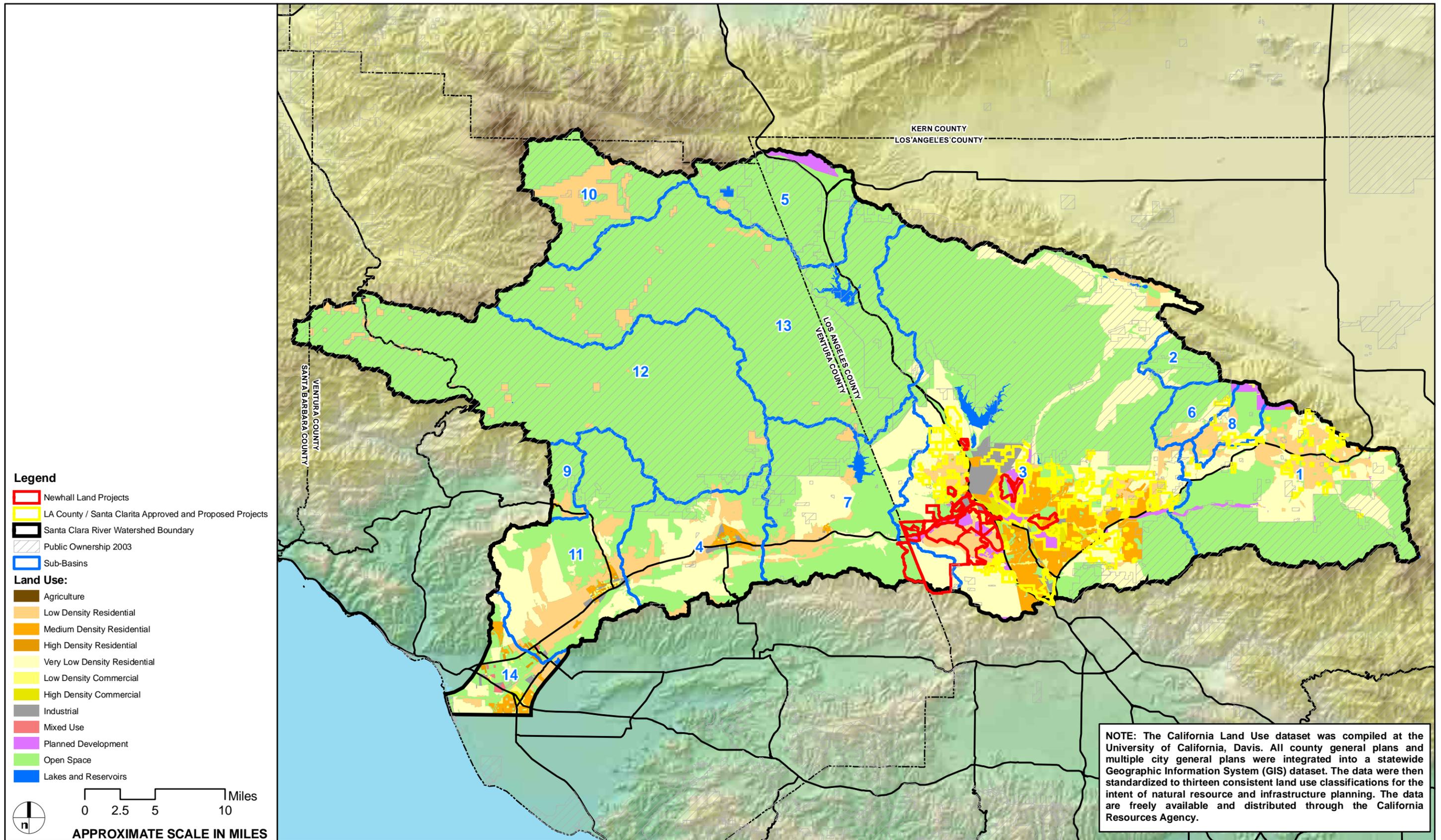


FIGURE 4.3-22

Mission Village EIR

Santa Clara River Watershed - Current Land Use Classifications

As indicated in **Table 4.3-23**, the SCRW consists of approximately 1,038,100 acres of land and supports a variety of vegetation communities and land covers. As explained above, the GAP data, although mapped at a broad, landscape level, is the best available data for vegetation communities and land covers in the SCRW outside the RMDP/SCP project area and are appropriate for the watershed-level analysis. The project-level mapping data for the RMDP/SCP project area, including Mission Village project data, were incorporated into this analysis.

According to land use information provided by Los Angeles County and Ventura County, and by the cities of Santa Clarita, Ventura, Santa Paula, and Fillmore, and the community of Piru, approximately 47,300 acres (4.6 percent) of the watershed has been developed per the GAP data.⁵³⁵ In addition, project list information from these government entities indicates that another 32,300 acres (3.1 percent) are expected to be developed in the foreseeable future, based on present and reasonably foreseeable future projects. Present and reasonably foreseeable future projects, including the RMDP/SCP project, including the Mission Village project area, would convert approximately 37,890 additional acres (3.6 percent) of the watershed to developed uses, resulting in development of approximately 85,200 acres (8.2 percent) within the watershed.

⁵³⁵ UCSB, *California Gap Analysis Project*.

Table 4.3-23
Summary of Cumulative Impacts to Vegetation and Land Covers in the Santa Clara River Watershed (GAP Data are Approximate)

Vegetation Communities and Land Covers	California GAP Vegetation Communities	Total Acres of Vegetation Communities and Land Covers in Watershed	Permanent Direct and Indirect Impact Acres of Proposed Project (RMDP/SCP)1	Total Impact Acres in Watershed From Present and Reasonably Foreseeable Projects (Not Including RMDP/SCP Project)	Estimated Cumulative Impact Acres in Watershed, After Accounting for the RMDP/SCP Project Plus Present and Reasonably Foreseeable Projects
Riparian Communities	Mulefat scrub Permanently flooded lacustrine habitat Southern coast live oak riparian forest Southern cottonwood/willow riparian forest Southern sycamore/alder riparian woodland Southern willow scrub Big sagebrush scrub Southern alluvial fan scrub	GAP = 23,430 RMDP/SCP = 1,190 Total = 24,620	225	800	1,025
California Annual Grassland, Agriculture, and Disturbed Land	Non-native grassland Open pit mines, quarries, gravel pits Agriculture land Evergreen orchard Orchard or vineyard	GAP = 72,760 RMDP/SCP = 5,120 Total = 77,880	3,290	500	3,790

Table 4.3-23 (Continued)
Summary of Cumulative Impacts to Vegetation and Land Covers in the Santa Clara River Watershed (GAP Data are Approximate)

Vegetation Communities and Land Covers	California GAP Vegetation Communities	Total Acres of Vegetation Communities and Land Covers in Watershed	Permanent Direct and Indirect Impact Acres of Proposed Project (RMDP/SCP)1	Total Impact Acres in Watershed From Present and Reasonably Foreseeable Projects (Not Including RMDP/SCP Project)	Estimated Cumulative Impact Acres in Watershed, After Accounting for the RMDP/SCP Project Plus Present and Reasonably Foreseeable Projects
Coastal Scrub Communities	Coastal sage/chaparral scrub Riversidean sage scrub Venturan coastal sage scrub	GAP = 170,000 RMDP/SCP = 4,340 Total = 174,340	1,520	19,000	20,520
Chaparral Communities	Buck brush chaparral Ceanothus crassifolius chaparral Chamise chaparral Interior live oak chaparral Mesic north slope chaparral Mixed montane chaparral Montane ceanothus chaparral Northern mixed chaparral Scrub oak chaparral Semi-desert chaparral Upper Sonoran manzanita chaparral	GAP = 548,150 RMDP/SCP = 2,150 Total = 550,300	460	12,000	12,460

Table 4.3-23 (Continued)
Summary of Cumulative Impacts to Vegetation and Land Covers in the Santa Clara River Watershed (GAP Data are Approximate)

Vegetation Communities and Land Covers	California GAP Vegetation Communities	Total Acres of Vegetation Communities and Land Covers in Watershed	Permanent Direct and Indirect Impact Acres of Proposed Project (RMDP/SCP) ¹	Total Impact Acres in Watershed From Present and Reasonably Foreseeable Projects (Not Including RMDP/SCP Project)	Estimated Cumulative Impact Acres in Watershed, After Accounting for the RMDP/SCP Project Plus Present and Reasonably Foreseeable Projects
Oak Woodland Communities (Coast Live Oak Woodland, Mixed Oak Woodland, Oak/Grass, Valley Oak Woodland)	Canyon live oak forest Interior live oak forest	GAP = 3,700 RMDP/SCP = 1,470 Total = 5,170	95	0	95
California Walnut Woodland	California walnut woodland	GAP = 3,600 RMDP/SCP = 27 Total = 3,627	<1	0	<1
Total – California GAP Vegetation + RMDP/SCP Project Impacts		835,950	5,590	32,300	37,890
Other California GAP Vegetation Communities and Land Covers Occurring in SCRW but Not Mapped in RMDP/SCP project Area, including Mission Village project area, in GAP Data Set²					
Other California GAP Woodland/Forest Communities not Mapped in RMDP/SCP project Area	Bigcone spruce/canyon oak forest Black oak forest Jeffrey pine/fir forest Mojavean pinyon and juniper woodlands Sierran mixed coniferous forest Westside ponderosa pine	145,850	N/A	N/A	N/A

Table 4.3-23 (Continued)
Summary of Cumulative Impacts to Vegetation and Land Covers in the Santa Clara River Watershed (GAP Data are Approximate)

Vegetation Communities and Land Covers	California GAP Vegetation Communities	Total Acres of Vegetation Communities and Land Covers in Watershed	Permanent Direct and Indirect Impact Acres of Proposed Project (RMDP/SCP) ¹	Total Impact Acres in Watershed From Present and Reasonably Foreseeable Projects (Not Including RMDP/SCP Project)	Estimated Cumulative Impact Acres in Watershed, After Accounting for the RMDP/SCP Project Plus Present and Reasonably Foreseeable Projects
	forest				
Other California GAP Natural Land Covers not Mapped in RMDP/SCP project Area	Bare exposed rock Sandy areas other than beaches	9,000	N/A	N/A	N/A
Other California GAP Man-made Land Covers not Mapped in RMDP/SCP project Area	Urban or built-up land	47,300	N/A	N/A	N/A
Grand Total for SCRW		1,038,100	N/A	N/A	N/A

Notes:

¹The impacts based on the project-level mapping.

²These California GAP vegetation communities and land covers do not occur in the RMDP/SCP project area, including the proposed Mission Village project, based on the California GAP data set and, therefore, are not a part of the cumulative impact analysis. They are shown in the table to illustrate the vegetation communities and land covers within the SCRW.

From a specific vegetation community and land cover perspective, the impacts from such development (including the RMDP/SCP project, which encompasses the Mission Village project area) is estimated to affect about 4.9 percent of existing California annual grassland, agriculture, and disturbed lands; 11.8 percent of existing coastal scrub communities, 2.3 percent of existing chaparral communities, and 4.2 percent of existing riparian communities within the watershed (although it is likely that there would be some level of avoidance of these riparian areas). Purple needlegrass grassland, of which 0.6 acre is mapped in the RMDP/SCP project area outside of the Mission Village site, would not be removed as a result of grading activities, but would be at increased risk from non-native, invasive plant and animal species, litter, hydrological alterations, human disturbance, and modified fire frequency. At the broad scale and necessarily lower precision of the California GAP vegetation database,⁵³⁶ no oak woodlands or oak/grass vegetation communities were mapped outside of the RMDP/SCP project area within present and reasonably foreseeable development sites. The RMDP/SCP project, however, would result in the loss of 95 acres of oak woodlands and oak/grass, including 9.7 acres within the proposed Mission Village project site (see **Table 4.3-8**). It is anticipated that present and reasonably foreseeable development within the watershed also would result in impacts to oak woodland and oak/grass vegetation communities, but these impacts can not be quantified with existing information. Note also that, generally speaking, most of the existing and future projects in the watershed occur or would occur on slopes of 0 to 20 percent, as these lower slopes are easier to grade and build upon than are steeper slopes, and are often adjacent to areas already developed. For example, in Los Angeles County, of the 6,774 acres of coastal scrub located on land zoned for development, 6,603 acres (97 percent) occur on slopes of 0 to 20 percent.

The RMDP/SCP project area Comprises a Small Proportion (0.5 percent) of the Santa Clara River Watershed. The RMDP/SCP project area— defined as implementation of the RMDP/SCP project and buildout of the Specific Plan, VCC, and Entrada planning areas, which includes the Mission Village project site -- would affect 0.5 percent (5,590 acres of approximately 1,038,100 acres) of the vegetation communities and land covers that are in the watershed (**Table 4.3-23**). The RMDP/SCP project is confined to a substantially urbanized area of one sub-basin— the Eastern sub-basin (sub-basin 3)—which has the most existing developed uses in the watershed (**Figure 4.3-19**). Nonetheless, this sub-basin supports several federal- and/or state-listed threatened and endangered species, such as unarmored threespine stickleback, arroyo toad, least Bell's vireo, and San Fernando Valley spineflower. Development in this sub-basin increases the potential for cumulative effects to these species. The RMDP/SCP project is downstream of, and contiguous with, urban development in the City of Santa Clarita and the community of Valencia. The RMDP/SCP project would not affect the headwaters of the Eastern and Santa Felicia sub-basins (sub-basins 3 and 7, respectively). The RMDP study area includes approximately 5 miles of the

⁵³⁶ UCSB, *California Gap Analysis Project*.

Santa Clara River mainstem (6 percent of the overall mainstem total); 1.5 of the 5 miles occurs within or adjacent to the Mission Village project site. The entire Santa Clara River mainstem is 86 miles long;⁵³⁷ approximately 48 miles within the County of Los Angeles and 38 miles within the County of Ventura.

As shown in **Table 4.3-23**, the great majority of the SCRW watershed is currently undeveloped. Approximately 4.6 percent of the SCRW has been converted to agricultural, industrial, commercial, and urban uses. Based on the project lists from the affected jurisdictions in the watershed (including the RMDP/SCP project, and encompassing the proposed Mission Village project) a total of about 3.6 percent (37,890 of 1,038,100 acres) of vegetation communities and land covers in the SCRW are expected to be developed at some point in the future. Adding this to existing development (approximately 47,300 acres) would result in a total cumulative impact of approximately 8.2 percent (85,000 acres of 1,038,100 acres) of the SCRW. Without accounting for past, present, or reasonably foreseeable mitigation, the RMDP/SCP project's individual contribution to the above impacts to vegetation communities and land covers, the estimated loss of vegetation communities and land covers in the SCRW could be a potential significant cumulative impact.

Past, present, or reasonably foreseeable mitigation, other than for the RMDP/SCP project, is difficult to estimate within the context of this cumulative analysis because of the variety of size, type, and impact of each past, present, or reasonably foreseeable project. In particular, for upland vegetation communities (e.g., coastal scrub, chaparral, and grassland), depending on whether the impact is significant, mitigation in terms of replacement acreage may or may not have been, or be, required. Without a state- and/or federally-listed species inhabiting impacted areas (e.g., coastal California gnatcatcher occupation of coastal scrub), regulation of impacts of upland vegetation communities, and requirements for mitigation are variable. Projects that have special-status vegetation communities and/or species on site often have and would require some set aside of open space. In addition, some development projects may be required to provide habitat conservation areas.

For state and federal jurisdictional wetlands (including riparian) subject to regulation under Fish and Game Code section 1600 et seq. and Clean Water Act (CWA) section 404,⁵³⁸ CDFG and Corps implement "no net loss" policies as part of their respective permitting process for impacts to wetlands. California Executive Order W-59-93 established a State Wetland Conservation Policy (SWCP) that provides for the preservation and protection of wetland communities.⁵³⁹ A central goal of the SWCP is to ensure no

⁵³⁷ The Nature Conservancy, *Santa Clara River Upper Watershed Conservation Plan* (2006).

⁵³⁸ 33 U.S.C. Sec. 1251 et seq.

⁵³⁹ State of California Executive Department, Executive Order W-59-93 (Sacramento, California: State of California, 1993).

overall net loss and to achieve a long-term net gain in the quantity, quality, and permanence of wetland acreages and values. Similarly, per a 1990 Memorandum of Agreement (MOA) between the EPA and the Corps to demonstrate compliance with the CWA section 404(b)(1) guidelines, it is the policy of the Corps to achieve the goal of no overall net loss of wetlands functions and values/services, although it is recognized in the MOA that no net loss of functions and values/services may not be achieved in every permit action.⁵⁴⁰ With these policies in place, it is reasonable to assume that the permanent cumulative impacts to jurisdictional wetlands would be substantially less than estimated for this analysis.

Oak woodlands also receive protection from county ordinances and CEQA itself (Pub.Res.Code Section 21083.4). As described in **subsection 4.3.7.a.2.b**, Oaks, the County of Los Angeles Oak Tree Ordinance (CLAOTO) regulates impacts to oak trees with trunks that are at least 8 inches in diameter (or that have two trunks totaling at least 12 inches in diameter) as measured 4.5 feet above natural ground.⁵⁴¹ CLAOTO requires that all potential impacts to regulated oak trees be reported in a detailed oak tree report and usually requires mitigation as a condition of an Oak Tree Permit issued by the County. Ventura County also has “Tree Protection Regulations”⁵⁴² that govern impacts to oak trees in unincorporated areas of the County that are at least 9.5 inches in circumference (or that have two or more trunks with at least one of the trunks 6.25 inches in circumference) as measured at 4.5 feet above the ground. Impacts to oak trees in Ventura County are mitigated per the Ventura County Non-Coastal Zoning Ordinance section 8107-25.10 - Offsets for Altered, Felled, or Removed Trees, which requires a minimum 1:1 ratio of mitigation.

In addition, CEQA, through Public Resources Code section 21083.4, requires that counties analyze and mitigate significant impacts to oak woodlands. Under this Section, an “oak” is defined as a “native tree species in the genus *Quercus*, not designated as Group A or Group B commercial species pursuant to regulations adopted by the State Board of Forestry and Fire Protection pursuant to Section 4526, and that is 5 inches or more in diameter at breast height.” Although, the statute does not provide a definition of “oak woodland,” Public Resources Code Section 12220(g) provides helpful guidance. It defines “forest land” – which would include oak woodland – as any “land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.”

⁵⁴⁰ EPA (Environmental Protection Agency) and U.S. Army (U.S. Department of the Army), *Memorandum of Agreement between the Environmental Protection Agency and the Department of the Army Concerning the Determination of Mitigation under the Clean Water Act Section 404(b)(1) Guidelines* (February 6, 1990).

⁵⁴¹ County of Los Angeles, Municipal Code, Title 22, Chapter 56, Part 16: Oak Tree Permits, Sections 2050 et seq.

⁵⁴² County of Ventura, Article 7, Section 8107-25: Tree Protection Regulations.

Using Section 12220(g) as a guide, this EIR defines “oak woodland” as an area with at least 10 percent cover by oak trees with an understory of non-grass vegetation and at least 20 percent cover by oak trees with an understory of grass vegetation. Oak/grass includes areas where oak trees comprise between 10 percent and 20 percent of the total cover with an understory of grass vegetation. As part of this EIR’s Vegetation Communities analysis, biologists surveyed the site and identified all oak woodlands meeting this definition. Note that these surveys not only captured the oak woodland habitat, but also the entire range of oak trees in terms of size and maturity, including all trees with trunk diameters of five (5) inches or more, measured at breast height, as required under Public Resources Code 21083.4(a). These surveys indicate that the project site supports 37.3 acres of oak woodland, as defined.

Based on the proposed grading plan, 7.8 acres of coast live oak woodland would be developed (including permanent and temporary impacts) and 1.9 acres of valley oak/grass would be developed (including permanent and temporary impacts), for a total of 9.7 acres of impact. This is considered a significant cumulative contribution to a significant effect, thus triggering the mitigation requirements set forth in Public Resources Code section 21083.4.

To address the Mission Village project’s impacts on oaks and oak woodlands, this EIR proposes a three-part mitigation strategy that incorporates (1) planting replacement trees, per the requirements of CLAOTO and previously incorporated measure SP-4.6-48; (2) additional replacement ratios recommended in this EIR for impacts to oak trees and oak woodlands where they occur within stream channels falling under CDFG and Corps jurisdiction, per 1600 and 404 (Mitigation Measure MV 4.3-31); and (3) additional measures recommended in this EIR for tree replacement or woodland restoration/enhancement to mitigate for oak trees and woodland occurring in uplands outside CDFG and Corps jurisdiction at a minimum ratio of 2:1 (Mitigation Measure MV 4.3-50). These mitigation measures not only ensure that the Mission Village project complies with CLAOTO and Public Resources Code section 21083.4, they ensure that the project’s contribution to cumulative impacts on oaks and oak woodlands will be less than cumulatively considerable.

Of the approximately 85,200 acres that are either developed currently or, based on the project list, expected to be developed in the foreseeable future, the RMDP/SCP project would consume 5,590 acres of the approximately 37,890 acres of impact from recent past, present, and reasonably foreseeable future projects. CEQA requires an analysis of whether this contribution to a significant impact can be rendered less than “cumulatively considerable,” as that term is defined under CEQA:⁵⁴³

⁵⁴³ 14 C.C.R. Sec. 15130.

An EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project's contribution is less than cumulatively considerable *if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.* The Lead Agency shall identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable. (*Emphasis added.*)

As to the proposed Mission Village project, the Newhall Ranch Specific Plan Program EIR and this EIR impose measures on the applicant to mitigate the loss of vegetation communities. These measures include: (1) replacing the functions and values/services of riparian vegetation communities that may be lost through construction; and (2) the dedication and maintenance of existing natural lands in the Open Area, River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek area, totaling approximately 9,753 acres. Mitigation also includes compliance with permits from federal and state agencies for impacts to wetlands and water quality (i.e., NPDES and section 401 water quality certifications, section 404 individual permits, and section 1602 Streambed Alteration Agreements). Mitigation for impacts to wetlands would achieve the goals of CDFG's and Corps' "no net loss" policies described above and, therefore, would result in no cumulative contribution to impacts to jurisdictional wetlands. Overall, these mitigation measures would offset the proposed Mission Village project's direct removal of most vegetation communities in the proposed project area. The measures also would offset potential secondary impacts to purple needlegrass grassland outside of the Mission Village project area.

Thus, with the mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR (see **subsection 4.3.10**, Project Mitigation Measures), the proposed Mission Village project would not result in a cumulatively considerable contribution to potential significant cumulative impacts on all of the vegetation communities and land covers in the SCRW, except for coastal sage scrub. (See **subsection 4.3.12.b** of this EIR.)

The California GAP vegetation⁵⁴⁴ and the project-level mapping for the RMDP/SCP project area include approximately 174,000 acres of coastal scrub in the SCRW, which includes the Mission Village project site (see **Table 4.3-8**). Without accounting for the RMDP/SCP project, other past, present, and reasonably foreseeable future projects within the SCRW result in a loss of approximately 19,000 acres of coastal scrub since the California GAP data were compiled (1998). Beginning well before 1998, coastal scrub had been extensively cleared throughout much of California for various land use changes (mainly agriculture and

⁵⁴⁴ UCSB, *California Gap Analysis Project*.

urbanization). For example, Westman⁵⁴⁵ analyzed historic losses of coastal scrub state-wide and estimated that about 15 percent of its original acreage was still extant at that time. Most coastal scrub occurs on relatively gentle slopes (0 to 20 percent) where land use conversions for agriculture and development tend to be concentrated because these lands are more developable. The SCRW has been less extensively developed than other regions in Southern California and coastal scrub loss in the watershed probably has been proportionally less than Westman's⁵⁴⁶ state-wide estimate. Still, it is likely that much of the upland agricultural land mapped by the 1998 California GAP project in the SCRW supported coastal scrub habitat prior to these land use conversions. The acreage of coastal sage scrub lost prior to 1998, however, cannot be quantified for this analysis.

Most coastal scrub alliances and associations mapped on the **RMDP/SCP project site**⁵⁴⁷ are ranked as G4S4 by CDFG,⁵⁴⁸ meaning that they are "apparently secure" both globally and within California, "but factors exist to cause some concern; i.e., there is some threat." For coastal scrub, the primary concerns are the extensive and ongoing habitat loss.⁵⁴⁹ Further, coastal scrub is used almost exclusively by the federally-listed threatened coastal California gnatcatcher,⁵⁵⁰ and many other special-status species occur regularly in coastal scrub.⁵⁵¹ In addition to land use conversions, much coastal scrub vegetation has been lost due to secondary effects of population increases and land development throughout Southern California. These effects include habitat fragmentation, invasive non-native species, livestock grazing, off-highway vehicles, altered fire regime, and perhaps air pollution.⁵⁵² Some coastal scrub vegetation occurs on National Forest lands, where land use management is generally compatible with habitat conservation,

⁵⁴⁵ W.E. Westman, "Diversity Relations and Succession in Californian Coastal Sage Scrub," *Ecology* 62 (1981), 439–455.

⁵⁴⁶ Westman, "Diversity Relations and Succession in Californian Coastal Sage Scrub," 439–455.

⁵⁴⁷ The RMDP/SCP project includes all development, including RMDP infrastructure, the Specific Plan, VCC, and Entrada.

⁵⁴⁸ California Department of Fish and Game, Vegetation Classification and Mapping Program, List of California Vegetation Alliances (October 22, 2007).

⁵⁴⁹ Westman, "Diversity Relations and Succession in Californian Coastal Sage Scrub," 439–455; J.F. O'Leary, "Californian Coastal Sage Scrub: General Characteristics and Considerations for Biological Conservation," in *Endangered Plant Communities of Southern California: Proceedings of the 15th Annual Symposium*, ed. A.A. Schoenherr (Claremont, California: Southern California Botanists, 1990), 24–41.

⁵⁵⁰ J.L. Atwood, "California Gnatcatchers and Coastal Sage Scrub: The Biological Basis for Endangered Species Listing," in *Proceedings of the Symposium: Interface between Ecology and Land Development in California*, ed. J.E. Keeley (Los Angeles, California: Southern California Academy of Sciences, 1993), 149–170.

⁵⁵¹ F.W. Davis, P.A. Stein, and D.M. Stoms, "Distribution and Conservation Status of Coastal Sage Scrub in Southwestern California," *Journal of Vegetation Science* 5 (1994), 743–756.

⁵⁵² J.F. O'Leary, "Coastal Sage Scrub: Threats and Current Status," *Fremontia* 23(4) (1995), 26–31; R.A. Minnich and R.J. Dezzani, "Historical Decline of Coastal Sage Scrub in the Riverside–Perris Plain, California," *Western Birds* 29 (1998), 366–391; P.W. Rundel, "Sage scrub," in *Terrestrial Vegetation of California*, ed. M.G. Barbour, T. Keeler-Wolf, and A.A. Schoenherr (Berkeley, California: University of California Press, 2007), 208–228.

but these areas tend to be at its upper elevational limits, where many of the special-status species associated with coastal sage scrub are less common or absent.⁵⁵³

Based on this analysis, the RMDP/SCP project and other past, present, and reasonably foreseeable future projects would result in a cumulative loss of approximately 20,500 acres of coastal scrub in the SCRW. This loss represents about 54 percent of the total 37,890 acres loss of all vegetation communities in the SCRW due to past, present, and reasonably foreseeable projects, including the RMDP/SCP project; i.e., most of this development in the watershed has or will take place on land dominated by coastal scrub. The RMDP/SCP project's direct (RMDP/SCP) and indirect (buildout of the Specific Plan, VCC, and Entrada planning areas, including Mission Village) effects would result in the permanent removal of approximately 1,520 acres of coastal scrub communities, which includes the Mission Village project area (see **Table 4.3-8**), or about 35 percent of the 4,340 acres of coastal scrub communities present in the RMDP/SCP project area; proportionally lower than the overall estimated loss, but still substantial. Also, when considered from a landscape level, the coastal scrub community on site represents a relatively large, intact tract within this portion of the SCRW. Due to coastal scrub's high habitat value for a variety of special-status plants and wildlife, the extensive coastal scrub losses in Southern California prior to 1998, and the substantial acreage lost as a result of past, present, and reasonably foreseeable projects, including the RMDP/SCP project, the loss of 20,500 acres of coastal scrub could be a potential significant cumulative effect. The proposed Mission Village project's contribution to this loss would be cumulatively considerable.

Whether the proposed Mission Village project's cumulatively considerable contribution to the potential significant cumulative effect of coastal scrub loss in the SCRW can be reduced to a level less than significant is considered in the broader context of conservation planning for the community. In some regions of Southern California, regional planning projects have been designed to limit continued losses of coastal scrub (e.g., state Natural Community Conservation Planning (NCCP) and federal Habitat Conservation Plan (HCP) programs). These programs are designed to preserve large, contiguous tracts of coastal scrub and other natural vegetation communities in permanent managed open space areas and to minimize fragmentation and other secondary impacts to these preserved areas to mitigate for the losses that do occur. There is currently no similar comprehensive, large-scale planning effort in the SCRW to ensure long-term coastal scrub conservation in large, unfragmented tracts within the watershed.

⁵⁵³ J.R. Stephenson and G.M. Calcarone, *Southern California Mountains and Foothills Assessment: Habitat and Species Conservation Issues* (Albany, California: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture, 1999).

In addition, long-term secondary (off-site) impacts to coastal scrub would occur near developed areas after project buildout. These landscape-level impacts and “edge” effects include the increased risk of non-native, invasive plant and animal species (e.g., Argentine ants), human disturbance (e.g., trampling, illegal trails), and shortened fire intervals that could result in type conversion of coastal scrub to annual grassland. These RMDP/SCP project-induced secondary impacts to coastal scrub are mitigated at the project-level to a level less than significant primarily through dedication of lands in the High Country SMA/SEA 20, River Corridor SMA/SEA 23, Salt Creek area, which include approximately 1,900 acres of coastal scrub, as well as preservation of smaller patches in Open Areas within or adjacent to the proposed development areas.

Despite implementation of the mitigation measures required by the Newhall Ranch Specific Plan Program EIR and recommended by this EIR, implementation of the RMDP/SCP project would result in a net loss of approximately 1,520 acres of coastal scrub, which includes the Mission Village project. In the (1) context of the extensive historical losses of coastal scrub in Southern California, the estimated loss of 20,500 acres in the watershed as a result of the proposed Mission Village project and other past, present, and reasonably foreseeable future projects within the SCRW; (2) the importance of this habitat to a variety of special-status plants and animals; and (3) the absence of a regional conservation effort to conserve or manage remaining coastal scrub in the watershed, the proposed Mission Village project would result in a cumulatively considerable contribution to a potential significant and unavoidable cumulative loss of coastal scrub in the SCRW.

(2) Impacts to Common Wildlife Organized by Species Guilds and Other Associations

The cumulative impact analysis for common wildlife also uses the “project list” approach for the watershed, as applied to the wildlife guilds⁵⁵⁴ shown in **Table 4.3-24**. For each wildlife guild or other association, the habitat relationships were analyzed in the same manner as the vegetation communities and land covers described above in **subsection 4.3.11.c.1**.

⁵⁵⁴Species guilds are groups of species that use or exploit similar resources or have similar life history characteristics even though they may represent different taxonomic groups.

Table 4.3-24
Summary of Cumulative Impacts to Wildlife Guilds in the Santa Clara River Watershed (GAP Data are Approximate)¹

Wildlife Guild	Habitat Relationships²	Total Acres of Habitat in Watershed	Permanent Direct and Indirect Impact Acres of RMDP/SCP Project	Total Impact Acres in Watershed From Present and Reasonably Foreseeable Projects (Not Including RMDP/SCP Project)	Estimated Cumulative Impact Acres in Watershed Including RMDP/SCP Project Plus Present and Reasonably Foreseeable Projects
Insect Guild; Bat Guild; and Overall General Impacts	Coastal scrub Chaparral California annual grassland Riparian Oak and walnut woodland Agriculture Disturbed	836,000	5,590	32,300	37,890
Reptile—Low Mobility Guild Mammal—Low Mobility	Coastal scrub Chaparral California annual grassland	747,000	3,050	31,000	34,050
Reptile and Amphibian- -Semi-Aquatic Guild Bird-Riparian	Riparian	25,000	230	800	1030
Bird-Upland Scrub and Chaparral	Coastal scrub Chaparral	725,000	1,980	31,000	32,890
Bird-Upland Grassland	Non-native grassland	22,000	1,070	50	1,120

Wildlife Guild	Habitat Relationships²	Total Acres of Habitat in Watershed	Permanent Direct and Indirect Impact Acres of RMDP/SCP Project	Total Impact Acres in Watershed From Present and Reasonably Foreseeable Projects (Not Including RMDP/SCP Project)	Estimated Cumulative Impact Acres in Watershed Including RMDP/SCP Project Plus Present and Reasonably Foreseeable Projects
Bird-Upland Woodland	Oak woodland	5,170	95	0	95
Mammal-High Mobility	Coastal scrub Chaparral Riparian Oak woodland	755,000	2,300	32,000	34,300

¹Acres were not quantified for the Mollusk guild (including aquatic and terrestrial species) because impacts are site-specific or limited to scattered microhabitat areas; for the Fish guild because the distribution of the species in the guild is limited to the Santa Clara River; and for the Bird -- Raptor and Mammal -- Moderate Mobility guilds because habitat used by the species in these guilds is too diverse to generate a broad, watershed-scale estimate.

²Acres based on California GAP Vegetation Communities (UCSB, California Gap Analysis Project) for areas outside of the RMDP/SCP project boundaries and on the project-level data for areas within the SCP project area boundaries. Acres are based on the totals reported in Table 4.3-23 and are rounded to nearest 1,000 acres for totals greater than 20,000 acres at watershed level and to nearest 10 acres for project-level impacts.

The Santa Clara River Watershed is Relatively Undeveloped and Has Substantial Existing and Designated Open Space Providing Habitat For Wildlife. As shown in **Table 4.3-23**, approximately 991,000 acres of the SCRW are currently undeveloped and capable of providing habitat for wildlife.⁵⁵⁵ With regard to vegetation communities and land covers mapped in the RMDP/SCP project area that also occur elsewhere in the watershed, the watershed includes approximately 836,000 acres. The amount of undeveloped habitat for the different wildlife guilds in the SCRW ranges from approximately 5,200 acres of oak woodlands for the Bird—Upland Woodland guild to approximately 836,000 acres for the Insect and Bat guilds.⁵⁵⁶ This latter figure reflects the fact that insects and bats can use virtually all the undeveloped habitat in the SCRW. Of the approximately 991,000 acres of undeveloped land in the SCRW, approximately 734,000 acres are existing or classified open space (**Figure 4.3-22**), including 635,000 acres of lands designated for public use. Of the 734,000 acres of existing or classified open space, approximately 593,000 are comprised of the types of vegetation communities and land covers occurring on the RMDP/SCP project.

Cumulative Net Increase in Jurisdictional Waters and Wetlands Providing Wildlife Habitat. Waters and wetlands are critical resources for several of the wildlife guilds. The guilds most reliant on waters/wetlands throughout the SCRW include the Reptile and Amphibian—Semi-Aquatic guild, the Fish guild, the Bird—Riparian guild, and the Bird—Raptor guild (primarily for raptor nesting habitat). As shown in **Table 4.3-24, Summary of Cumulative Impacts to Wildlife Guilds in the Santa Clarita River Watershed**, a small proportion of the habitat used by these guilds have been or would be affected by development in the SCRW. Also, according to the Santa Clara River Watershed Study,⁵⁵⁷ mitigation measures for activities permitted by CDFG and Corps between 1988 and 2006 in Los Angeles and Ventura counties have resulted in a cumulative net increase in jurisdictional waters/wetlands area in the SCRW. These estimated net increases are consistent with CDFG's and Corps' "no net loss" policies for wetlands discussed above. Although the Watershed Study acreages assume 100 percent mitigation success, and although it is likely that some of the mitigated acreage has not been successful for various reasons (e.g., poor design, inappropriate soils or hydrology, poor maintenance), it is reasonable to conclude that there has been no net cumulative loss of waters/wetland acreage from agency-permitted activities in the watershed since 1988 because of the estimated net increases. However, as concluded by

⁵⁵⁵ This approximately 991,000 acres figure is derived by subtracting the number of existing development acres (47,270) from the total size of the entire SCRW (1,038,100 acres).

⁵⁵⁶ This does not mean, however, that species in each guild actually use all of the available habitat; nor does it mean that species in each guild have been observed on each acre of available habitat. For example, agricultural and disturbed lands are considered habitat for the Insect and Bat guilds and, therefore, are included in the total acreage of habitat for these guilds; however, both insects and bats tend to concentrate activities in microhabitats within the larger landscape and, therefore, are not uniformly distributed through the 836,000 acres.

⁵⁵⁷ Dudek, *Santa Clara River Watershed Study*.

Ambrose et al.,⁵⁵⁸ acreage losses and gains resulting from agency-permitted activities do not always reflect wetland functions and values/services, and hence, wildlife habitat value. Based on Ambrose et al.'s⁵⁵⁹ review of 143 section 401 permits across 12 regional Water Boards and subregions in California, approximately 27 percent of mitigation acreage consisted of drier riparian and upland habitats that were outside of jurisdictional areas. Wildlife species that rely on wetter habitats, such as semi-aquatic amphibians and reptiles, may not use the drier riparian and wetland habitats to the same extent or for certain phases of their life cycle (e.g., reproduction).

Although the success of past permitted activities likely has been mixed with regard to mitigation for impacts to waters and wetland functions and values/services, new projects are approved and constructed with updated technologies for protecting and restoring waters/wetlands. These new technologies are expected to enhance the functions and values/services of the waters and wetlands within the SCRW. To this end, the Mission Village project applicant would implement conservation measures that are designed to permanently preserve the Santa Clara River corridor and portions of tributary drainages through the proposed Mission Village project reach and to protect and manage the waters/wetlands on the proposed Mission Village project site. These conservation measures include previously incorporated mitigation measures from the Newhall Ranch Specific Plan Program EIR and additional mitigation measures recommended by this EIR. The River Corridor SMA/SEA 23 is approximately 977 acres and includes approximately 332 acres of combined southern cottonwood-willow riparian forest and southern willow scrub. The River Corridor SMA/SEA 23 provides restoration and enhancement opportunities for riparian vegetation; and all riparian vegetation permanently removed from the proposed Mission Village project would be replaced in kind at a minimum 1:1 ratio for Low Reach Value vegetation (e.g., arrow weed scrub) up to a 4:1 ratio for High Reach Value southern cottonwood-willow riparian forest (e.g., see Mitigation Measure **4.3-31** (wetlands mitigation plan and riparian restoration activities on the project site) and **Table 4.3-11** in **subsection 4.3.10**, Project Mitigation Measures). Implementation of these mitigation measures would result in a net increase of wetland/riparian habitat and are expected to improve the overall value of the River corridor and associated aquatic, semi-aquatic, and riparian wildlife guilds. In addition, conservation measures include protection and enhancement of riparian and wetland habitat in the High Country SMA/SEA 20 and Salt Creek area, as well as in the Open Area, with associated wetland mitigation plans subject to the approval of the Corps and CDFG that ensure no net loss of similar functions and values/services (see Mitigation Measures **MV 4.3-1** (restriction of construction activities in the riverbed to specified areas), **MV 4.3-23** (development of a conceptual wetlands mitigation plan), and

⁵⁵⁸ R.F. Ambrose, J.C. Callaway, and S.F. Lee, *An Evaluation of Compensatory Mitigation Projects Permitted Under Clean Water Act Section 401 by the California State Water Quality Control Board, 1991–2002* (August 2006).

⁵⁵⁹ Ambrose, Callaway, and Lee, *Evaluation of Compensatory Mitigation Projects*.

MV 4.3-31 through 4.3-43 (wetlands mitigation plan and riparian restoration activities on the project site) in **subsection 4.3.10**, Project Mitigation Measures).

Land Use Classification and Present and Reasonably Foreseeable Projects. Similar to **Table 4.3-23** for vegetation communities and land covers, **Table 4.3-24** provides a breakdown of the estimated cumulative loss of wildlife habitat (by guild) that would result from (1) the RMDP/SCP project, and (2) present and reasonably foreseeable development as set forth in the “project lists” provided by the various land use jurisdictions within the SCRW.

Present and reasonably foreseeable projects, including the RMDP/SCP project, would result in habitat losses ranging from approximately 980 acres for the Reptile and Amphibian, Semi-aquatic and Bird, and Riparian guilds, to approximately 38,000 acres for the Insect and Bat guilds. Cumulative impacts to oak woodlands could not be quantified due to the coarseness of the vegetative mapping. Based on the GAP data⁵⁶⁰ alone, there would be 0 acres of impacts to habitat for the Bird—Upland Woodland outside of the RMDP/SCP project boundaries. However, based on project-level mapping, there would be 95 acres of habitat loss for this guild in the RMDP/SCP project area. There are almost certainly oak woodlands on the sites of other present and reasonably foreseeable projects and, consequently, it is expected that there would be impacts to oak woodlands resulting from these projects, even though the lack of refined mapping prevents quantification of those impacts. As discussed above, mitigation for loss of upland habitats such as coastal scrub, chaparral, and grassland due to present and reasonably foreseeable projects is uncertain. While CDFG and Corps “no net loss” policies for wetlands, as well as the oak mitigation required by Los Angeles and Ventura counties, are intended to offset impacts to these resources, some net loss of function and value for wildlife, such as semi-aquatic amphibians and reptiles, could occur even if there is no net loss of acreage. Due to the likely permanent net loss of several tens of thousands acres of upland habitats (e.g., coastal scrub, chaparral, and grassland) and the potential loss of some functions and values/services of riparian, wetland, and oak woodland habitats for wildlife, the cumulative impact on wildlife guild habitats could be potentially significant.

The RMDP/SCP Project’s Contribution to the Potential Cumulative Impact. The RMDP/SCP project’s contribution to this potential cumulative impact, broken down by wildlife guild, ranges from 95 acres for the Bird—Upland Woodland guild to 5,590 acres for the Insect and Bat guilds. By proportion, the RMDP/SCP project’s largest contribution to the potential cumulative impact on habitat is 1,070 acres of the total 1,120 acres for the Bird—Upland Grassland guild. Without accounting for mitigation, the RMDP/SCP project’s contribution to the potential cumulative impact on wildlife guilds could be cumulatively considerable. However, the mitigation measures recommended in this EIR, when added to

⁵⁶⁰ UCSB, *California Gap Analysis Project*.

those imposed by the Newhall Ranch Specific Plan Program EIR, render the RMDP/SCP project's contribution "less than cumulatively considerable," as that term is used in the State CEQA Guidelines.⁵⁶¹ These mitigation measures include replacing the functions and values/services of riparian vegetation communities that may be lost through construction, as well as the dedication and maintenance of existing natural lands in the Open Area, River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek area, totaling approximately 9,753 acres. Mitigation also includes compliance with permits from federal and state agencies for impacts to wetlands and water quality (i.e., NPDES and section 401 water quality certifications, section 404 individual permits, and section 1602 Streambed Alteration Agreements). These mitigation measures would reduce the impacts of the direct removal of wildlife habitats in the RMDP/SCP project area. Thus, with the mitigation required by the Newhall Ranch Specific Plan Program EIR and the mitigation measures recommended by this EIR, the RMDP/SCP project area, including the proposed Mission Village project, would not result in a cumulatively considerable contribution to potential significant cumulative impacts to wildlife guilds in the SCRW.

(3) Impacts to Wildlife Habitat Linkages, Wildlife Corridors, and Wildlife Crossings

This subsection evaluates, on a guild-by-guild basis, the RMDP/SCP project's contribution to potential cumulative impacts on wildlife habitat linkages, wildlife corridors, and wildlife crossings. Note that the analysis primarily focuses on watershed-level habitat linkages rather than on a project-level movement corridors and connectivity. Because project-level data from off-site projects are not available, it is speculative to state whether and to what extent project-specific movement corridors and crossings on those properties would be affected by present and future projects. However, it can be assumed that other projects with broad impacts over a landscape would be expected to constrain wildlife use and distribution on site, and have a potential to block movement through certain areas, including through established wildlife corridors and crossings.

As described in **subsection 4.3.9.b.1.e**, Wildlife Habitat Linkages, landscape habitat linkages in the SCRW consist of relatively large open space areas that (1) contain natural habitat, and (2) provide connection between at least two larger adjacent open spaces that can provide for both diffusion and dispersal of many species. Linkages can form contiguous tracts of habitat when adjacent to other open space areas. Large open space networks can be formed in this way to connect and conserve habitat throughout entire regions.⁵⁶²

⁵⁶¹ California Code of Regulations, title 14, section 15130, subdivision (a)(3).

⁵⁶² A.F. Bennett, *Linkages in the Landscape: The Role of Corridors and Connectivity in Wildlife Conservation* (World Conservation Union, 2003).

Figure 4.3-9 shows the conceptual regional open space connectivity identified by Penrod et al.⁵⁶³ that would provide for landscape-scale habitat connectivity between the Santa Susana Mountains to the south and the Los Padres National Forest to the north. These conceptual linkages encompass the High Country SMA/SEA 20 and the Salt Creek area within the RMDP/SCP project area and the Santa Clara River west of the RMDP/SCP project area. Penrod et al.⁵⁶⁴ developed this connectivity concept using a “least cost analysis.”⁵⁶⁵ According to Penrod et al.,⁵⁶⁶ the High Country SMA/SEA 20 and Salt Creek area, along with regional open space conservation areas and the limitations on development imposed by initiatives such as “SOAR,”⁵⁶⁷ constitute important components of a regional linkage design—one that would connect the Santa Monica Mountains, the San Gabriel Mountains, and the Sierra Madre Mountains.

The High Country SMA/SEA 20 and Salt Creek area within the RMDP/SCP project area provide a key component of the east-west linkage that crosses Interstate 5 and connects to the Angeles National Forest in the San Gabriel Mountains to the east and to Ventura County SOAR open space to the southwest. They also provide a key component of the north-south linkage between the Santa Susana Mountains and the “Fillmore Greenbelt” to the northwest that further links to the Los Padres National Forest and the Angeles National Forest to the north. Most of the upland wildlife species probably use the High Country SMA/SEA 20 and Salt Creek area extensively.

North-south movement between the Santa Susana Mountains and the “Fillmore Greenbelt”⁵⁶⁸ requires wildlife to cross SR-126. **Figure 4.3-23, Wildlife Connectivity Crossings**, shows the three existing crossings in Ventura County west of the RMDP/SCP project area (including the Mission Village project site) that can be accessed by wildlife moving along the Santa Clara River. These crossings, which would not be affected by the RMDP/SCP project, are arched culverts large enough for vehicles and wildlife to pass through. These crossings measure about 4.4 meters (14 feet, 7 inches) in height, 7.5 meters (25 feet) in

⁵⁶³K. Penrod et al., *South Coast Missing Linkages Project: A Linkage Design for the Santa Monica-Sierra Madre Connection* (Idyllwild, California: South Coast Wildlands, in cooperation with the National Park Service, Santa Monica Mountains Conservancy, California State Parks, and The Nature Conservancy, 2006).

⁵⁶⁴Penrod et al., *South Coast Missing Linkages Project*.

⁵⁶⁵A “least cost analysis” refers to the calculation of the movement path that has the lowest net impact on a species in relation the factors such as metabolic costs, available shelter and food, and risk factors such as roads; the path that results in the lowest risk of mortality.

⁵⁶⁶Penrod et. al., *South Coast Missing Linkages Project*.

⁵⁶⁷Save Open-Space and Agricultural Resources (SOAR) initiative passed by Ventura County voters in 1998 that amended the County’s General Plan to limit development on agricultural, open space, and rural lands within Ventura County. See Ventura County, “Goals, Policies, and Programs,” *General Plan* (2008), 6–8.

⁵⁶⁸The Fillmore Greenbelt is a voluntary agreement between the Ventura County Board of Supervisors and Fillmore regarding development of agricultural and/or open space areas beyond City limits. The Greenbelt is designed to protect open space and agricultural lands and reassure property owners located within these areas that lands will not be prematurely converted to agriculturally incompatible uses.

width, and 51.8 meters (170 feet) in length, resulting in an openness factor of 0.65, which well exceeds the openness factor of 0.25 found by Donaldson to be adequate for white-tailed deer.⁵⁶⁹ The easternmost of these crossings would serve wildlife movement within and through the RMDP/SCP project area via the Salt Creek corridors, as well as Tapo Canyon in Ventura County.

The Mission Village project site includes potential north–south local wildlife corridors between Santa Clara River and the Santa Susana Mountains to the south. Under current conditions, the function of these potential wildlife corridors to facilitate north–south wildlife movement and access to and from the Santa Clara River is somewhat limited because a large portion of the Mission Village tract map area is currently used for agriculture and frequently devoid of vegetative cover. Wildlife movement through the project site probably occurs mostly along the wooded canyons and through native habitat areas.

In addition to the High County SMA/SEA 20 and Salt Creek area, the Santa Clara River corridor, including the reach through the Mission Village project site, is a regionally important riparian and wetland resource, in part due to its role as a functioning wildlife corridor and habitat linkage for east–west wildlife movement. The 100-year floodplain of the River corridor that lies within the RMDP/SCP project area would be approximately 700 to 2,000 feet wide after development and thus would remain sufficiently wide to accommodate flood events while maintaining the existing mosaic of habitat types currently present along the river.⁵⁷⁰ Combined with upland natural open space adjacent to the River corridor, wildlife habitat along the corridor would be a minimum of 1,000 feet wide.

Specifically within the Mission Village project site, the River would be maintained as open space with a minimum width of about 1,000 feet. The RMDP⁵⁷¹ provides for minimum 100-foot-wide “transition” areas between development and the River Corridor SMA/SEA 23, restricts recreational uses of the River Corridor SMA/SEA 23, and provides for long-term management to ensure that it continues to function as a habitat linkage and movement corridor. With the transition zones along the River, the overall width of natural habitat will be a minimum of approximately 1,200 feet wide. The River corridor will therefore maintain sufficient dimensions to convey a variety of larger, mobile wildlife species, such as mule deer,

⁵⁶⁹ B.M. Donaldson, *The Use of Highway Underpasses by Large Mammals in Virginia and Factors Influencing Their Effectiveness* (Charlottesville, Virginia: Virginia Transportation Research Council, 2005).

⁵⁷⁰ Pacific Advanced Civil Engineering, Inc (PACE), *Newhall Ranch Resource Management Development Plan Floodplain Hydraulics Impacts Assessment - Santa Clara River* (Fountain Valley, California: PACE, 2009).

⁵⁷¹ The RMDP is incorporated by reference, as permitted in section 15150 of the *State CEQA Guidelines*. All referenced documents are available for public inspection and review upon request to: County of Los Angeles, Department of Regional Planning, 320 West Temple Street Los Angeles, California 90012 (Samuel Dea; (213) 974-6461) or Impact Sciences, Inc., 803 Camarillo Springs Road, Suite A-1, Camarillo, California 93012 (Susan Tebo; (805) 437-1900). Additionally, this document can also be obtained from the California Department of Fish and Game’s website at <http://www.dfg.ca.gov/regions/5/newhall/docs/>.

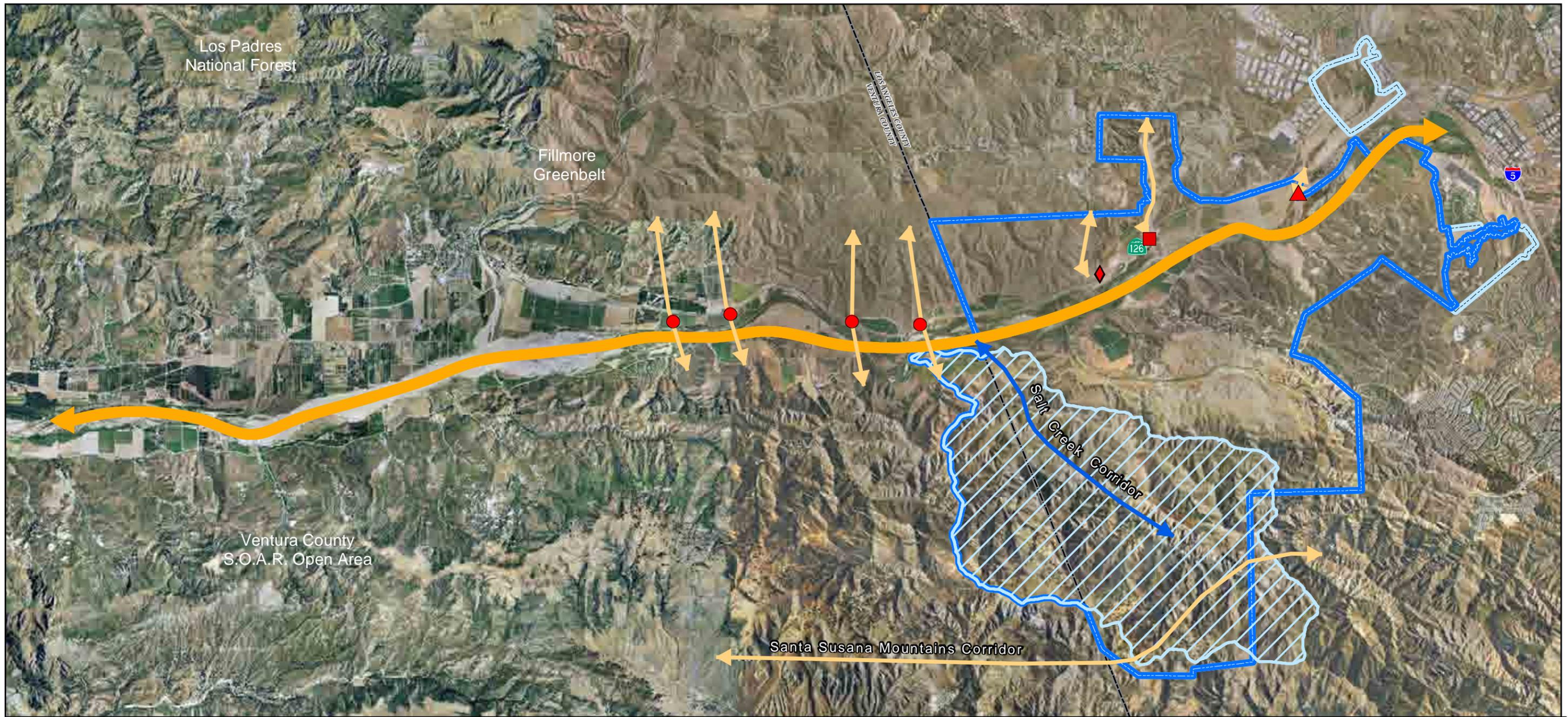
coyote, gray fox, bobcat, and mountain lion. It will also allow for dispersal of many smaller and less mobile species, including birds, small mammals, reptiles, and amphibians that live in the River Corridor. The Commerce Center Drive Bridge will somewhat constrict the Santa Clara River and corridor but for a rather short distance, about 100 feet. Commerce Center Drive Bridge would be approximately 1,250 feet long, 117 feet wide, and have a vertical clearance of 11 to 22 feet, which is more than adequate to allow for unconstrained movement of wildlife beneath the bridge. This is discussed in **subsection 4.3.9.b.1.e**.

The Castaic/Hasley corridor (**Figure 4.3-24, Alternative 2 Impacts to RMDP/SCP Regional Wildlife Connectivity Corridors**), which is not located on the Mission Village project site, would also remain intact as Open Space/Open Area following implementation of the RMDP/SCP and buildout of the Specific Plan, VCC, and Entrada planning areas, including the proposed Mission Village project.

This corridor would allow for movement of many Mammal – High Mobility species (e.g., coyote, mule deer, and possibly mountain lion and bobcat), and would function as live-in habitat and movement habitat for the other species guilds. The Castaic/Hasley corridor would continue to have connectivity value between the Santa Clara River and upland habitats to the northeast of the RMDP/SCP project area extending to Castaic Lake and the Angeles National Forest.

Other existing habitat areas currently function as linkage habitat in the undeveloped landscape and may be used by wildlife for movement between the Santa Susana Mountains to the south and the Los Padres National Forest to the north. Some of these linkages would be somewhat constrained by buildout of the Specific Plan area, including Potrero Canyon and Long Canyon south of the River corridor and Chiquito Canyon and San Martinez Grande Canyon north of the River (**Figure 4.3-24**). These wildlife corridors are located west of the Mission Village project site.

The project's potential to cause cumulative impacts to wildlife landscape habitat linkages is assessed against the following significance criterion, as previously identified in **subsection 4.3.9.a**: Will the proposed project, in combination with present and reasonably foreseeable development, interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors?



AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.3-23

Mission Village EIR

Wildlife Connectivity Crossings



Legend

- RMDP Boundary
- SCP Boundary

Regional Habitat Linkages

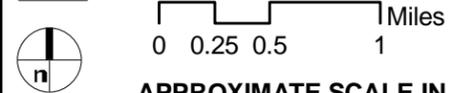
- 1 - Santa Clara River Corridor
- 2 - Salt Creek Confluence
- 3 - Salt Creek High Country
- 4 - East Fork Salt Creek
- 5 - Potrero Canyon Salt Creek
- 6 - Potrero Canyon
- 7 - Long Canyon
- 8a - Humble Canyon
- 8b - Lion Canyon
- 8c - Exxon Canyon
- 8d - Dead End Canyon
- 8e - Middle Canyon
- 8f - Magic Mountain Canyon
- 9 - Chiquito Canyon
- 10 - San Martinez Grande Canyon
- 11 - Off-Haul Canyon
- 12 - Homestead Canyon
- 13- Castaic/Hasley Corridor

Impacts

- Direct Permanent
- Indirect Permanent

Slope

- Less than 25 Percent Slope
- 25 Percent Slope or Greater



APPROXIMATE SCALE IN MILES

IMAGE SOURCE: USGS 24K Quad

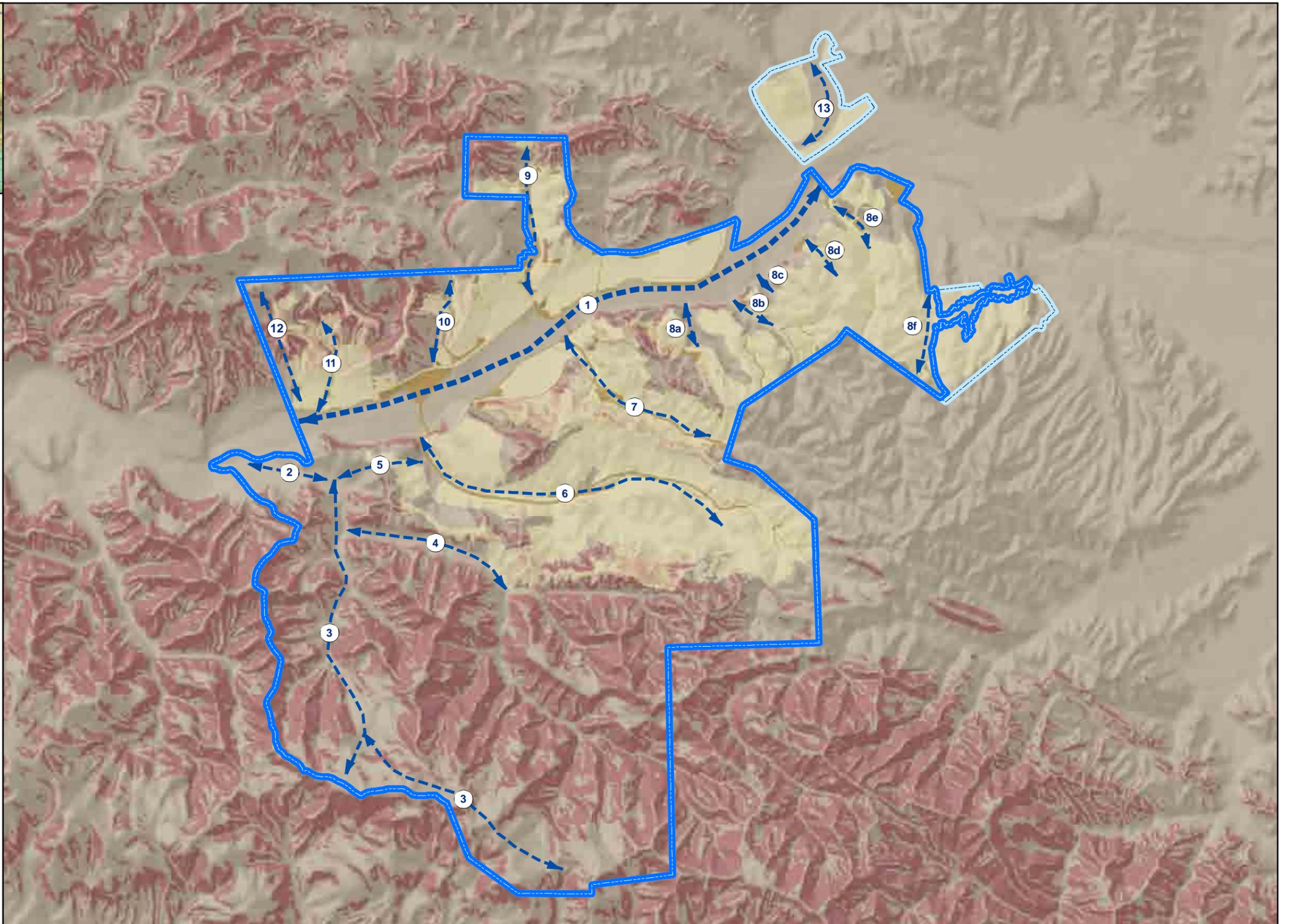


FIGURE 4.3-24

Mission Village EIR

Alternative 2 Impacts to RMDP/SCP Regional Wildlife Connectivity Corridors

As discussed above, the Santa Clara River is an important regional habitat linkage in the SCRW. The combined High Country SMA/SEA 20 and Salt Creek area provide the most direct connections between the River corridor habitat and large upland habitat areas south of the River, and are those identified by Penrod et al.⁵⁷² as important components of regional habitat connectivity. Notwithstanding the preservation of these key areas, the loss of approximately 5,590 acres associated with the RMDP/SCP project, including 1,854.5 acres associated with the Mission Village project area, and the approximately 32,300 acres of impacts from present and reasonably foreseeable projects, would reduce both the size and availability of linkages and corridors in the SCRW. This is particularly true for areas adjacent to the Santa Clara River where both agricultural practices and the development of commercial and residential developments have focused.

Open space, public land, and wildlife compatible uses within the SCRW include National Forest Service lands (both the Los Padres and Angeles National Forests), other designated public ownerships (e.g., BLM, State Parks), utility corridors, agricultural and pasture lands, and undeveloped private areas. The SCRW also includes commercial, industrial, and residential development. Water infrastructure including dams associated with Bouquet, Piru, and Castaic Creeks and diversion structures such as the Freeman diversion dam on the Santa Clara River are also present. The rapid expansion of population centers and urban growth in this region (particularly the Santa Clara Valley) has resulted in the continued loss of undeveloped lands, and the degradation of riparian and upland habitats that support populations of unique or rare species. Natural and wilderness areas in the SCRW, particularly near the Santa Clara River, are gradually being displaced by development, and wildlife movement corridors in the region have been modified to the extent that the movement of wildlife is curtailed or limited in some areas,⁵⁷³ and expanding urban population centers are degrading the habitat values in urban/wilderness edge areas.

As indicated in **Table 4.3-23**, the SCRW consists of approximately 1,038,100 acres of land and supports a variety of vegetation communities and land covers. According to the California GAP data,⁵⁷⁴ approximately 47,300 acres of the watershed had been developed as of 1998. In addition, project list information for the watershed within Ventura and Los Angeles counties indicates that another 37,890 acres are expected to be developed in the foreseeable future, based on past, present, and reasonably foreseeable projects, including the RMDP/SCP project (which includes the Mission Village project area), resulting in a total of approximately 85,200 acres of watershed being developed.

⁵⁷² Penrod et al., *South Coast Missing Linkages Project*.

⁵⁷³ Penrod et al., *South Coast Missing Linkages Project*.

⁵⁷⁴ UCSB, *California Gap Analysis Project*.

Figure 4.3-19 shows that most of the approximately 99,000 acres of land converted to development land uses in the SCRW (i.e., agriculture, and residential, commercial, industrial, infrastructure development) has occurred (1) in the southern portion of the watershed along the Santa Clara River, where agricultural uses dominate, and (2) in the cities of Ventura, Santa Paula, Santa Clarita, and the communities of Valencia and Acton, where urban development dominates. In these portions of the SCRW, urbanization has resulted in alterations to the natural landscape and the fragmentation of natural vegetation communities, isolation of wildlife habitat, and the creation of discontinuous movement corridors. This is demonstrated in portions of the Santa Clara River Valley where development along the Interstate 5 corridor has narrowed the existing landscape features and now inhibits movement along much of the Valley floor. However, a large amount of relatively unobstructed and natural land still exists within this region, including large contiguous areas within the Angeles and the Los Padres National Forests and within private lands including the Forest Service lands. Development within Forest Service lands in this area is primarily limited to small residential communities on private holdings or recreational cabins, OHV use, reservoirs and aqueducts, ranger stations, recreational areas and campgrounds, utility corridors, access roads, hiking trails, and fuel breaks.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the RMDP/SCP project (which encompasses the Mission Village project area), could constrain the use of habitat linkages, wildlife corridors, and wildlife crossings in developing regions of the SCRW, especially where north-south wildlife movement occurs along several canyons between the Santa Clara River and the Santa Susanna Mountains to the south, and east-west movement occurs along the Santa Clara River itself. The RMDP/SCP project would constrain the use of some regional landscape-level linkages, local wildlife corridors (i.e., within the RMDP/SCP project development area), and wildlife crossings within the developed portions of the RMDP/SCP project area and large areas of habitat loss would occur. The Mission Village project's contribution to impacts to local and regional wildlife movement would not be cumulatively considerable, and therefore would be less than significant (see **subsection 4.3.9.b.1.e**). Wildlife movement through the project site along Magic Mountain Canyon, Middle Canyon, and Dead-End Canyon would be eliminated because these canyons would be developed. Wildlife movement along Exxon Canyon and Lion Canyon also would be precluded because these canyons would become dead-ends. The Santa Clara River corridor will maintain its function for east-west regional wildlife movement and connects directly to Castaic Creek, which provides for north-south wildlife movement. The open space in the River corridor within the Mission Village project site will be a minimum of 1,000 feet wide, and, with the minimum 100-foot transition areas between development and the River corridor, the minimum functional width of the corridor will be about 1,200 feet. As noted above, the Commerce Center Drive Bridge will somewhat constrict the Santa Clara River and corridor but for a short distance, about 100 feet, with a height of approximately 11 to 22 feet to allow for unconstrained movement of wildlife beneath the bridge.

Although impacts to regional and local wildlife movement are less than significant, a variety of mitigation measures are recommended by Newhall Ranch Specific Plan Program EIR and this EIR that would further reduce impacts to wildlife corridors, including dedication of the River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek area, controls on public access to dedicated open space areas, controls on lighting at the urban-open space interface, controls on pet, stray, and feral cats and dogs, and homeowner education about sensitive biological resources.

While much of the SCRW likely would remain undeveloped or designated as public lands, including the National Forests, urbanization of the Santa Clara River corridor as a whole is where most development is expected to occur in the future. This would result in the expansion of barriers to wildlife movement in and around the River Valley. However, based on existing information for present and reasonably foreseeable projects and the RMDP/SCP project, which are the scope of this cumulative analysis, movement through the Santa Clarita Valley would be maintained between both National Forests and private lands such as the Simi Hills, as shown in **Figure 4.3-9, South Coast Wildlands Open Space Connectivity and Linkage**, and **Figure 4.3-24**. It was concluded in the Newhall Ranch Specific Plan that combined High Country SMA/SEA 20 and Salt Creek area provide the most direct connections between the River corridor habitat and large upland habitat areas south of the River, and that these habitat linkages would remain intact and functional after implementation of build out of the RMDP/SCP project area, including the proposed Mission Village project, under Alternative 2. It was for these reasons that at the project-level, it was determined that impacts to landscape habitat linkages would be adverse, but not significant. It follows, therefore, that if regional wildlife movement via the large habitat linkages identified by Penrod et al.,⁵⁷⁵ including the River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek area, are maintained on site, the contribution of the RMDP/SCP project (which includes the Mission Village project area) to constraints on regional wildlife movement in the SCRW would not be cumulatively considerable. Thus, with the mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended by this EIR, the proposed Mission Village project would not result in a cumulatively considerable contribution to potential significant cumulative impacts to regional wildlife habitat landscape linkages and local wildlife movement corridors in the SCRW.

(4) Impacts to Special-Status Species

The cumulative impact analysis for special-status species also uses the “project list” approach for the watershed. This analysis is organized into five separate special-status categories:

1. State and/or Federally Listed and California Fully Protected Wildlife Species

⁵⁷⁵ Penrod et al., *South Coast Missing Linkages Project*.

2. California Species of Special Concern (CSC)
3. California Special Animals, California Watch List Species, Specially Protected Mammals, and CDFG Trust Resource Species
4. State and/or Federally Listed Plant Species
5. California Native Plant Society (CNPS) and Locally Regulated Plant Species

The listed and California Fully Protected Species are analyzed in the greatest detail because they have the greatest sensitivity and generally would be expected to be most affected by cumulative impacts. For each species, the habitat relationships were analyzed in the same manner as the vegetation communities and land covers described above in **subsection 4.3.11.c.1**. Except where noted, the combined California GAP data⁵⁷⁶ and project-level data were used for the cumulative impact analyses because the analysis is within the context of the entire watershed.

Because of the numerous wildlife species in the two categories: (1) California Species of Special Concern (CSC); and (2) Special Animals, Watch List, Specially Protected Mammals, and Trust Resources, the analyses for the two categories are generalized to the guild level (e.g., Bird—Raptor, Reptile and Amphibian—Semi-aquatic). The detail of the analysis is scaled to the sensitivity of the species group. For example, CSC Bird—Riparian species are analyzed in more detail than Special Animal Bird—Riparian. Where the detailed analyses for the Listed and California Fully Protected Species are applicable to species in the lower sensitivity categories (e.g., least Bell’s vireo analysis to the CSC Bird—Riparian guild), cumulative impacts are incorporated and summarized.

(a) Listed and California Fully Protected Wildlife Species

This section addresses cumulative impacts to the following federally and state-listed and/or California Fully Protected Species:

- arroyo toad (FE)
- American peregrine falcon (CE, CFP)
- California condor (FE, CE, CFP)
- coastal California gnatcatcher (FT)
- California red-legged frog (FT)
- golden eagle (CFP)

⁵⁷⁶ UCSB, *California Gap Analysis Project*.

- least Bell's vireo (FE, CE)
- ringtail cat (CFP)
- southern steelhead (FE)
- southwestern willow flycatcher (FE, CE)
- unarmored threespine stickleback (FE, CE, CFP)
- western yellow-billed cuckoo (CE)
- white-tailed kite (CFP).

The cumulative impact analysis of listed and California Fully Protected Species is summarized below. See **subsection 4.3.9.b.1.h** for the full detail of impacts and mitigation measures as they relate to each of the species and to **subsection 4.3.10**, Project Mitigation Measures, for full descriptions of all mitigation measures.

Arroyo Toad (FE). Within the RMDP/SCP portion of the Santa Clara River adjacent to the Mission Village project site, the arroyo toad (tadpoles only) has been documented upstream and downstream of the proposed Commerce Center Drive Bridge site and near the Valencia Water Treatment Plant (**Figure 4.3-25, RMDP/SCP Arroyo Toad Species Occurrences**). Arroyo toad has also been documented in the following areas outside the RMDP/SCP project boundaries: (1), the Santa Clara River just east of I-5; (2) Castaic Creek, including above the reservoir (Castaic Lake); (3) Upper San Francisquito Creek; (4) the Santa Clara River adjacent to Castaic Junction; (5) the Santa Clara River near the confluence of San Francisquito Creek; and (6) the Soledad Canyon area. The arroyo toad also occurs elsewhere in the SCRW, in Sespe Creek and Piru Creek. The Sespe Creek population is located in the Los Padres National Forest, primarily within the Sespe Wilderness, and is one of the largest populations in the Los Padres National Forest, with thousands of juveniles observed during years of successful reproduction.⁵⁷⁷ The Piru Creek population occurs both upstream and downstream of the Pyramid Reservoir in the Los Padres National Forest.⁵⁷⁸ The upper Piru Creek population has been expanding, likely in part due to seasonal campground closures and the elimination of suction-dredge mining.⁵⁷⁹ The lower Piru Creek population below Pyramid Reservoir has experienced habitat degradation due to perennial water releases, excessive flows, and invasive predators; but future releases are intended to mimic natural flows and this should benefit the arroyo toad.⁵⁸⁰

In 2005, USFWS designated 11,695 acres of critical habitat for arroyo toad (substantially downsizing the 95,655 acres proposed in February 2004). In that Final Rule, effective May 13, 2005, the USFWS deleted the

⁵⁷⁷ 70 FR 19584.

⁵⁷⁸ 70 FR 19584.

⁵⁷⁹ 70 FR 19584.

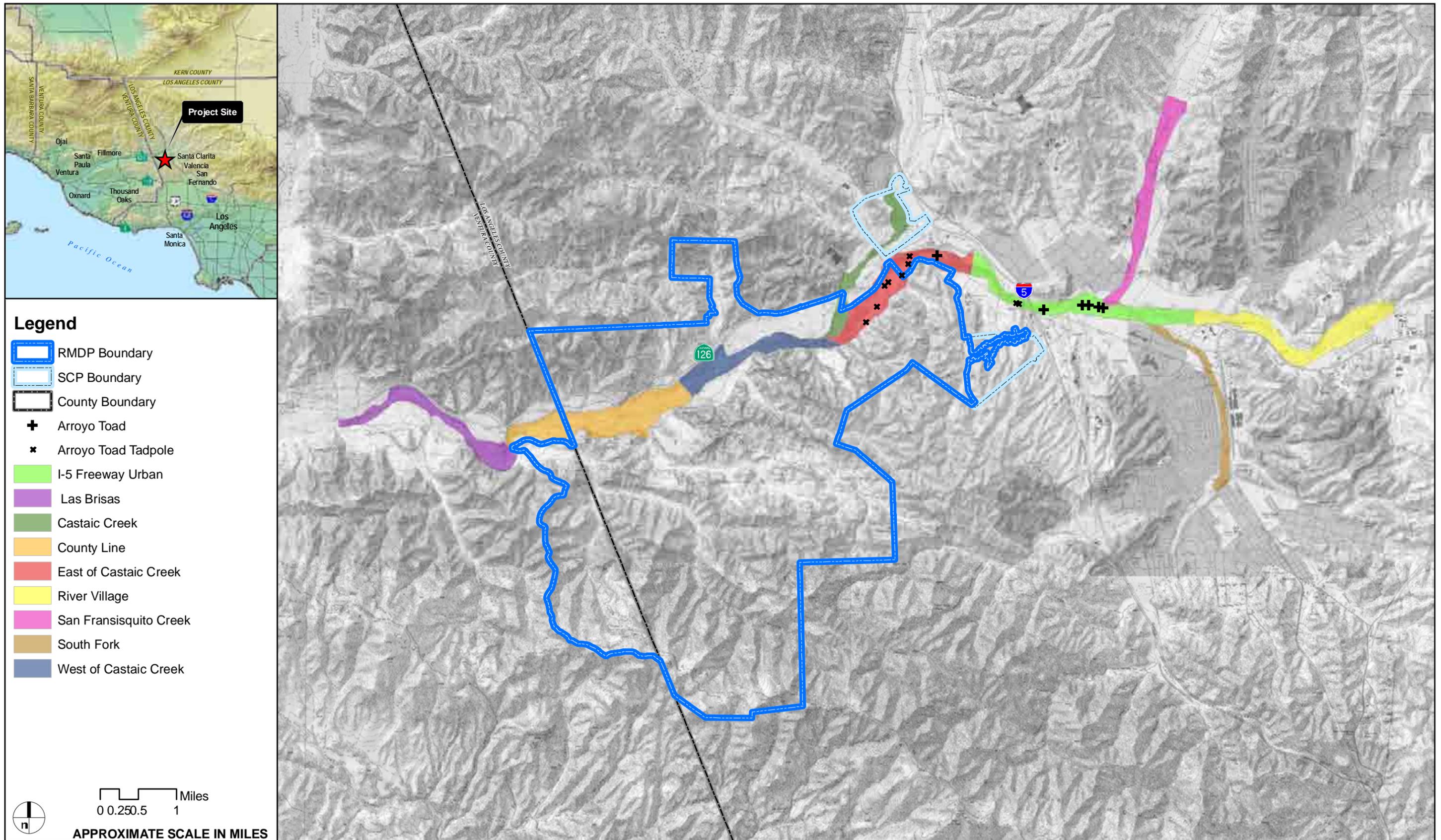
⁵⁸⁰ 70 FR 19584.

entire Newhall Ranch Specific Plan area from the designated critical habitat for the arroyo toad. Note, however, that USFWS is currently reassessing the 2005 Final Rule to determine whether the critical habitat designation should be adjusted. The USFWS has proposed changes to the 2005 Final Rule, published in the Federal Register on October 13, 2009. In 1999, USFWS published the Arroyo Southwestern Toad Recovery Plan,⁵⁸¹ but the Santa Clara River was not specifically identified in the Recovery Plan as having a conservation role in the recovery strategy for the species. In the Santa Clara River watershed, six federal biological opinions were issued for the arroyo toad between 1993 and 2006 (**Table 4.3-19**), including one for the Natural River Management Plan upstream of the RMDP/SCP project.

The California GAP data are not refined enough to portray suitable arroyo toad habitat. Implementation of the RMDP and buildout of the Specific Plan, VCC, and Entrada planning areas would result in the permanent loss of 59 acres (7.4 percent) of modeled Category 1 habitat on the RMDP/SCP project site, defined as habitat containing all the primary constituent elements used to designate critical habitat for the species.⁵⁸² However, 25 acres (32.6 percent) of Category 2 habitat (habitat containing most of the primary constituent elements) and 705 acres (66.6 percent) of Category 3 habitat (primarily uplands adjacent to the Santa Clara River corridor that could be used for aestivation and hibernation, but which lack hydrology to support breeding) would also be permanently lost. Upland portions of the Mission Village project site slated for development include RMDP/SCP Category 3 habitat, and a small area of river wash within the Santa Clara River that would be impacted is Category 1 arroyo toad habitat (see **Figure 4.3-4-A3**). Without accounting for past, present, or reasonably foreseeable mitigation, impacts to arroyo toad habitat in the SCRW resulting from present and reasonably foreseeable projects, including the RMDP/SCP project, could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential significant cumulative impact could be cumulatively considerable, absent mitigation.

⁵⁸¹ USFWS, *Arroyo Southwestern Toad (Bufo microscaphus californicus) Recovery Plan* (Portland, Oregon: USFWS, 1999).

⁵⁸² 70 FR 19562.



- Legend**
- RMDP Boundary
 - SCP Boundary
 - County Boundary
 - Arroyo Toad
 - Arroyo Toad Tadpole
 - I-5 Freeway Urban
 - Las Brisas
 - Castaic Creek
 - County Line
 - East of Castaic Creek
 - River Village
 - San Fransisquito Creek
 - South Fork
 - West of Castaic Creek

APPROXIMATE SCALE IN MILES

IMAGE SOURCE: USGS 24K Quad

FIGURE 4.3-25

Mission Village EIR

RMDP/SCP Arroyo Toad Species Occurrences



Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, in close proximity to occupied arroyo toad habitat also could result in long-term secondary effects, including disruption of nocturnal activities and greater vulnerability to predation by nocturnal predators (such as owls and coyotes) as a result of nighttime lighting; greater vulnerability to predation by pet, stray, and feral cats and dogs as well as other mesopredators;⁵⁸³ collecting by children; degradation of habitat from increased human use (e.g., trampling, trash, and off-road vehicles) and altered fire regimes (likely too frequent fire); invasion by exotic plant (e.g., giant reed, tamarisk, and pampas grass) and wildlife species (e.g., Argentine ants, bullfrogs, African clawed frogs, exotic fish, and crayfish); use of pesticides; and increased risk of roadkill on roads adjacent to occupied areas. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential significant cumulative secondary impact could be cumulatively considerable, absent mitigation.

The mitigation required by both the Newhall Ranch Specific Plan Program EIR and the mitigation measures recommended by this EIR to offset project-level significant impacts to arroyo toad habitat would result in a large, managed open space system (see **subsection 4.3.10**, Project Mitigation Measures). This open space system would also reduce long-term secondary impacts on arroyo toad habitat. These mitigation measures include preservation, restoration, and enhancement of riparian and wetland habitat, controls on public access, invasive species controls, conformance with permits from federal and state agencies for impacts to wetlands and water quality (i.e., NPDES and section 401 permits), and lighting controls. Large areas of suitable habitat for this species would be protected in the River Corridor SMA/SEA 23. The Floodplain Hydraulics Impacts Assessment⁵⁸⁴ found that neither the Mission Village project nor the broader RMDP/SCP project would cause long-term significant impacts in water flows, velocities, depth, sedimentation, or floodplain and channel conditions downstream of the proposed Mission Village project area. This same impact assessment also determined that such hydrologic effects would be insufficient to alter the amount, location, and nature of aquatic and riparian habitats within the Santa Clara River adjacent to the Mission Village project site and downstream into Ventura County. The technical analysis further determined that the River would retain sufficient width to allow natural fluvial processes to continue. Following buildout, the River Corridor floodplain within the RMDP/SCP project area would remain 700 to 2,000 feet wide and retain the mosaic of habitats, including the relatively narrow wetted channel, benches, and dry terraces that support various special-status species and meet their life history needs. These habitats and the populations of the species within and immediately

⁵⁸³ See K.R. Crooks and M.E. Soulé, "Mesopredator Release and Avifaunal Extinctions in a Fragmented System," *Nature* 400 (1999), 563–566.

⁵⁸⁴ PACE, *Floodplain Hydraulics Impacts Assessment - Santa Clara River*.

adjacent to the River Corridor would not be substantially affected. A total of 738 acres (92.6 percent) of existing Category 1 habitat for the arroyo toad on the RMDP/SCP project site would be maintained within the River Corridor SMA/SEA 23.

A variety of specific mitigation measures also would be implemented by the proposed Mission Village project to avoid and reduce potential long-term secondary impacts to arroyo toad. Such measures would control human activities in the River Corridor SMA/SEA 23, educate homeowners and restrict recreational activities. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. All lighting along the open space-urban interface would be downcast. Pesticides would be controlled through an integrated pest management (IPM) plan. Argentine ant invasions of upland habitats in the open space system would be monitored and controlled to extent feasible. Implementation of these measures would allow this species to persist after development in the River Corridor SMA/SEA 23 adjacent to the Mission Village project site.

In conclusion, the vast majority of existing Category 1 habitat (92.6 percent) for the arroyo toad would be protected and managed in the River Corridor SMA/SEA 23 adjacent to the Mission Village project site, and lands outside the 100-year floodplain would be conserved. This preservation and management would also reduce potential long-term secondary impacts to a level that is adverse but not significant. The arroyo toad has not been documented to breed on the Mission Village site, as indicated by no observations of adult toads during focused surveys. The flow regime from the wastewater treatment plant upstream of the Mission Village project site fluctuates daily and does not support hydrologic regimes consistent with breeding habitat (i.e., semi-permanent breeding pools). It is not expected that there would be a loss of an extant breeding population and no substantial loss of Category 1 habitat for this species on site. The largest populations in the SCRW occur in the Los Padres National Forest in Sespe and Piru creeks. These populations are not at risk from urban development and, with proper management, they are expected to expand in the future.

For the reasons set forth above, the proposed the Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

American Peregrine Falcon (CE, CFP). The American peregrine falcon occurs occasionally in the proposed Mission Village project area and immediate vicinity. One American peregrine falcon was observed

hunting along the Santa Clara River corridor near Grapevine Mesa by Guthrie in July 2000,⁵⁸⁵ and an adult male was observed hunting over the Wolcott agricultural field by Bloom Biological, Inc. in late December 2007.⁵⁸⁶ No other occurrences of this species have been documented in the project vicinity during annual bird surveys between 1988 and 2008. American peregrine falcons have never been documented nesting in the proposed Mission Village project area or larger RMDP/SCP project area. This species is sensitive to human disturbance and usually nests in areas that are remote from human activities, such as cliffs, although tall buildings, bridges, or other tall man-made structures are also suitable for nesting if they are protected from human disturbance. Such features that would be suitable for nesting by the peregrine falcon are absent from the Mission Village project site; therefore, it is not expected to nest on site.

The California breeding range for the American peregrine falcon has been expanding and now includes the Channel Islands, the coast of southern and Northern California, inland north coastal mountains, the Klamath Mountains, Cascade Range and the Sierra Nevada.⁵⁸⁷ In California, the American peregrine falcon is an uncommon breeder or winter migrant throughout much of the state.⁵⁸⁸ Active nests have been documented along the coast north of Santa Barbara, in the Sierra Nevada, and in other mountains of Northern California. As a transient species, the American peregrine falcon may occur almost anywhere that suitable habitat and prey are present.⁵⁸⁹ For example, one pair occurs within the Angeles National Forest,⁵⁹⁰ and another occurs on the Vincent Thomas Bridge at the Port of Los Angeles in Los Angeles County. Wintering migrants can be seen inland throughout the Central Valley, in the western Sierra Nevada, along the coast, and occasionally on the Channel Islands.⁵⁹¹

Based on the California GAP data,⁵⁹² there are approximately 103,000 acres of potentially suitable foraging habitat for the peregrine falcon within the SCRW (riparian, California annual grassland, agriculture, and disturbed land). However, this species is not expected to forage in all 103,000 acres in the SCRW. Foraging sites are often located near rivers or lakes, as well as in coastal and inland wetlands.⁵⁹³

⁵⁸⁵ Guthrie, *Bird Surveys along the Santa Clara River, 2000*.

⁵⁸⁶ Bloom Biological, Inc., *Interim Report of Winter Surveys*.

⁵⁸⁷ CDFG, *The Status of Rare, Threatened, and Endangered Plants and Animals of California 2000–2004* (2005).

⁵⁸⁸ Zeiner et al., *California's Wildlife: Volume II*.

⁵⁸⁹ Garrett and Dunn, *The Birds of Southern California*.

⁵⁹⁰ Stephenson and Calcarone, *Southern California Mountains and Foothills Assessment*.

⁵⁹¹ Zeiner et al., *California's Wildlife: Volume II*.

⁵⁹² UCSB, *California Gap Analysis Project*.

⁵⁹³ American Ornithologists' Union (AOU), *Checklist of North American Birds* (Washington, D.C.: American Ornithologists' Union, 1998); N.L. Brown, California State University Stanislaus, "Endangered Species Recovery Program," <http://esrp.csustan.edu/speciesprofiles/profile.php?sp=fape>; S.A. Snyder, Fire Effects Information System, U.S. Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory, "*Falco peregrinus*,"

It is expected that foraging by this species in the SCRW would be concentrated along the Santa Clara River and adjacent upland habitats and agricultural areas. Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP area (which encompasses the Mission Village project site), would cause the loss of 4,815 acres of 103,000 acres of foraging habitat. Without accounting for past, present, or reasonably foreseeable mitigation, this could be a significant cumulative impact because several thousand acres of potential foraging habitat would be permanently lost and loss of habitat along the Santa Clara River would also affect the abundance and distribution of important prey such as waterfowl. The contribution of the RMDP/SCP project to this potential significant cumulative impact is 3,515 acres, including approximately 680 acres of permanent and temporary disturbance to potential foraging habitat on the Mission Village project site. This contribution by the proposed Mission Village project to the overall potential significant impact in the SCRW could be cumulatively considerable, absent mitigation.

However, the American peregrine falcon only uses the proposed Mission Village project site and the larger RMDP/SCP project area for occasional foraging. It does not nest on site. Further, despite existing and anticipated projects in the watershed, approximately 98,000 acres of potentially suitable foraging habitat would remain in the SCRW, although most of its foraging in the watershed is expected to be concentrated within and adjacent to the Santa Clara River floodplain.

Without accounting for past, present, or reasonably foreseeable mitigation, secondary cumulative impacts from present and reasonably foreseeable projects in the SCRW, including the Mission Village project, could be significant. Such secondary impacts include increased human activity in developed areas and adjacent open space which could disrupt foraging activities, and use of pesticides which could cause poisoning. At the watershed level these secondary effects could be a potential significant cumulative effect. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The mitigation required by both the Newhall Ranch Specific Plan Program EIR and the mitigation measures recommended by this EIR to offset project-level significant impacts to American peregrine falcon foraging habitat would result in a large, managed open space system (see **subsection 4.3.10**, Project Mitigation Measures). These mitigation measures include habitat preservation, restoration, enhancement, and management of the River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek area—areas that would form a large, contiguous open space system totaling approximately 6,300 acres comprised of riparian and upland habitats that provide foraging habitat for American peregrine falcon. This set-aside also would reduce potential long-term secondary effects, such as increased human activity,

<http://www.fs.fed.us/database/feis>.

because birds would have substantial alternative habitat in which to forage. Potential secondary poisoning from pesticides would be controlled through an integrated pest management (IPM) plan.

In addition to these mitigation measures which would reduce impacts at the project-level, this species is an occasional visitor and only expected to forage on the Mission Village project site and within the larger RMDP/SCP project area. This species is known to forage throughout the suitable habitat within the watershed and California. Its nesting is usually limited to areas with limited human disturbance. American peregrine falcon is known to forage within National Forest system lands within the watershed in association with rivers and lakes.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

California Condor (FE, CE, CFP). California condor populations exist in Arizona, Southern California, Utah, and northern Baja California.⁵⁹⁴ California condors are known to exist and nest in the Sespe Condor Sanctuary within the SCRW approximately 30 miles northwest of the proposed Mission Village project site. This species is extremely mobile with an extensive foraging range. The Sespe population of California condor has been known to forage over the Mission Village project site and larger RMDP/SCP project area. Surveys for the California condor were included as part of other raptor and avian species surveys that were conducted along the Santa Clara River and throughout upland areas of the RMDP/SCP project area.⁵⁹⁵ While California condor foraging flights have been known to take individuals over the Santa Clarita Valley, these flights are generally at high altitudes. Until April 2008, California condors had not been known to nest or land within the RMDP/SCP project area within the last 25 years.⁵⁹⁶ In April 2008, a California condor was observed feeding on a dead calf in a Potrero side canyon by Bloom Biological, Inc, wildlife biologist Chris Niemela⁵⁹⁷ (**Figure 4.3-26, RMDP/SCP – Listed and California Fully Protected Wildlife Species Occurrences**). The USFWS also provided information to Bloom

⁵⁹⁴ CDFG, *The Status of Rare, Threatened, and Endangered Plants and Animals of California 2000–2004*.

⁵⁹⁵ Bloom Biological, Inc., *Summary of Late Winter and Spring Avian Survey with Focus on the California Condor*; Bloom Biological, Inc., *Interim Report of Winter Surveys*.

⁵⁹⁶ Bloom Biological, Inc., *Late Winter and Spring Avian Survey*; Bloom Biological, Inc., *Interim Report of Winter Surveys*.

⁵⁹⁷ M. Carpenter, Personal communication by M. Carpenter (Newhall Land and Farming Company) reporting that a California condor was observed feeding on a dead calf in a Potrero side canyon by wildlife biologist Chris Niemela in a Potrero side canyon (2008).

Biological, Inc. that California condors fitted with GPS transmitters had landed on Newhall Ranch on several days from April through July 2008.⁵⁹⁸ In January 2009, up to five California condors were detected feeding on a dead calf in the middle section of Potrero Canyon south of Potrero Mesa between January 27 and 30.⁵⁹⁹ A follow-up visit by Chris Niemela was conducted at the request of the USFWS to photodocument the calf carcass and site where the feeding occurred.

A review of the updated 2009 condor flight data provided by the USFWS shows that the Mission Village project site and the proposed mitigation lands in the High Country SMA, Salt Creek area, and River Corridor SMA are located under a commonly used California condor flight path between the Sespe Wilderness area to the northwest and the San Gabriel Mountains National Forest to the southeast of the Mission Village project site. In addition, California condors routinely overfly the project vicinity and are known to feed in portions of the larger RMDP/SCP area where grazing currently occurs and cattle carcasses are sometimes available. The data also suggest that condors will likely opportunistically feed on cattle carcasses or other large mammal carcasses (*e.g.*, mule deer) in the Mission Village project vicinity and proposed mitigation lands in the future. The review of the 2009 USFWS flight data, in addition to coordination with USFWS staff, also suggests that the condor is expanding its use of the region and can be expected to continue overflights of the Santa Clarita Valley and adjacent National Forests to the north and southwest of the Mission Village project site.

Specifically, the condor telemetry/GPS data flight data from the USFWS are available in three data ranges: April 20, 2002, to January 29, 2009; January 1, 2009, to July 30, 2009; and August 1, 2009, to August 31, 2009. There is minor overlap in the data during the month of January 2009. Between April 20, 2002, and January 29, 2009 (80,402 total points), 161 points (0.2 percent of the overall recorded points) representing 16 unique birds were recorded within the Newhall Ranch Specific Plan area, Salt Creek area, Entrada, Valencia Commerce Center, and Legacy. Between January 1, 2009, and July 30, 2009 (36,377 total points), 300 points (0.8 percent of the overall recorded points) representing 13 unique birds were recorded within the Newhall Ranch Specific Plan area, Salt Creek area, Entrada, Valencia Commerce Center, and Legacy. Between August 1, 2009, and August 31, 2009 (6,800 total points), no points were recorded within the Newhall Ranch Specific Plan area, Salt Creek area, Entrada, Valencia Commerce Center, and Legacy.

⁵⁹⁸ R.P. Root, "Acknowledgement of Request for Formal Consultation on the Proposed Newhall Ranch Specific Plan, Santa Clarita, Los Angeles County, California," letter from R.P. Root (USFWS) to A.O. Allen (USACE) (November 12, 2008).

⁵⁹⁹ C. Niemela, Memo from C. Niemela (Bloom Biological) to Jesse Grantham (USFWS) regarding observations of California condor in Potrero Canyon in January 2009 (March 11, 2009).

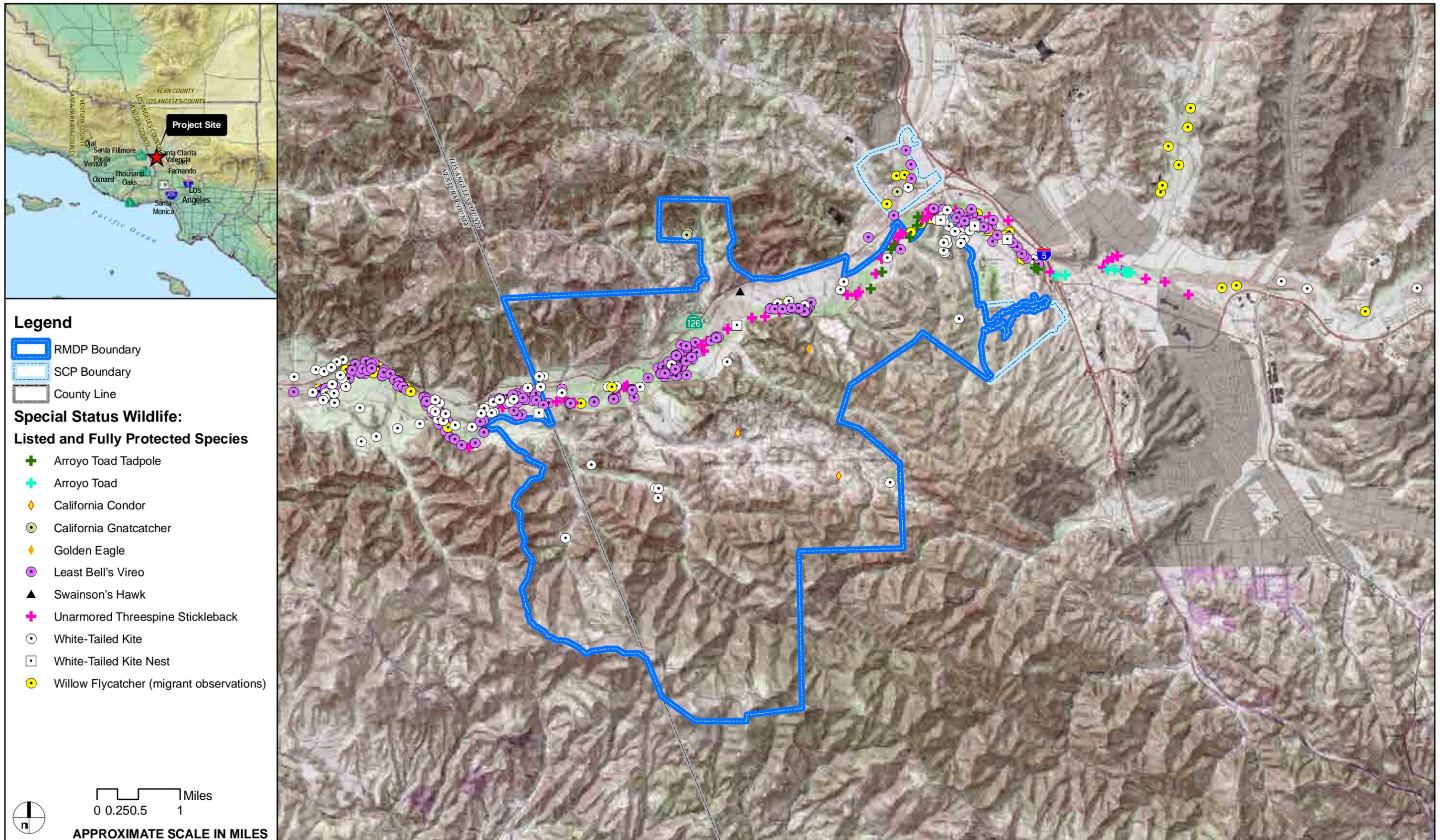


FIGURE 4.3-26

Mission Village EIR

RMDP/SCP - Listed and California Fully Protected Wildlife Species Occurrences

Critical habitat for the California condor was designated by the USFWS on September 22, 1977;⁶⁰⁰ however, no critical habitat was designated on the RMDP/SCP project area, which includes the Mission Village project site. The nearest critical habitat area is the Sespe-Piru Condor Area, 6 to 7 miles north of the RMDP/SCP project area. The California Condor Recovery Plan was published by the USFWS on February 26, 1980;⁶⁰¹ however, no recovery activities were identified for the RMDP/SCP project area or nearby vicinity.

The California condor requires habitat that contains an adequate food supply (carrion), open space areas, and reliable winds and air movement to allow for long-duration soaring during foraging. Nest habitat typically includes cliff faces and, occasionally, large tree snags with cavities. Condors are not expected to nest in the Mission Village project site or larger RMDP/SCP project area due to the general lack of adequate nesting habitat. They likely forage on the Mission Village project site only when an opportunity presents itself. To the extent condors use the other present and foreseeable future project sites analyzed here, such use is probably limited to occasional foraging. In general, these areas probably do not support large populations of large mammals (e.g., mule deer) across the broad landscape area or suitable nesting sites.

For these reasons, the proposed Mission Village, in combination with other present and foreseeable future projects, is not expected to result in a potential significant cumulative impact to this species due to the loss of foraging habitat.

The risk of direct injury or mortality of individual California condors due to construction activities associated with present and reasonably foreseeable projects, including the proposed Mission Village project, is low. However, construction debris, litter, leaking equipment, or road kill can attract this species to construction sites. This could subject condors to strikes by construction vehicles. Condors are curious birds and have been documented in close association with oil pumps and human activity on the Los Padres National Forest. During cleanup activities at trash sites, for example, condors have been observed sitting on guard rails adjacent to the cleanup activities. If individuals were injured or killed during construction activities, this could be a significant cumulative impact because the loss of any individuals of this species may reduce its chance for long-term survival in the wild. The contribution of the proposed Mission Village project to this potential significant cumulative impact could be cumulatively considerable, absent mitigation.

⁶⁰⁰ 42 FR 47840-47845.

⁶⁰¹ USFWS, *California Condor Recovery Plan* (Prepared by the USFWS in cooperation with the Recovery Team (S.R. Wilbur, D. Esplin, R.D. Mallette, J.C. Borneman, and W.H. Radtkey), 1980).

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects in the SCRW, including the proposed Mission Village project, also could result in secondary effects to the California condor. Adverse secondary effects to condors may occur as a result of the animal's collection of microtrash (i.e., broken glass, paper and plastic waste, small pieces of metal). This waste is often brought back to nest sites where young birds ingest the material. This can possibly lead to mortality of young birds. Ethylene glycol, a component in antifreeze and petroleum products can also be ingested by condors, which could possibly result in injury or mortality. Secondary impacts related to phone towers, power lines, and utility poles, could increase the potential for collisions; increased microtrash within residential and commercial areas, which has been known to attract and be ingested by California condors, causing sickness or possibly mortality; and the presence of various contaminants, such as radiator fluid, which have been known to be ingested by California condors, causing sickness or possibly mortality. At the watershed level these secondary effects could be a potential significant cumulative effect. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The California condor sporadically forages in the RMDF/SCP project area, potentially including the Mission Village project site, and possibly in other present and foreseeable future project sites, but nesting is not expected to occur. Nest habitat typically includes cliff faces and, occasionally, large tree snags with cavities. Condors are not expected to nest on the Mission Village project site or in the larger RMDF/SCP project area due to the general lack of adequate nesting habitat. Other past, present, and reasonably foreseeable projects also tend to be located in the lower elevations of the watershed that lack these necessary microhabitat features. It was determined above that the loss of habitat resulting from present and foreseeable future projects, including the proposed Mission Village project, would not be a significant cumulative impact. Potential foraging habitat is present in the upper regions of the High Country SMA/SEA 20 and Salt Creek area but would not be affected by the proposed Mission Village project or broader buildout of the Specific Plan, VCC, or Entrada planning areas. The mitigation required by the Newhall Ranch Specific Plan Program EIR and the mitigation measures recommended by this EIR would result in a large, managed open space system (**subsection 4.3.10, Project Mitigation Measures**). Generally, protection, restoration and enhancement, and management habitat in the High Country SMA/SEA 20 and Salt Creek area would provide California condors with a large tract (5,720 acres) of relatively undisturbed habitat suitable for foraging. Although the number of cattle would be reduced in the project vicinity ongoing resource management using cattle would occur and deer herds would continue to use the High Country SMA/SEA 20 and Salt Creek area, providing foraging opportunities for condors.

To reduce or avoid potential construction-related injury or mortality of individuals, the Applicant would implement measures during construction to monitor for the presence of birds, and collect all litter, small items, vehicle fluids, and food waste from the Mission Village project site on a daily basis. Workers would be trained on the issue of microtrash; what it is, its potential effects to California condors, and how to avoid the deposition of microtrash. In the event California condors are observed landing in the construction area, all work activities shall be suspended until the bird has left the area.

To reduce long-term secondary impacts, limited recreational usage and access restrictions within the High Country SMA/SEA 20, control of pets in or near open space areas, trail signage, and homeowner education regarding special-status resources in preserved natural habitat areas would help protect California condors foraging in the High Country SMA/SEA 20 and Salt Creek area. Installation of new or relocation of existing phone and cell towers, power lines, and utility poles in the High Country SMA/SEA 20 and Salt Creek area would be coordinated with CDFG and structures would be designed in accordance with Avian Power Line Interaction Committee guidelines⁶⁰² and operated with anti-perching devices to help reduce collisions and electrocutions of California condors.

In addition to these mitigation measures which would reduce project-related construction and long-term impacts to California condor and provide foraging opportunities in the project vicinity (although on a more limited scale than currently exists), this species has an extremely large foraging range that spans the SCRW and beyond. California condors are frequently observed in National Forest system lands, but individuals opportunistically forage on dead cattle on large cattle ranches within the SCRW, including Newhall Ranch.⁶⁰³

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Coastal California Gnatcatcher (FT). Resident breeding populations of the coastal California gnatcatcher on the Mission Village project site or within the larger RMDP/SCP project area have not been documented during USFWS protocol-level focused surveys conducted between 1995 and 2007; however, individual

⁶⁰² Avian Power Line Interaction Committee (APLIC), *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (Washington, D.C. and Sacramento, California: Edison Electric Institute, APLIC, and the California Energy Commission, 2006).

⁶⁰³ J. Grantham, personal communication regarding foraging activities of condor in the Santa Clara River watershed, from J. Grantham (USFWS) to C. Huntley (Aspen) (March 25, 2009).

birds have been observed twice in the RMDP/SCP project area during the course of biological monitoring. One observation was in October 2007 in the VCC planning area and the other in August 2008 east of the Del Valle Training Center (which is just outside the RMDP/SCP project boundary, north of SR-126 and west of Chiquito Canyon). In both cases, the observed birds were considered dispersing individuals because no breeding gnatcatchers have been observed in the RMDP/SCP project area and the observations were made when dispersal would be expected to occur. Generally, there are few documented coastal California gnatcatcher populations in the SCRW. In addition to the two individuals reported in the RMDP/SCP project area, there were occurrences of individuals approximately 6 miles to the east in Plum Canyon in 1999, Golden Valley Road in 2001, and Golden Valley Ranch in 1997 (**Figure 4.3-27, California Gnatcatcher Observations and Habitat within the Greater Newhall Ranch Region**). The nearest observation of a coastal California gnatcatcher pair (assumed breeding pair observed in 1999) is in Chivas Canyon 3.6 miles to the south, but that location is outside the SCRW boundary and on the southern side of the Santa Susanna Mountains. The nearest relatively large breeding population is in Moorpark (15 occurrences) outside the SCRW, about 12 miles to the southwest of the RMDP/SCP project area and south of the Santa Susana Mountains

Based on these observations, the coastal California gnatcatcher is considered to be an irregular visitor to the Mission Village project area and larger RMDP/SCP project area in association with dispersal. Although the Mission Village project site appears to provide habitat for dispersal and nesting has not been documented during protocol-level surveys, it is unknown whether the site could support nesting populations of coastal California gnatcatcher in the future (e.g., whether there could be colonization of the site by breeding individuals).

On December 19, 2007, the USFWS published the Revised Designation of Critical Habitat for the coastal California gnatcatcher.⁶⁰⁴ The Revised Designation reduced the final critical habitat designation by 298,492 acres compared to the 2003 Proposed Rule. The Revised Designation included a re-evaluation of Unit 13 (which included the RMDP/SCP project area, and the USFWS determined that the portions of the Santa Clarita Valley including the RMDP/SCP project area, are “not essential to the conservation of the coastal California gnatcatcher.”⁶⁰⁵ The USFWS determined that the excluded area does not have the spatial configuration and primary constituent elements essential to the conservation of the species. Designated critical habitat (Unit 13) extends north to the southern boundary of Newhall Land that includes the High Country SMA/SEA 20, but the nearest proposed development zone in Potrero Canyon is approximately 2.2 miles north of the critical habitat boundary. No recovery plan for the coastal California gnatcatcher has been published.

⁶⁰⁴ 72 FR 72009–72213.

⁶⁰⁵ 72 FR 72013.



FIGURE 4.3-27

Mission Village EIR

California Gnatcatcher Observations and Habitat within the Greater Newhall Ranch Region

Based on the California GAP data,⁶⁰⁶ there are approximately 174,000 acres of coastal scrub habitat that support, or have the potential to support, the coastal California gnatcatcher, at least during dispersal. Because of the few and scattered observations of the species in the SCRW, however, it is likely that the vast majority of coastal scrub habitat in the watershed is not used by the coastal California gnatcatcher. This vocal species is highly detectable within its breeding range, so most important breeding locations probably have been documented. In addition, especially in the higher elevations of the watershed, temperatures are, on average, much colder and conditions are wetter. Even in the main portion of this species' range in Southern California, 99 percent of occurrences are below 2,500 feet.⁶⁰⁷

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project, would cause the loss of approximately 20,000 acres of coastal scrub, although it is not expected that the coastal California gnatcatcher uses all of this habitat. Without accounting for past, present, or reasonably foreseeable mitigation, or the RMDP/SCP project's individual contribution to mitigation for loss of suitable habitat (including the proposed Mission Village project), this could be a significant cumulative impact on habitat that is suitable for the species. Because this federally-listed species occurs sporadically in the watershed and its selection of habitat for dispersal and potentially breeding in the SCRW is not understood, the relative value of coastal scrub habitat in the watershed for this species also is not known. Even a small loss of habitat in the SCRW, if located in a strategic area for dispersal or breeding, could have a substantial adverse effect on the coastal California gnatcatcher if it disrupted dispersal or breeding activities. The RMDP/SCP project's contribution to this potentially significant cumulative impact is 1,520 acres of coastal scrub, including approximately 667 acres of coastal scrub on the Mission Village project site, which would be permanently or temporarily disturbed. This contribution by the proposed Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects in the SCRW, including the proposed Mission Village project, could also result in long-term secondary impacts, including habitat fragmentation; wildfire; increased human activity; lighting; pesticides, which may cause secondary poisoning and loss of food resources; harassment by pet, stray, and feral cats and dogs and other mesopredators; and Argentine ants that may prey on nestlings. At the watershed level these secondary effects could be a significant cumulative effect. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

⁶⁰⁶ UCSB, *California Gap Analysis Project*.

⁶⁰⁷ 65 FR 63680.

Based on existing survey information, two dispersing coastal California gnatcatcher individuals have been documented in the RMDP/SCP project vicinity and nesting has not been observed. Approximately 154,000 acres of coastal scrub habitat would remain in the watershed, although how much of this habitat is suitable for dispersal or breeding is unknown. There is at least one breeding occurrence in the SCRW in Plum Canyon. In addition, mitigation required by the Newhall Ranch Specific Plan Program EIR and the mitigation measures recommended by this EIR would result in a large, managed open space system (**subsection 4.3.10**, Project Mitigation Measures). The RMDP/SCP project also includes large mitigation areas in the High Country SMA/SEA 20 and Salt Creek area that would conserve approximately 1,940 acres of coastal scrub and would allow for dispersal by coastal California gnatcatchers.

Long-term secondary impacts would be minimized through several mitigation measures in addition to the preservation of 1,940 acres of suitable habitat in the High Country SMA/SEA 20 and Salt Creek area. Lighting restrictions along the perimeter of natural areas would help reduce predation of nest sites by predators and reduce behavioral disturbances and physiological stress. Limited recreational usage and access restrictions within the High Country SMA/SEA 20; control of pet, stray, and feral cats and dogs in or near open space areas; trail signage; and homeowner education regarding special-status resources in preserved natural habitat areas would help protect coastal California gnatcatchers by allowing them to nest and forage without disturbance. Controls on pesticides would reduce the chance of direct and secondary poisoning and loss of food sources.

The coastal California gnatcatcher has not been observed nesting in the RMDP/SCP project area and only one breeding occurrence has been documented in the SCRW. Although suitable habitat is present in the RMDP/SCP project area, it is unknown why this species does not breed on site. Dispersal through the RMDP/SCP project area would not be precluded and this species is still relatively common in the main portion of its range, south of the RMDP/SCP project area.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

California Red-Legged Frog (FT). The California red-legged frog has not been observed on the proposed Mission Village project site or larger RMDP/SCP project area during the numerous wildlife surveys conducted since 1992. The species is believed to be absent from the Mission Village project region. The

San Marino Environmental Associates report⁶⁰⁸ states that Thomas Haglund observed red-legged frogs in the mid-1970s in the Santa Clara River at Fillmore and that “this may represent the last sighting of this species in the Santa Clara River.”⁶⁰⁹ The Museum of Vertebrate Zoology⁶¹⁰ lists 17 specimens from Soledad Canyon (Santa Clara River channel) in its collection from as recently as 1953 (more precise locality data are unavailable). The California Academy of Sciences⁶¹¹ also lists a Soledad Canyon specimen, from 1950. The nearest specific locality upstream of the Mission Village project area is approximately 15 miles away, near the confluence with Agua Dulce Creek. Jennings and Hayes⁶¹² and the CNDDDB indicate that this species still occurs in the SCRW in sites along San Francisquito Creek 5 to 10 miles northeast of the RMDP/SCP project area, and in tributaries to the Santa Clara River in Ventura County. The closest documented Ventura County occurrence is in Piru Creek 4.5 miles north of the community of Piru,⁶¹³ about 7 miles northwest of the RMDP/SCP project area. San Marino Environmental Associates⁶¹⁴ also cite a personal communication from Sam Sweet reporting sighting of red-legged frogs in Piru Creek, but no date for the observation(s) is provided. San Marino Environmental Associates⁶¹⁵ suggested that it probably has a low probability of colonizing the RMDP/SCP area because of the relatively long distances to extant occurrences within tributaries upstream and downstream of the RMDP/SCP area. No designated critical habitat units for the California red-legged frog include any portion of the proposed Mission Village project site or larger RMDP/SCP project area. The nearest critical habitat unit is upstream in the San Francisquito Creek (LOS-1) Unit, which is located approximately 5 miles northeast of the RMDP/SCP area. This distance, coupled with the existing stream conditions in San Francisquito Creek (i.e., dry gaps, absence of flowing water during most of the year), likely limit the potential for this species to disperse through RMDP/SCP area, including the Mission Village project site. Furthermore, existing hydrologic conditions in the Santa Clara River probably limit its potential to establish breeding sites in the River adjacent to the Mission Village project site. California red-legged frogs generally avoid large river channels with widely fluctuating flows, because such habitat usually

⁶⁰⁸ SMEA, *Sensitive Aquatic Species Survey*.

⁶⁰⁹ SMEA, *Sensitive Aquatic Species Survey*, 37.

⁶¹⁰ University of California, Berkeley, Online Data Access. Museum of Vertebrate Biology, <http://mvz.berkeley.edu/>. 2003.

⁶¹¹ California Academy of Sciences (CAS), California Academy of Sciences Department of Herpetology Collections Catalogue, 2003.

⁶¹² M.R. Jennings and M.P. Hayes, *Amphibian and Reptile Species of Special Concern in California* (Rancho Cordova, California, 1994).

⁶¹³ USFWS, *Biological Opinion for the Natural River Management Plan, Santa Clarita, Los Angeles County, California* (2002).

⁶¹⁴ SMEA, *Sensitive Aquatic Species Survey*.

⁶¹⁵ SMEA, *Sensitive Aquatic Species Survey*.

does not permit reproductive activity.⁶¹⁶ For example, episodic winter flooding typical of the Santa Clara River may dislodge egg masses. Further, fluctuating water levels before summer typical of the Santa Clara River could kill tadpoles before they could metamorphose. Given these characteristics, other portions of the Santa Clara River within the larger RMDP/SCP project area are also not expected to provide breeding habitat for the species.

Critical habitat was originally designated for the California red-legged frog in 2006,⁶¹⁷ but revised critical habitat was proposed in September 2008 to better characterize those areas containing essential features for the species.⁶¹⁸ Based on the proposed revised critical habitat designation, two critical habitat units are in the SCRW: the 4,231-acre San Francisquito Creek (LOS-1) Unit located approximately 5 miles northeast of the RMDP/SCP project area, and the 8,837-acre Piru Creek (VEN-2) Unit located 7 miles northwest of the RMDP/SCP project area. These two critical habitat units were not changed in the 2008 proposed revision. Three other critical habitat units were designated in Ventura County in the proposed revision: the 2,915-acre San Antonio Creek (VEN-1) Unit; the 5,000-acre Upper Las Virgenes Canyon (VEN-3) Unit; and the eastern portion of the 145,121-acre Upper Santa Ynez River and Matilija Creek, which overlaps with the western portion of Ventura County. These three other critical habitat areas are outside the SCRW. No designated critical habitat units for the California red-legged frog include any portion of the RMDP/SCP project site. The Recovery Plan for the Red-legged Frog was published by the USFWS on May 28, 2002.⁶¹⁹ In Recovery Unit 7, a core area is identified as the Ventura River-Santa Clara River. However, the portion of the Santa Clara River within the RMDP/SCP project area is not in this core area and is not included in the Recovery Plan.⁶²⁰

Although the SCRW, including the Mission Village project site, is within the potential distribution of the California red-legged frog, the species is not likely to colonize the project site because it has limited long-distance dispersal capabilities, the distances to extant upstream and downstream locations are relatively long, and existing hydrologic conditions are not conducive to breeding. However, for the purpose of this cumulative analysis, it is assumed that there is some potential for the species to use the Mission Village project site and larger RMDP/SCP project area for dispersal and breeding.

⁶¹⁶ M.P. Hayes and M.R. Jennings, "Habitat Correlates of Distribution of the California Red-Legged Frog (*Rana aurora draytonii*) and the Foothill Yellow-Legged Frog (*Rana boylei*): Implications for Management," in *Proceedings of the Symposium on the Management of Amphibians, Reptiles, and Small Mammals in North America*, technical coordinators R. Sarzo, K.E. Severson, and D.R. Patton (1988), 144–158.

⁶¹⁷ 71 FR 19244–19346.

⁶¹⁸ 73 FR 53492–53680.

⁶¹⁹ USFWS, *Recovery Plan for the California Red-Legged Frog (Rana aurora draytonii)* (Portland, Oregon: USFWS, Region 1, 2002).

⁶²⁰ USFWS, *Recovery Plan for the California Red-Legged Frog*.

Based on the California GAP data,⁶²¹ there are approximately 25,000 acres of riparian habitat in the SCRW. However, not all 24,000 acres support California red-legged frogs or could be reasonably expected to support them. As noted above, the documented distribution of the California red-legged frog in the SCRW is very scattered and confined to a few locations.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project (which encompasses the Mission Village project site), would cause the loss of 1,030 acres of 25,000 acres of riparian habitat. Without accounting for past, present, or reasonably foreseeable mitigation, or the RMDP/SCP project's individual contribution to mitigation for loss of riparian habitat, the loss of riparian habitat in the SCRW could result in a potential significant impact on potential habitat for the California red-legged frog. However, as described above, the permanent loss of riparian habitat from present and reasonably foreseeable projects would be reduced by CDFG and Corps mitigation requirements consistent with their policies for no net loss of wetlands (although net functions and values/services of wetland habitats may be reduced⁶²²). The RMDP/SCP project's contribution to this potentially significant cumulative impact is approximately 230 acres, including approximately 89 acres of riparian habitat on the Mission Village project site that would be permanently or temporarily disturbed. This contribution by the proposed Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects in the SCRW, including the proposed Mission Village project, could also result in potential long-term secondary effects, including increased human activity; habitat degradation and collection; lighting invasive species, including Argentine ant and invasive plants such as giant reed; pet, stray, and cats and feral dogs; vehicle collisions; and use of pesticides. At the watershed level these secondary effects could be a significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

Both the Newhall Ranch Specific Plan Program EIR and this EIR recommend extensive mitigation measures that protect riparian habitat and establish a large, managed open space system (**subsection 4.3.10, Project Mitigation Measures**). These measures would reduce impacts to the California red-legged frog, if it were to colonize the Mission Village project area in the future. These mitigation measures include preservation, restoration, and enhancement of riparian and wetland habitat. Large areas of

⁶²¹ UCSB, *California Gap Analysis Project*.

⁶²² Ambrose, Callaway, and Lee, *An Evaluation of Compensatory Mitigation Projects Permitted Under Clean Water Act Section 401 by the California State Water Quality Control Board, 1991–2002*.

suitable habitat for this species would be protected in the River Corridor SMA/SEA 23. The Floodplain Hydraulics Impacts Assessment⁶²³ found that there would be no significant impacts in water flows, velocities, depth, sedimentation, or floodplain and channel conditions downstream of the Mission Village project area over the long term as a result of the proposed project improvements (although, as noted above, existing hydrologic conditions probably are not conducive to breeding by this species).

The River Corridor SMA/SEA 23 would provide a large, protected open space area that would help also offset long-term secondary impacts. Several specific mitigation measures would also be implemented to control human activities in the River Corridor SMA/SEA 23, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. All lighting along the open space-urban interface would be downcast. Pesticides would be controlled through an integrated pest management (IPM) plan. Argentine ant invasions of upland habitats in the open space system would be monitored and controlled to the extent feasible. Implementation of these measures would allow this species to persist on site after development in the River Corridor SMA/SEA 23 if it were to colonize the site in the future.

In addition to these measures, which would reduce project-related impacts to this species, California red-legged frog has not been documented within the Mission Village project site or larger RMDP/SCP area and the nearest known occurrences are 5 and 7 miles away from the RMDP/SCP project area, respectively.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Golden Eagle (CFP). The golden eagle has been occasionally observed during the annual bird surveys conducted from 1988 through 2008 along the Santa Clara River within the riparian scrub and woodland habitat in the RMDP/SCP project area. Off site, this species was observed along the Santa Clara River east and west of the RMDP/SCP area. No nesting has been observed on the Mission Village project site or within the RMDP/SCP project area. In winter 2008, one juvenile and one pair was seen in upper Potrero Canyon west of the Mission Village project site, and it is believed that this is likely a resident pair, but no nest site has been identified to date.⁶²⁴ In addition, in March 2008 a helicopter survey was conducted

⁶²³ PACE, *Floodplain Hydraulics Impacts Assessment - Santa Clara River*.

⁶²⁴ Bloom Biological, Inc., *Interim Report of Winter Surveys*.

over Newhall Land property to search for raptor nests on cliffs and in steep canyons, with the focus on upland areas of the ranch. One active golden eagle nest was located off Newhall Land property on a north-facing cliff at the top of Dewitt Canyon, which is a drainage off Pico Canyon. In fall 2008 two golden eagles were observed resting on a rugged outcrop in the upper portion of the Salt Creek area in Ventura County.⁶²⁵ The CNDDDB contains three records for past nest sites for the golden eagle in Los Angeles County and two records for Ventura County, but none of the occurrences are in the SCRW—four of the five are in the Santa Monica Mountains and one is in the Tehachapi Mountains. The SCRW supports a large amount of potential nesting and foraging habitat for the golden eagle, especially in the Los Padres National Forest, and in the RMDP/SCP area, within the preserved areas of the High Country SMA/SEA 20 and Salt Creek area.

Based on the California GAP data,⁶²⁶ within the SCRW there are approximately 257,000 acres of suitable nesting and foraging habitat (California annual grassland, agriculture, disturbed land, coastal scrub, and oak woodland) for the golden eagle, although it cannot be assumed that golden eagles actually use all 257,000 acres. Foraging territories are related to nest locations, prey density and availability, and the openness of terrain. Even though home ranges, which probably reflect an individual's total foraging territory, can be large, individuals focus their activity in a smaller core area that provide these resources.⁶²⁷ Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP area (which encompasses the Mission Village project site), would cause the loss of approximately 24,000 acres of 257,000 acres of suitable nesting and foraging habitat. It is assumed for this analysis that some of this habitat could occur in core activity areas, the loss of which could alter the individual's use of its territory and potentially cause nest abandonment. Without accounting for past, present or reasonably foreseeable mitigation (particularly for upland habitats), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of habitat in the SCRW potentially would result in a potential significant cumulative impact on suitable habitat for the golden eagle. The RMDP/SCP project's contribution to this potentially significant cumulative impact is 4,905 acres, including approximately 1,356 acres on the Mission Village project site that would be permanently or temporarily disturbed. This contribution by the proposed Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

⁶²⁵ D. Bedford, "Eagle Sightings in High Country," email from D. Bedford (CDFG) to C. Huntley (Aspen), P. Behrends (Dudek), and Matt Carpenter (Newhall Land) (March 5, 2009).

⁶²⁶ UCSB, *California Gap Analysis Project*.

⁶²⁷ J.M. Marzluff et al., "Spatial Use and Habitat Selection of Golden Eagles in Southwestern Idaho," *Auk* 114 (1997), 673–687.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects in the SCRW, including the proposed Mission Village project, also could result in potential long-term secondary effects, including an increased potential for collisions with phone towers, power lines, and utility poles, resulting in physical injury or death as a result of the collision or from electrocution. Reproductive success also could be affected by increased noise; lighting; pesticides that may cause secondary poisoning and loss of prey; human disturbances of nest sites; and pet, stray, and feral cats and dogs. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The mitigation required by both the Newhall Ranch Specific Plan Program EIR and the mitigation measures recommended by this EIR (**subsection 4.3.10**, Project Mitigation Measures) would result in a large, managed open space system comprised of the High Country SMA/SEA 20, Salt Creek area, and River Corridor SMA/SEA 23 that provides approximately 4,070 acres of suitable foraging and nesting habitat for the golden eagle. This open space system would also help protect the golden eagle from long-term secondary impacts, such as collisions with phone towers, power lines, and utility poles, and “edge effects” caused by human activity. Several specific mitigation measures for long-term secondary effects would also be implemented. Lighting restrictions along the perimeter of natural areas would help reduce impacts to potential nest sites. Limited recreational usage and access restrictions within the High Country SMA/SEA 20, control of pet, stray, and feral cats and dogs in or near open space areas, trail signage, and homeowner education regarding special-status resources in preserved natural habitat areas would help protect golden eagles during foraging activities and potential nest sites. Controls on pesticides (including rodenticides) would reduce the chance of accidental poisoning and potential loss of prey. Installation of new or relocation of existing phone and cell towers, power lines, and utility poles in the High Country SMA/SEA 20 and Salt Creek area would be coordinated with CDFG and structures would be designed in accordance with Avian Power Line Interaction Committee guidelines⁶²⁸ and operated with anti-perching devices to help reduce collisions and electrocutions of golden eagles.

In addition to these measures, which would reduce project-related impacts to this species, golden eagle is known to occur within much of the watershed, including National Forest system lands. While this species has not been documented to nest within the RMDP/SCP project area, the RMDP/SCP project would not impede use of the High Country SMA/SEA 20 and Salt Creek area or other open space within the watershed for foraging or nesting.

⁶²⁸ APLIC, *Avian Protection on Power Lines*.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Least Bell's Vireo (FE, CE). The least Bell vireo's breeding distribution extends to eight California counties: Imperial, Kern, Los Angeles, Riverside, Santa Barbara, San Bernardino, San Diego and Ventura.⁶²⁹ About half of the least Bell vireo in California occur at Camp Pendleton in San Diego County.⁶³⁰ The least Bell's vireo nests in moderate numbers in the SCRW. The USFWS⁶³¹ conducted a 5-year status review of the least Bell's vireo that compiled comprehensive survey data for 5-year increments from 1977 to 2005, and from which the USFWS estimated least Bell's vireo territories.⁶³² An estimated 173 territories occurred in Los Angeles and Ventura counties as of 2006, which accounted for about 6 percent of the estimated total of 2,968 territories in California (**Table 4.3-25**).⁶³³ Of the 173 territories in Los Angeles and Ventura counties, 119 (69 percent) occur in the Santa Clara River population unit identified in the Draft Recovery Plan.⁶³⁴ Annual survey data have been collected for the least Bell's vireo along the Santa Clara adjacent to and in the vicinity of the Mission Village project site between 1988 and 2007. Regularly surveyed areas include the Specific Plan and VCC planning areas and a portion of the Entrada planning area, as well as adjacent areas of Newhall Land property from the Las Brisas Bridge crossing on the west in Ventura County to I-5 on the east. Least Bell's vireo, including breeding pairs, territorial males, and/or nests, have been observed almost every year along the Santa Clara River within the Specific Plan area, and over multiple years within the VCC planning area and adjacent to the RMDP/SCP project area in Castaic Junction in riparian scrub habitat (**Figure 4.3-28, Least Bell's Vireo Critical Habitat in Santa Clara River Critical Habitat Unit**). While consistently observed between 1988 and 2007, vireos exhibit annual fluctuations in levels of occupancy and breeding activity in the Santa Clara River. There is one least Bell's vireo occurrence in the Santa Clara River between Middle Canyon and Dead-End Canyon from the 2004-

⁶²⁹ CDFG, *The Status of Rare, Threatened, and Endangered Plants and Animals of California 2000–2004*.

⁶³⁰ CDFG, *The Status of Rare, Threatened, and Endangered Plants and Animals of California 2000–2004*.

⁶³¹ USFWS, *Least Bell's Vireo (Vireo bellii pusillus), 5-Year Review Summary and Evaluation* (Carlsbad, California: USFWS, Carlsbad Fish and Wildlife Office, 2006).

⁶³² It should be noted that these data represent a minimum estimate of least Bell's vireo territories because they are a composite of multiple surveys covering different reaches and may exclude large stretches of suitable habitat that were not surveyed ("*USFWS, Least Bell's Vireo, 5-Year Review Summary and Evaluation*"); in other words, these data do not represent a single snapshot of the entire occupied vireo range.

⁶³³ USFWS, *Least Bell's Vireo, 5-Year Review Summary and Evaluation*.

⁶³⁴ USFWS, *Draft Recovery Plan for the Least Bell's Vireo (Vireo bellii pusillus)* (Portland, Oregon: USFWS, Region 1, 1998).

2007 survey period and several occurrences in the River northeast of Airport Mesa to I-5. While the Mission Village project site supports potential riparian nesting habitat for least Bell's vireo, the large majority of this potential habitat, primarily southern cottonwood-willow riparian, is within the Santa Clara River portion of the site and would not be developed or directly disturbed. The riparian vegetation within the tributaries on the project site subject to development is less suitable as nesting habitat for this species because the riparian zones tend to be narrower (i.e., smaller patch sizes). This is illustrated in **Figure 4.3-4-A3** where a narrow, linear patch of southern cottonwood-willow riparian extends into the lower portions of Middle Canyon, compared to the wide swaths of the riparian in the Santa Clara River.

Table 4.3-25
Estimate of Least Bell's Vireo Territories by County¹

Estimate of Least Bell's Vireo Territories (and Percentage of the Total Population) for a Given Range of Years²					
County	1977–1985³	1986–1990	1991–1995	1996–2000	2001–2005
San Diego ⁴	223 (77%)	401 (76%)	1,118 (78%)	1,899 (76%)	1,609 (54%)
Riverside ⁵	29 (10%)	50 (9%)	223 (16%)	395 (16%)	898 (30%)
Orange	1 (<1%)	3 (1%)	16 (1%)	68 (3%)	177 (6%)
San Bernardino	0 (0%)	2 (<1%)	5 (<1%)	20 (1%)	87 (3%)
Los Angeles	6 (2%)	1 (<1%)	4 (<1%)	13 (1%)	56 (2%)
Ventura ⁶	5 (2%)	8 (2%)	35 (2%)	86 (3%)	117 (4%)
Santa Barbara ⁷	26 (9%)	57 (11%)	32 (2%)	12 (<1%)	12 (<1%)
Inyo	0 (0%)	4 (1%)	5 (<1%)	0 (0%)	11 (<1%)
Kern	0 (0%)	0 (0%)	1 (<1%)	0 (0%)	0 (0%)
Monterey	0 (0%)	3 (1%)	0 (0%)	0 (0%)	0 (0%)
San Benito	1 (<1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Stanislaus	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (<1%)
Total	291	529	1,439	2,493	2,968
<i>Percent Increase from Previous Period</i>	—	82%	172%	73%	20%
<i>Percent Increase since Listing</i>	—	82%	394%	753%	920%

¹ Reproduced from USFWS, *Least Bell's Vireo, 5-Year Review Summary and Evaluation*.

² Estimates based on composite of surveys across the specified range of years.

³ From the original listing (51 FR 16474).

⁴ Approximately 50 percent or greater from Camp Pendleton.

⁵ Approximately 90 percent or greater from the Santa Ana River and its tributaries.

⁶ Approximately 90 percent or greater from the Santa Clara River.

⁷ Approximately 90 percent or greater from the Santa Ynez River.

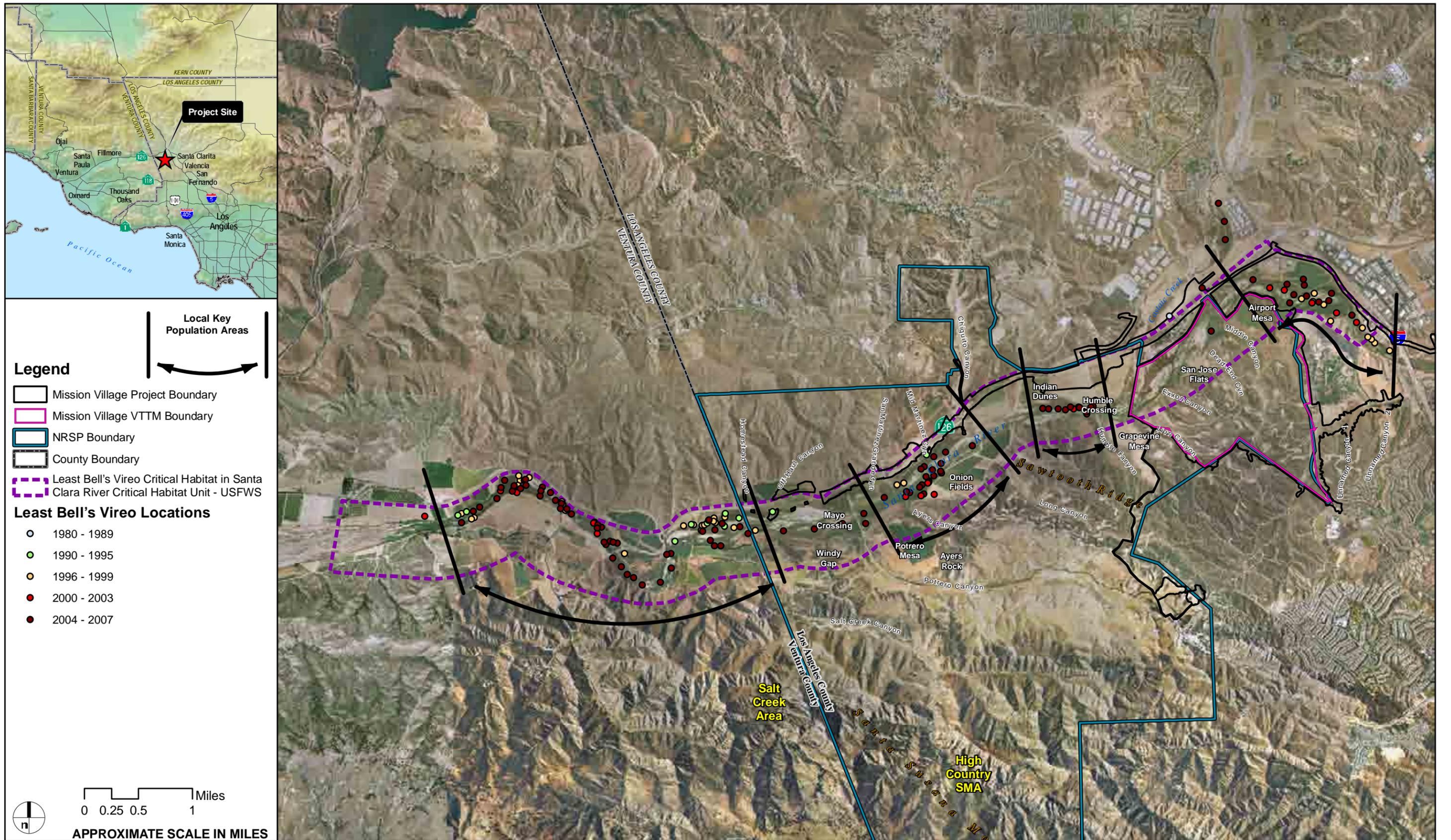


FIGURE 4.3-28

Mission Village EIR

Least Bell's Vireo Critical Habitat in Santa Clara River Critical Habitat Unit

The USFWS made a final critical habitat designation for the least Bell's vireo on February 2, 1994.⁶³⁵ The USFWS vireo critical habitat designation covers approximately 38,000 acres at 10 different locations in six counties in Southern California: Santa Barbara, Ventura, Los Angeles, San Bernardino, Riverside, and San Diego. The RMDP/SCP project site includes a portion of the Santa Clara River critical habitat unit located in Ventura and Los Angeles counties (**Figure 4.3-28**). The Santa Clara River unit includes all land within a 3,500-foot-wide zone along the Santa Clara River south of State Route 126 (SR-126) from a point approximately 2.3 miles east of the intersection of Main Street and SR-126 in Piru on the west to the intersection of SR-126 and The Old Road and eastward and southward along The Old Road to its intersection with Rye Canyon Road. The Santa Clara River critical habitat unit comprises approximately 4,410 acres (approximately 12 percent) of the total 38,000 acres of least Bell's vireo critical habitat. Of this, least Bell's vireo critical habitat within the RMDP/SCP project area totals 2,252 acres (**Figure 4.3-28**). However, 405 acres of the 2,252-acre least Bell's vireo critical habitat designation within the RMDP/SCP project area consists of primary constituent elements of vireo critical habitat.

A Draft Recovery Plan for the Least Bell's Vireo (*Vireo bellii pusillus*) was published by the USFWS in 1998.⁶³⁶ The recovery strategy focuses on two major causes of decline of the species: (1) habitat loss and degradation, and (2) brown-headed cowbird parasitism. The Draft Recovery Plan identified 14 vireo "population/metapopulation units," including the Santa Clara River population unit. The Draft Recovery Plan does not identify the geographic limits of the Santa Clara population unit, simply stating that "habitat for the [vireo] occurs in patches along much of the river, with location and quality varying from year to year as conditions in the river change following winter storm events."⁶³⁷

Fourteen federal biological opinions were issued for the least Bell's vireo between 1993 and 2006 in the SCRW (**Table 4.3-19**). CDFG has recently issued four take authorizations for least Bell's vireo in the general regional vicinity of the RMDP/SCP project (**Table 4.3-20**).

Based on the California GAP data,⁶³⁸ there are approximately 25,000 acres of riparian habitat in the SCRW. However, not all 25,000 acres support least Bell's vireos or could be reasonably expected to support them. Because the vireo primarily is limited to the Santa Clara River within the watershed, it is likely that a relatively large proportion of riparian habitat in the SCRW is not occupied because it does not support the primary constituent elements of vireo habitat. As described above, the reach of the Santa

⁶³⁵ 59 FR 4845.

⁶³⁶ USFWS, *Draft Recovery Plan for the Least Bell's Vireo*.

⁶³⁷ USFWS, *Draft Recovery Plan for the Least Bell's Vireo*, 58.

⁶³⁸ UCSB, *California Gap Analysis Project*.

Clara River within the RMDP/SCP area consistently has supported a breeding population since surveys began in 1988 and is designated critical habitat for this species.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project, (encompassing the Mission Village project site) would cause the loss of 1,030 acres of the 25,000 acres of riparian habitat within the watershed; however, the proportion of occupied least Bell's vireo habitat that could be impacted by development is probably substantially higher because most occupied habitat is probably in the Santa Clara River and the larger tributaries where development pressure is higher. Smaller and more remote drainages that support riparian habitat, but which is less likely to be occupied by the vireo, probably are under less development pressure. Without accounting for past, present or reasonably foreseeable mitigation, or the RMDP/SCP project's individual contribution to mitigation for loss of riparian habitat, the loss of 1,030 acres of riparian habitat in the SCRW could be a significant cumulative impact on potential habitat for the least Bell's vireo. However, as described above, the permanent loss of riparian habitat from past, present, and reasonably foreseeable cumulative development would be reduced by CDFG and Corps mitigation requirements consistent with their policies for no net loss of wetlands (although net functions and values/services of wetland habitats may be reduced⁶³⁹). The RMDP/SCP project's contribution to this potentially significant cumulative impact is approximately 230 acres, including approximately 5 acres of permanent disturbance and 25 acres of temporary disturbance of southern willow scrub and southern cottonwood-willow riparian on the Mission Village project site. This contribution by the proposed Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects in the SCRW, including the proposed Mission Village project, also could result in potential long-term secondary effects, including nest parasitism by cowbirds; traffic noise; nighttime illumination; increased human activity; pesticide use resulting in loss of prey and/or secondary poisoning; harassment and predation by pet, stray, and feral cats and dogs; and increased predation by mesopredators. Habitat quality for the least Bell's vireo could be reduced by diminished water quality and invasion by exotic plant species. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

⁶³⁹ Ambrose, Callaway, and Lee, *An Evaluation of Compensatory Mitigation Projects Permitted Under Clean Water Act Section 401 by the California State Water Quality Control Board, 1991–2002.*

The mitigation measures required by both the Newhall Ranch Specific Plan Program EIR and the mitigation measures recommended in this EIR (**subsection 4.3.10**, Project Mitigation Measures) would protect riparian habitat and establish a large, managed open space system, all of which would reduce impacts to the least Bell's vireo. This mitigation would result in the preservation and management of at least 332 acres of suitable habitat, primarily in the River Corridor SMA/SEA 23, that would be available for future breeding populations of least Bell's vireo. These mitigation measures also include restoration and enhancement of riparian and wetland habitat. Specific measures to reduce secondary impacts include controls on public access; invasive species controls; conformance with permits from federal and state agencies for impacts to wetlands and water quality (i.e., NPDES and section 401 Permits); lighting controls; pesticides controls; and cowbird trapping.

In addition to site-specific mitigation measures, and mitigation anticipated for other present and reasonably foreseeable project impacts to achieve the no net loss of riparian acreage, recent population estimates for the vireo indicate that the breeding populations are expanding both in range and size as a result of restoration and enhancement of riparian habitat and management of brown-headed cowbirds.⁶⁴⁰ Within the watershed breeding vireo occur both upstream and downstream of the Mission Village project site and larger RMDP/SCP area in areas that would not be subject to disturbance of present and reasonably foreseeable projects.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Ringtail Cat (CFP). The ringtail cat was not observed on the Mission Village site or larger RMDP/SCP area during track/scent station monitoring for mammals or during numerous wildlife surveys conducted in the Specific Plan area. The nearest recent documented occurrence of ringtail cat is a 2007 observation in Elderberry Canyon approximately 0.5 mile above Castaic Dam in a narrow, rocky canyon.⁶⁴¹ There are also two recorded occurrences of ringtail cat in Los Angeles County: in the Santa Monica Mountains and on the southern flank of the San Gabriel Mountains.⁶⁴² If this species occurs in the SCRW, it is most likely to occur in canyons and ravines associated with water sources and riparian and woodland habitats,

⁶⁴⁰ USFWS, *Least Bell's Vireo, 5-Year Review Summary and Evaluation*.

⁶⁴¹ C. Huntley, "Re: Rare plant locations for *Juncus* and ringtail," email from C. Huntley (Aspen) to M. Carpenter (Newhall Land) (January 19, 2009).

⁶⁴² L. Belluomini, "Status of Ringtail in California," (California Department of Fish and Game, 1980).

including lower elevation oak woodlands, higher elevation coniferous forests, and juniper and pinyon woodlands.

Based on the California GAP data,⁶⁴³ habitat within the SCRW considered suitable for ringtail cats consists of approximately 25,000 acres of riparian habitat. However, habitat used by ringtail cats is strongly associated with microhabitats that include perennial water sources, rocky outcrops in canyons, tree cavities, etc. Although there have been few observations of ringtail cats in the region, this species could occur within suitable habitat within the watershed. It is likely that most of this potentially suitable habitat is not occupied, probably due to a lack of the microhabitat elements necessary for occupation, such as permanent water sources.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project, would cause the loss of 1,030 acres of 25,000 acres of riparian habitat. Without accounting for past, present or reasonably foreseeable mitigation, or the RMDP/SCP project's individual contribution to mitigation for loss of riparian habitat, the loss of 1,030 acres of riparian habitat in the SCRW could be a significant cumulative impact on potential habitat for the ringtail cat. The RMDP/SCP project's contribution to this potentially significant cumulative impact is approximately 230 acres, including approximately 89 acres of riparian habitat on the Mission Village project site that would be permanently or temporarily disturbed. This contribution by the proposed Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, also could result in potential long-term secondary effects including increased human activity; habitat fragmentation; increased vehicle collisions; nighttime lighting; increased predation; and pesticides. If the ringtail were present, at the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The mitigation measures required by both the Newhall Ranch Specific Plan Program EIR and the mitigation measures recommended by this EIR (**subsection 4.3.10**, Project Mitigation Measures) would reduce these impacts to a less than significant level. Specifically, approximately 1,170 acres of potentially suitable habitat for this species would be preserved and managed in a large open space system composed of the River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek area. Not all 1,170 acres of potentially suitable habitat would contain the microhabitats typically used by the ringtail, but if the

⁶⁴³ UCSB, *California Gap Analysis Project*.

species is present on site, it would be within the 1,170 acres. Several specific mitigation measures would also be implemented to reduce potential long-term secondary effects, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. Pesticides, including rodenticides, would be controlled through an integrated pest management (IPM) plan.

In addition to these measures, which reduce project-related impacts, this species has not been identified on the Mission Village project site or within the larger RMDP/SCP area and is not expected to occur on the project site. Ringtail cat is expected to occur within the SCRW, but only in association with its required microhabitats. Where this species has been observed within the SCRW, it occurs within National Forest system lands.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Southern Steelhead (FE). The range of the southern steelhead is from the Santa Maria River along the San Luis Obispo-Santa Barbara County line in the north to the Tijuana River just north of the U.S.-Mexico border in the south. Its historic range within many of these coastal streams was limited by natural barriers, above which no known Southern California populations of native rainbow trout or steelhead previously existed. Definitive records of southern steelhead are not available for many of the small coastal streams within the Southern ESU; however, it is believed that most of the streams were inhabited by the species. The distribution of southern steelhead within the ocean is not well known, but some evidence indicates that they remain relatively close to the coast and even near the mouths of their natal streams which contrasts with other Pacific salmonid species that range widely in the ocean.⁶⁴⁴

The southern steelhead has been recorded within the last decade in Ventura County in the Santa Clara River and the Ventura River. Within the Santa Clara River drainage, southern steelhead historically inhabited Piru Creek, Sespe Creek, Santa Paula Creek, Hopper Creek, and possible Pole Creek.⁶⁴⁵ Presently, southern steelhead occur in the Santa Clara River watershed in Piru Creek between the confluence with the Santa Clara River and Santa Felicia Dam; in Sespe Creek; in Santa Paula Creek; and

⁶⁴⁴ National Marine Fisheries Service (NMFS), *Federal Recovery Outline for the Distinct Population Segment of Southern California Coast Steelhead* (NMFS, Southwest Regional Office, 2007).

⁶⁴⁵ Titus, Erman, and Snider, *History and Status of Steelhead*.

possibly Hopper and Pole Creeks.⁶⁴⁶ There is no historic record of steelhead use of the Santa Clara River or tributaries upstream of Piru Creek and the Dry Gap approximately 5 miles downstream of the RMDP/SCP area.

The southern steelhead was listed as federally endangered in 1997 in the Southern Evolutionarily Significant Unit (ESU) that extends from the Santa Maria River in the north southward to Malibu Creek without Critical Habitat.⁶⁴⁷ In 2002 the range of the Southern California ESU was extended south to the United States-Mexico Border.⁶⁴⁸ In 2005, USFWS issued a Final Rule designating Critical Habitat Designation for the Southern California Coast ESU.⁶⁴⁹ In 2006 the endangered status of the southern steelhead was re-affirmed for 10 Distinct Population Segment (DPS) of West Coast Steelhead.⁶⁵⁰

In the Santa Clara River watershed, designated critical habitat includes the Santa Clara River and its tributaries from Piru Creek (below Santa Felicia Dam) to the Santa Clara River confluence and downstream to the Pacific Ocean. The upstream extent of designated critical habitat is approximately 5 miles downstream of the RMDP/SCP area in Ventura County, California.

A Recovery Plan for southern steelhead, as required by the FESA, has not been published to date. However, a Southern California ESU recovery team has been formed and is currently working on a draft Recovery Plan for southern steelhead within the Santa Clara River and the Southern California ESU. In September 2007, a Federal Recovery Outline for the DPS of southern steelhead was released.⁶⁵¹

The project-level impacts analysis includes a characterization of existing habitat suitability along the Santa Clara River within the RMDP/SCP area. ENTRIX⁶⁵² conducted quantitative fish habitat surveys of the Santa Clara River and concluded that the channel in the RMDP/SCP reach of the River (including the portion of the River adjacent to the Mission Village project site) has very low gradient runs and riffles and is dominated by sandy substrate with little or no riparian canopy along the flowing stream. The southern steelhead is not expected to successfully spawn in this reach due to inadequate substrate material (e.g., lack of gravel for redd development) and sub-optimum water quality conditions related to wastewater outflows from upstream of the RMDP/SCP area reach. The habitat for southern steelhead in this reach of the River also lacks requisite channel structure and pool habitat necessary to support rearing. If the

⁶⁴⁶ Stoeker and Kelly, *Santa Clara River Steelhead Trout*.

⁶⁴⁷ 62 FR 43937-43954.

⁶⁴⁸ 67 FR 21586-21598.

⁶⁴⁹ 70 FR 37159-37204.

⁶⁵⁰ 71 FR 834.

⁶⁵¹ NMFS, *Federal Recovery Outline for Southern California Coast Steelhead*.

⁶⁵² ENTRIX, Inc., *Focused Special-Status Fish Species Habitat Assessment*.

southern steelhead could migrate into the RMDP/SCP area reach, requiring passage through the Dry Gap area (an area downstream of the Los Angeles County/Ventura County line where surface flows in the river are lost to the Piru groundwater basin), it would face significant challenges in successfully completing its life history cycle due to unsuitable River and tributary spawning and rearing habitat. For these reasons, the Mission Village project-level analysis was conducted under the assumption that southern steelhead and its habitat for spawning and rearing are not present in the larger RMDP/SCP area that encompasses the Mission Village project site, and thus concluded that impacts to southern steelhead spawning and rearing habitat would be less than significant for the Mission Village project. It was also concluded that no impacts to habitat would occur as a result of buildout of the Specific Plan, VCC, and Entrada areas. For these reasons, the proposed Mission Village project is not expected to contribute to a potential significant cumulative impact on habitat for steelhead in the SCRW that may occur as a result of downstream projects.

With respect to potential impacts on individuals, the project-level analysis assumed that vagrant southern steelhead could be found in the River adjacent to the Mission Village project site during surveys or fish exclusion activities prior to construction, although this event is considered to be very unlikely due to the lack of historical records for this species upstream of Piru and the Dry Gap. As noted above, these individuals would not be expected to spawn in the larger RMDP/SCP area. The impact to southern steelhead individuals resulting from the proposed Mission Village project, therefore, was determined to be less than significant. For these reasons, the RMDP/SCP project is not expected to contribute to a potential significant cumulative impact to individual steelhead that may occur as a result of downstream projects.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, could result in potential long-term secondary effects such as hydrologic, geomorphic, and water quality impacts. It was determined that the proposed Mission Village project has the potential to affect southern steelhead individuals and habitat downstream of the RMDP/SCP area through short- or long-term hydrologic, geomorphic, or water quality alterations of the River. These potential impacts include long-term effects associated with operation of RMDP facilities and buildout of the RMDP/SCP project area such as physical changes in the River and increased discharges. Specific impacts include alterations in base flows, timing and duration of flood flows, biochemical changes, condition and composition of the substrate, aquatic and riparian vegetation (including exotic species), and water temperatures, as well as increased pollutants from irrigation runoff and increased runoff from roadways. Additional secondary impacts associated with increased human presence include incidental litter and trash from recreation activity; impacts such as fecal material from pet, stray, and feral cats and dogs entering the aquatic system; and increased

predation by exotic predators, such as bullfrogs and non-native fish. However, due to the approximately 5-mile distance from documented occurrences of southern steelhead at Piru Creek and the intervening Dry Gap, these potential secondary effects would be substantially attenuated before they could affect any downstream habitat and individuals. Therefore, the proposed the Mission Village project is not expected have a considerably cumulatively contribution to potential significant secondary cumulative impacts in the SCRW.

Although the Mission Village project would not contribute to potential significant secondary impacts to the steelhead in the SCRW, and, therefore, no mitigation for secondary cumulative impacts is required, the combined mitigation required by the Newhall Ranch Specific Plan Program EIR and the mitigation measures recommended by this EIR (**subsection 4.3.10**, Project Mitigation Measures) would additionally reduce the potential for secondary impacts to southern steelhead and its habitat downstream of the Mission Village project site. Impacts such as increased chemical pollutants, sedimentation, and increased human activity would be mitigated by measures such as the protection and management of the River Corridor SMA/SEA 23, creation of buffer areas between the River Corridor SMA/SEA 23 and development, water quality requirements, and restrictions on public access. PACE⁶⁵³ found that there would be no significant impacts to water flows, velocities, depth, sedimentation, or floodplain and channel conditions downstream of the RMDP/SCP area over the long term as a result of RMDP/SCP project improvements. Furthermore, the Newhall Ranch Wastewater Reclamation Plant (WRP) would be a near-zero discharge facility, and only limited discharge from the WRP to the Santa Clara River would occur during the winter months. Based on an analysis of post-development conditions within the Dry Gap,⁶⁵⁴ it was determined that the future WRP discharge would not affect the seasonality (i.e., ephemeral nature) of flows through the Dry Gap.

Impacts to southern steelhead habitat and vagrant individuals and downstream secondary effects would be less than significant. Potential impacts would be further reduced by a set of mitigation measures for other special-status fish that occur in Santa Clara River adjacent to the Mission Village project site (arroyo chub, Santa Ana sucker, unarmored threespine stickleback) required by the Newhall Ranch Specific Plan Program EIR and recommended by this EIR (**subsection 4.3.10**, Project Mitigation Measures). Therefore, the proposed Mission Village project would not contribute to potential significant cumulative impacts to southern steelhead in the SCRW.

⁶⁵³ PACE, *Floodplain Hydraulics Impacts Assessment - Santa Clara River*.

⁶⁵⁴ GSI Water Solutions, Inc., *Assessment of Future Surface Water Conditions in the Dry Gap of the Santa Clara River* (2008).

Southwestern Willow Flycatcher/Willow Flycatcher (FE, CE). Breeding populations of the willow flycatcher exist in isolated meadows of the Sierra Nevada and along the Kern, Santa Margarita, San Luis Rey and Santa Ynez Rivers in Southern California.⁶⁵⁵ Breeding populations of the southwestern willow flycatcher exist in Kern, Santa Barbara and San Diego counties and several other locations in Southern California.⁶⁵⁶ Outside of California, breeding populations of the southwestern willow flycatcher exist in Arizona, Colorado, Nevada, New Mexico and Utah.⁶⁵⁷ The willow flycatcher has a sporadic breeding distribution throughout California, where three of the subspecies occur, including little willow flycatcher (*E. t. brewsteri*), *E. t. adastus* (which has no common name other than “willow flycatcher”), and southwestern willow flycatcher (*E. t. extimus*).⁶⁵⁸ The different subspecies of willow flycatcher each occupy distinct breeding ranges and have subtle differences in color and morphology.⁶⁵⁹ The southwestern willow flycatcher was formerly a common summer resident throughout California, but has been extirpated from most of its historical breeding range in the state. The smallest of the breeding populations consists of approximately five pairs and the largest is approximately 50 pairs. The number of southwestern willow flycatchers in California has been estimated at approximately 200, recorded at 22 locations within 13 drainages.⁶⁶⁰

The full species willow flycatcher has been detected almost every year within the River corridor in the RMDP/SCP project area during the focused bird surveys conducted from 1988 to 2007, but no nesting southwestern willow flycatchers have been confirmed on site. All of the observations of willow flycatchers within the region were determined to be migrants because they were only detected once and/or early in the breeding season and not during the June-July period when the southwestern willow flycatcher would be expected if nesting on site. The most recent nearby documented breeding locations for the southwestern willow flycatcher are from the Santa Clara River near Fillmore, downstream of the RMDP/SCP area. Two breeding pairs were observed in 2006 by J. Gallo, with one nest producing two successful fledglings and the other nest failing.⁶⁶¹ Currently, the RMDP/SCP project area, including the portion of the Santa Clara River adjacent to the Mission Village project site, appears to be a migratory

⁶⁵⁵ CDFG, *The Status of Rare, Threatened, and Endangered Plants and Animals of California 2000–2004*.

⁶⁵⁶ CDFG, *The Status of Rare, Threatened, and Endangered Plants and Animals of California 2000–2004*.

⁶⁵⁷ CDFG, *The Status of Rare, Threatened, and Endangered Plants and Animals of California 2000–2004*.

⁶⁵⁸ D. Craig and P.L. Williams, “Willow Flycatcher (*Empidonax traillii*),” California Partners in Flight Riparian Bird Conservation Plan, http://www.prbo.org/calpip/htmldocs/riparian_v-2.html; J.A. Sedgwick, “Willow Flycatcher (*Empidonax traillii*),” in *The Birds of North America*, ed. A. Poole and F. Gill (Philadelphia, Pennsylvania: The Birds of North America, Inc., 2000).

⁶⁵⁹ M.K. Sogge et al., *A Southwestern Willow Flycatcher Natural History Summary and Survey Protocol* (National Park Service, U.S. Department of the Interior, 1997).

⁶⁶⁰ D.M. Finch, J.F. Kelly, and J-L.E. Cartron, “Migration and Winter Ecology,” in *Status, Ecology, and Conservation of the Southwestern Willow Flycatcher*, ed. D.M. Finch (2000).

⁶⁶¹ Root, “Acknowledgement of Request for Formal Consultation.”

stop for one or more of the subspecies of willow flycatcher, but breeding populations of the southwestern willow flycatcher could expand to the RMDP/SCP project area in the future. While the Mission Village project site supports potential riparian nesting habitat for southwestern willow flycatcher, the large majority of this potential habitat, primarily southern cottonwood-willow riparian is within the Santa Clara River portion of the site and would not be developed or directly disturbed. The riparian vegetation within the tributaries on the project site subject to development is less suitable as nesting habitat for this species because the riparian zones tend to be narrower (i.e., smaller patch sizes). This is illustrated in **Figure 4.3-4-A3** where a narrow, linear patch of southern cottonwood-willow riparian extends into the lower portions of Middle Canyon, compared to the wide swaths of the riparian in the Santa Clara River.

On October 19, 2005, critical habitat was designated for the southwestern willow flycatcher.⁶⁶² Critical habitat in California is designated in Kern, Santa Barbara, San Bernardino, and San Diego counties, but there is no designated critical habitat in the SCRW. The Final Recovery Plan for the Southwestern Willow Flycatcher was published by the USFWS on August 30, 2002.⁶⁶³ The RMDP/SCP project area is located within the Coastal California Recovery Unit of the Final Recovery Plan, and establishment of new territories is part of the recovery criteria for the subspecies. Within the Santa Clara River, the reach from Bouquet Canyon Road to the Pacific Ocean, which crosses through the RMDP/SCP project area, has been identified as a Management Unit where recovery actions should be focused.⁶⁶⁴

Six federal biological opinions were issued for the southwestern willow flycatcher between 1993 and 2006 in the SCRW (**Table 4.3-19**). The CDFG has recently issued four take authorizations for southwestern willow flycatchers in the general regional vicinity of the RMDP/SCP project area (**Table 4.3-20**).

Based on the California GAP data,⁶⁶⁵ there are approximately 25,000 acres of riparian habitat in the SCRW that provide potential habitat for migrating and nesting willow flycatchers. However, not all 25,000 acres support willow flycatchers or southwestern willow flycatchers or could be reasonably expected to support them. Based on the few documented nesting locations in the SCRW, only a small proportion of this habitat would be expected to support nesting, probably due to a lack of constituent habitat elements necessary for this species. As noted above, within the vicinity of the RMDP/SCP area, breeding has been documented only in the Fillmore area, located approximately 13 miles to the west of the RMDP/SCP area. A larger proportion of this habitat is expected to support temporarily migrating birds based on the regular observation of migrating individuals in the RMDP/SCP area.

⁶⁶² 70 FR 60886-61009.

⁶⁶³ USFWS, *Southwestern Willow Flycatcher Recovery Plan* (Albuquerque, New Mexico: USFWS, 2002).

⁶⁶⁴ USFWS, *Southwestern Willow Flycatcher Recovery Plan*.

⁶⁶⁵ UCSB, *California Gap Analysis Project*.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project (which encompasses the Mission Village project site), would cause the loss of 1,030 acres of 25,000 acres of riparian habitat within the watershed; however, the proportion of habitat potentially used for migration and nesting that could be impacted by development is probably substantially higher because most of this potential habitat is probably in the Santa Clara River and the larger tributaries where development pressure is higher. Smaller and more remote drainages that support riparian habitat, but which is less likely to be used by the southwestern willow flycatcher/willow flycatcher, probably are under less development pressure. Without accounting for past, present or reasonably foreseeable mitigation, or the RMDP/SCP project's individual contribution to mitigation for loss of riparian habitat, the loss of 1,030 acres of riparian habitat in the SCRW could be a potential significant impact on potential habitat for the southwestern willow flycatcher/willow flycatcher. The RMDP/SCP project's contribution to this potentially significant cumulative impact is approximately 230 acres, including approximately 5 acres of permanent disturbance and 25 acres of temporary disturbance of southern willow scrub and southern cottonwood-willow riparian on the Mission Village project site. This contribution by the proposed Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, also could result in potential long-term secondary effects, include nest parasitism by cowbirds; traffic noise (southwestern willow flycatcher is unlikely to nest in close proximity to the bridge crossing of the Santa Clara River due to traffic noise); nighttime illumination; increased human activity; pesticide use resulting in loss of prey and/or secondary poisoning; harassment and predation by pet, stray, and feral cats and dogs; and increased predation by mesopredators. Habitat quality for the southwestern willow flycatcher/willow flycatcher could be reduced by diminished water quality and invasion by exotic plant species. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The Newhall Ranch Specific Plan Program EIR and this EIR recommend extensive mitigation measures that would protect riparian habitat and establish a large, managed open space system, all of which would reduce impacts to the southwestern willow flycatcher/willow flycatcher (**subsection 4.3.10**, Project Mitigation Measures). This mitigation would result in the preservation and management of at least 332 acres of suitable habitat, primarily in the River Corridor SMA/SEA 23, that would be available for migrating individuals and a breeding population of the southwestern willow flycatcher. These mitigation measures also include restoration, and enhancement of riparian and wetland habitat. Species measures to

reduce potential long-term secondary impacts include controls on public access, invasive species controls, conformance with permits from federal and state agencies for impacts to wetlands and water quality (i.e., NPDES and section 401 permits), lighting controls, pesticides controls, and cowbird trapping.

In addition to the measures described above, which reduce project-related impacts; this species has not been observed to breed in the RMDP/SCP area but is known to use the area as a migratory stop-over. Most of the recorded breeding populations of this species occur well outside of the watershed. While typical nesting habitat (structure of riparian canopy, separation from disturbance, etc.) associated with this species does not occur on the Mission Village project site or within the RMDP/SCP area, the documented occurrence of the breeding population downstream in the Fillmore area suggests that expansion of the breeding population to the Santa Clara River within the RMDP/SCP area, including the portion of the River adjacent to the Mission Village project site, could occur. Because of the extensive proposed riparian habitat mitigation, the proposed Mission Village project would not preclude the expansion of the breeding population onto the RMDP/SCP area.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Unarmored Threespine Stickleback (FE, CE, CFP). Unarmored threespine stickleback populations exist in five California counties: Los Angeles, San Bernardino, San Diego, San Luis Obispo, and Ventura.⁶⁶⁶ Surveys for the unarmored threespine stickleback over several years have documented the species within the Santa Clara River portion of the RMDP/SCP area. The unarmored threespine stickleback is confined to perennial aquatic habitat in the Santa Clara River, which comprises a small portion of the wetland/riparian habitat in the River and has high temporal variability. The RMDP/SCP project area is within the Del Valle Zone of the designated essential habitat for this species (**Figure 4.3-29, Habitat in RMDP/SCP for Unarmored Threespine Stickleback**).⁶⁶⁷ The species is known in two other areas of the SCRW that are also designated as essential habitat: San Francisquito Creek and Soledad Canyon.

⁶⁶⁶ CDFG, *The Status of Rare, Threatened, and Endangered Plants and Animals of California 2000–2004*.

⁶⁶⁷ USFWS, *Unarmored Threespine Stickleback Recovery Plan*; “essential habitat” is a term that appears in the USFWS’ 1985 Unarmored Threespine Stickleback Recovery Plan (Revised). It coincides with the area proposed in 1980 as unarmored threespine stickleback critical habitat (USFWS, *Unarmored Threespine Stickleback Recovery Plan*, 7). In 2002, USFWS determined that the 1980 proposed designation of unarmored threespine stickleback critical habitat should not be made final (67 FR 58580). As a result, the term “essential habitat” lacks any regulatory significance.

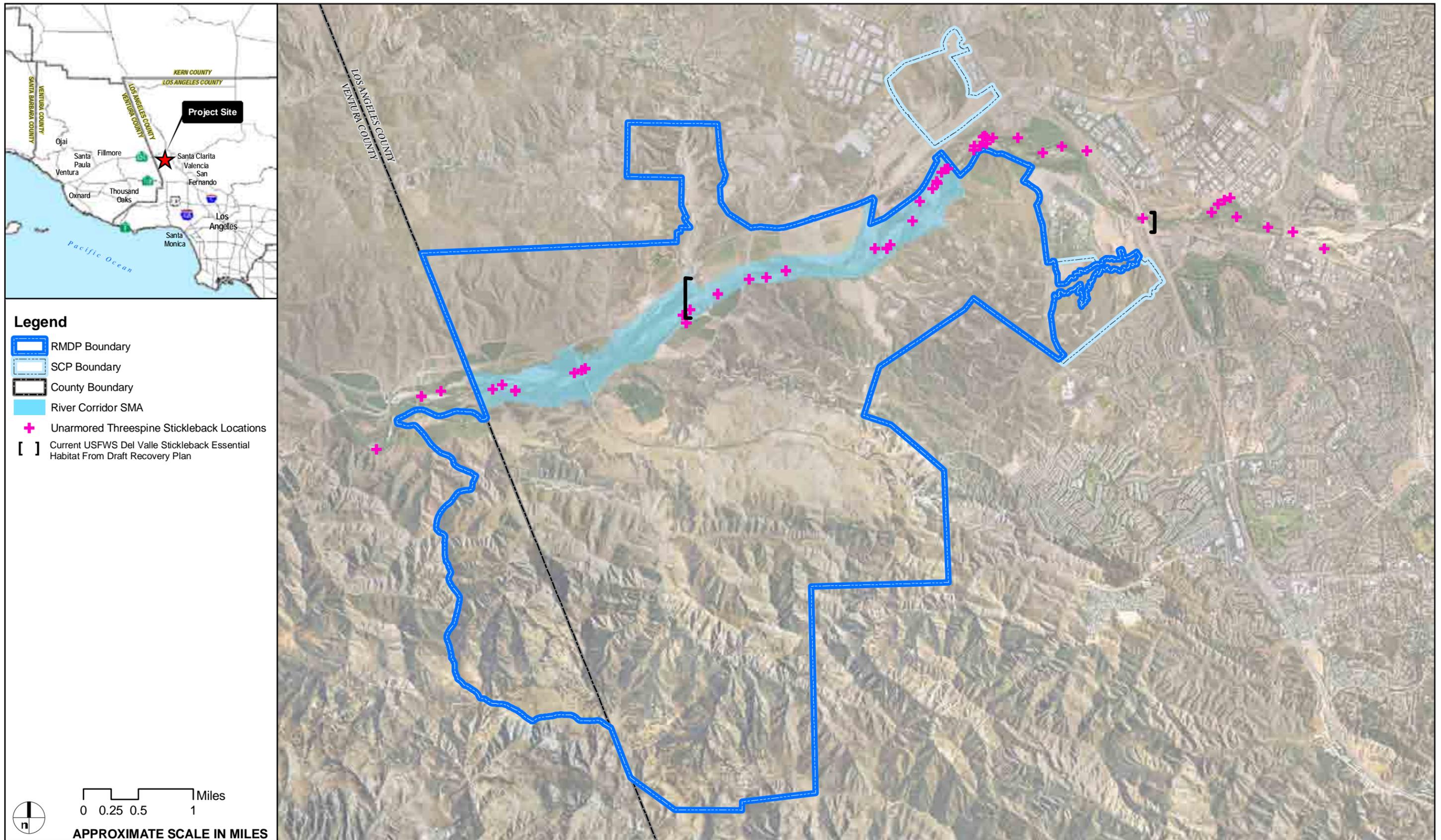


FIGURE 4.3-29

Mission Village EIR

Habitat in RMDP/SCP for Unarmored Threespine Stickleback

On November 17, 1980, the USFWS proposed designating approximately 51 kilometers (31.7 miles) of streams in Los Angeles and Santa Barbara counties as critical habitat for the unarmored threespine stickleback).⁶⁶⁸ However, on September 17, 2002, the USFWS determined that a designation of critical habitat for unarmored threespine stickleback should not be made,⁶⁶⁹ a determination that was upheld by the Ninth Circuit Court of Appeals in 2006.⁶⁷⁰

The Unarmored Threespine Stickleback Recovery Plan (Revised) was published by the USFWS on December 26, 1985.⁶⁷¹ The Recovery Plan designated three areas as very important for the survival and recovery of the species: (1) two disjunct reaches of the Santa Clara River in Los Angeles County; (2) a short reach of San Francisquito Canyon; and (3) and the lowermost 8.4 miles in San Antonio Creek in Santa Barbara County. One of the reaches in the Santa Clara River is the area from San Martinez Grande Canyon upstream to the I-5 bridge, which runs through the RMDP/SCP project area and is the same area proposed but later rejected as critical habitat.⁶⁷²

Thirteen federal biological opinions were issued for the unarmored threespine stickleback between 1993 and 2006 in the SCRW (**Table 4.3-19**). The CDFG has recently issued three take authorizations for other species in the general regional vicinity of the RMDP/SCP project, which authorizations also discussed, but did not authorize take of, unarmored threespine stickleback (**Table 4.3-20**).

Because the unarmored threespine stickleback is confined to perennial aquatic habitat in the Santa Clara River that is subject to high temporal variability, suitable aquatic habitat was not quantified for the purpose of the impact analysis in this EIR. ENTRIX⁶⁷³ concluded that no long-term, permanent significant effects on unarmored threespine stickleback habitat would occur as a result of implementation of the RMDP and buildout of the Specific Plan (including the Mission Village project site), VCC, and Entrada planning areas, because the general morphology of the Santa Clara River, adjacent rearing habitat, and high-flow riparian refugia would not be substantially altered. Further, there would be no impacts to unarmored threespine stickleback habitat resulting from impacts to tributaries to the Santa Clara River, due to the absence of unarmored threespine stickleback, perennial flows, and poor aquatic habitat quality. None of the tributaries have surface water connectivity with the Santa Clara River, except

⁶⁶⁸ 45 FR 76012.

⁶⁶⁹ 67 FR 58850–58582.

⁶⁷⁰ *Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv.*, 450 F.3d 930 (9th Cir. 2006).

⁶⁷¹ USFWS, *Unarmored Threespine Stickleback Recovery Plan*.

⁶⁷² 45 FR 76012; 67 FR 58850–58582.

⁶⁷³ ENTRIX, *Focused Special-Status Fish Species Habitat Assessment*.

for Middle and Potrero canyons, which have substantial blockages (bedrock headcuts or cascades) that are impassable to fish.⁶⁷⁴

Some temporary impacts to habitat would occur when construction occurs directly in aquatic habitat, such as the active stream channel. Bridge construction in particular could directly affect aquatic habitat occupied by unarmored threespine stickleback through direct impacts to the flowing stream, stream diversion, and dewatering when construction is occurring within the River corridor. However, such temporary impacts would not contribute to a potential significant cumulative effect of projects in the SCRW.

Construction-related impacts on individuals (including adults and juveniles), if not mitigated, could result in a cumulatively considerable contribution to a potential significant cumulative impact in the SCRW because of the local nature and vulnerability of this species in the Santa Clara River. However, the Newhall Ranch Specific Plan Program EIR mitigation measures, as well as the mitigation measures recommended in this EIR (**subsection 4.3.10**, Project Mitigation Measures), would reduce such impacts to less than significant. These measures include pre-construction surveys for any construction activity within 300 feet of river habitat to assure that stickleback are avoided or excluded, particularly during the sensitive periods such as spawning or when juvenile fish (fry) are present. These measures also specify the methods to be used for excluding stickleback, as well as how temporary diversion channels would be constructed to assure that adequate rearing habitat is present for stickleback during construction. These measures also employ provisions for constructing permanent and temporary stream crossings in the Santa Clara River in a manner that would allow for unimpeded movement upstream and downstream. Numerous water quality measures, such as construction stormwater BMPs (e.g., silt fencing, erosion control materials, sediment basins) and the installation of water quality treatment facilities are also included to minimize impacts from pollutants related to storm runoff during storm events.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the Mission Village project, also could result in potential long-term secondary effects, including potential physical changes in the River; altered base and flood flows; biochemical, substrate, and temperature alterations; vegetative changes (e.g., invasive plant species); increased human activity; impacts from pet, stray, and feral animals; and increased predation by exotic predators. Mitigation measures implemented to reduce these potential secondary impacts include protection and management of the River Corridor SMA/SEA 23; creation of buffer areas between the River Corridor SMA/SEA 23 and development, water quality requirements; restrictions on public access; controls on pet, stray and feral animals; and control on invasive predators such as bullfrog and African clawed frog. Mitigation measures related to hydrology and water quality will also ensure that potential impacts to any downstream populations of the unarmored threespine stickleback are not significant.

⁶⁷⁴ ENTRIX, *Focused Special-Status Fish Species Habitat Assessment*.

No long-term, permanent significant effects on unarmored threespine stickleback habitat would occur as a result of implementation of the RMDP and buildout of the Specific Plan (including the Mission Village project site), VCC, and Entrada planning areas, because the general morphology of the Santa Clara River, adjacent rearing habitat, and high-flow riparian refugia would not be substantially altered. No loss of unarmored threespine stickleback individuals would occur. Potential long-term secondary impacts would be mitigated to a less than significant level on site.

For the reasons set forth above, contribution of the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Western Yellow-Billed Cuckoo (CE). The western yellow-billed cuckoo has occasionally been documented within the Santa Clara River corridor during surveys conducted from 1988 to 2007, although the locations of these observations were not mapped. This species has been observed historically in 1979, 1981, and 1992,⁶⁷⁵ however, no observations of nesting, paired, or territorial western yellow-billed cuckoos have been documented within the RMDP/SCP project area. Currently, the RMDP/SCP project area appears to be a migratory stop for individual western yellow-billed cuckoos but may also be used for post-migratory movements. For breeding, this species primarily uses large blocks of riparian habitat, particularly cottonwood-willow riparian woodlands.⁶⁷⁶ Large blocks of riparian habitat suitable for western yellow-billed cuckoo generally are absent from the Santa Clara River within the RMDP/SCP project area, and likely elsewhere along the River corridor. In particular, the Mission Village project site lacks suitable large patches of riparian habitat for the western yellow-billed cuckoo. The riparian vegetation within the tributaries on the project site subject to development is not suitable for this species. This is illustrated in **Figure 4.3-4-A3** where a narrow, linear patch of southern cottonwood-willow riparian extends into the lower portions of Middle Canyon, compared to the wide swaths of the riparian in the Santa Clara River.

Based on the California GAP data,⁶⁷⁷ there are approximately 25,000 acres of riparian habitat in the SCRW. However, not all 25,000 acres support western yellow-billed cuckoos or could be reasonably expected to support them. This species appears to be rare in the SCRW, based on the lack of documented nesting, although it probably migrates through the area on occasion. Also, as noted above, this species typically nests in large blocks of riparian habitat that are probably uncommon in the watershed.

⁶⁷⁵ Labinger, Greaves, and Haupt, 1996 *Avian Survey Results*.

⁶⁷⁶ 66 FR 38611–38626.

⁶⁷⁷ UCSB, *California Gap Analysis Project*.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project, would cause the loss of approximately 1,030 acres of 25,000 acres of riparian habitat within the watershed; however, the proportion of potential western yellow-billed cuckoo habitat that could be impacted by development may be substantially higher because most potential habitat is probably in the Santa Clara River and the larger tributaries where development pressure is higher. Smaller and more remote drainages that support riparian habitat, but which is less likely to be occupied by the yellow-billed cuckoo, probably are under less development pressure. Without accounting for past, present or reasonably foreseeable mitigation, or the RMDP/SCP project's individual contribution to mitigation for loss of riparian habitat, the loss of 1,030 acres of riparian habitat in the SCRW could be potential significant cumulative impact on potential habitat for the western yellow-billed cuckoo. The RMDP/SCP project's contribution to this potentially significant cumulative impact is approximately 230 acres, including approximately 4 acres of permanent disturbance and 25 acres of temporary disturbance of southern cottonwood-willow riparian habitat on the Mission Village project site. This contribution by the proposed Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the Mission Village project, also could result in potential long-term secondary effects, including nest parasitism by cowbirds; traffic noise; nighttime illumination; increased human activity; pesticide use resulting in loss of prey and/or secondary poisoning; harassment and predation by pet, stray, and feral cats and dogs; and increased predation by mesopredators. Habitat quality for the western yellow-billed cuckoo could be reduced by diminished water quality and invasion by exotic plant species. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The Newhall Ranch Specific Plan Program EIR and this EIR recommend extensive mitigation measures that would protect riparian habitat and establish a large, managed open space system, all of which would reduce impacts to the western yellow-billed cuckoo (**subsection 4.3.10**, Project Mitigation Measures). This mitigation would result in the preservation and management of at least 332 acres of suitable habitat, primarily in the River Corridor SMA/SEA 23, that would be available for migrating individuals and a breeding population of the western yellow-billed cuckoo. These mitigation measures also include restoration, and enhancement of riparian and wetland habitat. Specific measures to reduce potential secondary impacts include controls on public access, invasive species controls, conformance with permits from federal and state agencies for impacts to wetlands and water quality (i.e., NPDES and section 401 permits), lighting controls, pesticides controls, and cowbird trapping.

In addition to the measures described above, which reduce project-related impacts, this species has not been observed to breed in the RMDP/SCP project area but is known to use the RMDP/SCP project area as a migratory stop-over. Most of the recorded breeding populations of this species occur well outside of the watershed. Typical nesting habitat (structure of riparian canopy, proximity to disturbance, etc.) associated with this species does not occur on the Mission Village project site or within the RMDP/SCP project area.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

White-Tailed Kite (CFP). Bird surveys have been conducted in the riparian areas of the Santa Clara River and Castaic Creek from 1988 through 2007. During these surveys, the white-tailed kite has been observed primarily along the Santa Clara River, where it nests in associated riparian woodlands and forages in adjacent grasslands, open sage scrub, and agricultural fields (**Figure 4.3-30, RMDP/SCP White-Tailed Kite Occurrences**). This cumulative analysis assumes that the white-tailed kite could occur throughout the Santa Clara River corridor, as well as other areas of the SCRW where riparian and woodland habitats are with upland foraging areas, including agriculture, California annual grassland, and coastal scrub, and other scrub habitats. There are three documented nest locations for the white-tailed kite in the vicinity of the Mission Village project site in the Santa Clara River northeast and east of Airport Mesa. In addition, kites have been observed flying, hunting, and perching on the project site (**Figure 4.3-30, RMDP/SCP White-Tailed Kite Occurrences**).

Based on the California GAP data,⁶⁷⁸ there are approximately 282,000 acres of suitable nesting and foraging habitat for the white-tailed kite (riparian, oak woodland, California annual grassland, agriculture, disturbed land, and coastal scrub habitats), although it would be incorrect to conclude that white-tailed kites actually use all 282,000 acres. White-tailed kites tend to forage in areas that are in proximity to nesting and roosting habitat (riparian and woodland habitat). For example, within the RMDP/SCP project area, most of the observations of hunting, flying, and perching white-tailed kites are along or adjacent to the Santa Clara River Corridor (**Figure 4.3-30**). Based on observations within the Mission Village project site and larger RMDP/SCP project area, the kite is most likely to nest and forage along the Santa Clara River and adjacent uplands.

⁶⁷⁸ UCSB, *California Gap Analysis Project*.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project, would cause the loss of approximately 25,400 acres of 282,000 acres of suitable nesting and foraging habitat for the white-tailed kite. Without accounting for past, present or reasonably foreseeable mitigation (particularly for upland habitats), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of habitat in the SCRW could be a potential significant impact on suitable nesting and foraging habitat for the white-tailed kite. The RMDP/SCP project's contribution to this potentially significant cumulative impact is approximately 5,130 acres, including approximately 1,445 acres of permanent and temporary disturbance on the Mission Village project site. This contribution by the proposed Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the Mission Village project, also could result in potential long-term secondary effects, including nest predation; nighttime illumination; increased human activity; pesticide use resulting in loss of prey and/or secondary poisoning; harassment and predation by pet, stray, and feral cats and dogs; and increased predation by mesopredators. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.



FIGURE 4.3-30

Mission Village EIR

RMDP/SCP White-Tailed Kite Occurrences

The mitigation required by both the Newhall Ranch Specific Plan Program EIR and this EIR (**subsection 4.3.10, Project Mitigation Measures**) would establish a large, managed open space system that would protect white-tailed kite habitat and reduce the effects of long-term secondary impacts. Approximately 4,421 acres of suitable habitat for this species, including 1,546 acres of nesting habitat and 2,875 acres of foraging habitat (i.e., foraging habitat within 0.5 mile of suitable nesting habitat) would be conserved in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area.

Long-term secondary impacts would be avoided and reduced through a variety of mitigation measures. Lighting restrictions along the perimeter of natural areas would help reduce predation of nest sites by predators and reduce behavioral disturbances and physiological stress. Limited recreational usage and access restrictions within the High Country SMA/SEA 20; control of pet, stray, and feral cats and dogs in or near open space areas; trail signage; and homeowner education regarding special-status resources in preserved natural habitat areas would help protect white-tailed kites by allowing them to nest and forage without disturbance. Controls on pesticides would reduce the chance of direct and secondary poisoning, and loss of prey. Provision of a large, relatively undisturbed open space system providing nesting and foraging habitat away from development areas would also help mitigate for increased collisions with vehicles and man-made structures.

In addition to the measures described above, which would reduce the project-related impacts, the Mission Village project would not preclude the continued foraging and nesting by white-tailed kite along the Santa Clara River and within the preserved High Country SMA/SEA 20 and Salt Creek area within the RMDP/SCP project area, as well as along the Santa Clara River corridor upstream and downstream of the RMDP/SCP project area.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

(b) California Species of Special Concern (CSC)

This section addresses cumulative impacts to the CSC species as organized by the different wildlife guilds.

Mollusk. The mollusk guild includes the recently described spring snail.⁶⁷⁹ *Pyrgulopsis castaicensis* n. sp. is not currently a CSC, but this analysis assumes that it meets the criteria for the designation. *Pyrgulopsis castaicensis* n. sp. is known to occur only in the Middle Canyon Spring in the RMDP/SCP project area (within the Mission Village project area) and is not documented to occur elsewhere in the SCRW. Therefore, there would be no other known impacts to this species by other projects in Los Angeles and Ventura counties and, therefore, there would be no cumulative impacts.

Reptile – Low Mobility. This guild includes coast horned lizard, coast patch-nosed snake, and silvery legless lizard.

The coast horned lizard occurs in the Santa Clara River adjacent to the Mission Village project site and elsewhere along the River in the RMDP/SCP project area. It also occurs in the High Country SMA/SEA 20. In addition, coast horned lizard has been observed in the SCRW along the Santa Clara River in Oxnard to Soledad Canyon in the east, Saugus, Fillmore, Castaic Lake area, and near Sespe Creek.

Legless lizard has not been documented on the Mission Village site, but has been observed in Chiquito Canyon and Long Canyon west of the project site within the RMDP/SCP project area. Outside of the RMDP/SCP project area, there are a few documented occurrences of the silvery legless lizard at the eastern edge of SCRW in the Leona Valley area near Lancaster and Palmdale. These coast horned lizard and silvery legless lizard are expected to occur throughout the watershed in suitable habitat.

There are no CNDDDB occurrences reported in Los Angeles or Ventura counties for the coast patch-nosed snake, but this species is expected to occur uncommonly in suitable habitat in the SCRW, and potentially on the Mission Village project site and within the larger RMDP/SCP project area.

As a group, these species use a wide variety of shrubland (scrub and chaparral), grassland, riparian, and woodland habitats, although each species is expected to primarily use a smaller subset of habitats. For example, coast horned lizard is primarily a grassland and shrubland species, the coast patch-nosed snake a shrubland species, and the silvery legless lizard a riparian and woodland species. However, each could potentially occur in any of these habitat types. Based on the California GAP data,⁶⁸⁰ there are approximately 777,000 acres of suitable habitat for the coast horned lizard, coast patch-nosed snake, and silvery legless as a combined group. However, it is not expected that all 777,000 acres are occupied by these species. For example, silvery legless lizards typically are found only in loose soils; coast horned

⁶⁷⁹ Hershler and Liu, *Pyrgulopsis* (Gastropoda: Hydrobiidae).

⁶⁸⁰ UCSB, *California Gap Analysis Project*.

lizard occur in association with native ant colonies that are its primary prey; and coast patch-nosed snakes appear to be uncommon and sparsely distributed.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project (which encompasses the Mission Village project site), would cause the loss of approximately 35,000 acres of 777,000 acres of suitable habitat for the coast horned lizard, coast patch-nosed snake, and silvery legless lizard. With the estimated permanent loss of more than 35,000 acres of habitat, and without accounting for past, present or reasonably foreseeable mitigation (particularly for upland habitats used by this guild), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of habitat in the SCRW could be a potential significant impact on the habitat for these species. The RMDP/SCP project's contribution to this potentially significant cumulative impact is approximately 3,380 acres, including approximately 871 acres of permanent and temporary disturbance on the Mission Village project site. This contribution by the proposed Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the Mission Village project, also could result in potential long-term secondary effects to these species, including habitat fragmentation and isolation of some local populations, making the species more vulnerable to extirpation from smaller habitat patches. In addition, the close proximity of urban development to suitable habitat for these species could result in disruption of essential behavioral activities (e.g., foraging, reproduction) and greater vulnerability to several potential secondary impacts, including human-caused habitat degradation (e.g., trampling of vegetation and introduction of invasive species, such as Argentine ants (primarily affecting coast horned lizard), or off-road vehicles); harassment and collection; predation by pet, stray, and feral cats and dogs; increased roadkill; and use of pesticides, which may reduce its prey or cause secondary poisoning.

The required Newhall Ranch Specific Plan Program EIR mitigation measures and additional mitigation measures recommended by this EIR (**subsection 4.3.10**, Project Mitigation Measures) would result in a large, permanent open space system that would provide substantial suitable habitat to support the these species (approximately 5,687 acres for coast horned lizard, 3,724 acres for coast patch-nosed snake, and 6,058 acres for silvery legless lizard) in the RMDP/SCP project vicinity. Implementation of these mitigation measures would result in protection, restoration and enhancement, and management of suitable habitat in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area (**Figure 4.3-31, RMDP Study Area**). Restoration and enhancement of habitat used by the coast horned lizard, coast patch-nosed snake, and silvery legless lizard in these areas would improve habitat quality for these species.

Several specific mitigation measures would also be implemented to reduce long-term secondary effects due to human activities in open space areas, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. Pesticides would be controlled through an integrated pest management (IPM) plan. Argentine ant invasions of upland habitats would be monitored and controlled to the extent feasible. Implementation of these measures would allow these species to persist on site in the large amount of permanent open space that would be protected and managed.

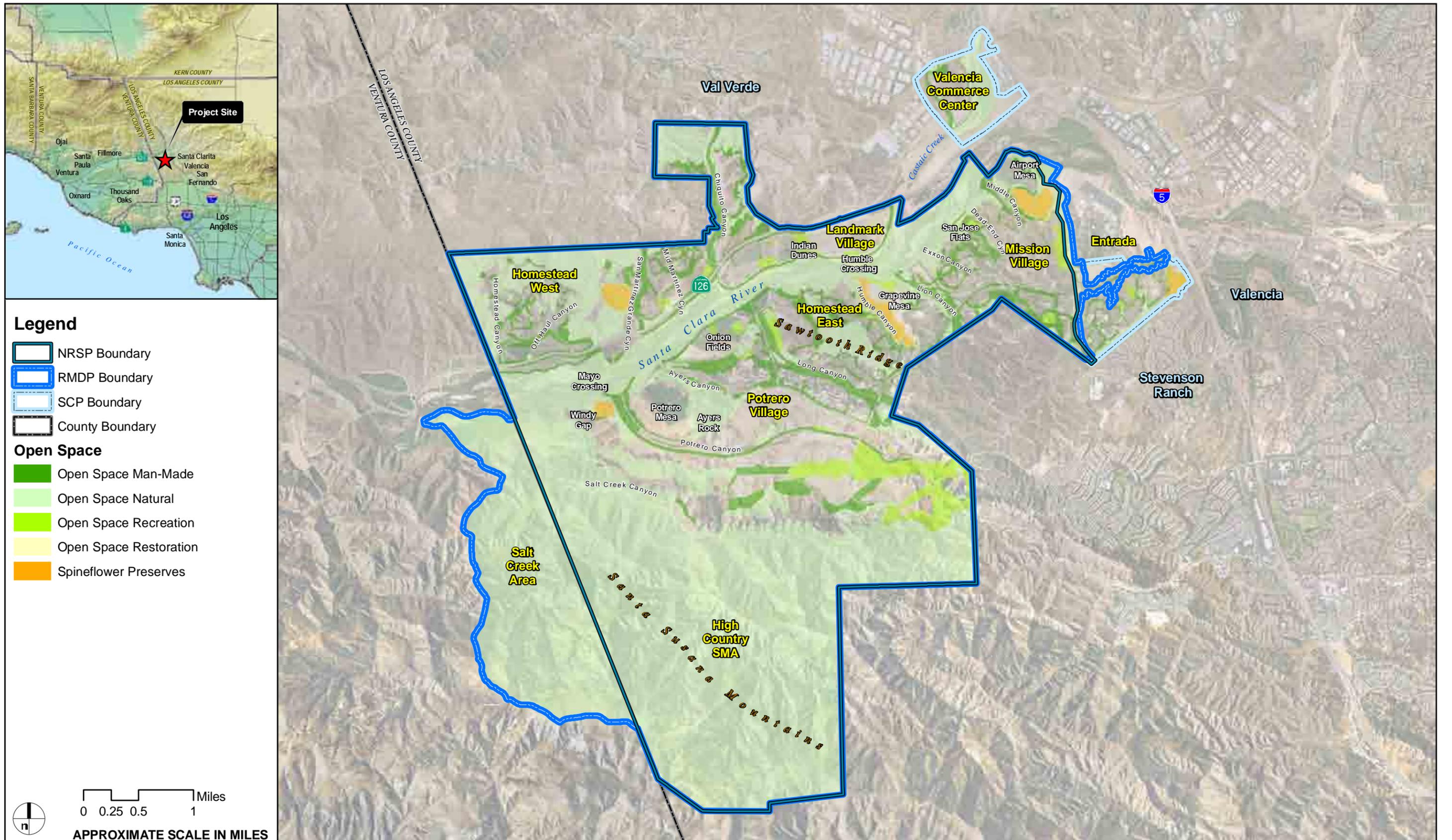
In addition to these measures reducing impacts to these species at the project level, these species have broad geographic ranges, are likely to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Reptile and Amphibian—Semi-Aquatic. This guild includes south coast garter snake, southwestern pond turtle, two-striped garter snake, and western spadefoot toad.

South coast garter snakes have not been documented on the Mission Village project site or within the RMDP/SCP project area, but they have been observed within the Santa Clara River downstream of the RMDP/SCP project area.

The southwestern pond turtle occurs in the Santa Clara River adjacent to the Mission Village project site and within the larger RMDP/SCP project area. It also has been documented in various locations throughout the SCRW (specific locations are suppressed in the CNDDDB database in order to protect populations), including the Los Padres and Angeles National Forests, and is expected to occur wherever habitat conditions are suitable.



AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.3-31
Mission Village EIR
RMDP Study Area

The two-striped garter snake has been documented in the Santa Clara River adjacent to the Mission Village project site, within the larger RMDP/SCP project area, and throughout the SCRW outside the RMDP/SCP project area, including Maple Creek north of Fillmore, south of Fillmore, Sespe Creek, Tar Creek upstream of Sespe Creek, Castaic Creek and Fish Canyon, the Santa Clara River between Salt Creek and Summer Four Crossings, Oak Spring Canyon east of Santa Clarita, and Soledad Canyon. This species is expected to occur wherever habitat conditions are suitable. The western spadefoot toad has also been documented in several locations in the SCRW outside the RMDP/SCP project area, including Cruzan Mesa north of the City of Santa Clarita, west of Sand Canyon south of Santa Clarita, San Francisquito Creek, Soledad Canyon, Plum Canyon Creek, Grasshopper Canyon northwest of Castaic Lake, just east of Oak Spring Canyon south of the Santa Clara River, and north of Tapia Canyon.

The cumulative impacts analysis for habitat impacts presented above for the California red-legged frog presented above generally is applicable to the south coast garter snake, southwestern pond turtle, two-striped garter snake, and western spadefoot toad. Based on the California GAP data,⁶⁸¹ there are approximately 25,000 acres of riparian habitat in the SCRW, but not all of this habitat is expected to be occupied due to a lack of all necessary habitat elements. Upland habitats adjacent to occupied riparian habitat are expected to be used for important aspects of these species' life histories, including aestivation, hibernation, and nesting, but the acreage of these areas cannot be accurately estimated at the watershed scale.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project, would cause the loss of 1,030 acres of the 25,000 acres of riparian habitat. Without accounting for past, present or reasonably foreseeable mitigation, or the RMDP/SCP project's individual contribution to mitigation for loss of riparian habitat, the loss of 1,030 acres of riparian habitat in the SCRW potentially could be a significant cumulative impact on potential habitat for south coast garter snake, southwestern pond turtle, two-striped garter snake, and western spadefoot toad. The RMDP/SCP project's contribution to this potentially significant cumulative impact is approximately 230 acres, including approximately 89 acres of riparian on the Mission Village project site that would be permanently or temporarily disturbed. This contribution by the proposed Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation. The Mission Village project would also cause permanent loss of adjacent terrestrial habitat, such as agriculture along the Santa Clara River, that may be used by these species for aspects of their life cycles, as well as refuge from severe flood events. It is assumed that other present and reasonably foreseeable projects affecting suitable riparian habitat would also impact adjacent upland habitat, resulting in a potential significant cumulative impact,

⁶⁸¹ UCSB, *California Gap Analysis Project*.

without accounting for mitigation. The contribution of the proposed Mission Village project to this potential significant cumulative impact to terrestrial habitat could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, also could result in potential long-term secondary effects to these species, including disruption of nocturnal activities and greater vulnerability to predation by nocturnal predators (such as owls and coyotes) as a result of nighttime lighting; greater vulnerability to predation by pet, stray, and feral cats and dogs as well as other mesopredators;⁶⁸² collecting by children; degradation of habitat from increased human use (e.g., trampling, trash, and off-road vehicles) and altered fire regimes (likely too frequent fire); invasion by exotic plant (e.g., giant reed, tamarisk, and pampas grass) and wildlife species (e.g., Argentine ants, bullfrogs, African clawed frogs, exotic fish, and crayfish); use of pesticides; and increased risk of roadkill on roads adjacent to occupied areas. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential significant cumulative secondary impact could be cumulatively considerable, absent mitigation.

As discussed previously for the California red-legged frog, the Newhall Ranch Specific Plan Program EIR and this EIR (**subsection 4.3.10**, Project Mitigation Measures) include extensive mitigation measures that would protect riparian habitat and establish a large, managed open space system which would reduce impacts to these species. Also, the Santa Clara River corridor hydrology and habitat conditions on site or downstream would not be significantly affected by the RMDP/SCP project.⁶⁸³ Upland refugia would be available along the Santa Clara River, although under the RMDP/SCP project, construction of Potrero Bridge under the RMDP/SCP Alternative 2 at the mouth of Potrero Canyon would block access to Potrero Canyon by southwestern pond turtle. This was considered a significant unavoidable impact under Alternative 2 in the RMDP/SCP EIS/EIR because this area may be an important refuge and nesting area; however, the Mission Village project does not contribute to this condition because this important site in Potrero Canyon is located west of the Mission Village project site.

The River Corridor SMA/SEA 23 would provide a large, protected open space area that would help offset long-term secondary impacts. Several specific mitigation measures would also be implemented to control human activities in the River Corridor SMA/SEA 23, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. All lighting along the open space-urban interface would be downcast.

⁶⁸² Crooks and Soulé, "Mesopredator Release and Avifaunal Extinctions in a Fragmented System," 563-566.

⁶⁸³ PACE, *Floodplain Hydraulics Impacts Assessment - Santa Clara River*.

Pesticides would be controlled through an integrated pest management (IPM) plan. Argentine ant invasions of upland habitats in the open space system would be monitored and controlled to the extent feasible. Implementation of these measures would allow these species to persist on site after development.

In addition to these measures reducing impacts to these species at the project-level, these species have broad geographic ranges, are likely to occur in suitable habitat within the watershed (with the exception of the south coast garter snake), and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Fish. This guild includes arroyo chub and Santa Ana sucker, which primarily occur in the Santa Clara River and some of its main tributaries within the SCRW. These species generally use the same aquatic habitat used by the unarmored threespine stickleback. Therefore, the cumulative analysis presented above for the unarmored threespine stickleback has been applied to these species.

Both species are considered be introduced to the Santa Clara River and associated tributaries. In addition to populations in the Santa Clara River adjacent to the Mission Village project site and the larger RMDP/SCP project area, introduced populations of arroyo chub are present in the Santa Clara River at Agua Dulce Creek and west of Chambersburg Road south of Fillmore, and in Soledad Canyon, Santa Paula Creek, and Sespe Creek along SR-33 and at the Stone Corral Creek confluence. In addition to populations in the Mission Village area and larger RMDP/SCP project area, introduced populations of the Santa Ana sucker are present in the Santa Clara River ranging from Arrastre Canyon approximately 2.5 miles east of SR-14 to Santa Paula Creek, and Piru Creek, Sespe Creek, and San Francisquito Creek.⁶⁸⁴

ENTRIX⁶⁸⁵ concluded that no long-term, permanent significant effects on arroyo chub and Santa Ana sucker habitat would occur as a result of implementation of the RMDP and buildout of the Specific Plan

⁶⁸⁴ C.C. Swift et al., "The Status and Distribution of the Freshwater Fishes of Southern California," *Bulletin of the Southern California Academy of Sciences* 92(3) (1993), 101–167; Stephenson and Calcarone, *Southern California Mountains and Foothills Assessment*; Northwest Economic Associates (NEA), *Draft Economic Analysis of Critical Habitat Designation for the Santa Ana Sucker* (2004); NatureServe, "An Online Encyclopedia of Life."

⁶⁸⁵ ENTRIX, *Focused Special-Status Fish Species Habitat Assessment*.

(including the Mission Village project site), VCC, and Entrada planning areas, because the general morphology of the Santa Clara River, adjacent rearing habitat, and high-flow riparian refugia would not be substantially altered. Further, there would be no impacts to habitat for these species resulting from impacts to tributaries to the Santa Clara River, due to the absence of perennial flows, and poor aquatic habitat quality. For these reasons, the proposed Mission Village project would not contribute to potential significant cumulative impacts to such habitat.

Some temporary impacts to habitat for these species would occur when construction occurs directly in aquatic habitat. Impacts to the active stream channel during bridge construction could affect stream flows, and cause stream diversions and dewatering when construction is occurring within the River Corridor SMA/SEA 23. However, such temporary impacts would not contribute to a potential significant cumulative effect of projects in the SCRW.

Construction-related impacts on individuals, if not mitigated, could result in a cumulatively considerable contribution to a potential significant cumulative impact in the SCRW because of the local nature and potential vulnerability of these species in the Santa Clara River. However, the Newhall Ranch Specific Plan Program EIR mitigation measures, as well as the mitigation measures recommended in this EIR (**subsection 4.3.10**, Project Mitigation Measures), would reduce such impacts to less than significant. These measures include facilities design requirements, pre-development surveys, consultation with USFWS, biological monitoring during construction, excluding fish from disturbance areas through coordination with and approval from the Corps and CDFG, and conformance with state and federal permits related to wetlands and water quality.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, also could result in potential long-term secondary effects, including potential physical changes in the River; altered base and flood flows; biochemical, substrate, and temperature alterations; vegetative changes (e.g., invasive plant species); increased human activity; impacts from pet, stray, and feral animals; and increased predation by exotic predators. Mitigation measures implemented to reduce these potential secondary impacts include protection and management of the River Corridor SMA/SEA 23; creation of buffer areas between the River Corridor SMA/SEA 23 and development, water quality requirements; restrictions on public access; controls on pet, stray and feral animals; and control on invasive predators such as bullfrog and African clawed frog. Mitigation measures related to hydrology and water quality also would ensure that potential impacts to any downstream populations of arroyo chub and Santa Ana sucker are not significant.

No long-term, permanent significant effects on arroyo chub and Santa Ana sucker habitat would occur as a result of implementation of the RMDP and buildout of the Specific Plan (including the Mission Village project site), VCC, and Entrada planning areas, because the general morphology of the Santa Clara River, adjacent rearing habitat, and high-flow riparian refugia would not be substantially altered. Potential short-term and long-term secondary impacts would be mitigated to a less than significant level.

For the reasons set forth above, the contribution of the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Bird—Raptor. This guild includes long-eared owl, northern harrier, short-eared owl, and western burrowing owl.

There are no CNDDDB documented occurrences for long-eared owl, northern harrier, or the short-eared owl in the SCRW, but data developed for the RMDP/SCP project indicate that these species likely occur in suitable habitat in the watershed. The long-eared owl was observed in the RMDP/SCP project area on one occasion⁶⁸⁶ and, therefore, is considered to be at least a regular migrant and/or a winter visitor to the region, with some potential to breed in the riparian and woodland habitats watershed.

The northern harrier has been observed in or near the RMDP/SCP project area infrequently during the 20 years of surveys. Most of the observations of this species were probably of wintering and migrating individuals, and these surveys are considered adequate to establish that this species is at least an occasional winter migrant in the SCRW.

The short-eared owl was observed twice near the RMDP/SCP project area⁶⁸⁷ and it is assumed for the purpose of this analysis that the short-eared owl at least occurs in the SCRW as an occasional migrant and uses watershed for foraging.

⁶⁸⁶ Dudek and Associates, Inc., *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*.

⁶⁸⁷ Dudek and Associates, *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*; G. Olson, letter containing comments on the Draft Environmental Impact Report for Landmark Village, letter from G. Olson (Audubon California) to D. Fierros (County of Los Angeles, Department of Regional Planning) (January 19, 2007).

In addition to two observations of the burrowing owl on the Mission Village site in Middle Canyon,⁶⁸⁸ there are two other documented occurrences of western burrowing owl in the CNDDDB. The majority of documented occurrences of burrowing owl in Los Angeles County are from the Antelope Valley in the Lancaster and Palmdale areas. It is assumed for the cumulative analysis that the burrowing owl occasionally uses SCRW for wintering or during migration, but also has potential to breed in the watershed. All four of these species are considered to have potential to forage on the Mission Village project site, and there is potential nesting habitat for long-eared owl and burrowing owl on site.

These species overlap in their use of foraging habitats, with grasslands, agriculture, and disturbed lands as the most common foraging habitats used by all of the species, and which are the basis for this analysis at the guild level. Based on the California GAP data,⁶⁸⁹ there are approximately 78,000 acres of suitable foraging habitat these species, although based on the few observations of these species in the watershed, not all of this habitat is expected to be used for foraging. Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project (which encompasses the Mission Village project site), would cause the loss of 3,790 acres of 78,000 acres of foraging habitat for these species. Without accounting for past, present or reasonably foreseeable mitigation (there are no standard mitigation requirements for loss of grassland, agriculture, or disturbed lands), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of 3,790 acres of habitat in the SCRW could be a potential significant impact on suitable foraging habitat for these species. The RMDP/SCP project's contribution to this potentially significant cumulative impact is approximately 3,290 acres, including approximately 680 acres on the Mission Village project site that would be permanently or temporarily disturbed. The contribution of the proposed Mission Village project to this potential significant cumulative secondary impact could be cumulatively considerable, absent mitigation

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, also could result in potential long-term secondary effects, including increased human activity; pesticide use resulting in loss of prey and/or secondary poisoning; harassment and predation by pet, stray, and feral cats and dogs; and increased predation by mesopredators. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

⁶⁸⁸ K. Babcock, telephone call from K. Babcock (Dudek) to C. Ford (Dudek) (October 2007); S. Miller, verbal communication from S. Miller (Dudek) to C. Ford (Dudek) (November 2007).

⁶⁸⁹ UCSB, *California Gap Analysis Project*.

The mitigation required by both the Newhall Ranch Specific Plan Program EIR and this EIR (**subsection 4.3.10, Project Mitigation Measures**) would establish a large, managed open space system that includes approximately 995 acres of suitable foraging habitat for these species and which would reduce secondary effects. Implementation of these mitigation measures would result in protection, restoration and enhancement, and management of suitable habitat in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area (**Figure 4.3-31**). Several specific mitigation measures would also be implemented to reduce long-term secondary effects due to human activities in open space areas, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. Pesticides would be controlled through an integrated pest management (IPM) plan.

In addition to these measures reducing impacts to these species at the project level, these species have broad geographic ranges, are likely to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Bird – Riparian. This guild includes summer tanager, tricolored blackbird, vermilion flycatcher, yellow-breasted chat, yellow-headed blackbird, and yellow warbler.

Documented occurrence data for these species in the SCRW outside of the Mission Village project site and adjacent Santa Clara River corridor are very sparse. The CNDDDB includes no documented occurrences in the SCRW for summer tanager, vermilion flycatcher, tricolored blackbird, or yellow-headed blackbird. No summer tanagers have been observed during spring surveys in the Santa Clara River during surveys in the RMDP/SCP project area, one vermilion flycatcher has been observed, and occasional yellow-headed blackbirds have been observed. No nesting vermilion flycatchers or yellow-headed blackbirds have been observed in the RMDP/SCP project area. Tricolored blackbird has been observed in the RMDP/SCP project area periodically, but was documented nesting on site only in 1994. The CNDDDB includes one occurrence each for yellow-breasted chat and yellow warbler for the watershed approximately 3 miles east of Fillmore, but these two species have been commonly observed in the Santa Clara River within the RMDP/SCP project area during spring surveys and are assumed to breed in the RMDP/SCP project area and elsewhere in the SCRW where there is suitable riparian habitat. The Mission Village project site supports potential riparian nesting habitat for these species, but the large majority of

this potential habitat, primarily southern cottonwood-willow riparian for the yellow warbler, yellow-breasted chat, summer tanager, and vermilion flycatcher, is within the Santa Clara River portion of the site and would not be developed or directly disturbed. The riparian vegetation within the tributaries on the Mission Village project site subject to development is less suitable as nesting habitat for these species because the riparian zones tend to be narrower (i.e., smaller patch sizes). This is illustrated in **Figure 4.3-4-A3** where a narrow, linear patch of southern cottonwood-willow riparian extends into the lower portions of Middle Canyon, compared to the wide swaths of the riparian in the Santa Clara River.

Because these species use habitats similar to those analyzed for the least Bell's vireo and southwestern willow flycatcher/willow flycatcher and would be subject to the same types of secondary impacts, the cumulative impact analysis for the two listed species is applied to the summer tanager, tricolored blackbird, vermilion flycatcher, yellow-breasted chat, yellow-headed blackbird, and yellow warbler.

Based on the California GAP data,⁶⁹⁰ there are approximately 25,000 acres of riparian habitat in the SCRW. However, not all 25,000 acres support these species or could be reasonably expected to support them. Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project (encompassing the Mission Village project site), would cause the loss of 1,030 acres of 25,000 acres of riparian habitat; however, as noted above for least Bell's vireo, these species probably are concentrated along the Santa Clara River and immediately adjacent tributaries, so the proportionate loss of occupied habitat is probably substantially higher. Without accounting for past, present or reasonably foreseeable mitigation, or the RMDP/SCP project's individual contribution to mitigation for loss of riparian habitat, the loss of 1,030 acres of riparian habitat in the SCRW could be a significant impact on potential habitat for the species in this guild, including potential migration habitat for the summer tanager, vermilion flycatcher, and yellow-headed blackbird, and nesting habitat for the yellow-breasted chat, yellow warbler, and tricolored blackbird. The RMDP/SCP project's contribution to this potentially significant cumulative impact is approximately 230 acres, including approximately 5 acres of permanent disturbance and 25 acres of temporary disturbance of southern willow scrub and southern cottonwood-willow riparian on the Mission Village project site, the riparian habitat types most likely to be used by these species. This contribution by the proposed Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, the proposed Mission Village project also could result in potential long-term secondary effects, including nest parasitism by cowbirds on yellow-breasted chat and yellow warbler; nighttime illumination; increased human activity; pesticide use resulting in loss of prey and/or secondary

⁶⁹⁰ UCSB, *California Gap Analysis Project*.

poisoning; harassment and predation by pet, stray, and feral cats and dogs; and increased predation by mesopredators. Habitat quality for these species could be reduced by diminished water quality and invasion by exotic plant species. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The Newhall Ranch Specific Plan Program EIR and this EIR recommend extensive mitigation measures (**subsection 4.3.10**, Project Mitigation Measures) that protect riparian habitat and establish a large, managed open space system, all of which would reduce impacts to these species. This mitigation would result in the preservation and management of at least 332 acres of riparian habitat, primarily in the River Corridor SMA/SEA 23, that would be available for future breeding populations of yellow-breasted chat and yellow warbler, and potentially tricolored blackbird. These mitigation measures include preservation, restoration, and enhancement of riparian and wetland habitat. Species measures to reduce potential long-term secondary impacts include controls on public access, invasive species controls, conformance with permits from federal and state agencies for impacts to wetlands and water quality (i.e., NPDES and section 401 permits), and lighting controls.

In addition to these measures reducing impacts to these species at the project level, these species generally have broad geographic ranges. The yellow-breasted chat and yellow warbler are expected to breed along most of the Santa Clara River and associated tributaries wherever there is suitable habitat. The summer tanager, vermilion flycatcher, and yellow-headed blackbird are expected to use suitable habitat within the SCRW on an occasional basis or during migration. The tricolored blackbird is expected to breed occasionally in suitable habitat in the SCRW, but its breeding status in the watershed is unknown and likely to be variable due to its itinerant breeding pattern.

For the reasons set forth above, the proposed Mission Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Bird—Upland Grassland. The only CSC species in this guild is the grasshopper sparrow. This species has not been observed on the Mission Village project site or within the larger RMDP/SCP project area. However, because the project site is at the edge of its summer breeding range, there is some, albeit low, potential for the species to occur. The CNDDDB has one occurrence in SCRW in Tapia Canyon north of Santa Clarita.

Based on the California GAP data,⁶⁹¹ there are approximately 22,000 acres of suitable grassland habitat for the grasshopper sparrow. However, it is not expected that all 22,000 acres are occupied by this species because there is only one documented occurrence in the SCRW and it has not been observed in the RMDP/SCP project area during numerous avian surveys.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project (encompassing the Mission Village project site), would cause the loss of 1,120 acres of 22,000 acres of suitable habitat for the grasshopper sparrow. The contribution of the RMDP/SCP project to this impact is 1,070 acres, including approximately 66 acres of permanent and temporary disturbance on the Mission Village project site. Because the grasshopper sparrow has a low potential to winter or nest on site, based on negative surveys findings, the RMDP/SCP EIS/EIR concluded that this impact was adverse but not significant. Since the RMDP/SCP project accounts for the majority of the impact of present and reasonably foreseeable projects in the SCRW, the cumulative effect of the present and reasonably foreseeable projects, including the Mission Village project, would not be significant at the watershed level.

Although the species has a low potential to occur on the Mission Village project site, within the larger RMDP/SCP project area, and on other present and reasonably foreseeable projects, without accounting for past, present, or reasonably foreseeable mitigation, these projects, including the proposed Mission Village project, could result in potential long-term secondary effects on the grasshopper sparrow, including habitat fragmentation; abandonment of nests from human activity; greater vulnerability to nocturnal predators as a result of nighttime lighting; noise from roadways; nest parasitism by cowbirds; greater vulnerability to predation by pet, stray, and feral cats and dogs and other mesopredators; and loss of prey or secondary poisoning due to the use of pesticides. Although these long-term secondary effects could occur, because the grasshopper sparrow is unlikely to nest or winter in the watershed in large numbers, these effects would not have a significant cumulative impact.

Even though significant cumulative impacts to the grasshopper sparrow and its habitat would not occur as a result of the proposed Mission Village project and mitigation measures are not required, several mitigation measures for other project-level impacts to biological resources would be implemented that would further reduce any potential impacts (**subsection 4.3.10**, Project Mitigation Measures). These mitigation measures include habitat preservation, restoration, enhancement, and management of the High Country SMA/SEA 20 and Salt Creek area—areas that would form a large, contiguous open space system that includes approximately 660 acres of California annual grassland. Specific measures would also be implemented to reduce potential long-term secondary effects, including controls on human activity, pet, stray, and feral cats and dogs, lighting, and pesticides.

⁶⁹¹ UCSB, *California Gap Analysis Project*.

Bird—Upland Scrub and Chaparral. The only CSC species in this guild is the loggerhead shrike. This species is commonly observed in the RMDP/SCP project area and has been documented to nest in the area. The species is likely to nest and forage on the Mission Village project site. This species also is likely to be relatively common in scrub and chaparral habitat throughout the SCRW. Although there are no records for this species for the watershed in the CNDDDB, this species has been regularly observed by biologists in the watershed.

The loggerhead shrike is considered to be primarily a scrub and chaparral species, but it also frequently forages in grassland, agriculture, and disturbed lands. Based on the California GAP data,⁶⁹² there are approximately 803,000 acres of suitable habitat for the loggerhead shrike. It is not expected that all 803,000 acres are occupied by this species because, although common, shrikes occur in low densities.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project (encompassing the Mission Village project site), would cause the loss of approximately 36,700 acres of 803,000 acres of suitable habitat for the loggerhead shrike. Without accounting for past, present or reasonably foreseeable mitigation (particularly for upland scrub and chaparral), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of 36,700 acres of habitat in the SCRW could be a potential significant impact on the habitat for this species. The contribution of the RMDP/SCP project to this potential significant cumulative impact is 5,270 acres of the combined habitats, including approximately 706 acres of permanent and temporary disturbance on the Mission Village project site. This contribution by the Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, also could result in potential long-term secondary effects, including habitat fragmentation and reduced nest success due to nighttime lighting; noise disturbance; and harassment/disturbance by humans, especially if such disturbances occur during the nesting season; and predation by pet, stray, and feral cats and dogs as well as other mesopredators. The use of pesticides to control invertebrates and small mammals within and adjacent to open foraging areas could result in secondary poisoning and loss of prey for the species. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

⁶⁹² UCSB, *California Gap Analysis Project*.

The required Newhall Ranch Specific Plan Program EIR mitigation measures and additional mitigation measures recommended by this EIR (**subsection 4.3.10**, Project Mitigation Measures) would result in a large, permanent open space system that would provide suitable habitat to support the loggerhead shrike in the RMDP/SCP project vicinity. Implementation of these mitigation measures would result in protection, restoration and enhancement, and management of approximately 6,100 acres of suitable habitat in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area (**Figure 4.3-31**). This set-aside would also offset long-term secondary impacts, especially habitat fragmentation and vehicle collisions. Several specific mitigation measures would also be implemented to control human activities in open space areas, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. Pesticides would be controlled through an integrated pest management (IPM) plan. Implementation of these measures would allow this species to persist on site after development in the large amount of permanent open space that would be protected and managed.

In addition to these measures reducing impacts to loggerhead shrike at the project level, this species remains relatively common and widespread within suitable habitat within the watershed and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Bats. This guild includes pallid bat, pocketed free-tailed bat, Townsend's big-eared bat, western mastiff bat, and western red bat. RMDP/SCP project area surveys using the Anabat II Bat Detector documented the presence of pallid bat (including a maternity roost and a night roost in Potrero Canyon), the pocketed free-tailed bat, and western red bat. The western mastiff bat was audibly detected (its signals are directly detectable by humans). Townsend's big-eared bat was not detected during surveys, but has moderate potential to occur in the area due to the large amount of suitable habitat. The Mission Village project site supports suitable foraging habitat for these species, and they are expected to forage on site. There are no documented roost sites on the Mission Village project site, but these species could also roost on site. Documented occurrences in the CNDDDB elsewhere in the SCRW for these species are variable and some are decades old. The pallid bat has been documented in Soledad Canyon, Castaic, Fillmore, and Santa Paula. The western mastiff bat has been documented in Piru Creek north of the lake and at the lake, and southwest of Newhall.

The CNDDDB includes no records for the pocketed free-tailed bat, Townsend's big-eared bat, or western red bat. However, because comprehensive surveys for bats have not been conducted throughout the SCRW, and because these species are foraging generalists and use a variety of habitats, it is assumed that these species could occur throughout the SCRW. The main limitation for the occurrence of the species probably is a lack of day roost sites, such as a caves, crevices, rock outcrops, tunnels, etc.

This cumulative analysis addresses the loss of foraging habitat for these species. As foraging generalists, they use a variety of habitats, but probably concentrate most of their foraging activity in wetland and riparian habitats. Suitable foraging habitat for bats includes coastal scrub, chaparral, grassland, riparian, oak woodland, agriculture, and disturbed land. Based on the California GAP data,⁶⁹³ there are approximately 836,000 acres of suitable foraging habitat for bats in the SCRW. It is not expected that all 836,000 acres are used by bats for foraging because this habitat must be within typical flight distances of day roosts. For example, the pallid bat is capable of flying more than 18 miles, but most foraging occurs within about 2 miles of the day roost.⁶⁹⁴

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project (which encompasses the Mission Village project site), would cause the loss of approximately 38,000 acres of 836,000 acres of suitable foraging habitat for these bats. Without accounting for past, present or reasonably foreseeable mitigation (particularly upland habitats), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of 38,000 acres of habitat in the SCRW could be a potential significant impact on the habitat for these species. The contribution of the RMDP/SCP project to this potential significant cumulative impact is 5,590 acres of the habitats, including approximately 1,484 acres of permanent and temporary disturbance on the Mission Village project site. This contribution by the Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

In addition to loss of foraging habitat, day roosts, including maternal roosts, may be present in the SCRW and subject to potential impacts as a result of present and reasonably foreseeable projects. One documented maternal day roost and one night roost for pallid bat would be lost as a result of the proposed RMDP/SCP project in Potrero Canyon west of the Mission Village project site, but there is a potential for other roosts sites in the SCRW, including on the Mission Village project site (although not yet documented), to be impacted. Without accounting for past, present or reasonably foreseeable mitigation (particularly upland habitats), or the RMDP/SCP project's individual contribution to mitigation for loss of day roosts, the loss of roost sites could result in a potential significant cumulative

⁶⁹³ UCSB, *California Gap Analysis Project*.

⁶⁹⁴ J.W. Hermanson and T.J. O'Shea, "Antrozous pallidus," *Mammalian Species*, 213 (1983), 1-8.

impact. The contribution of the proposed Mission Village project to this potential significant cumulative impact could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, also could result in potential long-term secondary effects resulting from increased human activity, noise, and lighting. Use of pesticides for agriculture or in landscaped areas may result in secondary poisoning and reduction of prey. Pallid bats taking prey on the ground are vulnerable to collection by humans and to predation by pet, stray, and feral cats and dogs. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The cumulative loss of foraging habitat and day roost sites, and long-term secondary impacts to these bats species would be reduced through several mitigation measures included in the Newhall Ranch Specific Plan EIR and recommended in this EIR (**subsection 4.3.10**, Project Mitigation Measures). These measures include habitat preservation, restoration, enhancement, and management of approximately 6,300 acres in the River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek area—areas that would form a large, contiguous open space system providing foraging and potential roosting habitat for bats. It is expected that the species in this guild would continue to forage in these areas after buildout of the RMDP/SCP project area. Alternative roost sites would be created to mitigate for any day roost sites disturbed during construction, including creation of roosts under bridges and in culverts, where practicable, in consultation with CDFG. Species measures to reduce potential long-term secondary impacts include controls on public access, pet, stray, and feral cat dogs, pesticides, and lighting.

In addition to these measures reducing impacts to these species at the project level, these species have broad geographic ranges, are likely to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Mammal—Low Mobility. This guild includes the San Diego desert woodrat and southern grasshopper mouse.

On the Mission Village project site and within the larger RMDP/SCP project area, the San Diego desert woodrat is common in coastal scrub and chaparral. The only other documented occurrence for desert woodrat in close proximity to the SCRW is in Weldon Canyon just west of the SR-14/I-5 junction. However, this lack of data is probably more a result of few small mammal trapping programs conducted in the watershed and/or under-reporting of the species to the CNDDDB. Based on the relative frequency with which it was captured during the Newhall Ranch trapping study,⁶⁹⁵ this species is expected to be common throughout the watershed in suitable habitat (i.e., more xeric expressions of the coastal scrub and chaparral).

The southern grasshopper mouse was not documented RMDP/SCP project area during the small mammal trapping studies or pitfall trapping conducted for reptile and amphibians area and is known only from Mint Canyon. This record dates back to 1930 and the observation occurred approximately 15 miles east of the RMDP/SCP project area. The documented geographic range of the grasshopper mouse is east of the RMDP/SCP project area.⁶⁹⁶ The habitat use of the San Diego desert woodrat and grasshopper mouse overlaps, where both may occur in drier, more open coastal scrub and chaparral, but the San Diego desert woodrat also occurs in more densely vegetated shrublands that would be unsuitable for the grasshopper mouse and the grasshopper mouse also occurs in grassland that is not used by the woodrat.

The combined habitat for these two species for the purpose of this cumulative analysis is defined as grassland, coastal scrub, and chaparral. Based on the California GAP data,⁶⁹⁷ there are approximately 747,000 acres of potential habitat in the SCRW, of which approximately 725,000 acres are coastal scrub and chaparral and approximately 22,000 acres are non-native grassland. Even though the San Diego desert woodrat is relatively common, it is not expected to occur in all 725,000 acres of coastal scrub and chaparral in the SCRW because it uses more xeric forms of these habitats, whereas the dusky-footed woodrat tends to occur in more mesic forms. The southern grasshopper mouse, if present in the SCRW, is expected to be even more sparsely distributed in xeric forms of coastal scrub and chaparral and grasslands.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project (which encompasses the Mission Village project site), would cause the loss of approximately 34,100 acres of 747,000 acres of potential habitat, including approximately 33,000 acres of coastal scrub and chaparral and approximately 1,100 acres of grassland. Without accounting for past, present or reasonably foreseeable mitigation for these upland habitats, or the RMDP/SCP project's individual contribution to mitigation for

⁶⁹⁵ Impact Sciences, Inc., *Draft Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

⁶⁹⁶ Zeiner et al., *California's Wildlife: Volume III*.

⁶⁹⁷ UCSB, *California Gap Analysis Project*.

loss of habitat, the loss of 34,100 acres of habitat in the SCRW could be a potential significant impact on the habitat for both species. The contribution of the RMDP/SCP project to this potential significant cumulative impact is 3,050 acres of the combined habitats, including approximately 773 acres of permanent and temporary disturbance on the Mission Village project site. This contribution by the Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, also could result in potential long-term secondary effects, including habitat fragmentation and potential isolation of local populations of the San Diego desert woodrat and southern grasshopper mouse, making the species, if present, more vulnerable to local extirpation. In addition, over the long term, the close proximity of urban development to suitable habitat could result in abandonment of dens and burrows; disruption of nocturnal activities; greater vulnerability to predation by nocturnal predators (e.g., owls and coyotes) as a result of nighttime lighting; greater vulnerability to predation by pet, stray, and feral cats and dogs as well as other mesopredators such as raccoons, foxes, skunks, and opossums;⁶⁹⁸ and vulnerability to pesticides, which may reduce insect prey and cause secondary poisoning and rodenticides that may be used to control pest rodents. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The required Newhall Ranch Specific Plan Program EIR mitigation measures and additional mitigation measures recommended by this EIR (**subsection 4.3.10**, Project Mitigation Measures) would result in a large, permanent open space system that would provide suitable habitat to support the San Diego desert woodrat and southern grasshopper mouse, if present in the RMDP/SCP project vicinity. Implementation of these mitigation measures would result in protection and management of approximately 3,488 acres of suitable habitat for the San Diego desert woodrat and approximately 2,657 acres for the southern grasshopper mouse. This open space would be conserved in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area (**Figure 4.3-31**). This set-aside would also help mitigate long-term secondary effects by providing adequate protected open space away from the edge of development. Several specific mitigation measures would also be implemented to control human activities in open space areas, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. All lighting would be downcast away from open space

⁶⁹⁸ See Crooks and Soulé, "Mesopredator Release and Avifaunal Extinctions in a Fragmented System," 563–566.

areas. Rodenticides would be controlled through an integrated pest management (IPM) plan. Implementation of these measures would allow these species to persist on site after development in the large amount of permanent open space that would be protected and managed.

In addition to these measures reducing impacts to these species at the project level, the San Diego desert woodrat has a broad geographic range and is still common in suitable habitat. It is expected to occur relatively commonly in suitable habitat on National Forest system lands and other public lands on the SCRW. The southern grasshopper mouse, if still present in the SCRW, likely occurs in low population densities in very scattered distributions. The probability of a present or reasonably foreseeable project, including the Mission Village project, impacting this species is considered to be low.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Mammal—Moderate Mobility. This guild includes American badger and San Diego black-tailed jackrabbit. Both species are likely to be present, but uncommon on the Mission Village project site.

The American badger has been documented three times in the larger RMDP/SCP project area through systematic surveys and anecdotal observations of dens and tracks.⁶⁹⁹ The CNDDDB includes only one documented occurrence for the American badger outside the RMDP/SCP project area; a location between Bear Creek and Hopper Mountain northeast of Fillmore. However, while this species generally occurs at low abundances, observations of badgers in suitable habitat in Southern California by biologists are not uncommon. It is expected to occur throughout the SCRW in suitable habitat. However, on the Angeles National Forest and other Forest System lands the distribution of American badger is not well documented.⁷⁰⁰ This species is known to occur on portions of the Los Padres National Forest but has not been observed on many portions of the Angeles National Forest in several years.⁷⁰¹

⁶⁹⁹ Impact Sciences, *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*; P. Behrends, personal observation of badger den by P. Behrends (Dudek and Associates, Inc.) in Potrero Creek during wetland delineation (August 1, 2006); Dudek and Associates, *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek Area*.

⁷⁰⁰ Stephenson and Calcarone, *Southern California Mountains and Foothills Assessment*.

⁷⁰¹ L. Welch, personal communication between C. Huntley (Aspen) and L. Welch (U.S. Forest Service, Los Angeles River Ranger District) regarding the distribution of American Badger on the Angeles National Forest, May 2008 (2009).

The San Diego black-tailed jackrabbit has not been observed on the Mission Village project site and was observed only in the larger RMDP/SCP project area during focused mammal surveys by Impact Sciences.⁷⁰² Negative findings for this species during many other wildlife surveys suggest that it is likely uncommon on the Mission Village project site. The CNDDDB includes only one documented occurrence for the San Diego black-tailed jackrabbit outside the RMDP/SCP project area: a location between Castaic Lake and San Francisquito Canyon. While this species appears to be uncommon in the western portion of the watershed, it is expected to be more common in the eastern portion of the watershed because several CNDDDB occurrences are from the Palmdale/Lancaster desert region just east of SCRWR. The lack of occurrence records for both the American badger and San Diego black-tailed jackrabbit probably are due to both their relatively uncommon occurrence (at least in the central and western portions of the watershed) and under-reporting to the CNDDDB.

For the purpose of this cumulative analysis, suitable habitat for these two species includes agriculture, disturbed land, grassland, and coastal scrub. Based on the California GAP data,⁷⁰³ there are approximately 252,000 acres of potential habitat in the SCRW. Because both species are uncommon in the SCRW, not all 252,000 acres are expected to be occupied.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project (encompassing the Mission Village project site), would cause the loss of approximately 24,300 acres of 251,000 acres of potential habitat for the American badger and San Diego black-tailed jackrabbit. Also, past, present, and reasonably foreseeable future projects within the SCRW tend to be concentrated in the valleys and relatively gentle foothill slopes where these species are known to occur. These patterns apply both to the land use changes addressed here as cumulative effects (i.e., since the 1999 UCSB GAP project) and extensive land conversions to agricultural uses prior to 1999. These cumulative effects cause a disproportionately high loss of individuals and habitat for badgers and black-tailed jackrabbits whose habitats and distributions are primarily on gentle topography, lower foothills and canyons, or valley bottoms. Without accounting for past, present or reasonably foreseeable mitigation for these upland habitats, or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of 24,300 acres of habitat in the SCRW could be a potential significant impact on the habitat for both species. The contribution of the RMDP/SCP project to this potential significant cumulative impact is 4,800 acres of the habitats, including approximately 1,347 acres of permanent and temporary disturbance on the Mission Village project site. This contribution by the Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

⁷⁰² Impact Sciences, *Assessment and Survey of Mammals within the Newhall Ranch Specific Plan Area*.

⁷⁰³ UCSB, *California Gap Analysis Project*.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the Mission Village project, also could result in potential long-term secondary effects including habitat fragmentation; increased risk of vehicle collisions as a result of new roads and increased traffic volumes on existing roads (e.g., SR-126); nighttime illumination; increased human activity and potential harassment by humans and pet, stray, and feral cats (primarily San Diego black-tailed jackrabbit) and dogs; and the use of rodenticides that could result in accidental poisoning of both species and reduction of the rodent prey base for the American badger. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The required Newhall Ranch Specific Plan Program EIR mitigation measures and additional mitigation measures recommended by this EIR (**subsection 4.3.10**, Project Mitigation Measures) would result in a large, permanent open space system that would provide suitable habitat to support the American badger and San Diego black-tailed jackrabbit in the RMDP/SCP project vicinity. Implementation of these mitigation measures would result in protection and management of approximately 3,540 acres of suitable habitat for the American badger and San Diego black-tailed jackrabbit. This open space would be conserved in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area (**Figure 4.3-31**). This set-aside would also help mitigate long-term secondary effects by providing adequate protected open space away from the edge of development. Several specific mitigation measures would also be implemented to control human activities in open space areas, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. All lighting would be downcast away from open space areas. Rodenticides would be controlled through an integrated pest management (IPM) plan. Implementation of these measures would allow these species to persist on site after development in the large amount of permanent open space that would be protected and managed.

In addition to these measures reducing impacts to these species at the project level, these species likely occur in low densities on site, but have broad geographic ranges (e.g., badger occurs virtually throughout the state), are likely to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands, although these species are likely to occur in low densities on Forest Service lands.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact

due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

(c) California Special Animals, Watch List Species, Specially Protected Mammal, and CDFG Trust Resource Species

This section addresses cumulative impacts to California Special Animals, Watch List Species, Specially Protected Mammal, and CDFG Trust Resource Species as organized by the different wildlife guilds.

Insect. This guild includes monarch butterfly and San Emigdio blue butterfly. Individual monarch butterflies have been regularly observed during focused butterfly surveys as well as during various other wildlife and plant surveys, but no wintering sites have been observed or documented in the SCRW. Due to the Mission Village project site's distance from the coast, it is unlikely that large numbers of adult monarch butterflies use the project site or the larger RMDP/SCP project area for overwintering.⁷⁰⁴ Monarch butterflies themselves have no special conservation status, but their overwintering sites are considered a sensitive resource.⁷⁰⁵ Because wintering sites do not occur on the Mission Village project site or the larger RMDP/SCP project area, there would be no impacts resulting from the proposed Mission Village project and no cumulative effects of the proposed project on monarch butterfly overwintering habitat.

During the 2004 surveys, San Emigdio blue butterfly was documented within the Specific Plan area in the west-central edge of Potrero Canyon.⁷⁰⁶ One San Emigdio blue butterfly was also observed in the High Country SMA/SEA 20 at the northwestern edge of Salt Creek Canyon during the 2005 surveys. No San Emigdio blue butterflies were observed on the Mission Village project site. The CNDDDB reports no known locations within the SCRW but Stephenson and Calcarone⁷⁰⁷ cite two occurrences within the SCRW, at Mint Canyon and Bouquet Canyon near Castaic. The primary location for this species is along the Mojave River near Victorville, with scattered locations in canyons along the north side of the San Gabriel Mountains near the desert's edge, and in arid areas south of Mount Abel near San Emigdio Mesa.⁷⁰⁸

⁷⁰⁴ Compliance Biology, Inc., *Results of Butterfly Surveys on the Newhall Ranch Project Site*.

⁷⁰⁵ CDFG, "Special Animals," Biogeographic Data Branch, California Natural Diversity Database (2008), <http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/SPAnimals.pdf>.

⁷⁰⁶ Compliance Biology, *Results of Butterfly Surveys on Magic Mountain Entertainment Site, Los Angeles County, California* (2004).

⁷⁰⁷ Stephenson and Calcarone, *Southern California Mountains and Foothills Assessment*.

⁷⁰⁸ T.C. Emmel and J.F. Emmel, *The Butterflies of Southern California* (The Natural History Museum of Los Angeles County Sciences Series 26, 1973); D.D. Murphy, *A Report on the California Butterflies Listed as Candidates for*

Although the San Emigdio blue butterfly's geographic range is relatively large and its larval host plants (quail brush and four-winged saltbush) are common, it is a "habitat specialist," meaning that its distribution is much more localized than its host plants. It is known from a few scattered locations range-wide. Quail brush and four-winged saltbush have wide elevational ranges, but the mixed saltbush scrub vegetation where San Emigdio blue butterfly is found generally occurs on bajadas, flats, lower slopes, playas, and valley floors,⁷⁰⁹ where development and other land use conversions tend to be concentrated. The best-known location is outside the SCRW, along the Mojave River at the Interstate 15 crossing, near Victorville. That occurrence has declined due to surrounding urbanization.⁷¹⁰

Details of the San Emigdio blue butterfly's population status at SCRW occurrences at Bouquet and Mint canyons are unknown. Due to its occurrence in small, widely scattered locations, its susceptibility to habitat loss, and the lack of known occurrences within the SCRW, ongoing development in the watershed could be a potential significant cumulative impact to the San Emigdio blue butterfly.

Vegetation clearing associated with construction of RMDP facilities and fence construction around the Potrero Preserve Area in accordance with the SCP would result in the removal of quail brush plants associated with the colony that occurs outside the Potrero Preserve Area. The construction of Potrero Canyon Road under Alternative 2, as analyzed in the RMDP/SCP EIS/EIR, would fragment the only known colony on site. Even with replacement, preservation, and management of habitat for this species, as proposed, this impact was determined to be significant and unavoidable in the RMDP/SCP EIS/EIR, absent further mitigation for Alternative 2. Due to the species' rarity within the SCRW and throughout its known range, and the other conservation issues described above, a significant impact to even a single occurrence would result in a cumulatively considerable contribution to the species in the watershed. Therefore, the RMDP/SCP project-specific impacts of Alternative 2 would be a significant and unavoidable cumulative impact to San Emigdio blue butterfly. However, the Mission Village project site does not include any populations of San Emigdio blue butterfly, or a concentration of its host plant. Therefore, the Mission Village project would not considerably contribute to cumulative secondary impacts to this species.

Mollusk. The only species in this guild is the terrestrial gastropod Trask shoulderband snail. Surveys were conducted for the Trask shoulderband snail from November 2009 to January 2010 throughout the RMDP/SCP project area, including development areas and mitigation lands (River Corridor SMA, High Country SMA, Salt Creek areas), as well as off-site reference areas that supported suitable microhabitats

Endangered Status by the U.S. Fish and Wildlife Service (1990).

⁷⁰⁹ Sawyer and Keeler-Wolf, *Manual of California Vegetation*.

⁷¹⁰ Stephenson and Calcarone, *Southern California Mountains and Foothills Assessment*.

for the species, including woodrat nests, brush and debris piles, rock piles, isolated rocks, leaf litter, logs, trash/debris piles, and other unique features that may provide soil moisture or refugia. The microhabitats generally are found in coastal scrub, riparian, and chaparral. The surveys for the Trask shoulderband snail were negative;⁷¹¹ however, the presence of two non-special-status helminthoglyptid taxa (Southern California shoulderband snail and Vasquez rocks shoulderband snail) on site indicate that the special-status Trask shoulderband snail has potential to occur.

The Trask shoulderband snail has been documented in scattered locations in coastal Southern California, ranging from San Luis Obispo County to San Diego County, and south into northwestern Baja California, Mexico. The nearest documented occurrences of Trask shoulderband are in Ventura County: the Oxnard Plain, Tierra Rejada Valley, Santa Clara River Valley at Barsdale near Fillmore, Santa Paula Ridge, and one other record with no location provided.⁷¹² The CNDDDB also has one record for the subspecies from La Jolla Canyon in the Santa Monica Mountains at Point Mugu State Park observed in February 2008 ascending a waterfall.⁷¹³

Although there are a few documented occurrences of the Trask shoulderband in the SCRW, this species may be more widespread and common in suitable microhabitats in the SCRW and elsewhere within its range in Southern California. The documented occurrences almost certainly do not represent the actual distribution of the species, because terrestrial snails are highly cryptic, and extensive surveys for these groups have not been systematically conducted. Furthermore, with the exception of a few species, such as Trask shoulderband snail, terrestrial snails are not considered sensitive by the CDFG or USFWS, and focused surveys for this group typically are not conducted. Therefore, present and reasonably foreseeable projects in the SCRW, including the proposed Mission Village project, could cause the loss of potential microhabitats for the Trask shoulderband snail. Without accounting for past, present, or reasonably foreseeable mitigation for these microhabitats, or the RMDP/SCP project's individual contribution to mitigation for loss of these microhabitats, the loss of potential microhabitats for the Trask shoulderband snail in the SCRW could be a significant impact on the microhabitat for this species. The contribution of the RMDP/SCP project, including Mission Village, to this potential significant cumulative impact could be cumulatively considerable, absent mitigation.

⁷¹¹ C. Huntley, "Re: Snail Methods, etc." Email from C. Huntley (Aspen) to P. Behrends (Dudek), A.C. Lynch (Sohagi Law Group), D. Bedford (CDFG), K. Drewe (CDFG), S. White (Aspen), M. Carpenter (Newhall Land), S. Rojas (Newhall Land), and S. Miller (Dudek), March 12, 2010.

⁷¹² D.L. Magney, "Terrestrial Snails of Los Angeles County" (Ojai, California: David Magney Environmental Consulting. August 20, 2009).

⁷¹³ CDFG, *RareFind*, Version 3.1.0, *California Natural Diversity Database*, accessed March 11, 2010.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, also could result in potential long-term secondary effects, including habitat fragmentation and isolation of some local populations of these species, making them more vulnerable to extirpation. In addition, over the long term, the close proximity of urban development to suitable habitat could result in disruption of essential behavioral activities (*e.g.*, foraging, reproduction) and greater vulnerability to several potential secondary impacts, including altered wildfires; human-caused habitat degradation (*e.g.*, trampling of vegetation and damage to soil structure, introduction of invasive species, such as Argentine ants and decollate snails (used as a control for garden brown snail) and off-road vehicles); habitat degradation by pet, stray, and feral cats and dogs; and use of chemical pesticides, which may cause poisoning. At the watershed level, these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The required Newhall Ranch Specific Plan Program EIR mitigation measures, in conjunction with the additional mitigation measures recommended by this Draft EIR (**subsection 4.3.10**, Project Mitigation Measures), will result in a large, permanent open space system that will provide suitable microhabitats to support Trask shoulderband snail in the RMDP/SCP project vicinity. Implementation of these mitigation measures will result in protection and management of lands containing good quality microhabitats in three main interconnected areas: the River Corridor SMA, the High Country SMA, and the Salt Creek area. These areas contain a suite of topographical features, including rocky outcrops, canyons, and drainages; all features where shoulderband snail species have been documented in the literature. In addition, these areas support a variety of vegetation communities and provide large areas of open space that would allow for gene flow between watersheds or populations. This set-aside will also help mitigate long-term secondary effects by providing adequate protected open space away from the edge of development. Several specific mitigation measures will also be implemented to control human activities in open space areas, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs will be leashed or otherwise controlled in or adjacent to open space areas. Pest management activities will be controlled through an integrated pest management (IPM) plan and Argentine ant monitoring and controls will be implemented. Implementation of these measures will allow Trask shoulderband snail to persist on site after development in the large amount of permanent open space that will be protected and managed.

In addition to these measures reducing impacts to this species at the project level, this species appears to have a broad geographic range, is likely to occur in suitable microhabitats within the watershed, and

much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable microhabitats; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Reptile—Low Mobility. This guild includes coastal western whiptail, rosy boa, and San Bernardino ringneck snake. The coastal western whiptail was observed in the High Country SMA/SEA 20,⁷¹⁴ but was not observed in pitfall trapping elsewhere in the RMDP/SCP project area, including the Mission Village project site.⁷¹⁵ There is only one other documented occurrence for the SCRW in the CNDDDB south of Soledad Canyon Road. However, this species has been tracked in the CNDDDB only in recent years, with the oldest occurrence in Ventura and Los Angeles counties dating back to 1993. This species is commonly observed by biologists in suitable habitat in Southern California and it is expected to be relatively common in suitable habitat in the SCRW, on the Mission Village project site, and within the larger RMDP/SCP project area.

The San Bernardino ringneck snake and rosy boa have not been observed on the Mission Village site or within the larger RMDP/SCP project area and there are no documented occurrences in the CNDDDB for these species. While not commonly observed by biologists because of their low detectability during typical walkover surveys, both species are still relatively widespread and common in suitable habitat.⁷¹⁶ There is substantial suitable habitat for these species in the RMDP/SCP project area and elsewhere in the SCRW and both are expected to occur throughout the SCRW.

These three species overlap in their habitat use, but also may occur in habitats that are not typically used by the other species. For example, rosy boa primarily uses coastal scrub and chaparral, while the coastal western whiptail lizard and San Bernardino ringneck snake both use annual grassland and oak woodlands. Unlike the other two species, the ringneck snake also uses riparian habitats. For the purposes of this cumulative analysis for these species, the collective habitat types include riparian, grassland,

⁷¹⁴ Dudek and Associates, *Biological Resources Technical Report for the Newhall Ranch High Country Specific Management Area and the Salt Creek*, and off site in Castaic Mesa; Compliance Biology, *Results of the Focused Western Spadefoot Toad Surveys on the Castaic Mesa Project Site*.

⁷¹⁵ Impact Sciences, Inc., *2004 and 2006 Reptile Survey Results, Newhall Ranch Specific Plan Area*.

⁷¹⁶ Zeiner, Laudenslayer Jr., and Mayer, *California's Wildlife: Volume I*.

coastal scrub, chaparral, and oak woodland. Based on the California GAP data,⁷¹⁷ there are approximately 777,000 acres of potential habitat in the SCRW. Because all three species probably are patchily distributed in the SCRW in association with suitable microhabitats within these broader habitat areas, not all 777,000 acres are expected to be occupied.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project (which encompasses the Mission Village project site), would cause the loss of approximately 35,000 acres of 777,000 acres of potential habitat for the coastal western whiptail, rosy boa, and San Bernardino ringneck snake. Without accounting for past, present or reasonably foreseeable mitigation for these habitats (particularly grassland, coastal sage scrub, and chaparral), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of 35,000 acres of habitat in the SCRW could be a potential significant impact on the habitat for these species. The contribution of the RMDP/SCP project to this potential significant cumulative impact is 3,380 acres of the habitats, including approximately 871 acres of permanent and temporary disturbance on the Mission Village project site. This contribution by the Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, also could result in potential long-term secondary effects, including habitat fragmentation and isolation of some local populations of these species, making them more vulnerable to extirpation. In addition, over the long term, the close proximity of urban development to suitable habitat could result in disruption of essential behavioral activities (e.g., foraging, reproduction) and greater vulnerability to several potential secondary impacts, including human-caused habitat degradation (e.g., trampling of vegetation, introduction of invasive species, such as Argentine ants and off-road vehicles); harassment and collection; predation by pet, stray, and feral cats and dogs; increased incidence of roadkill; and use of pesticides, which may reduce their prey or cause secondary poisoning. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The required Newhall Ranch Specific Plan Program EIR mitigation measures and additional mitigation measures recommended by this EIR (**subsection 4.3.10**, Project Mitigation Measures) would result in a large, permanent open space system that would provide suitable habitat to support coastal western whiptail, rosy boa, and San Bernardino ringneck snake in the RMDP/SCP project vicinity. Implementation of these mitigation measures would result in protection and management of substantial

⁷¹⁷ UCSB, *California Gap Analysis Project*.

suitable habitat for these species (approximately 5,687 acres for coastal western whiptail, 3,724 acres for rosy boa, and 6,047 acres for San Bernardino ringneck snake) in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area (**Figure 4.3-31**). This set-aside would also help mitigate long-term secondary effects by providing adequate protected open space away from the edge of development. Several specific mitigation measures would also be implemented to control human activities in open space areas, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. All lighting would be downcast away from open space areas. Rodenticides would be controlled through an integrated pest management (IPM) plan. Implementation of these measures would allow these species to persist on site after development in the large amount of permanent open space that would be protected and managed.

In addition to these measures reducing impacts to these species at the project level, these species have broad geographic ranges and are relatively common, are likely to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Bird—Raptor. This guild includes Cooper's hawk, ferruginous hawk, merlin, prairie falcon, sharp-shinned hawk, and turkey vulture. The Cooper's hawk is the only species in this guild that has been documented to nest in the RMDP/SCP area. The others forage in the RMDP/SCP only during the winter or during migration (ferruginous hawk, merlin, and sharp-shinned hawk) or otherwise are likely to nest off site and use the site only for foraging (prairie falcon and turkey vulture). These species are expected to nest (Cooper's hawk, prairie falcon, and turkey vulture) and/or forage throughout suitable habitat in the watershed.

As a group these species may forage in virtually all the habitats on the Mission Village project site and immediate vicinity, including agriculture, disturbed land, grassland, coastal scrub, chaparral, riparian, and woodland. However, each of the species typically uses some subset of these habitats. For example, ferruginous hawk typically forages over open lands, such as grassland and agriculture, while Cooper's hawk primarily forages in riparian and woodland habitat and adjacent coastal scrub. Wintering or

migrant sharp-shinned hawks may forage in all of the habitats listed above. For the purpose of this analysis, therefore, all of these habitats are considered to be suitable for the Bird–Raptor guild.

Based on the California GAP data,⁷¹⁸ there are approximately 836,000 acres of suitable foraging habitat for these species in the SCRW. It is not expected that all 836,000 acres are used by all members of this guild because of the different foraging habitat preferences of the different species.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project (encompassing the Mission Village project site), would cause the loss of approximately 38,000 acres of 836,000 acres of suitable foraging habitat for species in the Bird–Raptor guild. Without accounting for past, present or reasonably foreseeable mitigation for these habitats (particularly upland habitats), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of 38,000 acres of habitat in the SCRW could be a potential significant impact on the habitat for these species. The contribution of the RMDP/SCP project to this potential significant cumulative impact is 5,590 acres of the habitats, including approximately 1,484 acres of permanent and temporary disturbance on the Mission Village project site. This contribution by the Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, also could result in potential long-term secondary effects, including increased human activity; pesticide use resulting in loss of prey and/or secondary poisoning; harassment and predation by pet, stray, and feral cats and dogs; and increased predation by mesopredators. The larger species such as turkey vulture would have increased potential for entanglement with power lines poles, resulting in physical injury or death from electrocution. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR (**subsection 4.3.10**, Project Mitigation Measures) would establish a large, managed open space system that includes substantial foraging habitat for these species, including 1,609 acres for Cooper's hawk (includes potential breeding habitat), 2,996 acres for ferruginous hawk, 3,086 acres for merlin, 1,409 acres for prairie falcon, 6,574 acres for sharp-shinned hawk, and 4,267 acres for turkey vulture. This habitat would be set aside in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area (**Figure 4.3-31**). This set-aside would also help mitigate long-term

⁷¹⁸ UCSB, *California Gap Analysis Project*.

secondary effects by providing adequate protected open space away from the edge of development. Several specific mitigation measures would also be implemented to control human activities in open space areas, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. All lighting would be downcast away from open space areas. Rodenticides would be controlled through an integrated pest management (IPM) plan. Installation of new or relocation of existing power lines in the High Country SMA/SEA 20 and Salt Creek area would be coordinated with CDFG and structures would be designed in accordance with Avian Power Line Interaction Committee⁷¹⁹ guidelines and operated with anti-perching devices to help reduce collisions and electrocutions.

In addition to these measures reducing impacts to these species at the project level, these species have broad geographic ranges, are likely to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Bird—Riparian. This guild includes black-crowned night-heron and Nuttall’s woodpecker.

The designated sensitive resource for the black-crowned night-heron is roosts or rookery sites, none of which have been documented in the RMDP/SCP project area (which encompasses the Mission Village project site) during the numerous avian surveys conducted in riparian habitats. Because roosts or rookery sites do not occur on the Mission Village project site, there would be no impacts resulting from the proposed project and no cumulative effects of the proposed Mission Village project on roosts or rookery sites for this species. Therefore, this species is not addressed further in this analysis.

Nuttall’s woodpecker was observed nearly every year in the RMDP/SCP project area during riparian bird spring surveys and is considered to be common in riparian and woodland habitats in the area. It is likely to use riparian and woodland habitats on and adjacent to the Mission Village project site. It is also commonly observed in riparian and woodland habitats elsewhere in Southern California during biological surveys. For the purpose of this analysis, Nuttall’s woodpecker is considered to be common in suitable habitat throughout the watershed.

⁷¹⁹ APLIC, *Avian Protection on Power Lines*.

Based on the California GAP data,⁷²⁰ there are approximately 30,000 acres of suitable habitat for Nuttall's woodpecker in the SCRW. It is not expected that all 30,000 acres are used by this species, but because it is relatively common species in suitable habitat, it is likely to have a broad distribution in the watershed.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project (which encompasses the Mission Village project site), would cause the loss of approximately 1,100 acres of 30,000 acres of suitable habitat for Nuttall's woodpecker. The contribution of the RMDP/SCP project to this potential significant cumulative impact is 320 acres of the habitats, including approximately 98 acres of permanent and temporary disturbance on the Mission Village project site. This contribution by the Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, also could result in potential long-term secondary effects including noise; lighting; invasive species, such as giant reed, tamarisk, and Argentine ants; increased human activity; increased predation; and use of pesticides which could reduce prey and cause secondary poisoning. These secondary impacts would not be cumulatively significant because of this species' common occurrence in suitable habitat and widespread distribution.

Although impacts to habitat and secondary effects on Nuttall's woodpecker would not be cumulatively significant, the mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR for other special-status riparian birds (**subsection 4.3.10**, Project Mitigation Measures) would protect riparian habitat and establish a large, managed open space system, all of which would reduce impacts to this species. This mitigation would result in the preservation and management of approximately 1,629 acres of suitable habitat for Nuttall's woodpecker. This set-aside of lands would also reduce long-term secondary effects. In addition, lighting restrictions along the perimeter of natural areas would help avoid predation of nest sites by nocturnal predators and avoid physiological stress. Limited recreational usage and access restrictions within the River Corridor SMA/SEA 23 and High Country SMA/SEA 20; control of pet, stray, and feral cats and dogs in or near open space areas; trail signage; and homeowner education regarding special-status resources in preserved natural habitat areas would help protect this species by allowing it to nest and forage without disturbance. Controls on pesticides would reduce the chance of secondary poisoning and loss of prey. Controls on Argentine ants would help reduce impacts on young in nests.

⁷²⁰ UCSB, *California Gap Analysis Project*.

Bird—Upland Scrub and Chaparral. This guild includes Allen’s hummingbird, Bell’s sage sparrow, black-chinned sparrow, Costa’s hummingbird, rufous hummingbird, and Southern California rufous-crowned sparrow.

The rufous-crowned sparrow is a relatively common breeding resident in the RMDP/SCP project area and is expected to nest in the coastal scrub on the Mission Village project site.

The Bell’s sage sparrow has not been observed in the RMDP/SCP project area, but two individuals were observed on the adjacent Legacy project site and the species has the potential to nest in small numbers on the Mission Village project site.

The Allen’s and Costa’s hummingbirds are regularly observed in the RMDP/SCP project area and have high potential to nest on the Mission Village project site.

The rufous hummingbird is regularly observed in the early spring in the RMDP/SCP project area and is assumed to use the Mission Village project site during migration but not for breeding.

The black-chinned sparrow has not been observed in the RMDP/SCP project area and is considered to have a low potential to nest on the Mission Village project site. There are no occurrence records in the CNDDDB for the SCRW for any of these species, but because most are still relatively common and are often observed by biologists where they occur, the lack of occurrences is probably due to under-reporting. It is assumed for this analysis that their occurrence in the larger watershed is comparable to their occurrence in the RMDP/SCP project area, including the Mission Village project site.

As a group, these species forage and nest (if a breeding resident) in coastal scrub and/or chaparral throughout their ranges. However, on site, and possibly in the region, the Bell’s sage sparrow is expected to occur only in chaparral.⁷²¹ In addition, the Allen’s hummingbird, Costa’s hummingbird, and rufous hummingbird also commonly forage, and Allen’s hummingbird may nest, in riparian and woodland habitats. Therefore, for these three species the riparian and woodland habitats are included in this analysis.

Based on the California GAP data,⁷²² there are approximately 725,000 acres of suitable coastal scrub and chaparral habitat for black-chinned sparrow and Bell’s sage sparrow and 755,000 acres of suitable coastal scrub, chaparral, riparian, and woodland habitat for Allen’s hummingbird, Costa’s hummingbird, and rufous hummingbird in the SCRW. It is not expected that all of these acreages are used by all of these

⁷²¹ Garrett and Dunn, *The Birds of Southern California*.

⁷²² UCSB, *California Gap Analysis Project*.

species. Based on the RMDP/SCP project area occurrences, the Southern California rufous-crowned sparrow and the hummingbirds may be fairly common elsewhere in the SCRW, but the black-chinned sparrow and Bell's sage sparrow probably are much less common.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project, would cause the loss of approximately 33,000 acres of 725,000 acres of coastal scrub and chaparral for black-chinned sparrow and Bell's sage sparrow and approximately 34,000 acres of 755,000 acres of coastal scrub, chaparral, riparian, and woodland habitat Allen's hummingbird, Costa's hummingbird, and rufous hummingbird. Without accounting for past, present or reasonably foreseeable mitigation (particularly for upland scrub and chaparral), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of this habitat in the SCRW could be a potential significant impact on the habitat for these species. The contribution of the RMDP/SCP project to the impact on coastal scrub and chaparral is 1,980 acres, including approximately 706 acres of permanent and temporary disturbance on the Mission Village project site. The contribution of the RMDP/SCP project to the impact on coastal scrub, chaparral, riparian, and woodland habitat is 2,300 acres, including approximately 804 acres of permanent and temporary disturbance on the Mission Village project site. These contributions by the Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, also could result in potential long-term secondary effects including noise; lighting; invasive plant species and Argentine ants (increasing mortality of young of breeding residents); increased human activity; increased predation; and use of pesticides which could reduce prey and cause secondary poisoning. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR (**subsection 4.3.10**, Project Mitigation Measures) would protect suitable habitat for these species and establish a large, managed open space system. The open space system would include approximately 3,487 acres of coastal scrub and chaparral for the black-chinned sparrow, 1,488 acres of chaparral for Bell's sage sparrow, and approximately 3,860 acres of coastal scrub, chaparral, riparian, and woodland habitat for the hummingbirds. This set-aside of lands would also reduce long-term secondary effects. In addition, for breeding residents lighting restrictions along the perimeter of natural areas would help to reduce predation of nest sites by nocturnal predators and reduce physiological stress. Limited recreational usage and access restrictions within the River Corridor SMA/SEA 23 and High Country SMA/SEA 20; control of

pet, stray, and feral cats and dogs in or near open space areas; trail signage; and homeowner education regarding special-status resources in preserved natural habitat areas would help protect these species by allowing them to nest and forage without disturbance. Controls on pesticides would reduce the chance of secondary poisoning and loss of prey. Controls on Argentine ants would help reduce impacts on young in nests.

In addition to these measures reducing impacts to these species at the project level, these species have broad geographic ranges, are likely to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Bird—Upland Grassland. This guild includes only California horned lark. This species is commonly observed in the RMDP/SCP area within the Santa Clara River and adjacent agricultural fields. Although this species has not been documented to nest in the RMDP/SCP project area (which encompasses the Mission Village project site), suitable nesting habitat exists in the area. Therefore, it is assumed that California horned lark could nest on the Mission Village project site. Based in frequent observations of this species in the RMDP/SCP project area and because it is commonly observed by biologists elsewhere in Southern California, it is assumed that the California horned lark commonly occurs in suitable habitat in the SCRW, including annual and native grassland, agriculture, and disturbed land.

Based on the California GAP data,⁷²³ there are approximately 78,000 acres of suitable in the SCRW for California horned lark. It is not expected that all 78,000 acres are used by this species, but it is common enough and has broad enough habitat preferences, that it could occur almost anywhere in these habitats where there is available insect prey, such as freshly disced fields.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project and the Mission Village project, would cause the loss of approximately 3,790 acres of 78,000 acres of suitable habitat for the California horned lark. The contribution of the RMDP/SCP project to this cumulative impact is 3,380 acres of the habitats, including approximately 871 acres of permanent and temporary disturbance on the Mission Village project site. The contribution of the RMDP/SCP project, including the

⁷²³ UCSB, *California Gap Analysis Project*.

proposed Mission Village project, is considered an adverse but not significant cumulative impact to this species because it is still common and widespread within its range and uses a variety of habitats.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, could result in potential long-term secondary effects, including habitat fragmentation; abandonment of nests from human activity; greater vulnerability to nocturnal predators as a result of nighttime lighting; noise from roadways; nest parasitism by cowbirds; greater vulnerability to predation by pet, stray, and feral cats and dogs and other mesopredators; and loss of prey or secondary poisoning due to the use of pesticides. Although these effects could occur, substantial relatively undisturbed winter foraging habitat would remain in the SCRW, which would allow the California horned lark to avoid many of these effects. Secondary effects to wintering birds would be adverse but not significant. Also, this species has not been documented to nest on the Mission Village project area or in the larger RMDP/SCP project area, and if it did, the nesting population probably would be small. Therefore, cumulative secondary impacts to nesting birds, such as cowbird parasitism, would be adverse but not significant.

Even though impacts to the California horned lark and its habitat would not be cumulatively significant and mitigation measures are not required, the mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR (**subsection 4.3.10**, Project Mitigation Measures) for other project-level impacts to biological resources will be implemented that will further reduce any potential impacts. These mitigation measures also include habitat preservation, restoration, enhancement, and management of the High Country SMA/SEA 20 and Salt Creek area—areas that will form a large, contiguous open space system that includes 995 acres of California annual grassland, agriculture, and disturbed land. This set-aside of lands will also reduce potential long-term secondary effects. In addition, for breeding residents lighting restrictions along the perimeter of natural areas will help to reduce predation of nest sites by nocturnal predators and reduce physiological stress. Limited recreational usage and access restrictions within the River Corridor SMA/SEA 23 and High Country SMA/SEA 20; control of pet, stray, and feral cats and dogs in or near open space areas; trail signage; and homeowner education regarding special-status resources in preserved natural habitat areas will help protect this species by allowing it to nest and forage without disturbance.

Bird—Upland Woodland. This guild includes chipping sparrow, Lawrence’s goldfinch, hermit warbler, and oak titmouse. All of these species have been observed in the RMDP/SCP project area and the chipping sparrow, Lawrence’s goldfinch, and oak titmouse are considered to be breeding residents. The hermit warbler is considered to be a winter migrant. These species have potential to occur on the Mission Village project site. All of these species are fairly common to abundant in suitable habitat and are commonly observed by biologists during surveys in Southern California. Although the primary habitat

for these species is upland woodland, they also forage and nest in riparian habitats. Therefore, for the purpose of the cumulative analysis suitable habitat for these species is defined as woodland and riparian.

Based on the California GAP data,⁷²⁴ there are approximately 30,000 acres of suitable woodland and riparian habitat in the SCRW for these species. It is not expected that all 30,000 acres are used by these species, but because they are still common to abundant within their ranges, and based on regular observations of these species in the RMDP/SCP project area, these species area assumed to be fairly common in suitable habitat in the SCRW.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project (encompassing the Mission Village project site), would cause the loss of approximately 1,100 acres of 30,000 acres of suitable habitat for these. The contribution of the RMDP/SCP project to this potential significant cumulative impact is 320 acres of the habitats, including approximately 98 acres of permanent and temporary disturbance on the Mission Village project site. The contribution of the RMDP/SCP project, including the proposed Mission Village project, is considered an adverse but not significant cumulative impact to this species because they are still common and widespread within their range and uses a variety of habitats, including substantial riparian and oak woodland vegetation communities within the RMDP/SCP project area, National Forest system lands, and other designated open space within the watershed.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, also could result in potential long-term secondary effects, including habitat fragmentation; abandonment of nests from human activity; greater vulnerability to nocturnal predators as a result of nighttime lighting; noise from roadways; nest parasitism by cowbirds; greater vulnerability to predation by pet, stray, and feral cats and dogs and other mesopredators; and loss of prey or secondary poisoning due to the use of pesticides. Although these effects could occur, substantial undisturbed habitat would remain in the SCRW, which would allow these species to avoid many of these effects. Therefore, cumulative secondary impacts to migrant (hermit warbler) and nesting birds would be adverse but not significant.

Even though impacts to these species and their habitat would not be cumulatively significant and mitigation measures are not required, the mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR (**subsection 4.3.10**, Project Mitigation Measures) for other project-level impacts to biological resources would be implemented and would further reduce any potential impacts. These mitigation measures include habitat preservation, restoration, enhancement, and

⁷²⁴ UCSB, *California Gap Analysis Project*.

management of the High Country SMA/SEA 20 and Salt Creek area -- areas that would form a large, contiguous open space system that includes 1,560 acres of riparian and woodland habitat. This set-aside of lands would also reduce potential long-term secondary effects. In addition, for breeding residents lighting restrictions along the perimeter of natural areas would help to reduce predation of nest sites by nocturnal predators and reduce physiological stress. Limited recreational usage and access restrictions within the River Corridor SMA/SEA 23 and High Country SMA/SEA 20; control of pet, stray, and feral cats and dogs in or near open space areas; trail signage; and homeowner education regarding special-status resources in preserved natural habitat areas would help protect these species by allowing them to nest and forage without disturbance.

Bats. This guild includes fringed myotis, long-legged myotis, western small-footed myotis, and Yuma myotis. The presence of the fringed myotis and Yuma myotis was confirmed in the RMDP/SCP project area through acoustic detection (fringed myotis) and capture (Yuma myotis). The presence of long-legged myotis and western small-footed myotis was not confirmed, but bats with acoustic signatures in the 40 kHz range, which is the range for these two species, were detected on site in 2004 and 2006. Therefore, long-legged myotis and western small-footed myotis potentially occur in the RMDP/SCP project area. Suitable habitat for these species is present on the Mission Village project site, so they may occur on the site. There are no CNDDDB records of these species elsewhere in the SCRW. However, comprehensive surveys for these species have not been conducted throughout the SCRW. Because species are foraging generalists and use a variety of habitats (although the Yuma myotis primarily uses riparian and wetland habitats), it is assumed that these species could occur throughout the SCRW at least in low numbers. The main limitation for the occurrence of these species probably is a lack of day roosts sites, such as a caves, crevices, rock outcrops, tunnels, etc.

This cumulative analysis addresses the loss of foraging habitat for these species. As foraging generalists, they use a variety of habitats, but probably concentrate most of their foraging activity in wetland and riparian habitats. Suitable foraging habitat for bats includes coastal scrub, chaparral, grassland, riparian, oak woodland, agriculture, and disturbed land. Based on the California GAP data,⁷²⁵ there are approximately 836,000 acres of suitable foraging habitat for bats in the SCRW. It is not expected that all 836,000 acres are used by these bats for foraging because this habitat must be within typical flight distances of day roosts.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project, would cause the loss of approximately 38,000 acres of 836,000 acres of suitable foraging habitat for these bats. Without accounting for past, present or reasonably foreseeable mitigation, or the RMDP/SCP project's individual

⁷²⁵ UCSB, *California Gap Analysis Project*.

contribution to mitigation for loss of habitat, the loss of this habitat in the SCRW could be a potential significant impact on the habitat for these species. The contribution of the RMDP/SCP project to this potential significant cumulative impact is 5,590 acres of the habitats, including approximately 1,484 acres of permanent and temporary disturbance on the Mission Village project site. This contribution by the Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

In addition to loss of foraging habitat, day roosts, including maternal roosts, may be present in the SCRW and subject to potential impacts as a result of present and reasonably foreseeable projects. Although no day roosts for these species were detected in the RMDP/SCP project area, there is a potential for day roost sites to be established in the RMDP/SCP project area, including the Mission Village project site, and to occur elsewhere in the SCRW. Without accounting for past, present or reasonably foreseeable mitigation (particularly upland habitats), or the RMDP/SCP project's individual contribution to mitigation for loss of day roosts, the loss of roost sites could result in a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential significant cumulative impact, if a day roost were impacted by construction activities, could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, also could result in potential long-term secondary effects resulting from increased human activity, noise, and lighting. Use of pesticides for agriculture or in landscaped areas may result in secondary poisoning and reduction of prey. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The cumulative loss of foraging habitat and day roost sites, and long-term secondary impacts to these bats species would be reduced through several mitigation measures required by the Newhall Ranch Specific Plan EIR and recommended in this EIR (**subsection 4.3.10**, Project Mitigation Measures). These measures include habitat preservation, restoration, enhancement, and management of approximately 6,300 acres in the River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek area—areas that would form a large, contiguous open space system providing foraging and potential roosting habitat for bats. It is expected that the species in this guild would continue to forage in these areas after buildout of the RMDP/SCP project area. Alternative roost sites would be created to mitigate for any day roost sites disturbed during construction, including creation of roosts under bridges and in culverts, where practicable, in consultation with CDFG. Species measures to reduce potential long-term secondary impacts include controls on public access and lighting.

In addition to these measures reducing impacts to these species at the project level, these species have broad geographic ranges, are likely to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Mammal—High Mobility. This guild includes American black bear, mountain lion, and mule deer. The mountain lion and mule deer are both present in the RMDP/SCP project area. The RMDP/SCP project area supports about 14,300 acres (22 square miles), which is probably not large enough to encompass the entire home range of a mountain lion individual (e.g., mountain home ranges in the Santa Ana Mountains range from about 32 to 86 square miles, with a mean of 43 square miles⁷²⁶), but assuming some range overlap of individuals, the RMDP/SCP project area could be included in the home ranges of two or three individuals. Female home ranges are generally much smaller than male ranges and may be as small as 20 square miles or as large as 60 square miles.⁷²⁷ Note also that the size of an individual's home range can vary from season to season and year to year, and is probably dependent on prey density and available stalking cover.⁷²⁸ In areas where habitat is limited, population densities can reach 10 adults per 100 square miles.⁷²⁹ Also, the RMDP/SCP project area supports habitat for mountain lions dispersing through the region, and the species is expected to occasionally occur on the Mission Village project site. Mule deer are common in the RMDP/SCP project area and currently use much of the area; this species likely occurs on the Mission Village project site with some frequency. American black bear has been documented to use the High Country SMA/SEA 20 and there may be some suitable denning habitat in the High Country SMA/SEA 20 and Salt Creek area. This species also may very occasionally use the Mission Village project site when moving between the Santa Susana Mountains and Santa Monica Mountains to the south and the Los Padres National Forest and Angeles National Forest in the Sierra Madre Mountains to the north; however, most movement by black bear is likely to occur west of the Mission Village project

⁷²⁶ W.D. Padley, *Mountain Lion Ecology in the Southern Santa Ana Mountains, California* (1989); W.D. Padley, "Female Mountain Lion (*Felis concolor*) Home Ranges in the Southern Santa Ana Mountains, California," abstract in *Fifth Mountain Lion Workshop* (San Diego, California: California Department of Fish and Game and the Southern California Chapter of the Wildlife Society, 1996).

⁷²⁷ Stephenson and Calcarone, *Southern California Mountains and Foothills Assessment*.

⁷²⁸ P. Currier, "Felis concolor," *Mammalian Species* 200 (1983), 1-7.

⁷²⁹ Stephenson and Calcarone, *Southern California Mountains and Foothills Assessment*.

site. All three species are considered to be relatively common to common in suitable habitat in the SCRW, but primarily use the more remote areas of the watershed north and south of the RMDP/SCP project area.

These species use a variety of habitats, and probably are limited in their habitat use only by the amount of vegetation cover available. Of the various habitats in the SCRW, these species will use all of them except large areas of annual grassland, agriculture, and disturbed lands that lack cover, although mule deer often forage in grassland at the edges of shrubland, riparian, and woodland habitats. For the purpose of this analysis, suitable habitat for these species is defined as coastal scrub, chaparral, riparian, and oak woodland.

Based on the California GAP data,⁷³⁰ there are approximately 755,000 acres of suitable habitat for these species the SCRW. It is not expected that all 755,000 acres are used by all of these species. Based on the RMDP/SCP project area occurrences, the mule deer may be relatively common in these habitats, but the mountain lion and black bear are expected to be much less common.

Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project, would cause the loss of approximately 34,000 acres of these habitats. This loss of habitat could be a potential significant impact on these species in the watershed. The contribution of the RMDP/SCP project to this potential significant cumulative impact is 2,300 acres of the habitats, including approximately 804 acres of permanent and temporary disturbance on the Mission Village project site. This contribution by the Mission Village project to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed Mission Village project, also could result in potential long-term secondary effects, including nighttime illumination of areas adjacent to open space, which could disrupt foraging and movement behavior; increased vehicle collisions at new and expanded roadways; increased encounters with humans and pet, stray, and feral dogs; and the use of rodenticides to control small mammals (e.g., ground squirrels and rabbits, which are prey for mountain lion), which may reduce prey populations and possibly cause secondary poisoning of predators. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed Mission Village project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

⁷³⁰ UCSB, *California Gap Analysis Project*.

Several mitigation measures would be implemented to reduce cumulative impacts to habitat and long-term secondary effects associated with development. The mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR (**subsection 4.3.10**, Project Mitigation Measures) include habitat preservation, restoration, enhancement, and management of upland and riparian habitat areas in the River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek area that would form a large, contiguous open space system of about 6,300 acres that supports these species. It is expected that these species would continue to use these areas as resident and movement habitat after buildout of the RMDP/SCP project area. The set-aside of lands also would reduce long-term secondary effects, such as increased noise, lighting, and increased human activity because individuals would have access to substantial habitat in undisturbed open space that would support their life history needs, including foraging, reproduction, movement, and dispersal. Long-term secondary effects, such as increased human activity; pet, stray, and feral dogs; lighting; and rodenticides would also be mitigated through a variety of measures associated with management of open space.

As discussed in detail in **subsection 4.3.9.b.1.e**, Wildlife Habitat Linkages, the RMDP/SCP project (encompassing the Mission Village project site) may affect regional habitat connectivity and movement by these species. The combined High Country SMA/SEA 20 and Salt Creek area provide the most direct connections between the River corridor habitat and large upland habitat areas south of the River, and are those identified by Penrod et al.⁷³¹ as important components of regional habitat connectivity. The River Corridor SMA/SEA 23 also is an important east-west habitat linkage and intersects the north-south linkage provided by the High Country SMA/SEA 20 and Salt Creek area. These habitat linkages would remain intact and functional after implementation of the RMDP and SCP and buildout of the Specific Plan (including the Mission Village project site), VCC, and Entrada planning areas. The impact of the RMDP/SCP project on regional habitat connectivity, therefore, was determined to be adverse but not significant. Other present and reasonably foreseeable projects considered in this analysis would not affect these regional habitat linkages.

In addition to these measures reducing impacts to these species at the project level, these species have broad geographic ranges, are known to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands that provide primary habitat for these species in the SCRW.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact

⁷³¹ Penrod et al., *South Coast Missing Linkages Project*.

due to loss of suitable habitat; (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects; or (4) a cumulatively considerable contribution to a potential significant impacts to regional wildlife habitat linkages.

(d) Listed Plant Species

San Fernando Valley Spineflower (CE). The San Fernando Valley spineflower occurs at two known locations: on Newhall Land property in Los Angeles County and on the Upper Las Virgenes Canyon Open Space Preserve (formerly Ahmanson Ranch) in Ventura County. The Upper Las Virgenes Canyon Open Space Preserve occurrence lies outside the SCRW boundary; however, it is included in this cumulative impacts analysis as it is the only other known occurrence of this species. The total cumulative area occupied by San Fernando Valley spineflower, including the RMDP/SCP project site and the Ventura County site, is 30.84 acres. Of that total, 20.24 acres are on Newhall Land property and 10.60 acres are at Upper Las Virgenes Canyon Open Space Preserve. The Preserve land is owned by the State of California and is managed by the Mountains Recreation and Conservation Authority, and is preserved in perpetuity.

Due to San Fernando Valley spineflower's very limited known distribution, occurring on 30.84 acres of known occupied habitat, almost any habitat loss would be potentially significant, on both a project-specific and cumulative basis.

The Mission Village project would result in the loss of, 3.29 acres of known occupied spineflower habitat. Mission Village's contribution to cumulative impact on all known occupied spineflower habitat (30.84 acres) would be significant, absent mitigation. However, the implementation of the Spineflower Conservation Plan, including the preservation and management of the other four proposed preserves within the RMDP/SCP planning area, would mitigate its specific and cumulative impacts to spineflower to less than significant. Therefore, Mission Village's cumulative contribution to the impact would be less than significant.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the RMDP/SCP project, also could result in potential long-term secondary effects, including hydrologic alterations and water quality impacts; accidental clearing, trampling, and grading; runoff, sedimentation, erosion and chemical and toxic compound pollution; exposure to fugitive dust; the introduction of non-native, invasive plant and animal species; increased human activity and trampling and soil compaction; and increased risk of fire. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the RMDP/SCP project, including

the proposed Mission Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

(e) California Native Plant Society (CNPS) and Locally Regulated Plant Species

Undescribed everlasting.⁷³² This undescribed species does not have a CNPS listing status, but is assumed to meet the criteria for designation to CNPS List 1B for purposes of this analysis. The undescribed everlasting was observed on sandy, alluvial benches along the Santa Clara River and within Hasley Canyon. This undescribed everlasting occurs from San Luis Obispo south to San Diego counties, west of the Peninsular and Transverse Ranges. Because this species is associated with sandy alluvial benches along river floodplains, it was not possible to model suitable habitat within the RMDP/SCP project area, nor within the SCRW, based on the California GAP vegetation database,⁷³³ which was compiled at a broad scale and necessarily lower precision. Therefore, cumulative impacts to this species are analyzed based on the loss of individuals of this species.

Of the 900 (approximately) individual undescribed everlastings counted in 2004, the RMDP/SCP project, which includes the Mission Village project, would cause 357 to be lost. This species' distribution on site is expected to be limited to the floodplain of the Santa Clara River and the lower portions of major tributaries. It is anticipated that other present and reasonably foreseeable proposed development within the SCRW would impact occurrences of this species, although it is likely that there would be some level of avoidance of these riparian areas. This could be a potential significant cumulative impact for this species within the watershed. The contribution of the proposed Mission Village project to the loss of individuals could be a significant cumulative impact, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased human activity, trampling, and soil compaction; and hydrologic alterations and water quality impacts. This could be a potential significant cumulative impact for this species within the watershed. The contribution of the proposed Mission Village project to these secondary impacts could be cumulatively considerable, absent mitigation.

The mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR includes avoidance and minimization measures, including salvage of seeds and/or transplantation (see

⁷³² Some experts identify this species as white-headed cudweed (*Gnaphalium leucocephalum*), which is a CNPS List 2.2 species (S3.2).

⁷³³ UCSB, *California Gap Analysis Project*.

subsection 4.3.10, Project Mitigation Measures). As required by **MV 4.3-75** and **MV 4.3-76**, focused surveys to be conducted prior to the commencement of grading/construction activities within suitable habitat for the undescribed everlasting would ensure that individual plants are detected. Avoidance measures, and, if necessary, the salvage of seeds and/or transplantation of individuals identified within the disturbance area to an appropriate receptor site within the River Corridor SMA/SEA 23 where long-term preservation is provided, shall be implemented as outlined within the undescribed everlasting mitigation and monitoring plan. In addition, mitigation measures designed to provide for the long-term maintenance of the River Corridor SMA/SEA 23 in a natural state by restricting access and prohibiting grazing, agriculture, and recreation within the River Corridor SMA/SEA 23, as well as providing for the restoration and enhancement of habitat within the River Corridor SMA/SEA 23, would mitigate the loss of undescribed everlasting.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; or (2) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Newhall sunflower. This species is a CNPS List 1B.1 plant but has no federal status. This species is only known to occur in the Middle Canyon drainage in the RMDP/SCP project area. Therefore, there would be no other known impacts to this species by other projects in Los Angeles and Ventura counties and, therefore, there would be no cumulative impacts.

Island mountain-mahogany. This CNPS List 4.3 species is known to occur on site within chaparral within the Specific Plan and Entrada planning areas of the RMDP/SCP project area. Island mountain-mahogany was observed nearly every year in the RMDP/SCP project area and is considered to be common in chaparral vegetation communities on site. This species has been documented in chaparral throughout Los Angeles and Ventura counties, including the Channel Islands (except San Clemente Island).⁷³⁴ Island mountain-mahogany is fairly common in suitable habitat throughout the watershed.

As described in **Table 4.3-26**, Summary of Cumulative Impacts to CNPS and Locally-Regulated Plant Species in the Santa Clara River Watershed, based on the California GAP data,⁷³⁵ there are approximately 550,000 acres of chaparral in the SCRW, although island mountain mahogany are not expected to occur in all 550,000 acres. For example, within the RMDP/SCP project area, island mountain-

⁷³⁴ CNPS, *Inventory of Rare and Endangered Plants (2009)*, <http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi>; Hickman, *The Jepson Manual*.

⁷³⁵ UCSB, *California Gap Analysis Project*.

mahogany was found primarily in chaparral at the base of north-facing slopes. Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project, would cause the loss of approximately 12,500 acres of 550,000 acres of chaparral. This could be a potential significant cumulative impact for this species within the watershed. The contribution of the RMDP/SCP project to this potential significant cumulative impact is 460 acres. This loss of habitat would not be a cumulatively considerable contribution to a potential significant cumulative impact because of this species' widespread distribution within its range.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased human activity, trampling, and soil compaction; and increased risk of fire. These secondary impacts would not be a significant cumulative impact because of this species' widespread distribution within its range, and the configuration of large tracts of chaparral within the SCRW results in a relatively low ratio of edge to core habitat and, therefore, reduces the chance of edge-related secondary impacts.

Late-flowered mariposa lily. Within the RMDP/SCP project area, this CNPS List 1B.2 species is only known to occur in the High Country SMA/SEA 20. Implementation of the RMDP and SCP and buildout of the Specific Plan, VCC, and Entrada planning areas would not result in any direct or indirect impacts to late-flowered mariposa lily. Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the RMDP/SCP project, could, however, result in potential long-term secondary effects, including the introduction of non-native, invasive plant species and increased human activity, trampling, and plant collecting. This could be a potential significant cumulative impact for this species within the watershed. RMDP/SCP project implementation could result in such secondary impacts by recreational visitors in the High Country SMA/SEA 20, but these secondary impacts would be minimal because even if flowers were picked or a plant trampled, the underground bulb would remain. The RMDP/SCP project would not considerably contribute to a potential significant cumulative secondary impact in the watershed.

Mainland cherry. This species does not have a CNPS listing status but is designated as special-status by the County of Los Angeles. Mainland cherry (*Prunus ilicifolia* ssp. *ilicifolia*, a subspecies of holly-leaf cherry) was observed nearly every survey year (2002 through 2007) within chaparral and big sagebrush scrub within the Specific Plan, VCC, and Entrada planning areas within the RMDP/SCP project area. Mainland cherry is an occasional component of chaparral and big sagebrush scrub vegetation communities on site. This species ranges throughout the central and southern Coast Ranges and from

Napa County southward to Baja California.⁷³⁶ Mainland cherry is an occasional component in suitable habitat throughout the watershed.

Based on the California GAP data,⁷³⁷ there are approximately 556,000 acres of chaparral and big sagebrush scrub in the SCRW, although mainland cherry is not expected to occupy all 556,000 acres (see **Table 4.3-26**). For example, within the RMDP/SCP project area, mainland cherry was found primarily in chaparral and big sagebrush scrub in association with ephemeral and/or intermittent stream channels (river wash). Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project, would cause the loss of approximately 12,000 acres of 556,000 acres of chaparral and big sagebrush scrub. This could be a potential significant cumulative impact for this species within the watershed. The contribution of the proposed Mission Village project to this potential significant cumulative impact is 460 acres. This contribution would not be cumulatively considerable because this species is relatively common and widespread throughout the SCRW.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased human activity, trampling, and soil compaction; and increased risk of fire. This would not be a significant cumulative impact for this species within the watershed because this species is relatively common and widespread throughout the SCRW. In addition, the configuration of large tracts of preserved chaparral and big sagebrush scrub within the SCRW results in a relatively low ratio of edge to core habitat and, therefore, reduces the chance of edge-related secondary impacts.

Oak Trees. Oak trees are designated as special-status by the County of Los Angeles. Oak trees were observed every year within the Specific Plan, VCC, and Entrada planning areas within the RMDP/SCP project area. Oak trees are the dominant species in oak woodland and oak/grass vegetation communities on site, as well as occasional components of other vegetation communities on site. The oak species observed on site (coast live oak, Valley oak, scrub oak, Alvord oak, and interior live oak) have been documented throughout much of California and (for coast live oak) southward to Baja California.⁷³⁸

The combined direct and indirect permanent loss of individual oak trees resulting from implementation of the RMDP and the SCP and buildout of the Specific Plan, VCC, and Entrada planning areas would total 1,370 individuals (5.9 percent of the oak trees in the RMDP/SCP project area). It is anticipated that

⁷³⁶ Hickman, *The Jepson Manual*; N.E. McMurray, "Prunus ilicifolia," Fire Effects Information System, U.S. Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory, <http://www.fs.fed.us/database/feis/>. 2007.

⁷³⁷ UCSB, *California Gap Analysis Project*.

⁷³⁸ Hickman, *The Jepson Manual*; McMurray, "Prunus ilicifolia."

present and reasonably foreseeable projects in the SCRW would impact other occurrences of these species. Due to the coarse scale of mapping, oak woodlands were not mapped for any of the projects listed as past, present, or reasonably foreseeable in the California GAP database.⁷³⁹ Nonetheless, the fact that oaks occur in the RMDP/SCP project area (despite not occurring in the GAP data) suggests that oaks probably occur at least in small numbers on other project sites. This could be a potential significant cumulative impact for these species within the watershed. The contribution of the RMDP/SCP project to the cumulative loss of individual oak trees could be cumulatively considerable, absent mitigation.

Past, present, and reasonably foreseeable projects, including the RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; hydrologic alterations and water quality impacts; increased human activity that may result in littering, vandalism, and increased susceptibility to diseases, and trampling and soil compaction; and an increased risk of fire. The RMDP/SCP project's contribution to these impacts in the watershed would not be a significant cumulative impact because the configuration of large tracts of oak woodland vegetation communities within the SCRW results in a relatively low ratio of edge to core habitat and, therefore, reduces the chance of edge-related secondary impacts.

The mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR includes avoidance and minimization measures (see **subsection 4.3.10**, Project Mitigation Measures). The applicant would implement several mitigation measures to avoid, minimize, and mitigate impacts to individual oak trees and their associated habitat. The proposed mitigation encompasses a three-part strategy that incorporates (1) planting replacement trees, per the requirements of CLAOTO and previously incorporated measure SP-4.6-48; (2) additional replacement ratios recommended in this EIR for impacts to oak trees and oak woodlands where they occur within stream channels falling under CDFG and Corps jurisdiction, per 1600 and 404 (BIO-2); and (3) additional measures recommended in this EIR for tree replacement or woodland restoration/enhancement to mitigate for oak trees and woodland occurring in uplands outside CDFG and Corps jurisdiction (**MV 4.3-28**). General procedures to avoid and minimize impacts to oak trees during construction would be implemented and a qualified biologist would be present during construction in order to avoid inadvertent impacts to biological resources outside of the grading area, further reducing impacts to the species.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; or (2) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

⁷³⁹ UCSB, *California Gap Analysis Project*.

Oak-leaved nemophila. This CNPS List 4.3 species was known to occur from Tuolumne County south through Kern County.⁷⁴⁰ Occurrences on the RMDP/SCP project site are the southernmost recorded occurrences of the species. Oak-leaved nemophila was found in several locations within oak woodland within the Specific Plan area. Oak-leaved nemophila is assumed to occur as an occasional component of oak woodlands within the Specific Plan area. For the purpose of this analysis, oak-leaved nemophila is considered to be an occasional component of oak woodlands throughout the watershed. It is anticipated that present and reasonably foreseeable projects in the SCRW would impact occasional occurrences of this species.

Based on the California GAP data,⁷⁴¹ there are approximately 5,170 acres of oak woodland vegetation communities in the SCRW (see **Table 4.3-26**). Based on the project-level mapping, 95 acres (out of 1,168 acres) of oak woodland vegetation communities on site would be impacted by the RMDP/SCP project. Given the presence of oak woodland vegetation communities within the RMDP/SCP project area, National Forest system lands and other designated open space within the watershed,⁷⁴² the impact to occasional individuals would not be a significant cumulative impact.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased human activity, trampling, and soil compaction; and increased risk of fire. These secondary effects would not be a significant cumulative impact because the configuration of large tracts of oak woodland vegetation communities conserved within the SCRW results in a relatively low ratio of edge to core habitat and, therefore, reduces the chance of edge-related secondary impacts.

Ojai navarretia. Within the RMDP/SCP project area, this CNPS List 1B.1 species is only known to occur in the Salt Creek area. Implementation of the RMDP and SCP and buildout of the Specific Plan, VCC, and Entrada planning areas would not result in any direct or indirect impacts to Ojai navarretia. Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the RMDP/SCP project, could, however, result in potential long-term secondary effects, including the introduction of non-native, invasive plant species and increased human activity, and trampling. This could be a potential significant cumulative impact for this species within the watershed. RMDP/SCP project implementation could result in such secondary impacts by recreational visitors in the Salt Creek area, but these secondary impacts would be minimal. The RMDP/SCP project

⁷⁴⁰ CNPS, *Inventory of Rare and Endangered Plants*.

⁷⁴¹ UCSB, *California Gap Analysis Project*.

⁷⁴² UCSB, *California Gap Analysis Project*.

would not considerably contribute to a potential significant cumulative secondary impact in the watershed.

Parish's sagebrush. This species does not have a CNPS listing status but is designated as special-status by the County of Los Angeles. Parish's sagebrush occurs within big sagebrush scrub within the Specific Plan and Entrada planning areas of the RMDP/SCP project area. Parish's sagebrush occurs along coastal ranges in Baja California and Southern California, extending inland to regions south of the Great Basin.⁷⁴³ It is considered regionally rare by local botanists.⁷⁴⁴ When observed in the RMDP/SCP project area, Parish's sagebrush was found primarily intermixed with common big sagebrush within big sagebrush scrub. For the purpose of this analysis, Parish's sagebrush is considered to be a minor component of big sagebrush scrub throughout the watershed.

Based on the California GAP data,⁷⁴⁵ there are approximately 5,000 acres of big sagebrush scrub in the SCRW (see **Table 4.3-26**). Based on the GAP data, present and reasonably foreseeable projects in the SCRW would cause the loss of approximately 19 acres of 5,000 acres of big sagebrush scrub. This is likely a significant underestimate, however, due to the coarse mapping scale of the GAP data. The California GAP database does not include big sagebrush scrub within the RMDP/SCP project area, but the project-level mapping indicates that 91.3 acres of big sagebrush scrub are present on site. The RMDP/SCP project would impact 70 acres of the big sagebrush scrub on site. It is anticipated that occasional individuals of this species would be impacted by other present and reasonably foreseeable projects. Given the presence of big sagebrush scrub within the National Forest system lands and other designated open space within the watershed, the impact to occasional individuals of Parish's sagebrush would not be a significant cumulative impact.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased human activity, trampling, and soil compaction; and increased risk of fire. Cumulative impacts due to secondary effects would not be significant because of the limited amount of big sagebrush scrub within the SCRW.

Peirson's morning-glory. This CNPS List 4.2 species is known to occur on site within chaparral, coastal scrub, and grassland vegetation communities within the Specific Plan, VCC, and Entrada planning areas of the RMDP/SCP project area. Peirson's morning-glory was observed nearly every year in the

⁷⁴³ Shultz, "*Artemisia tridentata* spp. *Parishii*," 517; Shultz, "*Artemisia tridentata* spp. *Tridentata*," , 516.

⁷⁴⁴ M. Meyer, Assessment of Parish's sagebrush regional distribution by local botanists, personal communication from M. Meyer (CDFG) (October 2007).

⁷⁴⁵ UCSB, *California Gap Analysis Project*.

RMDP/SCP project area and is common in chaparral, coastal scrub, and grassland vegetation communities on site. This species has been documented in Los Angeles County in the northern San Gabriel Mountains and adjacent Mojave Desert (Antelope Valley).⁷⁴⁶ In the Liebre Mountains northeast of the RMDP/SCP project Area and largely within the SCRW, it is “widespread and locally common” in grasslands, open shrublands, and woodlands.⁷⁴⁷

Based on the California GAP data,⁷⁴⁸ there are approximately 747,000 acres of chaparral, coastal scrub, and grassland vegetation communities in the SCRW (see **Table 4.3-26**). Present and reasonably foreseeable projects in the SCRW, including the RMDP/SCP project, would cause the loss of approximately 34,000 acres of 747,000 acres of chaparral, coastal scrub, and grassland. This could be a potential significant cumulative impact. The contribution of the RMDP/SCP project to this significant cumulative impact is 3,050 acres. This contribution would not be a significant cumulative impact because of this species’ widespread distribution within its range.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased human activity, trampling, and soil compaction; and increased risk of fire. Cumulative impacts due to secondary impacts would not be significant because of this species’ widespread distribution within its range. In addition, the configuration of large tracts of chaparral, coastal scrub, and grassland vegetation communities within the SCRW results in a relatively low ratio of edge to core habitat and, therefore, reduces the chance of edge-related secondary impacts.

⁷⁴⁶ CNPS, *Inventory of Rare and Endangered Plants*; Hickman, *The Jepson Manual*.

⁷⁴⁷ S. Boyd, “Vascular Flora of the Liebre Mountains, Western Transverse Ranges, California,” *Aliso* 18(2) (1999), 93–129.

⁷⁴⁸ UCSB, *California Gap Analysis Project*.

**Table 4.3-26
Summary of Cumulative Impacts to CNPS and Locally-Regulated Plant Species
in the Santa Clara River Watershed¹**

Species	Habitat Relationships ²	Total Acres of Habitat in Watershed	Permanent Direct and Indirect Impact Acres of RMDP/SCP project	Total Impact Acres in Watershed From Present and Reasonably Foreseeable Projects (Not Including RMDP/SCP project)	Estimated Cumulative Impact Acres in Watershed after Accounting for RMDP/SCP project Plus Present and Reasonably Foreseeable Projects
island mountain-mahogany	Chaparral	550,300	460 (<0.1%)	12,000 (2.1%)	12,460 (2.3%)
mainland cherry	Big sagebrush scrub Chaparral	556,000	460 (<0.1%)	12,000 (2.1%)	12,460 (2.3%)
oaks	Oak woodland	5,170	95 (1.8%)	0 (0.0%)	95 (1.8%)
oak-leaved nemophila	Oak woodland	5,170	95 (1.8%)	0 (0.0%)	95 (1.8%)
Parish's sagebrush	Big sagebrush scrub	5,000	0 (0.0%)	19 (0.4%)	19 (0.4%)
Peirson's morning-glory	Coastal scrub Chaparral Non-native grassland	747,000	3,050 (0.4%)	31,000 (4.1%)	34,050 (4.5%)
Southern California black walnut	California walnut woodland	3,627	0 (0.0%)	0 (0.0%)	0 (0.0%)
southwestern spiny rush	Permanently flooded lacustrine habitat	5,000	0 (0.0%)	0 (0.0%)	0 (0.0%)

Notes:

¹ Acreages were not quantified for the Newhall sunflower because impacts are site-specific. Acreages were not quantified for undescribed everlasting, late-flowered mariposa lily, Ojai navarretia, Plummer's mariposa lily, and slender mariposa lily because the project-level analysis was based on impacts to individuals rather than habitat.

² Acreages based on California GAP Vegetation Communities (UCSB, California Gap Analysis Project) and project-level mapping within RMDP/SCP project boundaries.

Plummer's mariposa lily. Within the RMDP/SCP project area, this CNPS List 1B.2 species is only known to occur in the High Country SMA/SEA 20. Therefore, implementation of the RMDP and SCP and buildout of the Specific Plan, VCC, and Entrada planning areas would not result in any direct or indirect impacts to Plummer's mariposa lily and would not contribute to any cumulative impacts in the watershed. Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the RMDP/SCP project, could, however, result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased human activity, trampling, and plant collecting; and wildfire. This could be a potential significant cumulative impact for this species within the watershed. At the project-level, because this species only occurs in the High Country SMA/SEA 20 and away from trails, human-related effects such as trampling and collecting are unlikely to occur. RMDP/SCP project implementation could cause secondary impacts to the species from a more frequent fire regime, but these impacts likely would be limited because this species also has a positive response to wildfire (e.g., bulbs tend to flower in higher numbers following wildfire, which introduces large quantities of mineral nutrients (as ash) into the soil). The RMDP/SCP project, therefore, would not considerably contribute to potential significant cumulative secondary impacts in the watershed.

Slender mariposa lily. This CNPS List 1B.2 species is known to occur on site within grassland and coastal scrub within the Specific Plan and Entrada planning areas of the RMDP and SCP RMDP/SCP project area. Slender mariposa lily was observed nearly every year in the RMDP/SCP project area and is locally abundant in some parts of the RMDP/SCP project area. This species has been documented in the southern San Gabriel Mountains and Liebre Mountains of eastern Los Angeles County and the Santa Susana Mountains in western Los Angeles and Ventura counties.⁷⁴⁹

The combined direct and indirect permanent loss of slender mariposa lily cumulative occupied area and individuals resulting from implementation of the RMDP and the SCP and buildout of the Specific Plan, VCC, and Entrada planning areas would total 72 acres (35.0 percent of cumulative mapped occupied habitat) and 30,645 individuals (46.4 percent of plants censused on site). It is anticipated that present and reasonably foreseeable projects in the SCRW would impact other occurrences of this species, though these impacts have not been documented or quantified due to a lack of specific information. This could be a significant cumulative impact to this species within the watershed. The contribution of the RMDP/SCP project to this potential significant cumulative impact is 72 acres and 30,645 individuals, which could be a significant cumulative impact, absent mitigation.

⁷⁴⁹ CNPS, *Inventory of Rare and Endangered Plants*; Boyd, "Vascular Flora of the Liebre Mountains," 93–129.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased risk of fire; and increased human activity, collecting, trampling, and soil compaction. These secondary impacts could be a significant cumulative impact, absent mitigation.

The mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR includes avoidance and minimization measures (see **subsection 4.3.10**, Project Mitigation Measures). The applicant would implement several mitigation measures to avoid, minimize, and mitigate impacts to individuals. The Draft RMDP Slender Mariposa Lily Mitigation and Monitoring Plan⁷⁵⁰ describes how the applicant would successfully restore/enhance slender mariposa lily habitat and re-establish slender mariposa lily locations at appropriate receptor sites within the High Country SMA/SEA 20, Salt Creek area, and San Martinez Grande area where opportunities for long-term preservation are provided. While implementation of the RMDP/SCP project would result in impacts to a maximum of 72 acres of cumulative occupied area are within the development footprint, the mitigation and monitoring program mitigates impacts to slender mariposa lily cumulative occupied area at a ratio of 1:1 through successfully restoring/enhancing slender mariposa lily habitat and re-establishing slender mariposa lily locations in the High Country SMA/SEA 20, Salt Creek area, and other sites as appropriate. In addition, a minimum of 133 acres of slender mariposa lily cumulative occupied area would be conserved in the RMDP/SCP project boundaries. These conserved acres include 73 acres of occupied habitat in the Salt Creek area, 30 acres in the High Country SMA/SEA 20, and at least 28 acres in the San Martinez Grade area.

Long-term secondary impacts to slender mariposa lily include: introduction of non-native, invasive plant species; hydrologic alterations and water quality impacts; increased human activity, trampling, and soil compaction; and increased risk of fire. These impacts would be minimized by restricting access to, grazing within, and recreational usage of the High Country SMA/SEA 20; providing for transition areas along the High Country SMA/SEA 20; providing drainage guidelines; requiring conformance with NPDES and RWQCB permit provisions; requiring the implementation of a wildfire fuel modification plan; placing restrictions on domestic animals in proximity to open space areas; by providing trail signage and homeowner education; and placing restrictions on plant palettes proposed for use on landscaped slopes.

For the reasons set forth above, the proposed Mission Village project would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this

⁷⁵⁰ Dudek, *Draft RMDP Slender Mariposa Lily Mitigation and Monitoring Plan* (Valencia, California: Dudek, 2007).

species; or (2) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Southern California black walnut. This CNPS List 4.2 species is known to occur on site as the dominant species of California walnut woodland, which, within the RMDP/SCP project area, is only known to occur only in the High Country SMA/SEA 20 and Salt Creek area within the RMDP/SCP project area. Southern California black walnut has also been observed as an uncommon component within other vegetation communities within the RMDP/SCP project area, including oak woodlands, coastal scrub, and chaparral. Implementation of the RMDP/SCP and buildout of the Specific Plan, VCC, and Entrada planning areas would not result in direct or indirect impacts to the 27 acres of California walnut woodland on site. Individual Southern California black walnut trees are uncommon in other vegetation communities, but implementation of the RMDP/SCP and buildout of the Specific Plan, VCC, and Entrada planning areas is expected to result in the removal of occasional individual Southern California black walnut trees that exist in vegetation communities other than California walnut woodland.

Based on the California GAP data,⁷⁵¹ there are approximately 3,600 acres of California walnut woodland in the SCRW. Although the California GAP database does not include California walnut woodland within the RMDP/SCP project site, the project-level mapping indicates 27 acres of California walnut woodland are present on site. The RMDP/SCP project would not impact California walnut woodland on site. However, it is anticipated that present and reasonably foreseeable projects, including the RMDP/SCP project, in the SCRW would result in the removal of occasional individual Southern California black walnut trees that exist in vegetation communities other than California walnut woodland. For example, Boyd observed this species as occasionally occurring in scrub and woodland within lower Bouquet Canyon, and scarcely occurring at other sites in lower elevations to the west and south.⁷⁵² Given the presence of California walnut woodland within the National Forest system lands and other designated open space within the watershed, the impact to occasional individuals of Southern California black walnut would not be a significant cumulative impact.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased human activity, trampling, and soil compaction; and increased risk of fire. Cumulative impacts due to secondary effects would not be significant because of this species' widespread distribution within its range. In addition, the

⁷⁵¹ UCSB, *California Gap Analysis Project*.

⁷⁵² Boyd, "Vascular Flora of the Liebre Mountains," 93-129.

configuration of California walnut woodland in the SCRW results in a relatively low ratio of edge to core habitat and, therefore, reduces the chance of edge-related secondary impacts.

Southwestern spiny rush. This CNPS List 4.2 species was observed on site along secondary channels and low terraces along the Santa Clara River within the Specific Plan area of the RMDP/SCP project area. Southwestern spiny rush occurs in San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Orange, and San Diego counties, and southward into Baja California; the distribution of this species possibly extends east into Imperial County and Arizona as well.⁷⁵³ This species is considered locally and regionally rare by local botanists and has been documented from 10 vouchered collections from Los Angeles County, half of which are on Santa Catalina Island.⁷⁵⁴ This species was observed in 2006 in Violin Canyon adjacent to the Angeles National Forest and Interstate-5 (I-5), south of Templin Highway and Paradise Ranch, 8 miles north of Castaic, in Los Angeles County. Southwestern spiny rush was observed in 2007 near the western bank of Castaic Creek above the Castaic power plant. The species was also observed in 2005 and 2006 in Piru Creek (below Frenchman's flat) and Oso Creek,⁷⁵⁵ and Castaic Creek upstream of the confluence of Castaic Creek and Fish Creek, and this species is locally common in Grasshopper Canyon.⁷⁵⁶ Based on these observations, southwestern spiny rush is considered to be an occasional component in suitable habitat throughout the watershed.

This species is associated with perennially wet areas (perennial streams, seeps, marshes, etc.) within riparian habitat. The California GAP data⁷⁵⁷ includes approximately 25,000 acres of mapped riparian habitat but does not identify the very small subset of perennially wet habitat where southwestern spiny rush may occur. It is anticipated that present and reasonably foreseeable projects in the SCRW would result in the removal of occasional individual southwestern spiny rush that exist in perennially wet habitat within the watershed. However, this plant is known to occur within National Forest system lands that would not be subject to the same level of impact associated with present and reasonably foreseeable projects on private lands in the SCRW. Impacts to this species would not be cumulatively significant because of this species' widespread distribution within the watershed and its range.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the RMDP/SCP project, also could result in potential long-term secondary

⁷⁵³ CNPS, *Inventory of Rare and Endangered Plants*.

⁷⁵⁴ D.L. Magney and S. Hoskinson, "Landmark Village Draft EIR (SP 00-198/VTTM No. 53108/RCUP 200500112/OTP 00196/CUP 00-196)," letter from D.L. Magney and S. Hoskinson (David Magney Environmental Consulting) to D. Fierros (Los Angeles County Department of Regional Planning) (January 30 2007).

⁷⁵⁵ C. Huntley, "Re: Rare plant locations for *Juncus* and ringtail."

⁷⁵⁶ Boyd, "Vascular Flora of the Liebre Mountains," 93-129.

⁷⁵⁷ UCSB, *California Gap Analysis Project*.

effects, including the introduction of non-native, invasive plant species; hydrologic alterations and water quality impacts; and increased human activity, trampling, and soil compaction. Impacts to this species would not be cumulatively significant because of this species' widespread distribution within its watershed and its range.

c. Summary of Cumulative Impacts to Biological Resources

Based on the preceding discussion, the cumulative impact analysis for biological resources resulted in four different cumulative impact determinations:

1. The contribution of the proposed Mission Village project to a potential cumulative impact in the watershed resulting from present and reasonably foreseeable projects, including the RMDP/SCP project, would be cumulatively considerable and unavoidable, even after considering mitigation required by the Newhall Ranch Specific Plan Program EIR and the mitigation measures recommended in this EIR. No feasible additional mitigation measures applicable to Alternative 2 can be identified that would reduce the considerable contribution to a potential significant impact to a level less than cumulatively considerable under this alternative. Reasons for these significant unavoidable impacts include:
 - (a) extensive loss and fragmentation of the resource within the Santa Clara River watershed; and
 - (b) substantial on site habitat loss and fragmentation of a resource with a very limited distribution on site and/or geographic range.
2. The contribution of the proposed Mission Village project to a potential cumulative impact in the watershed resulting from present and reasonably foreseeable projects, including the RMDP/SCP project, could be cumulatively considerable, absent mitigation. Implementation of the mitigation measures required by both the Newhall Ranch Specific Plan Program EIR and the mitigation measures recommended in this EIR would reduce the contribution of the proposed Mission Village project to cumulative impacts to a level less than cumulatively considerable.
3. The contribution of the proposed Mission Village project to a potential cumulative impact in the watershed resulting from present and foreseeable projects, including the RMDP/SCP project, would not be cumulatively considerable. This determination was made where the resource affected by the RMDP/SCP project comprises a very small proportion of the resource impacts in the watershed.
4. Past, present, and reasonably foreseeable projects, including the RMDP/SCP project, including the proposed Mission Village project, do not result in potential significant watershed-level impacts. This

determination was made when the resource is still common to abundance in its geographic range and/or substantial habitat for the species would remain in the watershed.

There were two significant, cumulatively considerable, and unavoidable impacts for the Mission Village project: (1) impacts to coastal scrub communities, and (2) impacts to San Fernando Valley spineflower individuals.

Table 4.3-27 provides a summary of the Mission Village project's contribution to cumulative impacts determinations for biological resources.

Table 4.3-27
Summary of Cumulative Impact Determinations for Biological Resources

Cumulative Impact Determination	Biological Resource	Project's Contribution Cumulatively Considerable After Mitigation
Contribution of Mission Village, to potential cumulative impact would be cumulatively considerable, significant, and unavoidable	Vegetation Communities coastal scrub communities -- extensive loss and fragmentation in the Santa Clara River watershed	Yes
Contribution of Mission Village, to potential cumulative impact would be cumulatively considerable, significant, and unavoidable	San Fernando Valley Spineflower preservation and management of 13.89 occupied acres and associated spineflower preserves would not mitigate project-related impacts to less than significant	Yes

Impacts would be cumulatively considerable, absent mitigation, for a majority of other biological resources, including vegetation communities; common wildlife as a whole; most of the federally- and state-listed threatened and endangered and all California Fully Protected species; wildlife habitat linkages, corridors, and crossings; most California Species of Special Concern; many California Special Animals, Watch List species, Specially Protected Mammals, and CDFG Trust Resources; and three special-status plants. The mitigation measures required by both the Newhall Ranch Specific Plan Program EIR and mitigation measures recommended by this EIR (**subsection 4.3.10**, Project Mitigation Measures) would reduce impacts to these resources to a level less than cumulatively considerable. To offset loss vegetation communities and habitat for species, these mitigation measures generally include the dedication and maintenance of existing natural lands in the Open Area, River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek area, totaling approximately 9,753 acres. For riparian resources, these measures include replacing the functions and services of riparian communities that may be lost through construction. For both wildlife and plant species, mitigation includes measures to control

for long-term secondary effects, including controls on public access to dedicated open space areas; controls on pet, stray, and feral cats and dogs; termination of grazing activities (except for the purpose of resource management); controls on invasive plant and animal species (including Argentine ants, brown-headed cowbirds, bullfrogs, African clawed frogs, and crayfish); controls on pesticides (including rodenticides); controls on hydrological alterations and water quality; and controls on nighttime lighting; fencing and signage; and homeowner education about sensitive resources.

It was determined that the contribution of the proposed Mission Village project to potential significant cumulative impacts at the watershed level would not be cumulatively considerable for most special-status biological resources, including southern steelhead and several special-status plants. In addition, it was determined that significant cumulative impacts to a majority of wildlife and plant species at the watershed level would not occur. Although the contribution of the proposed Mission Village project would not be cumulatively considerable in these cases, the mitigation measures described above would reduce on site impacts to these resources.

In summary, although the RMDP/SCP, including the proposed Mission Village project, would include significant impacts to biological resources absent mitigation, the mitigation measures required by both the Newhall Ranch Specific Plan Program EIR and recommended by this EIR would substantially reduce these impacts to below a level of significance. However, the proposed Mission Village project, in combination with other past, present and reasonably foreseeable projects within the SCRW, would result in significant cumulative impacts to two biological resources: coastal scrub and San Fernando Valley spineflower. Despite mitigation, the proposed Mission Village project would result in a cumulatively considerable contribution to these significant unavoidable impacts.

12. SIGNIFICANT UNAVOIDABLE IMPACTS

a. Project Impacts

The proposed project would not result in significant unavoidable impacts.

b. Cumulative Impacts

The proposed Mission Village project would contribute toward the cumulative impacts to biological resources. Most of these impacts, however, can be reduced to less than significant levels through mitigation. Nevertheless, the project's contribution toward the cumulative impacts to coastal scrub and the San Fernando Valley spineflower would remain significant even after mitigation measures are implemented.

Even with implementation of the following mitigation measures, the proposed project's contribution to cumulative impacts to coastal scrub would remain significant.

Mitigation Measures SP 4.6-37 through SP 4.6-42 (which would protect 1,311 acres of coastal scrub in the High Country SMA/SEA 20);

Mitigation Measure MV 4.3-24 (preservation of 616.3 acres of coastal scrub off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Mission Village); and

Protection of the Salt Creek Area (which contains 631 acres of this habitat type).

In the case of coastal scrub, no feasible additional mitigation measures applicable to Mission Village could be identified that would reduce the significant impact to a less than cumulatively considerable level. These unavoidable impacts to coastal scrub would occur due to extensive loss and fragmentation in Southern California.

With implementation of the following mitigation measures, the project's contribution to cumulative impacts to San Fernando Valley spineflower would remain significant.

Applicable mitigation measures include the following:

Mitigation Measures SP 4.6-53 and SP 4.6-59 (requires current, updated, site-specific surveys for special-status species in consultation with CDFG),

Mitigation Measure SP 4.6-65 (requiring subdivision maps responsive to spineflower characteristics),

Mitigation Measure SP 4.6-66 (guidelines for the design, establishment, and management of spineflower preserves),

Mitigation Measure SP 4.6-67 (open space connections and setbacks for spineflower preserves; prohibition of disturbance within spineflower preserves or buffers; revegetation requirements),

Mitigation Measure SP 4.6-68 (temporary fencing and signage around the spineflower preserve(s), open space connections, and buffer areas; permanent fencing and signage along the spineflower preserve boundary),

Mitigation Measure SP 4.6-69 (storm drain system requirements for spineflower preserve areas),

Mitigation Measure SP 4.6-70 (road construction requirements to reduce or avoid impacts to spineflowers),

Mitigation Measure SP 4.6-71 (engineering, design, and grading modifications around spineflower preserves),

Mitigation Measure SP 4.6-72 (fire management plan to avoid and minimize impacts to the spineflower),

Mitigation Measure SP 4.6-73 (minimization of changes in surface water flows to spineflower preserves),

Mitigation Measure SP 4.6-74 (biweekly biological monitoring of grading and fence/utility installation activities; submission of monthly monitoring reports),

Mitigation Measure SP 4.6-75 (water control and stormwater flow redirection during construction activities)

Mitigation Measure SP 4.6-76 (reassessment of impacts to spineflower populations)

Mitigation Measure SP 4.6-77 (spineflower monitoring and management plan),

Mitigation Measure SP 4.6-78 (spineflower translocation and reintroduction program),

Mitigation Measure SP 4.6-79 (consultation with the County and CDFG regarding ongoing agricultural operations), and

Mitigation Measure SP 4.6-80 (San Martinez Grande spineflower preserve area).

This impact would also be reduced through the implementation of the following:

Mitigation Measures MV 4.3-58 and MV 4.3-59 (spineflower preserve establishment and management),

Mitigation Measures MV 4.3-60, MV 4.3-61, MV 4.3-62, MV 4.3-64, and MV 4.3-66 (spineflower preserve temporary fencing requirements and education of construction workers),

Mitigation Measures MV 4.3 60, MV 4.3-62, MV 4.3-65, and MV 4.3-66 (control of construction-related dust, erosion, and water quality within spineflower preserve),

Mitigation Measures MV 4.3-68 through MV 4.3-70 (restricting access to spineflower preserves through fencing and signage),

Mitigation Measures MV 4.3-71 and MV 4.3-72 (restrictions on storm drains within spineflower preserves),

Mitigation Measure MV 4.3-63 (pre-construction review of construction plans and specifications),

Mitigation Measure MV 4.3-67 (review of plant palettes used within 200 feet of spineflower preserves and inspection of all container plants within 200 feet for disease and pests),

Mitigation Measure MV 4.3-73 (guidelines for restoration and enhancement of degraded and/or damaged spineflower habitat), and

Mitigation Measure MV 4.3-74 (emergency fire response plan and response strategies for wildfire or mass movement (*e.g.*, landslides, slope sloughing, or other geologic events) within the spineflower preserves).

In the case of San Fernando Valley spineflower, no feasible additional mitigation measures applicable to Mission Village under Alternative 2 could be identified that would reduce the considerable contribution to a potential significant impact to a level less than cumulatively considerable. These unavoidable impacts to San Fernando Valley spineflower would occur because preservation and management of 13.89 occupied acres and associated spineflower preserves would not mitigate project-related impacts to less than significant.

4.4 VISUAL QUALITIES

1. SUMMARY

The Mission Village project would significantly alter the visual characteristics of the Santa Clara River/State Route 126 (SR-126) visual corridor, Interstate 5 (I-5) visual corridor, Airport Mesa, and the scenic vistas visible from various vantage points surrounding the project site. While the Mission Village project, for the most part, is not removing or replacing prominent visual features, the images of residential development, roadways, bridges, and other human activity would be a significant change from the existing site characteristics, which could be viewed as a substantial adverse effect. Such development would also introduce sources of outdoor illumination that do not presently exist. Outdoor lighting, such as streetlights and traffic signals, are essential safety features in development projects that include construction of new streets and intersections, and such lighting cannot be eliminated if the proposed project is implemented. Chapters 3 and 4 of the Specific Plan contain Development Regulations and Design Guidelines, respectively, that apply to the Mission Village project. These regulations and guidelines address grading, lighting, fencing, landscaping, signage, architecture, and site planning for subsequent subdivisions within the Newhall Ranch Specific Plan. Despite such features, the identified significant visual impacts would still result from the change in the visual character of the site from rural to urban. There is no feasible mitigation beyond that already adopted as part of the Newhall Ranch Specific Plan Program EIR to reduce the identified impacts to a level below significant. Consequently, such significant visual impacts would remain significant and unavoidable, as found in the Newhall Ranch Specific Plan Program EIR.

2. INTRODUCTION

a. Relationship of Project to Newhall Ranch Specific Plan Program EIR

Section 4.7 of the Newhall Ranch Specific Plan Program EIR identified and analyzed the existing conditions, potential impacts, and mitigation measures associated with visual resources for the entire Newhall Ranch Specific Plan site. The Newhall Ranch mitigation program was adopted by the County of Los Angeles (County) in findings and in the revised Mitigation Monitoring Plan for the Specific Plan. The Newhall Ranch Specific Plan Program EIR concluded that Specific Plan implementation would result in significant visual impacts that were found to be unavoidable. Pursuant to the Newhall Ranch Specific Plan Program EIR, and in order to minimize potential impacts, all subsequent project-specific development plans and tentative subdivision maps must be consistent with the design themes and view considerations contained in the Design Guidelines of the Newhall Ranch Specific Plan, and the County of Los Angeles General Plan and Santa Clarita Valley Area Plan.

This project-level EIR is tiering from the previously certified Newhall Ranch Specific Plan Program EIR. **Section 4.4** assesses the Mission Village project's existing conditions, the visual impacts, and applicable mitigation measures from the Newhall Ranch Specific Plan Program EIR, as well as the need for any new mitigation measures recommended by this EIR for the Mission Village project.

3. SUMMARY OF THE NEWHALL RANCH SPECIFIC PLAN EIR FINDINGS

The Newhall Ranch Specific Plan Program EIR found that the Specific Plan area is visible from three roadway corridors: Santa Clara River/SR-126 corridor, Chiquito Canyon Road corridor, and I-5 corridor. Eight viewsheds were identified within the three view corridors where large or permanent viewing audiences have prominent views of a portion of the development area. Two additional viewsheds were identified from locations outside of the view corridors.

A view analysis was conducted for each of these viewsheds to determine the significance of the Specific Plan's effects on the visual qualities of these views. Due to the view-blocking effects of intervening topography, many of the Specific Plan development areas are not visible from off-site locations. Specific examples are Specific Plan development areas for middle and upper Potrero Canyon, and the upland portions of Airport Mesa not directly near the bluff edge.

Approximately 6,138 acres (or 51 percent) of the Newhall Ranch site would remain in major open area; nonetheless, development proposed adjacent to the Santa Clara River corridor that parallels SR-126 would significantly alter the visual characteristics of the River corridor. Views in Chiquito Canyon also would be significantly altered due to Specific Plan implementation. Specific Plan development near the Santa Clara River/SR-126 corridor would result in a significant change from the existing characteristics of the site and would introduce sources of outdoor illumination to an otherwise dark area. This result would significantly impact the nighttime environment. Each of the above significant impacts would also combine with the impacts of other ongoing development activities to result in significant unavoidable cumulative visual impacts to the area.

The Regional Planning Commission expressed concern over visual impacts along SR-126 during hearings on the project. In response, the applicant eliminated 494 units and 39,000 square feet of commercial space in the Indian Dunes (Landmark Village) portion of the Specific Plan. This action reduced development intensity and opened view corridors to the river. Other modifications to the Specific Plan included creation of a development setback along the Los Angeles County/Ventura County line, removal of residential estate units from the High Country Special Management Area (SMA)/Significant Ecological Area (SEA) 20, strengthening of development standards along the River, and use of contour grading techniques. The County Board of Supervisors found that the changes incorporated into the project

mitigate the identified impacts to the extent feasible, but impacts would remain significant and unavoidable.

The cumulative analysis presented in the Newhall Ranch Specific Plan Program EIR assessed buildout of cumulative projects, including additional homes, commercial shopping centers, a regional mall, office retail uses, a theme park, and 8.8 million square feet of industrial development. Examples of specific cumulative projects considered in that analysis included:

- (a) Valencia Commerce Center: a planned industrial development, located at the northwest corner of the SR-126/I-5 interchange;
- (b) Chiquito Canyon Landfill: located along SR-126;
- (c) Valencia Industrial Center: the largest employment center in the Santa Clarita Valley, located east of I-5 south of the interchange with SR-126;
- (d) Valencia Corporate Center: an office-research campus planned north of Valencia Boulevard;
- (e) Magic Mountain Theme Park: a regional attraction located on the west side of I-5;
- (f) Stevenson Ranch: a planned community, located on the west side of I-5;
- (g) Westridge: a golf course and residential community under development on the west side of I-5; and
- (h) Valencia Marketplace: a regional shopping center along the west side of I-5.

Based on the Newhall Ranch Specific Plan Program EIR and the record before it, the County's Board of Supervisors found that the Specific Plan's impacts to visual resources would be unavoidably significant even with implementation of the feasible mitigation measures. Consistent with section 15093 of the *State CEQA Guidelines*, the Board of Supervisors found that the Specific Plan offered overriding public benefits that outweigh the potential unavoidable significant impacts.

4. EXISTING CONDITIONS

a. Introduction

This section provides a focused evaluation of the changes in visual character of the Mission Village project site and surrounding areas that would result from project development, as observed along the viewshed offered by the Santa Clara River/SR-126 and I-5 corridors, and other vantage points to the north and east of the Mission Village project site. For the purpose of this analysis, "viewsheds" are defined as the most visible portions of the development area that can be seen by:

- a relatively large mobile viewing audience (primarily in automobiles);

- a permanent-resident population (from existing homes); or
- a recreational viewing population (from trail alignments).

This section will describe the prominent features visible from three general locations: (1) the Santa Clara River/SR-126 corridor, (2) vantage points from the north of the project site looking south, and (3) entrances to the Mission Village project site. The purpose of this section is to describe the existing conditions that will be used to determine if the Mission Village project would have the potential to result in significant impacts to the visual features located on and in the vicinity of the project site.

Figure 4.4-1, View Location Map, identifies the location of the six viewpoints on and around the Mission Village project site that were selected for this analysis. Viewpoints 1 through 3 depict the viewshed within the Santa Clara River/SR-126 corridor. Viewpoint 4 was taken from the intersection of the I-5 and SR-126 interchange to the north of the project site. This viewpoint was selected in order to present the visual impact of the project from various locations to the north of the site. Viewpoint 5 is located at the existing terminus of Magic Mountain Parkway in order to provide a visual representation of a major entrance to the project site. Viewpoint 6 is located at the approximate location of a secondary connection of the Mission Village site to the Westridge Development, which is located southeast of and adjacent to the Mission Village project site. Each of the viewpoints selected for this analysis is described in greater detail below.

b. Santa Clara River/SR-126 Corridor

The Santa Clara River/SR-126 corridor supports a large mobile viewing (automobile) audience. It is also in a largely undeveloped, rural condition, and much of the level land in the vicinity of the Santa Clara River is cultivated for farming. SR-126 is not an adopted scenic highway, but it is designated by the County as a "First Priority Scenic Route," which is proposed for further study.¹ The County's General Plan Conservation and Open Space Element contains a policy directed at the protection of scenic resources found along officially designated and first priority proposed scenic highways. The policy is as follows: "Protect the visual quality of scenic views from public roads, trails, and vantage points."

The SR-126 corridor contains visual features considered unique within the Santa Clarita Valley Planning Area and Los Angeles County. Such features include the following:

- Santa Clara River and its associated riparian vegetation;
- River bluffs and steep canyons, which rise up from the river on its southern bank;

¹ Los Angeles County Department of Regional Planning, "Scenic Highway Element" in County of Los Angeles General Plan (Los Angeles, California: 11 October 1974).

- Various stands of oak trees;
- Mesas, which are elevated above the river corridor and are partially visible;
- Sawtooth Ridge, which stands out in sharp contrast due to its exposed rock faces; and
- Higher elevations of the Santa Susana Mountains, which include the approved Specific Plan High Country SMA.

The project site is visible from a variety of locations in the surrounding area, with SR-126 providing one of the more commonly used observation corridors. To assess the impact of the proposed project, three SR-126 corridor viewpoints were selected to analyze the visual characteristics of the project site. As seen in **Figure 4.4-1**, Viewpoints 1–3 provide reference points from several different locations along SR-126. These three viewpoints provide representative views of the existing visual characteristics of the Santa Clara River/SR-126 corridor in the vicinity of the Mission Village project site. Existing views from each of the three viewpoints are discussed below.

(1) Viewpoint 1

Viewpoint 1, shown in **Figure 4.4-2**, is located to the northwest of the Mission Village site at the SR-126/Wolcott Way intersection. The viewshed shown in the figure is facing in the southeasterly direction toward the project site. The view from this vantage point is representative of the view visible to a passing motorist traveling from west to east on SR-126. As depicted in the figure, the foreground views show SR-126 and agricultural operations that are currently occurring between SR-126 and the Santa Clara River (Landmark Village site). Middle-ground views show the Santa Clara River corridor and associated riparian vegetation. The river plain is also considered to be a prominent visual feature due to its natural character and surrounding riparian area. The relatively flat, open mesas, adjoining river bluffs, and ridgelines on the project site are visible in the background of this view. Of particular visual importance is Airport Mesa on the left side and Exxon Mesa on the right side of the view. Both mesas are located on the Mission Village project site. Also visible within the various valleys bisecting the river bluff are oak tree woodlands of various sizes. The bluffs adjacent to the Santa Clara River are considered prominent visual features because they form a sharp transition from the low-lying river plain to the ridgelines visible in the background.

Prominent Visual Features: In summary, the prominent visual features are the bluffs adjacent to the Santa Clara River and the river plain.

(2) Viewpoint 2

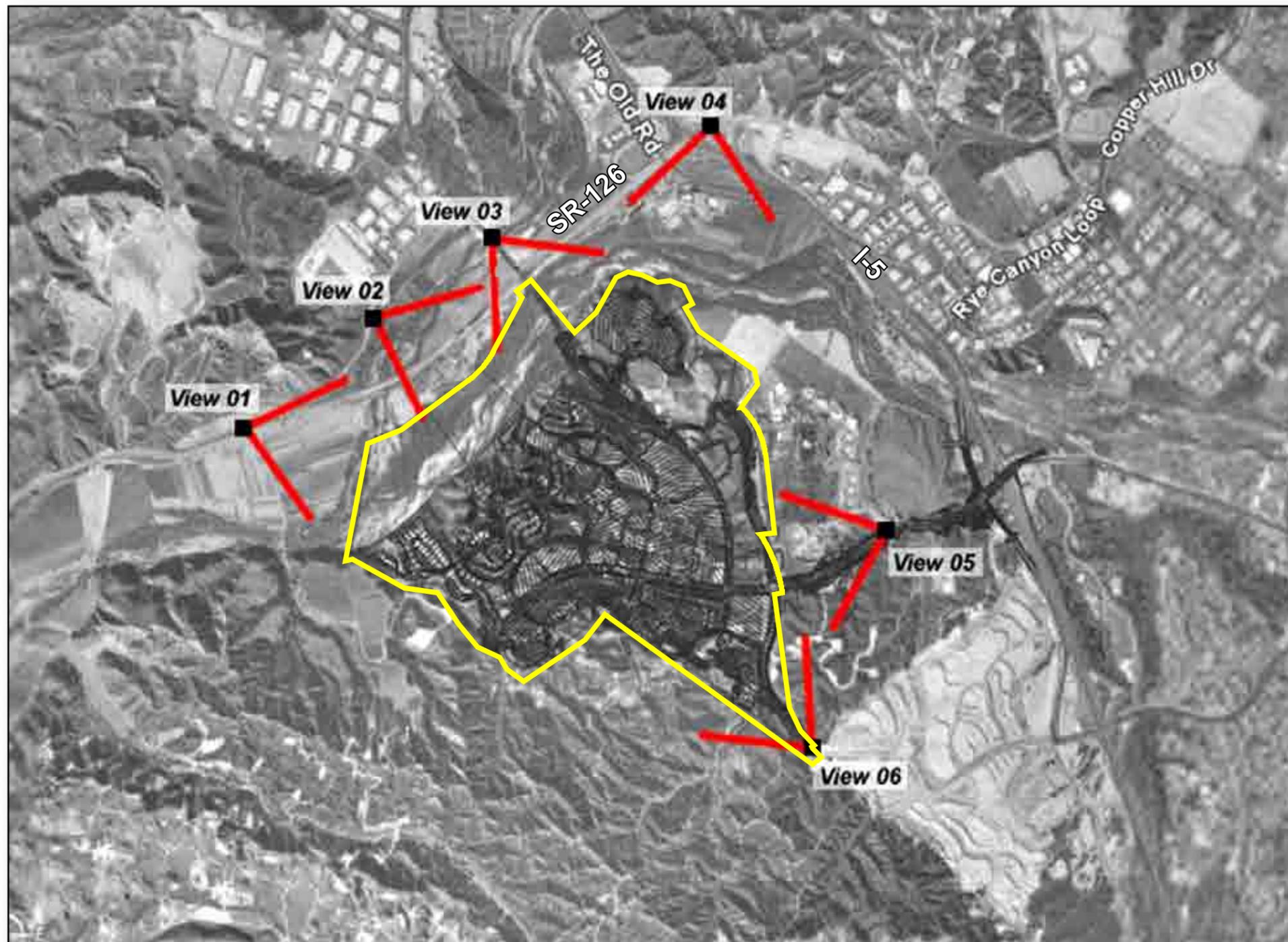
Viewpoint 2, depicted in **Figure 4.4-2**, presents a view from SR-126, north of the Travel Village Recreation Vehicle (RV) Park along Franklin Parkway. This view is facing in a southeasterly direction toward the Mission Village project site. The foreground of this view illustrates open space containing sparse and disturbed vegetation that is located between SR-126 and the recreation vehicle park. Disturbed open areas along the side of the road are also visible. Midground views include the Travel Village RV Park and riparian vegetation associated with the Santa Clara River. Both the foreground and midground views are located within flat, former alluvial plain areas. Midground features in this view are dominated by Airport Mesa on the left side of the view and localized foothills located on the project site. Airport Mesa, considered visually prominent, represents a distinctive geologic feature when compared to the low-lying riparian areas associated with the Santa Clara River that are located just below the mesa in the photo. Also visible from this vantage point is the Sky Tower located at Six Flags Magic Mountain, which breaks the horizon line created by the rolling foothills located on the project site. Background views include the Angeles National Forest.

Prominent Visual Features: In summary, the prominent visual features from the reference point of Viewpoint 2 include Airport Mesa on the left side of the photo and the rolling foothills located on the project site, to the right of Airport Mesa in the photo.

(3) Viewpoint 3

As presented in **Figure 4.4-3**, Viewpoint 3 provides a view of the Mission Village project site taken from a vantage point located on the existing Commerce Center Drive bridge over Castaic Creek, which is located to the northwest of the project site and north of SR-126. Viewpoint 3 is facing in the southeasterly direction toward the project site. The foreground depicted in **Figure 4.4-3** is comprised of the bridge with the intersection of Commerce Center Drive and SR-126 in the midground. Midground views also include native vegetation located at the base of Airport Mesa. The background of this viewshed includes Airport Mesa on the left side of the photo, localized hills, and ridgelines on the Mission Village project site, and distant ridgelines associated with the Santa Susana Mountains. These background features form a distinctive horizon line against the sky.

Prominent Visual Features: In summary, the prominent visual features from Viewpoint 3 include the Airport Mesa, foothills on the Mission Village project site, and the distant Santa Susana Mountains.



SOURCE: VisionScape Imagery – April 2004, Impact Sciences, Inc. – February 2010

FIGURE 4.4-1

View Location Map





Viewpoint 1– Existing



Viewpoint 2 – Existing

SOURCE: VisionScape Imagery – April 2004

FIGURE 4.4-2

Existing Views – Viewpoints 1 & 2





Viewpoint 3 – Existing



Viewpoint 4 – Existing

SOURCE: VisionScape Imagery – April 2004

FIGURE 4.4-3

Existing Views – Viewpoints 3 & 4



c. Northern Viewshed Corridor

The northern viewshed corridor provides a view looking south toward the Mission Village site and was selected for this analysis to present a visual depiction of the project site from the perspective of motorists traveling along I-5 and residents located to the north of the site. However, the northern viewshed corridor is considered to be less sensitive than the Santa Clara River/SR-126 corridor due to its urbanized visual character. **Figure 4.4-3** provides a view of the project site from Viewpoint 4, a vantage point to the north of the project site.

(1) Viewpoint 4

Viewpoint 4, depicted in **Figure 4.4-3**, was taken from the intersection of the I-5 and SR-126 interchange, located to the north of the project site. The foreground depicted in the view contains non-native vegetation located adjacent to the eastern side of I-5. I-5 is also depicted in the foreground of the photo. Midground views to the west of I-5 include cultivated land, Six Flags Magic Mountain, Airport Mesa, and localized foothills on the project site. Although not visibly prevalent from this vantage point, the Santa Clara River and associated riparian areas are also visible in the midground views from Viewpoint 4. Background views are dominated by the Santa Susana Mountains in the distance, which form a distinctive horizon against the sky.

Prominent Visual Features: In summary, the prominent visual features are the Six Flags Magic Mountain Theme Park, which is visible in the midground views, and the Santa Susana Mountains located in the background, along with the Airport Mesa on the right hand side of the photo.

d. Entrances to the Project Site

In addition to the Commerce Center Drive entrance (Viewpoint 3) to the Mission Village project site, two other entrances to the project site were selected for this visual analysis to represent a focused assessment of the visual impact that the proposed project would have on the surrounding area. Specifically, the access point to the project site via Magic Mountain Parkway and a secondary access point from the Westridge Development are addressed in this impacts analysis. Both viewpoints are discussed in detail below.

(1) Viewpoint 5

Viewpoint 5, depicted in **Figure 4.4-4**, provides a view of the entrance to the project site from the current terminus of Magic Mountain Parkway, located off of the Mission Village project site to the east. The perspective from Viewpoint 5 is facing in a westerly direction. The foreground of the view shows the existing terminus of the Magic Mountain Parkway, along with ornamental street trees and a few oak trees. Midground views show a gradual increase of slope in the westerly direction associated with the foothills on the property (Entrada) located easterly of the Mission Village project site. Also visible in the midground view is a small cluster of oak trees and native vegetation located on the foothills. The background view from this vantage point includes foothills located farther west on the project site and a single oak tree located at the peak of one foothill next to a white water tank. This oak tree represents the visual focal point to the photo and can be considered a prominent visual feature.

Prominent Visual Features: In summary, the prominent visual features include the local foothills, oak trees, and native vegetation in the midground, and the single oak tree on the peak of the foothill.

(2) Viewpoint 6

Viewpoint 6 provides views from the entrance to the Mission Village project site by way of Westridge Parkway. **Figure 4.4-4** presents the view from Viewpoint 6 facing northwest toward the Mission Village site. Foreground views include existing roadway improvements on Westridge Parkway at the boundary of the Westridge development. The midground view includes a gentle, downward sloping canyon in the northern direction. This downward sloping canyon contains several dirt roads, graded slopes, and native vegetation. The right side of the photo shows a ridgeline that trends in the north/south direction and defines the western side of the canyon. Background views from the vantage point of Viewpoint 6 include distant views of the Angeles National Forest to the north of the project site, in addition to development to the north of Castaic Junction.

Prominent Visual Features: Prominent visual features include the down-sloping valley and hillsides in the midground of the Mission Village project site.

5. PROPOSED PROJECT IMPROVEMENTS

As proposed, the Mission Village project would include the development of 4,412 residences (382 single-family homes, and 4,030 multi-family units, including attached and detached condominiums, apartments and age qualified units), 1,555,100 square feet of commercial/mixed-uses, a 9.5-acre elementary school, fire station, public library, bus transfer station, parks, public and private recreational facilities, trails, spineflower preserve and road improvements.



Viewpoint 5 – Existing



Viewpoint 6 – Existing

SOURCE: VisionScape Imagery – April 2004

FIGURE 4.4-4

Existing Views – Viewpoints 5 & 6



The Mission Village project incorporates key design features from the Newhall Ranch Specific Plan that will:

- (a) preserve the natural Santa Clara River vegetation and river bluffs;
- (b) install landscaping;
- (c) create large “windows” which allow views of the River corridor, the river bluffs, and the Santa Susana Mountains;
- (d) create a spineflower preserve; and
- (e) preserve significant oak tree stands.

Uses constructed within the Mission Village tract map site are subject to the Development Regulations and Design Guidelines that govern the development within the Newhall Ranch Specific Plan. The guidelines are intended to achieve a developed image that blends with adjoining land uses and reduces the amount of alteration of scenic vistas and natural features found on the Specific Plan site. The Specific Plan regulations also specifically address building setbacks and heights, signage, parking, site planning, architecture, fencing, landscape design, and lighting. In conjunction with the development review process set forth in the Specific Plan, the proposed project must incorporate both the Development Regulations and Design Guidelines listed in the Specific Plan.

The proposed project also includes development of a utility corridor outside the tract map site. The utility corridor would be located between the Newhall Ranch Wastewater Treatment Plant on the west, and the existing Los Angeles County Sanitation District 32 Wastewater Treatment Plant (Valencia WRP) on the east, and generally would parallel SR-126, Henry Mayo Drive, and The Old Road.

Also to be constructed outside of the tract map site as part of the project are a roadway extension to Magic Mountain Parkway, a water quality basin, and two water tanks (portions of which would be located on site).

Additionally, depending on the timing of other projects, Southern California Edison may require the construction of a 16-kilovolt substation as part of the project. There are two alternative locations for the proposed substation, both located outside the boundaries of Mission Village—one is located within Newhall Ranch in the Potrero Valley portion of the approved Specific Plan, and the other alternative location is within the Legacy Village project. Electric service to Mission Village would be provided through temporary utility poles/lines that cross Newhall Ranch and would be converted to permanent facilities during the buildout of Newhall Ranch.

6. PROJECT IMPACTS

a. Significance Threshold Criteria

Based on the thresholds of significance identified in Appendix G of the *State CEQA Guidelines*, the proposed project would result in a significant impact to aesthetics if the project would:

- (a) have a substantial adverse effect on a scenic vista;
- (b) substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- (c) substantially degrade the existing visual character or quality of the site and its surroundings; or
- (d) create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The County of Los Angeles Environmental Document Reporting and Procedures Guidelines provide additional, more detailed, criteria for determining whether a project's changes in the existing landscape could be considered adverse or significant. If a project meets one or more of the listed criteria to a substantial degree, it can be concluded that the project could result in a significant visual impact. The County criteria include consideration of the following:

- (1) Is the project adjacent to a visual corridor? And would the project substantially affect a visual corridor?

The Mission Village project site is visible from the Santa Clara River/SR-126 and I-5 view corridors. SR-126, while not an adopted County "Scenic Highway," is identified in the County Scenic Highway Element of the County General Plan as a "First Priority Scenic Route," which is proposed for further study, but carries no regulatory restrictions or significance. However, the County's General Plan Conservation and Open Space Element contains a policy directed at the protection of scenic resources found along officially designated and first priority proposed scenic highways. The policy is as follows: "Protect the visual quality of scenic views from public roads, trails, and key vantage points." The County General Plan allows urban development to occur along Scenic Highways and First Priority Scenic Routes.

- (2) Does the project obstruct unique views from other development or vantage points?

Development of the Mission Village project site could potentially obstruct unique views from other vantage points.

- (3) Is the project out of character in an area with unique aesthetic features?

Under this criterion, a determination was made as to whether the proposed project would result in a substantial change in the existing view, particularly from non-urban to urban uses. This threshold issue is addressed in the analysis below.

(4) Does the scale (height, bulk) of the project exceed that existing in the surrounding area (usually applies within already urbanized areas)?

This criterion does not apply because the Mission Village project site is not located adjacent to existing development.

(5) Does the project result in sun/shadow effects on adjacent land uses?

This criterion does not apply to the Mission Village project as this project is not located adjacent to existing development and does not propose buildings that would alter the existing sun/shadow effect.

The relevant County criteria and Appendix G criteria are discussed below in relation to the proposed project.

b. Impact Analysis

(1) Construction Impacts

(a) Grading and Earth Movement

Development of the project site would involve the removal and recompaction of approximately 29.5 million cubic yards of soil in a balanced cut and fill operation. Conventional cut and fill grading techniques would be utilized to construct the proposed development. Cut and fill slopes are proposed at gradients of 2:1 or flatter. The highest proposed cut slope would be about 150 feet high and the highest proposed fill slope would be about 120 feet high. The maximum depth of cut would be about 200 feet. The maximum proposed depth of fill would be about 120 feet. The majority of earthwork involves the excavation and reshaping of the hills and depressions that are located throughout the Mission Village project site. Subsequent site grading and contouring to establish building pads, roadway configurations, and develop drainage patterns would also be required to develop the project site.

During site grading, the disturbed earth would stand out in contrast to the vegetated areas left untouched by such activity. Heavy trucks and other construction equipment (e.g., small trucks, scrapers, etc.) would be visible moving to and from the project grading sites, and heavy equipment would be visible on the tract map site itself, during the grading operations. These views are limited to working hours and would cease once the grading has been completed to create development pads; however, they would stand out in contrast to the open area character of the surroundings.

During the construction phase of the proposed tract map site, visual impacts would differ as utilities would be installed, the framework of the structures would be raised and finished, and parking areas and streets would be paved. Roadways and utilities, such as water, wastewater, gas, electric and cable, would be constructed prior to the development of the structures. Following the completion of the roadways and utilities, framework for the structures would be raised and finished. Residential structures would likely use wood framing, while non-residential buildings would utilize steel, wood, and tilt-up framing. The transition from graded lots, to framed structures, to finished buildings with landscaped areas would occur in phases over the entire project site, and would occur over a period of years. As the structures are constructed and finished, the scale of the project and changes in the visual character of the project site would become more evident.

Changes to the visual character of the project site would occur over a period of years. The earthwork needed to develop the Mission Village project site would require alteration of hillsides and ridgelines, which form a prominent visual feature within the Santa Clara River/SR-126 corridor. Therefore, the construction activity would substantially affect this view corridor and represents a significant short-term visual impact.

(b) Utility Corridor

Construction of the utility corridor would involve grading of the utility corridor and installation of utilities for those portions of the utility corridor south of SR-126 and excavation of utility trenches and installation of utilities within or adjacent to existing streets for the remaining portions of the utility corridor. Short-term visual impacts related to construction activities associated with the utility corridor would be limited to areas within and in the immediate vicinity of an active construction zone. The proposed improvements would occur in phases over a 12-month period. During this period, views would consist of construction workers using equipment to grade the utility corridor, remove asphalt (where necessary), and excavate the necessary utility trench. Displaced soil, heavy equipment, trucks transporting material to and from the work zone, and work crews would all be visible. While some may consider these views to be an adverse aesthetic impact, the visual impacts associated with construction activity would be limited to working hours. Furthermore, this activity would be mobile and would move steadily as work progresses along the alignment of the utility corridor.

Off-site grading is required for the utility corridor. Project grading would be consistent with, and would implement, the Specific Plan's approved Conceptual Grading Plan (Specific Plan Exhibit 2.7-1), and the applicable Specific Plan Design Guidelines (Specific Plan Chapter 4, Section 4.8) for grading and hillside management.

Graded slopes would be landscaped and irrigated pursuant to County grading and erosion control requirements. Vesting Tentative Tract Map (VTTM) 61105 depicts the project's ultimate grading contours as shown on the project grading plan.

Upon completion of the improvements, the visual character along most segments of the roadway would remain unchanged from its present character since the utility lines are buried beneath the surface. Views of existing land uses would still be the predominant visual element observed. No significant visual impacts would occur as a result of utility corridor construction.

(c) Water Tank Location

Visual impacts associated with construction of the potable and reclaimed water tanks would evolve over the course of construction. Initial views would be temporary and consist of work crews and equipment preparing the site. Concrete footings would be poured and the concentric steel rings welded into place. Displaced soil, heavy equipment, and trucks transporting material to and from the work zone would all be visible during construction of the water tank. Over time, the tank would begin to take shape and the views of work crews and construction equipment would be replaced by permanent views. Views generated during construction would be temporary in nature and are not considered significant, as construction activity would cease upon completion of the permanent water tank structure.

(d) Southern California Edison Substation

Construction of the Southern California Edison substation would involve grading of the chosen site and installation of the substation and associated utility poles/lines. There are two alternative locations for the proposed substation, both outside the boundaries of Mission Village. Initial views of the chosen substation site would be temporary and consist of work crews and equipment preparing the site. Displaced soil, heavy equipment, and trucks transporting material to and from the work zone would all be visible during construction of the substation. Over time, the substation would begin to take shape and the views of work crews and construction equipment would be replaced by permanent views.

Electric service to Mission Village would be provided through 20,850 feet of temporary utility poles/lines that cross Newhall Ranch and that would be converted to permanent facilities during the buildout of Newhall Ranch. The utility poles/lines would be located along or near existing agricultural roads in order to take advantage of the area's existing topography and to minimize impacts. Views generated during construction would be temporary in nature and are not considered significant, as construction activity would cease upon completion of the permanent substation structure. As described above in subsection (a), the construction activities of the substation would contrast with the surrounding topography and

vegetated areas. Therefore, the construction activity would substantially affect this view corridor and represents a significant short-term visual impact.

(e) Water Quality Basin

As part of the proposed project, an off-site water quality basin would be constructed within the boundaries of VTTM 53295 (Entrada). The water quality detention basin is an impoundment where storm water temporarily is detained, allowing sediment, and particulates to settle out. The basins can be designed as either above ground lined or unlined basins, or as underground storage facilities. Use of grading and construction equipment and work crews would occur during the construction of the water quality basin. Visual impacts would be temporary and short term in nature and are not considered significant, as construction activities would cease upon completion of the water quality basin.

(f) Magic Mountain Parkway Extension

As part of the project, Magic Mountain Parkway would be extended to provide regional access to and from the project site to SR-126 and I-5, respectively. The Magic Mountain Parkway extension would require the construction of off-site roadway improvements, and would proceed westerly from its existing terminus at The Old Road for a distance of approximately 5,000 feet before intersecting with the project site. The construction period of the Magic Mountain Parkway extension would involve grading and construction equipment and work crews which would involve short-term visual impacts. Upon completion of the Magic Mountain Parkway construction activities would cease; however, due to the topographic changes associated with the extension, potential short term impacts would be significant.

(g) Conclusion

Under Appendix G criterion (a) and the County's criterion one, presented earlier in this section, the construction activity is considered to substantially affect this view corridor and represents a short-term significant impact.

(2) Operational Impacts

(a) Obstruct or Affect a Visual Corridor or Unique Aesthetic Feature

The analysis of the visual impact of the Mission Village project on existing views focuses on a comparison in the change in visual character from existing conditions to the complete buildout of the project site. As discussed earlier, six viewpoints of the project site were selected for analysis. To accurately evaluate the change in the visual character that would result from the proposed project, computer aided photo simulations of the land uses proposed on the project site were prepared from the same six viewpoint locations depicted in **Figures 4.4-2 through 4.4-4**. Each "existing view" is provided again in order to allow

the reader to compare the “existing view” of the project site to the “proposed view” that would result after the complete buildout of the Mission Village project site. The following discussion evaluates the impact that the Mission Village project would have on existing views from each of the six viewpoints.

(1) *Viewpoint 1*

Figure 4.4-5 shows the existing and proposed views taken from Viewpoint 1. The direction of the photo taken from Viewpoint 1 is facing toward the location of Neighborhood A on the Mission Village site. Neighborhood A includes medium-density residential uses, an elementary school, and park uses. As shown in the “proposed view,” foreground views of the area to the north of the Santa Clara River and midground views that include the river and associated riparian areas would remain unchanged when compared to the “existing view.” This is consistent with the Newhall Ranch Specific Plan policy of preserving the natural Santa Clara River vegetation and river bluffs. The major changes to the viewshed would occur in the background. In particular, the development of Neighborhood A on the project site (seen on the right side of the photo) would include a large amount of grading. When compared to the “existing view,” the “proposed view” would result in the leveling of hillside features and the placement of excavated soil in valleys and depressions to create level pad areas for development. Following this grading effort, Neighborhood A would be developed along this gradual hillside, as is reflected in the “proposed view.” Also visible in the “proposed view” from Viewpoint 1, is the development that is proposed to occur on Airport Mesa. This area referred to as Neighborhood E and depicted just right of the center of the photo, would be developed with employment and service commercial uses.

Based on the changes that would occur to the background of the viewshed from the reference point of Viewpoint 1, development of the Mission Village project would substantially affect the Santa Clara River/SR-126 visual corridor and, thereby, have a substantial adverse effect on a scenic vista, resulting in a significant impact on visual qualities.

(2) *Viewpoint 2*

Existing and proposed views from Viewpoint 2 are presented in **Figure 4.4-6**. As can be seen in the “proposed view” from Viewpoint 2, neither the foreground nor midground views would be affected by the development of the Mission Village project. Neither the Travel Village RV Park nor the Santa Clara River and associated riparian area will be altered or impacted from a visual standpoint, by the project.

Similar to the impacts to the viewshed previously described for Viewpoint 1, the major visual impacts to Viewpoint 2 would occur in the background views. As seen in the “proposed view” in **Figure 4.4-6**, the steep foothills seen in the background view of the project site would be reshaped and recontoured. Following the completion of grading activities, the background areas would be developed with the urban land uses associated with Neighborhood A and Neighborhood E. As can be seen in the “proposed view,”

medium-density residential land uses would be constructed on the site. On the left side of the photo (Airport Mesa), the employment and service commercial buildings associated with Neighborhood E would be developed.

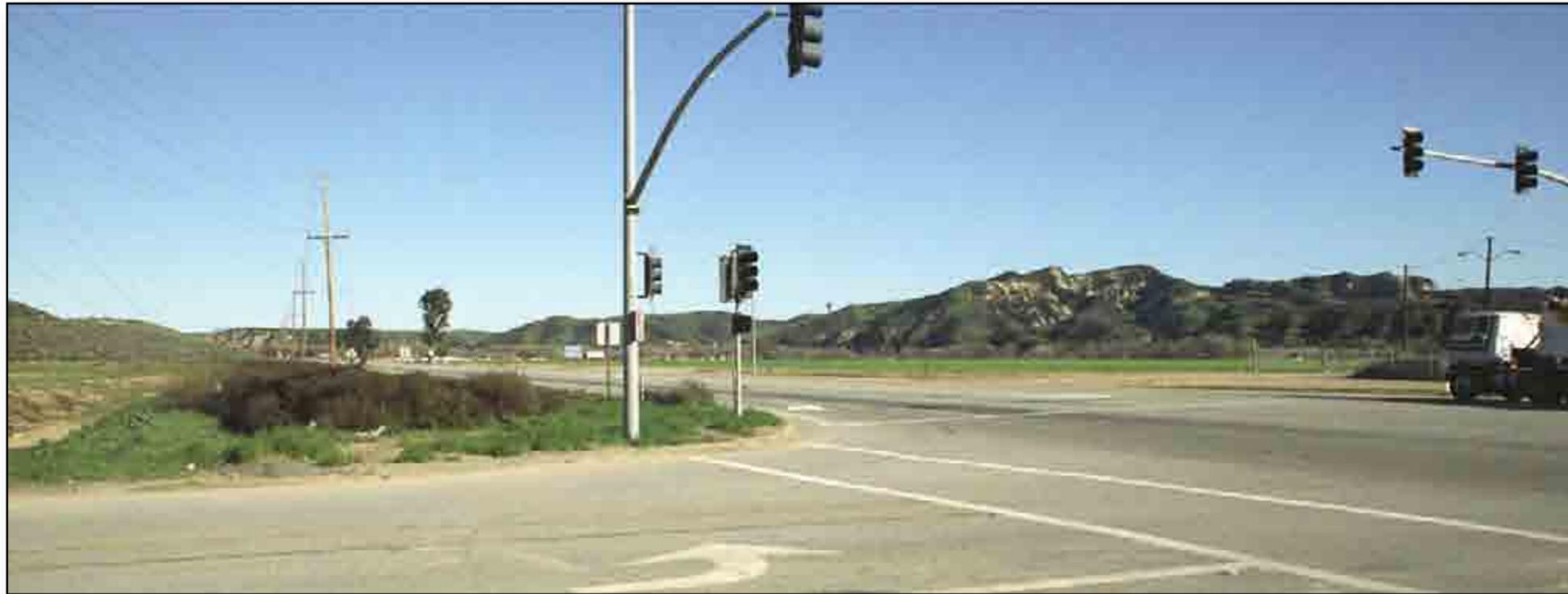
Based on the changes that would occur to the prominent visual features on the project site, the development of the Mission Village project site would result in a substantial change to the existing character of the site and surrounding area, thereby substantially affecting the Santa Clara River/SR-126 visual corridor and having a substantial adverse effect on a scenic vista. Thus, the Mission Village project would result in a significant visual impact from the reference point of Viewpoint 2.

(3) Viewpoint 3

Existing and proposed views taken from Viewpoint 3 are presented in **Figure 4.4-7**. As can be seen in the “proposed view” photo, foreground views from Viewpoint 3 would remain unchanged when compared to the “existing view” photo. Midground views would be altered by construction of the Commerce Center Drive/SR-126 above-grade interchange² and the six-lane divided roadway extension of Commerce Center Drive with the Commerce Center Drive Bridge that will provide access to the Mission Village site. This roadway extension is reflected in the center of the “proposed view” photo. Background views would be altered by the development of the employment and service commercial uses associated with Neighborhood E on the Airport Mesa. Neighborhood E (left side of the photo) would include the development of a number of four and five story commercial buildings. These new commercial buildings would break the horizon line that is currently defined by the Mesa itself, as well as overlook the Santa Clara River and associated riparian area that is located in the midground view. Also visible in the background view are the residential neighborhoods associated with Neighborhood A. As was discussed earlier in this analysis, the hillsides, depressions, and valleys located in the area where Neighborhood A is proposed would be graded and leveled to support the residential neighborhoods. The result of the grading and development of Neighborhood A is reflected in the “proposed view” in the center and right hand side of the photo.

Overall, the development of the Mission Village project would result in a substantial change to the existing visual character of the project site and, thereby, would have a substantial adverse effect on a scenic vista. For this reason, the visual impacts of the proposed project from the reference point of Viewpoint 3 are considered significant.

² The above-grade interchange has been approved and cleared through CEQA by the following environmental review documents: Los Angeles County, Newhall Ranch Specific Plan SEA CUP No. 94-087-(5), 2003; Army Corps of Engineers and California Department of Fish and Game, Natural River Management Plan, 1998; and Caltrans FONSI/Negative Declaration for the Commerce Center Drive Interchange Project (SCH 2003101127), 2006.



Viewpoint 1 – Existing



Viewpoint 1 – Proposed

SOURCE: VisionScape Imagery – April 2004

FIGURE 4.4-5

Existing and Proposed Views – Viewpoint 1





Viewpoint 2 – Existing



Viewpoint 2 – Proposed

SOURCE: VisionScape Imagery – April 2004

FIGURE 4.4-6

Existing and Proposed Views – Viewpoint 2





Viewpoint 3 – Existing



Viewpoint 3 – Proposed

SOURCE: VisionScape Imagery – April 2004

FIGURE 4.4-7

Existing and Proposed Views – Viewpoint 3

(4) *Viewpoint 4*

Figure 4.4-8 shows the “existing” and “proposed” view from the vantage point of Viewpoint 4. When comparing the “existing” and “proposed” view, neither the foreground views of the I-5 nor background views of the Santa Susana Mountains would be altered by the development of the Mission Village project. The major visual changes that would result from the development of the project would occur in the midground views. From Viewpoint 4, the commercial buildings associated with Neighborhood E on the Airport Mesa are visible. From the center to the right-hand side of the midground view, a number of residential neighborhoods associated with Neighborhood A are visible. Also visible in this same location is Neighborhood F Neighborhood F and Neighborhood D includes mixed-uses (residential, office and commercial), a bus transfer station, and a community recreation center. The change in visual character that would occur from the reference point of Viewpoint 4 would result in a substantial adverse effect on a scenic vista and is considered a significant impact on visual qualities.

(5) *Viewpoint 5*

Figure 4.4-9 illustrates the existing and proposed views from Viewpoint 5. In general, changes to the viewshed from the vantage point of Viewpoint 5 would occur in the foreground and midground. To a lesser extent, the background views of the on-site foothills, situated in the western portion of the viewpoint, and native vegetation would also be altered. The single oak tree at the peak of the foothill in the center of the view would not be impacted by the development of the Mission Village site.

This major entrance to the Mission Village site would be provided by the extension of Magic Mountain Parkway into the project site. The extension of Magic Mountain Parkway is shown in both the foreground and midground views depicted in the “proposed views.” Foreground views depicted in the “proposed view” would be altered by the development of the extension of Magic Mountain Parkway and landscaping paralleling the roadway. It should also be recognized that this viewshed is taken from an off-site location and the extension of Magic Mountain Parkway will cross an off-site property prior to reaching the Mission Village site. The grading and road visual impacts are not on the Mission Village site but are on an off-site property. Both of these features are shown in the figure. A number of the trees shown in the midground view in the “existing view” would be removed in order to extend and realign Magic Mountain Parkway and to accommodate the Mission Village project. Although the changes to the visual character of the project site would not be as substantial as seen from other locations discussed in this analysis, the proposed project would result in a substantial adverse effect on a scenic vista visible from Viewpoint 5. Therefore, relative to Viewpoint 5, the project would result in a significant impact on visual qualities.

(6) Viewpoint 6

The “existing” and “proposed” views from Viewpoint 6 are depicted in **Figure 4.4-10**. As is reflected in the “existing view” photo, Westridge Parkway currently terminates in the foreground view. In the “proposed view,” Westridge Parkway would be extended and connected to the Mission Village project site. In addition, the street would be improved with landscaping, street trees, and curb and gutter. In the midground, the view would be changed by the residential neighborhoods associated with Neighborhood C that would be developed in the valley. In addition, the hillsides and depressions present in the “existing view” photo would be filled to develop building pads to facilitate the development of Neighborhood C. This grading is also reflected in the “proposed view.” Background views of the distant Santa Susana Mountains to the north of the project site, and views of existing development to the north of Castaic Junction, would not be altered by the development of the Mission Village project as seen from Viewpoint 6. However, based on the visual changes that would occur to the midground views, the proposed project would have a substantial adverse effect on a scenic vista as seen from Viewpoint 6. Therefore, the proposed project would result in a significant impact on visual qualities as seen from Viewpoint 6.

(3) Light and Glare Impacts

The proposed project would increase the amount of glare (including reflected light) generated by the Mission Village project site during the day, and would increase the amount of light generated during the night. Daytime sources of glare would primarily include activities of people and the sun reflecting off glass windows of structures, automobiles, and trucks. Nighttime sources of light would include lights fixed to poles in commercial and residential areas, lighted signs mounted to commercial buildings, the headlights of automobiles and trucks, and parking lot lighting. Given that the site presently produces little or no light or glare, the light and glare impact on the surrounding area would be a substantial change over the present condition. The combined effect of all the light and glare generated by the project site would transform this undeveloped area into that of a developed community similar to the neighboring community of Valencia. The introduction of additional automobile and truck lights, street lights, and parking lot lighting would be the most adverse during the nighttime.

However, to ensure that such impacts are minimized, Section 4.7 of the Specific Plan contains standards to control the placement and orientation of lighting fixtures to prevent glare or light intrusion into adjacent areas. While such measures would minimize the outward and upward migration of nighttime light, they would not completely mask the change in the night sky that would occur as a result of the project. Such impacts would be considered significant under Appendix G criterion (d) and the County's criterion five, discussed earlier in this section. This conclusion is consistent with the findings presented in the Newhall Ranch Specific Plan Program EIR.



Viewpoint 4 – Existing



Viewpoint 4 – Proposed

SOURCE: VisionScape Imagery – April 2004

FIGURE 4.4-8

Existing and Proposed Views – Viewpoint 4





Viewpoint 5 – Existing



Viewpoint 5 – Proposed

SOURCE: VisionScape Imagery – April 2004

FIGURE 4.4-9

Existing and Proposed Views – Viewpoint 5





Viewpoint 6 – Existing



Viewpoint 6 – Proposed

SOURCE: VisionScape Imagery – April 2004

FIGURE 4.4-10

Existing and Proposed Views – Viewpoint 6



7. PROJECT MITIGATION MEASURES

Although the proposed Mission Village project would result in potential visual impacts prior to mitigation, the County previously adopted mitigation measures in connection with its approval of the Newhall Ranch Specific Plan. These mitigation measures, as they relate to visual resources, are found in the previously certified Newhall Ranch Specific Plan Program EIR and the adopted Mitigation Monitoring Plan for the Specific Plan (May 2003). The applicant has committed to implementing the applicable measures from the Newhall Ranch Specific Plan Program EIR to ensure that visual impacts are reduced to the maximum extent feasible.

a. Mitigation Measures Required by the Adopted Newhall Ranch Specific Plan as they Relate to the Mission Village Project

The following mitigation measures were adopted by the County in connection with its approval of the Newhall Ranch Specific Plan (May 2003) relative to impacts to visual qualities. Those measures applicable to the Mission Village project will be implemented, as appropriate. The “SP” designation preceding the mitigation measure number indicates the mitigation measure relates to the Specific Plan.

SP4.7-1 In conjunction with the development review process set forth in Chapter 5 of the Specific Plan, all future subdivision maps and other discretionary permits which allow construction shall incorporate the Development Guidelines (Specific Plan, Chapter 3) and Design Guidelines (Specific Plan Chapter 4), and the design themes and view considerations listed in the Specific Plan. (*Mission Village Vesting Tentative Tract Map 61105 and the applicable related discretionary permits incorporate the Specific Plan Development and Design Guidelines consistent with the requirements of the Specific Plan and this mitigation measure.*)

SP4.7-2 In design of residential tentative tract maps and site planning of multifamily areas and Commercial and Mixed-Use land use designations along SR-126, the following Design Guidelines shall be utilized:

- Where the elevations of buildings will obstruct the views from SR-126 to the south, the location and configuration of individual buildings, driveways, parking, streets, signs and pathways shall be designed to provide view corridors of the river, bluffs, and the ridge lines south of the river. Those view corridors may be perpendicular to SR-126 or oblique to it in order to provide for views of passengers within moving vehicles on SR-126. (*Mission Village Vesting Tentative Tract Map 61105 incorporates the Specific Plan Design Guidelines consistent with the requirements of the Specific Plan and this mitigation measure.*)
- The Community Park between SR-126 and the Santa Clara River shall be designed to promote views from SR-126 of the river, bluffs, and ridge lines to the south of the river. (*This requirement is not applicable to Mission Village.*)

- Residential site planning guidelines set forth in Section 4.3.1, Residential and Architectural Guidelines, set forth [in] Section 4.4.1, Residential, shall be employed to ensure that the views from SR-126 are aesthetically pleasing and that views of the river, bluffs, and ridge lines south of the river are preserved to the extent practicable. (*Vesting Tentative Tract Map 61105 incorporates the Residential and Architectural Guidelines consistent with the requirements of the Specific Plan and this mitigation measure.*)
- Mixed-Use and the Commercial site planning guidelines set forth in Section 4.3.2 and Architectural Guidelines set forth Section 4.4.2 shall be incorporated to the extent practicable in the design of the Riverwood Village Mixed-Use and Commercial land use designations to ensure that the views from SR-126 are aesthetically pleasing and to preserve views of the river, bluffs, and ridge lines south of the river. (*This requirement is not applicable to Mission Village.*)
- Landscape improvements along SR-126 shall incorporate the Landscape Design guidelines, set forth in Section 4.6 in order to ensure that the views from SR-126 are aesthetically pleasing and to preserve views of the river, bluffs, and ridge lines south of the river. (*This requirement is not applicable to Mission Village.*)

(To the extent the requirements of this mitigation measure apply to the Mission Village project, the Mission Village site plan has been designed to retain view corridors consistent with the measure's requirements.)

b. Additional Mitigation Measures Recommended for the Project by this EIR

No feasible mitigation measures beyond those already adopted in connection with the Specific Plan are available that would reduce the identified significant project impacts to a level below significant. Therefore, no additional mitigation measures are recommended beyond those already incorporated into the Specific Plan and the Newhall Ranch Specific Plan Program EIR.

8. CUMULATIVE IMPACTS

The cumulative impacts analysis presented in the Newhall Ranch Specific Plan Program EIR assessed the visual quality impacts associated with buildout of cumulative projects. Since County approval of the Specific Plan EIR, no new major development activity visible along I-5 and SR-126 in the Santa Clarita Valley has occurred other than that considered in the Specific Plan EIR, nor is any new major development planned for the area that was not considered in the Specific Plan EIR. In light of this fact, and given that the proposed Mission Village project is consistent with the land use designations contained in the Specific Plan, the prior Newhall Ranch Specific Plan Program EIR adequately addresses the cumulative visual impacts of the Mission Village project, in conjunction with other cumulative projects in the area. Therefore, the Mission Village project would not have any cumulative effects that were not previously examined in the Newhall Ranch Specific Plan Program EIR. Consistent with *State*

CEQA Guidelines sections 15125 and 15385, this project-level analysis incorporates by reference the discussions and analysis contained in the Newhall Ranch Specific Plan Program EIR pertaining to the cumulative analysis of visual effects in the region.

The Specific Plan EIR determined that development of Newhall Ranch in combination with other cumulative development would result in significant unavoidable cumulative impacts to visual qualities. Based on this analysis, the visual quality impacts of the Mission Village project, part of the Specific Plan, would be cumulatively considerable when viewed in combination with buildout of all existing, planned, approved, and pending development projects along the SR-126 and I-5. Because there is no feasible mitigation available that would reduce the identified impacts to a level below significant, the proposed project would result in a significant unavoidable cumulative visual impact.

9. CUMULATIVE MITIGATION MEASURES

Other than the mitigation measures previously adopted in connection with the Specific Plan, there is no feasible mitigation available that would reduce the identified significant cumulative impacts to a level below significant.

10. SIGNIFICANT UNAVOIDABLE IMPACTS

Project and cumulative development would significantly alter the visual characteristics of the project site and surrounding area through the introduction of residential, commercial, and institutional uses on land presently in open space and cultivated with crops. Earthwork necessary for site development would also significantly alter hillsides and ridgelines, which form prominent visual features on the Mission Village project site. These impacts are considered significant and unavoidable.