NOTICE OF AVAILABILITY

TO:

FROM: City of Santa Clarita
Department of Planning
and Building Services
23920 Valencia Boulevard
Santa Clarita, CA 91355

SUBJECT: **Notice of Completion/Notice of Availability**
REVISED BIOLOGY SECTION OF THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE RIVERPARK PROJECT
Master Case Nos. 02-175
Vesting Tentative Tract Map 53425, General Plan Amendment 02-002, Zone Change 02-002, Conditional Use Permit 02-009, Hillside Review 02-003, Oak Tree Permit 02-025, and Adjustment 02-010.
State Clearinghouse No. 2002091081

Introduction: The Revised Biological Resources Section of the Draft EIR for the Riverpark project was prepared and is being re-circulated for additional public review and comment based upon the presence of Western Spadefoot Toad on the project site during focused surveys conducted on March 5 and 6, 2004. These focused surveys were conducted at the request of the California Department of Fish and Game. During these focused surveys, a biologist found western spadefoot toads in three seasonal rainpools located in the central and western portions of the project site. A previous focused survey for this species, conducted on a portion of the property in March 2003, as well as general amphibian surveys conducted in spring 2002, did not detect the presence of the species. This document has been revised to include the results of these additional focused surveys and addresses potential impacts to and mitigation for the western spadefoot toad.

Project Location: The proposed project site is located at the terminus of Newhall Ranch Road, east of Bouquet Canyon Road between the Castaic Lake Water Agency property and Soledad Canyon Road.

Project Background & Description: On March 3, 2004, the City of Santa Clarita completed and circulated the Draft Environmental Impact Report for the Riverpark project for a 60 day review period that will end on May 3, 2004. At the request of the California Department of Fish and Game, the applicant retained a biologist to complete additional focused western spadefoot toad surveys on the project site. These focused surveys were completed on March 4- 6, 2004. General amphibian surveys and a focused western spadefoot toad survey were conducted in spring 2002 and March 2003 respectively. Western Spadefoot Toad was not detected during the previous surveys conducted on the project site. t During the March 2004 focused surveys, this species was observed in three of the six seasonal rainpools located on the project site. These seasonal rainpools were located on the western end, western central and central sections of the project site. As a result of this new information, the City of Santa Clarita initiated the preparation of a Revised Biological Resources Section for the Riverpark Draft EIR. This section has been revised to include the results of these additional focused surveys, and addresses the potential impacts to and mitigation for the western spadefoot toad. The completed Revised Riverpark Biological Resources Section is being re-circulated pursuant to CEQA for 45 days from March 24, 2004 to May 7, 2004.

The applicant of the Riverpark project proposes to develop six parcels of land totaling 695.4 acres of land for single and multi-family uses. A tentative tract map is required to subdivide the six lots into 439 single-family lots, 5 lots for 744 multi-family units, two commercial lots, HOA lots, a private street lot, recreation lots, a water quality basin lot, a park lot, maintained slope lots adjacent to public right of way, river trail lots, bridge lots, open space lots, and Santa Clara River lots totaling 545 lots. A General Plan Amendment will change the land use designations of the project site to Residential Medium and Community Commercial with SEA and VCC overlays and will define the specific alignments for Santa Clarita Parkway and Newhall

Ranch Road. A zone change will change the zoning designations of the site to Residential Medium and Community Commercial with a Planned Development overlay (RMPD and CCPD). Residential Medium will permit a density up to 11 dwelling s per acre and the Community Commercial allows a 37.5 percent floor area ratio. A conditional use permit is required to implement the Planned Development Overlay, to allow building heights in excess of two stories and 35', approval of the Hillside Innovative Application, and vehicular gating of Planning Area C. A hillside development review is required for development on slopes with an average cross slope of greater than 10%. The oak tree permit is required for the removal of 15 of the 87 oak trees on site and 3 oak tree encroachments. An adjustment is required to allow for a maximum 20% reduction in the minimum lot size and lot width for lots within Planning Area A1, a 16 foot front yard setback on a traditional garage facing street design, and 7 foot high property line walls facing public streets.

Public Review: Copies of the Revised Biology Section of the Riverpark Draft Environmental Impact Report are available for review at the following locations:

- City of Santa Clarita City Hall - Department of Planning and Building Services,
  23920 Valencia Boulevard, Suite 302
  Santa Clarita, CA 91355

- Los Angeles County Library – Valencia Branch
  23743 W. Valencia Boulevard
  Santa Clarita, CA 91355

- Los Angeles County Library - Canyon Country Branch
  18536 Soledad Canyon Road
  Santa Clarita, CA 91351

The next public hearing for the project will be held on April 20, 2004, to provide the Planning Commission with a focused presentation on specific sections (Land Use, Geotechnical Hazards, Solid Waste Disposal, Education, Library Services, Fire Services, Sheriff Services, Human Made Hazards, Population/Housing/Employment, Cultural Resources, Agricultural Resources, and Wastewater Disposal) of the Draft EIR. The public hearing will start at 7:00 p.m. at the following location:

City Council Chambers
Santa Clarita City Hall - First Floor
23920 Valencia Boulevard
Santa Clarita, CA 91355

The public comment period on the Revised Biological Resources Section of the Riverpark Draft EIR will run from March 24, 2004 to May 7, 2004. Due to the time limits mandated by State law, your comments must be received by the City no later than 5:00 p.m. on May 7, 2004. Please send your comments to:

Mr. Jeff Hogan, Associate Planner
City of Santa Clarita
23920 Valencia Boulevard, Suite 300
Santa Clarita, CA 91355-2196
(661) 255-4330

Date: 3/22/04

Signature: _____
Jeff Hogan, Associate Planner
Project Manager

s:\Pbs\current\2002\02-175\noa2

Form A: Notice of Completion

Mail to: State Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 916/445-0613

See NOTE below

SCH# 2002091081

Project Title: Vesting Tentative Tract Map 53425 – Riverpark Project

Lead Agency: City of Santa Clarita – Dept. of Planning & Bldg. Services Contact Person: Jeff Hogan, Associate Planner

Street Address: 23920 Valencia Blvd., Suite 300 Phone: 661-255-4330

City: Santa Clarita Zip: 91355 County: Los Angeles

Project Location

County: Los Angeles City/Nearest Community: City of Santa Clarita

Cross Streets: Newhall Ranch Road/Bouquet Canyon Road/Soledad Canyon Road Zip Code: 91355 Total Acres: 695.4

Assessor's Parcel No: Section: Twp. Range:

Within 2 miles: State Hwy #: Waterways: Santa Clara River Airports: n/a

Railways: Schools: Bridgeport Elementary is located to the west; Emblem Elementary is located to the northwest,

Document Type

CEQA: ❑ NOP ❑ Supplement/Subsequent EIR **NEPA:** ❑ NOI **OTHER:** ❑ Joint Document

❑ Early Cons ❑ EIR (Prior SCH No.) ❑ EA ❑ Final Document

❑ Neg Dec ❑ Other: ❑ Draft EIS ❑ Other

XDraft EIR ❑ FONSI

Local Action Type

❑ General Plan Update ❑ Specific Plan X Rezone ❑ Annexation

X General Plan Amendment ❑ Master Plan ❑ Prezone ❑ Redevelopment

❑ General Plan Element ❑ Planned Unit Development X Use Permit ❑ Coastal Permit

❑ Community Plan X Site Plan ❑ Land Division X Other Oak Tree Permit, Hillside Review, Adjustment

Development Type

❑ Residential: *Units 1183* *Acres695.4*

❑ Office: *Sq.ft.* *Acres* *Employees*

❑ Commercial: *Sq.ft.40,000* *Acres3* *Employees*

❑ Industrial: *Sq.ft* *Employees*

❑ Educational

❑ Recreational 240-acres ❑ Hazardous Waste: *Type*

❑ Water Facilities: *Type* *Water Tanks* *MGD*

❑ Transportation: *Type* Roadway improvements

❑ Mining: *Mineral*

❑ Power: *Type* *Watts*

❑ Waste Treatment: *Type*

❑ Other: Drainage and water quality facilities

Project Issues Discussed in Document

X Aesthetic/Visual X Flood Plain/Flooding X Schools/Universities X Water Quality

X Agricultural Land X Forest Land/Fire Hazard X Septic Systems X Water Supply/Groundwater

X Air Quality X Geologic/Seismic X Sewer Capacity X Wetland/Riparian

X Archaeological/Historical X Minerals X Soil Erosion/Compaction/Grading X Wildlife

X Coastal Zone X Noise X Solid Waste X Growth Inducing

X Drainage/Absorption X Population/Housing Balance X Toxic/Hazardous X Land use

X Economic/Jobs X Public Services/Facilities X Traffic/Circulation X Cumulative Effects

X Fiscal X Recreation/Parks X Vegetation ❑ Other:

Present Land Use/Zoning/General Plan Use: The General Plan Use of the project site is Residential Moderate, Industrial Commercial Community Commercial, and Commercial Office. The current zoning of the project site is Residential Medium, Industrial Commercial, Commercial Office Planned Development, Community Commercial Planned Development, Community Commercial, and Mobile Home Park. The project site consists primarily of vacant land.

Project Description: On March 3, 2004, the City of Santa Clarita completed and circulated the Draft Environmental Impact Report for the Riverpark project for a 60 day review period that will end on May 3, 2004. At the request of the California Department of Fish and Game, the applicant retained a biologist to conduct additional focused western spadefoot toad surveys on the property. These focused surveys were completed on March 4 - 6, 2004. General amphibian surveys and a focused western spadefoot toad survey were conducted in spring 2002 and March 2003 respectively. Western Spadefoot Toad was not detected at either of the previous surveys. During the March 2004 focused surveys , this species was observed in three of the six seasonal rainpools located on the project site. These pools were located on the western end, western central and central sections of the project site. As a result of this new information, the City of Santa Clarita initiated the preparation of a Revised Biological Resources Section for the Riverpark Draft EIR. This section has been revised to include the results of the 2004 focused surveys, and addresses the potential impacts to and mitigation for the western spadefoot toad. The completed Revised Riverpark Biological Resources Section is being re-circulated pursuant to CEQA for 45 days from March 24, 2004 to May 7, 2004.

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Signature of Lead Agency Representative _____ **Date** 3/22/04

NOTE: Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. from a Notice of Preparation or previous draft document) please fill it in. SCH# 2002091081

Revised October 1989

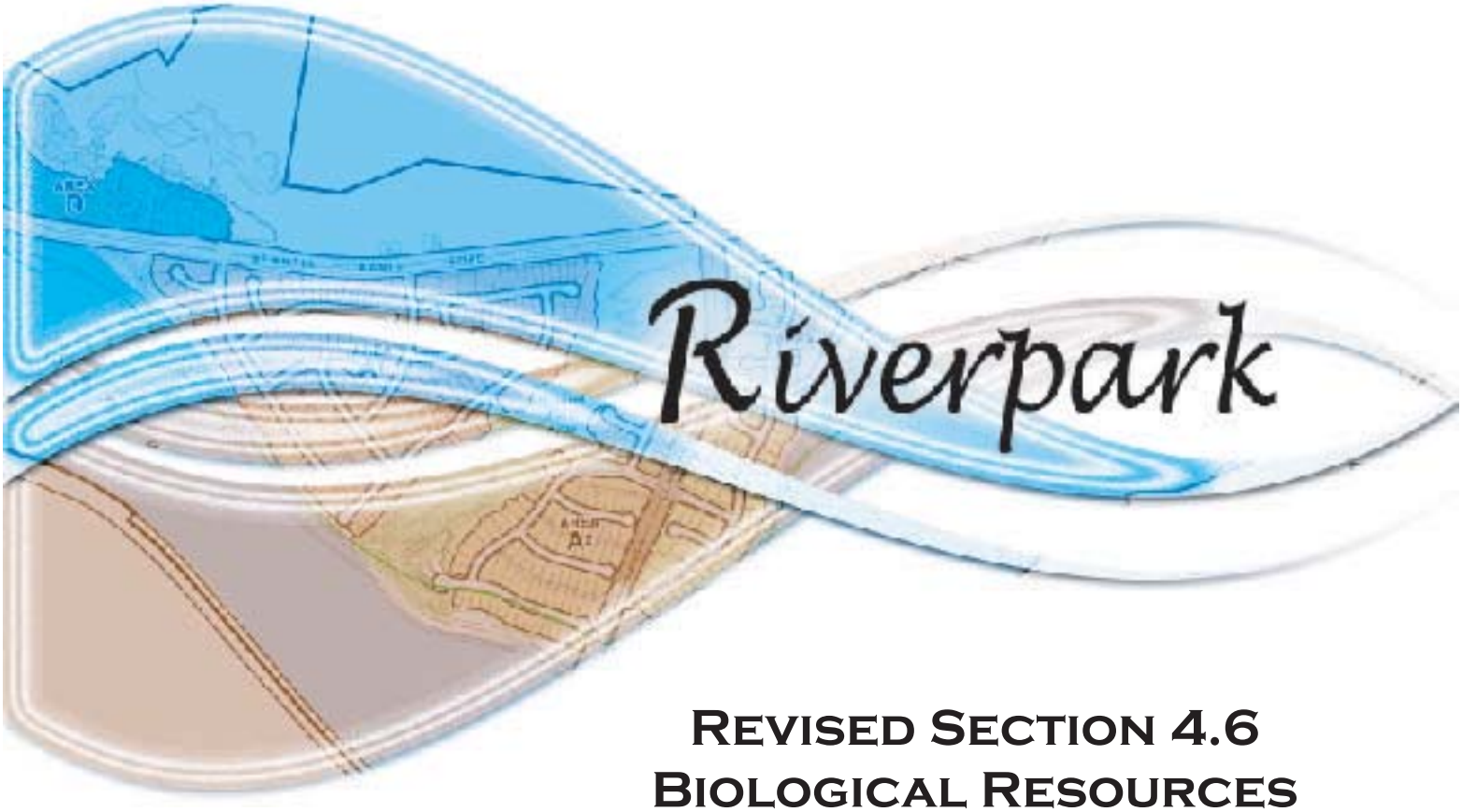
Reviewing Agencies

- ❑ Resources Agency
- ❑ Boating / Waterways
- ❑ Conservation
- ❑ Fish and Game
- ❑ Forestry
- ❑ Colorado River Board
- ❑ Dept. Water Resources
- ❑ Reclamation
- ❑ Parks and Recreation
- ❑ Office of Historic Preservation
- ❑ Native American Heritage Commission
- ❑ S.F. Bay Cons. and Dev't. Commission
- ❑ Coastal Commission
- ❑ Energy Commission
- ❑ State Lands Commission
- ❑ Air Resources Board
- ❑ Solid Waste Management Board
- ❑ SWRCB: Sacramento
- ❑ RWQCB: Region # 4
- ❑ Water Rights
- ❑ Water Quality
- ❑ MTA
- ❑ Southern California Railroad Authority
- ❑ Caltrans District 7
- ❑ Dept. of Transportation Planning
- ❑ Aeronautics
- ❑ California Highway Patrol
- ❑ Housing and Community Development
- ❑ Statewide Health Planning
- ❑ Health
- ❑ Food and Agriculture
- ❑ Public Utilities Commission
- ❑ Public Works
- ❑ Corrections
- ❑ General Services
- ❑ OLA
- ❑ Santa Monica Mountains
- ❑ TRPA
- ❑ OPR—OLGA
- ❑ OPR—Coastal
- ❑ Bureau of Land Management
- ❑ Forest Service
- ❑ SCAQMD
- ❑ Other: U.S. Army Corps of Engineers
- ❑ Other: SCAG
- ❑ Other:

For SCH Use Only:

Date Received at SCH_____
Date Review Starts_____
Date to Agencies_____
Date to SCH_____
Clearance Date_____
Notes: _____

Catalog Number_____
Applicant_____
Consultant_____
Contact_____ Phone_____
Address_____



Revised Section 4.6
Biological Resources

Draft
Environmental Impact Report

SCH No. 2002091081

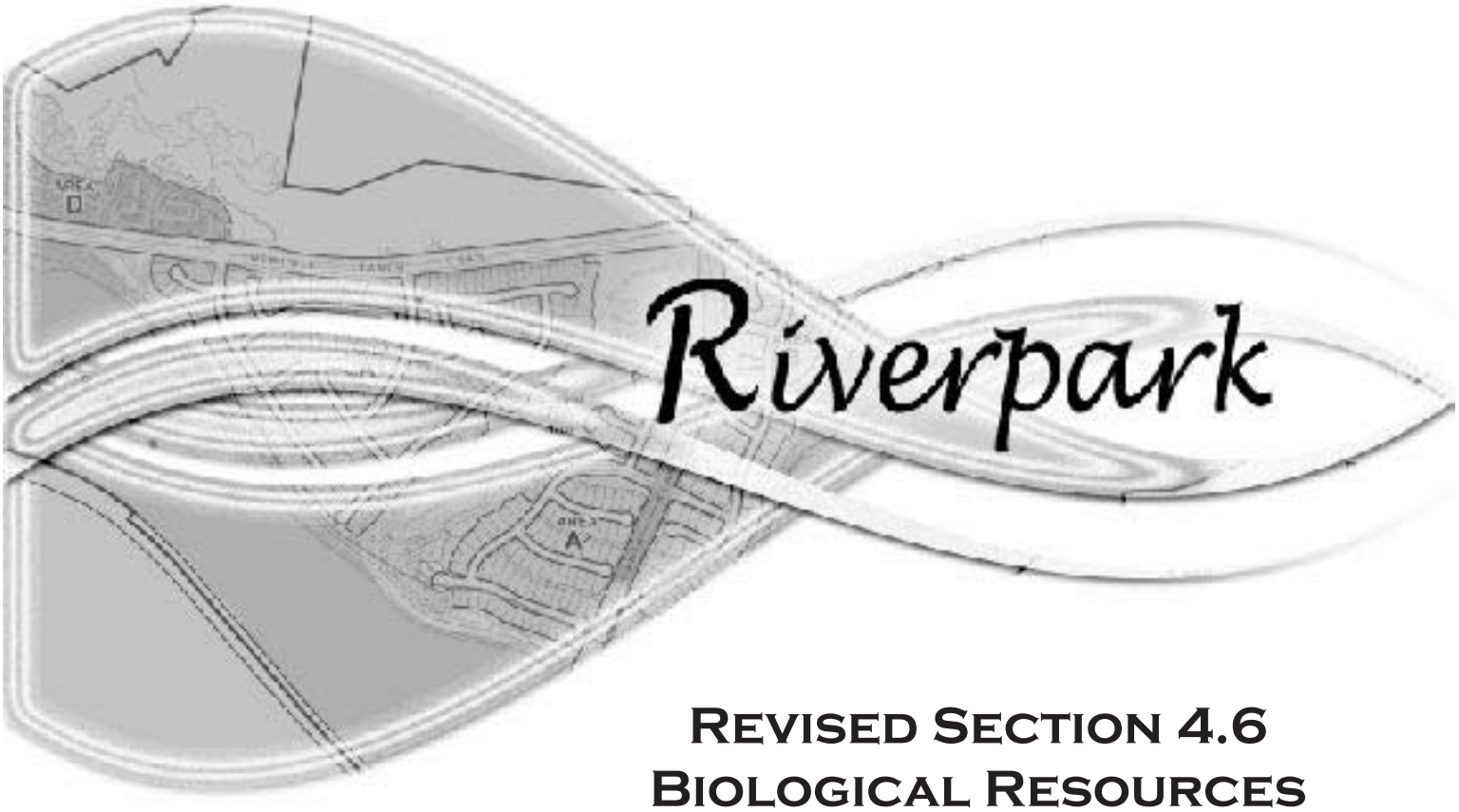
Prepared for:

City of Santa Clarita
Department of Planning & Building Services
23920 Valencia Boulevard, Suite 302
Santa Clarita, California 91355

Prepared by:

Impact Sciences, Inc.
30343 Canwood Street, Suite 210
Agoura Hills, California 91301

March 2004



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March 2004

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4.6 BIOLOGICAL RESOURCES

1. SUMMARY

A total of 14 different plant communities were identified and characterized during the field investigations Two of these communities, southern willow scrub and southern riparian scrub, are considered of special status by resource agencies. In addition, six special-status plants and eleven special-status wildlife species were identified as occurring on the site. None of these species are currently listed as Threatened or Endangered by state or federal resource agencies. In addition, a total of 87 oak trees under the jurisdiction of the City's Oak Tree Ordinance occur on the site. A total of approximately 14,000 linear feet of the project site occurs along the Santa Clara River. Four ephemeral and two intermittent drainages also occur on the site. A total of approximately 345 acres of Santa Clara River or drainage habitat is within the Army Corps of Engineers (ACOE) and/or California Department of Fish and Game (CDFG) regulatory jurisdiction. The Santa Clara River also functions as an east-west movement corridor for a variety of wildlife species.

Approximately 361 acres of the project site occurs within the City of Santa Clarita Significant Ecological Area (SEA). A total of 37.0 acres of habitat within this SEA (representing approximately 10 percent of the total habitat within SEA boundaries on the project site) will be disturbed or converted to urban development as a result of project implementation resulting in permanent impact. Approximately 13 of those acres (4 percent of the SEA total) will only be temporarily disturbed as a result of proposed bank stabilization activities and will be replaced upon completion of the bank stabilization.

A Natural River Management Plan (NRMP) that analyzes 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 to Newhall Land properties (including the Riverpark project site) was prepared in 1997 and approved in 1998. To minimize impacts of the project on biological resources, the applicant has proposed measures from the NRMP be incorporated into the project design.

The principal direct impact of implementation of the proposed project is to convert approximately 317 acres of the project site (about 46 percent) from an undeveloped to a developed and partially restored condition. A total net loss of 280 acres of wildlife habitat/natural open space as a result of conversion of undeveloped property to a developed condition will occur. Significant impacts would occur to special-status plant communities, special-status plant and wildlife species, and as a result of the loss of land within the City of Santa Clarita SEA (Santa Clara River). Significant impacts resulting from project implementation would be mitigated in part by preserving over 400 acres of the site as open space and as a result of incorporating mitigation measures adopted as part of the NRMP into the

project design plan. Impacts that would remain significant after mitigation would be the total net loss of 280 acres of wildlife habitat/natural open space as a result of conversion of undeveloped property to developed, impacts to the SEA and associated riverine habitat (as identified by the resource line) and riverbed, and impacts to adjacent upland habitat within 100 feet of the riparian resource line.

2. INVESTIGATIVE METHODS

a. Literature Review

In order to use published information to preliminarily identify special-status plant and animal species (those species considered Rare, Threatened, Endangered, or otherwise sensitive by various state and federal resource agencies) that have been known to historically occur in the vicinity of the project site, the 2002 update of the California Natural Diversity Data Base (CNDDB) as well as the 2002 California Native Plant Society (CNPS) electronic data base, for the Newhall and Mint Canyon California USGS 7.5-minute quadrangle maps were reviewed. Other data sources reviewed included: (1) the Federal Register listing package for each federally listed Endangered or Threatened species potentially occurring on the project site or in the project vicinity; (2) literature from scientific sources pertaining to habitat requirements of special-status species potentially occurring on the project site; (3) other environmental or biological documentation of the project site (if available on the particular subject) or properties in the immediate vicinity; and (4) distributional information contained in Hall (1981) and Williams (1986) to determine the potential for common and special-status mammals to occur on the project site; Grinnel and Miller (1984) and Garrett and Dunn (1981) for common bird occurrences; Stebbins (1985) for reptiles and amphibians; California Department of Fish and Game (CDFG 2003), Sawyer, Keeler-Wolf (1995), Holland (1986) and Munz (1974) for plant community descriptions occurring within the project vicinity; and Pavlik (1992) and Skinner and Pavlik (1994) for oak tree information.

Sources used to determine the sensitivity status of biological resources are: Plants – U.S. Fish and Wildlife Service (USFWS 1993 and 1996), California Department of Fish and Game (CDFG 2003), CNDDB 2002, and (CNPS) (Skinner and Pavlik 1994-1999); Wildlife – USFWS (1994 and 1996), CDFG (2003), CNDDB (2002), Williams (1986), and Remsen (1978); Habitats – California Department of Fish and Game (CDFG 2003) (pers. comm. Keeler-Wolf) and Sawyer, Keeler-Wolf (1995).

(1) Background

On November 30, 1998, the ACOE, CDFG, and the California Regional Water Quality Control Board (RWQCB) approved the Natural River Management Plan (NRMP) for the Santa Clara River. The NRMP

is a long-term, master plan that provides for the construction of various infrastructure improvements on lands adjacent to the Santa Clara River and portions of two of its tributaries. More specifically, the NRMP governs a portion of the main-stem of the Santa Clara River from Castaic Creek to one-half mile east of the Los Angeles Department of Water and Power Aqueduct and portions of San Francisquito Creek and the Santa Clara River South Fork, Los Angeles County, California. The project site is located within the portion of the river now governed by the NRMP.

In connection with this approval, the following permits were issued by the following agencies:

- Army Corps of Engineers (ACOE) – Permit No. 94-00504-BAH under Section 404 of the Federal Clean Water Act. Section 404 of the Federal Clean Water Act allows for certain activities that result in the discharge of fill or dredged materials into "Waters of the U.S." or in this case the Santa Clara River. Prior to issuing this permit, the ACOE had completed an endangered species consultation (pursuant to Section 7 of the federal Endangered Species Act) with the United States Fish and Wildlife Service.

- California Department of Fish and Game (CDFG) – 1603 Streambed Alteration Agreement No. 5-502-97 and Incidental Take Permit No. 2081-1998-49-5. In summary, the Streambed Alteration Agreement allows for activities that alter the "…natural flow or change the bed, channel or bank of the river…" The Incidental Take Permit applies to all state listed species pursuant to Fish and Game Code Section 2081(b).

- California Regional Water Quality Control Board (Los Angeles Region) – Order No. 99-104 related to waste discharge associated with the improvements included in the NRMP.

The NRMP was prepared in response to an ACOE request to prepare a long-range management plan for projects and activities potentially affecting the Santa Clara River and San Francisquito Creek. More specifically, the NRMP, and its certified EIS/EIR (NRMP EIS/EIR), analyze impacts associated with the implementation of various infrastructure improvements (bank stabilization, bridges, utility crossings, storm drain outlets, etc.) along and within portions of the Santa Clara River adjacent to Newhall Land properties, including the Riverpark project site. The NRMP, and its EIR/EIS, are available at the City of Santa Clarita, Planning and Building Services Department, 23920 Valencia Boulevard, Suite 302, Santa Clarita, California, and are incorporated in this EIR by reference.

Due to the discovery in 2001 of a southwestern arroyo toad (*Bufo californicus*) within the NRMP boundaries (in a location west of the confluence of San Francisquito Creek and the Santa Clara River, approximately 1.5 miles west of the Riverpark project site), additional Section 7 (of the Endangered Species Act) consultation between the ACOE and the U.S. Fish and Wildlife Service was initiated. Prior to initiating this consultation, the ACOE and CDFG had removed certain stretches of the Santa Clara River and San Francisquito Creek from the consultation area as these areas lacked the necessary habitat requirements for the arroyo toad. The areas covered by the NRMP but designated as "no may effect" included the Santa Clara River 1,000 feet upstream of the Bouquet Canyon Road Bridge (including most

of the Riverpark site), San Francisquito Creek north of the Newhall Ranch Road Bridge and the South Fork of the Santa Clara River south of the Valencia Boulevard Bridge. This consultation, along with the preparation of a Biological Opinion (dated November 15, 2002) (**Appendix 4.6**), resulted in the issuance of a modification to the 1998 ACOE Section 404 Permit (issued June 23, 2003) (**Appendix 4.6**) that includes provisions for the protection of the arroyo toad in the affected NRMP area. (The Biological Opinion and the Section 404 modification are incorporated in this EIR and are also available at the City of Santa Clarita, Planning and Building Services Department, 23920 Valencia Boulevard, Suite 302, Santa Clarita, California.)

(2) Implementation of the NRMP

The permits issued by the affected agencies (ACOE, CDFG, RWQCB) allow Newhall Land or its designee to engage in construction and maintenance activities for the various infrastructure improvements included within the NRMP. Within the Riverpark site, those improvements include the bank stabilization, toe or erosion protection, various outlet structures, and the Newhall Ranch Road/Golden Valley Road Bridge. The NRMP, through its permits and EIR/EIS, includes certain requirements/ conditions and mitigation measures associated with the implementation of the approved improvements.

Prior to initiating an individual project under the NRMP, such as the Riverpark bank stabilization or the Newhall Ranch Road/Golden Valley Road Bridge, Newhall Land (or its designee) must submit to the ACOE and CDFG a Verification Request Letter (VRL), VRL Variance or Request for Amendment and accessory documentation (maps, exhibits, photographs, etc.) showing that the particular planned improvement is consistent with the NRMP and the accessory agency permits.

Upon submittal of the VRL, the ACOE and CDFG have 45 days in which to make their determination on the individual project's consistency with the NRMP and accessory agency permits. The ACOE and CDFG approvals of the request constitute the final approvals from ACOE, CDFG and RWQCB to initiate construction of the project.

(3) Application of the NRMP to the Riverpark Project

As indicated above, various infrastructure improvements and subsequent maintenance activities are governed by and permitted through the approved NRMP and accessory agency permits. Those

improvements addressed by the NRMP, and its EIS/EIR, that are located on the Riverpark project site include:

Bridges –

- Newhall Ranch Road/Golden Valley Road Bridge (6-lane), 550 feet long, 110 feet wide.
- Santa Clarita Parkway Bridge (6-lane), 500-1,000 feet long, 110 feet wide.

Bank Stabilization (including accessory storm drain outlets) –

- Approximately 2,500 feet of ungrouted rip-rap from Bouquet Canyon Road to the Newhall Ranch Road/Golden Valley Road Bridge.
- Approximately 11,000 feet of buried bank protection from Bouquet Canyon Road to the Newhall Ranch Road/Golden Valley Road Bridge.

The NRMP EIS/EIR reviewed and evaluated the biological context and impacts of these river-related improvements and imposed conditions to mitigate their potential impacts. The applicable improvements proposed by the Riverpark project will be finally permitted under the NRMP, via the VRL process described above, and will be subject to NRMP's conditions/mitigation. To the extent that the Riverpark project improvements differ from those approved in the NRMP, those differences will be discussed in the applicable EIR sections.

b. Field Surveys

General biological field surveys were conducted by qualified biologists on the project site and in the vicinity in spring and summer of 2002 and spring 2003 to inventory observable wildlife, map and characterize on-site habitats, and to evaluate the potential of the site to support special-status species. Focused presence/absence surveys conducted specifically for this project were for the following: special-status plants (April 2002; April, May, and June 2003); protocol coastal California gnatcatcher (*Polioptila californica californica*) (2002-2003); protocol unarmored three-spine stickleback (*Gasterosteus aculeatus williamsoni*) (spring 2003); protocol arroyo toad (*Bufo microscaphus californicus*) (spring 2002, 2003); western spadefoot toad (*Spea hammondii*) (March and May 2003, March 2004); and special-status birds other than the coastal California gnatcatcher (spring 2003). General surveys were conducted for mammals in spring 2003. All surveys were conducted according to published CNPS, CDFG and/or USFWS survey protocols for the appropriate target species. Technical reports documenting the methods and results of these focused surveys are included within **Appendix 4.6**. Focused presence/absence surveys conducted on Newhall properties that include the Riverpark project site include annual avian surveys since 1993 and

annual arroyo toad surveys, including California red-legged frog (*Rana aurora draytonii*) since 2001. Technical reports documenting the methods and results of these focused surveys are included within **Appendix 4.6**.

During all general and focused surveys, direct observations of reptiles, birds, and mammal species were recorded, as was wildlife sign such as scat and tracks. In addition to species actually detected, expected use of the site by various wildlife species was evaluated from habitat analysis, combined with known habitat preferences of locally occurring wildlife species.

Names used to describe plant communities, where applicable, follow the nomenclature of California Department of Fish and Game (CDFG 2003) which is based, in part, on the descriptions contained within A Manual of Vegetation by Sawyer, Keeler-Wolf (1995). Common plant names are taken from Hickman (1993) Roberts (1989), Beauchamp (1986), Munz (1974), and Abrams (1923 and 1944). References used for the nomenclature of wildlife include: The Society for the Study of Amphibians and Reptiles (2000), the American Ornithologists' Union (2000), and Jones et al. (1982) for mammals.

3. EXISTING CONDITIONS

The Riverpark project site is located on the Newhall 7.5-minute USGS quadrangle map in northern Los Angeles County (**Figure 4.6-1**). The site is located within the City of Santa Clarita and is surrounded by a mixture of urban development and vacant land. The property is generally situated south of the Castaic Lake Water Agency Rio Vista Water Treatment Plant, east of Bouquet Canyon Road and north of Soledad Canyon Road (**Figure 4.6-2**). A portion of the Santa Clara River is included within the project site and runs along the southern boundary of the site.

Topography across the Riverpark site varies and includes the Santa Clara River, terraces above the river, relatively flat graded and disked areas, and gently to steeply sloping hillsides. Elevation at the project site ranges from approximately 1200 feet to 1620 feet above mean sea level. The project site includes a total area of approximately 695 acres. Habitat on the Riverpark site varies in quality from relatively high biological value, particularly within the Santa Clara River channel on the western portion of the site, to highly disturbed areas of low biological value such as in upland areas along the edge of the Santa Clara River.

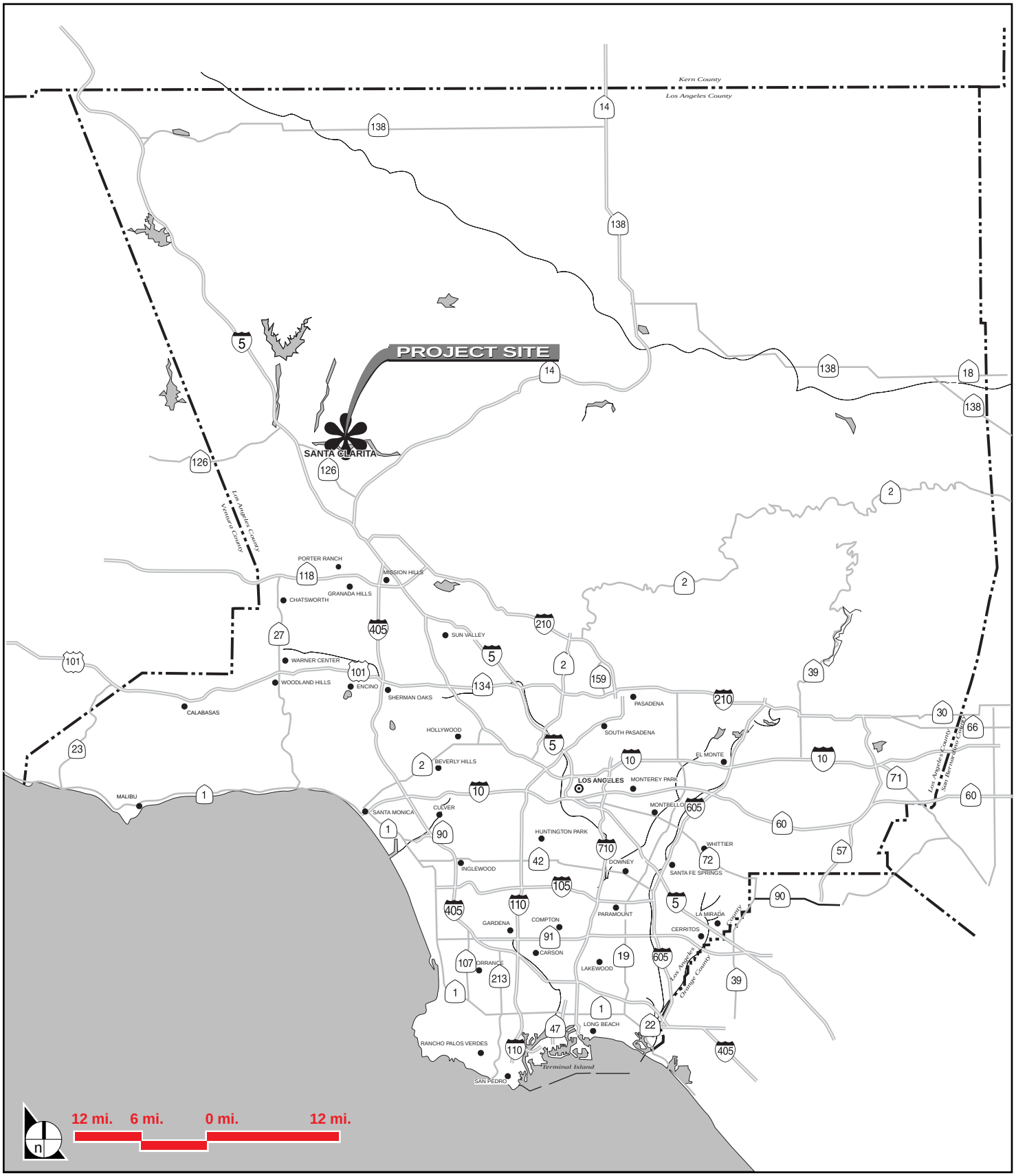
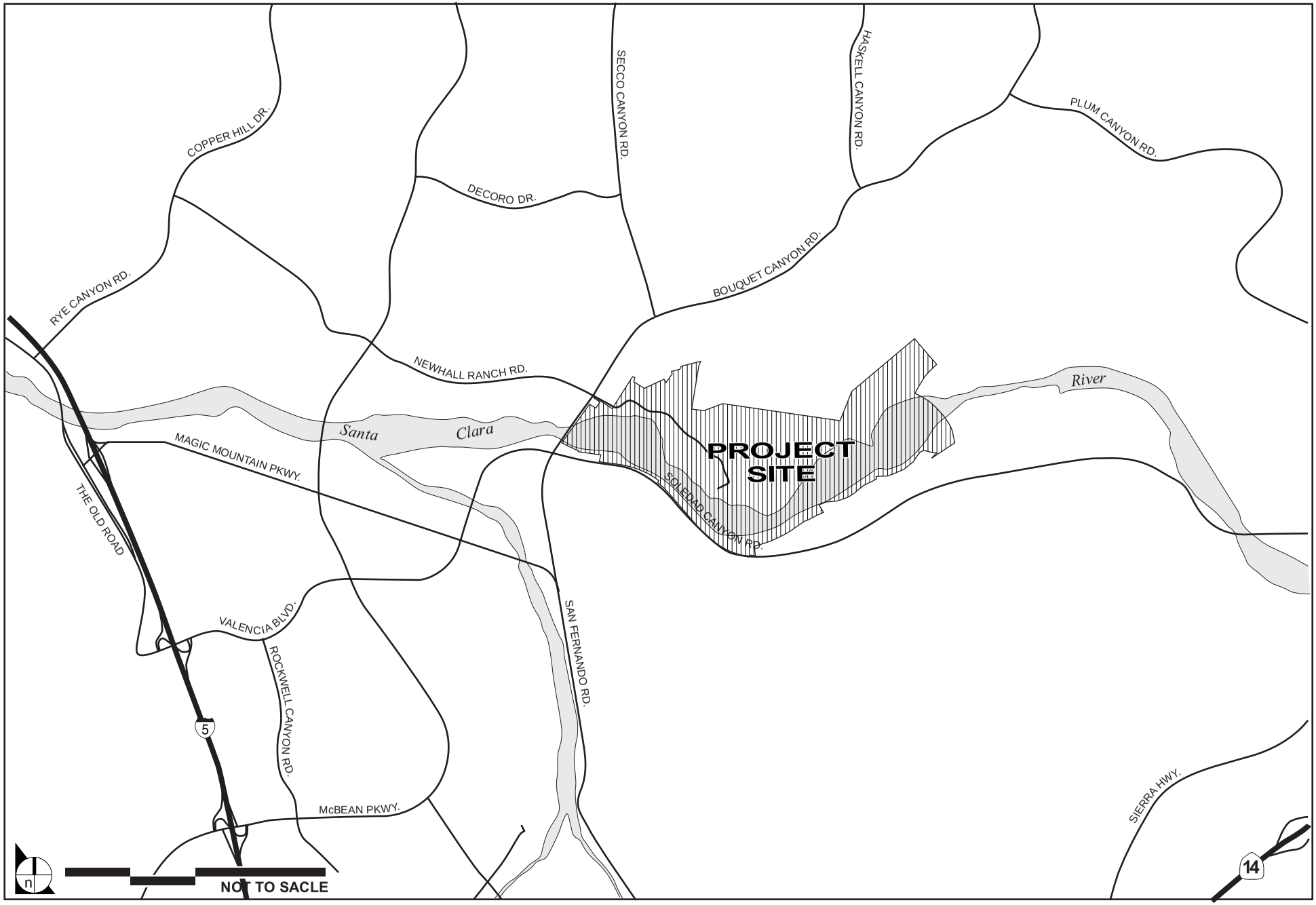


FIGURE **4.6-1**

Regional Location

112-16•10/03



SOURCE: Impact Sciences, Inc., November, 2002.

FIGURE **4.6-2**

Project Vicinity

112-16•08/03

4. BIOLOGICAL RESOURCES

The plant and wildlife resources that characterize the Riverpark project site are discussed below. Those resources considered "common" are discussed first; resources considered of special-status by local, state, and/or federal resource agencies are discussed under the **Special-Status Biological Resources** heading of this document.

a. Plant Communities

A total of 14 different plant communities were identified and characterized during the field investigations (see **Figure 4.6-3 [Map Box]**). Five of the plant community descriptions in this report follow CDFG (2003) and/or Holland (1986). The remaining nine described communities do not fit a defined plant community classification and are, therefore, defined by their dominant species and sometimes obvious associate species where two habitat types may intergrade. A complete list of plant species observed on the Riverpark site is provided in tabular form in **Appendix 4.6**.

The 14 plant communities present on site include the following: (1) disked fields, (2) non-native grassland, (3) non-native grassland with scattered shrubs, (4) planted sage scrub, (5) Riversidian sage scrub, (6) chamise chaparral, (7) coastal sage chaparral scrub, (8) holly-leaf cherry, (9) mulefat scrub, (10) southern willow scrub, (11) southern riparian scrub, (12) riverwash, (13) mixed oak/grass, and (14) developed with mixed trees. A series of dirt roads occur on the project site within several of the plant communities. The areas associated with these roads, which comprise approximately 7.2 acres of the project site, is not described as a separate plant community, since they are void of vegetation. The plant communities vary in structure and quality on the site due to disturbance history and edaphic factors (such as topography, soil type, soil moisture, and aspect). Each of these communities is discussed in detail below. Those communities that are also considered of special status by resource agencies are discussed further under the **Special-Status Biological Resources** heading.

(1) Disked Fields

Some areas of the project site are agricultural fields that are periodically disturbed by disking for agricultural or fire control purposes. These fields have been disked on an annual basis or as necessary to accommodate agricultural use of portions of the property. At the time of the surveys, these fields had grass cover and ruderal vegetation with native and non-native species. Species observed include brome grasses (*Bromus diandrus, B. madritensis* ssp. *rubens*), hare barley (*Hordeum murinum*), shortpod mustard (*Hirschfeldia incana*), red-stemmed filaree (*Erodium cicutarium*), goosefoot (*Chenopodium album,*

C. californicum), rancher's fireweed (*Amsinkia menziesii*), poverty weed (*Iva axillaris* ssp. *robustior*), and jimson weed (*Datura wrightii*). Approximately 92.0 acres (12.6 percent of total project area) of the site includes disked fields.

(2) Non-Native Grassland

This community occurs on relatively flat terrain and occasionally on gentle slopes throughout the Riverpark site. It occurs in various upland locations as 22 fragmented segments with contiguous areas ranging in size from approximately 0.2 to 6.9 acres. Annual introduced grasses up to approximately 0.5 meter in height are dominant in the non-native grassland on site. Non-native grasslands typically occur on fine-textured, usually clay soils, that are moist to wet in the winter, but dry in the summer and fall (Holland 1986). Grass species recorded in this assemblage on site include several brome species and wild oats (*Avena fatua, A. barbata*). Introduced herbaceous species present include red-stemmed filaree, small-seed sandmat (*Chamaesyce polycarpa*), and shortpod mustard. Scattered native plants recorded in the non-native grasslands include wishbone bush (*Mirabilis californica*), California fuschia (*Epilobium canum*), tansy phacelia (*Phacelia tanacetifolia*), and California thistle (*Cirsium occidentalle* var. *californicum*). The area of non-native grassland totals approximately 67.9 acres (9.3 percent of total project area) of the Riverpark site.

(3) Non-Native Grassland with Scattered Shrubs

Sparsely scattered native shrubs occur in a few of the predominantly non-native grassland areas. These areas are distinct enough to be considered a separate plant association from other non-native grasslands. Species observed include California buckwheat (*Eriogonum fasciculatum*), goldenbush (*Ericameria palmeri* var. *pachylepis*), skunkbush (*Rhus trilobata*), and California sagebrush (*Artemisia californica*). This plant association totals approximately 12.1 acres (1.7 percent of total project area) on site.

(4) Planted Sage Scrub

In the northwestern portion of the Riverpark project site, several slopes have been previously cut or graded for the installation of water lines and slope drains. These relatively steep slopes were restored by hydroseeding native shrubs using primarily California buckwheat. Some California sagebrush is also present. These areas are distinct from surrounding scrub communities as they support relatively few plant species and have not established a vegetative understory. The area of planted scrub on-site totals approximately 37.0 acres (5.1 percent of total project area).


AREA A1
AREA A2
AREA B
AREA C
AREA D
SANTA CLARA RIVER
CASTAIC LAKE WATER AGENCY
TRACT NO. 53425
TTM 20898
SECTION B-B
NOT TO SCALE
TYPICAL GRADING LIMITS
NOT TO SCALE
SECTION A-A
NOT TO SCALE
LEGEND:
PROPERTY PROJECT BOUNDARY
PROPOSED MAJOR ARTERIALS
PROPOSED FUTURE MAJOR ARTERIALS
GRADING DAYLIGHT LINE
PROPOSED GRADING LIMITS
RESOURCE LINE
UPLAND PRESERVATION ZONE (100' FROM RESOURCE)
BUFFER ZONE (100' FROM RESOURCE)
FEMA/SEA LINE
404/1603 JURISDICTION LINE
OAK TREE
PLANT COMMUNITIES:
DF - DISKED FIELD
NNG - NON-NATIVE GRASSLAND
NNG W/SHRUBS - NON-NATIVE GRASSLAND WITH SHRUBS
PS - PLANTED SAGE SCRUB
RSS - RIVERSIDEAN SAGE SCRUB
CHC - CHAMISE CHAPARRAL
SCS - COASTAL SAGE CHAPARRAL SCRUB
HLCS - HOLLY-LEAF CHERRY SCRUB
MFS - MULEFAT SCRUB
SWS - SOUTHERN WILLOW SCRUB
SRS - SOUTHERN RIPARIAN SCRUB
RW - RIVERWASH
DAF - MIXED OAK/GRASS
DT - DEVELOPED AREA WITH MIXED TREES
SENSITIVE PLANT SPECIES:
Cv - CALOCHORTUS CLAVATUS VAR. GRACILIS
Ce - CALYSTEGIA PERSONII
Ccl - CALOCHORTUS PLUMMERAE
Dp - DELPHINIUM PARRYI
Hp - HARPAGONELLA
Jc - JUGLANS CALIFORNICA
River Park
Tentative Tract No. 53425
VEGETATION IMPACTS
DEIR
Map #16
PSOMAS
DATE: 5/30/03 REVISED ON: 10/04/03
JOB No: 1HA02018.06
RP057-01.dwg
NEWHALL LAND

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(5) Riversidian Sage Scrub

This community is a xeric type of coastal sage scrub generally found south of Point Conception in California (Holland 1986), particularly along the coastal side of the Santa Susana, Santa Monica, San Gabriel and San Bernardino mountain ranges. It supports low, soft-woody shrubs up to one meter in height. Plant growth occurs in late winter and spring after the rains, with most species flowering in spring and summer. Typical stands are relatively open and dominated by California sagebrush, California buckwheat, and annual grasses such as foxtail chess (*Bromus madritensis* ssp. *rubens*), each attaining 20 percent or greater cover. Riversidian sage scrub (RSS) is found on xeric sites such as steep slopes, severely drained soils, or relatively clayey soils that are slow to release moisture. It typically intergrades with several Southern California chaparrals.

Although the majority of the plant species identified within this community on site are those typically associated with RSS, it should be noted that the project site occurs within a region where intergrading occurs with Venturan coastal sage (VSS). Many of the sage scrub plant species observed on site are also associated with VSS but the total composition of sage scrub plant species on the site is more closely associated with RSS than VSS.

This community is found on sloping terrain throughout the site. The dominant species is California buckwheat (*E. f.* var. *foliolosum*). Less dominant species include thickleaf yerba santa (*Eriodictyon crassifolium* var. *nigrescens*), California sagebrush, purple sage (*Salvia leucophylla*), black sage (*S. mellifera*), white sage (*S. apiana*), goldenbush, encelias (*Encelia actoni, E. californica*), chaparral mallow (*Malicothamnus fasciculatus*), Our Lord's candle (*Yucca whipplei*), linear-leaved stillingia (*Stillingia linearifolia*), California-aster (*Lessingia filaginifolia* var. *filaginifolia*), California broom (*Lotus scoparius*), beavertail cactus (*Opuntia basilaris* var. *basilaris*), giant wild-rye (*Leymus condensatus*), and cotton-thorn (*Tetradymia comosa*). Introduced annual grasses prevalent in the understory are dominated by foxtail chess and wild oats. Native needle grasses (*Nassella cernua, N. lepida*) are present in the interstitial spaces of the shrubs. Herbaceous understory species include non-native shortpod mustard, red-stemmed filaree, and tocalote (*Centaurea melitensis*), as well as native wishbone bush, fascicled tarweed (*Hemizonia fasciculata*), woolly-fruited lomatium (*Lomatium dasycarpum* ssp. *dasycarpum*), malacothrix (*Malacothrix saxatilis* var. *tenuifolia*), and chia (*Salvia columbariae*). Riversidian sage scrub covers approximately 143.4 acres (19.7 percent of total project area) of the project site.

It should be noted that the eastern most 80 acres (approximately) is included in a much larger area that is currently being proposed by the Fish and Wildlife Service (FWS) as critical habitat for the coastal California gnatcatcher. However, at this time it is only being proposed. Although the RSS that occurs on

the project site is considered suitable habitat for the coastal California gnatcatcher, no coastal California gnatcatchers were found on the project site during FWS protocol surveys, as noted later in this Draft EIR.

(6) Chamise Chaparral

This type of chaparral is found in small, scattered patches on flat to sloping terrain, mostly in the northeastern part of the Riverpark site. Chamise chaparral is the most common type of chaparral in Southern California and is dominated by chamise (*Adenostoma fasciculatum*) shrubs from 1 to 3 meters in height. This community is often dense and impenetrable and has a sparse understory (Holland 1986). It is adapted to repeated fires and is found on shallow, dry soils on xeric slopes and ridges. Growth is greatest in the spring and reduced in the summer; flowering occurs from late winter to early summer. Typically, several other native shrubs occur in this chaparral association. However, on the Riverpark site, the small patches of this community consist almost exclusively of chamise. Approximately 2.2 acres (0.3 percent of total project area) of chamise chaparral are present on the Riverpark site.

(7) Coastal Sage Chaparral Scrub

In some areas of the site, primarily on west-facing slopes, chamise chaparral and Riversidian sage scrub intergrade. Where these different plant communities blend, characteristics of each component can be observed. Although plant and wildlife species that would be associated with the individual communities can be found within this plant community, it is considered a different habitat type than either of its individual components because of the change in plant species composition.

The overstory within this habitat type is relatively open, and the understory generally supports annual grasses and herbaceous species. Plant species observed in this area include chamise, California buckwheat, California sagebrush, chaparral mallow, and black sage. This mixed plant community totals approximately 8.6 acres (1.2 percent of total project area) on the site.

(8) Holly-leaf Cherry

A stand of holly-leaf cherry scrub occurs in the northeastern portion of the Riverpark site. It occurs on relatively flat terrain on the low terraces of a canyon that leads to the Santa Clara River. The stand is dominated by relatively large, mature shrubs of holly-leaf cherry (*Prunus ilicifolia* ssp. *ilicifolia*) 3 to 5 meters in height. Other shrub associates present include skunkbrush and spiny redberry (*Rhamnus crocea*). Native understory species present include woolly star (*Eriastrum densifolium* ssp. *elongatum*), scarlet bugler (*Penstemon centranthifolius*), and linear-leaved stillingia. Additional understory species

include red-stemmed filaree, lastarriaea (*Lastarriaea coriacea*), valley lessingia (*Lessingia glandulifera* var. *glandulifera*), Mediterranean schismus (*Schismus barbatus*), beavertail cactus, and primroses (*Camissonia micrantha*, *C. californica*). Approximately 12.9 acres (1.8 percent of total project area) supports this community.

(9) Mulefat Scrub

Several very small patches of this community occur primarily in the western portion of the Riverpark site, adjacent to the river floodplain. Mule fat scrub typically is a tall, semi-woody and herbaceous riparian scrub, and is nearly monotypic. An early seral community, it often grades to riparian woodland or forest (Holland 1986). The dominant species found in this community is native mule fat (*Baccharis salicifolia*). The understory supports mostly introduced species such as brome grasses and shortpod mustard. Approximately 1.2 acre (0.2 percent of total project area) of mule fat scrub occurs on the Riverpark site.

(10) Southern Willow Scrub

Several small patches of this community occur within four tributary drainages of the Santa Clarita River on the Riverpark site. Willow scrub is a broad-leaved, winter-deciduous riparian community, typically too dense to allow understory development. It is a relatively early seral community, often succeeding to cottonwood-sycamore forests (Holland 1986). On the project site, this community includes arroyo willow (*Salix lasiolepis*), narrow-leaf willow (*S. exigua*), Fremont cottonwood (*Populus fremontii* ssp. *fremontii*), Mexican elderberry (*Sambucus mexicana*), tree tobacco (*Nicotiana glauca*), mule fat, and western poison oak (*Toxicodendron diversilobum*). The understory is sparse or absent, but includes Mexican rush (*Juncus mexicanus*), western rageweed (*Ambrosia psilostachya*), and giant wild rye. This community totals approximately 1.9 acres (0.3 percent total area) on the Riverpark site.

(11) Southern Riparian Scrub

This community is found within the Santa Clara River floodplain, on relatively flat terraces immediately adjacent to the riverbed. The vegetation consists of a combination of mule fat scrub and southern willow scrub species including mule fat, arroyo willow, narrow-leaf willow, red willow (*Salix laevigata*), Fremont cottonwood, scale-broom (*Lepidospartum squamatum*) and the highly invasive non-native tamarisk (*Tamarix* sp.) and giant reed (*Arundo donax*). Additional native species occurring in the southern riparian scrub include Great Basin sagebrush (*Artemisia tridentata*), shad-scale (*Atriplex canescens* ssp. *linearis*), Mexican elderberry, thickleaf yerba santa, cholla (*Opuntia prolifera*), and mugwort (*Artemisia douglasiana*).

Approximately 161.4 acres (22.2 percent of total project area) of this riparian community is present on site.

Riparian habitat can exist in a variety of conditions, much of which depends on the amount of available water and the extent of exotic invasive plants. Generally, a perennial source of water would allow for increased plant growth. A similar, but more developed riparian habitat occurs within the Santa Clara River downstream from the project site, west of the Bouquet Canyon Road Bridge. The portion of the Santa Clara River at and downstream of the confluence of Bouquet Canyon Creek, immediately west of the project site, is provided with a permanent source of recycled water from the Saugus Water Reclamation Plant (Plant No. 26). Additional water in this stretch comes in the form of runoff from adjacent development and Bouquet Creek. Consequently, the quality of the habitat differs from that on and adjacent to the project site. Generally, the amount of surface water and the amount of riparian vegetation is greater downstream of the site and Bouquet Creek than on the site.

(12) Riverwash

The stretch of the main channel of the Santa Clara River that occurs within the project site boundaries is 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 channel. During site surveys, scattered elements of southern riparian scrub vegetation (see above) were observed. Shrub species found in the drier portions of the riverbed include mule fat, tamarisk, scale-broom, giant reed, California broom, woolly star, and California buckwheat. Smaller species growing in the riverbed include buckwheat (*Eriogonum baileyi*), Mediterranean schismus, cryptantha (*Cryptantha micrantha*), hairy goldenaster (*Heterotheca sessiliflora* ssp. *fastigiata*), tumble mustard (*Sisymbrium altrissimum*), foxtail chess, slender pectocarya (*Pectocarya linearis* ssp. *ferocula*), and annual bur-sage (*Ambrosia acanthicarpa*). Fremont cottonwood and willows are scattered individually or in small clumps in the channel; no riparian forest associations are present. Because of the dynamic nature of vegetation growth within the river channel (vegetation species, density, and extent can vary depending upon frequency and extent of scouring water flows and periods of low water or drought), the plant composition within the river channel can change from year to year. Riverwash totals approximately 176.2 acres (24.2 percent of total project area) of the project site.

(13) Mixed Oak/Grass

Small patches of oak trees occur in the central part of the Riverpark site, mostly on or at the base of north-facing and west-facing slopes. Typically, oak woodlands have a single dominant oak species, but at the

Riverpark site, four species are present and three co-dominate. These species include coast live oak (*Quercus agrifolia* var. *agrifolia*), the winter-deciduous Valley oak (*Q. lobata*), one blue oak (*Q. douglasii*), and scrub oak (*Q. berberidifolia*). Coast live oaks can reach 10 to 25 meters in height, and typically occur away from the direct influence of the ocean in shaded canyons and on north-facing slopes (Holland 1986). Valley oaks are California's largest broad-leaved tree, reaching 15 to 35 meters in height. Scrub oak is a shrubby oak that grows 2 to 5 meters in height, and is relatively common within its range. This species typically occurs in alluvial soils in valleys and also on slopes in the southern coast ranges. A few large and mature individual Valley oaks are scattered across the site. The shrub layer in the mixed oak/grass is poorly developed and the herbaceous layer often includes annual grasses that have replaced the native perennial grasses once commonly associated with this community. This community, as it occurs on site, has not been described as a sensitive habitat; however, all individual oak trees of the genus *Quercus* are protected by City ordinance. Approximately 2.3 acres (0.3 percent of total project area) of mixed oak/grass occur on site.

(14) Developed Area with Mixed Trees

A canyon area located in the central part of the site is currently occupied by buildings, trailers, and equipment storage areas. Many large and mature native and non-native trees occur in this developed area, some of which may be plantings and some of which occur naturally. Native species observed include western sycamore (*Platanus racemosa*), southern California black walnut (*Juglens californica*), Fremont cottonwood, and Mexican elderberry. Non-native species include eucalyptus (*Eucalyptus* ssp.), Peruvian pepper tree (*Schinus molle*), and various conifers. The developed area with mixed trees totals approximately 8.3 acres (1.1 percent of total project area) on the Riverpark site.

b. Common Wildlife Resources

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. Because wildlife typically utilize a variety of plant communities, wildlife species observed or likely to occur on the site are described by taxonomic group. A complete list of wildlife species observed on the Riverpark site is provided in tabular form in **Appendix 4.6**. Special-status wildlife species present or potentially occurring on the project site are discussed under the **Special-Status Biological Resources** heading.

(1) Amphibians and Reptiles

The Santa Clara River is ephemeral along portions of its reach with a perennial input of urban runoff in various places. Water generally occurs only after recent rains within the reach of the Santa Clara River occurring on the project site. During years of sufficient rainfall, water within the river channel may be present into spring and early summer, providing habitat for amphibians within the project reach.

Amphibian populations on the project site are expected to be low on the site, due in large measure to the lack of persistent or permanent surface water in the drainages and within the Santa Clara River channel on a year-round basis. However, as some amphibious species may move considerable distances from breeding sites during the non-breeding season, there is potential for a few amphibian species to occur. Western toad and Pacific chorus frog, both of which are abundant locally in disturbed sites and even urban situations, would be expected to occur on the project site. On two occasions during the spring and summer of 2003, and on one occasion during winter of 2004, passers-by claimed to have detected vocalizations of amphibious species on the western end of the project site and reported them to CDFG. A survey was immediately conducted to determine the amphibian species occurring within the area. The only species detected and documented during the 2003~~both~~ surveys were the common western toad and Pacific chorus frog (Crawford 2003c and d). At the request of the California Department of Fish and Game, an additional focused survey for western spadefoot toad was conducted on March 4 to 6, 2004. This focused survey resulted in the detection of this species on the site, which is discussed further below ~~in~~under the **Special-Status Biological Resources** heading. ~~No other amphibian species were observed or detected during these site surveys.~~

Common reptile species observed on the project site include western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), San Diego alligator lizard (*Elgaria malticarinata webbii*), western skink (*Eumeces skiltonianus*), common kingsnake (*Lampropeltis getulus*), and southern Pacific rattlesnake (*Crotalus viridis helleri*).

(2) Birds

The diversity of structure and plant communities present on site provides both forage and nesting habitat for several locally occurring common bird species. Some species are known to be closely associated with specific plant communities, whereas other species utilize a variety of habitat types for foraging and breeding. Bewick's wren (*Thryomanes bewickii*), California thrasher (*Toxostoma redivivum*), spotted towhee (*Pipilo erythrophthalmus*) and California towhee (*P. crissalis*) were regularly observed in the scrub habitats. In open scrub and grassland habitats, species including Say's phoebe (*Saynoris saya*), northern

mockingbird (*Mimus polyglottos*), morning dove (*Zenaida macroura*), European starling (*Sturnus vulgaris*), and white-throated swift (*Aeronautes saxatalis*) were observed. Representative species detected in the woodland areas include Anna's hummingbird (*Calypte anna*), house finch (*Carpodacus mexicanus*), bushtit (*Psaltriparus minimus*), Nuttall's woodpecker (*Picoides nuttallii*), oak titmouse (*Baeolophus inornatus*), scrub jay (*Aphelocoma coerulescens*), and black-headed grossbeak (*Pheucticus melanocephalus*).

Because of the presence of large agricultural areas, open fields, and open space areas in the region, in addition to open oak woodland habitat on site, a number of raptor (birds-of-prey) species occur in the project vicinity. Some of these species, including turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), and American kestrel (*Falco sparverius*), were observed foraging over the open grassland and scrub habitat on the site. Though only one actual nesting, by the special-status raptor species white-tailed kite (Guthrie 1999), was observed, several additional common raptor species potentially nest on site.

(3) Mammals

A variety of mammal species occur in the vicinity of the site. Large species including mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), and bobcat (*Lynx rufus*) were detected by scat and tracks during the site surveys. Dusky-footed woodrat (*Neotoma fuscipes*) nests were observed adjacent to two of the on-site canyons. Desert cottontail (*Sylvilagus auduboni*), California ground squirrel (*Spermophilus beecheyi*), and Botta's pocket gopher (*Thomomys bottae*) were abundant in many of the more open areas of the site. Additional species observed during night surveys or detected by scat were common raccoon (*Procyon lotor*), domestic cat (*Felis cattus*), striped skunk (*Mephitis mephitis*), Virginia opossum (*Didelphis virginana*), deer mouse (*Peromyscus maniculatus*) and brush rabbit (*Sylvilagus bachmani).* Several other small rodent species are expected to also occur on site in each of the habitat types present. A few common bat species including big brown bat (*Eptesicus fuscus*) and California myotis (*Myotis californicus*) also potentially forage and temporarily roost on site. However, as the site does not support ideal roosting habitat and is not situated adjacent to permanent open water, most bat species known to occur in the project vicinity would not be expected to utilize on-site resources on more than an infrequent basis. Most of the locally occurring bat species typically feed on insects over aquatic habitats.

c. Special-Status Biological Resources

The following is a discussion of special-status plant and animal species observed and potentially occurring on the Riverpark site. Results and conclusions are based on habitat types present on the site, a review of the CNDDB (2002) and CNPS (2002) databases and other pertinent literature, known geographic ranges of these species, and data collected during general and focused field surveys. Also

included in this section is a discussion of plant communities on the project site that are considered unique, of relatively limited distribution, or that are under the jurisdiction of state and/or federal resource agencies.

(1) Plant Species

Special-status plant species include those that are: (i) state or federally listed as Rare, Threatened, or Endangered; (ii) proposed for state or federal listing as Rare, Threatened, or Endangered; (iii) federal candidate species for listing, or (iv) considered Federal Species of Concern. Plants included on Lists 1, 2 or 4 of the CNPS inventory are also considered of special status. CNPS List 1, List 2, and List 4 species are included because the CNPS is a recognized authority by the CDFG on the status of Rare plant populations in California and because the criteria for plant species to be placed on List 1, List 2, and List 4 are similar to criteria that CDFG and USFWS use for species considered as candidates for listing or that are already listed as Threatened or Endangered (List 1 and List 2), or have populations that are in decline such that they warrant further observation (List 4). Because CNPS List 3 species are defined by the CNPS as those plants about which more information is needed in order to assign to either List 1, 2, or 4 and would generally not meet the definition of "Rare, Threatened, or Endangered" as defined by CEQA, species on this list are not considered of "special status".

The focused special-status plant surveys that were conducted in 2002 were carried out in late April (surveys were conducted only during April since there was a very low rainfall that year in Southern California that resulted in annual plants having a particularly short-lived blooming period) and the surveys conducted in 2003 were carried out in April, May and June to accommodate the blooming periods of various species potentially occurring in the region or previously reported in the CNDDB.

Table 4.6-1, **Special-Status Plant Species Known to Occur the Riverpark Area**, addresses 27 special-status plant species that are known to occur in the project vicinity and were consequently the focus of on-site surveys. The list was compiled based on occurrence records of species in the project vicinity, documented geographic distributions of these species, and known habitat requirements. Those species observed on the site, or those not observed but for which suitable habitat occurs, are discussed in more detail below.

Table 4.6-1
Special-Status Plant Species Known to Occur in the Riverpark Area

Common Name *Scientific Name*	Sensitivity Status			Habitat	Growth Form (Blooming)	On-Site Status
	Federal	State	CNPS			
Braunton's milk-vetch *Astragalus brauntonii*	FE	--	1B	Closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland / recent burns or disturbed areas, carbonate soils.	PH-b (March-July)	No suitable habitat on site. Not observed during focused plant surveys.
Nevin's barberry *Berberis nevinii*	FE	CE	1B	Chaparral, coastal scrub, cismontane woodlands, riparian scrub.	Sh-e (March-April)	Suitable habitat occurs on site, but not observed during focused plant surveys.
Slender mariposa lily *Calochortus clavatus* var. *gracilis*	--	--	1B	Chaparral, coastal sage scrub.	PH-b (Mar-May)	Species identified on site during focused plant surveys.
Plummer's mariposa lily *Calochortus plummerae*	--	--	1B	Chaparral, cismontane woodlands, coastal scrub, lower coniferous forests, and grasslands; valley granitic soils.	PH-b (May-July)	Species identified on site during focused plant surveys.
Late-flowering mariposa lily *Calochortus weedii* var. *vestus*	--	--	1B		PH-b (May-July)	Suitable habitat occurs on site, but not observed during focused plant surveys.
Peirson's morning-glory *Calystegia peirsonii*	--	--	4	Chaparral, chenopod scrub, coastal scrub.	PH-r (May-June)	Species identified on site during focused plant surveys.
Southern tarplant *Centromadia parryi* ssp. *Australis*	--	--	1B	Chaparral, coastal scrub; sandstone rocky outcrops.	Sh-d (July-November)	No suitable habitat occurs on site. Not observed during focused plant surveys.
San Fernando Valley spineflower *Chorizanthe parryi* ssp. *Fernandina*	FC	CE	1B	Coastal scrub; sandy soils.	AH (April-June)	Suitable habitat occurs on site, but not observed during focused plant surveys.

Table 4.6-1 (continued)
Special-Status Plant Species Known to Occur in the Riverpark Area

Common Name *Scientific Name*	Sensitivity Status			Habitat	Growth Form (Blooming)	On-Site Status
	Federal	State	CNPS			
Santa Susana tarplant *Deinandra minthornii*	--	CR	1B	Chaparral, coastal scrub; sandstone rocky outcrops.	Sh-d (July-November)	No suitable habitat occurs on site. Not observed during focused plant surveys.
Dune larkspur *Delphinium parryi* ssp. *blockmaniae*	--	--	1B	Maritime chaparral, coastal dunes.	PH (April-May)	Species identified on site during focused plant surveys.
Slender-horned spineflower *Dodecahema leptoceras*	FE	CE	1B	Chaparral, coastal scrub (alluvial fan), cismontane woodland, sandy soils.	AH (April-June)	Suitable habitat occurs on site, but not observed during focused plant surveys.
Blochman's dudleya *Dudleya blochmaniae* ssp. *Blochmaniae*	[FSC]	--	1B	Coastal bluff scrub, Coastal scrub; rocky, often clay or serpentine soils.	PH (April-June)	Suitable habitat occurs on site, but not observed during focused plant surveys.
Many-stemmed dudleya *Dudleya multicaulis*	[FSC]	--	1B	Chaparral, coastal scrub, and grasslands; often associated with clay soils.	PH (May-July)	Suitable habitat occurs on site, but not observed during focused plant surveys.
Conejo dudleya *Dudleya parva*	FT	--	1B	Chaparral, coastal scrub, often associated with clay soils.	PH (May-July)	Suitable habitat occurs on site, but not observed during focused plant surveys.
Palmer's grappling hook *Harpagonella palmeri* var. *palmeri*	--	--	4	Chaparral, coastal scrub, valley and foothill grasslands.	AH (March-April)	Species identified on site during focused plant surveys.
Round-leaved filaree *Erodium macrophyllum*	--	--	2	Cismontane woodland, valley and foothill grassland; clay soils.	AH (March-May)	No suitable habitat on site. Not observed during focused plant surveys.
Los Angeles sunflower *Helianthus nuttallii* ssp. *Parishii*	--	--	1A	Coastal salt and freshwater marshes and swamps.	PH	No suitable habitat on site. Not observed during focused plant surveys.

Table 4.6-1 (continued)
Special-Status Plant Species Known to Occur in the Riverpark Area

Common Name *Scientific Name*	Sensitivity Status			Habitat	Growth Form (Blooming)	On-Site Status
	Federal	State	CNPS			
Southern California black walnut *Juglans californica* var. *californica*	--	--	4	Chaparral, cismontane woodland, coastal scrub.	T-d	Species observed during focused plant surveys.
Southwestern spiny rush *Juncus acutus* ssp. *Leopoldii*	--	--	4	Coastal dune (mesic), meadows (alkaline seeps), coastal salt marsh.	PH-r (May-June)	No suitable habitat on site. Not observed during focused plant surveys.
Davidson's bush mallow *Malacothamnus davidsonii*	--	--	1B	Chaparral, cismontane woodland, coastal sage scrub, riparian woodland.	Sh-d (June-Jan)	Suitable habitat occurs on site, but not observed during focused plant surveys.
Spreading navarretia *Navarretia fossalis*	FT	--	1B	Chenopod scrub, marshes and swamps, playas, vernal pools.	AH (April-June)	No suitable habitat on site. Not observed during focused plant surveys.
Chaparral nolina *Nolina cismontana*	--	--	1B	Chaparral, coastal scrub, sandstone gabbro soils.	SH-e (April-June)	No suitable habitat on site. Not observed during focused plant surveys.
Short-joint beavertail cactus *Opuntia basilaris* var. *brachyclada*	--	--	1B	Chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland.	Sh-ss (April-June)	Suitable habitat occurs on site, but not observed during focused plant surveys.
California Orcutt grass *Orcuttia californica*	FE	CE	1B	Vernal pools.	AH (April-Aug)	No suitable habitat on site. Not observed during focused plant surveys.
Lyon's pentachaeta *Pentachaeta lyonii*	FE	CE	1B	Chaparral, coastal scrub, valley and foothill grassland; volcanic endemic soils.	AH (Mar-Aug)	No suitable habitat occurs on site. Not observed during focused plant surveys.
Pringle's yampah *Perideridia pringlei*	--	--	4	Chaparral, cismontane woodland, coastal scrub, pinyon and juniperwoodlands; serpentinite, clay soils.	PH (April-Aug)	No suitable habitat on site. Not observed during focused plant surveys.

Table 4.6-1 (continued)
Special-Status Plant Species Known to Occur in the Riverpark Area

Common Name *Scientific Name*	Sensitivity Status			Habitat	Growth Form (Blooming)	On-Site Status
	Federal	State	CNPS			
Rayless ragwort *Senecio aphanactis*	--	--	2	Cismontane woodland, coastal scrub/alkaline.	AH (January-April)	Marginal suitable habitat on site. Not observed during focused plant surveys.

Key:
Status: Listing status definitions are provided in **Appendix 4.6.**
Federal: FE = Federal Endangered; FC = Federal Candidate

State: CE = California Endangered; 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 – A watch list

Growth Form:

AH =	Annual Herb	Sh = Shrub	-r = rhizommatous
PH =	Perennial Herb	-b = bulb	-e = evergreen
T =	Tree	-d = deciduous	-ss = stem succulent

(a) Species Observed On Site

Slender mariposa lily (*Calochortus clavatus* var. *gracilis*), ***CNPS List 1B.*** Approximately 80 individual plants were found in 12 locations, mostly on north-facing slopes and ridges. **Figure 4.6-3 (Map Box)** illustrates the locations of all the recorded populations. The plants were most often found on sandy clay soils in openings within coastal sage scrub. Elevations ranged from 1,235 feet to 1,350 feet. Most plants were flowering during at least one field observation.

Plummer's mariposa lily (*Calochortus plummerae*), ***CNPS List 1B.*** There were seven individual plants found in three locations, mostly on south-facing slopes and ridges. **Figure 4.6-3** illustrates the locations of all the recorded populations. The plants were located on sandy clay soils with gravel and stones associated with coastal sage scrub. Elevations ranged from 1,225 feet to 1,335 feet. All plants were flowering, and some were fruiting, during field observation.

Dune larkspur (*Delphinium parryi*), ***CNPS List 1B.*** There were approximately 445 individual plants of this species noted in eight locations on north-facing slopes. **Figure 4.6-3** illustrates the locations of all the

recorded populations. The plants were observed in openings within coastal sage scrub. Elevations ranged from 1,250 feet to 1,320 feet. Most plants were flowering during field investigations.

Peirson's morning-glory (*Calystegia peirsonii*), ***Federal Species of Concern, CNPS List 4.*** Approximately 4,400 individuals of this species were observed in 29 locations on site. **Figure 4.6-3** illustrates the locations of all the recorded populations. All of the populations were located on relatively gentle slopes (generally south-facing) or in flat areas. On site, the plants are associated with various grassland and coastal sage scrub species in sandy to gravelly/stoney soils. Location elevations range from 1,250 feet to 1,450 feet. Most plants were in vegetative form and some were flowering during field investigations.

Palmer's grappling hook (*Harpagonella palmeri*), ***CNPS List 4.*** Approximately 2,640 individuals of this species were located in eleven locations on south-facing slopes and ridges. The plants were found in on sandy clay soils with gravel, stones and rocks in sparsely vegetated and exposed areas within coastal sage scrub. Elevations ranged from 1,320 feet to 1,430 feet. Most plants had flowers and fruit during the field investigation.

California black walnut (*Juglans californica*), ***CNPS List 4.*** Three populations of walnut trees, consisting of four, five, and twelve individual trees respectively, were detected during the surveys. All three populations occur in the area of the site presently occupied by buildings in a valley in the central part of the site (**Figure 4.6-3**). The walnut trees occur on relatively flat terrain at an elevation of about 1,200 feet. Some of these trees may have been planted, while others appeared to have grown naturally.

Oak trees (*Quercus* spp.) ***City of Santa Clarita Oak Tree Preservation and Protection Policy***. All eligible trees of the genus *Quercus* are subject to the provisions of Resolution No. 90-177 of the City Council of the City of Santa Clarita. The horticultural surveys completed for the project site revealed 87 oak trees qualified for jurisdiction under the City's ordinance. Specific locations of oak trees as well as other characteristics are addressed in the horticultural report, **Appendix 4.6**.

(b) Species Not Observed but for which Suitable Habitat Occurs

Slender-horned spineflower (*Dodecahema leptoceras*), ***Federal Endangered, California Endangered, CNPS List 1B.*** The holly-leaf cherry scrub community found in the northeastern corner of the site has several understory species that are associates of the slender-horned spineflower, as observed previously by FLx from a known population in the region (FLx pers. comm.). At this specific location on the project site, the soils are medium to coarse terrace/riverwash sands, also similar to areas where slender-horned spineflower is found. A known location (not on Newhall Land property) of this species was checked in

April 2003 as a reference; the species had germinated and some plants were flowering. Therefore, if slender-horned spineflower exists on the project site, it should have been observed in 2003, but it was not found (FLx 2003) (Hendrickson 1996).

A known off-site population of the sensitive San Fernando Valley spineflower was also field-checked as a reference population in April 2003. This species had germinated and was observed flowering. Although potential habitat exists for this plant on the project site, the species was not found. The technical report, prepared by FLx (2002-2003), discusses the methods and results of plant surveys on more detail, and it is located in **Appendix 4.6**.

Suitable habitat occurs on the site for ten other special-status plant species. However, none of these species were observed on the site during focused surveys that were conducted during the blooming periods of each species. Had any of these species occurred on the site during the time the surveys were conducted, they likely would have been observed.

(2) Wildlife Species

The term special-status wildlife includes those species that are state or federally listed as Threatened or Endangered, have been proposed or are candidates for listing as Threatened or Endangered, are considered State Species of Special Concern, CDFG Special Animals, California Protected or Fully Protected Species, and/or are Federal Species of Concern.

Twelve~~Eleven~~ special-status species were observed during site surveys: western spadefoot toad (*Spea hammondii*), sharp-shinned hawk (*Accipiter striatus*), Cooper's hawk (*Accipiter cooperi*), white-tailed kite (*Elanus leucurus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), loggerhead shrike (*Larius ludovicianus*), yellow warbler (*Dendroica petechia brewsteri*), summer tanager (*Piranga rubra*), Southern California rufous-crowned sparrow (*Aimophila ruficeps*), Bell's sage sparrow (*Amphispiza belli belli*), tricolored blackbird (*Agelaius tricolor*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), and San Diego desert woodrat (*Neotoma lepida intermedia*). However, a total of 51 potential species are addressed in this report based on an evaluation of on-site habitats compared with each species' life history requirements, occurrence records of species in the project vicinity, and documented geographic distribution of each species. All special-status wildlife species addressed in this report are listed in **Table 4.6-2, Special-Status Wildlife Species Known to Occur or Potentially Occur in the Riverpark Area**. Those species observed or with habitat occurring on the project site are discussed in more detail below.

Table 4.6-2
Special-Status Wildlife Species Known to Occur or Potentially Occur in the Riverpark Area

Common Name *Scientific Name*	Status Federal	Status State	Habitat Requirements	On-Site Status
INVERTEBRATES				
Crustacea Order Anostraca	(fairy shrimp)			
San Diego fairy shrimp *Branchinecta sandiegoensis*	FE	--	Vernal pools.	No indication of vernal or other seasonal pools were detected during site surveys. Soils present on site are not suitable to support vernal/seasonal pools.
Riverside fairy shrimp *Streptocephalus woottoni*	FE	--	Vernal pools.	No indication of vernal or other seasonal pools were detected during site surveys. Soils present on site are not suitable to support vernal/seasonal pools.
Insecta Order Lepidoptera	(butterflies and moths)			
San Emigdio blue butterfly *Plebulina emigdionis*	[FSC]	--	Often near streambeds, washes or alkaline areas. Associated with *Atriplex canescens.*	No recent documented occurrences in the area. However, suitable habitat is present on site as low numbers of the host plant *Atriplex canescens* were recorded. Not observed during focused surveys. (Bruyea 2003)
FISHES				
Arroyo chub *Gila orcutti*	[FSC]	CSC	Slow-moving or backwater sections of warm to cool streams with mud or sand substrates.	The riverbed was dry during time of survey. However, during years with sufficient rainfall, the on-site portion of river channel is known to support variable flows, at which time it is expected arroyo chubs occurring elsewhere in the river and would be able to occur on site.
Santa Ana sucker *Catastomus santaanae*	FT	CSC	Occupies small-to medium-sized perennial streams with water ranging in depth from a few centimeters to a meter or more.	The riverbed was dry during time of survey. However, during years with sufficient rainfall, the on-site portion of river channel is known to support variable flows, at which time it is expected suckers occurring elsewhere in the river would be able to occur on site. Resource agencies have classified only certain populations of this species as threatened. The population in the Santa Clara River system is not included in this Threatened status.
Steelhead rainbow trout (Southern California ESU) *Oncorhynchus mykiss*	FE	CSC	Clean, clear, cool, well-oxygenated streams. Need relatively deep pools in migration and gravelly substrate in which to spawn.	Steelhead have not been identified in the Santa Clara River east of Piru Creek that is approximately 10 miles west of the subject site.
Unarmored three-spine stickleback *Gasterosteus aculeatus williamsoni*	FE	CE, CFP	Slow-moving and backwater areas.	The riverbed was dry during time of survey. However, during years with sufficient rainfall, the on-site portion of river channel is known to support variable flows, at which time it is expected unarmored three-spine sticklebacks occurring elsewhere in the river would be able to occur or pass through the stretch of the river that occurs on site. This species has been observed in ponded water within tire tracks on or near the middle to eastern end of the project site (exact location cannot be determined). (Courtois 1999)

Table 4.6-2 (continued)
Special-Status Wildlife Species Known to Occur or Potentially Occur in the Riverpark Area

Common Name *Scientific Name*	Status Federal	Status State	Habitat Requirements	On-Site Status
AMPHIBIANS				
Coast range newt *Taricha torosa torosa*	--	CSC (SLO south)	Grasslands and woodlands; breeds in ponds, reservoirs, and slow-moving streams.	This species requires perennial sources of water require at least a year to metamorphose from its fully aquatic larval stage. Perennial water does not occur on site. Species was not observed during on-site field investigations.
Western spadefoot toad *Spea~~caphiopus~~ hammondii*	[FSC]	CSC~~, CP~~	Open areas in lowland grasslands, chaparral, and pine-oak woodlands; require temporary rain pools that last approximately three weeks and lack exotic predators.	Observed on site during a focused survey in 2004. Adult toads or other signs of the species~~Sign of species~~ were detected~~as present~~ in three of the six seasonal rainpools on site.~~three of six seasonal pools.~~ ~~No indication of vernal or other seasonal rain pools were detected during site surveys and soils present on site are not suitable to support vernal/seasonal pools. Species was not observed during on-site field investigations.~~
Arroyo toad *Bufo microscaphus californicus*	FE	CSC, CP	Restricted to rivers that have shallow, gravely pools adjacent to sandy terraces that have a nearly complete closure of cottonwoods, oaks, or willows, and almost no herbaceous cover; require shallow pools with minimal current, little to no emergent vegetation, and a sand or pea gravel substrate overlain with flocculent silt for egg deposition.	Focused surveys following U.S. Fish and Wildlife Service protocol were conducted in the river on the project site in 2002 and 2003 with no indication of species presence. An associated habitat analysis determined project site upland habitat to be of low value to this species.
California red-legged frog *Rana aurora draytonii*	FT	CSC, CP	Permanent water sources such as ponds, lakes, reservoirs, streams, and adjacent riparian woodlands.	Permanent water source doesn't exist on site. A pond occurs approximately 200 yards west of the project site and the Bouquet Canyon Road Bridge. Focused surveys for species were conducted in the river on the project site in 2001 and 2002 with no indication of species presence.

Table 4.6-2 (continued)
Special-Status Wildlife Species Known to Occur or Potentially Occur in the Riverpark Area

Common Name *Scientific Name*	Status Federal	 State	Habitat Requirements	On-Site Status
REPTILES				
Southwestern pond turtle *Clemmys marmorata pallida*	[FSC]	CSC, CP (full species)	Streams, ponds, freshwater marshes, and lakes with growth of aquatic vegetation.	The riverbed was dry during site surveys. Though variable flows are known to occur seasonally, such flows are generally swift and little to no ponding occurs on site. This species was not observed during site surveys.
San Diego horned lizard *Phrynosoma coronatum blainvillii*	[FSC]	CSC, CP (full species)	Relatively open grasslands, scrublands, and woodlands with fine, loose soil.	Suitable habitat occurs on site in association with open scrub and riverbank habitats. Species is known to occur in the project region. This species was not observed during site surveys.
California horned lizard *Phrynosoma coronatum frontale*	[FSC]	CSC, CP (full species)	Exposed gravelly-sandy soils with minimal shrubs, riparian woodland clearings, dry chamise chaparral, and annual grasslands with scattered seepweed or saltbush.	Suitable habitat occurs on site in association with open scrub and riverbank habitats. Species is known to occur in the project region. This species was not observed during site surveys.
Coastal whiptail *Cnemidophorus tigris multiscutatus*	[FSC]	--	Open areas in semiarid grasslands, scrublands, and woodlands.	Suitable habitat occurs on site in association with open scrub and riverbank habitats. Species is known to occur in the project region. This species was not observed during site surveys.
Silvery legless lizard *Anniella pulchra pulchra*	[FSC]	CSC	Stabilized dunes, beaches, dry washes, pine, oak, and riparian woodlands, and chaparral; associated with sparse vegetation with sandy or loose, loamy soils.	Suitable habitat occurs on site in association with open scrub and riverbank habitats. Occurrence of species has not been recently reported in the site vicinity and species not observed on site during field surveys.
Two-striped garter snake *Thamnophis hammondii*	[FSC]	CSC, CP	Perennial and intermittent streams having rocky or sandy beds and artificially-created aquatic habitats (man-made lakes and stock ponds); requires dense riparian vegetation.	The riverbed was dry during site surveys. Though variable flows are known to occur seasonally, such flows are generally swift and little to no ponding occurs on site. This species not observed during site surveys.

Table 4.6-2 (continued)
Special-Status Wildlife Species Known to Occur or Potentially Occur in the Riverpark Area

Common Name *Scientific Name*	Status Federal	Status State	Habitat Requirements	On-Site Status
BIRDS				
Western least bittern (nesting) *Ixobrychus exilis hesperis*	[FSC], MNBMC	CSC	This bittern's habitat is centered on dense emergent wetlands of cattails and tules for nearly all of its needs.	No suitable habitat present on site. Not observed during focused bird surveys.
White-tailed kite (nesting) *Elanus leucurus*	MNBMC	CFP	Open vegetation and uses woodlands for cover.	Species known from area and suitable foraging habitat and limited nesting habitat occurs on site. One nest observed by this species (Guthrie 1999) during focused bird surveys.
Northern harrier (nesting) *Circus cyaneus*	--	CSC	Coastal salt marsh, freshwater marsh, grasslands, and agricultural fields.	Suitable nesting habitat does not occur on the project site, but could occasionally forage on/over the site. Not observed during focused bird surveys.
Sharp-shinned hawk (nesting) *Accipiter striatus*	--	CSC	Nests in woodlands and forages over dense chaparral and scrublands.	Marginal nesting habitat occurs in limited areas on the project site; could occasionally forage on/over the site. One observation was made during focused bird surveys. (Guthrie 1995)
Cooper's hawk (nesting) *Accipiter cooperi*	--	CSC	Dense stands of live oaks and riparian woodlands.	Marginal nesting habitat occurs in limited areas on the project site; could occasionally forage on/over the site. Several individual observations were made by Guthrie in 1995–1998 and 2000. No nesting observations were made during surveys.
Ferruginous hawk (wintering) *Buteo regalis*	[FSC], MNBMC	CSC	Grasslands, agricultural fields, and open scrublands.	Infrequent seasonal migrant. Suitable foraging area present. Not observed during focused bird surveys.
Golden eagle (nesting & wintering) *Aquila chrysaetos*	--	CSC,CFP	Mountains, deserts, and open country. Nest habitat consists primarily of cliffs and rocky ledges, sometimes trees and rarely ground and man-made structures.	Suitable nesting habitat is very limited on site, but species is known from the project vicinity and may periodically forage on site. Not observed during focused bird surveys.
Merlin (wintering) *Falco columbarius*	--	CSC	Coastlines, wetlands, woodlands, agricultural fields, and grasslands.	Marginal suitable/typical habitat present on the site. Not observed during focused bird surveys.
Prairie falcon (nesting) *Falco mexicanus*	--	CSC	Grasslands, savannas, rangeland, agricultural fields, and desert scrub; requires sheltered cliff faces for shelter and nesting.	Suitable nesting habitat does not occur on the project site, but could occasionally forage on/over the site. Not observed during focused bird surveys.

Table 4.6-2 (continued)
Special-Status Wildlife Species Known to Occur or Potentially Occur in the Riverpark Area

Common Name *Scientific Name*	Status Federal	Status State	Habitat Requirements	On-Site Status
BIRDS				
Western yellow-billed cuckoo (nesting) *Coccyzus americanus occidentalis*	FC, MNBMC (full species)	CE	Nests along the broad, lower flood-bottoms of larger river systems; riparian forests and riparian jungles of willow, often mixed with cottonwoods, with understory of blackberry, nettles, or wild grape.	Typical nesting habitat is not present on site. Very few occurrences of species recorded from project region. One individual observed during focused surveys and thought to be a migrant. (Guthrie 1997)
Western burrowing owl (burrow sites) *Athene cunicularia hypugea*	[FSC], MNBMC	CSC	Grasslands and open scrub, particularly with ground squirrel burrows.	Few suitable burrow sites present on the project site and disturbance may be too great in more suitable open areas. Not observed during focused bird surveys.
Long-eared owl (nesting) *Asio otus*	--	CSC	Dense, riparian and live oak thickets near meadow edges, and nearby woodland and forest habitats. Also found in dense conifer stands at higher elevations.	Suitable nesting habitat is not present on the project site, but could occasionally forage on/over the site. Not observed during focused bird surveys.
Southwestern willow flycatcher (nesting) *Empidonax traillii extimus*	FE	CE	Riparian woodlands that contain water and low willow thickets.	Suitable habitat not present on site. Not observed during focused bird surveys.
California horned lark *Eremophila alpestris actia*	--	CSC	Grasslands, disturbed areas, agriculture fields, and beach areas.	Some suitable foraging habitat occurs in open areas on site. The site is heavily disturbed in the open areas and this species is a ground nester. Not observed during focused bird surveys.
Bank swallow (nesting) *Riparia riparia*	--	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, ocean to dig nesting hole.	Limited suitable habitat on site and no recent records of occurrence in the area. Not observed during focused bird surveys.
Coastal California gnatcatcher *Polioptila californica californica*	FT	CSC	Coastal sage scrub in areas of flat or gently sloping terrain.	Marginal habitat occurs in limited areas on the project site; however this species has been documented in the project area. Not observed during focused bird surveys.

Table 4.6-2 (continued)
Special-Status Wildlife Species Known to Occur or Potentially Occur in the Riverpark Area

Common Name *Scientific Name*	Status Federal	Status State	Habitat Requirements	On-Site Status
BIRDS				
Loggerhead shrike *Lanius ludovicianus*	[FSC], MNBMC	CSC	Grasslands with scattered shrubs, trees, fences or other perches.	Suitable nesting and foraging habitat present. Species documented in project area and observed during 1993 focused bird surveys (Guthrie 1993) and 2003 coastal California gnatcatcher focused surveys.
Least Bell's vireo (nesting) *Vireo bellii pusillus*	FE, MNBMC	CE	Riparian vegetation with extensive willows below 2,000 ft.	Marginal suitable habitat occurs in limited areas on the project site. Not observed during focused bird surveys.
Yellow warbler (nesting) *Dendroica petechia brewsteri*	--	CSC	Riparian thickets and woodlands.	Nesting habitat exists along portions of the Santa Clara River and within the large drainage channel. Several individuals observed during spring and early summer, most considered migrants but some were present into June and July in 1995 and 1996.
Yellow-breasted chat (nesting) *Icteria virens*	--	CSC	Riparian thickets and riparian woodlands with a dense understory.	Suitable nesting habitat is not present on site. Not observed during focused bird surveys.
Summer tanager (nesting) *Piranga rubra*	--	CSC	Cottonwood-willow riparian habitats, especially older, dense stands along rivers and streams.	Marginal nesting habitat exists along portions of the Santa Clara River and within the large drainage channel. One individual observed on one occasion, not seen on subsequent visits; considered a migrant.
Southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	[FSC]	CSC	Coastal sage scrub.	Observed on site during general wildlife surveys and focused bird surveys. Suitable nesting and foraging habitat present.
Bell's sage sparrow (nesting) *Amphispiza belli belli*	[FSC], MNBMC	CSC	Saltbush scrub and chaparral.	Suitable nesting habitat occurs in limited areas on the project site, species is known from the project vicinity and may periodically forage on site. Observed during focused bird surveys. (Crawford 2003)
Tricolored blackbird (nesting colony) *Agelaius tricolor*	[FSC], MNBMC	CSC	Freshwater marshes and riparian scrub.	Limited nesting and forging habitat present. Although several red-winged blackbirds were observed on few occasions, one tricolored blackbird was observed during focused bird surveys. (Guthrie 1995)

Table 4.6-2 (continued)
Special-Status Wildlife Species Known to Occur or Potentially Occur in the Riverpark Area

Common Name *Scientific Name*	Status Federal	 State	Habitat Requirements	On-Site Status
MAMMALS				
Yuma myotis *Myotis yumanensis*	[FSC]	CSC	Found in a variety of habitats; optimal habitats are open forests and woodlands with sources of water over which to feed.	Though this species is expected to be relatively common along the Santa Clara River, the reach of the river on the project site does not support water for most of the year. This species may periodically fly over the site, but it is expected to frequent more suitable habitat that occurs off site. This species was not observed during site surveys.
Spotted bat *Euderma maculata*	[FSC]	CSC	Deserts, scrublands, chaparral, and coniferous woodlands.	Limited suitable habitat occurs on the project site. Very few spotted bats have been recorded from the project vicinity. This species was not observed on the site.
Pale big-eared bat *Corynorhinus townsendii pallescens*	[FSC] (Full Species)	CSC (Full Species)	Utilizes a variety of communities, including conifer and oak woodlands and forests, arid grasslands and deserts, and high-elevation forests and meadows.	Though this species is expected to be relatively common along the Santa Clara River, the reach of the river on the project site does not support water for most of the year. This species may periodically fly over the site, but it is expected to frequent more suitable habitat that occurs off site. This species was not observed during site surveys.
Pallid bat *Antrozous pallidus*	--	CSC	Arid habitats, including grasslands, shrublands, woodlands, and forests; prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging.	Suitable foraging and limited roosting habitat occurs on site for this species. Pallid bats have been recorded from project region but not observed on the site.
Western mastiff bat *Eumops perotis*	[FSC] (ssp. *californicus*)	CSC	Primarily arid lowlands and coastal basins with rugged, rocky terrain, along with suitable crevices for day-roosts.	Very limited suitable roosting habitat present on site. Some limited foraging opportunities if species occurs in vicinity; however, this species was not observed on the site during surveys.
San Diego desert woodrat *Neotoma lepida intermedia*	--	CSC	Chaparral, coastal sage scrub, understory of tree thickets.	Suitable habitat occurs on the site. San Diego desert woodrat was observed on site during site surveys.
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	[FSC]	CSC	Chaparral and coastal sage scrub.	Suitable habitat occurs on the site. Black-tailed jackrabbits were observed on site during site surveys.

Table 4.6-2 (continued)
Special-Status Wildlife Species Known to Occur or Potentially Occur in the Riverpark Area

Common Name *Scientific Name*	Status Federal	 State	Habitat Requirements	On-Site Status
MAMMALS				
Ringtail *Bassariscus astutus*	--	CFP	Prefers a mixture of forest and shrubland habitats in close association with rocky areas or riparian habitats.	Limited suitable habitat on site; presence was not detected during site surveys.
American badger *Taxidea taxus*	--	CSA	Drier open stages of shrub, forest, and herbaceous habitats with friable soils.	Limited suitable habitat on site; presence was not detected during site surveys.
Mountain lion *Felis concolor browni*	--	CFP	Occurs in a variety of scrub and forested habitats.	The Santa Clara River is a known movement corridor for large mammals such as the mountain lion. This species is known to occur in the project region. No suitable denning sites are present on the property, though this site may be part of a local lion's home range.

KEY:

(nesting) = For most taxa the CNDDB is interested in sightings for the presence of resident populations. For some species (primarily birds), the CNDDB only tracks certain parts of the species range or life history (e.g., nesting locations). The area or life stage is indicated in parenthesis after the common name.

Status:

Federal -- U.S. Fish and Wildlife Service
FE: Federally Endangered
FT: Federally Threatened
FPE: Federally Proposed Endangered
FPT: Federally Proposed Threatened
FC: Federal Candidate for listing as Threatened or Endangered

MNBMC: Migratory Non-game Birds of Management Concern (not shown for Federally listed or proposed Threatened or Endangered species)

[FSC]: Federal Species of Concern
Species denoted with this term primarily include those considered C2 species under the old classification system. This term is only to be used as a "term-of-art" and is not to imply any legal protection or inclusion on the Federal ESA list.

State -- California Department of Fish and Game
CE: California Endangered
CT: California Threatened
CFP: California Fully Protected
CP: California Protected
CSC: California Species of Special Concern
CSA: California Special Animal (species with no official federal or state status, but are included on CDFG's Special Animals list)

(a) Special-Status Wildlife Species Observed on the Site

Western spadefoot toad (*Spea hammondii*) ***California Species of Special Concern, Federal Species of Concern***. This species' range covers the central portion of northern California, the Great Valley, and coast ranges from San Francisco to Baja California (Stebbins 1985). In Southern California, this species is most commonly found in shallow, temporary seasonal rainpools and vernal pools (seasonal pools that are typically underlain by a claypan, hardpan, basalt, or other semi-impervious substrate and that support specific plant species that have adapted to the seasonal and often alkaline conditions of these pools) after winter and spring rains (Sloan 1964). The western spadefoot toad is typically a nocturnal species. It can be found by checking for tadpoles and small egg masses attached to rocks or submerged vegetation in vernal or other seasonal pools (Behler and King 1979).

Adults or sign (egg masses) of this species were observed in three of the six on-site seasonal rainpools (no vernal pools occur on the project site) in the winter of 2004 (Crawford 2004). These seasonal rainpools were located on the western, west-central, and central portions of the project site. Based on the locations and number of seasonal rainpools and number of egg masses observed, 16-20 pairs of breeding western spadefoot toads were estimated to be occurring on the project site in 2004.

Sharp-shinned hawk (*Accipiter striatus*); ***California Species of Special Concern.*** This raptor is a fairly common migrant and winter resident in the project region. It is known to roost in intermediate to high-canopy forests and typically forages in openings at edges of woodlands, agricultural fields, and shorelines (CDFG 1990a). Sharp-shinned hawks most commonly prey on small birds, but will also take small mammals, reptiles, and insects. This species typically nests in the northern forests of the state and is not expected to nest on the site. One individual was observed during focused bird surveys (Guthrie 1995).

Cooper's hawk (*Accipiter cooperi*); ***California Species of Special Concern.*** Cooper's hawk is primarily a yearlong resident where it occurs, which includes the project vicinity. It typically nests in dense woodlands near open water or riparian areas. Cooper's hawks typically prey on small birds, but will also take small mammals and reptiles that it usually spots while utilizing patchy woodlands and edge habitats (CDFG 1990a). Suitable dense nesting habitat is lacking on the project site; however, suitable foraging habitat is present. Cooper's hawks are relatively common in the site vicinity and were observed on several occasions during focused surveys (Guthrie 1995–1998 and 2000).

White-tailed kite (*Elanus leucurus*); ***California Fully Protected, Migratory Non-Game Birds of Management Concern.*** White-tailed kite utilizes a variety of habitats, but is generally associated with riparian woodlands situated near open grassland an/or agricultural fields. This species is a yearlong resident in coastal and valley lowlands. White-tailed kites are known to occur in the vicinity of the

project area, and since suitable nesting and foraging habitat is present on site, this species has a high potential to nest on site. During the ten years of focused bird surveys conducted on the project site, there was one nesting observation by Guthrie in 1999 in a large cottonwood along the north side of the Santa Clara River just upstream of Bouquet Canyon Bridge.

Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) ***California Endangered.*** Yellow-billed cuckoo populations occur in the West in a few scattered locations in Southern California, Arizona, and New Mexico. Yellow-billed cuckoos inhabit riparian forests, particularly cottonwood and willow, overgrown pastures, and orchards. Marginal habitat occurs along portions of the Santa Clara River. One individual was observed on one occasion and was considered to be a migrant (Guthrie 1997).

Loggerhead shrike (*Lanius ludovicianus*); ***California Species of Special Concern, Federal Species of Concern.*** This bird is a resident species in Southern California. It inhabits grasslands, agriculture, chaparral, and desert scrub; it is absent only from the mountainous zones. Population declines due to urbanization have been noted. Loggerhead shrikes feed on small reptiles and insects, which they often impale on sticks or thorns before eating. The loggerhead shrike was observed on the project site during two focused surveys (Guthrie 1993, Crawford 2003). Suitable nesting and foraging habitat occurs on site.

Yellow warbler (*Denroica petechia brewsteri*); ***California Species of Special Concern.*** Yellow warblers prefer wet riparian thicket habitat but are also found in large cottonwoods in drier riparian areas. One to several yellow warblers have been observed on the project site during focused surveys by Guthrie during the years 1993, 1995, 1996–1998 and 2002. A drop in number after May indicates that most birds were migrants. However, in 1995 and 1996, one to four individuals were observed into early July and were presumably breeders (Guthrie 1997). No nesting observations were made during site surveys.

Summer tanager (*Piranga rubra*); ***California Species of Special Concern.*** This species is typically known as a migrant in Southern California, but is known to nest along the Colorado River and in scattered desert areas. The summer tanager requires riparian woodlands or forest dominated by cottonwoods (*Populus* spp.) and willows (*Salix* spp.) (Garret and Dunn 1981). Marginal habitat occurs along the Santa Clara River (scattered willow and cottonwood trees) and within the large canyon in the central portion of the project site. Only one individual was observed during field surveys (Guthrie 2003) and was not observed on subsequent site visits. Therefore, it is considered to be a migrant and not nesting on the project site.

Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*); ***California Species of Special Concern, Federal Species of Concern.*** This species most commonly nests and forages in mixed chaparral and coastal sage scrub habitats that occur on relatively steep, often rocky hillsides. A few individual rufous-crowned sparrows were observed in coastal sage scrub habitat during focused coastal California gnatcatcher surveys (Crawford 2002 and 2003) and focused bird surveys (Guthrie 2003). No nests were

observed; however, suitable nesting habitat does exist on some of the heavily scrub vegetated slopes on the site.

Bell's sage sparrow (*Amphispiza belli belli*); ***California Species of Special Concern, Federal Species of Concern.*** The Bell's sage sparrow has a spotty distribution; breeding range is along the coastal slopes from Trinity County south into northwestern Baja California. Locally, it can be found in chaparral habitats, especially chamise chaparral. This race is essentially sedentary. Male sage sparrows show high site tenacity to breeding territory, even when the habitat is altered dramatically (Ehrlich et al. 1988). This bird was observed on the on the project site during the 2003 focused California gnatcatcher surveys.

Tricolored blackbird (*Agelaius tricolor*); ***California Species of Special Concern.*** The tricolored blackbird is a resident in California. It is common locally throughout the Central Valley and in coastal districts from Sonoma County south. Tricolored blackbirds nest near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs. Limited nesting habitat occurs on the project site; however, during years of greater rainfall, nesting habitat is increased. One tricolored blackbird was observed on one occasion on site within the Santa Clara River (Guthrie 1995).

San Diego desert woodrat (*Neotoma lepida intermedia*); ***California Species of Special Concern, Federal Species of Concern.*** The San Diego desert woodrat is associated with moderate to dense scrub canopies, rock crevices, and in other protected areas where nest-building materials are available. This species is highly adaptable and may depend upon succulents for water. Desert woodrats have a high potential to occur in the dense, undisturbed chamise chaparral and coastal sage scrub habitats on the project site. Scat of this species was detected in this habitat and the type and location of the midden further confirmed the presence of this species.

San Diego black-tailed jackrabbit (*Lepus californicus bennettii*); ***California Species of Special Concern, Federal Species of Concern.*** The black-tailed jackrabbit occurs in a variety of habitats including deserts, pastures, row crops and open scrub. They feed on several species of grasses and herbs, including many cultivated crops (Jameson and Peeters 1988). Several jackrabbits were observed in the riverbed, open terraces, and disked fields during the 2002 general site survey and 2003 focused mammal survey. The jackrabbit occupies areas on site that are occasionally disturbed by natural means or disking operations, such as the riverbed and disked fields. Because of the regular disturbance to these areas, the on-site habitat for the jackrabbit is considered to be moderate in quality.

(b) Special-Status Wildlife Species Not Observed But With Habitat Occurring On Site

Arroyo chub (*Gila orcutti*); ***California Species of Special Concern, Federal Species of Concern*; Santa Ana sucker** (*Catastomus santaanae*); ***Federally Listed Threatened Species, California Species of Special Concern*; Unarmored three-spine stickleback** (*Gasterosteus aculeatus williamsoni*); ***Federally Listed Endangered Species, California Listed Endangered Species.*** As discussed in the site description, the portion of the Santa Clara River that occurs within the project boundaries did not support any flowing or standing water at the time of surveys. Although during certain years water can be present into June or July (Guthrie 1993, 1995, 1998), the river is typically dry during the summer months, especially during drier than normal years as was the case in 2002. However, during the rainy season (primarily winter) the watershed east of the project site drains enough water into the river to deliver what are sometimes substantial flows through the project area. As these three special-status fish species are all known to occur in the Santa Clara River (Courtois 1999, Crawford 2003) both upstream and downstream of the project site, it is expected that all three species could potentially be present within the stretch that passes through the site during times when appropriate water depths are present.

Coast horned lizard (*Phrynosoma coronatum*); ***California Protected Species, California Species of Special Concern, Federal Species of Concern***. The Riverpark project site is situated in an area where the documented ranges of two subspecies of coast horned lizard, San Diego horned lizard (*P.c. blainvillii*) and California horned lizard (*P.c. frontale*), overlap. Both of these species are afforded the same sensitivity status by CDFG. Coast horned lizards feed almost exclusively on native harvester ants and occur in a variety of habitats including scrub, grassland, sandy washes, and woodland—typically where there are sands or other fine loose soils where they can bury themselves. This species was not detected during the site surveys. However, patches of suitable habitat exist in coastal sage scrub, chaparral, and open river terrace habitats on the Riverpark site. In addition, native harvester ants were present on the project site.

Coastal whiptail (*Cnemidophorus tigris multiscutatus*); ***Federal Species of Concern***. This subspecies of western whiptail is most commonly associated with arid to semiarid, open scrub habitats where it has room for running. It may also be found in woodlands and streamside habitats, but generally avoids densely vegetated areas. The Riverpark project site is situated within documented range of this species and there are suitable areas of open scrub habitat on site; however, none were observed during site surveys.

Pallid bat (*Antrozous pallidus*); ***California Species of Special Concern***. The pallid bat is a locally common species of grasslands, shrublands, woodlands, and forests. It is most common in open, dry habitats with rocky areas for roosting (CDFG 1990b). Prey include insects and spiders that are often taken on the ground. Permanent roosts are typically in caves or mines where the pallid bat can retreat from high

temperatures. Night roosts may be in more open habitat. Suitable permanent roosts for this species were not detected on the Riverpark site. However, suitable foraging and night roosts are present.

(3) Sensitive Plant Communities Present On Site

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, is derived from the CNDDB and is intended to supersede all other lists developed from the CNDDB. It is based on the detailed classification put forth in A Manual of California Vegetation (Sawyer and Keeler-Wolf 1995).

The primary purpose of the CNDDB classification is to assist in the characterization and rarity of various vegetation types. For the purposes of this Draft EIR, plant communities denoted on the list as Rare in the September 2003 version, or that are otherwise regulated by local, state, and/or federal resource agencies, are considered of "special status".

As previously described, two plant communities occur on the Riverpark site that are considered sensitive by CDFG. A brief description of these communities follows. These habitats are discussed in greater depth under the **Plant Communities** heading of this section.

Southern willow scrub. Southern willow scrub is known to support a high number of both resident and migrating special-status wildlife species, particularly birds. For this reason, and because of the decline in the amount and quality of riparian habitats remaining in California, this community is denoted by the CDFG as special status. The majority of this plant community also occurs within CDFG jurisdiction pursuant to Section 1600 of the Fish and Game Code.

Southern riparian scrub. Most forms of southern riparian scrub in Southern California are denoted by CDFG as special status because they are declining in acreage and because of the large number of common and special-status wildlife species that are often associated with this community. The majority of this plant community occurs within CDFG and ACOE jurisdiction.

d. Jurisdictional Waters, Streambed and Riparian Resources

The portion of the Santa Clara River and seven small ephemeral drainages that occur on site are under the jurisdictional authority of various federal and state regulatory agencies. Impacts to "Waters," streambeds and adjacent riparian vegetation, as defined in the regulations cited below, typically require authorizations from the agencies. The regulatory agencies and the limits of their jurisdiction are discussed below.

(1) U.S. Army Corps of Engineers (ACOE)

Federal regulations of "Waters of the U.S." stem from Section 10 of the Federal Rivers and Harbors Act of 1899, enacted to regulate activities within navigable waters. In 1972, the federal Clean Water Act was passed. This act regulates discharges into "Waters of the U.S." Section 404 of this act regulates activities including fills placed into wetlands that are adjacent to navigable waters.

"Waters of the U.S." are defined in 33 CFR 328.3(a) as:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters;
- Which are or could be used by interstate or foreign travelers for recreational or other purposes;
- From which fish or shellfish are or could be taken and sold in interstate or foreign commerce;
- Which are used or could be used for industrial purpose by industries in interstate commerce;
- All impoundments of waters otherwise defined as "Waters of the U.S." under the definition;
- The territorial seas;
- Tributaries of "Waters of the U.S.";
- Wetlands adjacent to "Waters of the U.S."

ACOE jurisdiction in non-tidal waters typically extends to the ordinary high water mark (OHWM). The OHWM for intermittent streams, for example, can be determined by "the fluctuations of water as indicated by physical characteristics such as clear, natural lines impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" [33 CFR 328.3(e)]. In arid areas of the southwest, the OHWM may occur at a lower level than where the typical physical indicators are present, due to unusually high flows, not occurring on a typical annual cycle. (Allen, et al. 2001).

Most impacts to areas delineated as "Waters of the U.S.", if determined to be jurisdictional by the ACOE, requires a project to obtain approval under the authority of the Clean Water Act and its implementing regulations.

(2) California Department of Fish and Game (CDFG)

The State of California regulates water resources under Sections 1600 to 1619 of the Fish and Game Code of California. Section 1602 mandates that:

> *"An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake or dispose of debris, waste, or other material…where it may pass into any river stream, or lake…."*

Unless certain requirements are met CDFG considers most natural drainages to be streambeds unless it can be demonstrated otherwise. Streambeds are defined in the California Code of Regulations Title 14, Chapter 1, Section 1.72 as follows:

> *"A stream is a body of water that follows at least periodically or intermittently through a bed or channel having banks and that support fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation."*

CDFG jurisdiction includes ephemeral, intermittent, and perennial watercourses, and is often extended to the limit of riparian habitats that are located contiguous to the water resource and that function as part of the watercourse system. In this analysis, the area generally corresponding to the limit of riparian habitats located contiguous to the water resource is also referred to as the "resource line." Section 2785(e) of the Fish and Game Code of California states:

> *"Riparian habitat means lands which contain habitat which grows close to and which depends on soil moisture from a nearby freshwater source."*

(3) Regional Water Quality Control Board (RWQCB)

Section 401 of the Federal Clean Water Act authorizes the State of California to certify federal permits and licenses. The state's implementing regulations to conduct certifications are codified under the California Code of Regulations Title 23 Waters, Sections 3830–3869. Projects qualifying for an ACOE Section 404 Permit must submit materials for review to the appropriate RWQCB and request a Section 401 Certification. Much of the same information (project description, potential impacts, mitigation measures) necessary to apply for ACOE Section 404 and CDFG Section 1603 Permits is required for the Section 401 Certification.

Direct and indirect impacts on wetland and riparian areas may be subject to the jurisdiction of several state and federal agencies, including the CDFG, the Los Angeles RWQCB and the ACOE. Areas potentially under the jurisdiction of these agencies are briefly discussed below. A jurisdictional

delineation of waters and streambeds associated with the Santa Clara River has been completed and confirmed by the agencies, as part of the Natural River Management Plan and subsequent permits.

(4) Summary of Jurisdiction

The on-site portion of the Santa Clara River is approximately 14,155 linear feet and supports southern riparian scrub vegetation (161.4 acres), southern willow scrub vegetation (1.9 acres), mulefat scrub vegetation (1.2 acres) and riverwash (176.2 acres), as described earlier in this document. A jurisdictional delineation for the Santa Clara River was conducted in association with the development of the NRMP. Within the reach of the Santa Clara River that occurs on the project site, the boundary of jurisdiction for ACOE and CDFG were determined to be the same. Based on that delineation, the total area under ACOE and CDFG jurisdiction within the Santa Clara River is 340.7 acres.

The Santa Clara River and its associated ephemeral drainages flow through the project site. There are a total of seven drainages located on the project site (**Figure 4.6-4**). Drainages 1 and 5 are intermittent streambeds, while Drainages 2, 3, 4, 6, and 7 are ephemeral streambeds. Because Drainages 2, 3, 4, and 5 do not connect to the Santa Clara River or any other "navigable waters", as defined by the Clean Water Act, these drainages are, therefore, not under the jurisdiction of the ACOE. The following briefly describes each of these drainages and the amount of ACOE and/or CDFG jurisdiction associated with each drainage.

Drainage 1 is an intermittent stream, which occurs within the main canyon located in the center of the project site. It consists of one main channel and a small tributary channel that occur within a disturbed area of the site. The tributary channel is approximately 260 feet in length and the main channel is approximately 2,728 feet in length. This drainage is located within a disturbed area that has been developed for many years. Because the channel discharges into the Santa Clara River, it is considered a "Waters of the U.S.," as defined by the Clean Water Act and, therefore, under the regulatory jurisdiction of the ACOE. The CDFG also has jurisdiction of the streambed and associated riparian vegetation. The ACOE jurisdiction is approximately 0.4 acre and the CDFG jurisdiction is approximately 2.7 acres.

Drainage 2 is an ephemeral streambed, which consists of one main channel and a smaller tributary channel. The total length of the main channel is approximately 784 feet and the tributary is approximately 336 feet. The total amount of CDFG jurisdiction is approximately 0.7 acre.

Drainage 3 is an ephemeral streambed totaling approximately 210 feet in length. CDFG jurisdiction totals approximately 0.2 acre.

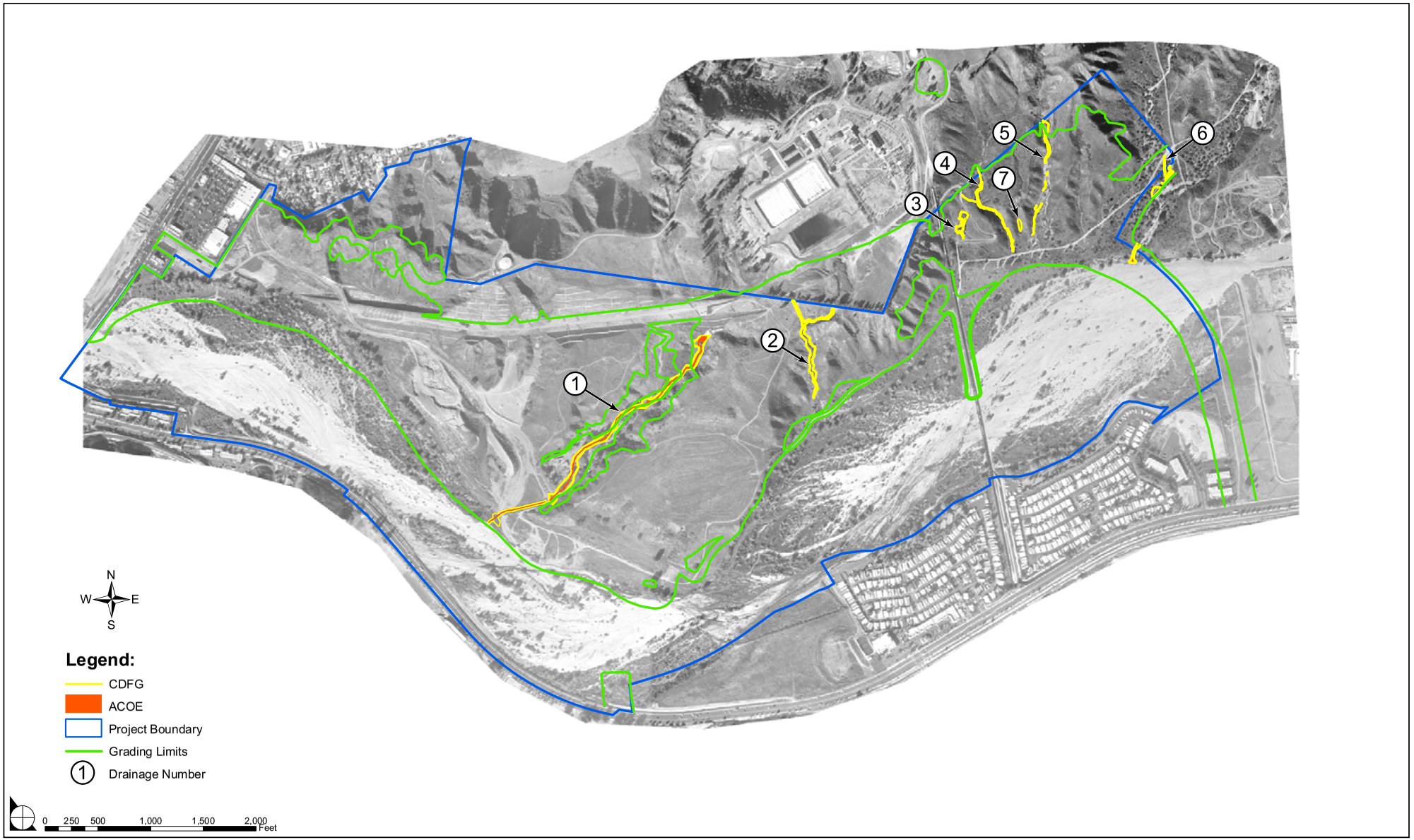

FIGURE **4.6-4**

Drainage Locations

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Drainage 4 is an ephemeral streambed, which consists of one main channel and a smaller tributary channel. The length of the main channel within the project boundary is approximately 1040 feet, and the tributary is approximately 104 feet. A total of approximately 0.38 acre is within CDFG jurisdiction. Drainage 4 continues north of the project boundary and grading limits.

Drainage 5 is an intermittent stream. The channel is well defined in the upper reaches of the streambed, but is less defined in the lower reaches. In some areas of the lower reaches, there are no obvious channels or banks. The length of the drainage within the project boundary and the grading limits is approximately 1,040 feet. A total of approximately 0.16 acre is within CDFG jurisdiction.

Drainage 6 occurs at the eastern edge of the project site and is essentially in a natural condition. This drainage consists of one main channel and two smaller tributary channels. The total length of the main channel and two tributaries is approximately 1,418 feet. Part of drainage 6 is outside the project boundary and the grading limits. The length of the main channel within the project boundary and the grading limits is approximately 572 feet. Only one of the two tributaries are within the project boundary and the grading limits. The length of the tributary within the project boundary and the grading limits is approximately 104 feet. Because the channel discharges into the Santa Clara River, this drainage is under ACOE jurisdiction. Total ACOE jurisdiction within the project boundary and grading limits is approximately 0.18 acre; the total CDFG jurisdiction is approximately 0.37 acre.

Drainage 7 is a barely-defined ephemeral streambed 200 feet in length and 1 to 2 feet wide, or less than 0.1 acre in size. This drainage appears erosional in character within a broad swale with very little gradient.

The total length of all seven drainages within the project boundary and grading limits is approximately 7,250 feet. The total amount of acreage under jurisdiction of the CDFG within the project boundary and grading limits is approximately 4.51 acres. The total amount of acreage under jurisdiction of the ACOE is approximately 0.58 acre. The combined acreage of both CDFG and ACOE jurisdictional resources is approximately 5.09 acres.

e. Wildlife Movement Corridors

Over the past several decades, the Santa Clarita Valley has seen extensive urban development. The Riverpark project site is located within the center of the City of Santa Clarita with existing development generally occurring to the north, south, east, and west (**Figure 4.6-5**). Undeveloped property is located south of the Soledad Canyon Road corridor, which is south of the Riverpark site; however, most of this property is covered by a specific plan and development of this property is anticipated in the future. In addition, development will continue in the nearby Plum Canyon area to the north of the site (City of Santa Clarita General Plan, Land Use Map, 2003). As such, the upland portions of the project site no

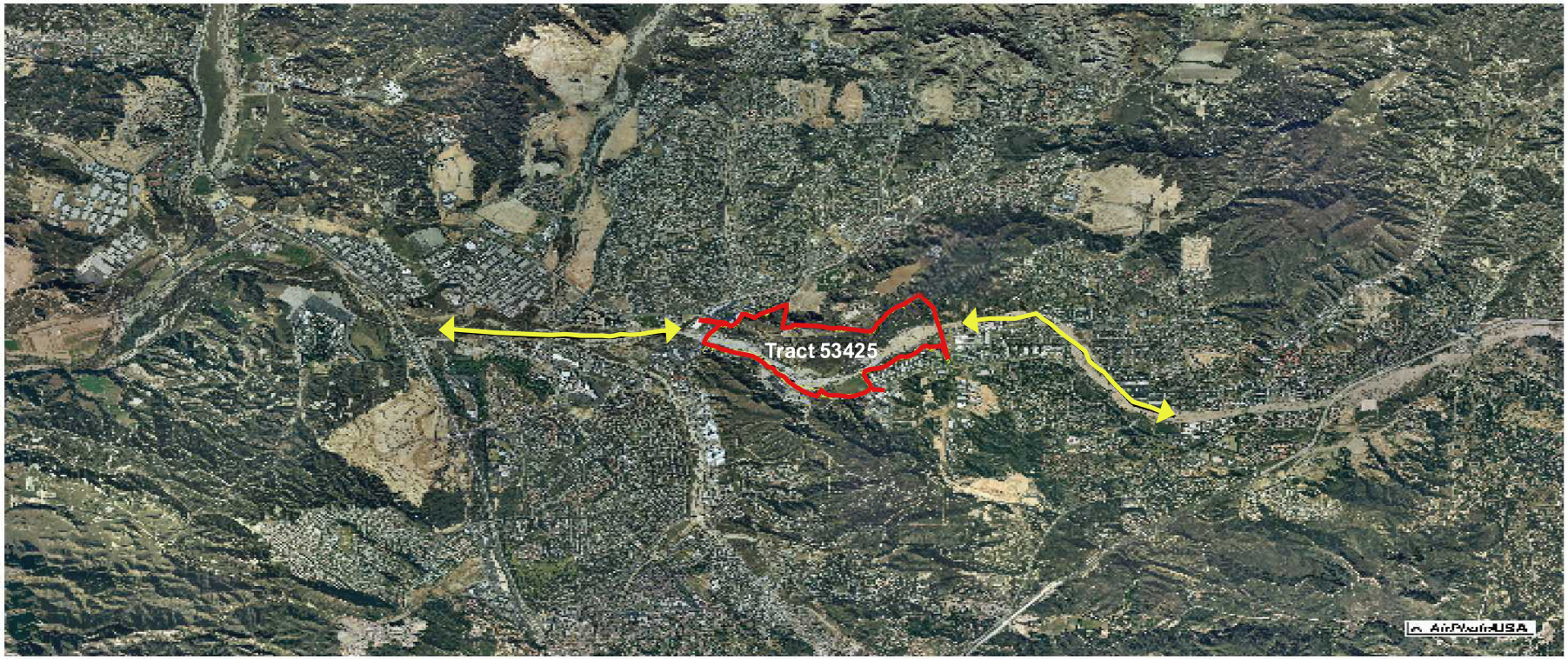
longer function as a north-south corridor between the Santa Clara River and upland open space areas. The Santa Clara River, however, passes through the site and functions as an east-west corridor.

Habitat used by wildlife as movement corridors link together large areas of open space that are otherwise separated by rugged terrain, changes in vegetation, by human disturbance, or by the encroachment of urban development. The fragmentation of natural habitat creates isolated 'islands' of vegetation that may not individually provide sufficient area to accommodate sustainable populations and can adversely impact genetic and species diversity. Corridors mitigate the effects of this fragmentation by: (1) allowing animals to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic exchange with separate population; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fire, flood, or disease) will result in population or species extinction; and (3) serving as travel paths for individual animals as they wander about or disperse from their home ranges in search of food, water, mates, and other needs.

The low hills, ridgelines and canyons occurring on the project site are similar in character and biotic communities to the larger foothills extending from the Santa Clara drainage into the Angeles National Forest and northward to the San Andreas rift zone. Lower elevations on the La Liebre and Sierra Pelona ranges support vast expanses of coastal scrub and chaparral formations, varying in composition according to slope angle, orientation, soil characteristics and disturbance history. Plants and animals within this system historically would have been able to maintain populations at fairly constant carrying capacity levels because support resources are relatively evenly distributed, with no particular concentration areas.

Alluvial scrub and riparian species populations are arrayed along marginal terraces and channels, so their populations tend to be rather linear, often with low within-site densities but extensively distributed geographically. Aquatic species in habitats such as this portion of the Santa Clara River are adapted to persisting in systems that periodically undergo high-energy seasonal flows, scouring, siltation and summer drying. Their populations generally are capable of rapid movement and colonization of surface water systems, with individual densities and species diversity ebbing and flowing with the seasonal changes in the river.

The major habitat corridor passing through the site is the Santa Clara River. It is known to be an important migration and genetic dispersion corridor for many wildlife species occurring in the area. Its headwaters are located in the San Gabriel Mountains to the east of the project site and the River empties into the Pacific Ocean approximately 50 miles to the west. Along this stretch, the Santa Clara River is adjoined in numerous places with large open spaces and is a primary seasonal movement route for aquatic taxa, riparian obligate species (resident and migratory), and larger, more mobile terrestrial animals.



Legend:

- Project Boundary
- Wildlife Movement Corridors

NOT TO SCALE

FIGURE **4.6-5**

Wildlife Movement Corridors

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It also functions as a dispersal and linkage route for juvenile and displaced individuals of species that maintain metapopulations within the low elevation ranges of coastal Southern California. Existing development in the surrounding area further increases the importance of this east/west corridor as several larger species such as deer, coyote, bobcat, and fox are forced toward the river channel for refuge and to access otherwise disjunct foraging areas.

f. Significant Ecological Area (SEA) 23 – Santa Clara River SEA

The portion of the Santa Clara River within the project site was originally designated as SEA 23 by the County of Los Angeles. Because this area in now incorporated within the City of Santa Clarita, the County no longer has SEA jurisdiction over this portion of the river. However, the City of Santa Clarita has adopted their own policies with respect to SEAs, such as the stretch of the Santa Clara River contained in the Riverpark site (**Figure 4.6-6**). The City of Santa Clarita uses the Federal Emergency Management Agency 100-year storm limit line as the limits of the Santa Clara River SEA. A complete discussion of these City policies can be found in **Section 4.7, Land Use**, of this Draft EIR.

5. PROJECT IMPACTS

a. Methodology

Direct impacts of a proposed project on biological resources can take several forms, but typically involve the loss, modification, or disturbance of natural habitat (i.e., plant communities or other naturally occurring areas) which in turn, directly affects plant and wildlife species dependent on that habitat. To determine areas of expected impact on biological resources, proposed grading plans were evaluated and compared with vegetation and wildlife maps. The level of significance of potential impacts on habitat areas is determined by an evaluation of the overall biological value of a habitat area with respect to significance threshold criteria (described below). The relative value of each of the plant communities present on site is measured by such factors as its disturbance history, biological diversity, importance to particular plant and wildlife species, uniqueness or sensitivity status, as well as the surrounding environment and the presence of special-status resources. The significance of impacts with respect to 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 from a regional perspective, and the sensitivity status if the species is considered of special status by 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 established and recognized ecological and biodiversity theory and assumptions.

It should be noted that this portion of the EIR addresses the direct and indirect biological impacts of the proposed project resulting from the conversion of land to development-related land uses. The impacts generated by the hydrological changes to the river corridor resulting from the installation of bank stabilization, toe or erosion protection, and the Newhall Ranch Road/Golden Valley Road Bridge across the Santa Clara River are addressed in **Section 4.20, Floodplain Modifications**.

b. Significance Threshold Criteria

(1) CEQA Guidelines

Significant impacts on biological resources posed by the proposed project were determined from criteria stated in CEQA Guidelines. Appendix G (Environmental Checklist) of the CEQA Guidelines states that a project could have a significant impact on biological resources if it would:

- have a substantial adverse effect, either directly or through 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;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS;
- have a 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.) through direct removal, filling, hydrological interruption, 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 policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; 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.

Section 15065(a) of the CEQA Guidelines also states that a project may have a significant effect on the environment when the project has the potential to:

- substantially degrade the quality of the environment;
- substantially reduce the habitat of a fish or wildlife species;
- cause a fish or wildlife population to drop below self-sustaining levels;
- threaten to eliminate a plant or animal community; or
- reduce the number or restrict the range of an Endangered, Rare, or Threatened species.

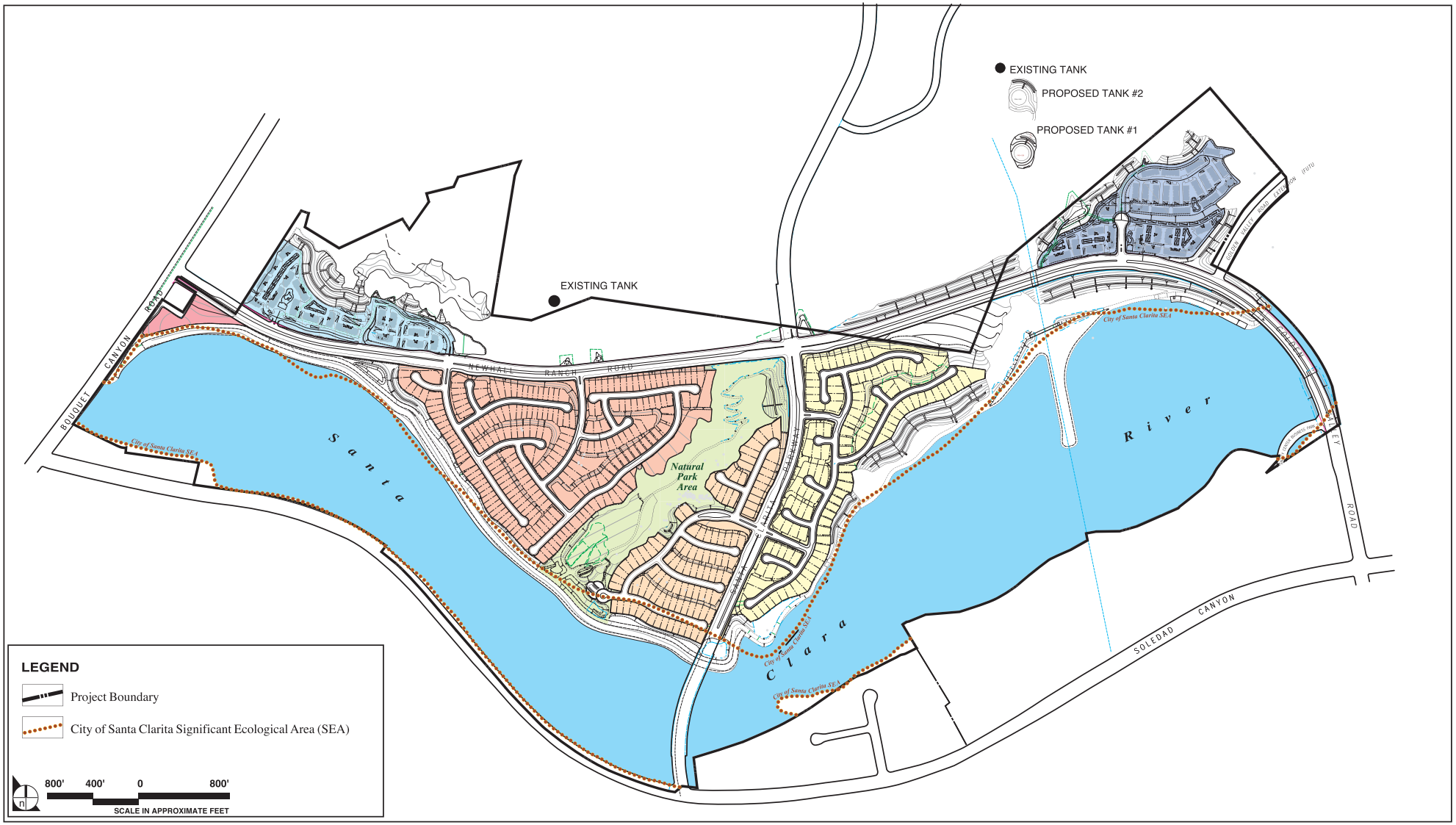

FIGURE **4.6-6**

City of Santa Clarita Significant Ecological Area (SEA)

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(2) Thresholds Specific to City of Santa Clarita

(a) Santa Clarita General Plan

Several policies within the City's General Plan provide for the preservation and protection of sensitive habitat and wildlife areas. In particular, Policy 5.3 of the General Plan provides for the utilization of creative site planning to avoid and minimize disturbance to Significant Ecological Areas and other sensitive habitat. Policy 3.5 of the Open Space and Conservation Element recommends that only passive and compatible recreation uses be allowed within a SEA. Policy 5.8 provides for the preservation and protection of designated wildlife movement corridors from undue encroachment and disruption. Policy 3.10 of the Open Space and Conservation Element also provides for the preservation of wildlife corridors through the use of adequate setbacks. The General Plan also discusses the provision for trails. Please see **Section 4.7, Land Use**, for a complete discussion regarding the project's consistency with the Open Space and Conservation and Parks and Recreation Elements Goals and Policies, concerning resource protection and trails.

(b) City Oak Tree Ordinance

City of Santa Clarita Ordinance No. 89-10, as well as the Oak Tree Preservation and Protection Guidelines developed by the City, provide for the protection of oak trees within the City limits. This ordinance establishes that it shall be the policy of the City to require the preservation of healthy oak trees and that removal, cutting, pruning, relocation, damage, or encroachment into the protected zone of any oak trees measuring six inches or larger in circumference (at DBH) on public or private property can only be done in accordance with a valid oak tree permit issued by the City. Impacts to trees that fall within the criteria set by the ordinance are considered potentially significant.

An oak tree report was prepared in May 2003, and a subsequent addendum dated September 18, 2003, for oak trees within the project site. This report is included in its entirety in **Appendix 4.6**.

(3) Additional Area-Specific Thresholds

Significance criteria defined in the CEQA Guidelines address relatively broad biological issues that are not always specific to the unique biological resources of a given site or location. As such, an EIR can refine the criteria used to define significance based on the unique conditions that occur on a project site

when particular circumstances justify criteria more stringent than, or in addition to, thresholds of significance already in place. In the case of this project, the protection of riparian resources and the riparian/upland ecotone was considered an important issue.

The structural diversity of the various riparian and aquatic vegetation communities in the Santa Clara River drainage provides habitat for a large variety of plant and wildlife species, including a number of special-status species. Each of these species, particularly wildlife, has differing home range and 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 both 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 (Doyle 1990; Schaefer and Brown 1992), indicating that the overall viability of riparian associated wildlife species extends beyond the riparian canopy and includes adjacent upland habitat.

However, the characteristics, quality, and extent of upland habitat that is necessary to protect the diversity of wildlife species dependent upon riparian habitat may differ depending on the geographic region and the particular requirements of the riparian species to be protected. Previous studies have recommended preserving (and restoring, if necessary) a minimum 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"), to adequately provide for the foraging and breeding habitat requirements of riparian-associated wildlife and to maintain species diversity within the riparian ecosystem, inclusive of the riparian/upland ecotone (Impact Sciences 1997). No development or recreational uses would be appropriate in this upland habitat. Because most of the upland habitat currently adjacent to the riparian edge is comprised of agricultural and disturbed/ruderal fields and is, therefore, considered of relatively low biological value, the applicant would need to revegetate these areas with appropriate native upland habitat (i.e., Great Basin sage scrub, coastal sage scrub, or scrub/grassland mix) that either historically occurred in the area or that would be of higher biological value to riparian and upland wildlife species.

Consequently, the following additional threshold has been established for this project:

- Preservation of less than 100 feet of high quality upland vegetation (after planting), as measured from the outer edge of the riparian resource associated with the Santa Clara River to adjacent urban

development, will be presumed to be a significant impact on the riparian ecosystem associated with the Santa Clara River.

c. Construction Impacts

The impacts associated with the NRMP activities, including those that would occur on the Riverpark site, were addressed, mitigated and permitted through the EIS/EIR prepared by ACOE and CDFG for the NRMP. To minimize impacts of the project on biological resources, the applicant has proposed that the below measures from the NRMP be incorporated into the project design:

a) Construction activities in the riverbed shall be restricted to the following areas of temporary disturbance: (1) an 85-foot-wide zone that extends into the river from the base of the rip-rap gunite or soil cement bank protection from 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) 50-foot-wide corridor for all utility lines; and (4) 20-foot-wide temporary access ramps and roads to reach construction sites. The locations of these temporary construction sites and the routes of all access roads shall be shown on maps submitted with the Verification Request Letter submitted to the ACOE and CDFG for individual project approval. The construction plans should indicate what type of vegetation, if any, would be temporarily disturbed and the post-construction activities to facilitate natural revegetation of the temporarily disturbed areas.

b) All native riparian trees in temporary construction areas with a 4-inch dbh or greater shall be replaced at a 3:1 ratio using 1 to 5 gallon container plants 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 later mitigation measures. In addition, the growth and survival of the planted trees shall be monitored for five years in accordance with the methods and reporting procedures specified in a later mitigation measure.

c) Native vegetation within temporary construction areas shall be mulched and spread over the temporary impact areas once construction is completed in order to facilitate revegetation. Areas temporarily disturbed by construction activities shall also be weeded annually, as needed, for up to five years following construction. These areas shall be annually monitored for five years after construction to document colonization by weeds and native plants. Weeds shall be removed by hand, an approved herbicide application, and/or by equipment. In the event that native plant cover does not reach 50 percent of the pre-construction native plant cover within three years, the applicant shall revegetate the temporary construction area in accordance with the methods specified in later mitigation measures. Annual monitoring reports on the status of the natural recovery of temporarily disturbed areas shall be submitted to the ACOE and CDFG as part of the Annual Mitigation Status Report and Mitigation Accounting Form to be submitted to the ACOE and CDFG by April 1st of each year.

d) Permanent removal of riparian habitats shall be replaced by creating riparian habitats of similar functions and values in the project area. Wetland restoration shall be in-kind and at a 1:1 replacement ratio [except as indicated in Item f)] below for new habitat installed two years in advance of the removal of habitat at the construction site. If replacement habitat cannot be installed two years in advance of the project, the ratios listed below will apply. As described in Item c), lower replacement ratios may be appropriate if a ACOE-approved hydrogeomorphic method (HGM) of assessing replacement ratios indicates lower ratios would ensure replacement of habitat values and functions.

Timing of Mitigation	Value of Habitat Affected*	Proposed Ratio Required for Revegetation
Habitat installation completed 2 years or more prior to construction impact	N/A	1:1
Habitat installation completed less than 2 years in advance of impact	Low Medium High	1:1 2:1 3:1

* High (NRMP EIS/EIR mapping units 1, 2, 3, 6), Medium (NRMP EIS/EIR mapping units 4, 7), Low (NRMP EIS/EIR mapping units 5, 8)

e) Creation of new riparian habitats shall occur at suitable sites in or adjacent to the watercourses included in the NRMP. Habitat restoration sites in the riverbed shall only be located in areas where the predominant habitats present are dry open floodplain, weedy herbaceous, or their functional equivalent. The highest priority habitat restoration sites should be new riverbed areas created during the excavation of uplands for bank protection. Restoration sites may also occur at locations outside the riverbed where there are appropriate hydrologic conditions to create a self-sustaining riparian habitat and where upland and riparian habitat values are absent or very low. All sites shall contain suitable hydrological conditions and surrounding land uses to ensure a self-sustaining functioning riparian habitat. Candidate restoration sites shall be selected by the applicant described in the Annual Mitigation Status Report that will be submitted to the ACOE by April 1st of each year. Sites will be approved when restoration plans are submitted to the ACOE and CDFG as part of the Verification Request Letters submitted for individual projects, or as part of the Annual Mitigation Status Report and Mitigation Accounting Form.

f) Replacement habitat shall be designed to replace the functions and values of the habitats being removed. At this time, the replacement habitat shall be restored in accordance with the acreage replacement ratios described in Item a). The replacement habitats shall have similar dominant trees and understory shrubs and herbs as the affected habitats. In addition, the replacement habitats shall be designed to replicate the density and structure of the affected habitats once the replacement habitats have reached mature status. Replacement ratios that are lower than those listed in Item a) may be used if a ACOE-approved HGM is applied in which habitat functions and values of both the affected habitat and the replacement habitat are quantified.

g) Average plant spacing shall be determined based on an analysis of habitats to be replaced. Typical plant spacing is presented below for use in developing willow-cottonwood woodland habitat as an example only. The applicant shall develop similar tree spacing specifications for habitats to be restored. Plant spacing specifications shall be reviewed and approved by the ACOE and CDFG when restoration plans are submitted to the ACOE as part of the Verification Request Letters submitted to the ACOE and CDFG for individual projects or as part of the Annual Mitigation Status Report and Mitigation Accounting Form.

Species	Average Plant Spacing (feet)	Height (feet)	
		After 3 years	After 5 years
Arroyo willow	8	10	15
Black willow	8-10	12	18
Sandbar willow	8	4	6
Red willow	8	9	15
Cottonwood	20	7	12

h) Each tree and shrub species used in restoration shall have a minimum of 80 percent survival after three years and 70 percent survivorship after five years. Key indicator tree species to be used in the riparian restoration program shall achieve a minimum growth at the end of three years and five years as described above in Item e). Performance standards for cover shall be developed for each

individual habitat type being created, based on the observed natural cover in undisturbed habitats in the project area. These standards shall be approved by the ACOE and CDFG after they have reviewed the Annual Mitigation Status Report and Mitigation Accounting Form Minimum growth, survivorship, and cover performance at the mitigation sites shall be measured based on random samples taken during years three and five at each individual mitigation site, or at other sampling intervals if the ACOE' hydrogeomorphic methodology is used by the applicant.

i) If the minimum growth, survivorship, and/or cover are not achieved at the time of the three and five year evaluations, then the applicant shall be responsible for taking the appropriate corrective measures as to achieve the specified growth, survivorship, and/or cover criteria. The applicant shall be responsible for any costs incurred during the revegetation or in subsequent corrective measures. If acts of God (flood, fires, or drought) occur after the vegetation has met the three-year criteria for growth, survival, and cover, the applicant will not be responsible for replanting damaged areas. If these events occur prior to the plants meeting the three-year criteria, the applicant shall be responsible for replanting the area one time only.

j) The applicant shall be responsible for weeding all restoration sites to prevent an infestation of non-native weeds for a period of five years after the initial habitat restoration, regardless of the success of the planted species. The cover of non-native plant species at the mitigation sites shall not exceed 10 percent at any time, within this five-year period.

k) Temporary irrigation shall be installed, as necessary, for plant establishment. Irrigation shall continue as needed to meet the three- and five-year performance criteria regarding survivorship and growth. Irrigation shall be terminated in the winter to provide the least stress to plants. Removal of the irrigation system shall occur in conjunction with an appropriate "weaning" procedures to minimize plant stress. Irrigation shall be terminated at the earliest opportunity after achieving the five-year criteria.

l) As an alternative to the restoration of habitats to compensate for permanent removal of riparian habitats, the applicant (at the discretion of the ACOE and CDFG) may remove exotic plant species from the project area in locations: (1) where there is an infestation of exotics such as *Arundo donax* such that the natural habitat functions and values are substantially degraded and at risk, and where the cover of exotics is equal to or exceeds 25 percent of the ground; or (2) other areas where exotic removal would be strategic in a watershed approach to weed management, as determined by the ACOE and CDFG. The weed removal sites shall be selected in logical manner to ensure that the eradication of weeds from specific sites will contribute to the overall control of exotics in the NRMP watercourses. Removal areas shall be kept free of exotic plant species for five years after initial treatment. In addition, native riparian vegetation must become established through natural colonization and meet the revegetation plant cover goals established by the ACOE and CDFG under Item f) after five years.

m) The removal program shall utilize methods and procedures approved by the ACOE and CDFG to remove exotics, including but not limited to, mechanical equipment in specific areas, handcutting, and the application of herbicides to stumps. Exotic plant species removal credit will be given as shown below (except when weed removal is used to mitigate for loss of habitat for sensitive riparian bird species where the ACOE and CDFG may require higher ratios). Weed eradication plans shall be submitted to the ACOE and CDFG for approval as part of the Verification Request Letters submitted to the ACOE and CDFG. The plans shall describe the proposed methods and the conditions of the site to be treated. A monitoring program shall be implemented to document the effectiveness of the removal and the natural establishment of native vegetation in the weeded area.

	Mitigation Ratios for Exotic Removal	
Value of Riparian Habitat to be Removed	**2 Years in Advance**	**< 2 Years in Advance**
High (NRMP EIS/EIR mapping units 1, 2, 3, 6)	3:1	4:1
Medium (NRMP EIS/EIR mapping units 4, 7)	2:1	3:1
Low (NRMP EIS/EIR mapping units 5, 8)	1:1	2:1

n) Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, and/or bank protection, all construction sites and access roads within the riverbed, as well as all riverbed areas within 300 feet of the construction site and access road, shall be inspected by a qualified biologist for the presence of arroyo toads, unarmored three-spine stickleback and arroyo chub. The ACOE and the CDFG shall be notified of the inspection and shall have the option of attending. If either agency is not represented, the biologist shall file a written report of the inspection with the agency not in attendance within 14 days of the survey and no sooner than 30 days prior to any construction work in the riverbed.

o) Construction work areas and access roads shall be cleared of the species listed above immediately before the prescribed work is to be carried out, immediately before any equipment is moved into or through the stream or habitat areas, and immediately before diverting any stream water. The removal of such species shall be conducted by a qualified biologist using procedures approved by the ACOE and CDFG, and with the appropriate collection and handling permits. Species shall be relocated to nearby suitable habitat areas. A plan to relocate these species shall be submitted to the ACOE and CDFG for review and approval no later than 30 days prior to construction. Under no circumstances shall the unarmored three-spine stickleback be collected or relocated, unless USFWS personnel or their agents implement this measure.

p) All stream flows traversing a construction site or temporary access road shall be diverted around the site and under access roads (using a temporary culverts or crossings that allow fish passage). A temporary diversion channel shall be constructed using the least damaging method possible, such as blading a narrow pilot channel through an open sandy river bottom. The removal of wetland and riparian vegetation to construct the channel shall be avoided to the greatest extent feasible. The temporary channel shall be connected to a natural channel downstream of the construction site prior to diverting the stream. The integrity of the channel and diversion shall be maintained throughout the construction period. The original stream channel alignment shall be restored after construction, provided suitable conditions are present at the work site after construction. A temporary stream diversion plan shall be included in the Verification Request Letters submitted to the ACOE and CDFG. This procedure can only be implemented if: (1) there are assurances by the applicant that the fully protected unarmored three-spine stickleback will not be taken or possessed; or (2) USFWS personnel or their agents implement this measure.

q) A qualified biologist shall be present when any stream diversion takes place, and shall patrol the areas both within, upstream, and downstream of the work area to rescue any species stranded by the diversion of the stream water. Species that are collected shall be relocated to suitable downstream of the work area. Under no circumstances shall the unarmored three-spine stickleback be collected or relocated, unless USFWS personnel or their agents implement this measure.

r) The removal of any riparian habitat suitable for breeding, nesting, foraging, and temporary usage during migration by special-status species from the project footprint (i.e., boundaries of temporary and permanent impacts) shall be mitigated through the creation or enhancement of similar riparian habitat at an approved mitigation site, or by the removal of exotic species from an area of existing similar habitat. The requirement for replacing suitable habitat by either creating new habitat or removing exotic species from existing habitat shall follow the replacement ratios and timing requirements in later mitigation measures. Habitat to be created to mitigate for the loss of riparian habitat shall be designed specifically to replicate the appropriate species mixture and vegetative structure for these species. Existing habitat to be weeded as mitigation for the loss of riparian habitat must be located adjacent to similar habitat that is to be replaced and infested with invasive weeds. The first priority for habitat mitigation for sensitive bird species will be the creation or restoration of habitat rather than weed removal. The final habitat replacement or exotic removal plans for impacts to these types of habitats shall be reviewed by the ACOE and CDFG.

s) Beginning 30 or more days prior to the removal of any suitable riparian habitat that will occur during the riparian bird breeding and nesting season of March 15th through September 1st, the applicant shall arrange for weekly bird surveys to detect the above riparian bird species in the habitats to be removed, and any other such habitat within 300 feet of the construction work areas. The surveys shall be conducted by a qualified biologist using CDFG and/or USFWS survey protocols. The

surveys shall continue on a weekly basis, with the last survey being conducted no more than 7 days prior to the initiation of construction work.

t) In the event that a special-status species is observed in the habitats to be removed or in other habitats within 300 feet of the construction work areas, the applicant has the option of delaying all construction work in the suitable habitat or within 300 feet of the suitable habitat until after September 1st, or continuing the surveys in order to locate any nests. If an active nest is found, clearing and construction within 300 feet of the nest shall be postponed until the nest is vacated and juveniles have fledged, and when there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest site shall be established in the field with flagging and stakes or construction fencing. Construction personnel shall be instructed on the ecological sensitivity of the area.

u) Locating and determining the status of a nest shall be performed in accordance with approved procedures by the USSFWS and CDFG. The ACOE and CDFG shall be notified at least 14 days prior to the first scheduled survey and shall have the option of attending. Results of the surveys, including surveys to locate nests, shall be provided to the ACOE and CDFG no later than 5 days prior to construction. The results shall include a description of any nests located and measures to be implemented to avoid nest sites. No surveys will be necessary if the work is completed outside of the riparian bird breeding and nesting season, i.e., from September 1st through March 15th.

v) Thirty days prior to construction activities in areas of the "upland impact zone" associated with individual NRMP projects, a qualified biologist shall conduct a survey to capture and relocate individual San Diego and California horned lizard, silvery legless lizard, coastal western whiptail, pallid bat, San Diego black-tailed jackrabbit, and San Diego desert woodrat in order to avoid or minimize take of these sensitive species. Individuals shall be relocated to nearby undisturbed areas with suitable habitat. Pre-construction surveys shall only be conducted in areas dominated by Riversidian coastal sage scrub or coastal sage – chaparral scrub or if construction will occur within 300 feet of native upland habitat. 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.

w) Construction activities shall be limited to the following areas of temporary 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) 60 feet on either side of the outer edge of a new bridge or bridge to be modified; (3) 50-foot-wide corridor for all utility lines; and (4) 20-foot-wide temporary access ramps and roads to reach construction sites. The locations of these temporary construction sites and the routes of all access roads shall be shown on maps submitted with the Verification Request Letters for individual projects that are submitted to the CDFG and ACOE. Any variation from these limits shall be noted, with a justification for a variation. The construction plans should indicate what type of vegetation, if any, would be temporarily disturbed, and the post-construction activities to facilitate natural revegetation of the temporarily disturbed 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.

x) Equipment shall not be operated in areas of ponded or flowing water unless there are no practicable alternative methods to accomplish the construction work, and only after prior approval by the CDFG and the ACOE. Approval shall be acquired by submitting a request to CDFG and ACOE no later than 30 days prior to construction. The request must contain a biological evaluation demonstrating that no sensitive fish, amphibians, and/or reptiles are currently present, or likely to be present during construction, at the construction site or along access roads.

y) Temporary sediment retention ponds shall be constructed downstream of construction sites that are located in the riverbed under the following circumstances: (1) the construction site contains flowing or ponded water that drains off site into the undisturbed streamflow or ponds, as allowed for certain areas under Item a) above; or (2) streamflow is diverted around the construction site, but the work is occurring in the period November 1st through April 15th when storm flows could inundate the

construction site. The sediment ponds shall be constructed of riverbed material and shall prevent sediment-laden water from reaching undisturbed ponds or streamflows. To the extent feasible, ponds shall be located in barren or sandy river bottom areas devoid of existing riparian scrub, riparian woodland, or aquatic habitat. The ponds shall be maintained and repaired after flooding events, and shall be restored to pre-construction grades and substrate conditions within 30 days after construction has ended at that particular site. The location and design of sediment retention ponds shall be included in the Storm Water Pollution Prevention Plan (SWPPP) prepared by the applicant for all construction activities that require a NPDES General Construction Activity Storm Water Permit.

z) Installation of bridges, culverts, or other structures shall not impair 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.

aa) 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.

bb) 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.

cc) 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.

dd) 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 is represents a wetland restoration area.

ee) 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.

ff) Staging/storage areas for construction equipment and materials shall be located outside of the ordinary high water mark.

gg) 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 if introduced to water could be deleterious to aquatic life.

hh) 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.

ii) The applicant shall use best efforts to ensure that 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.

jj) 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.

kk) If water diversions are required to perform work within the Santa Clara River, the applicant shall utilize provisions for the protection of arroyo toad, unarmored three-spine stickleback, arroyo chub,

Santa Ana sucker, southwestern pond turtle and two-striped garter snake, including securing appropriate Endangered species permits. Those provisions are as follows:

- Prior to initiating construction, the site shall be inspected by a qualified biologist for the presence of the species listed above. The ACOE and the Department will be notified of the inspection and will have the option of attending. If either agency is not represented, the biologist will file a written report of the inspection with the agency not in attendance within ten days of completion of the survey. If any of the species listed above are present, the following conditions will apply:

  - The site shall be surveyed and cleared of the species listed above immediately before the work is to be carried out, immediately before any equipment is moved into or through the stream, and immediately before diverting any stream water. Any species found shall be moved out of the construction area and replaced in the stream in a manner or place to assure their survival.

  - Blocking nets, or fences with 1/4 inch square mesh, 18 inches high and buried 6 inches, shall be placed upstream and downstream of the work area to assure that none of the species move into the area.

ll) A qualified biologist will be present at the moment any stream diversion takes place and will patrol the areas, both within and downstream of the work area, to rescue any species stranded by diversion of stream water. If the possibility exists that additional downstream sections of the stream will be dewatered, additional biologists will be available for downstream patrol. This rescue patrol will continue until all dewatered portions of the stream are determined to be cleared.

mm) Once the construction site or a portion of the site and work area boundary has been determined to contain none of the species listed above, the site shall be fenced with construction fencing along the riverside- and construction personnel and equipment will not enter the river beyond the fence.

nn) A water control system will be installed to intercept stream flow upstream of the site and carry it around the site. The system will be completed before turning water into it. The process of turning water into the bypass system shall be done so as to minimize sediment movement.

- The Operator will use best efforts to insure that no debris, bark, slash, sawdust, rubbish, cement, concrete, or washings thereof, oil or petroleum products, or other organic material from construction or associated activity will be allowed to enter into or be placed where it may be washed by rainfall or runoff into the river. Sediment management best management practices shall be used during construction.

- Impacts to Endangered species may require appropriate Endangered species permits.

oo) Pilot channels constructed to divert flows around work areas shall be sized to maintain existing water velocities, with wide, shallow channels being utilized. The channel should be kept as small as possible, extending no more than 25 feet upstream and downstream of the work area. Construction of pilot channels should start downstream. Once water is diverted into the new channel, the original channel should be visually inspected and any stranded fish shall be removed and returned to the water downstream of the diversion. Once the diversion is no longer needed, the area shall be restored as closely as practical to its original configuration.

pp) The use of a pump to divert flows around a work site is also acceptable. The pump must have at least a 1/4-inch screen. Water should be discharged downstream, within 25 feet of the work area. Any dams installed across flowing water for the diversion shall be removed upon completion of construction and the area shall be restored as closely as practical to its original configuration.

qq) The Operator shall utilize a Maintenance Notification and Emergency Maintenance Notification forms (Exhibits 1 and 2 of the NRMP) to alert the ACOE and the Department of work to be performed. In non-emergency situations, the form should be filled out and faxed or mailed to the ACOE and the Department at least two weeks in advance of the work. If the work may adversely

impact Endangered species, the ACOE, the Department and LACDPW shall meet in the field to resolve the issue. LACDPW may contact the ACOE and the Department to identify areas of potential Endangered species habitat. If the ACOE and the Department believe the work may adversely impact Endangered species or its habitat resources or the LACDPW wishes to consult with the ACOE and the Department, a field meeting will be scheduled. At the field meeting, the ACOE and the Department will provide information regarding Endangered or Threatened species that could be impacted by the project. If take of an Endangered species will occur, the appropriate Endangered species permits will be required. To the extent that a USFWS Section 7 and a CDFG Section 2081 Memorandum of Agreement have been completed for the species present, the mitigation measures shall be implemented and construction may proceed as outlined in these documents.

rr) The notification is provided to demonstrate consistency with the policies of the NRMP. In non-emergency situations, the ACOE and the Department must respond to the notification within 20 working days if they believe that the work is inconsistent with the NRMP, at which time a field meeting will be scheduled to review the site and determine how the work may proceed. If the ACOE and the Department do not respond within 20 working days, the work shall proceed as described in the notification. However, appropriate Endangered species permits will be required for impacts to Endangered species.

It should be noted that some of the activities permitted through the NRMP on the Riverpark site have been scaled back as part of the Riverpark project, and those improvements would now have less of an impact than would have occurred if constructed as described in the NRMP. More specifically, in the area of A1, the "top of bank stabilization" proposed with the project has been set back anywhere from 50-320 feet from where the NRMP permitted the stabilization. Additionally, the Riverpark project does not include bank stabilization from the eastern terminus of the "toe protection" to the western bridge abutment for the Newhall Ranch Road/Golden Valley Road Bridge. Under the NRMP, bank stabilization was permitted in this area. Finally, the project does propose two encroachments beyond the bank stabilization line permitted by the NRMP. One is necessary to save a Heritage oak tree (Tree No. 74) and encroaches up to 80 feet beyond the NRMP bank stabilization line. The second encroachment occurs at the Newhall Ranch Road/Golden Valley Road Bridge and is necessary to accommodate a change in the alignment for the bridge from what was shown in the NRMP and to accommodate a trail connection from the Class 1 bike trail on Newhall Ranch Road to the Santa Clara River Trail. The top of bank stabilization in this area encroaches up to 230 feet from what was shown and permitted in the NRMP. It should also be noted that while the NRMP addresses many of the biological impact issues addressed in this section, the City of Santa Clarita is conducting its own impact analysis of this project, which includes floodway and erosion protection, through this EIR.

The following section focuses on the effects of implementation of the proposed project on plant communities, common and special-status plant and wildlife species, special-status habitats, and wildlife movement corridors and whether these effects exceed the thresholds of significance. Because most biological resources, particularly plants and wildlife, are dependent upon the condition, extent, and character of specific ecosystems and habitat types, impacts on these resources are generally discussed in

terms of the effect of project-related activities on natural habitat areas, (i.e., on plant communities). However, direct impacts with respect to specific plant and wildlife resources (e.g., active nests, dens, and individual plants and animals) are also evaluated and discussed when impacts on these resources, in and of themselves, could be considered significant or conflict with local, state and federal statutes or regulations.

The principal direct impact of implementation of the proposed project is to convert approximately 317 acres of the project site (about 46 percent) from an undeveloped to a developed and partially restored condition. The approximate acreage and percentage of each of the vegetation/habitat types expected to be disturbed on the site as a result of project implementation are provided in **Table 4.6-3**, **Riverpark Habitat Acreages and Impacts**, and are described below. Only those plant communities directly impacted are discussed.

(1) Plant Communities

(a) Disked Field

The direct impact of implementation of the proposed project on this habitat type is to convert 83.5 acres to residential use and 1.2 acres to graded slopes. This combined loss represents about 90.7 percent of this habitat type on the site.

The existing habitat is highly disturbed by on-going disking activities. Consequently, this habitat type is considered of low biological resource value. Although there are areas of ruderal vegetation, non-native, and native grasses for a portion of the year, there is no available habitat on the site for animals to nest, roost or find shelter and little opportunity for insectivores to forage. Because of the low biological value of these disked areas, and because no special-status resources occur in these areas, the loss of this land use would not be a significant impact.

Table 4.6-3
Riverpark Habitat Acreages and Impacts

Vegetation Type	Vegetation Map ID	Existing Area (acres)	Temporary Project Impact Area (acres) due to Road/Bridge Construction	Temporary Project Impact Area (acres) due to Trail Construction	Temporary Project Impact Area (acres) due to Commercial Development	Temporary Project Impact Area (acres) due to Residential Development	Temporary Project Impact Area (acres) due to Graded Open Spaces	Temporary Project Impact Area (acres) Total	Permanent Project Impact Area (acres) due to Road/Bridge Construction	Permanent Project Impact Area (acres) due to Trail Construction	Permanent Project Impact Area (acres) due to Commercial Development	Permanent Project Impact Area (acres) due to Residential Development	Permanent Project Impact Area (acres) due to Graded Open Spaces	Permanent Project Impact Area (acres) Total	Undisturbed Area (acres) w/ Project
Disked Field	DF	92	0.1	0	0	0	1.2	1.3	18.2	3.2	0	47.7	14.5	83.6	7.2
Non-native Grassland and Non-native Grassland with Scattered Shrubs	NNG and NNGW / SHRUBS	80	5.2	0	0.3	1.0	5.1	11.6	24.3	0.2	1.8	20.7	5.7	52.7	15.7
Planted Sage Scrub	PS	37.0	0	0	0	0.3	0.8	1.1	14.1			6.2	2.5	22.8	13.1
Riversidian Sage Scrub	RSS	143.4	2.9	0.1	0	1.6	5.5	10.1	20.6	0.6	0	52.5	21.8	95.5	37.8
Chamise Chaparral	CHC	2.2	0	0	0	0.1	0	0.1	0	0	0	1.9	0	1.9	0.2
Coastal Sage - Chaparral Scrub	SCS	8.6	0	0	0	0.4	0.3	0.7	0.7	0.1	0	1.5	1.6	3.9	4
Holly-leafed Cherry Scrub	HLCS	12.9	7.6	0	0	0.7	0	8.3	1.7	0	0	1.2	0	2.9	1.7
Mule Fat Scrub	MFS	1.2	0	0	0	0	0	0	0.3	0	0	0.8	0	1.1	0.1
Southern Willow Scrub	SWS	1.9	0	0	0	0.1	0	0.1	0.3	0	0	0.8	0.3	1.4	0.4
Southern Riparian Scrub	SRS	161.4	1.7	0	0	0	5.7	7.4	5.3	4	1.1	0	11	21.4	132.6
Riverwash	RW	176.2	6.7	0.1	0	0	3.5	10.3	1.3	0.3	0	0	1.3	2.9	163
Mixed Oak Woodland	MOW	2.3	0	0	0	0	0.1	0.1	0	0	0	0.1	0.3	0.4	1.8
Developed Area with Mixed Trees	MT	8.3	0	0	0	0	1.9	1.9	0	0	0	0	4	4	2.4
TOTALS		727.4	24.2	0.2	0.3	4.2	24.1	53	86.8	8.4	2.9	133.4	63	294.5	380

(b) Non-Native Grassland and Non-native Grassland with Scattered Shrubs

The direct impact of implementation of the proposed project to these two habitat types is to convert 38.8 acres to residential and 7.8 acres to graded slope areas. This combined loss represents about 76.4 percent of these habitat types on the site.

Due to the severely disturbed and fragmented nature of the grassland on the site and its dominance by non-native species, most of the grassland vegetation on the site was considered of relatively low botanical value at the time of the general field surveys.

Peirson's morning glory (*Calystegia peirsonii*) and Palmer's grappling hook (*Harpagonella palmeri*) were identified in two locations in the non-native grassland vegetation during focused surveys. These species are listed by CNPS as List 4 species (a "watch" list to which vulnerability to threats are considered low). An estimated 16 of the 29 locations (approximately 3,900 of the estimated 6,920 number of plants) within the non-native grassland habitat will be impacted. No other special-status plant or wildlife species are known to occur within the non-native grassland community on the site. Various raptor species may forage over these grassland communities on the site in search of rodents or other prey. However, no active raptor nests were observed on the site or immediate vicinity that would rely on these particular on-site communities as an important source of prey to support a nest. In addition, no raptor species residing in the Santa Clarita region forage exclusively on grassland habitat; most raptor species known to occur in this area forage over a variety of habitat types in order to increase their chances to obtain prey.

Because the remaining grassland areas on the project site do not currently support populations of special-status wildlife species and because of the low sensitivity status of Peirson's morning glory and Palmer's grappling hook, the loss of these plants would not be considered a substantial adverse effect on a special-status species. Also, the loss of grassland habitat would not substantially affect raptor species that potentially utilize this community as foraging habitat. Because of the relatively low botanical value of this community on the site, and because non-native grasslands are fairly common in the region, the permanent loss of 67.9 acres of non-native grassland will not substantially affect special-status plant or wildlife resources and will not cause a population of plant or wildlife species to drop below self-sustaining levels. Therefore, the loss of this habitat would not be a significant impact.

(c) Planted Sage Scrub

The impact of implementation of the proposed project on this habitat type would be to permanently convert approximately 22.8 acres for the construction of the extension of Newhall Ranch Road and

approximately 1.1 acres for graded slopes. This combined loss represents about 64.6 percent of this habitat type on the site. This habitat type has little diversity due to the relatively few species present and no established vegetative understory. Therefore, this plant community on the project site currently has relatively low biological value.

Because this community on the project site does not currently support populations of special-status plant or wildlife species, and because of the relatively low biological value of this community on the site, the permanent loss of 24 acres of planted sage scrub will not substantially affect special-status resources and will not cause a population of plant or wildlife species to drop below self-sustaining levels. Therefore, the loss of this habitat would not be a significant impact.

(d) Riversidian Sage Scrub

Implementation of the proposed project will result in the permanent loss of approximately 95.5 acres of Riversidian sage scrub due to residential development and approximately 10.1 acres to graded slopes. This loss represents approximately 73.6 percent of the total Riversidian sage scrub vegetation present on the site.

The various densities of Riversidian sage scrub vegetation on the site provide habitat for a variety of plant and animal species including several special-status species. Five special-status plants (slender mariposa lily, Plummer's mariposa lily, dune larkspur, Peirson's morning-glory, Palmer's grappling hook) and two special-status bird species (southern California rufous-crowned sparrow and loggerhead shrike) were observed within portions of the Riversidian sage scrub on the project site. The conversion of Riversidian sage scrub on the site will result in the loss of populations of the five special-status plant species. Specific impacts to these special-status plant species are discussed later in this section.

Most of the Riversidian sage scrub patches were in relatively good condition at the time of the on-site surveys, with the exception of an herbaceous understory that was partially comprised of non-native species; therefore, this habitat on the site is considered of moderate to high biological value. However, because this habitat type is not considered as special-status by CDFG, and because the loss of Riversidian sage scrub would not, therefore, be considered a substantial adverse effect on a sensitive natural community identified by the DFG or USFWS, the loss of the Riversidian sage scrub would not be considered a significant impact.

(e) Chamise Chaparral

The direct impact of implementation of the proposed project on chamise chaparral vegetation is to permanently convert 1.9 acres of this habitat to residential and approximately 0.1 acre to graded slopes. This loss represents approximately 90.9 percent of the total chamise chaparral vegetation present on the site. No special-status plant or animal species were observed within chaparral vegetation during site surveys. Typically, chamise chaparral habitat is comprised of more than one plant species. Since the chaparral present on site is nearly monotypic (comprised of a single species), consisting almost exclusively of chamise, and because of the relatively small amount on the site, this habitat type is considered to be of low to moderate biological value.

Because no special-status species were observed in this habitat type during surveys, because chaparral is not considered by resource agencies as sensitive or declining, and because the amount of habitat affected is small, the loss of approximately 2 acres of chaparral is not considered a substantial loss of wildlife habitat and will not significantly reduce the number or restrict the range of a special-status species. Therefore, this loss is not considered a significant impact.

(f) Coastal Sage Chaparral Scrub

Implementation of the proposed project will result in the permanent loss of 3.9 acres of this habitat type present on the site to residential and 0.7 acre to graded slope. This loss represents approximately 53.5 percent of this habitat type present on the site. The coastal sage chaparral scrub vegetation provides habitat for a variety of plant and animal species; one individual slender mariposa plant, a special-status species, was observed within this community. The slender mariposa lily is not considered a common understory component of coastal sage chaparral scrub, but where it occurs it is typically found within scrub habitat types, depending on soil conditions. Most of the coastal sage chaparral scrub patches were in relatively good condition at the time of the on-site surveys.

Because coastal sage chaparral scrub is not considered by resource agencies as sensitive, the loss of approximately 3.9 acres of this plant community on the site is not considered a substantial loss of wildlife habitat and will not significantly reduce the number or restrict the range of a special-status species. Therefore, this loss is not considered a significant impact. The loss of special-status species, including the slender mariposa lily, as a result of the conversion of coastal sage chaparral scrub on the site are addressed later in this section.

(g) Holly-leaf Cherry

The direct and permanent loss of approximately 1.2 acres of holly-leaf cherry scrub to residential, 1.7 acres to road and bridge construction and 0.7 acre to graded slopes would occur with the implementation of the project. This combined loss represents approximately 67.9 percent of the holly-leaf cherry scrub on the site.

Because holly-leaf cherry scrub on the project site is not known to support special-status plant or wildlife species, and because this plant community is not considered to be sensitive by resource agencies, the loss of 3.6 acres of this habitat type is not considered a significant impact.

(h) Mulefat Scrub

Implementation of the proposed project will result in the permanent loss of 0.8 acre of this habitat type present on the site to residential and 0.3 acre to the construction of road and bridges. This loss represents approximately 91.2 percent of this habitat type present on the site. This habitat type is located in five locations along the edge of the Santa Clara River near the western end of the project site. All of the mulefat scrub on the site consists of small, degraded patches ranging in size from 0.1 to 0.4 acre. No special-status plants or wildlife were observed on the site associated with this habitat type. Consequently, the mulefat scrub on the site is considered of relatively low biological value.

Because of the relatively low biological value of the mulefat scrub on the site, and because of the overall small amount of habitat that will be removed relative to existing habitat within the region, the loss of 1.2 acres of mule fat scrub on the project site is not considered a substantial loss of wildlife habitat and will not substantially affect special-status species. Therefore, this loss is not considered a significant impact.

(i) Southern Willow Scrub

The direct and permanent loss of approximately 1.1 acres of southern willow scrub to residential, 0.3 acre to construction of road and bridges and 0.1 acre to a graded slope would occur with the implementation of the project. This loss represents about 78.9 percent of the southern willow scrub on the site. During the field investigation, the southern willow scrub habitat appeared to be in a healthy mature condition; therefore, it is considered of moderate to high biological value.

Southern willow scrub on the project site is not known to support special-status plant or wildlife species. Due to the sensitivity status of this community by the state, the fact that the majority of this vegetation

type will be removed due to the development of the residential area, and because this habitat is under the jurisdiction of the ACOE and/or CDFG, the loss of this habitat type on the site would be considered a potentially significant impact. However, the project design will incorporate NRMP measures d) through m) above. All riparian vegetation areas that will be temporarily disturbed as a result of grading, bank stabilization, or other construction activities will be planted and restored pursuant to NRMP measures a) through c) above. With these measures incorporated into the project design, the loss of this habitat type on the site is not considered a significant impact.

(j) Southern Riparian Scrub

The direct and permanent loss of approximately 4 acres of southern riparian scrub would occur due to the construction of the pedestrian and equestrian trails, 5.3 acres to construction of road and bridge, 1.1 acres to commercial development, 11.0 acres to graded open space. This loss represents about 13.3 percent of the southern riparian scrub on the site. An additional 5.7 acres would be temporarily impacted during the construction phase of the buried bank stabilization and 1.7 acres due to road and bridge construction. The project design proposes to re-vegetate these areas for erosion control purposes (please see the heading, **Mitigation Measures**, for a discussion on how this temporary impact will be mitigated to a level that is less than significant.) The majority of this habitat that would be permanently removed occurs along the western portion of the site in Area A1.

The project design proposes to preserve in perpetuity approximately 133.6 acres of southern riparian scrub on the site. This majority of the portion of the project site that occurs within the Santa Clara River, including areas of riverwash, will be conveyed to the City of Santa Clarita for continued use as natural open space.

Southern riparian scrub on the project site supports special-status wildlife species. For this reason, as well as because of the sensitive nature of this plant community, its overall high biological value, the amount of this habitat that will be removed, and because this habitat is under the jurisdiction of the ACOE and/or CDFG, the permanent loss of 21.2 acres of this habitat type and the temporary impact to an additional 6.5 acres of this habitat type would be considered a potentially significant impact. However, the project design will incorporate NRMP measures d) through m) above. All riparian vegetation areas that will be temporarily disturbed as a result of grading, bank stabilization, or other construction activities will be planted and restored pursuant to NRMP measures a) through c) above. With these measures incorporated into the project design, the loss of this habitat type on the site is not considered a significant impact.

(k) Riverwash

The direct and permanent loss of approximately 0.3 acre of riverwash would occur due to the construction of the pedestrian and equestrian trails, 1.3 acres to construction of road and bridge, 1.3 acres to graded open space. An additional 6.7 acres would be temporarily impacted due to the construction of road and bridges, 0.1 acre due to trail construction and 3.5 acres due to graded open space. This combined impact represents about 7.5 percent of the riverwash on the site. The project design proposes to re-vegetate the areas that will be temporarily impacted for erosion control (see the heading **Mitigation Measures**, for further discussion on how this temporary impact will be mitigated to a level that is less than significant.). The habitat that would be permanently removed occurs along the western portion of the site associated with the bank stabilization adjacent to Bouquet Canyon Bridge.

As with the southern riparian scrub habitat, the riverwash area is typically dry in the late spring and summer months. During unusual weather events, water can be present into July. During years when vegetation amounts are greater, the potential for this habitat type to support special-status species is greater. Some special-status species that were observed within the Santa Clara River by Guthrie can be presumed to occur within this habitat. As many as seven special-status bird species could occur within this area.

Because of the potential to support special-status species during high water levels, and because this habitat is within the jurisdiction of ACOE and CDFG, the permanent loss of 2.9 acres of riverwash and the temporary impact to an additional 10.3 acres of riverwash on the project site would be considered a substantial adverse effect on a sensitive natural community regulated by the CDFG and/or ACOE and a potentially substantial adverse effect on a special-status species. Therefore, this loss would be considered a potentially significant impact. However, the project design will incorporate NRMP measures d) through m) above. All riparian vegetation areas that will be temporarily disturbed as a result of grading, bank stabilization, or other construction activities will be planted and restored pursuant to NRMP measures a) through c) above. With these measures incorporated into the project design, the permanent loss of and temporary impacts to this habitat type on the site is not considered a significant impact.

(l) Mixed Oak/Grass

The project site contains approximately 2.3 acres of mixed oak/grass habitat. Implementation of the proposed project would convert approximately 0.4 acre to residential use and graded open space. Approximately 0.1 acre would be temporarily impacted due to graded open space. Also, individual trees located in various locations on the project site would be impacted. As stated in **Appendix 4.6**, a total of

15 oak trees will be removed (two of which are dead); of these, 12 will be relocated to remaining open space or landscaped areas. A total of 70 trees will be retained within open space areas on the project site. Of the trees to remain on the project site, the protected zone of 3 additional oak trees would be encroached upon as a result of project implementation. Of the 10 heritage oak trees on the site, 5 will be retained in place, 2 dead heritage oak trees will be removed and 3 are proposed for relocation to preserved open space areas within the project site.

Although no special-status plant or wildlife species were observed in this particular habitat during site surveys, mixed oak/grass areas provide habitat for a variety of common wildlife species. In particular, the large mature trees within this habitat type can be important to a number of raptor species known to occur in this region for both foraging, perching, and nesting. The loss of 0.5 acre is a relatively small amount in terms of habitat for common wildlife species and is not considered a significant impact from a habitat perspective. The loss of oak trees and required mitigation is addressed later in this section.

(m) Developed Area with Mixed Trees

The direct and permanent loss of approximately 4.0 acres of mixed trees to graded open space and 1.9 acres to graded slopes would occur with the implementation of the project. This loss represents about 71.1 percent of the mixed trees on the site.

This area on the project site has a large component of non-native species and is not known to support special-status plant or wildlife species, California black walnut (a CNPS list 4 species). Approximately half of the individual black walnut trees will be removed due to implementation of the proposed project. This portion of the site is also characterized by a large amount of trash, debris, and some building. Because of the relatively low status of a CNPS list 4 species and because of the relatively low biological value of this habitat in terms of plant species composition, the loss of 5.8 acres of this habitat is not considered a significant impact to this plant community. However, the large mature trees within this habitat type could be important to a number of raptor species for both foraging, perching, and nesting. Specific impacts to nesting birds are discussed later in this report. Because of the existing areas of mature trees within the vicinity of the project site (to the north and south) the permanent loss of this foraging, perching and nesting habitat for raptor species is not considered significant. The combined loss of 5.9 acres is a relatively small amount in terms of habitat for common wildlife species and is not considered a significant impact from a habitat perspective; however, the loss of oak trees would be addressed through issuance of an oak tree permit, as provided by the City of Santa Clarita Oak Tree Ordinance. The loss of oak trees (trees numbered 10, 11 and 12) and impacts to individual special-status plant species are addressed later in this section.

(2) Wildlife Habitat/Natural Open Space

As previously discussed, each of the vegetation communities on the project site provides habitat for a variety of common wildlife species and even some special-status species. When viewed individually, the loss of most of a vegetation community on the project site may not represent a substantial loss of wildlife habitat or the loss of a plant community considered sensitive by resource agencies. However, most wildlife species depend on a variety of habitat types to meet various ecological and life history requirements (i.e., food, shelter, nesting). The total loss of all the vegetation communities on the site is approximately 280 acres. Based on the evaluation of the relative value of on-site habitats discussed earlier in this document, it is assumed that the habitats on the site, when considered together, have a greater value to wildlife and the area's ecosystem than separately or individually. Therefore, the net loss of 280 acres of currently undeveloped land represents a substantial loss of habitat for wildlife species and natural open space and is considered a significant impact.

(3) Common Wildlife

Construction activity and grading operations of the proposed project could temporarily disturb common wildlife species on the site. Some species would be expected to relocate to other areas of similar habitat within the local area. However, wildlife that emigrate from the site are vulnerable to mortality by predation, potential conflicts with people and cars, and unsuccessful competition for food and territory. In addition, species of low mobility (particularly amphibians and reptiles) could be eliminated during site preparation and construction.

Replacement of existing vegetation with structures and ornamental landscaping would eliminate natural communities on developed portions of the site and result in a reduction in native wildlife species diversity. A number of animal species would be replaced with a fauna composed of species more tolerant of, or even dependant upon, urban settings.

Because of the relatively common nature of wildlife species that would be displaced or lost as a result of construction activities and the introduction of less-desirable non-natural vegetation, project implementation is not expected to cause a current fish or wildlife population on or adjacent to the project site to drop below self-sustaining levels. Therefore, no significant impacts on common wildlife reptile, amphibian, or mammal species are expected to occur.

However, a number of bird species could be adversely affected as a result of implementation of the proposed project. The proposed project includes removal of mature trees from the property.

Construction-related activities could result in the direct loss of active nests or the abandonment of active nests by adult birds 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 bird nests would be a potentially significant impact. However, the project design will incorporate NRMP measures r) through u) above. Therefore, with these measures incorporated into the project design, no significant impacts will occur to nesting bird species. The Migratory Bird Treaty Act and the California Fish and Game Code prohibit the take—defined as destroy, harm, harass, etc.—bird nests with eggs or young.

(4) Special-Status Plant and Wildlife Resources

(a) Special-Status Plant Species

Six special-status plant species were observed on the project site. Three of these species, **southern California black walnut**, **Palmer's grappling hook**, and **Peirson's morning-glory**, are CNPS List 4 species and occur in relatively small numbers on the site. Portions of these populations will be removed as a result of project implementation. Because 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, are not eligible for state listing as "Threatened" or "Endangered", and vulnerability or susceptibility to threats to these species on a statewide basis are considered low at this time (CDFG 2000), the loss of any individuals of these species 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, the loss of these plants would not be considered a significant impact.

Approximately 80 individual **slender mariposa lily** plants within twelve populations were identified on the project site during field investigations. The implementation of the proposed project would result in the loss of three populations (approximately 24 individual plants or 15 percent of the total population on the site). CNPS lists this species as 1B (Rare, Threatened, or Endangered in California and elsewhere). The loss of these plants would represent a substantial adverse effect on a special-status species and, therefore, would be considered a significant impact.

There were approximately seven individual **Plummer's mariposa lily** plants within three populations identified on the project site during field investigations. The implementation of this project would result in the loss of all seven plants. Although the number of plants could be considered minor (only seven individual plants), CNPS lists this species as 1B. The loss of these plants would thus represent a

substantial adverse effect on a special-status species and, therefore, would be considered a significant impact.

There were approximately 445 individual **Parry's larkspur** plants within eight populations identified on the project site during field investigations. CNPS lists this species as 1B. The implementation of this project would result in the loss of three populations (approximately 170 individual plants). Because of the sensitivity status of this species and because it would meet the definition of "Rare" pursuant to CEQA, the loss of these plants would represent a substantial adverse effect on a special-status species and, therefore, would be considered a significant impact.

The remaining plant species addressed in **Table 4.6-1** were not observed on the site during focused surveys conducted during a time when these plants, had they occurred, should have been observed. Consequently, these species are not expected to occur on the site and, therefore, no significant impact to these species will occur.

The proposed project has been designed in a manner to minimize oak tree impacts. Most of the small canyon located in the middle of the project site where the majority of the oak trees are located (67 of the total 87 oak trees located on site) will be preserved as parkland/open space.

The City's Unified Development Code establishes requirements for the protection of oak trees that are two inches in diameter or greater as measured at four and one half feet above natural grade. The City requires a permit for cutting, moving, removal, or encroachment into the protective zone (drip zone plus five feet) of such trees. The oak tree map found in **Appendix 4.6** depicts the oak trees proposed to be preserved, removed, relocated, and those trees that may be encroached upon by project grading. A more detailed discussion of the oak trees on the site and expected impacts to these trees can be found in **Appendix 4.6, Oak Tree Report Riverpark Project**, and the associated addendum**.**

As stated in **Appendix 4.6**, a total of 15 oak trees will be removed; of these, 12 will be relocated to remaining open space or proposed landscape areas. A total of 70 trees will be retained in their present locations within open space areas on the project site. Of the trees to remain on the project site, the protected zone of three oak trees would be encroached upon as a result of project implementation. Of the 10 Heritage oak trees on the site, 5 will be retained in place, 2 dead Heritage oak trees will be removed and 3 are proposed for relocation to preserved open space areas within the project site.

Despite project design measures to minimize impacts on oaks, 3 trees will be permanently removed and others (relocation or encroachment upon trees) could be adversely impacted. Because of the sensitivity

status of oak trees in the City of Santa Clarita, the risks associated with relocation, the removal of 3 oak trees, the relocation of 12, and the encroachment into the protected zone of 3 oak trees would be considered a significant impact.

Richard Johnson and Associates conducted a recent study of oak trees that were translocated within other Newhall Land properties to determine the success of the trees after several years. The translocations date back to 1988. Of the 28 trees that were surveyed, 16 had increased in health while the remaining 12 remained in a similar health or in the same condition as when transplanting occurred. A copy of this report is included in the **Appendix 4.6**.

(b) Special-Status Wildlife

The potential direct impacts on special-status wildlife species occurring, or potentially occurring on the project site are discussed below in terms of the actual loss of active nests, dens, and individual animals. Impacts with respect to the loss of nesting or foraging habitat of special-status wildlife species are addressed under the **Plant Communities** heading.

Species Observed on the Site

The **western spadefoot toad** is a California Species of Special Concern and Federal Species of Concern and was observed on the project site during the 2004 focused survey. During this survey, adults and sign (eggs) of western spadefoot toad were observed in three of six seasonal rainpools pools; from 16 to 20 pairs of toads are estimated to be breeding on the project site. The seasonal rainpools that supported this species in 2004 are located in areas proposed for development. The potential loss of 16 to 20 pairs of western spadefoot toad, and an unknown number of young toads expected to hatch from the egg masses, would be considered a substantial adverse effect on a special-status species; therefore, this loss is considered a significant impact.

During construction and site preparation activities, special-status species, such as **southern California rufous-crowned sparrow, loggerhead shrike, northern harrier** and **Bell's sage sparrow** occurring within habitat proposed for conversion are expected to displace to remaining undisturbed Riversidian sage scrub habitat on site, or immediately adjacent off site. However, construction and site preparation activities within Riversidian sage scrub habitat, if conducted during the nesting season of this species, could result in the direct loss of active nests, including eggs, young, or incubating adults.

Depending on the number and extent of nests on the site that may be disturbed or removed should they occur prior to project implementation, the loss of active nests of these species, if they occurred, would be considered a substantial effect on these special-status species and, therefore, a potentially significant impact.

The **San Diego black-tailed jackrabbit** is a California Species of Special Concern mammal and was observed on the project site during the 2002 general survey and the 2003 focused mammal survey. This species is known to occur within the region of the project site in areas such as open scrub habitat, ruderal, disked and agricultural fields. Where this species occurs within the region, it is common and found in relatively high numbers in some locations (e.g., coastal Orange County and the high desert of northern Los Angeles County). The habitat on the project site for this species is considered of moderate quality. Most individual jackrabbits are expected to disperse to remaining open space areas and the actual number of individual animals that would be lost due to grading and/or construction activities is expected to be low. Because this species is not state or federally listed as Endangered or Threatened, because it is considered relatively abundant in suitable habitat areas within its range, and because the direct loss of individual jackrabbits is expected to be low, it is expected that the regional population would not drop below a self-sustaining level with the implementation of this project. Therefore, the loss of any individual jackrabbits associated with the implementation of this project would not be considered a significant impact.

Special-Status Wildlife Species Not Observed but with High Potential of Occurring

Fifteen butterfly taxa are considered to be locally sensitive in the region. One species, **San Emigdio blue** (*Plebulina emigdionis*), has a reasonable chance of occurring on the proposed project site or may occur in the future in areas subject to disturbance. Focused butterfly surveys, with particular focus on the San Emigdio blue, were conducted on the project site in 2003; none were observed.

The San Emigdio blue is primarily dependent upon a relatively narrow range of larval food plants and/or adult nectar sources associated with plants that occur in natural areas of the site. Therefore, their distribution may be relatively limited throughout the region. However, these species can be relatively common where appropriate food plants and other habitat features are present. The food plant for this species (*Atriplex canescens*) is located in the southern riparian scrub habitat on site. Impacts to potential habitat for this species include approximately 27.7 acres of southern riparian scrub.

Given the amount of suitable habitat present and that no species were observed on the site during field surveys, only a relatively low number of individuals could be expected to occur there. The loss of

relatively low number of individuals that might occur in the 27.7 acres of impacted habitat is not considered a substantial adverse effect because it is not expected to cause regional populations of this species to decrease below self-sustaining levels. Therefore, this potential loss of butterflies would not be considered a significant impact.

The **unarmored three-spine stickleback**, **arroyo chub,** and **arroyo toad** are known to occur within the Santa Clara River in the vicinity of the project site. Focused surveys for these species were conducted in 2003 and no individuals were observed within the project boundary. However, during and just after large rainfall events and when water flows are sufficient, the two fish species could move through this stretch of the river as part of their transitory movements from known breeding populations upstream. Consequently, direct mortality of individuals of these species, though unlikely due to the intermittent nature of the water flows through the project site, could occur during these conditions as a result of bank stabilization or site preparation and construction activities associated with the Newhall Ranch Road/Golden Valley Road Bridge.

The "Biological Opinion" written by the USFWS for the NRMP states that it is unlikely for the arroyo toad to occur from a point approximately 1,000 feet east of the Bouquet Canyon Bridge due to the lack of suitable habitat. Most of the project is outside of this "may affect" area, as indicated by the Biological Opinion. Therefore, it is unlikely that impacts would occur to individual arroyo toads.

The loss, though unlikely, of **arroyo chub** to bank stabilization and/or construction activities, depending on the number occurring on the site, could be considered a potentially significant impact to the population. The **unarmored three-spine stickleback** is considered a federally listed Endangered species and the loss, though unlikely, of these individuals, if present during construction, could also be considered a substantial adverse effect on the population of these special-status species and, therefore, would be a potentially significant impact. However, the project design will incorporate NRMP measures n) through q) above. With these measures incorporated into the project design no significant impacts will occur to these special-status fish species.

San Diego horned lizard, **California horned lizard**, **silvery legless lizard**, **coastal western whiptail**, **white-tailed kite**, **northern harrier**, **Cooper's hawk**, **California horned lark**, **pallid bat,** and **San Diego desert woodrat**, all California Species of Special Concern, could potentially occur within various habitat types on site, including oak woodland, Riversidian sage scrub, non-native grassland, and southern riparian scrub. Although none of these species were observed during the 2002 and 2003 general biological surveys or focused surveys for various species on the site, suitable habitat exists for these species and they are known to occur in similar habitat in the vicinity.

Should these species occur on the site during project implementation, direct mortality of individuals of these species could occur as a result of site preparation and development activities. If large numbers of individuals of these species would be affected such that the mortality would be considered a substantial adverse effect on a special-status species, this mortality would be considered a significant impact. Measures to minimize direct mortality of individual animals during the construction phase of the project are described in the various mitigation measures below.

The remaining special-status wildlife species addressed in **Table 4.6-2** have a low to moderate potential of occurring on the site. Implementation of NRMP measure v) above would minimize mortality of individuals of these species should they occur on the site during construction and/or grading activities. Because none of the remaining special-status wildlife species addressed in **Table 4.6-2** were observed during the project site surveys, and because these species would likely only occur on the site in the future in low numbers (due to overall habitat quality and quantity for these particular species), the potential loss of any individuals of these species would not be considered a substantial adverse effect on regional populations of these species; therefore, the direct loss of individuals of these species, if they occurred, would not be considered a significant impact.

(5) Jurisdictional Resources

(a) Regulatory Framework

Direct and indirect impacts on the Santa Clara River and adjacent riparian areas are likely subject to the jurisdiction of several state and federal agencies, including the ACOE, the CDFG, and the Los Angeles RWQCB. The NRMP and subsequent programmatic permits have been prepared and adopted by these state and federal agencies. These programmatic permits designate what types and quantities of impacts are permitted, with specified mitigation measures for the various types of impacts. Permitted activities include stream bank protection, trails, stormwater treatment and outfall structures, utility crossings, and related facilities.

As previously stated, the Santa Clara River, and ~~six~~ seven small drainages run through portions of the project site. A jurisdictional delineation was conducted for the River within the project site in 1997 as part of the NRMP to determine the areas under jurisdiction of the ACOE as "Waters of the U.S." and CDFG under Section 1600 of the California Fish and Game Code. The portion of this project within and along the banks of the Santa Clara River would be impacted as a result of the construction of buried bank stabilization and the Newhall Ranch Road/Golden Valley Road Bridge crossing. This area is also addressed in the NRMP. The implementation of the project would result in the following impacts to "Waters of the U.S.":

(b) Impacts on Jurisdictional Resources

Permanent Impacts within Jurisdictional Area from Buried Bank Stabilization and Impacts Associated with Newhall Ranch Road/Golden Valley Road Bridge

Approximately 9 acres of the riverbed (southern riparian scrub and riverwash habitat within the jurisdictional delineation) would be filled for bank stabilization and for the construction of Newhall Ranch Road/Golden Valley Road Bridge. However, approximately 3 acres of upland habitat would be located within the new bank stabilization area and could be excavated to create new riverbed habitat as part of the mitigation program described in the section that follows. The net result of these actions would be a potential permanent net loss of approximately 6 acres of ACOE and CDFG jurisdictional southern riparian scrub and riverwash habitat. The loss of habitat under the jurisdiction of ACOE and CDFG is considered a significant impact under CEQA. Impacts to specific plant communities that are under the jurisdiction of these agencies are addressed within the appropriate plant community section of this draft EIR.

Temporary Construction Impacts within Jurisdictional Area from Buried Bank Stabilization and Impacts Associated with Newhall Ranch Road/Golden Valley Road Bridge

Approximately 11.1 acres of the riverbed (southern riparian scrub and riverwash habitat) within the jurisdictional line would be temporarily disturbed due to installation of the bank stabilization and bridge. Impacts to specific plant communities that are under the jurisdiction of ACOE and CDFG are addressed within the appropriate plant community section of this draft EIR. The NRMP measures that are incorporated into the project design that will minimize to a less than significant level are also discussed in these sections.

Permanent Impacts within the Riverpark Project Resource Line from Buried Bank Stabilization and Impacts Associated with Newhall Ranch Road/Golden Valley Road Bridge

Approximately 16.1 acres of the riverbed within the resource line (any riparian habitat directly associated with the Santa Clara River, but not necessarily within the jurisdictional delineation) would be filled for the construction of Newhall Ranch Road/Golden Valley Road Bridge. The majority of the habitat that would be permanently removed occurs along the western portion of the site near Bouquet Canyon Bridge. The loss of habitat within the resource line would be considered a significant impact under CEQA. Impacts to specific plant communities that are under the jurisdiction of ACOE and CDFG are addressed within the appropriate plant community section of this draft EIR. The NRMP measures that are incorporated into the project design that will minimize to a less than significant level are also discussed in these sections.

Temporary Construction Impacts within the Resource Line from Buried Bank Stabilization and Impacts Associates with Newhall Ranch Road/Golden Valley Road Bridge

Approximately 21.8 acres of the riverbed within the resource line would be temporarily disturbed due to installation of the bank protection and bridge. Impacts to specific plant communities that are under the jurisdiction of ACOE and CDFG are addressed within the appropriate plant community section of this draft EIR. The NRMP measures that are incorporated into the project design that will minimize to a less than significant level are also discussed in these sections.

Implementation of this project would also result in impacts to ACOE and CDFG jurisdictional areas associated with ~~six~~ seven drainage channels in the upland portion of the project site. The impacts to these channels are summarized below:

Channel #1 – All 0.4 acre within ACOE jurisdiction and all 2.7 acres within CDFG jurisdiction would be impacted as a result of the implementation of this project.

Channel #2 – All 0.7 acre within CDFG jurisdiction would be impacted as a result of the implementation of this project.

Channel #3 – All 0.2 acre within CDFG jurisdiction would be impacted as a result of the implementation of this project.

Channel #4 – All 0.4 acre within CDFG jurisdiction would be impacted as a result of the implementation of this project.

Channel #5 – All 0.2 acre within CDFG jurisdiction would be impacted as a result of the implementation of this project.

Channel #6 – All 0.2 acre within ACOE jurisdiction and all 0.4 acre within CDFG jurisdiction would be impacted as a result of the implementation of this project.

Channel #7 – All (<) 0.1 acre within CDFG jurisdiction would be impacted as a result of the implementation of this project.

Impacts to specific plant communities that are under the jurisdiction of ACOE and CDFG are addressed within the appropriate plant community section of this draft EIR. The NRMP measures that are incorporated into the project design that will minimize to a less than significant level are also discussed in these sections.

(6) Impacts on Habitat Adjacent to Santa Clara River Riparian Area

As previously discussed, the upland habitat communities immediately adjacent to the river corridor are important to riparian wildlife species that also utilize these areas as part of their life history requirements. In general, upland habitat within 100 feet from the riparian resource edge associated with the river is considered of highest value with respect to riparian wildlife species and is necessary to maintain species diversity within the riparian ecosystem and adequately buffer this ecosystem from adjacent incompatible land uses.

As stated in the significance threshold criteria, providing an upland preserve area of less than 100 feet (in areas where at least 100 feet of upland habitat from the riparian resource currently occurs) of high quality habitat would be presumed to be a significant impact on the riparian ecosystem associated with the Santa Clara River. Based on an analysis of the approximately 14,155 linear feet of riparian edge within the project, the following indicates the linear footage that meets, exceeded, or did not meet the 100-foot width threshold:

- 2,910 linear feet (20.6 percent) meets or exceeds 100 feet in width;
- 470 linear feet (3.3 percent) is between 50 and 100 feet in width; and
- 10,775 linear feet (76.1 percent) is between 0 and 50 feet in width.

As shown, 79.4 percent of the area would not meet the 100-foot threshold setback. However, many of the proposed areas in which 100 feet of preserved upland habitat is not met, these areas are characterized with high bluffs that begin less than 100 feet of the riparian resource line or are disturbed due to past agricultural operations. In addition, 2,100 linear feet of the area within the 100-foot threshold setback that would be impacted is due to the construction of Newhall Ranch Road. The placement of the extension of this road within the project site is limited because of the existing termination point.

A portion of the 100-foot riparian/upland area to be impacted consists of ruderal habitat that has been historically disturbed by agricultural operations and dirt stockpiling. Under the proposed project, the remaining area within the 100-foot riparian upland preserve zone would be restored as high quality upland habitat. An additional 85 acres of disturbed or degraded upland habitat would also be preserved at various locations beyond the 100-foot threshold line. While active habitat restoration within areas of low biological value would enhance the upland area adjacent to the river, an overall minimum of 100 feet project-wide would still not be preserved. Therefore, this impact on the riparian ecosystem is still considered significant.

Portions of the proposed recreational trail will be constructed within 100 feet of the riparian resource edge (i.e., within the upland preserve zone). Construction of the trail will result in the permanent loss of approximately 10 acres of upland habitat. Placement of the trail within the 100-foot threshold will fragment the upland habitats in this area, essentially isolating the remaining upland areas between the trail and proposed development. For species dependent upon upland habitats adjacent to the river, this will decrease the amount of contiguous habitat available to them as foraging or cover habitat. Because of its linear nature, the trail may even serve as a barrier to upland movement for some species. Fragmentation of upland habitats adjacent to the river may lower the value of these areas as movement corridor habitat for species utilizing the river and associated vegetation as a regional habitat linkage. Because of the loss of upland habitat values, the placement of the trail within the 100-foot setback threshold is considered a significant impact.

The majority of Area B of the proposed project occurs on a bluff overlooking the Santa Clara River. Because the bluff occurs adjacent to the river, the 100-foot upland preserve zone occurs within the upland portion on top of the bluff. The impacts to the 100-foot upland preserve zone within Area B would occur in this area on top of the bluff. The position of this upland zone at the top of steep cliffs of the bluff limit the use of this upland area by riparian species such as small mammals and some birds.

The presence of the trail in close proximity to the Santa Clara River would also allow greater access to this sensitive resource area by humans and domestic animals. Impacts of the trail with respect to increased human and domestic animal activity are discussed in more detail under the Indirect Impacts section.

(7) Project Design Features That Minimize Impacts to Santa Clara River Riparian Resources and Adjacent Upland Habitat

Notwithstanding the significant impacts indicated above, it is important to identify several project design features and actions that the applicant has included into the project design plan to lessen the magnitude of impacts to riparian and related upland resources. These features and actions include:

- Movement of proposed development, including certain buried bank stabilization activities, further away from the river than permitted by the Natural River Management Plan (NRMP) and described in its associated EIS/EIR. Elimination of bank stabilization in areas of the project where stabilization was permitted by the NRMP.

- Construction and placement of a fenced barrier along the outer edge of the upland area to minimize encroachment and disturbance to these areas and the riparian resource as a result of adjacent urban development. This barrier shall consist of a wood ranch-rail type fence, approximately 4 - 5 feet in height and buried to a depth of not less than 1 foot, with hedge-like plantings of native vegetation on both sides of its entire length. The fence design shall ultimately allow wildlife to pass through so as not to inhibit wildlife movement along and to/from the river corridor.

- Bank stabilization will be set back from most of the resources to minimize alteration of the existing riparian vegetation and banks of the river channel. In those areas that would impact riparian and

upland vegetation, all vegetation will be replaced with native plant species similar to that being removed immediately after the completion of the bank stabilization. All graded areas for the buried bank stabilization will be returned to naturalized contours, not to exceed 4:1 slope angles, and will be vegetated entirely with native species as part of the upland buffer zone enhancement. Where slope angles occur within the setback, and alluvial or riparian scrub are not appropriate for vegetation cover due to drainage, coastal sage scrub, approximating existing formations locally, may be substituted.

- Planting remaining upland habitat areas within 100 feet of the riparian resource edge with native upland species similar to that which historically occurred in the area (likely to be either coastal sage scrub or alluvial scrub). The area shall be planted at a density to achieve a minimum of 40 percent plant cover (with a maximum of 70 percent) by the dominant or co-dominant plant species of that particular plant community, or as determined by a qualified plant biologist. The area shall be maintained by the applicant as high quality upland habitat for a minimum of 5 years after planting.

As indicated above, the NRMP proposes a series of activities along the Santa Clara River and its tributaries, including the installation of bank protection at various locations through the Riverpark site. The NRMP was the subject of an EIS/EIR prepared jointly by the United States ACOE and CDFG, and that EIS/EIR and the NRMP were certified and approved by those agencies in 1998. Master permits were then issued by the ACOE and DFG for the NRMP activities, including those proposed for the Riverpark site.

As part of the Riverpark project, the applicant has elected to move certain components of the project further away from the river, and has eliminated bank stabilization in certain areas, than what was permitted by the NRMP, thereby, reducing the amount of riparian area impacted by development when compared with the riparian area that could be developed under the NRMP. As shown in **Figure 4.6-7**, a total of 13.2 net acres of riparian area that could be developed under the NRMP-related permits would no longer be developed if the Riverpark project were developed as proposed. There are two small areas where the proposed project encroaches within the approved development line as presented in the NRMP. One area of proposed development encroaches approximately 80 feet into the NRMP area in an effort to preserve a Heritage oak tree. The other encroachment is due to the construction of Newhall Ranch Road and encroaches approximately 200 feet.

As shown in **Table 4.6-3**, of the area to be permanently impacted between 0 and 100 feet from the riparian resource area (approximately 47 acres), approximately 40 percent of the impacted area (19.1 acres) would be impacted by the installation of regional roads/bridges and the River Trail.

Permanent alteration of approximately 47.4 acres (15,396 linear feet) of ACOE and CDFG jurisdictional area will result from project implementation. The impacts to the Santa Clara River are considered permanent for this evaluation because the channel and banks will be re-contoured. However, the basic shape and size of the channel and banks will not be changed. While these actions do not eliminate or completely avoid the significant impacts that would occur to riparian and related upland areas due to the project, they do partially lessen the impact of development.

(8) Wildlife Movement Corridors

The proposed project design would preserve the integrity of the Santa Clara River as a wildlife movement corridor and minimize impacts on local and regional wildlife movement by maintaining nearly all of the Santa Clara River as open space. As previously discussed NRMP measures a) through m) will be incorporated into the project design and will minimize the impacts to riparian vegetation and replace any vegetation temporary or permanently removed. Therefore, the riparian vegetation that will be removed as a result of project implementation will not substantially affect the ability of resident and non-resident species to use the river as a movement corridor. It is acknowledged that some wildlife species also utilize adjacent upland habitats as foraging areas during periods of active movement, particularly during periods of high water flows. As proposed, the project plan will preserve and restore various amounts of upland habitat, up to approximately 126 feet in Area B (which includes the bluff area) adjacent to the river system that will allow some species, especially larger mammals, to use these adjacent upland areas as movement corridors.

Newhall Ranch Road (Newhall Ranch Road/Golden Valley Road Bridge). The bridge is proposed to be approximately 800 feet in length and a maximum of 116 feet in width. It will average approximately 11-22 feet in height above the riverbed with an estimated 9 vertical support columns or piers extending into the riverbed. The piers will be approximately 80 feet apart from one another. When confronted with bridges or overpasses along a preferred movement corridor, wildlife, particularly larger mammals, will 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. The proposed Newhall Ranch Road/Golden Valley Road Bridge will adequately meet these requirements and is not expected to significantly alter wildlife movement along the river during dry periods because it is similar to other existing upstream and downstream bridges. Consequently, implementation of the proposed project will not substantially interfere with the movement of any terrestrial wildlife species; therefore no significant impacts on terrestrial wildlife movement corridors will occur. Potential impacts on fish movement are discussed under impacts to fish species.

(9) Significant Ecological Areas

A total of 37.0 acres of habitat within Santa Clara River SEA (representing approximately 10 percent of the total habitat within SEA boundaries on the project site) will be disturbed or converted to urban development as a result of project implementation resulting in permanent impact. Approximately 13.0 of those acres (4 percent of the SEA total) will only be temporarily disturbed as a result of proposed bank stabilization activities and will be replaced upon completion of the bank stabilization.

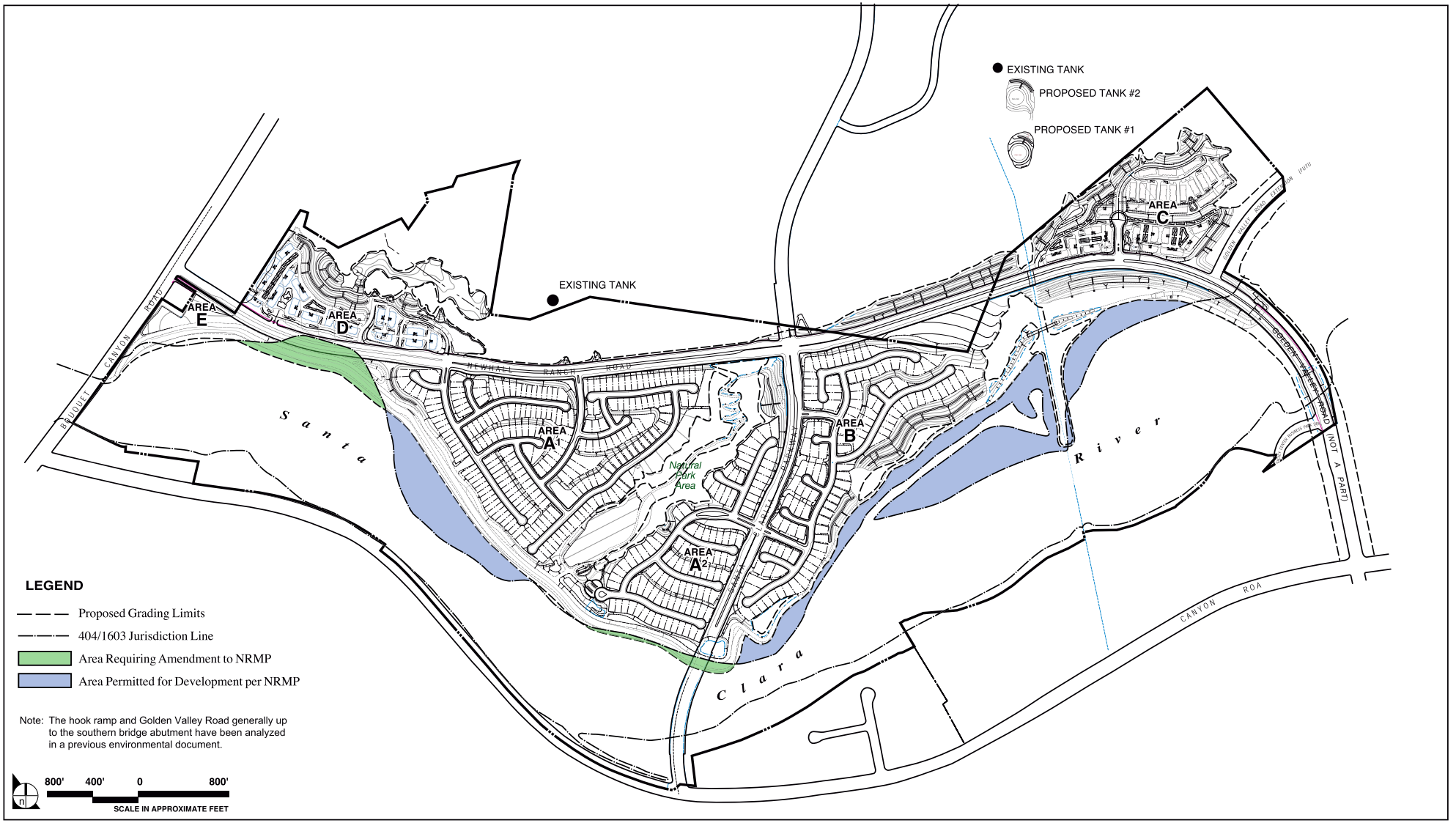

FIGURE **4.6-7**

Proposed Project Grading Limit Line vs. Jurisdictional Resource Line

112-16•09/03

Within the SEA boundaries, a total of 9.0 acres of disked field, 0.5 acres of non-native grassland, 2.0 acres of river wash and 14.5 acres of southern riparian scrub habitat representing a total of 24.0 acres of SEA habitat (10 percent of the total SEA habitat within the project site), will be permanently lost as a result of the project. The locations of these impacts are generally along the northern bank of the Santa Clara River west of the proposed Santa Clarita Parkway Bridge and primarily as a result of the proposed bank stabilization and traffic improvements. Impacts to riparian habitat within the SEA as a result of trails, project construction and grading activities, and bank stabilization and bridge maintenance activities, are the same as those discussed above.

Because of the relatively small amount of each habitat type within the SEA to be removed, and because the habitat areas to be removed are disjointed and spread out over the entire SEA area within the project site boundary, the permanent loss of 24.0 acres of habitat within the SEA boundaries is not expected to detract from the overall integrity and value of the SEA, in and of itself. In particular, this loss of area will not adversely affect the unarmored three-spine stickleback, the state and federally listed Endangered fish species for which the SEA was originally designed to protect (County of Los Angeles General Plan). In addition, the project plan will preserve and enhance various amounts of upland habitat, up to approximately 126 feet in Area B (which includes the bluff area), adjacent to the river that will serve as a buffer between habitats within the SEA and adjacent urban development. Impacts to riparian plant communities within the SEA are addressed within the appropriate plant community section of this draft EIR. However, because of the overall sensitivity of SEAs, and because any permanent loss of habitat within a SEA will effectively reduce the overall size of the SEA, the permanent net loss of 24.0 acres within the Santa Clara River SEA is considered a significant impact.

d. Operational Impacts

Indirect impacts on biological resources would occur to those habitat areas surrounding the project site after the completion of the proposed project. It is expected that implementation of the proposed project would result in indirect impacts to biological resources in the following ways:

- An increased human and domestic animal presence in the area and noise associated with this presence;
- Increase in populations of non-native plant species;
- Increased light and glare;
- Stormwater runoff; and
- Construction activities.

Indirect impacts associated with the proposed project are not quantifiable but are reasonably foreseeable. As such, the discussion that follows provides a common-sense identification of the types of secondary impacts and their relative magnitude such that decision makers and the general public are aware of the indirect impact potential associated with implementation of the proposed project. This type of analysis is consistent with the requirements of CEQA.

(1) Increased Human and Domestic Animal Presence

Implementation of the proposed project would increase human and domestic animal presence in the area. Increased recreational and other human activity around these habitats could: (1) displace a number of wildlife species, (2) increase the amount of refuse and pollutants in the area, (3) compact soils, and (4) trample ground-dwelling flora and fauna, and increases human activities adjacent to the river could also deter some animals, especially larger more secretive mammal species, such as coyote and mountain lion, from utilizing these habitats.

Off-road vehicle use in the riverbeds can also be expected to increase in proportion to population increases in the area. With no physical constraints in place to contain equestrians on designated trails or to exclude off-road vehicles, additional recreational use increases the likelihood of intrusion into sensitive habitat areas, trampling of habitats, noise disturbances to wildlife (especially if within the breeding season of birds and raptors) which can result in nest abandonment, and introduction of non-native plant species. Depending upon the season and location, this additional use can also cause increased erosion, siltation, and disruption of the hydrologic regime of the creek and river, possibly resulting in disturbance of downstream breeding ponds for special-status fish species, including the unarmored three-spine stickleback. Wildlife using the riparian ecosystem as movement corridors may also be disturbed and inadvertently flushed from hiding places, causing animals to avoid the area and potentially decrease use of the area as a movement corridor.

Increased use of the site by domestic animals 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 time period, these disturbances may have a long-term effect on the behavior of both common and special-status animals and can result in their extirpation from the area. Feral cats, as well as house cats, can cause substantial damage to the species composition of natural areas through predation, including populations of special-status species. Increased urban development can lead to higher numbers of cowbirds (which are highly adapted and attracted to urban settings) adjacent to and within the riparian areas, leading in turn to higher levels of nest parasitism of songbirds including common and sensitive bird species.

While it is acknowledged that the river already receives a certain amount of equestrian and off-road vehicle use, as well as domestic animal use, an increase in these uses as a result of project implementation, taken together, could substantially effect the quality of these areas as wildlife habitat, would potentially interfere with the movement of wildlife, and would potentially reduce the population of wildlife species, including special-status bird and fish species. Therefore, the increased use of the river areas by humans and domestic animals is considered a significant impact.

(2) Increase in Populations of Non-Native Species

Non-native plant and wildlife species (e.g., tamarisk, giant cane, salt cedar, European starlings, house sparrows, red foxes, etc.) are typically attracted to developed and urban environments and potentially displace native species because of their ability to compete more effectively for resources. Non-native plants tend to be more adaptable to urban settings and adjacent open space areas and can out-compete native plants for available resources.

However, historical and ongoing development in the vicinity of the project site has likely supported continual and ongoing increases and proliferation of non-native plant and wildlife species populations in remaining natural habitats. Because the project site is essentially surrounded by various levels of development, non-native and urban-adapted plant and wildlife species already occur on the project site and surrounding area (most were observed during various on-site surveys). Consequently, the proposed project is not expected to substantially increase the distribution of non-native plants and wildlife in the remaining open spaces in the project site area and therefore will not substantially or adversely affect common or special-status plant or wildlife populations in the area beyond what they are currently exposed. Therefore, impacts on the remaining natural areas as a result of potential increases in non-native plants and wildlife resulting from project implementation are not expected to be significant.

(3) 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 relatively low. Nighttime illumination is known to adversely affect some species of animals in natural areas. Nighttime light can disturb breeding and foraging behavior and can potentially alter breeding cycles of birds, mammals, and nocturnal invertebrates. Light could deter some animal species, especially the larger mammals, from using the Santa Clara River as a wildlife movement corridor. If uncontrolled, such light could adversely impact the composition and behavior of the animal species that occur in these areas. Because of the potential disruption to breeding and foraging behavior of wildlife species remaining on, adjacent to, and in proximity to the project site, increased nighttime lighting and glare is considered a potentially significant impact of the proposed project.

(4) Stormwater and Urban Runoff

Over-irrigation 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 riparian corridor that contains high levels of nutrients, particularly fertilizers and waste products such as nitrogen and phosphorous, can result in eutrophication (excessive nutrient buildup). This in turn can result in depletion of available oxygen due to increased Biological Oxygen Demand (BOD) and reduce available dissolved oxygen for fish and other aquatic organisms. Other chemicals, pesticides, and herbicides can also adversely affect aquatic systems.

Paved surfaces could also contribute runoff into the riparian corridor during storm events. Depending on the magnitude and frequency of storm events and the overall level of the water quality, this runoff can cause increased eutrophication, depleted oxygen levels, long-term build-up of toxic compounds and heavy metals, and other adverse effects to biological resources associated with aquatic systems.

Since the use of chemicals and the extent of over-irrigation for landscaping within common and residential areas cannot be determined prior to project implementation, impacts related to stormwater and irrigation runoff could substantially affect special-status species potentially occurring downstream from the project site, substantially diminish habitat for fish, wildlife, or plants, and substantially degrade the quality of the environment. Therefore, these impacts would be considered potentially significant.

(5) Construction 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: displacement and disturbance of certain species of wildlife from noise and human activity that could result in possible nest or den abandonment during the breeding season of both common and special-status species; siltation and erosion into creek and river drainages that could adversely affect fish spawning and movement; excessive dust accumulation on vegetation that could result in the degradation or loss of some plant species; and soil compaction around remaining trees. Because these activities could substantially degrade biological resources within the ecosystem and possibly reduce the number of special-status species, these impacts, while temporary, are considered potentially significant. Any such actions with the potential to affect UTS may also require USFWS permitting pursuant to Section 10(a) under ESA.

6. MITIGATION MEASURES PROPOSED BY PROJECT

~~a. Mitigation Measures Proposed by Project~~

To minimize significant impacts of the project on biological resources, the applicant has proposed that the following measures from the NRMP be incorporated into the project:

4.6-1

a) Construction activities in the riverbed shall be restricted to the following areas of temporary disturbance: (1) an 85-foot-wide zone that extends into the river from the base of the rip-rap gunite or soil cement bank protection from 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) 50-foot-wide corridor for all utility lines; and (4) 20-foot-wide temporary access ramps and roads to reach construction sites. The locations of these temporary construction sites and the routes of all access roads shall be shown on maps submitted with the Verification Request Letter submitted to the ACOE and CDFG for individual project approval. The construction plans should indicate what type of vegetation, if any, would be temporarily disturbed and the post-construction activities to facilitate natural revegetation of the temporarily disturbed areas.

b) All native riparian trees in temporary construction areas with a 4-inch dbh or greater shall be replaced at a 3:1 ratio using 1 to 5 gallon container plants 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 later mitigation measures. In addition, the growth and survival of the planted trees shall be monitored for five years in accordance with the methods and reporting procedures specified in a later mitigation measure.

c) Native vegetation within temporary construction areas shall be mulched and spread over the temporary impact areas once construction is completed in order to facilitate revegetation. Areas temporarily disturbed by construction activities shall also be weeded annually, as needed, for up to five years following construction. These areas shall be annually monitored for five years after construction to document colonization by weeds and native plants. Weeds shall be removed by hand, an approved herbicide application, and/or by equipment. In the event that native plant cover does not reach 50 percent of the pre-construction native plant cover within three years, the applicant shall revegetate the temporary construction area in accordance with the methods specified in later mitigation measures. Annual monitoring reports on the status of the natural recovery of temporarily disturbed areas shall be submitted to the ACOE and CDFG as part of the Annual Mitigation Status

Report and Mitigation Accounting Form to be submitted to the ACOE and CDFG by April 1st of each year.

d) Permanent removal of riparian habitats shall be replaced by creating riparian habitats of similar functions and values in the project area. Wetland restoration shall be in-kind and at a 1:1 replacement ratio [except as indicated in Item f)] below for new habitat installed two years in advance of the removal of habitat at the construction site. If replacement habitat cannot be installed two years in advance of the project, the ratios listed below will apply. As described in Item c), lower replacement ratios may be appropriate if a ACOE-approved hydrogeomorphic method (HGM) of assessing replacement ratios indicates lower ratios would ensure replacement of habitat values and functions.

Timing of Mitigation	Value of Habitat Affected*	Proposed Ratio Required for Revegetation
Habitat installation completed 2 years or more prior to construction impact	N/A	1:1
Habitat installation completed less than 2 years in advance of impact	Low Medium High	1:1 2:1 3:1

* High (NRMP EIS/EIR mapping units 1, 2, 3, 6), Medium (NRMP EIS/EIR mapping units 4, 7), Low (NRMP EIS/EIR mapping units 5, 8)

e) Creation of new riparian habitats shall occur at suitable sites in or adjacent to the watercourses included in the NRMP. Habitat restoration sites in the riverbed shall only be located in areas where the predominant habitats present are dry open floodplain, weedy herbaceous, or their functional equivalent. The highest priority habitat restoration sites should be new riverbed areas created during the excavation of uplands for bank protection. Restoration sites may also occur at locations outside the riverbed where there are appropriate hydrologic conditions to create a self-sustaining riparian habitat and where upland and riparian habitat values are absent or very low. All sites shall contain suitable hydrological conditions and surrounding land uses to ensure a self-sustaining functioning riparian habitat. Candidate restoration sites shall be selected by the applicant described in the Annual Mitigation Status Report that will be submitted to the ACOE by April 1st of each year. Sites will be approved when restoration plans are submitted to the ACOE and CDFG as part of the Verification Request Letters submitted for individual projects, or as part of the Annual Mitigation Status Report and Mitigation Accounting Form.

f) Replacement habitat shall be designed to replace the functions and values of the habitats being removed. At this time, the replacement habitat shall be restored in accordance with the acreage replacement ratios described in Item a). The replacement habitats shall have similar dominant trees and understory shrubs and herbs as the affected habitats. In addition, the replacement habitats shall be designed to replicate the density and structure of the affected habitats once the replacement habitats have reached mature status. Replacement ratios that are lower than those listed in Item a) may be used if a ACOE-approved HGM is applied in which habitat functions and values of both the affected habitat and the replacement habitat are quantified.

g) Average plant spacing shall be determined based on an analysis of habitats to be replaced. Typical plant spacing is presented below for use in developing willow-cottonwood woodland habitat as an example only. The applicant shall develop similar tree spacing specifications for habitats to be restored. Plant spacing specifications shall be reviewed and approved by the ACOE and CDFG when restoration plans are submitted to the ACOE as part of the Verification Request Letters submitted to the ACOE and CDFG for individual projects or as part of the Annual Mitigation Status Report and Mitigation Accounting Form.

Species	**Average Plant Spacing (feet)**	**Height (feet)**	
		After 3 years	After 5 years
Arroyo willow	8	10	15
Black willow	8-10	12	18
Sandbar willow	8	4	6
Red willow	8	9	15
Cottonwood	20	7	12

h) Each tree and shrub species used in restoration shall have a minimum of 80 percent survival after three years and 70 percent survivorship after five years. Key indicator tree species to be used in the riparian restoration program shall achieve a minimum growth at the end of three years and five years as described above in Item e). Performance standards for cover shall be developed for each individual habitat type being created, based on the observed natural cover in undisturbed habitats in the project area. These standards shall be approved by the ACOE and CDFG after they have reviewed the Annual Mitigation Status Report and Mitigation Accounting Form Minimum growth, survivorship, and cover performance at the mitigation sites shall be measured based on random samples taken during years three and five at each individual mitigation site, or at other sampling intervals if the ACOE' hydrogeomorphic methodology is used by the applicant.

i) If the minimum growth, survivorship, and/or cover are not achieved at the time of the three and five year evaluations, then the applicant shall be responsible for taking the appropriate corrective

measures as to achieve the specified growth, survivorship, and/or cover criteria. The applicant shall be responsible for any costs incurred during the revegetation or in subsequent corrective measures. If acts of God (flood, fires, or drought) occur after the vegetation has met the three-year criteria for growth, survival, and cover, the applicant will not be responsible for replanting damaged areas. If these events occur prior to the plants meeting the three-year criteria, the applicant shall be responsible for replanting the area one time only.

j) The applicant shall be responsible for weeding all restoration sites to prevent an infestation of non-native weeds for a period of five years after the initial habitat restoration, regardless of the success of the planted species. The cover of non-native plant species at the mitigation sites shall not exceed 10 percent at any time, within this five-year period.

k) Temporary irrigation shall be installed, as necessary, for plant establishment. Irrigation shall continue as needed to meet the three- and five-year performance criteria regarding survivorship and growth. Irrigation shall be terminated in the winter to provide the least stress to plants. Removal of the irrigation system shall occur in conjunction with an appropriate "weaning" procedure to minimize plant stress. Irrigation shall be terminated at the earliest opportunity after achieving the five-year criteria.

l) As an alternative to the restoration of habitats to compensate for permanent removal of riparian habitats, the applicant (at the discretion of the ACOE and CDFG) may remove exotic plant species from the project area in locations: (1) where there is an infestation of exotics such as *Arundo donax* such that the natural habitat functions and values are substantially degraded and at risk, and where the cover of exotics is equal to or exceeds 25 percent of the ground; or (2) other areas where exotic removal would be strategic in a watershed approach to weed management, as determined by the ACOE and CDFG. The weed removal sites shall be selected in logical manner to ensure that the eradication of weeds from specific sites will contribute to the overall control of exotics in the NRMP watercourses. Removal areas shall be kept free of exotic plant species for five years after initial treatment. In addition, native riparian vegetation must become established through natural colonization and meet the revegetation plant cover goals established by the ACOE and CDFG under Item f) after five years.

m) The removal program shall utilize methods and procedures approved by the ACOE and CDFG to remove exotics, including but not limited to, mechanical equipment in specific areas, handcutting, and the application of herbicides to stumps. Exotic plant species removal credit will be given as shown below (except when weed removal is used to mitigate for loss of habitat for sensitive riparian

bird species where the ACOE and CDFG may require higher ratios). Weed eradication plans shall be submitted to the ACOE and CDFG for approval as part of the Verification Request Letters submitted to the ACOE and CDFG. The plans shall describe the proposed methods and the conditions of the site to be treated. A monitoring program shall be implemented to document the effectiveness of the removal and the natural establishment of native vegetation in the weeded area.

Value of Riparian Habitat to be Removed	Mitigation Ratios for Exotic Removal	
	2 Years in Advance	< 2 Years in Advance
High (NRMP EIS/EIR mapping units 1, 2, 3, 6)	3:1	4:1
Medium (NRMP EIS/EIR mapping units 4, 7)	2:1	3:1
Low (NRMP EIS/EIR mapping units 5, 8)	1:1	2:1

n) Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, and/or bank protection, all construction sites and access roads within the riverbed, as well as all riverbed areas within 300 feet of the construction site and access road, shall be inspected by a qualified biologist for the presence of arroyo toads, unarmored three-spine stickleback and arroyo chub. The ACOE and the CDFG shall be notified of the inspection and shall have the option of attending. If either agency is not represented, the biologist shall file a written report of the inspection with the agency not in attendance within 14 days of the survey and no sooner than 30 days prior to any construction work in the riverbed.

o) Construction work areas and access roads shall be cleared of the species listed above immediately before the prescribed work is to be carried out, immediately before any equipment is moved into or through the stream or habitat areas, and immediately before diverting any stream water. The removal of such species shall be conducted by a qualified biologist using procedures approved by the ACOE and CDFG, and with the appropriate collection and handling permits. Species shall be relocated to nearby suitable habitat areas. A plan to relocate these species shall be submitted to the ACOE and CDFG for review and approval no later than 30 days prior to construction. Under no circumstances shall the unarmored three-spine stickleback be collected or relocated, unless USFWS personnel or their agents implement this measure.

p) All stream flows traversing a construction site or temporary access road shall be diverted around the site and under access roads (using a temporary culverts or crossings that allow fish passage). A temporary diversion channel shall be constructed using the least damaging method possible, such as blading a narrow pilot channel through an open sandy river bottom. The removal of wetland and riparian vegetation to construct the channel shall be avoided to the greatest extent feasible.

The temporary channel shall be connected to a natural channel downstream of the construction site prior to diverting the stream. The integrity of the channel and diversion shall be maintained throughout the construction period. The original stream channel alignment shall be restored after construction, provided suitable conditions are present at the work site after construction. A temporary stream diversion plan shall be included in the Verification Request Letters submitted to the ACOE and CDFG. This procedure can only be implemented if: (1) there are assurances by the applicant that the fully protected unarmored three-spine stickleback will not be taken or possessed; or (2) USFWS personnel or their agents implement this measure.

q) A qualified biologist shall be present when any stream diversion takes place, and shall patrol the areas both within, upstream, and downstream of the work area to rescue any species stranded by the diversion of the stream water. Species that are collected shall be relocated to suitable downstream of the work area. Under no circumstances shall the unarmored three-spine stickleback be collected or relocated, unless USFWS personnel or their agents implement this measure.

r) The removal of any riparian habitat suitable for breeding, nesting, foraging, and temporary usage during migration by special-status species from the project footprint (i.e., boundaries of temporary and permanent impacts) shall be mitigated through the creation or enhancement of similar riparian habitat at an approved mitigation site, or by the removal of exotic species from an area of existing similar habitat. The requirement for replacing suitable habitat by either creating new habitat or removing exotic species from existing habitat shall follow the replacement ratios and timing requirements in later mitigation measures. Habitat to be created to mitigate for the loss of riparian habitat shall be designed specifically to replicate the appropriate species mixture and vegetative structure for these species. Existing habitat to be weeded as mitigation for the loss of riparian habitat must be located adjacent to similar habitat that is to be replaced and infested with invasive weeds. The first priority for habitat mitigation for sensitive bird species will be the creation or restoration of habitat rather than weed removal. The final habitat replacement or exotic removal plans for impacts to these types of habitats shall be reviewed by the ACOE and CDFG.

s) Beginning 30 or more days prior to the removal of any suitable riparian habitat that will occur during the riparian bird breeding and nesting season of March 15th through September 1st, the applicant shall arrange for weekly bird surveys to detect the above riparian bird species in the habitats to be removed, and any other such habitat within 300 feet of the construction work areas. The surveys shall be conducted by a qualified biologist using CDFG and/or USFWS survey protocols. The surveys shall continue on a weekly basis, with the last survey being conducted no more than 7 days prior to the initiation of construction work.

t) In the event that a special-status species is observed in the habitats to be removed or in other habitats within 300 feet of the construction work areas, the applicant has the option of delaying all construction work in the suitable habitat or within 300 feet of the suitable habitat until after September 1st, or continuing the surveys in order to locate any nests. If an active nest is found, clearing and construction within 300 feet of the nest shall be postponed until the nest is vacated and juveniles have fledged, and when there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest site shall be established in the field with flagging and stakes or construction fencing. Construction personnel shall be instructed on the ecological sensitivity of the area.

u) Locating and determining the status of a nest shall be performed in accordance with approved procedures by the USSFWS and CDFG. The ACOE and CDFG shall be notified at least 14 days prior to the first scheduled survey and shall have the option of attending. Results of the surveys, including surveys to locate nests, shall be provided to the ACOE and CDFG no later than 5 days prior to construction. The results shall include a description of any nests located and measures to be implemented to avoid nest sites. No surveys will be necessary if the work is completed outside of the riparian bird breeding and nesting season, i.e., from September 1st through March 15th.

v) Thirty days prior to construction activities in areas of the "upland impact zone" associated with individual NRMP projects, a qualified biologist shall conduct a survey to capture and relocate individual San Diego and California horned lizard, silvery legless lizard, coastal western whiptail, pallid bat, San Diego black-tailed jackrabbit, and San Diego desert woodrat in order to avoid or minimize take of these sensitive species. Individuals shall be relocated to nearby undisturbed areas with suitable habitat. Pre-construction surveys shall only be conducted in areas dominated by Riversidian coastal sage scrub or coastal sage – chaparral scrub or if construction will occur within 300 feet of native upland habitat. 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.

w) Construction activities shall be limited to the following areas of temporary 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) 60 feet on either side of the outer edge of a new bridge or bridge to be modified; (3) 50-foot-wide corridor for all utility lines; and (4) 20-foot-wide temporary access ramps and roads to reach construction sites. The locations of these temporary construction sites and the routes of all access roads shall be shown on maps submitted with the Verification Request Letters for individual projects that are submitted to the CDFG and ACOE. Any variation

from these limits shall be noted, with a justification for a variation. The construction plans should indicate what type of vegetation, if any, would be temporarily disturbed, and the post-construction activities to facilitate natural revegetation of the temporarily disturbed 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.

x) Equipment shall not be operated in areas of ponded or flowing water unless there are no practicable alternative methods to accomplish the construction work, and only after prior approval by the CDFG and the ACOE. Approval shall be acquired by submitting a request to CDFG and ACOE no later than 30 days prior to construction. The request must contain a biological evaluation demonstrating that no sensitive fish, amphibians, and/or reptiles are currently present, or likely to be present during construction, at the construction site or along access roads.

y) Temporary sediment retention ponds shall be constructed downstream of construction sites that are located in the riverbed under the following circumstances: (1) the construction site contains flowing or ponded water that drains off site into the undisturbed streamflow or ponds, as allowed for certain areas under Item a) above; or (2) streamflow is diverted around the construction site, but the work is occurring in the period November 1st through April 15th when storm flows could inundate the construction site. The sediment ponds shall be constructed of riverbed material and shall prevent sediment-laden water from reaching undisturbed ponds or streamflows. To the extent feasible, ponds shall be located in barren or sandy river bottom areas devoid of existing riparian scrub, riparian woodland, or aquatic habitat. The ponds shall be maintained and repaired after flooding events, and shall be restored to pre-construction grades and substrate conditions within 30 days after construction has ended at that particular site. The location and design of sediment retention ponds shall be included in the Storm Water Pollution Prevention Plan (SWPPP) prepared by the applicant for all construction activities that require a NPDES General Construction Activity Storm Water Permit.

z) Installation of bridges, culverts, or other structures shall not impair 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.

aa) 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.

bb) 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.

cc) 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.

dd) 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 is represents a wetland restoration area.

ee) 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.

ff) Staging/storage areas for construction equipment and materials shall be located outside of the ordinary high water mark.

gg) 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 if introduced to water could be deleterious to aquatic life.

hh) 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.

ii) The applicant shall use best efforts to ensure that 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.

jj) 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.

kk) If water diversions are required to perform work within the Santa Clara River, the applicant shall utilize provisions for the protection of arroyo toad, unarmored three-spine stickleback, arroyo chub, Santa Ana sucker, southwestern pond turtle and two-striped garter snake, including securing appropriate Endangered Species Permits. Those provisions are as follows:

- Prior to initiating construction, the site shall be inspected by a qualified biologist for the presence of the species listed above. The ACOE and the Department will be notified of the inspection and will have the option of attending. If either agency is not represented, the biologist will file a written report of the inspection with the agency not in attendance within ten days of completion of the survey. If any of the species listed above are present, the following conditions will apply:

  – The site shall be surveyed and cleared of the species listed above immediately before the work is to be carried out, immediately before any equipment is moved into or through the stream, and immediately before diverting any stream water. Any species found shall be moved out of the construction area and replaced in the stream in a manner or place to assure their survival.

  – Blocking nets, or fences with 1/4 inch square mesh, 18 inches high and buried 6 inches, shall be placed upstream and downstream of the work area to assure that none of the species move into the area.

ll) A qualified biologist, approved by the City, will be present at the moment any stream diversion takes place and will patrol the areas, both within and downstream of the work area, to rescue any species stranded by diversion of stream water. If the possibility exists that additional downstream sections of the stream will be dewatered, additional biologists will be available for downstream patrol. This rescue patrol will continue until all dewatered portions of the stream are determined to be cleared.

mm) Once the construction site or a portion of the site and work area boundary has been determined to contain none of the species listed above, the site shall be fenced with construction fencing along the riverside- and construction personnel and equipment will not enter the river beyond the fence.

nn) A water control system will be installed to intercept stream flow upstream of the site and carry it around the site. The system will be completed before turning water into it. The process of turning water into the bypass system shall be done so as to minimize sediment movement.

- The Operator will use best efforts to insure that no debris, bark, slash, sawdust, rubbish, cement, concrete, or washings thereof, oil or petroleum products, or other organic material from construction or associated activity will be allowed to enter into or be placed where it may be washed by rainfall or runoff into the river. Sediment management best management practices shall be used during construction.

- Impacts to Endangered species may require appropriate Endangered Species Permits.

oo) Pilot channels constructed to divert flows around work areas shall be sized to maintain existing water velocities, with wide, shallow channels being utilized. The channel should be kept as small as possible, extending no more than 25 feet upstream and downstream of the work area. Construction of pilot channels should start downstream. Once water is diverted into the new channel, the original channel should be visually inspected and any stranded fish shall be removed and returned to the water downstream of the diversion. Once the diversion is no longer needed, the area shall be restored as closely as practical to its original configuration.

pp) The use of a pump to divert flows around a work site is also acceptable. The pump must have at least a 1/4-inch screen. Water should be discharged downstream, within 25 feet of the work area. Any dams installed across flowing water for the diversion shall be removed upon completion of construction and the area shall be restored as closely as practical to its original configuration.

qq) The Operator shall utilize a Maintenance Notification and Emergency Maintenance Notification forms (Exhibits 1 and 2 of the NRMP) to alert the ACOE and the Department of work to be performed. In non-emergency situations, the form should be filled out and faxed or mailed to the ACOE and the Department at least two weeks in advance of the work. If the work may adversely impact Endangered species, the ACOE, the Department and LACDPW shall meet in the field to resolve the issue. LACDPW may contact the ACOE and the Department to identify areas of potential Endangered species habitat. If the ACOE and the Department believe the work may adversely impact Endangered species or its habitat resources or the LACDPW wishes to consult with the ACOE and the Department, a field meeting will be scheduled. At the field meeting, the ACOE and the Department will provide information regarding Endangered or Threatened species that could be impacted by the project. If take of an Endangered species will occur, the appropriate Endangered

Species Permits will be required. To the extent that a USFWS Section 7 and a CDFG Section 2081 Memorandum of Agreement have been completed for the species present, the mitigation measures shall be implemented and construction may proceed as outlined in these documents.

rr) The notification is provided to demonstrate consistency with the policies of the NRMP. In non-emergency situations, the ACOE and the Department must respond to the notification within 20 working days if they believe that the work is inconsistent with the NRMP, at which time a field meeting will be scheduled to review the site and determine how the work may proceed. If the ACOE and the Department do not respond within 20 working days, the work shall proceed as described in the notification. However, appropriate Endangered Species Permits will be required for impacts to Endangered species.

7. MITIGATION MEASURES PROPOSED BY THIS EIR

The following discussion describes measures proposed within this Draft EIR to avoid, minimize, or reduce significant or potentially significant impacts on biological resources. These measures are also designed to ensure compliance with state and federal statutes and regulations regarding special-status plant and animal species.

a. Resource Management and Monitoring Plan

4.6-2 Prior to issuance of a Grading Permit for the project, the applicant shall obtain the services of a qualified biologist who must, at a minimum, have a degree in botany, biology, wildlife biology or ornithology and experience in developing management plans for the flora and fauna, plant community and wildlife habitats found in the Southern California area, to develop a RMMP to serve as a guideline for managing and monitoring mitigation areas for specific species, plant communities, jurisdictional resource areas, and habitats. The RMMP shall be submitted to the City of Santa Clarita Planning and Building Services at least 30 days prior to issuance of a Grading Permit for the project, and shall include the following:

a. A **Planting Plan**, at a minimum, that lists all appropriate native plants to be included in all revegetation mitigation areas. The planting plan shall be developed by a qualified biologist as approved by the City.

b. **Procedures** regarding the removal of non-native vegetation, planting of native vegetation, translocation of trees, planting of container stock, irrigation, and equipment use.

c. **Maps** that illustrate the specific location of mitigation areas.

d. **Procedures outlining monitoring and maintenance activities** including frequency and timing of monitoring visits, plant maintenance, and irrigation maintenance.

e. **Specific criteria** that will specify what goals must be accomplished at each mitigation area before the mitigation is deemed a success.

f. **Adaptive Management and Contingency actions** that will specify what actions will be taken in the event success criteria are not met.

g. **The source of funding** that will be required to successfully carry out all procedures outlined in the RMMP.

4.6-3 Unless directed otherwise by a lead agency, responsible agency, or regulatory agency, the monitoring of results will be maintained for a period of five years. The frequency of monitoring visits may vary by task category, but generally quarterly visits are conducted for the first three years followed by two subsequent annual visits. An annual report shall be produced by the biologist conducting the monitoring activities and will be provided to the lead agency and appropriate regulatory agencies.

b. ACOE Waters of the U.S. and CDFG Streambeds

4.6-4 Newhall shall prepare an amendment or variance to the NRMP and mitigate in accordance with the above requirements.

c. Special-Status Plant Species

(1) Parry's larkspur, Slender and Plummer's mariposa lilies

4.6-5 To minimize direct loss of Parry's larkspur, slender and Plummer's mariposa lilies in areas subject to disturbance, additional field surveys to determine amount of area covered by these species and approximate densities shall be conducted during the appropriate blooming period for these species prior to site preparation and/or grading activities in areas potentially supporting this species. Locations of individual plants or plant populations shall be appropriately flagged, and (1) seeds from a representative mix of individual plants shall be

collected and sown in appropriate habitats, or on cut slopes, and (2) the bulbs shall be harvested and transplanted to areas of appropriate habitat which are not subject to further disturbance. The goal will be to produce replacement populations of in-kind plants reaching maturity, at a ratio of 1:1 with respect to the number and density of plants (estimated) to be lost. The areas to be preserved and maintained as open space within the Riverpark project site contain habitat suitable to support these species. All seed collecting, planting, and transplanting procedures shall be identified in the RMMP and appropriate management, monitoring, success criteria, and adaptive management guidelines for the mitigation of impacts to these species shall also be identified.

(2) Oak Trees

4.6-6 While the majority of oak trees on the site will be retained in place, three live trees will be removed and 12 will be relocated. Appropriate approvals shall be obtained prior to oak trees being removed, subject to the Oak Tree Preservation Ordinance (Ordinance 89-1) and the City of Santa Clarita Oak Tree Preservation and Maintenance Guidelines. Prior to grading, oak trees near construction/grading areas that will not be removed will be protected during the grading and construction phases of the project by appropriate fencing that extends 5 feet beyond the tree canopy's dripline, or 15 feet from the trunk, whichever is greater.

4.6-7 Additional specific mitigation measures are described in detail in the Oak Tree Report produced by Tree Life Concern, Inc. (**Appendix 4.6**) and listed below. The mitigation measures described in this report are supported by the City's Oak Tree Specialist and exceed the requirements of the City of Santa Clarita tree ordinance.

Equipment damage to the limbs, trunks and roots must be avoided. Even slight trunk injuries can result in long-term, life threatening pathogenic maladies. No storage of equipment or debris within the Protective Zone (dripline plus 5 feet) will be allowed. No dumping of construction wastewater i.e., paint, stucco, concrete, clean-up, etc. within Protective Zones, Generally, fencing shall be placed at the Protective Zone of any oak or groups of oaks within 50 feet of proposed construction activity. Protective Fencing must remain in place during construction projects and shall not be moved or removed without prior written approval from the Department of Community Development under the direct supervision of the Project Consulting Arborist.

Protective Fencing shall be at least 4 feet in height with a visible sign attached at 50 feet intervals which reads: [WARNING - THIS FENCE IS FOR THE PROTECTION OF THIS TREE AND SHALL NOT BE REMOVED OR RELOCATED WITHOUT WRITTEN AUTHORIZATION FROM THE CITY OF SANTA CLARITA COMMUNITY DEVELOPMENT DEPARTMENT]

If possible, complete pruning of the larger California Live or Valley oaks, is recommended for health and weight reduction (inspect for occupied woodpecker nests prior to removal of larger dead snags). Any cuts over 2 feet in diameter would require a "Pruning Permit" from the City. After pruning, the installation of support cables to prevent future main crotch failures is recommended (refer to the Summary of Field Inspection for specific tree and cable numbers). All cables should be a minimum of 5/16 inch diameter EHS (Extra High Strength) and attached with 5/8-inch diameter, galvanized thru-bolts. Heavy-duty 3/8-inch thimbles are to be utilized at each attachment point. These recommendations are presented for consideration by the City, current and/or future property owners.

Care should be taken to avoid placing any sprinklers within watering distance to the trunk of an oak tree. Generally, sprinklers should not reach within 15 feet of a mature oak trunk. Grass or ground covers must never be planted next to the trunks. Too much moisture near the base of an oak is generally believed to be their leading cause of death in residential settings. Oak Root Fungus is the result of over-watering. Oak trees survive and thrive on annual rainfall alone and generally do not need supplemental irrigation except during periods of drought. Watering should take place at or near the dripline. Landscape plans should leave the area within the dripline of an oak tree in a native or natural setting.

Care must be taken to limit grade changes near the trunk areas. The grade should not be lowered or raised around the trunks of trees. This can lead to plant stress from oxygen deprivation or Oak Root Fungus at the root collar.

Mitigation for the tree removals/relocations includes the dedication of a 24-acre property with oak tree habitat. This property is directly adjacent to the 4.25-acre active neighborhood park and contains a majority of the oak trees on the project site. The proposed mitigation (dedication of 24 acres of oak habitat open space and the transplanting of oak trees on site including the costs associated with the corresponding five-year maintenance plan of said trees) for oak tree impacts is consistent with the provisions of the City's Oak Tree Preservation Ordinance.

Protective fencing shall be installed around all oaks not listed for removal. Place protective fencing at the PZ as shown on the TLM. The fencing can be repositioned as needed to allow for grading near the oaks listed as "impacted". The project arborist must be present during the fence placement. Final fencing locations shall be inspected by the City prior to the commencement of development activities. Regular inspections of this fencing shall occur during site development.

An Oak Tree Information Packet including the City of Santa Clarita Oak Tree Protection and Preservation Guidelines must be available on site during construction. The property owner and contractor should be familiar with the contents of these documents.

Vehicle travel along dirt roadways to and from the site may create a heavy coating of dust on the foliage of nearby oaks. These oaks should be hosed off periodically during construction activities.

All work performed within the Protective Zone (dripline plus 5 feet) of any oak shall be accomplished by utilizing hand tools only and must be 'monitored' by the project's Oak Tree Consultant.

All roots over 1.5-inch diameter will be clean cut at a 45-degree angle and treated by the Consulting Arborist.

No oaks outside the property line are to be impacted by this construction project.

The leaf-litter build-up under the canopies of the oaks on this site is ideal for healthy tree growth and root development. Do not alter or remove if possible. A 3-inch layer of mulch may be advisable in settings where leaf-litter has been lost.

Do not remove the aluminum tags numbering each oak on this site.

No construction materials are to be stored or discarded within the PZ of any oak. Rinse water, concrete residue, liquid contaminates (paint, thinners, gasoline, oils, etc.) of any type shall not be deposited in any form at the base of an oak.

No vehicles shall be parked within the PZ of an oak. No construction vehicles are to be parked under the shade (within the PZ) of an oak.

(a) Oak Transplantation

The oak trees listed for transplanting shall be professionally "boxed" and relocated on site to the designated "storage area" (see TLM). A qualified transplant company shall perform the relocations (it is anticipated that Valley Crest Tree Company will be performing the relocations). To enhance the success of each tree for long-term survival the relocations will be monitored by the Project Arborist. The size of box for each tree will be determined by the Arborist and Valley Crest representative. Consideration will be given to the buttress spread, as well as the trunk diameter. Generally, the larger the box, the greater

the probability of success. In every case where a decision is to be made between a smaller size box and a larger box, i.e., 180- or 192-inch box, the box of choice will be the 192-inch box.

Under the direction of the Project Arborist, side-boxing/root-pruning operations shall take place during the months of November through January. These trees will then be maintained in situ for a 90-day period prior to bottom-board installation and relocation to the "storage site".

A "storage site" has been designated (see TLM) with a permanent water supply, which will be accessible to each boxed tree.

The Project Arborist (in conjunction with the relocation company) will determine if and when fungicides, fertilizer or soil amendments are needed. Each tree will be monitored for any condition that may require a specific treatment to enhance survivability before, during and after relocation.

Prior to side-boxing and root pruning the soil moisture content must be sufficient to maintain the rootball intact during this process.

Each oak should be lightly pruned at this point to remove deadwood, stubs, broken limbs, crossing limbs or for clearance purposes. The pruning will be monitored.

The excavation process will first begin with a back-hoe. As roots are encountered the back-hoe will be removed and roots 2 inches or larger will be hand excavated and clean-cut with a handsaw. The exposed cuts will be treated with a Bordeaux linseed oil solution to help prevent desiccation. All roots shall be clean cut with pruning shears or by handsaw. Root balls that are exposed to full sun will be tarped until the side-box wall is installed.

After side-boxing/root-pruning operations the trees will remain in place for approximately 90 days before the bottom boards are installed.

The boxed trees will be hoisted by the box itself (not by the trunk) and carried to the storage area.

The orientation of each oak (north, south, east, west) will be carefully maintained during the storage process. The project arborist will mark each box for proper direction while in storage. This is important to prevent damage from sunburn.

Valley Crest shall guy-wire each tree as needed into the box and/or into the ground as needed. The storage area is notoriously windy and extra attention will be paid to securing the trees until planting. The guy-wires will be placed through hose-sections where they are in contact with the tree.

When planting the oaks, the planter-hole (pit) location will be partially filled with loosened native soil. The size of the hole will be 2 feet larger than the box size. If drainage is determined to be a concern, PVC drain tubes will be installed in a rectangular fashion with breather ports attached at four locations. The bottom of the pit will be filled with 8 inches of gravel and a layer of permeable soil-cloth will be placed over the gravel.

An 8-inch layer of native soil will then be placed over the cloth and the tree install backfilled. This will allow for monitoring any possible water pooling at the base of each tree. Unamended native soil will be utilized for the backfill unless a soil analysis indicates that amendments will be required.

A soil analysis will be performed at the planting site 30 days prior to relocation. The backfill soil will be compacted to normal (native-soil compaction).

The height of the root ball is critically important in the long-term survival of a transplanted oak. Each rootball will be placed at least 6 inches above existing grade. This will allow for settling and ensure that water does pool at the root collar.

Soil watering-basins will be constructed to properly irrigate the entire rootball of each tree. The trees will be monitored by relocation company and the Project Arborist on a weekly basis to determine current condition and maintenance requirements.

4.6-8 All revegetation, restoration, and enhancement measures within mixed oak woodlands shall be documented in the Resource Management and Monitoring Plan and shall include, at a minimum, the following: (1) the location of the planting/revegetation areas (to be coordinated with the City; (2) the species of oaks and other plant species to be planted within the protected zone of the oaks; (3) planting procedures; (4) a schedule and action plan to maintain the plantings; and (5) a list of criteria by which to measure success of the plantings, as well as contingency measures if the plantings are not successful.

d. Special-Status Wildlife

Mitigation measures to avoid take of state and federally listed Threatened and/or Endangered species have been identified in the NRMP EIS/EIR and in the Section 1603 Streambed Alteration Agreement issued by CDFG for the NRMP. A detailed program of mitigation measures is set forth in the NRMP Section 1603 Streambed Alteration Agreement and a blanket Section 7 Endangered Species Permit has been issued in conjunction with the NRMP. In addition, compliance with the California Endangered Species Act will occur, as applicable.

Mitigation measures included in the NRMP EIS/EIR and Section 1603 authorization include the following:

- Surveys and site inspections for the least Bell's vireo (vireo) and unarmored three-spine stickleback (UTS) by qualified biologists;
- Installation of blocking nets as specified by FWS for the UTS;
- Specific stream diversion practices utilizing qualified biologists for the UTS; and
- Limitations on construction activities during the nesting season near occupied habitat for the vireo.

~~Measures included in this EIR include:"~~

(1) Western Spadefoot Toad

4.6-9 Prior to the issuance of a grading permit for construction or site preparation activities, the applicant shall retain the services of a qualified biologist, approved by the California Department of Fish and Game, to coordinate the design and construction of spadefoot toad pool habitat and to implement a capture and relocation program.

4.6-10 Under the direct supervision of the qualified biologist, western spadefoot toad habitat shall be created within suitable natural sites on the project site outside of the development envelope. Preliminary surveys indicate that there may be suitable locations in Area C. The actual relocation site design and location shall be approved by CDFG and consist of a shallow excavated pond(s) utilizing an artificial rubber pond liner as a base. The location shall be as far away as possible from any of the homes and roads to be built and shall be at least the size of the largest occupied pond observed on the site in 2004. The relocation pond(s) shall be designed such that it only supports standing water for several weeks following seasonal rains in order that aquatic predators (i.e., fish, bullfrogs, crayfish, etc.) cannot become established. The size and number of

ponds shall be determined by CDFG. Terrestrial habitat surrounding the proposed relocation site shall be as similar in type, aspect, and density to the location of the existing ponds as possible. 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 the relocation of all western spadefoot toad adult, tadpoles, and egg masses detected are moved to the created pool habitat to the satisfaction of the monitoring biologist and CDFG.

4.6-11 Based on appropriate rainfall and temperatures, generally between the months of February and April, the biologist shall conduct a series of surveys in all appropriate habitats within the development envelope prior to the initiation of construction activities. 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 relocation pond(s) described above. All relocation shall take place within the Riverpark project boundaries, unless otherwise directed by CDFG.

4.6-12 The qualified biologist shall monitor the relocation site for a period of five years, or as otherwise directed by CDFG. Specific monitoring requirements and success criteria shall be approved by CDFG. It is expected that minimum requirements will include annual monitoring during and immediately following peak breeding season such that surveys can be conducted for adults as well as for egg masses, 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.

e. Increased Human and Domestic Animal Presence

4.6-~~9~~13 Pets and other domestic animals shall be prohibited with fencing and signage from the open space areas and in any revegetation areas on the project site unless restrained by leash and only in designated areas.

4.6-~~10~~14 Fencing of sufficient height and design (i.e., ranch-rail) shall be constructed between the edge of the fuel modification zone and the river corridor to deter humans and domestic animals from entering open space habitat areas.

4.6-~~11~~15 Native shrubs such as laurel sumac, California coffeeberry, toyon, and coast prickly-pear shall be planted along the fence to further deter access. Final fence design shall be approved by and the City Planning and Building Services Department.

4.6-~~12~~16 Human access into the open space areas shall only occur in designated locations (i.e., existing and future trails). All motorized vehicles are prohibited from entering the preserved natural open space areas with the exception of emergency or maintenance vehicles. Applicant shall post signage reflecting the above requirement.

4.6-~~13~~17 Prohibitions against human, domestic animal, and motorized vehicle use in preserved natural open space areas shall be established by the covenants conditions and restrictions (CC&Rs) recorded with the City Planning and Building Services Department.

4.6-~~14~~18 Interpretative signs shall be constructed and placed in appropriate areas, as determined by the City Planning and Building Services Department, that explain the sensitivity of natural habitats and the need to minimize impacts on these natural areas. The signs will state that they are entering a protected natural area and that all pedestrians must remain on designated trails, all pets are to be restrained on a leash, and that it is illegal to harm, remove, and/or collect native plants and animals. The project applicant shall be responsible for installation of interpretive signs and fencing.

f. Lighting and Glare

4.6-~~15~~19 All street, residential, and parking lot lighting shall be downcast luminaries or directional lighting with light patterns directed away from natural areas. Covenants, Codes and Restrictions (CC&Rs) shall require the exterior lighting within the residential area be limited to low voltage.

g. Construction-Related Activities

The following measures shall be implemented to minimize impacts on remaining biological resources on the site as a result of construction and grading activities and to ensure that potential impacts on these resources will remain less than significant.

4.6-~~16~~20 A qualified biologist shall be retained, as determined by the City of Santa Clarita, as a construction monitor to ensure that incidental construction impacts on biological resources are avoided, or minimized, and to conduct pre-grading field surveys for special-status plant and

wildlife species that may be destroyed as a result of construction and/or site preparation activities. Responsibilities of the construction monitor include the following:

- The construction monitor shall attend pre-grade meetings to ensure that timing/location of construction activities do not conflict with mitigation requirements (e.g., seasonal surveys for plants and wildlife).

- Mark/flag the construction area in the field with the contractor in accordance with the final approved grading plan. Haul roads and access roads shall only be sited within the grading areas analyzed in the project EIR.

- Supervise cordoning of preserved natural areas that lie outside grading areas identified in the project EIR (e.g., with temporary fence posts and colored rope).

- Conduct a field review of the staking (to be set by the surveyor) designating the limits of all construction activity. Any construction activity areas immediately adjacent to riparian areas or other special-status resources should be flagged or temporarily fenced by the monitor, at his/her discretion.

- Conduct meetings with the contractor and other key construction personnel describing the importance of restricting work to designated areas. The monitor should also discuss procedures for minimizing harm/harassment of wildlife encountered during construction.

- Periodically visit the site during construction to coordinate and monitor compliance with the above provisions.

4.6-~~17~~21 Construction personnel shall be prohibited from entry into areas outside the designated construction area, except for necessary construction related activities, such as surveying. All such construction activities shall be coordinated with the construction monitor.

4.6-~~18~~22 Standard dust control measures shall be implemented to reduce impacts on nearby plants and wildlife. This includes replacing ground cover in disturbed areas as quickly as possible; water active sites at least twice daily; suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph; and restricting traffic speeds on all unpaved roads to 15 mph or less in areas within 200 feet of vegetation.

4.6-~~19~~23 Upon completion of construction, the contractor shall be held responsible to restore any haul roads and access roads that are outside of approved grading limits. This restoration shall be done in consultation with the construction monitor.

In addition, impacts to biological resources as a result of construction and grading activities will be mitigated by implementation of NRMP measures w) through uu) above.

g. Level of Significance After Mitigation

All impacts that are associated with the implementation of this proposed project can be mitigated to a level less than significant except the following:

- The total net loss of 280 acres of wildlife habitat/natural open space as a result of conversion of undeveloped property to developed. Though over 400 acres of the site will remain as open space and some of the habitat can be restored and enhanced within remaining open space areas of the site, there will still be a net loss of habitat for wildlife and open space that cannot be replaced. In effect, while habitat types similar to that impacted can be preserved, planted and/or restored elsewhere, no measures are available that will mitigate a mathematical net loss of 280 acres of open space land as a result of conversion of this land to a developed condition. This net loss represents a significant unavoidable impact.

- Impacts to SEA and associated riverine habitat (as identified by the resource line) and riverbed. While riparian vegetation can be planted and enhanced along preserved portions of the river, there will still be a net loss of 25.5 acres of SEA and associated riparian habitat and riverbed that ultimately cannot be replaced. In effect, while habitat types similar to that impacted can be preserved, planted and/or restored elsewhere, no measures are available that will mitigate a mathematical net loss of 25.5 acres of open space land as a result of conversion of this land to a developed condition. This net loss represents a significant unavoidable impact.

- Impacts to adjacent upland habitat within 100 feet of the riparian resource line. While the 100-foot setback threshold will be upheld in several areas along the river, this threshold will not be met along substantial portions of the project. Those portions of the project site that provide less than 100 feet of preserve upland habitat adjacent to the resource line represent a significant unavoidable impact.

- Impacts to western spadefoot toad. While mitigation measures can be implemented to create habitat and relocate individuals observed on the project site, these measure are not considered highly effective. It is expected that not all individual toads would be captured and relocated and that the created habitat might not meet the specific requirements for this species, thus, not supporting the relocated individuals. The loss of those individuals that are not captured and relocated, and those that are not adaptable to the created habitat, would be considered a significant and unavoidable impact.

8. CUMULATIVE IMPACTS

The proposed project would contribute to the projected urban development in the region. Increasing urbanization of the area will impact biological resources by reducing total habitat area, limiting species diversity, and restricting movement corridors to narrower areas. However, as noted in the assessment of

project impacts, this project preserves portions of the riparian habitat which is most significant to biological resources and, by removing land from agricultural uses and providing for revegetation of some such areas, may enhance the habitat in some ways over its existing condition when such revegetation occurs.

This cumulative impact analysis is divided into two parts, the first part being the assessment of the proposed project's impact in combination with the impacts generated by the City's construction of Santa Clarita Parkway through the project site, including the construction of an additional bridge across the Santa Clara River. The second part of the cumulative analysis addresses the cumulative impacts of the proposed project in combination with several other projects proposed or under construction in the Santa Clarita Valley.

a. Cumulative Impacts of the Proposed Project Including the Extension of Santa Clarita Parkway to Soledad Canyon Road

As proposed by the City of Santa Clarita General Plan, a future extension of Santa Clarita Parkway from the terminus in the project to Soledad Canyon Road, including a bridge over the Santa Clara River will be constructed. This cumulative project is not proposed as part of the Riverpark project, but it would traverse portions of the project site. For this reason, the construction of Santa Clarita Parkway is evaluated separately from other cumulative projects. The impact of the proposed project on biological habitats, inclusive of the bridge, is provided below on **Table 4.6-4**.

As shown in **Table 4.6-4**, the construction of the Santa Clarita Parkway extension from the terminus within the project site southerly to Soledad Canyon Road (including the bridge over the Santa Clara River) would result in additional impacts to 4.6 acres of existing habitat, some of which is considered sensitive. Impacts directly related to the parkway extension would occur primarily to disked fields (1.4 acres), southern riparian scrub (1.~~5~~ 1 acres) and riverwash (1.~~7~~ 3 acres) habitat types. This area would be converted to roadway and bridge land uses. Given the sensitivity of the habitats affected, such impacts would be considered cumulatively significant when combined with the impacts of the proposed project. Given the similarity of habitat of this area when compared with the project site, impacts to sensitive species would be similar in magnitude. In some cases depending on the species in question, the impacts could be significant.

Table 4.6-4
Riverpark Habitat Acreages and Impacts of the Project Plus Santa Clarita Parkway Bridge to Soledad Canyon Road

Vegetation Type	Vegetation Map ID	Existing Proposed Project Area Including Areas of Off-Site Grading (in acres)	Proposed Project Temporary Impact Area (in acres) and % of Total		Proposed Project Permanent Impact Area (in acres) and % of Total		Temporary Impact of Santa Clarita Parkway	Permanent Impact of Santa Clarita Parkway	Impact of the Proposed Project plus Santa Clarita Parkway	Area Disturbed by Off-Site Grading (in acres)	Undisturbed Area w/in Project[1] (in acres)
Disked Field	DF	92	1.3	1.4%	83.5	90.8%		1.4	86.2	0	7.2
Non-native Grassland and Non-native Grassland with Scattered Shrubs	NNG and NNGW/SHRUBS	80	11.6	14.5%	52.7	65.9%			64.3	18.9	15.7
Planted Sage Scrub	PS	37.0	1.1	3.0%	22.8	61.6%			23.9		13.1
Riversidian Sage Scrub	RSS	143.4	10.1	7.0%	95.5	66.6%			105.6	2.3	37.8
Chamise Chaparral	CHC	2.2	0.1	4.5%	1.9	86.4%			2		0.2
Coastal Sage Chaparral Scrub	SCS	8.6	0.7	8.1%	3.9	45.3%			4.6		4
Holly-leafed Cherry	HLCS	12.9	8.3	64.3%	2.9	22.5%			11.2	7.6	1.7
Mule Fat Scrub	MFS	1.2		0.0%	1.1	91.7%			1.1		0.1
Southern Willow Scrub	SWS	1.9	0.1	5.3%	1.4	73.7%			1.5		0.4
Southern Riparian Scrub	SRS	161.4	7.4	4.6%	21.4	13.3%	0.4	1.1	30.3	0.3	132.6
Riverwash	RW	176.2	10.3	5.8%	2.9	1.6%	0.4	1.3	14.9	2.9	163
Mixed Oak/Grass	MOW	2.3	0.1	4.3%	0.4	17.4%			0.5		1.8
Developed Area with Mixed Trees	MT	8.3	1.9	22.9%	4	48.2%			5.9		2.4
TOTALS		**727.4**	**53.0**	**7%**	**294.4**	**40%**	**0.8**	**3.8**	**352.0**	**32.0**	**380**

[1] *Assumes the future extension of Santa Clarita Parkway as undisturbed.*

(1) Impacts to Special-Status Plants and Animals

Impacts to sensitive animals would be similar to the impacts created by the proposed project. Species potentially directly impacted by Santa Clarita Parkway include the riparian species such as the unarmored three-spine stickleback, least Bell's vireo, and Santa Ana sucker, and upland species such as San Diego horned lizard, California horned lizard, Cooper's hawk, California horned lark and San Diego black-tailed jackrabbit. Given the similarity of habitat of this area when compared with the proposed project site, impacts to sensitive species would be proportionally similar in magnitude. In some cases depending on the species in question, the impacts could be significant.

The construction of the Santa Clarita Parkway Bridge and roadway would also impact oak resources. Specifically, two Valley oak trees would be impacted (one removed and one encroached upon), one of which is a Heritage oak tree. Such a cumulative impact would be considered significant.

(2) Impacts to Jurisdictional Resources

Construction of the Santa Clarita Parkway Bridge and roadway would impact resources under the jurisdiction of the ACOE and CDFG. Specifically, impacts to 0.1 acre of land under ACOE jurisdiction would occur and impacts to 0.1 acre of land under CDFG jurisdiction would occur. Such impacts would be considered significant.

(3) Impacts to Wildlife Movement

As indicated in the impact analysis of the proposed project, the proposed project design would generally preserve the integrity of the Santa Clara River as a wildlife movement corridor by maintaining the majority of the Santa Clara River as open space. It is acknowledged that some wildlife species also utilize adjacent upland habitats as foraging areas during periods of active movement, particularly during periods of high water flows. The project plan will preserve and restore various amounts of upland habitat adjacent to the river system that will allow some species, especially the larger mammals such as mountain lion, coyote, bobcat, and fox, to use these adjacent upland areas as movement corridors.

Like the proposed project this additional cumulative project would result in the construction of another bridge across the river. The Santa Clarita Parkway Bridge is proposed to be approximately 800 feet in length and up to 116 feet in width. It will average approximately 20 feet in height above the riverbed with up to 9 vertical support columns extending into the riverbed. The columns will be approximately 100 to 120 feet apart from one another. As indicated for the proposed project, when confronted with bridges or overpasses along a preferred movement corridor, wildlife, particularly larger mammals, will 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 see light, open space and habitat at the exiting end of the structure. The proposed Santa Clarita Parkway Bridge will, like the proposed project, adequately meet these requirements and is not expected to significantly alter wildlife movement along the river. Consequently, implementation of the proposed project, in combination with the Santa Clarita Parkway Bridge, will not substantially interfere with the movement of any terrestrial wildlife species; therefore no significant impacts on terrestrial wildlife movement corridors will occur.

(4) Indirect Impacts

Indirect impacts on biological resources would occur to those habitat areas surrounding the Santa Clarita Parkway Bridge site after its completion. Like the proposed project, it is expected that implementation of this cumulative project would result in indirect impacts to biological resources through:

- an increased human and domestic animal presence in the area and noise associated with this presence;
- increasing distribution and proliferation of exotic non-native plant and wildlife species;
- increased light and glare;
- stormwater runoff; and
- construction activities.

Indirect impacts associated with this cumulative project are not quantifiable but are reasonably foreseeable. Such impacts would come primarily through an increase in vehicular traffic across the bridge route itself and the increase light and glare cause by its use. Stormwater runoff from the bridge and roadway would also occur. Various pollutants related to vehicular traffic (e.g., rubber from tires, hydrocarbons from engine exhaust, etc.) would be expected to wash off the road surface into the river and degrade habitat if left unmitigated. Construction activities themselves would also be expected to temporarily and permanently impact habitat along the river corridor. As with the proposed project alone, impacts cause by this cumulative project would, in combination with the proposed project, result in significant indirect biological impacts.

(5) Impacts to SEA 23

A total of 2.8 acres of habitat within Santa Clara River SEA will be disturbed or converted to urban use as a result of Santa Clarita Parkway Bridge construction. Approximately 0.5 acre will be temporarily disturbed as a result of proposed bank stabilization activities and will be replaced upon completion of the bank stabilization to protect the bridge structure. Within the SEA boundaries, a total of 1.5 acres of riverwash, 0.2 acre of southern riparian scrub, and 0.5 acres of disked field representing a total of 2.2 acres of SEA habitat will be permanently lost as a result of this cumulative project. The locations of these impacts are generally along the northern and southern bank of the Santa Clara in the central portion of the project site. Impacts to riparian habitat within the SEA as a result of project construction, grading activities, bank stabilization and bridge maintenance activities, are the same as those discussed previously.

Because of the relatively small amount of each habitat type within the SEA to be removed, like with the proposed project, the permanent loss of an additional 2.2 acres of habitat within the SEA boundaries is not expected to detract from the overall integrity and value of the SEA, in and of itself. In particular, this loss of area will not adversely affect the unarmored three-spine stickleback, the state and federally listed Endangered fish species for which the SEA was originally designed to protect. However, because of the overall sensitivity of SEAs, and because any permanent loss of habitat within a SEA will effectively reduce the overall size of the SEA, any net loss of land within a SEA is considered a significant impact. Therefore, the permanent loss of an additional 2.2 acres of SEA habitat is considered a significant cumulative impact.

b. Cumulative Impacts of the Proposed Project Plus Other Larger Projects

Proposed and reasonably foreseeable projects are briefly 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 Santa Clarita Valley. 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 Riverpark site within the Santa Clarita Valley. In particular, those projects that are adjacent to or that otherwise may affect resources associated with the Santa Clara River were included.

(1) Cross Valley Connector (Newhall Ranch Road including the Newhall Ranch Road/Golden Valley Road Bridge)

This project would involve the extension of Newhall Ranch Road, including the Newhall Ranch Road/Golden Valley Road Bridge. Newhall Ranch Road would be extended by approximately 2.0 miles to the east of Bouquet Canyon Road including a bridge over the Santa Clara River connecting with Golden Valley Road. The proposed typical section of the alignment would include a six-lane roadway of approximately 120 feet in width, with a 14-foot median island and pedestrian and bicycle lanes. The proposed Golden Valley Road segment would require the construction of a bridge across the Santa Clara River and would traverse undeveloped open space (e.g., vacant lot, natural riverbed, scrub habitat) parallel to an overhead power line corridor. The proposed roadway is included as Major Arterial Highways in the City's General Plan.

(2) Tesoro del Valle (Upper San Francisquito Creek)

The approved project presently under construction is a master planned community of about 2,500 units on a 1,795-acre site on the west side of San Francisquito Creek. The development would include single- and multi-unit residences, commercial sites, schools, parks, and a fire station. About 1,002 acres of the site would remain in open space, and about 672 acres would remain in a natural undeveloped condition. The project required a General Plan Amendment from Los Angeles County, a Conditional Use Permit, and other local approvals. The project requires substantial grading of hills and the removal of upland habitats and numerous oak trees. The project encroaches into San Francisquito Creek at two locations. About 3.5 acres of the creek will be filled for slopes and a bridge crossing. The lower slopes will contain rip-rap bank protection. Runoff from the project will be directed to water quality basins where aquatic vegetation will be maintained to uptake urban stormwater pollutants before the stormwater is discharged into the creek.

Development of the Tesoro del Valle and the projects along San Francisquito Creek associated with the approved Valencia Company 404 Permit could combine to cause the following potentially significant cumulative impacts: (1) loss of riparian habitat along the margins of the creek; (2) disturbance of riparian wildlife breeding, foraging, and movement due to the proximity of urban development and short-term construction activities; (3) potential degradation of water quality in San Francisquito Creek due to urban stormwater runoff; (4) localized alteration in channel velocities in areas where the existing channel is narrowed; (5) loss of native upland habitats due to land development; (6) permanent loss of prime farmlands; (7) modification of visual qualities due to urban development, bank protection, and bridges; and (8) potential disturbance to habitat for the unarmored three-spine stickleback.

(3) Newhall Ranch Specific Plan

The recently approved Newhall Ranch Specific Plan, approximately 12,000 acres in size and located several miles west of the project site generally between Interstate 5 and the Los Angeles/Ventura County line, has a high diversity of biological resources, including sensitive species and habitats. In addition, portions of the Specific Plan area are important wildlife corridors and habitat linkages between large contiguous blocks of open area. These include the Santa Clara river corridor and the area located in the southern portion of the parcel in the Santa Susana Mountains (referred to as the High Country Special Management Area on the Specific Plan site). Both of these areas have been identified and designated as Significant Ecological Areas by Los Angeles County and have been preserved as such by the Specific Plan, although modified as described herein.

The Newhall Ranch Specific Plan area contains habitat of varying 'conservation value' quality. Studies of the site were used to identify those areas with higher value in terms of conservation biology, and to develop a plan to manage habitats present to minimize impacts to the most sensitive biological resources.

The Newhall Ranch Specific Plan applicant, also The Newhall Land and Farming Company, proposes to preserve as undeveloped land a total of approximately 6,831 acres (or 57 percent of the site); however, portions of development of the Newhall Ranch Specific Plan would occur in some sensitive upland and riparian habitats. Buildout of the Newhall Ranch Specific Plan would result in the construction of approximately 21,000 new homes and several million square feet of supporting commercial and industrial development. Due to the conversion of approximately 5,132 acres of habitat that are in a largely natural condition to a suburban and urban condition, implementation of the Newhall Ranch Specific Plan would substantially diminish habitat for wildlife and plants. Implementation of the Newhall Ranch Specific Plan would also significantly impact sensitive wildlife species, significantly impact the ability of animals to move across portions of the site, and significantly impact several sensitive upland habitat types. All of these are considered unavoidable significant impacts that cannot be fully mitigated.

As indicated in this subsection, several large development projects are proposed for the Los Angeles/Ventura County region. All of these proposed developments would remove natural habitat. The Newhall Ranch Specific Plan will convert approximately 5,132 acres of land from a largely natural, albeit partially disturbed, habitat condition, to that of a suburban/urban environment. That conversion, when added to all the other such conversions of open area that are proposed, will permanently decrease the amount of land available for natural habitats and the flora and fauna that inhabit them. Neither implementation of the project nor any other similar large scale project proposed on the edge of the existing urban environment cannot mitigate from a biological perspective the permanent conversion of large blocks of open area. It is for this reason that the cumulative impact is considered unavoidably significant.

(4) West Creek Project

The proposed West Creek project is located on the west side of San Francisquito Creek, north of Newhall Ranch Road and south of the Copperhill Road Bridge. The proposed project consists of a maximum total of 2,545 residential units, along with a total of 180,000 square feet of neighborhood serving commercial uses, an elementary school and other related development. Circulation will be provided by a series of internal collector roadways that connect to the previously approved extension of Copper Hill Drive, a public street that represents the primary roadway providing ingress and egress to the site. Private recreational facilities will be provided in the central portion of the project site and a network of hiking/biking trails will extend both throughout the project site and along San Francisquito Creek. Buried bank stabilization has been installed along the west side of San Francisquito Creek and the Decoro

Drive Bridge over the creek has been completed. The project site lies partially within Significant Ecological Area 19.

Development of the West Creek project and the other projects along San Francisquito Creek could combine to cause the following potentially significant cumulative impacts: (1) loss of riparian habitat along the margins of the creek; (2) disturbance of riparian wildlife breeding, foraging, and movement due to the proximity of urban development and short-term construction activities; (3) potential degradation of water quality in San Francisquito Creek due to urban stormwater runoff; (4) localized alteration in channel velocities in areas where the existing channel is narrowed; (5) loss of native upland habitats due to land development; (6) permanent loss of prime farmlands; (7) modification of visual qualities due to urban development, bank protection, and bridges; and (8) potential disturbance to habitat for the unarmored three-spine stickleback.

(5) Gate King Project

The applicant is proposing to subdivide a 584-acre site into 60 lots and is requesting General Plan Amendments to change the land use designations in several areas of the site. The site is situated in the southern portion of Santa Clarita, within the community of Newhall. The proposal involves amending the land use designation on about 223 acres, or about 38 percent of the site. The proposed changes would eliminate the residential (RE) and commercial (CC) designations from the site, and would increase the area designated IC from 337.5 acres to about 344 acres. The area designated open space (OS) would increase from 93.2 acres to about 240 acres. The project site includes an estimated 10,680 live oaks and an additional 1,041 oaks that are either dead or have experienced severe fire damage. The proposed development would directly remove 1,000 oaks, or about 9 percent of the total number of oaks on site. Oaks to be removed include 696 coast live oaks and 304 scrub oaks. The 696 coast live oaks to be directly removed do not include 64 trees that were previously removed without City oak tree removal permits. In addition to the oaks that would be directly removed by grading, 336 oaks, or about 3 percent of the site total, could be indirectly affected by site grading and development because of their proximity to areas proposed for grading.

(6) Transit Mix Soledad Canyon Mine

Transit Mix, Inc. has proposed a new aggregate mine for a hillside at the entrance to Soledad Canyon. The surface mine would encompass about 300 acres on mostly private land. A joint EIR/EIS was prepared by the Bureau of Land Management and Los Angeles County Department of Regional Planning. The project would result in significant impacts to upland habitats.

Use of groundwater at the mine site could affect the amount of surface water at the mouth of Soledad Canyon where a population of the unarmored three-spine stickleback is present. A long-term significant impact to this species is not anticipated because the applicant has agreed to a continuous water quality and depth-monitoring program designed to detect and prevent any adverse impacts from groundwater pumping.

(7) Valencia Commerce Center

This project consists of a light industrial and commercial development over 1,500 acres on undeveloped farmlands north of State Route 126, west of Interstate 5, and immediately east and downslope of the Regional Post office. Castaic Creek traverses the site. A 404 Permit was issued for this project by the ACOE 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 Valencia Commerce Center 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; and (6) modification of visual qualities due to urban development, bank protection, and bridges.

(8) Castaic Junction Project

The 114.2 gross-acre project site is located within unincorporated Los Angeles County in the Santa Clarita Valley. The irregularly-shaped parcel is immediately south of the intersection of Henry Mayo Road and The Old Road. North of this intersection is the I-5/SR-126 interchange. The southern project boundary is defined by the Santa Clara River. The project applicant proposes to subdivide the parcel into 27 lots and to develop them with 1,377,200 square feet of light industrial building area (lots 1, 8-17, 19, 20, and 24-27), 446,600 square feet of office space (lots 2-7), and 55,700 square feet of retail space (lots 18, and 21- 23), totally 1,879,500 square feet. Under the proposed zoning of M 1-1/2 (Restricted Heavy Manufacturing), the site could be developed with any use with the exception of those listed in Section 22.32.100 of the Planning and Zoning Code, and as permitted under Section 22.32.110 et seq. of the Code; however, it is the intent of the project applicant to develop the site with light industrial, warehouse, office, and retail uses.

The Holser Fault traverses the western portion of the site. The site is within the 100-year floodplain of the Santa Clara River and a portion of it is within Significant Ecological Area (SEA) 23, which includes the Santa Clara River and the habitat for the protected unarmored three-spine stickleback.

(9) Castaic Lake Water Agency Reclaimed Water Master Plan

Castaic Lake Water Agency (CLWA) has prepared a Reclaimed Water Master Plan as part of their plan to increase the amount and reliability of the overall water supply. The project would use effluent from County Sanitation Districts of Los Angeles' two local wastewater treatment plants (Saugus and Valencia). Treated wastewater would be diverted from discharge to the river and instead, conveyed by pipelines to customers of reclaimed water such as golf courses, landscaped areas, and certain industrial uses. At this time, CLWA has approval from the Regional Board and Sanitation Districts to reclaim up to 1,700 acre-feet per year. The Master Plan indicates that up to 10,000 acre-feet per year may be feasibly reclaimed and used in the study area in the next 10 years.

Diverting effluent from the river could reduce surface flows, groundwater recharge, and habitat for the unarmored three-spine stickleback. The significance of this impact is unknown pending further environmental studies. However, it is likely that diversion from the river will only offset the past, present, and future increases in imported water use in the region that result in steadily increasing discharges of treated wastewater into the river. Hence, the effects on surface water, groundwater, and aquatic habitat may be negligible. To the extent that this conclusion is supported by future studies, no significant cumulative impact is anticipated with the proposed project.

(10) Los Angeles County Sanitation Districts' Facilities Plan

The Districts operate two wastewater treatment plants in the study area, the Saugus Plant and the Valencia Plant, which discharge about 16 million gallons a day of tertiary treated water into the Santa Clara River where it supports riparian vegetation and the unarmored three-spine stickleback. The Districts issued a Notice of Preparation in August 1996 for a Facilities Plan EIR. The plan will address the overall wastewater conveyance, treatment, and disposal needs of the Districts through the year 2015. The plan is expected to include specific facility improvements such as new and enlarged pipelines, plant expansion, modified operations, new treatment methods, and physical improvements to the two plants. The plan could be considered growth inducing, instead of a reaction to proposed development. The plan will not specifically address reclaimed water projects. The plan is being prepared due to the increasing amount of wastewater being produced in the region as the urban population increases.

The proposed facilities plan is not expected to result in any significant impacts beyond localized and temporary impacts due to physical improvements to the systems. Hence, the potential for significant cumulative impacts with the proposed project is considered very low.

(11) North Valencia II Specific Plan

This approved project entails the annexation of 596.2 acres of land and the entitlement to develop the undeveloped portion of the annexation area (391.2 acres). Approximately 205 acres of this area is already developed with commercial and industrial uses. The remaining portions of the Newhall Ranch Specific Plan area are presently under development. The project approvals allow the developer to construct 1,900 dwelling units (1,400 single-family detached, 500 multi-family attached), 210,000 square feet of commercial/retail uses, a 15.9-acre community park, 20-acre school site, 4.1 acres of private neighborhood parks, 93.4 acres of natural open space and over 9 miles of trails and paseos. The 596.2-acre project includes approximately 391.2 acres of Specific Plan area and 205 acres of existing industrial and commercial development in the Valencia Industrial Center. The Significant Ecological Area in the project area is the San Francisquito Creek. The General Plan states that, "…[t]his area was designated as an SEA primarily because of the threat of loss of suitable habitat for the unarmored three-spine stickleback (*Gasterosteus aculeatus williamsoni)*, a federally and state listed endangered species."

The project is a diverse and balanced mix of land uses ranging from commercial retail to high density multi-family and low to medium density single-family residential uses. These uses provide land uses which support the local vicinity and region (e.g., new housing would be provided to support existing and new employment opportunities expected to occur in the Santa Clarita Valley); commercial land uses which provide services for new residents; neighborhood parks and a school site to provide local recreational and educational support for new and existing residents. The trail system will serve the recreational needs of both a local and regional area. The creek area on the site is devoted to conservation (approximately 93.4 acres of the 596.2-acre site). This area, termed the San Francisquito Creek Conservation Area, is intended to respond to the City's desire to maintain the creek and SEA as an area devoted to the protection and preservation of important biological resources. Nevertheless, impacts on riparian resources and the riparian ecosystem and impacts on SEA 19 are considered cumulatively significant. Also, human and domestic animal use of riparian and upland habitat areas is expected to continue to occur as a result of project implementation and; therefore, will remain cumulatively significant.

(12) Curtis Sand and Gravel Mine Expansion

The Curtis Sand and Gravel Mine occur near Lang, about 10 miles upstream of the study area. It encompasses about 185 acres and about 1.5 miles of the Santa Clara River. Sand and gravel have been extracted from uplands and the riverbed for many decades. The ACOE is currently evaluating a 404 Permit application to continue skimming riverbed sediments at the mine site, at an average annual rate of about 200,000 tons. Mining will remove riparian vegetation in the riverbed. Hydrologic studies by the applicant have indicated that no adverse hydrologic impacts would occur downstream of the mine site.

Proposed mining operations could cause localized impacts to hydrologic conditions, water quality, and riparian habitat. However, no cumulative impacts with the proposed 404 Permit are anticipated due to the great distance between the two projects. Nevertheless, from a regional viewpoint, both projects would contribute to the reduction in riparian habitats along the river.

(13) Santa Clara River Enhancement and Management Plan

In 1994, a multi-agency committee formally initiated the Santa Clara River Enhancement and Management Plan. The committee consists of various parties and "stakeholders" along the river, including federal, state, and local agencies; water districts; farmers; property owners; and environmental organizations. The plan is designed to provide information on the land use, governmental, and resource conflicts along the river and its 500-year floodplain, extending from near Acton to the Pacific Ocean. The plan may eventually contain guidelines and approaches to resolving such conflicts that would be presented to the decision-making bodies of the counties and municipalities along the river for consideration. The overall objective of the plan is to resolve such conflicts in order to streamline permitting, reduce regulatory burdens, provide an overall resource management data base and analytic framework and resolve traditional conflicts between land use and resource protection.

(14) North Valencia Specific Plan No. I (Industrial Park)

While a majority of the North Valencia Specific Plan is already constructed, a relatively small portion remains to be built. The remaining portion of the project would result in the construction of 167,000 square feet of industrial/business park on 7.7 acres. The Business Park designation is intended for industrial type uses per the North Valencia No. I Annexation Specific Plan. These uses will allow general industrial, research and development, limited retail/commercial, warehousing and office use related to these uses. Primary access to the site is through Avenue Tibbitts, Anza Drive, and Avenue Hopkins.

(15) Bouquet Canyon Bridge Widening

This project would result in the widening of the Bouquet Canyon Road Bridge over the Santa Clara River to eight lanes, which would add one lane in each direction. The project consists of design and construction of roadway improvements, including the median, the relocation of a 36-inch effluent line on the south side of the bridge, the relocation of three sewer siphons on the east side of the bridge, a bike lane undercrossing on the north end of the bridge and a bike ramp from the bridge to the bike lane undercrossing on the north end of the bridge. Impacts associated with the project include hydrological and biological impacts associated with construction activities.

(16) Fair Oaks Ranch

The Fair Oaks project (Tentative Tract Map 52833) involves the construction of 1,033 residential units on 602 acres just outside the eastern boundary of the City of Santa Clarita. Phase II of the Fair Oaks Ranch development involves the construction of 738 single-family homes, 336 multi-family dwellings, 153 luxury apartments, a 6-acre public park, and dedication of 321 acres of open space just outside the eastern boundary of the City of Santa Clarita. Traffic/transportation, air quality and biological resource impacts could occur with project implementation.

(17) Tick Canyon

This project is proposed to occur at the northern terminus of Shadow Pines Boulevard, outside of the present City limits. It is proposed to consist of 492 single-family units and a 34-acre park site on 500 acres. Traffic/transportation, geological, air quality and biological resource impacts could occur with project implementation.

(18) Bee Canyon

The Bee Canyon project is proposed on a 211-acre parcel of land located between the Transit Mix project indicated above and State Route 14, easterly of Soledad Canyon Road. The applicant is requesting 556 single-family modular units, and the project would require the lengthy extension of public utilities. Traffic/transportation, geological, air quality and biological resource impacts could occur with project implementation.

(19) Tract 42670

This project consists of a mixed commercial/industrial project to be located along Golden Valley Road in the center of the City of Santa Clarita. The 220-acre site would be developed with up to six million square feet of buildings. This project has been approved by the City and under construction. Transportation/access and air quality are potential impacts associated with the project.

(20) Synergy Project

This project is proposed in the City of Santa Clarita and is located at terminus of Ermine Road, adjacent to the site. The project site is 208 acres in size and the project would consist of 916 multi-family and 95 single-family dwelling units. Hydrology, transportation/access, biological resources, water quality, and air quality are expected to be potentially significant impacts.

(21) Whittaker – Bermite (Old Porta Bella Project)

Specific Plan No. 91-001, proposes a comprehensive plan for development of a 996-acre site with approximately 1,678 single-family homes and 1,560 multi-family units on 399 acres. Approximately 91 acres is planned for commercial and industrial uses, 14 acres for institutional uses, and 58 acres consisting of streets. The remaining 434 acres would be devoted to natural open space and recreational uses. Traffic/transportation, geological, air quality and biological resource impacts could occur with project implementation.

b. Summary of Project-Related Cumulative Impacts

The above analysis indicates that potentially significant cumulative impacts could occur to various environmental biological resources due to the combined impacts of the proposed project and following nearby projects: Santa Clarita Parkway extension, Tesoro del Valle, Newhall Ranch Specific Plan, West Creek, North Valencia II Specific Plan, Valencia Commerce Center, and Curtis Sand and Gravel Mine Expansion. These resources include upland habitats such as coastal sage scrub, oak trees, riparian habitat associated with Santa Clara River, wildlife movement corridors, special-status species (including unarmored three-spine stickleback, western spadefoot toad, and arroyo toad), resources within SEA 23, and increased use of sensitive riparian resources by human and domestic animals. Potentially significant cumulative impacts include loss of riparian habitat, disturbance of riparian wildlife habitat due to nearby urban development, and effects on habitat for the unarmored three-spine stickleback, least Bell's vireo, western spadefoot toad, and the arroyo toad, when present. While most of these projects include the

implementation of measures that will mitigate specific biological impacts, most will still result in a net loss of biological resources, particularly natural habitat areas.

Because of the high biological value of riparian and wetland habitats and because of the continued loss of these habitats throughout the region, the proposed Riverpark project's contribution to this loss, although relatively small, is considered a significant cumulative impact, both to the vegetation community itself, as well as to its value to the riparian ecosystem. Because of the time it takes for oak trees to reach maturity and contribute biological values equal to that currently occurring on the site, and due to continued loss of these trees in the region, the project's contribution to this loss is considered a significant cumulative impact without mitigation. Continued development in the area also cumulatively contributes to the increase of humans and domestic animals. Because of the substantial amount of disturbance to sensitive resource areas posed by this increase, the project's contribution to this increase is also considered cumulatively significant. Although the proposed project minimizes impacts to the biological resources within the SEA, the net loss of habitat within the SEA, combined with net losses of SEA habitats from other projects, effectively reduces the overall size of the SEA and is considered a significant cumulative impact.

When the potential cumulative effects of the above mentioned projects are viewed from a regional wildlife movement perspective, the major movement corridors between the Santa Clara River Valley and the Santa Susana Mountains and Los Padres/Angeles National Forest lands would still be preserved. Therefore, no significant cumulative impacts would occur with respect to regional wildlife movement.

The project would result in unavoidable significant impact to the net loss of wildlife habitat/natural open space; loss of SEA and associated riparian habitat and riverbed and impacts to adjacent upland habitat within 100 feet of the riparian source line. All other impacts (e.g., oak trees) will be mitigated to less than significant.

9. CUMULATIVE MITIGATON MEASURES

Some of these impacts on biological resources may be mitigated to levels of insignificance as individual projects are conditioned during the local land use permitting process. The proposed project would similarly mitigate impacts to some of these resources to less than significant levels. In addition, the City can impose various mitigation measures within its jurisdiction related to cumulative impacts on biology. It can require that developments in the city provide similar protections for biological resources as are set forth for this project, including setbacks or "buffer" zones between development and riparian habitat as determined by site-specific assessments of those areas, revegetation, habitat enhancements, and physical

improvements to minimize the likelihood of human and animal intrusion. Absent site-specific studies of these areas in the context of the development actually proposed, it cannot be determined whether these mitigation measures will be as effective in reducing adverse impacts in other projects as they are expected to be for the proposed project.

For developments which may occur outside the City's boundaries, which at present is the vast majority of expected buildout, mitigation measures will be under the control of the County, the ACOE, CDFG, and other agencies.

Because of the high biological value of riparian and wetland habitats and because of the continued loss of these habitats throughout the region, and because the high biological value of these areas after planting and restoration will likely not be realized for some time and never be truly replicated, impacts on riparian resources cannot be mitigated. Because the net loss of SEA habitat can't be replaced, impacts remain significant. In addition, because it is unknown whether measures to mitigate increased human and domestic animal impacts, biological resources can feasibly reduce these impacts, and because human and domestic animal use of riparian and upland habitat areas is expected to continue to occur as a result of project implementation, this impact will remain cumulatively significant.

10. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Project

The project would result in unavoidable significant impacts to individual western spadefoot toads; the net loss of wildlife habitat/natural open space; loss of SEA and associated riparian habitat and riverbed and impact to adjacent upland habitat within 100 feet of the riparian resource line.

b. Cumulative

Significant cumulative impacts that remain unavoidably significant like the proposed project, include the net loss of wildlife habitat/natural open space, loss of SEA and associated riparian habitat and riverbed and impacts to adjacent upland habitat within 100 feet of the riparian resource line, because it can be expected that proponents of other projects will similarly not be able to mitigate projects.

APPENDIX 4.6

Biological Data and Reports

compliance·biology

March 15, 2004

Mr. Glenn Adamick
Newhall Land
23823 Valencia Boulevard
Valencia, CA 91355

Subject: Results of Focused Western Spadefoot Toad Surveys on the Riverpark Project Site

Dear Mr. Adamick,

The purpose of this letter report is to provide you with the results of updated biological data collected on the approximately 695-acre Riverpark project site located in the City of Santa Clarita, Los Angeles County, California. Based on information provided by California Department of Fish and Game (CDFG) personnel and local citizens, Newhall Land requested that Compliance Biology conduct an additional survey with the specific focus of determining presence or absence of the western spadefoot (*Spea* [Scaphiopus] *hammondii*).

BACKGROUND

General reptile and amphibian surveys were conducted on the Riverpark project site in spring of 2002 in association with the preparation of an Environmental Impact Report (EIR) for the proposed project. As is typical with large scale biological evaluations, surveys were timed in mid-spring such that the greatest diversity of amphibian and reptile species could be detected. Several days were spent surveying the site and recording numerous reptile and amphibian species. At the time of these initial surveys, there were no indications of seasonal rainpools that would suggest the presence of western spadefoot. However, western spadefoot toad was still included in the table of special-status species with a potential to occur in the project area.

In spring 2003, following local citizens' claims of hearing spadefoot toad calls at a rainpool located immediately inside and north of the security gate at the current terminus of Newhall Road, two additional focused surveys for the species were conducted. These focused surveys were conducted in March 2003 and in May 2003. Both surveys were within the range of documented spadefoot toad activity.

The March 2003 survey was specifically focused on detecting the presence or absence of western spadefoot toad. There had been enough rain in the previous two weeks to leave the seasonal rainpool relatively full and temperatures were thought to be moderate enough to trigger

breeding. However, the survey by Dave Crawford of Compliance Biology, Inc. and a separate site visit by CDFG Biologist Morgan Wehtje on the same day, only revealed the presence of the common western toad (*Bufo boreas*) and Pacific chorus frog (*Hyla regilla*).

The May 2003 survey was directed by Newhall Land to ensure no special-status reptiles or amphibians were present in the western-most portion of the Riverpark project. The subject area totaled approximately 3 acres and included the seasonal rainpool surveyed in March 2003. The surveys were directed by Newhall Land to ensure special-status reptiles and amphibians - particularly western spadefoot due to the concerns in March - would not be impacted in that area, as it was scheduled for brush clearance. Brush clearance is required annually in that area as part of the County Fire Department fuel modification requirements associated with the structures situated adjacent and west of the Riverpark site (e.g. Von's). The seasonal rainpool was completely dry and there was no indication that any special-status reptiles or amphibians were present within the fuel modification area at that time.

The focused surveys conducted on March 4-6, 2004 indicate that this species is now present on the Riverpark site. It is likely that western spadefoot toads were not previously identified on the site because one or more necessary seasonal conditions were not optimal for breeding at the time of those initial surveys. The combination of required seasonal conditions such as the amount of rain, the timing of the rain, air temperature, and possibly lunar stage do not all occur at the same time every year. Some anecdotal information from other field biologists suggests that western spadefoot toads have appeared in seasonal rainpools after multiple focused annual surveys at the same location. As such, it is not unusual that western spadefoot has been detected in seasonal rainpools that had been surveyed the year before. The following discussion provides detailed information regarding the results of the most recent survey effort.

INTRODUCTION

The western spadefoot is a small toad that is currently considered by CDFG as a California Species of Special Concern. This status does not afford the species protection under the state Endangered Species Act, but impacts to the species from projects are considered when those projects are reviewed under the California Environmental Quality Act (CEQA).

Western spadefoot toad adults only enter aquatic habitats for breeding. They spend most of the year in a dormant to semi-dormant state in small mammal burrows in upland habitat adjacent to the rainpool sites. This species requires seasonal rainpools that last a minimum of four weeks as

eggs take from 1 to 6 days to hatch and metamorphosis can be completed within 3 to 11 weeks (Jennings and Hayes 1994). Breeding habitat must be seasonal such that predators including bullfrogs and predatory fish do not become established. Breeding adults typically emerge during and/or immediately following relatively warm rains in late winter to early spring. Female western spadefoot toads deposit small clusters of 10 to 42 eggs to plant stems or other debris in the pool (Jennings and Hayes 1994).

On March 4, 2004 an initial visit was conducted by Dave Crawford of Compliance Biology, Inc. at the seasonal rainpool located at the terminus of Newhall Road. As conditions for the species were optimal at that time (i.e. recent rains and relatively warm temperatures) it was expected that if spadefoot were present on the subject property, they would be evident at that time.

During that initial visit, survey methods were limited to walking the perimeter of the rainpool during daylight hours and observing. Within a few minutes, a pair of western spadefoot toads was observed in amplexus near the edge of the rainpool. Further evaluation of the rainpool revealed that there were numerous egg masses Mr. Crawford attributed to western spadefoot. Based on the findings of the initial survey, focused surveys were arranged for the entire Riverpark project site and were initiated on March 5, 2004.

METHODS

On March 5 and 6, 2004, the entire River Park project site was surveyed for the presence of suitable breeding rainpools for western spadefoot toads. Most of the flat lowland portions of the site were methodically walked and hilltops were utilized as vantage points to survey remaining areas for standing water. Additionally, all dirt roads were surveyed as western spadefoot toads are known to utilize deep road ruts that fill with rainwater (pers. observation).

Any rainpools detected were thoroughly surveyed for any evidence of western spadefoot toad adults, tadpoles or eggs. Rainpools having evidence of the presence of western spadefoot toads were mapped on a scaled topographic map.

RESULTS

A total of six seasonal rainpools were detected on the River Park site. Of those six, three (3) had evidence of western spadefoot toad (Exhibit 1). The following provides a description of each occupied rainpool and the evidence detected. Photos of each occupied rainpool are provided in **Attachment A**. Photos of an adult toad and egg masses are provided in **Attachment B**.

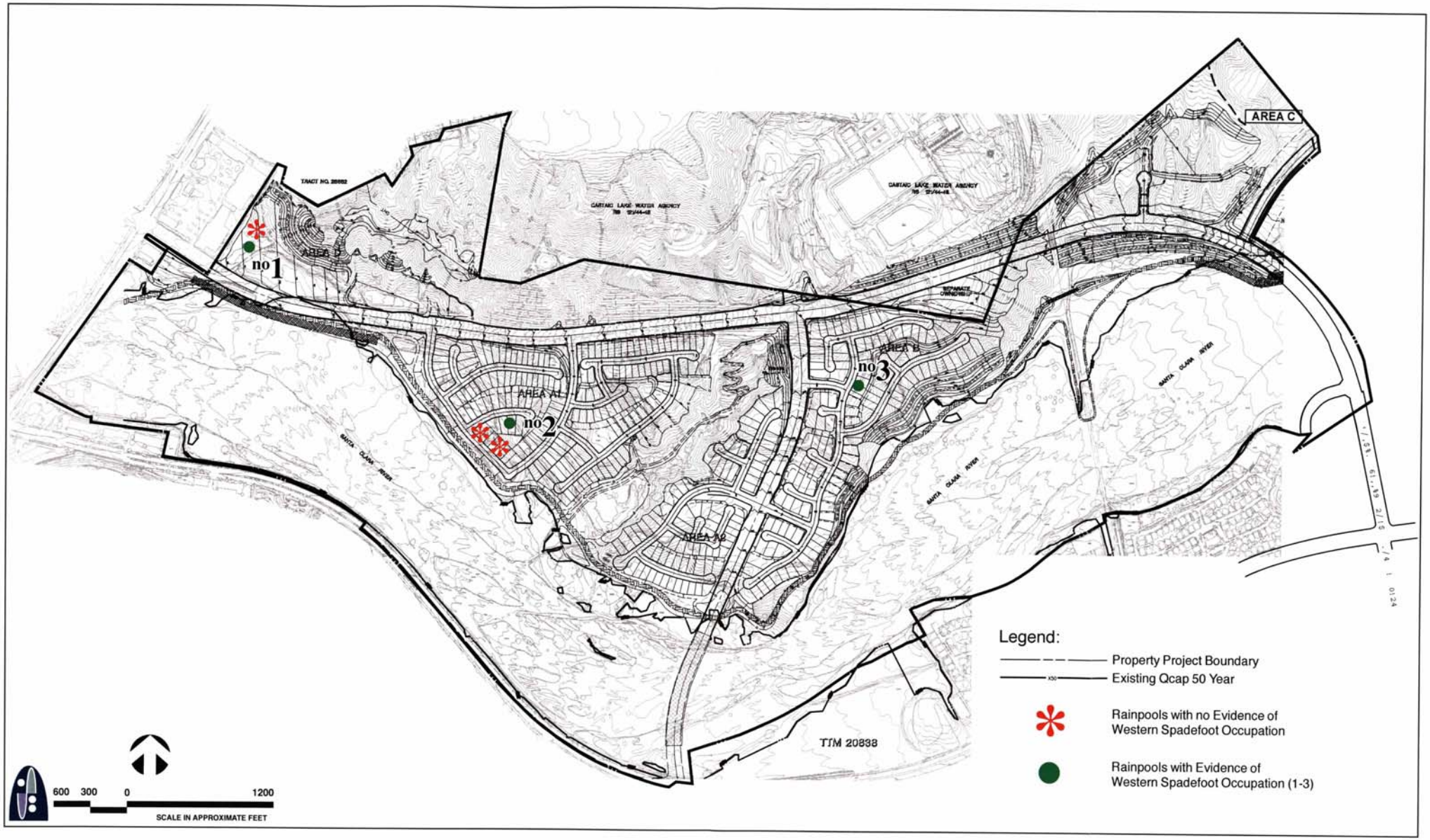

exhibit 1

SEASONAL RAINPOOLS

Occupied Rainpool 1

- Located immediately inside and north of the security gate at the terminus of Newhall Road, this seasonal rainpool was approximately 60'x30' in size and 10 inches at maximum depth. The majority of the rainpool perimeter consists of mature mule fat (*Baccharis salicifolia*) and dense mustard (*Hirschfeldia incana*). There was one opening approximately 8 feet in width with only bare soil sloping into the water.
- One pair of western spadefoot adults was observed in a state of amplexus on March 4, 2004. A single adult spadefoot toad was observed on March 5, 2004.
- Numerous egg masses (>30) were observed on submerged vegetation. The number of eggs in each mass ranged from 4 to approximately 30.

There was a range of development stages in the egg masses observed that suggests there may have been several days from the time the first and last masses were laid. The number of egg masses observed suggest several pairs of western spadefoot utilized Area 1 this season.

Occupied Rainpool 2

- A seasonal rainpool approximately 70'x30' in size and 8 inches at maximum depth was observed approximately one half mile ESE of the Newhall Road security gate, about 100 feet south of the existing dirt road. The pond is adjacent to a turn out area marked for construction equipment storage (none was present at the time of survey). Vegetation in and around the pool was sparse and limited to weedy species.
- Two small egg masses were observed on a single submerged twig. The number of eggs in both masses totaled approximately 30. Most of the eggs had already hatched and a few small tadpoles were swimming in the immediate vicinity of the egg masses. The remaining un-hatched eggs had small wriggling tadpoles in them that appeared ready to hatch.

Based on the number of eggs observed, it is possible only one pair of western spadefoot toads utilized this pond for breeding this breeding season.

Occupied Rainpool 3

- This rainpool was no more than a road rut that at the time of survey was approximately 10'x2' with a maximum depth of about 6 inches. This seasonal rainpool was located on the dirt road, in the northern central portion of the site approximately 1,200 feet due south of the Castaic water treatment facility.

- 8 to 10 egg masses were observed among the submerged annual weeds in the pool. Most of the eggs had already hatched and numerous small tadpoles were swimming throughout the pool.
- The number of individual eggs could not be determined as most had already hatched and were dissolving. However, based on the number and general size of the egg masses, it is estimated that as many as 3 or 4 pairs of spadefoot toads may have utilized this habitat for breeding this breeding season. .

CONCLUSIONS

The results of the focused surveys indicate that western spadefoot toad is present on the Riverpark project site. It is expected that all of the occupied rainpools on the site were detected because the entire Riverpark site was evaluated and because of the existing habitat conditions. As breeding took place successfully this season, it is further expected that the remaining unoccupied rainpools present on the site do not currently provide all of the elements that trigger breeding in western spadefoot toads.

As previously stated, initial site surveys for this species did not detect their presence. This non-detection is not unusual in that their presence is typically only detectable for a few weeks a year when weather conditions are ideal. Further, in some dry years western spadefoot toads may not emerge to breed at all as seasonal pools either do not fill or do not remain viable long enough for tadpoles to fully metamorphose. The timing of surveys is critical to their detection. Weather conditions must be within a very narrow range of suitability for adults to emerge and may vary from one year to the next by several months depending upon timing of rainfall. The weather conditions and timing of the surveys apparently coincided this season.

The March 2004 survey results suggest that a moderately sized population exists on the project site. The evidence detected in the three occupied rainpools on site suggests possibly 16 to 20 breeding pairs are currently present on site. The numbers of egg masses and tadpoles observed suggest that the existing population is viable. However, as all three of the occupied rainpools detected occur within the areas of proposed development, project implementation would likely result in a significant reduction of a local population.

Should the preparer of the EIR determine that project impacts would result in significant or potentially significant impacts to western spadefoot, mitigation measures would be required to

minimize the degree of impact. The following discussion provides recommended mitigation measures based on previous experience with CDFG regarding this species and development project impacts.

RECOMMENDED MITIGATION

Prior to the issuance of a grading permit for construction or site preparation activities, the applicant shall retain the services of a qualified biologist. The biologist must be approved by the California Department of Fish and Game to implement a capture and relocation program.

Suitable natural sites shall be selected on the project site outside of the development envelope, where western spadefoot toad habitat shall be created under the direct supervision of the qualified biologist. Preliminary surveys indicate there may be suitable locations in Area C. The actual relocation site design and location shall be approved by CDFG and consist of a shallow excavated pond(s) utilizing an artificial rubber pond liner as a base. The location shall be as far away as possible from any of the homes and roads to be built and shall be at least the size of the largest occupied pond observed on the site. The relocation pond(s) shall be designed such that it only supports standing water for several weeks following seasonal rains such that aquatic predators (i.e., fish, bullfrogs, crayfish, etc.) 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 possible. No site preparation or construction activities shall be permitted in the vicinity of the currently occupied ponds until the relocation habitat construction and relocation of all western spadefoot toad adult, tadpoles, and egg masses detected are moved to the relocation habitat to the satisfaction of the monitoring biologist.

Based on appropriate rainfall and temperatures, generally between the months of February and April, the biologist shall conduct a series of thorough surveys in all appropriate habitats within the development envelope. Surveys will include evaluation of all previously documented occupied areas and a cursory survey of the remaining natural areas of the site. All western spadefoot adults, tadpoles, and egg masses encountered shall be collected and released in the relocation pond(s). All relocation shall take place within the Riverpark project boundaries unless otherwise directed by CDFG.

The qualified biologist shall monitor the relocation site for a period of five years, or as otherwise directed by CDFG. Specific monitoring requirements and success criteria shall be approved by CDFG. It is expected that minimum requirements will include annual monitoring during and

immediately following peak breeding season such that surveys can be conducted for calling adults as well as for egg masses, larval and post larval toads. Further, survey data will be provided to the regulatory agencies by the monitoring biologist following each monitoring period and a written report summarizing the monitoring results will be provided to the regulatory agencies at the end of the monitoring effort. Success criteria for the monitoring program shall include verifiable evidence of toad reproduction at the relocation site.

Although there have been few attempts at relocation of western spadefoot to date, it is my professional opinion that if the relocation pools and surrounding upland habitats are properly constructed, and both eggs and tadpoles are relocated, there should be a very good possibility of success.

Please feel free to contact me if you have any questions regarding the information provided in this report.

Sincerely,

Dave Crawford
Principal Biologist

REFERENCES

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APPENDIX A
OCCUPIED RAINPOOL PHOTOGRAPHS

Occupied Rainpool 1

Occupied Rainpool 2

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Occupied Rainpool 3

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APPENDIX B
ADULT AND EGGMASS PHOTOGRAPHS

Adult western spadefoot

Adult western spadefoot

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Western spadefoot egg masses (left of center and lower left center)

Western spadefoot egg mass (lower center)

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