

4.4 BIOTA

This section replaces the prior version of Section 4.4, Biota, of the Landmark Village Draft EIR (November 2006). The section has been revised to address comments received on the Draft EIR including comments from the California Department of Fish and Game (CDFG), and to incorporate the results of additional field surveys and studies. Most of the findings with respect to impacts on special-status biological resources remain unchanged, although various significance conclusions have been re-evaluated and changed due to additional survey results and comments raised during the public review period. The primary changes made to this revised section include: (1) updating the plant communities classification to the current system used by the CDFG (CDFG 2003, updated 2007, Recirculated Draft EIR, **Appendix 4.4**); (2) incorporating the results of bird surveys conducted by Bloom Biological, Inc. (Bloom), and the identification of additional special-status bird species occurring or potentially occurring on the project site; (3) incorporating the results of recent protocol-level surveys for coastal California gnatcatcher conducted by Dudek; (4) incorporating the results of recent protocol-level surveys for arroyo toad conducted by Bloom; (5) restructuring the mitigation section to more clearly identify the previously adopted mitigation measures and the additional measures required by this EIR; (6) providing additional mitigation measures to further reduce potential impacts to wildlife during grading activities and indirect impacts associated with increased human and domestic animals presence; and (7) expanding the cumulative impact discussion to incorporate the findings of Dudek's Santa Clara River Watershed Study (Dudek 2007) and other information.

1. SUMMARY

The Landmark Village project, including the necessary off-site project components, would result in the permanent conversion of, or temporary disturbance to, 428 acres of land currently used for agricultural purposes, 53 acres of California annual grassland, 2.4 acres of coast live oak woodland, 47 acres of undifferentiated chaparral, 1.2 acres of chamise chaparral, 13 acres of mulefat scrub (including disturbed), 32 acres of southern cottonwood-willow riparian, 184 acres of coastal scrub, 3.8 acres of southern willow scrub, 15 acres of river wash, 0.5 acre of alluvial scrub, 13 acres of big sagebrush scrub alliances, 0.6 acre of southern coast live oak riparian forest, 7.0 acres of arrow weed scrub, 3.5 acre of herbaceous wetland, 11 acres of developed land, and 249 acres of disturbed land. The entire project site occupies 1,063.2 acres, including the 292.6-acre Landmark Village tract map site and an additional 770.6 acres of off-site land primarily within the boundaries of the approved Specific Plan. The project site includes 87.9 acres of riparian vegetation, including 32.1 acres of riparian woodland (southern coast live oak riparian forest and southern cottonwood-willow riparian) and 55.8 acres of other riparian vegetation communities. The project site includes 975.3 acres of upland vegetation communities and land covers, of which 778.5 acres occur outside the 100-year floodplain. The project site includes 1.4 mile of the Santa Clara River mainstem; this represents 1.6 percent of the overall Santa Clara River mainstem (86 miles). The total Landmark Village project area inclusive of

infrastructure improvements, includes approximately 5 miles of the Santa Clara River mainstem (6 percent of overall).

Consistent with the findings of the Newhall Ranch Specific Plan Program EIR, development of the proposed project would limit northern access to or conveyance from the Santa Clara River for wildlife moving through the area. However, given that the tract map site is currently used for agriculture and is frequently devoid of cover, the Landmark Village tract map site is not expected to be a substantial part of a currently functioning regional north-south wildlife movement corridor.

Further, the conceptual regional open space connectivity identified by Penrod et al. (2006, Recirculated Draft EIR, **Appendix 4.4**) that provides for landscape-scale habitat connectivity between the Santa Susana Mountains to the south and the Los Padres National Forest to the north encompasses the High Country SMA/SEA 20 and the Salt Creek area and the Santa Clara River west of Landmark Village. The High Country SMA/SEA 20 and Salt Creek area comprise an important part of the least cost path linkage design identified by Penrod et al. (2006, Recirculated Draft EIR, **Appendix 4.4**). They provide a key part of the east-west linkage that crosses I-5 and connects to the Angeles National Forest in the San Gabriel Mountains to the east and to Ventura County SOAR open space to the southwest. They also provide a significant part of the north-south linkage between the Santa Susana Mountains and the "Fillmore Greenbelt" to the northwest that further links to the Los Padres National Forest and the Angeles National Forest to the north.

In approving the Specific Plan and Conditional Use Permit No. 94-087-(5), the Board of Supervisors found that the Specific Plan contained sufficient natural vegetative cover and open space to buffer critical resources in the River Corridor SMA/SEA 23 from the development shown in the Specific Plan. The Board of Supervisors further found that the Specific Plan incorporated extensive buffer areas to protect critical resources within the Santa Clara River. The Specific Plan's adopted Resource Management Plan requires a minimum 100-foot-wide setback adjacent to the Santa Clara River between (a) the river side of the top of bank stabilization and (b) development within certain specified land use designations (including those of the Landmark Village project site). This requirement may be modified if the Planning Director, in consultation with the County staff biologist, determines that a smaller buffer would adequately protect the riparian resources within the River Corridor SMA/SEA 23, or that a 100-foot-wide setback is infeasible for physical infrastructure planning. Again, these buffer criteria are consistent with the Buffer Study (Impact Sciences 1997) and CDFG recommendations described above.

Significant impacts would occur with respect to herbaceous wetland, river wash, alluvial scrub, arrow weed scrub, big sagebrush scrub, mulefat scrub, southern willow scrub, southern cottonwood-willow riparian, southern coast live oak riparian forest, coastal scrub and alliances/associations, coast live oak woodland, wildlife habitat, special-status birds and other non-avian special-status wildlife species, special-status plant species, and protected oaks. These impacts would further affect California Department of Fish and Game (CDFG) and U.S. Army Corps of

Engineers (Corps) jurisdictional resources. Significant indirect impacts would occur as a result of increased light and glare, increased non-native plant species, and increased human and domestic animal presence.

The direct and indirect impacts associated with development and operation of the Landmark Village project either are consistent with the findings of the Newhall Ranch Specific Plan Program EIR (Impact Sciences, Inc., March 1999) and Revised Additional Analysis (Impact Sciences, Inc., May 2003) or, with the inclusion of newly proposed mitigation measures, have been reduced to a level of less than significant.

2. INTRODUCTION

a. Relationship of Project to Newhall Ranch Specific Plan Program EIR

Section 4.6 of the Newhall Ranch Specific Plan Program EIR (SCH No. 1995011015) identified and analyzed the existing conditions, potential impacts, and mitigation measures associated with biological resources for the entire Newhall Ranch Specific Plan. Subsequently, more detailed review was conducted to determine the biological effects of the Specific Plan caused by changes to the hydrology and hydraulics of the Santa Clara River. This updated study is set forth in the Newhall Ranch Revised Additional Analysis (2003), Section 2.3, Floodplain Modifications. The Revised Additional Analysis (Sections 2.2 and 2.4) also examined in greater depth the Salt Creek Corridor and Specific Plan consistency with Los Angeles County (County) General Plan policies pertaining to Significant Ecological Areas (SEA).

This project-level EIR is tiering from the previously certified Newhall Ranch Specific Plan Program EIR. This section assesses the Landmark Village project's existing conditions, the project's potential biological resource impacts, and the applicable mitigation measures from the Newhall Ranch Specific Plan Program EIR, and any additional mitigation measures recommended by this EIR for the Landmark Village project.

All subsequent project-specific development plans and tentative subdivision maps must be consistent with the Newhall Ranch Specific Plan and the County of Los Angeles General Plan and Santa Clarita Valley Area Plan.

b. Newhall Ranch Specific Plan

The approved Newhall Ranch Specific Plan guides future development of the Newhall Ranch community, located in northern Los Angeles County. The Santa Clara River and SR-126 traverse the northern portion of the Specific Plan area. The river extends approximately 5.5 miles east to west across the Specific Plan site. On May 27, 2003, the Los Angeles County Board of Supervisors approved the Specific Plan, which established the general plan, zoning designations, and development standards necessary to develop the Specific Plan site. The approved Specific Plan sets forth a comprehensive set of plans, development regulations, design guidelines, and implementation programs to develop the Specific Plan site, consistent with the goals, objectives, and policies of the Los Angeles County General Plan and

Santa Clarita Valley Area Plan, as amended by General Plan Amendment No. 94-087-(5) (approved May 27, 2003). The Specific Plan has been developed so that all subsequent development plans and subdivision maps associated with Newhall Ranch would be consistent with both the Los Angeles County General Plan and Santa Clarita Valley Area Plan. The Specific Plan also includes the Newhall Ranch WRP at the western edge of the Specific Plan area. Individual projects, such as residential, mixed-use, commercial, non-residential developments, roadways, public facilities, and amenities, would be developed over time in accordance with the approved Specific Plan. Many of these individual development projects would require work in and adjacent to the Santa Clara River and its tributaries. The first such project to be processed through the County under the approved Specific Plan is the Landmark Village project.

Environmental review for both the Specific Plan and the WRP was conducted by Los Angeles County, pursuant to CEQA. In the environmental documentation, the Specific Plan was evaluated at a "program" level, and the Newhall Ranch WRP was analyzed at a "project" level. The County's Board of Supervisors certified the adequacy of the Newhall Ranch Specific Plan Program EIR on May 27, 2003. After certification, the Board of Supervisors adopted the required resolution, findings, and conditions approving the Specific Plan, WRP, and other associated local project approvals.

As approved by the Los Angeles County Board of Supervisors on May 27, 2003, the revised Specific Plan (May 2003) authorizes a broad range of residential (and associated school sites, parks, and other facilities), mixed-use development (*e.g.*, commercial, residential, office), and non-residential development (*e.g.*, commercial, business park, visitor-serving, community facilities, including fire stations, library, WRP), and arterial roads, bridges, and other infrastructure, facilities, and amenities. As revised, the Specific Plan's total number of permitted residential dwelling units (20,885) would be constructed on approximately 2,391 acres. The Specific Plan also permits about 67 acres of commercial uses; approximately 249 acres of business park uses; 36.7 acres of High Country Special Management Area (SMA) Visitor-Serving Uses; approximately 1,010 acres of Open Area; approximately 5,180 acres of SMA/Open Space; 10 neighborhood parks; recreational lake; public trail system; golf course; fire stations; public library; electrical substation; reservation of elementary school sites, junior high school site, and a high school site; a 6.8 mgd WRP; and other associated community facilities and amenities. Buildout of the Specific Plan is projected to occur over approximately 20 years, depending upon economic and market conditions.

(1) Specific Plan's Existing Setting

The Specific Plan area is topographically diverse with slope gradients ranging from moderate to steep in the hillsides, to very gentle in the Santa Clara River floodplain and in major tributary canyons. Also, there are mesas adjacent to the Santa Clara River (*e.g.*, Grapevine Mesa and Airport Mesa). Site elevations range from 825 feet above mean sea level (AMSL) in the Santa Clara River bottom at the Ventura County/Los

Angeles County line, to approximately 3,200 feet AMSL on the ridgeline of the Santa Susana Mountains along the southern boundary. The primary ridges are east-, west-, and northwest-trending, with secondary ridges trending north and south. There are many distinctive ridges in the Specific Plan area, including Sawtooth Ridge along the northeastern side of Long Canyon, and Ayers Rock at the northern edge of Potrero Canyon.

Native and naturalized habitats within the Specific Plan area are representative of those found in this region and provide high-quality examples of those plant communities found in the Santa Susana Mountains and the Santa Clara River ecosystems. Upland habitats dominate the landscape within the Specific Plan area, both north and south of the Santa Clara River. The major upland plant communities include California sagebrush scrub, undifferentiated chaparral, coast live oak and valley oak woodlands, and California annual grassland. However, the Specific Plan site also contains valley oak/grass, mixed oak woodland, chamise chaparral, California walnut woodland, and big sagebrush scrub. The Santa Clara River supports a variety of riparian plant communities, including southern cottonwood-willow riparian forest, southern willow scrub, southern coast live oak riparian forest, mulefat scrub, elderberry scrub, arrow weed scrub, giant reed, tamarisk scrub, herbaceous wetland, bulrush/cattail wetland, cismontane alkali marsh, and coastal and valley freshwater marsh and seeps. Intermittent and ephemeral drainages on site also provide habitat for alluvial scrubs.

The riparian habitat along the Santa Clara River has been designated as critical habitat by the USFWS for the state- and federally listed endangered least Bell's vireo (*Vireo bellii pusillus*). The River also provides habitat for the state- and federally listed endangered southwestern willow flycatcher (*Empidonax traillii extimus*). The River itself supports the state- and federally listed endangered and state fully protected unarmored three-spine stickleback (*Gasterosteus aculeatus williamsoni*).

There are two SEAs within the boundary of the approved Specific Plan: (1) the High Country SMA/SEA 20, which is comprised of diverse oak woodland habitats that function as a wildlife corridor/linkage between the San Gabriel and Santa Monica Mountains; and (2) the River Corridor SMA/SEA 23, which is comprised of aquatic habitat within the Santa Clara River corridor that supports the endangered unarmored three-spine stickleback and other listed and sensitive species.

The applicant leases portions of the Specific Plan area for oil and natural gas production, as well as for cattle grazing, ranching, and agricultural operations (e.g., food crop production, dry land farming, honey farming). All such operations are currently ongoing. In addition, the applicant leases the Specific Plan site to the movie industry for set locations. A minor land use includes employee houses, an oil company office, and miscellaneous structures. There are several easements on the Specific Plan site, including oil, natural gas, electrical, telephone, and water easements. In particular, Southern California Edison and Southern California Gas Company maintain distribution lines within on-site easements.

Grazing activities and oil and natural gas production have had an effect on much of the natural habitat on site. Scrub habitats have been displaced by annual grasslands as a result of grazing and land clearing for agriculture and other historic land uses. In addition, the Specific Plan site has been fragmented by dirt and asphalt roads, graded oil well pads and pipelines, and pumping, storage, and transmission facilities. **Figure 2.0-1** depicts the existing and ongoing agricultural, grazing, and oil leasing activities within the Project area. Existing cultivated agricultural fields comprise approximately 1,965 acres; oil field leasing and other related disturbed areas comprise about 1,209 acres; and grazing areas comprise approximately 11,048 acres.

(2) Specific Plan's Approved Land Use Plan

The approved Newhall Ranch Specific Plan Land Use Plan in the vicinity of the Landmark Village project site is shown on **Figure 2.0-4**, and it provides the framework for the approved development within the Specific Plan site. The approved Land Use Plan describes the land use designations that include Residential (five types), Mixed-Use, Commercial, Business Park, Visitor-Serving, Open Area, the two River Corridor and High Country SMAs, and a Spineflower Conservation Overlay Easement area, all linked by a comprehensive system of roadways, trails and paseos. Land use overlays are included on the approved Land Use Plan to show approximate locations of public facilities such as parks, schools, library, golf course, fire stations, and the WRP. This information is summarized below. Additional information regarding the Specific Plan's approved Land Use Plan is found in both Section 2.3 of the approved Specific Plan (May 2003).

(3) High Country SMA/SEA 20 and River Corridor SMA/SEA 23

The largest land use designation of the Newhall Ranch Specific Plan Land Use Plan (**Figure 2.0-4**) is the approximate 4,205-acre High Country SMA/SEA 20. The High Country SMA/SEA 20 is located in the southern portion of the Specific Plan site and includes oak savannahs, high ridgelines, and various canyon drainages, including the Salt Creek watershed in Los Angeles County. Salt Creek is a regionally significant wildlife corridor that provides an important habitat link to the Santa Clara River. The Santa Clara River is an important east-west riparian corridor within the Specific Plan site. This corridor also serves as an important connection between the upland habitats to the north and south of the River. Specifically, large expanses of undeveloped land (*i.e.*, Salt Creek in Los Angeles County) allow for the movement of wildlife to the River and back. Salt Creek also provides wildlife movement connectivity between the River Corridor SMA/SEA 23 and the High Country SMA/SEA 20.

The Specific Plan's previously adopted Resource Management Plan requires the High Country SMA/SEA 20 to be dedicated in fee to a JPA consisting of representatives from the Los Angeles County (four members), the City of Santa Clarita (two members), and the Santa Monica Mountains Conservancy (two members). The JPA would have overall responsibility for recreation within and conservation of the High

Country SMA/SEA 20. The Center for Natural Lands Management would be responsible for resource conservation and management in the High Country SMA/SEA 20. An assessment district would be formed under the authority of the Los Angeles County Board of Supervisors to generate revenue to be distributed to the JPA for recreation, maintenance, construction, conservation, and related activities within the High Country SMA/SEA 20.

Prior to dedication in fee of the High Country SMA/SEA 20, the Specific Plan requires that a conservation and public access easement be offered to the County of Los Angeles and that a conservation and management easement be offered to the Center for Natural Lands Management. The Specific Plan also requires that the County's conservation and public access easement be consistent with any other conservation easements to state or federal resource agencies, which may have been granted as part of the mitigation actions required by state and federal permits. In addition, the conservation and public access easement is to prohibit grazing within the High Country SMA/SEA 20, except for those grazing activities associated with long-term resource management plans; and restrict recreation to the established trail system.

Pursuant to the Specific Plan, the High Country SMA/SEA 20's dedication in fee is to occur in three approximately equal phases of about 1,400 acres each, proceeding from north to south within the Specific Plan site, as follows: (a) the first offer of dedication would take place with issuance of the 2,000th residential building permit of the Specific Plan; (b) the second offer of dedication would take place with issuance of the 6,000th residential building permit; and (c) the remaining offer of dedication would be completed by the 11,000th residential building permit.

(4) Salt Creek Dedication and Management Area

As part of its approval of the Specific Plan in 2003, the Los Angeles County Board of Supervisors imposed an off-site condition requiring the applicant to dedicate to the public the approximate 1,517-acre portion of the Salt Creek watershed in Ventura County, adjacent to the western boundary of the Specific Plan site. **Figure 4.4-9** depicts the off-site Salt Creek area in relation to the Newhall Ranch Specific Plan. The applicant is required to satisfy this condition by dedicating the Salt Creek area in fee and/or by conservation easement to the JPA, which is responsible for overall recreation and conservation of the High Country SMA/SEA 20. The Salt Creek area is to be managed in conjunction with and in the same manner as the High Country SMA/SEA 20. Protection of the Salt Creek area in both Los Angeles County and Ventura County enhances the Specific Plan's compatibility with animal movement in the region.

The Specific Plan's previously approved Resource Management Plan identified the High Country SMA/SEA 20 as a primary location for mitigating impacts that would occur within the development areas of the Specific Plan. The Salt Creek area provides similar mitigation opportunities. Both the High Country SMA/SEA 20 and the Salt Creek area provide mitigation opportunities for oak resources, slender

mariposa lily, coastal sage scrub, and wetland creation, restoration, and enhancement, and other sensitive biological resources.¹

The Newhall Ranch Specific Plan will not significantly affect wildlife movement in the Salt Creek corridor. Wildlife movement within the Salt Creek watershed occurs primarily along the general direction of the drainages between the Santa Susana Mountains and the Santa Clara River Valley. These routes are used because they follow the gentlest topography and more open habitat. Wildlife movement between watersheds to the east and west are easiest at the upper and lower ends of the watersheds. At the lower ends, canyons merge in the Santa Clara River Valley and are generally flat with less steep ridges. At the upper ends of the watersheds, the ridgeline of the Santa Susana Mountains provides less steep connections to the upper reaches of the canyons and adjacent watersheds.

As part of the original approval of the Newhall Ranch Specific Plan, the Board of Supervisors established a 0.5-mile-wide buffer south of the Santa Clara River and a one-eighth of a mile buffer north of the river between all development proposed as part of the Specific Plan and the Los Angeles County/Ventura County jurisdictional line. Habitat loss in the Potrero Creek watershed would potentially cause a shift in some wildlife populations to undisturbed habitats in the Salt Creek watershed in both Los Angeles County and Ventura County. Habitat losses in the Potrero Creek watershed also would potentially affect the long-term movement of wildlife within this watershed and within the Salt Creek watershed in both Ventura County and Los Angeles County. However, no direct impacts to that portion of the Salt Creek watershed in Ventura County would occur in association with the Specific Plan because no development is proposed in the Ventura County portion of the Salt Creek corridor, and because all development proposed as part of the Specific Plan would occur no closer than 0.5 mile to Ventura County.

It also is important to understand that the Specific Plan will build out over an approximate 20-year period. Consequently, the displacement of wildlife species, primarily larger mammals, would occur incrementally over an extended period. These larger wildlife species (*e.g.*, mountain lion, deer, bobcat, and coyote) generally have home ranges that are not confined to one watershed, and would be expected to be displaced in relatively small numbers. In contrast, the smaller wildlife species will more likely suffer from direct mortality because of land development, and would not be displaced into adjacent watersheds. This time factor allows for a very gradual shift (*i.e.*, over a period of decades) of wildlife use/movement for those animals able to move a distance of more than 0.5 mile from the Specific Plan area in Los Angeles County to adjacent undeveloped areas, including the Salt Creek watershed in Ventura County. These very gradual (and temporary) increases in wildlife use/movement in the Salt Creek watershed in both Los

¹ For further information regarding mitigation opportunities for slender mariposa lily, coastal sage scrub, oak tree/woodland, and wetlands creation/restoration/enhancement within the High Country SMA/SEA 20, please refer to the Biological Resources Technical Report for the Newhall Ranch High Country Special Management Area and Salt Creek Area (Dudek, October 2006B), a copy of which is located in **Appendix 4.5** of the 2009 Draft Environmental Impact Statement/Environmental Impact Report EIS/EIR.

Angeles County and Ventura County would be easier to absorb with wildlife movement over several years (*i.e.*, the animals would have more time to adapt to the available resources or would have time to move out of the Salt Creek watershed to adjacent watersheds). Therefore, the direct impacts of habitat loss in the Specific Plan area on wildlife movement within the Salt Creek watershed, and particularly the Ventura County portion given its distance away from proposed development, is not considered significant. Nevertheless, the Board of Supervisors imposed a condition requiring the applicant to enhance and increase the effectiveness of animal movement protections within the Salt Creek wildlife corridor.

3. SUMMARY OF THE NEWHALL RANCH SPECIFIC PLAN PROGRAM EIR FINDINGS

Portions of proposed development within the Specific Plan area would occur in sensitive upland and riparian habitats. The Newhall Ranch Specific Plan Program EIR determined that implementation of the Specific Plan and Water Reclamation Plant (WRP) would result in significant impacts on biological resources.

According to the Newhall Ranch certified environmental documentation, implementation of measures contained in the Specific Plan Resource Management Plan (RMP) and those measures contained in the Newhall Ranch environmental documentation would reduce some, but not all, of the Specific Plan's impacts to special-status resources to below California Environmental Quality Act (CEQA) thresholds of significance. Specifically, direct impacts to special-status plant species and riparian plant communities would be reduced to below CEQA thresholds of significance. Based on that documentation, the Specific Plan's impacts to some special-status wildlife species and coastal scrub, overall impacts to wildlife habitat, and indirect and cumulative impacts to biological resources were considered significant. Also, despite the preservation of the major wildlife corridor along the Santa Clara River (*i.e.*, River Corridor SMA/SEA 23), the Newhall Ranch documentation found that the Specific Plan would significantly impact the ability of some animals to move across portions of the Specific Plan area. **Table 4.4-1, Significant Biological Impacts – Newhall Ranch Specific Plan Program EIR**, summarizes the Newhall Ranch Specific Plan Program EIR's findings regarding the Specific Plan's impacts on biological resources, the applicable mitigation measures, and the significance findings after the mitigation is implemented.

**Table 4.4-1
Significant Biological Impacts – Newhall Ranch Specific Plan Program EIR**

Impact Description	Mitigation Measures	Conclusion After Mitigation
General Wildlife Impacts – Based on the amount of habitat lost (5,132 acres), the impact potential of implementation of the Newhall Ranch Specific Plan on the diminishment of habitat for wildlife or plants is considered significant.	See measures listed below for impacts to sensitive animal species.	Significant
Wildlife Corridors – The impact potential of implementation of the Newhall Ranch Specific Plan on the movement of resident wildlife species is considered significant due to the reduction in open land available for wildlife movement between the river and upland areas.	See measures listed below for impacts to sensitive animal species and habitats.	Significant
Loss of Habitat – As approved, implementation of the Specific Plan would result in the loss of 1,820 of the 5,183 acres of coastal sage scrub (coastal scrub), 202 of the 1,213 acres of chaparral, and 1,480 of the 1,896 acres of non-native grassland habitat present on the site (when combined, 42 percent of these vegetation types would be lost).	See measures listed below for impacts to sensitive animal species and habitats.	Significant
It is acknowledged that any impacts to plant species listed as Rare, Threatened, or Endangered is considered a significant impact. Those include the following:		
Slender-horned spineflower (significant if present)	Mitigation Measures SP 4.6-27, SP 4.6-34, SP 4.6-35, and SP 4.6-53	Not Significant
California Orcutt grass	Mitigation Measures SP 4.6-27, SP 4.6-34, SP 4.6-35, and SP 4.6-53	Not Significant
Lyon's pentachaeta	Mitigation Measures SP 4.6-27, SP 4.6-34, SP 4.6-35, and SP 4.6-53	Not Significant
Nevin's barberry	Mitigation Measures SP 4.6-27, SP 4.6-34, SP 4.6-35, and SP 4.6-53	Not Significant
Thread-leaved brodiaea	Mitigation Measures SP 4.6-27, SP 4.6-34, SP 4.6-35, and SP 4.6-53	Not Significant
Santa Susana tarplant	Mitigation Measures SP 4.6-27, SP 4.6-34, SP 4.6-35, and SP 4.6-53	Not Significant
Braunton's milk vetch	Mitigation Measures SP 4.6-27, SP 4.6-34, SP 4.6-35, and SP 4.6-53	Not Significant
San Fernando Valley spineflower (significant in Additional Analysis)	Mitigation Measures SP 4.6-53, 59, and 65–80	Not Significant
Short-joint beavertail cactus (significant in Additional Analysis) ^a	Mitigation Measures SP 4.6-27, 34, 35, 53, and 59	Not Significant

Impact Description	Mitigation Measures	Conclusion After Mitigation
Calochortus (potentially significant in Additional Analysis depending upon actual species present)	Mitigation Measures SP 4.6-27, 34, 35, 53, and 59	Not Significant
Dudleya (potentially significant depending upon actual species present) ^a	Mitigation Measures SP 4.6-27, 34, 35, 53, and 59	Not Significant
Based on this analysis of indirect impacts to spineflower and other special-status plants, seven indirect impacts/edge effects are considered significant in connection with the proposed development of Newhall Ranch.	Mitigation Measures SP 4.6-53, SP 4.6-59, and SP 4.6-65–80	Not Significant
Project construction and operation may have potential significant impacts on a number of sensitive animal species through loss of habitat and/or decrease in water quality if impacts are unmitigated. Species include the following:		
Santa Ana sucker	Mitigation Measures SP 4.6-44, SP 4.6-53, SP 4.6-55, SP 4.6-57, and SP 4.6-58	Not Significant
Unarmored threespine stickleback	Mitigation Measures SP 4.6-53, SP 4.6-54, SP 4.6-55, SP 4.6-57, SP 4.6-58, and SP 4.6-59	Not Significant
Arroyo chub	Mitigation Measures SP 4.6-44, SP 4.6-53, SP 4.6-55, SP 4.6-57, and SP 4.6-58	Not Significant
Arroyo toad	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Not Significant
Western spadefoot	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-56, and SP 4.6-55	Not Significant
Silvery legless lizard	Mitigation Measures SP 4.6-27–SP 4.6-43, and SP 4.6-53	Significant
Southwestern pond turtle	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Not Significant
Coastal rosy boa	Mitigation Measures SP 4.6-27–SP 4.6-43, and SP 4.6-53	Significant
San Bernardino ringneck snake	Mitigation Measures SP 4.6-27–SP 4.6-43, and SP 4.6-53	Significant
Two-striped garter snake	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Not Significant

Impact Description	Mitigation Measures	Conclusion After Mitigation
Coast horned lizard	Mitigation Measures SP 4.6-27–SP 4.6-43, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Significant
Coast patch-nosed snake	Mitigation Measures SP 4.6-27–SP 4.6-43, and SP 4.6-53	Significant
Least Bell's vireo	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-56, and SP 4.6-59	Not Significant
Southwestern willow flycatcher	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-56, and SP 4.6-59	Not Significant
Northern harrier	Mitigation Measures SP 4.6-27–SP 4.6-43, and SP 4.6-53	Significant
Cooper's hawk	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Not Significant
Vermilion flycatcher	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Not Significant
Yellow warbler	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Not Significant
Summer tanager	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Not Significant
Southern California rufous-crowned sparrow	Mitigation Measures SP 4.6-27–SP 4.6-43, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Significant
Tricolored blackbird	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Significant
Great blue heron	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Not Significant
Great egret	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Not Significant
Snowy egret	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55 and SP 4.6-56	Not Significant

Impact Description	Mitigation Measures	Conclusion After Mitigation
Black-crowned night heron	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Not Significant
White-tailed kite	Mitigation Measures SP 4.6-27–SP 4.6-43, and SP 4.6-53	Significant
Mountain plover	Mitigation Measures SP 4.6-27–SP 4.6-43, and SP 4.6-53	Significant
Western least bittern	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Not Significant
Fulvous whistling duck	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Not Significant
Bell’s sage sparrow	Mitigation Measures SP 4.6-27–SP 4.6-43, and SP 4.6-53	Significant
Ferruginous hawk	Mitigation Measures SP 4.6-27–SP 4.6-43, and SP 4.6-53	Significant
Western burrowing owl	Mitigation Measures SP 4.6-27–SP 4.6-43, and SP 4.6-53	Significant
Sharp-shinned hawk	Mitigation Measures SP 4.6-27–SP 4.6-43, and SP 4.6-53	Significant
Golden eagle	Mitigation Measures SP 4.6-27–SP 4.6-43, and SP 4.6-53	Significant
Pallid bat	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Not Significant
Pocketed free-tailed bat	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Not Significant
Pale Townsend’s big-eared bat	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Not Significant
Greater western mastiff bat	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Not Significant

Impact Description	Mitigation Measures	Conclusion After Mitigation
Mountain lion	Mitigation Measures SP 4.6-27–SP 4.6-43, and SP 4.6-53	Significant
San Diego black-tailed jackrabbit	Mitigation Measures SP 4.6-27–SP 4.6-43, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Significant
San Diego desert woodrat	Mitigation Measures SP 4.6-27–SP 4.6-43, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Significant
Yuma myotis	Mitigation Measures SP 4.6-1–SP 4.6-26, SP 4.6-53, SP 4.6-55, and SP 4.6-56	Not Significant
Development of the Specific Plan would result in impacts to sensitive habitats including the following:		
Coastal scrub	Mitigation Measures SP 4.6-27–SP 4.6-43	Significant
Valley oak woodland/savanna	Mitigation Measures SP 4.6-27–SP 4.6-43	Significant
Elderberry scrub	Mitigation Measures SP 4.6-27–SP 4.6-43, and SP 4.6-60	Not Significant
Mainland cherry forest	Mitigation Measures SP 4.6-27–SP 4.6-43, and SP 4.6-61	Not Significant
Southern willow scrub	Mitigation Measures SP 4.6-1–SP 4.6-26	Not Significant
Southern cottonwood-willow riparian and southern willow riparian woodland	Mitigation Measures SP 4.6-1–SP 4.6-26	Not Significant
Coastal and valley freshwater marsh and ponds	Mitigation Measures SP 4.6-1–SP 4.6-26	Not Significant
Wetlands	Mitigation Measures SP 4.6-1–SP 4.6-26	Not Significant
SEA 20 – High Country	Mitigation Measures SP 4.6-1–26	Not Significant
SEA 23 – River Corridor	Mitigation Measures SP 4.6-26a–52	Not Significant

Impact Description	Mitigation Measures	Conclusion After Mitigation
Indirect Impacts – Implementation of the Newhall Ranch Specific Plan has the potential to indirectly impact adjacent natural areas and sensitive biological resources that occur proximal to the site. This would occur as a result of increased use of the Santa Clara River and upland areas by humans and domestic animals, increased use of adjacent natural areas by animals typical of an urban environment, and the potential effects of light, glare, sediment, and urban pollutant runoff, unless mitigated.	Mitigation Measures SP 4.6-18, SP 4.6-19 and SP 4.6-56	Significant
Cumulative Biological Impacts	None Proposed/Required	Significant

Source: Biota Report for the Newhall Ranch Specific Plan (July 1996), Newhall Ranch Specific Plan Program EIR (March 1999) and Revised Additional Analysis (May 2003).

^a It has since been confirmed that short-joint beavertail and sensitive *Dudleya taxa* do not occur on the Newhall Ranch Specific Plan site

Based on the Newhall Ranch Specific Plan Program EIR, the County's Board of Supervisors found that the Specific Plan would result in impacts (as identified in **Table 4.4-1**) that would be unavoidably significant even with implementation of all identified feasible mitigation measures. Consistent with Section 15093 of the *State CEQA Guidelines*, the Board of Supervisors found that the Specific Plan offered overriding public benefits that outweighed the identified significant unavoidable impacts and made them acceptable.

4. EXISTING CONDITIONS

a. General Project Site Characteristics

The 292.6-acre Landmark Village tract map site is located on the Val Verde 7.5-minute U.S. Geological Survey (USGS) quadrangle map (**Figure 4.4-1, Project Vicinity Map**), and is in northwestern Los Angeles County, approximately 30 miles northwest of downtown Los Angeles. The site lies primarily on flat terraces above the Santa Clara River. The majority of the site is currently used for agricultural purposes and is subject to agricultural disking. Topography across the site is relatively flat, with elevations ranging from 800 feet to 960 feet above mean sea level (amsl). Habitat on the tract map site varies in quality from high biological value in riparian areas associated with the Santa Clara River channel, to highly disturbed habitat such as upland agricultural areas.

To facilitate development of the Landmark Village tract map site, several off-site, project-related components would be implemented on an additional 770.6 acres of land primarily within the boundaries of the approved Specific Plan (see **Heading 8, Proposed Project Improvements**). The Adobe Canyon borrow site south of the river is characterized by sloping hillsides and adjacent agricultural use. The

borrow site is dominated by California sagebrush-black sage, but also includes areas of undifferentiated chaparral scrubs, California annual grassland, and coast live oak woodland. Elevations on the borrow site range from approximately 920 feet (near the river) rising to 1,260 feet amsl further south. The Chiquito Canyon grading site is characterized by California annual grassland, coastal scrub, and agricultural/disturbed areas, with smaller amounts of California sagebrush-California buckwheat scrub and California sagebrush-purple sage scrub. Elevations at this off-site grading site range from approximately 970 feet near State Route 126 (SR-126) rising to 1,190 feet amsl further north.

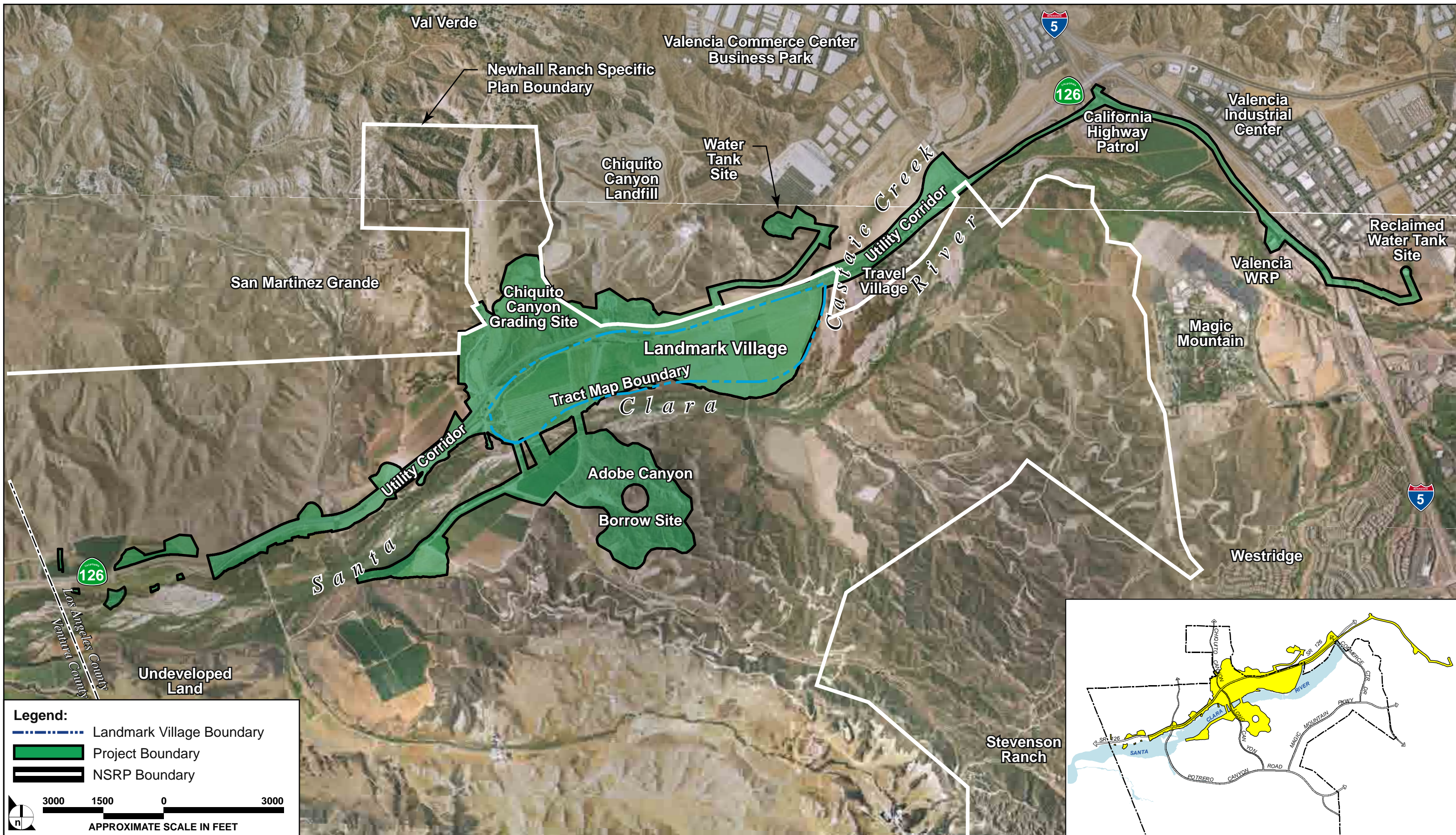
The utility corridor alignment and the water tank site in the Valencia Commerce Center represent disturbed, vacant land containing ruderal vegetation and disturbed/developed uses.

The Long Canyon Road Bridge and portions of the buried bank stabilization would be placed on land within the river corridor. Plant communities such as mulefat scrub, river wash, southern cottonwood-willow riparian, herbaceous wetland, and seasonal aquatic habitats dominate these areas. Please refer to **Subsection 6.a., Plant Communities and Land Uses**, below, for an in-depth description of the biological character of the project site and related off-site improvements.

b. Soil Characteristics

According to the Antelope Valley Area Soil Survey (Soil Conservation Service 1970), 12 soil types occur on the project site: Cortina sandy loam (0 to 2 percent), Sandy alluvial land, Metz sandy loam (0 to 2 percent), Metz sandy loam (2 to 9 percent), Mocho loam (0 to 2 percent), Hanford sandy loam (0 to 2 percent), Hanford sandy loam (2 to 9 percent), Sorrento loam (0 to 2 percent), river wash, Castaic and Saugus soils (30 to 65 percent), Yolo loam (0 to 2 percent), and Zamora loam (9 to 15 percent). These soils are discussed below in **Table 4.4-2, On-Site Soils**, and the location of the mapped soil polygons are shown in **Figure 4.4-2, Project Site Soils**.

Artificial fill has been placed on the tract map portion of the project site as a result of road construction, previous utility line placement, agricultural activities, and the abandoned Southern Pacific railroad line. Artificial fill also exists at various locations on the borrow site and the Chiquito Canyon grading site, ranging from minor spill fills to large dumped fill pads associated with oil well activities.



SOURCE: Impact Sciences, Inc. – February 2008

FIGURE 4.4-1

Project Vicinity Map

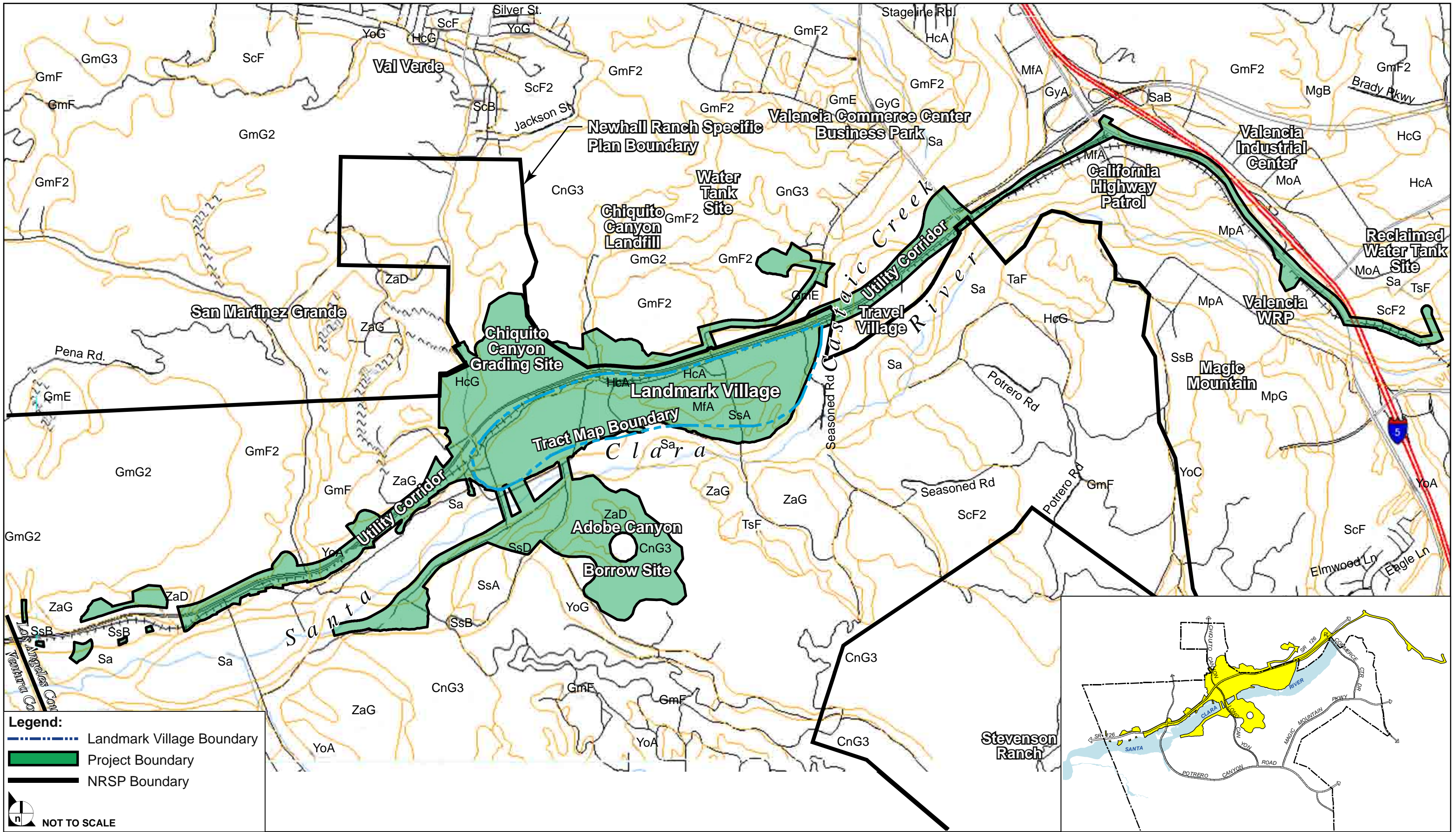


FIGURE 4.4-2

Project Site Soils

**Table 4.4-2
On-Site Soils**

Mapped Soil	Soil Characteristics (Descriptive terms are defined as standard terms in SCS soil surveys.)	Associated Project Site Plant Communities
Cortina Sandy Loam, 0 to 2 % (CYA)	<ul style="list-style-type: none"> • Runoff is very slow; and • Hazard of erosion is slight. 	Agricultural, mulefat scrub
Sandy Alluvial Land (Sa)	<ul style="list-style-type: none"> • Mostly on floodplains along the Santa Clara River and its larger tributaries; • Consists of unconsolidated alluvium; • Ranges from sand to loamy sand in texture; and • Hazard of soil blowing is moderate. 	Agricultural, mulefat scrub, southern cottonwood-willow riparian, arrow weed scrub
Metz Sandy Loam, 0 to 2% (MfA)	<ul style="list-style-type: none"> • Permeability is rapid; • Runoff is very slow; and • Hazard of erosion is slight. 	Agricultural
Metz Loamy Sand, 2 to 9% (MfC)	<ul style="list-style-type: none"> • Runoff is slow; and • Hazard of erosion is slight. 	Coastal scrub, coast live oak woodland
Mocho Loam, 0 to 2% (MpA)	<ul style="list-style-type: none"> • Moderately permeable; • Runoff is very slow; and • Hazard of erosion is none to slight. 	Agricultural, southern willow scrub
Hanford Sandy Loam, 0 to 2% (HcA)	<ul style="list-style-type: none"> • Runoff is slow; and • Hazard of erosion is slight. 	Agricultural, southern cottonwood-willow riparian, California annual grassland, southern willow scrub
Hanford Sandy Loam, 2 to 9% (HcC)	<ul style="list-style-type: none"> • Runoff is slow to medium; and • Hazard of erosion is slight to moderate. 	Agricultural, coastal scrub, big sagebrush scrub, California annual grassland
Sorrento Loam, 0 to 2% (SsA)	<ul style="list-style-type: none"> • Located on alluvial fans along the Santa Clara River and its major tributaries; • Runoff is very slow; and • Hazard of erosion is slight. 	Agricultural, cottonwood-willow riparian
River Wash (Rg)	<ul style="list-style-type: none"> • Consists of sandy material in the beds of intermittent streams; and • Hazard of soil blowing is slight to moderate. 	River wash
Castaic and Saugus Soils, 30 to 65% (CnG3)	<ul style="list-style-type: none"> • Runoff is very rapid; and • Hazard of erosion is very high. 	Coastal scrub, undifferentiated chaparral scrubs
Zamora Loam, 9 to 15% (ZaD)	<ul style="list-style-type: none"> • Runoff is medium; and • Hazard of erosion is moderate. 	Coastal scrub
Yolo Loam, 0 to 2% (YoA)	<ul style="list-style-type: none"> • Permeability is moderate; • Runoff is very slow; and • Hazard of erosion is none to slight. 	Agricultural, cottonwood-willow riparian

c. Drainage Patterns

The project site is located within the Santa Clara River basin and its watershed. The river borders the south side of the Landmark Village tract map site and flows from east to west through the Specific Plan area. The Chiquito Canyon drainage area borders the tract map site to the west, and the Castaic Creek drainage area borders the tract map site to the east; both of these drainages are tributaries of the Santa Clara River.

5. METHODS

a. Literature/Database Review

To evaluate the natural resources found or potentially occurring on the Landmark Village project site, Impact Sciences conducted literature searches and database reviews. Specifically, Impact Sciences reviewed the Biota chapter of the Newhall Ranch Specific Plan Program EIR as revised (March 1999), the Newhall Ranch Biota Report (July 1996), the Newhall Ranch Revised Additional Analysis (May 2003), Specific Plan Program EIR Section 2.2, Salt Creek Corridor; Specific Plan Program EIR Section 2.3, Floodplain Modifications; Specific Plan Program EIR Section 2.6, Spineflower and Other Sensitive Plant Species; and various technical reports documenting the biological surveys conducted on the project site and greater Newhall Ranch (**Table 4.4-3**). Impact Sciences also reviewed literature sources specific to descriptions of the common plants and animals, plant communities and special-status species occurring in the County. (See, **Section 10.0, References**). All of the technical studies, analyses, and reports. Referenced in this section are incorporated by reference, as permitted in section 15150 of the *State CEQA Guidelines*. All referenced documents are available for public inspection and review upon request to: County of Los Angeles, Department of Regional Planning, 320 West Temple Street Los Angeles, California 90012 (Samuel Dea; (213) 974-6461) or Impact Sciences, Inc., 803 Camarillo Springs Road, Suite A-1, Camarillo, California 93012 (Susan Tebo; (805) 437-1900). Additionally, many of these documents are included in the appendices to the Newhall Ranch Resource Management and Development Plan and the Spineflower Conservation Plan Draft EIS/EIR (SCH No. 2000011025), and can be obtained from the California Department of Fish and Game's Web site at <http://www.dfg.ca.gov/regions/5/newhall/docs/>.

In addition, the most recent versions of the California Natural Diversity Data Base (CNDDDB) and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants were reviewed for the USGS 7.5-minute quadrangle on which the project site is located (i.e., Val Verde) and the eight surrounding quadrangles (i.e., Newhall, Warm Springs Mountain, Whitaker Peak, Cobblestone Mountain, Piru, Simi Valley West, Simi Valley East and Oat Mountain).²

b. Field Surveys

All surveys were conducted by biologists qualified and/or permitted to conduct such surveys. The survey biologists noted their species observations on data sheets, aerial photographs, and maps. Specific information concerning any special-status species observed on-site was recorded on appropriate data sheets. All surveys were conducted in accordance with published resource agency survey protocols, where they existed, or were consistent with accepted survey methodologies for the particular species when published protocols did not exist. A summary of survey dates, surveyors, and methodologies are provided in **Table 4.4-3, Biological Surveys Conducted on and Adjacent to the Landmark Village Site and Technical Reports Incorporated into EIR**. The survey reports referenced in **Table 4.4-3**, which includes additional information on specific methods used during the course of field surveys, are included in the Landmark Village Final EIR, November 2007, Appendix A. Additionally, all surveys, data sheets, aerial photographs, and maps referenced in this section are incorporated by reference, as permitted in section 15150 of the *State CEQA Guidelines*. All referenced documents are available for public inspection and review upon request to: County of Los Angeles, Department of Regional Planning, 320 West Temple Street Los Angeles, California 90012 (Samuel Dea; (213) 974-6461) or Impact Sciences, Inc., 803 Camarillo Springs Road, Suite A-1, Camarillo, California 93012 (Susan Tebo; (805) 437-1900). Additionally, many of these documents are included in the appendices to the Newhall Ranch Resource Management and Development Plan and the Spineflower Conservation Plan Draft EIS/EIR (SCH No. 2000011025), and can be obtained from the California Department of Fish and Game's Web site at <http://www.dfg.ca.gov/regions/5/newhall/docs/>.

² The CNDDDB Map is available on the California Department of Fish and Game Web site at www.dfg.ca.gov/biogeodata/cnddb/rarefind/asp (last accessed July 22, 2009).

**Table 4.4-3
Biological Surveys Conducted on and Adjacent to the Landmark Village Site and Technical Reports Incorporated into EIR**

Taxonomic Group/Technical Report	Consultant	Survey Dates/ Season	Methods	Survey References
<i>Plant Surveys</i>	FLx	May 5–27, 2001 October 16–17, 2002 April 14–27 May 31–June 3 June 15–17, and September 13–16, 2004 April 18–28, 2005 April 24 and May 5, 2006	Focused plant surveys were conducted at various locations throughout the Newhall Ranch Specific Plan area by FLx in 2001 and 2002. The survey area included the project site (inclusive of the tract map). The 2004 surveys focused on the Santa Clara River Corridor. 2004, 2005, and 2006 surveys focused on San Fernando Valley spineflower and slender mariposa lily at the nearby Entrada site fireworks area, and 2006 surveys focused on the San Fernando Valley spineflower at the nearby Potrero Irrigation Project site. In addition, vegetation types and plant species associations were noted and their dominant species recorded. The surveys were floristic in nature and were conducted according to accepted scientific protocol.	FLx 2002A, 2002B, 2002C, 2004A, 2004B, 2005, 2006A, 2006B

Taxonomic Group/Technical Report	Consultant	Survey Dates/ Season	Methods	Survey References
	Dudek	May–August 2002 May–August 2003 April–July 2004 May–July 2005 April–August 2006 May–July, 2007; ongoing	Focused plant surveys were conducted in portions of the Newhall Ranch Specific Plan area, Salt Creek area, and the VCC and Entrada planning areas for special-status species. The survey area included portions of the Landmark Village site that provide suitable habitat for special-status plants, but did not include the portions of the tract map site currently used for agricultural activities. The surveys were floristic in nature and were conducted according to accepted scientific protocol. Survey methods varied slightly within the different study areas, but included focused surveys for the CNPS List 1 and 2 species and focused surveys for San Fernando Valley spineflower within areas identified by CDFG staff and in the remaining vegetation within the study areas.	Dudek and Associates 2002A, 2002B, 2002C, 2003, 2004A, 2004B, 2004C, 2004D, 2004E, 2004F, 2004G, 2004H, 2004I, 2006F, 2006G, 2006H, 2006I, 2006J, 2006K; Dudek 2007F, 2007G, 2007H
<i>Vegetation Community Surveys</i>	Dudek	November and December 2005 July and August 2006	Biologists conducted vegetation community mapping throughout the Specific Plan and Salt Creek areas, and the VCC and Entrada planning areas. Vegetation community and land cover classifications used in these reports primarily follow the Vegetation Classification and Mapping Program "List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database" (CDFG 2003, Recirculated Draft EIR , Appendix 4.4).	Dudek and Associates 2006B, 2006C, 2006D, 2006E

Taxonomic Group/Technical Report	Consultant	Survey Dates/ Season	Methods	Survey References
<i>Oak Tree Surveys</i>	Impact Sciences, Land Design Consultants, Richard Johnson & Associates, Inc., Dudek	2003–2006	Biologists conducted on-site surveys and evaluations of the oak trees pursuant to the Los Angeles County Oak Tree Ordinance between 2003 and 2006. The Specific Plan area was covered on foot through areas where oak trees occur within the proposed Project development area (including a 200-foot buffer). Only oak trees subject to CLAOTO were mapped. Oak trees subject to CLAOTO were also mapped within the VCC and Entrada planning areas. Tree stands (tree groupings) outside of these areas, in undisturbed or preserved areas, were delineated on aerial images and evaluated in the field via a sampling protocol and later statistically analyzed for population estimates. Oak trees were surveyed from the base of each tree.	Impact Sciences 2006B, 2006C, 2006D County of Los Angeles 1999; Land Design Consultants 2007; RJA 2007; Dudek 2007D
<i>Jurisdictional Delineation of Waters and Streambeds</i>	URS	2003	The focus of the delineation was the Santa Clara River and its tributaries within the Newhall Ranch Specific Plan area. Published Corps/CDFG delineation protocols were utilized in the field.	URS 2003
	Glenn Lukos Associates, Inc	2006	The focus of the delineation was the Santa Clara River and its tributaries within the Entrada planning area. Published Corps/CDFG delineation protocols were utilized in the field.	Glenn Lukos Associates, Inc. 2006
<i>Invertebrates (Fairy Shrimp)</i>	Dudek	December 2007–March 2008	Wet season vernal pools surveys were conducted in five previously identified depressions associated with western spadefoot surveys in the Specific Plan area, three in Potrero Canyon (Crawford 2007), one between Lion Canyon and Grapevine Mesa, and one east of Lion Canyon (Compliance Biology 2006C). Two of the five depressions retained water in 2007/2008 and were surveyed for shrimp presence.	Dudek 2008E

Taxonomic Group/Technical Report	Consultant	Survey Dates/ Season	Methods	Survey References
<i>Invertebrates (Butterflies)</i>	RECON	March 15– May 10, 1999	Focused surveys for quino checkerspot butterfly and its associated habitat were conducted. The survey area included the Specific Plan Phase 1 development area (the northern portion of the Specific Plan area, including the Santa Clara River Valley, Homestead Canyon, Off-Haul Canyon, San Martinez Grande, Mid-Martinez Grande, and Chiquito Canyon).	RECON 1999C
	Compliance Biology, Guy Bruyea	April and May 2004	The Newhall Ranch Specific Plan site and the Entrada planning area were surveyed to determine the presence or absence of San Emigdio blue butterfly, quino checkerspot butterfly, and their associated host plants. A general butterfly inventory was also conducted. Surveys were also conducted on Stevenson Ranch Phase V, adjacent to the Specific Plan area.	Compliance Biology 2004A, 2004B, 2004C, 2005
		April and May 2005	The Salt Creek Canyon Preservation area was surveyed to determine the presence or absence of San Emigdio blue butterfly, quino checkerspot butterfly, and their associated host plants. A general butterfly inventory was also conducted.	
	Dudek	June 2007	Biologists conducted a site visit to the Middle Canyon Spring as well as the lower reach of the Middle Canyon drainage to document the biotic conditions of the spring area, including the presence of the undescribed snail.	Dudek 2007C
<i>Invertebrates (General Insects)</i>	Jones et al. CSU, Fullerton	April and May 2004	An observational and sampling study of potential pollinators of the San Fernando Valley spineflower was conducted in areas occupied by the spineflower, resulting in a compilation of the insects occurring in these areas.	Jones et al. 2004

Taxonomic Group/Technical Report	Consultant	Survey Dates/ Season	Methods	Survey References
<i>Semi Aquatic Amphibians and Reptiles; Fish</i>	RECON	March 15– May 30, 1999	Surveys for arroyo toads were conducted along portions of the Santa Clara River and Castaic Creek within the Specific Plan and VCC planning areas using USFWS survey protocols.	RECON 1999A
	White and Leatherman BioServices	2000	Habitat assessment for arroyo toad habitat was conducted at Tesoro del Valle along the San Francisquito Creek, east of the Project area.	White and Leatherman BioServices 2000
	Ecological Sciences	April–June 2001	USFWS protocol surveys for arroyo toad were conducted along portions of the Santa Clara River, Castaic Creek, San Francisquito Creek, Santa Clara River South Fork, and Bouquet Creek within the Specific Plan and VCC planning areas; the Landmark Village site is within survey “Zone 3.”	Cameron 2001; Ecological Sciences, Inc. 2005A, 2005B
		April–June 2005	USFWS protocol surveys for arroyo toad were conducted along portions of the Castaic Creek and San Francisquito Creek within the Specific Plan and VCC planning areas.	Ecological Sciences, Inc. 2005A, 2005B
		March–June 2003	USFWS protocol surveys for arroyo toad were conducted along portions of the Santa Clara River, Castaic Creek, Castaic Reservoir site, San Francisquito Creek, South Fork of the Santa Clara River, and Bouquet Creek within the Specific Plan and VCC planning areas.	Ecological Sciences, Inc. 2003A, 2003B, 2003C, 2003D, 2003E, 2003F
		March–June 2004	USFWS protocol surveys for arroyo toad were conducted along portions of the Santa Clara River and the South Fork of the Santa Clara River, and Castaic Creek within the Specific Plan and VCC planning areas.	Ecological Sciences, Inc. 2004A, 2004B, 2004C, 2004D

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	Methods	Survey References
	Impact Sciences	April–June, 2001	USFWS protocol surveys for arroyo toad were conducted in portions of the Santa Clara River and adjacent uplands from near the confluence of Castaic Creek, downstream to the Los Angeles County border, within the Specific Plan and VCC planning areas. Surveys were also conducted within the Natural River Management Plan area. Surveys for southwestern pond turtle and two-striped garter snake were conducted concurrently with the arroyo toad surveys.	Impact Sciences 2001
	Sandburg, Nancy	May 8–May 29, 2001	Focused surveys for arroyo toad and California red-legged frog east of the Project area, along the Santa Clara River from the River's End vacation park to the Transit Mix Concrete Company mine. These were not conducted using USFWS survey protocols.	Sandburg 2001
	BonTerra Consulting	2003	Surveys were conducted in 35 earth-bottom channels, including some channels in the Project area for unarmored threespine stickleback and Santa Ana sucker.	BonTerra Consulting 2003
	Compliance Biology	March 19–June 25, 2004	USFWS protocol surveys for arroyo toad were conducted in portions of the Santa Clara River and adjacent uplands near the confluence of Castaic Creek, downstream to the Los Angeles County border within the Specific Plan and VCC planning areas, in areas that included the Landmark Village project site (inclusive of the tract map) reach. Surveys for southwestern pond turtle and two-striped garter snake were conducted concurrently with the arroyo toad surveys.	Compliance Biology 2004D, 2004E, 2004F, 2006B, 2006C

Taxonomic Group/Technical Report	Consultant	Survey Dates/ Season	Methods	Survey References
		March 10 and 23, 2004	Surveys for potential western spadefoot toad breeding habitat were conducted in the Mission Village area within the Specific Plan area during the known breeding season. Surveys consisted of habitat evaluations with a focus on the presence of temporary or seasonal rain pools. All flat lowland areas were surveyed for standing water, dirt roads were inspected for deep road ruts that may fill with rainwater, and temporary man made retention basins were surveyed.	
		May 9 and May 23, 2004	Surveys for potential western spadefoot toad breeding habitat were conducted in the River Village project site and associated borrow sites (now referred to as Landmark Village). Surveys consisted of habitat evaluations with focus on the presence of temporary or seasonal rain pools. All flat lowland areas were surveyed for standing water, dirt roads were inspected for deep road ruts that may fill with rainwater, and temporary man-made retention basins were surveyed.	
		May 12, 2004	Surveys for potential western spadefoot toad breeding habitat were conducted in the West Creek area near Copperhill Drive and San Francisquito Creek. Surveys consisted of habitat evaluations with focus on the presence of temporary or seasonal rain pools. All flat lowland areas were surveyed for standing water, dirt roads were inspected for deep road ruts that may fill with rainwater, and temporary man-made retention basins were surveyed.	

Taxonomic Group/Technical Report	Consultant	Survey Dates/ Season	Methods	Survey References
		February– March 2006	Surveys for potential western spadefoot toad breeding habitat were conducted in the Castaic Mesa area upstream of the VCC planning area near Castaic Lagoon. Surveys consisted of habitat evaluations with focus on the presence of temporary or seasonal rain pools. All flat lowland areas were surveyed for standing water, dirt roads were inspected for deep road ruts that may fill with rainwater, and temporary man-made retention basins were surveyed.	
	ENTRIX	March 31, April 1, November 8, 10, 2004 February 1, 2005	Reconnaissance-level (non-USFWS protocol) field surveys were conducted, focusing on arroyo toad, California red-legged frog, southwestern pond turtle, and two-striped garter snake, and identifying habitat within portions of the Santa Clara River floodplain between Castaic Creek and Chiquito Canyon Creek within the Specific Plan area. The purpose of the field surveys was to identify suitable habitat and to analyze potential effects of the Landmark Village project on these species and their habitat. Limited seining and dip netting were also conducted.	ENTRIX 2006A, 2006B
	Peter H. Bloom	April–June, 2007	USFWS protocol surveys for arroyo toad were conducted along approximately 8 miles of the Santa Clara River adjacent to the proposed Landmark Village project area. The survey area encompassed all habitats within the River channel and up to 700 meters from the River in some areas.	Bloom 2007
	San Marino Environmental Associates	May– September 1994	Surveys focused on trapping two-striped garter snake and southwestern pond turtle as part of the ARCO natural resource damage assessment.	SMEA 1994A, 1994B, 1995A

Taxonomic Group/Technical Report	Consultant	Survey Dates/ Season	Methods	Survey References
		May–July 1995	Surveys focused on documenting presence/absence and distribution of unarmored threespine stickleback, arroyo chub, Santa Ana sucker, arroyo toad, California red-legged frog, and western spadefoot toad. Surveys did not use the USFWS survey protocol. Surveys included the Santa Clara River between Castaic Creek confluence and Bouquet Canyon Road bridge within the Specific Plan, VCC, and Entrada planning areas.	
	Haglund and Baskin	June 3 and July 14, 2000	Focused surveys for unarmored threespine stickleback, arroyo chub, and Santa Ana sucker were conducted using a seine in the Santa Clara River at the I-5 Bridge.	Haglund and Baskin 2000
	Aquatic Consulting Services, Inc.	May– September 2000	Reconnaissance surveys were conducted along the Santa Clara River within the Specific Plan, Entrada, and VCC planning areas in the following areas: Castaic Junction, Commerce Center Bridge, west of Commerce Center Bridge to the Ventura County line, and Ventura County line to Las Brisas Bridge. Surveys focused on aquatic habitats with emphasis on state and federally listed species. In addition, other species of fish, amphibians, and reptiles were also surveyed.	Aquatic Consulting Services 2002A, 2002B, 2002C, 2002D
	Impact Sciences	March–June, 2002	Focused surveys were conducted for unarmored threespine stickleback and other special-status fish species in the portion of the Santa Clara River from near its confluence with Castaic Creek, east (upstream) approximately 7.2 miles. (Note: the project site is adjacent to, but not within, the survey area.)	Impact Sciences 2003A, 2003B, 2003C, 2003D
September 16 and 25, 2002		Focused surveys were conducted for unarmored threespine stickleback and other special-status fish species in the Natural River Management Plan area.		

Taxonomic Group/Technical Report	Consultant	Survey Dates/ Season	Methods	Survey References
		May 2003	Focused surveys were conducted for unarmored threespine stickleback and other special-status fish species in Castaic Mesa and Castaic Creek.	
	UCLA, Thomas Haglund, Ph.D.	1989	The report presents the results of a field and laboratory study on the occurrence of threespine stickleback in portions of the Santa Clara River on the Specific Plan site.	Haglund 1989
	ENTRIX	2004–2005	This report summarizes the focused assessment of fish presence, aquatic habitat quality and quantity, and potential project effects on threatened or endangered fish species inhabiting the Newhall Ranch reach of the Santa Clara River as well as tributary drainages to the Santa Clara River. This assessment covered the mainstem Santa Clara River from Salt Creek Canyon upstream to the Middle Canyon confluence and included the Salt Creek and Potrero Creek tributaries. Specifically, this report focused on potential impacts to the state and federally listed unarmored threespine stickleback and other fish species, including arroyo chub and Santa Ana sucker.	ENTRIX 2009
<i>Terrestrial Reptiles</i>	Impact Sciences	September–October 2004; August 2006	Pitfall trap lines were placed throughout the Specific Plan area in representative habitat types in September and October 2004 and August 2006. All pitfall traps were active (open) for five consecutive days and nights, and they were checked once per day (in the morning). All captured animals were identified and released. For surveys for silvery legless lizard, 40 hours of hand raking were conducted in the late afternoons in October 2004 in areas with sandy or loose soil within suitable habitat (scrub, chaparral, sycamore, cottonwood, and oak communities).	Impact Sciences 2006A

Taxonomic Group/Technical Report	Consultant	Survey Dates/ Season	Methods	Survey References
<i>Birds</i>	Daniel Guthrie	1988–2006; ongoing	Annual USFWS protocol surveys for least Bell's vireo and southwestern willow flycatcher were conducted along the Santa Clara River and Castaic Creek corridors within the Specific Plan, VCC, and Entrada planning areas, including the Landmark Village project site (inclusive of the tract map).	Guthrie 1988, 1989, 1990, 1991A, 1991B, 1992, 1993A, 1993B, 1994A, 1994B, 1995A, 1995B, 1996A, 1996B, 1997A, 1997B, 1998A, 1998B, 1999A, 1999B, 1999C, 2000C, 2000E, 2000G, 2001A, 2001B, 2002A, 2002C, 2003A, 2003B, 2004F, 2004H, 2005A, 2005B, 2005C, 2006A, 2006B, 2006C
	BonTerra Consulting	2003	USFWS protocol surveys were conducted in 35 earth-bottom channels for least Bell's vireo and southwestern willow flycatcher. The 1997 report is a follow up to the Labinger et al., 1996 survey and contains an additional section regarding the presence of other special-status species identified during the survey. The 1998 and 1999 reports focused on least Bell's vireo monitoring, as well as documenting other avian species. These surveys focused on impacts to the avian community and impacts to listed species, including monitoring of known least Bell's vireo population; other surveys were conducted for western yellow-billed cuckoo and southwestern willow flycatcher. Although this survey was a follow-up to the 1996 survey, the overall surveyed area was increased in order to understand the distribution of endangered species and subsequent restoration planning.	BonTerra Consulting 2003
	PCR	1998	USFWS protocol surveys for coastal California gnatcatcher surveys were conducted in upland habitats on the east and west sides of Castaic Creek (upstream of the VCC planning area).	PCR 1998

Taxonomic Group/Technical Report	Consultant	Survey Dates/ Season	Methods	Survey References
	Daniel Guthrie	2000 and 2004	USFWS protocol surveys for coastal California gnatcatcher as well as surveys for other upland birds were conducted in upland portions of the Specific Plan area.	Guthrie 2000A, 2000B, 2000D, 2000F, 2000G, 2004A, 2004B, 2004C, 2004D, 2004E, 2004G, 2004I
	Haglund and Baskin	April–July 2000	Surveys using USFWS survey protocol for least Bell's vireo and southwestern willow flycatcher were conducted along Santa Clara River at the I-5 Bridge.	Haglund and Baskin 2000
	Impact Sciences	May–June 2000	Six USFWS protocol surveys for coastal California gnatcatcher were conducted in a 156-acre portion of the Specific Plan site where California sagebrush scrub occurs.	Impact Sciences 2000
	Compliance Biology	2003	Six USFWS protocol surveys for coastal California gnatcatcher were conducted in a 2-acre area in Riverpark where California sagebrush scrub occurs, upstream of the Specific Plan site by Soledad Canyon.	Compliance Biology 2003A, 2003B
2006		Six USFWS protocol surveys for coastal California gnatcatcher were conducted in an 80-acre area in Castaic Mesa where California sagebrush scrub occurs, upstream of the VCC planning area by Castaic Lagoon.	Compliance Biology 2006A	
2008		Six USFWS protocol surveys for coastal California gnatcatcher were conducted in the VCC planning area	Compliance Biology 2008	
	SAIC	2003	Six USFWS protocol surveys for coastal California gnatcatcher were conducted on the Stevenson Ranch Phase V project site, adjacent to the Specific Plan area.	SAIC 2003
	Forde Biological Consultants	May–July 2006	USFWS protocol surveys for least Bell's vireo and southwestern willow flycatcher were conducted along Castaic Creek between Castaic Lagoon and Lake Hughes Road and Tapia Canyon Road (upstream of the VCC planning area).	Forde Biological Consultants 2006

Taxonomic Group/Technical Report	Consultant	Survey Dates/ Season	Methods	Survey References
	Bloom Biological	February– June 2007	Late winter/spring bird surveys for potentially occurring special-status avian species and all raptors (both common and special-status) were conducted on portions of the project applicant's property (including the Landmark Village project site). The survey area encompassed all habitats within the riverbed and approximately 0.5 mile on each side of the river. The survey effort included USFWS protocol surveys for least Bell's vireo and southwestern willow flycatcher, riparian bird surveys, raptor nest surveys, and winter burrowing owl surveys.	Bloom Biological 2007A
	Bloom Biological	November 2007– February 2008	Field surveys were conducted to find special-status avian species, including raptors, with special emphasis placed on surveying abandoned agricultural fields for burrowing owls and oak woodlands for long-eared owls. Survey locations were along a 10-mile reach of the Santa Clara River and on Newhall Ranch property on both sides of SR-126 as well as in lower Salt Creek, Potrero Canyon and upland habitat. Additionally, several nights were spent surveying and camping in selected oak woodlands surrounding the Landmark Village project site in an attempt to detect the presence of long-eared owls. Surveys were conducted during daylight hours as well as up to 4 hours after sunset.	Bloom Biological 2008
		November 2007– June 2008	Field surveys were conducted for white-tailed kite along the Santa Clara River from Las Brisas Bridge in Ventura County to I-5 and on all lands within Newhall Ranch, including both sides of SR-126, lower Salt Creek, and Potrero Canyon. Upon detection, foraging and nesting individuals were observed for up to several hours if possible.	Bloom Biological 2009

Taxonomic Group/Technical Report	Consultant	Survey Dates/ Season	Methods	Survey References
		April–June 2007 July 2007–January 2008	Six USFWS protocol surveys for coastal California gnatcatcher were conducted in Landmark Village. Nine USFWS protocol surveys for coastal California gnatcatcher were conducted in Mission Village.	Priest 2007B; Lemons 2008
<i>Mammals</i>	Impact Sciences	March–September, 2004; July 2006	Field surveys were conducted to sample mammal species in dominant plant vegetation communities throughout the Newhall Ranch Specific Plan area site during 2004 and 2006. Surveys were conducted within representative plant communities, including locations within the Landmark Village project site (inclusive of the tract map, Chiquito Canyon grading site, and borrow site). Five different survey methods were utilized: small mammal trapping, scent/track stations, spotlighting, cameras, and AnaBat bat detection, and mist netting. Within the Landmark Village project site boundaries, two small-mammal trapping grids and 14 scent/track sent stations were utilized, and one active AnaBat station and mist net trap were utilized immediately adjacent to the Landmark Village tract map site at the Santa Clara River crossing.	Impact Sciences 2005; Johnson 2006

Taxonomic Group/Technical Report	Consultant	Survey Dates/Season	Methods	Survey References
	Impact Sciences (continued)	March–September, 2004; July 2006 (continued)	<p>In 2004, 10 remote motion-activated cameras were in operation on the Newhall property located near Highway 126 and Castaic Creek. The cameras are located at various canyons that converge into the Santa Clara River. The cameras were checked every other week during the months of April to November, and once every three weeks between November and March.</p> <p>A total of 104-scent/track stations were distributed throughout the Newhall Ranch Specific Plan area to identify mammal species at varying elevations and within most suitable habitats. Scent/track stations were set up at dusk and checked at dawn the next morning for five consecutive days between 1 March and 30 September 2004.</p> <p>Spotlight surveys were conducted five days a week throughout the duration of the small mammal live trapping and scent/tract station surveys (summer and fall).</p> <p>The AnaBat II Bat Detector was utilized to passively and actively detect bats. A mist net trap was set across the Santa Clara River to capture and identify bats while foraging. Bat detection surveys were conducted concurrent with the small mammal trapping surveys and at scent/track station locations in the summer and fall months in 2004, and again during the month of July 2006. Mist nets were set during July 2006 as well.</p>	

Taxonomic Group/Technical Report	Consultant	Survey Dates/ Season	Methods	Survey References
	San Marino Environmental Associates	August 7–10, 2006 (bats)	Additional bat surveys were conducted within the Project area to determine occurrence of, and habitat use by, bat species. Standard visual, acoustic, and mist-netting sampling methods were used to survey bats. Sampling was conducted near roosting sites and in potential foraging areas; acoustic devices and mist nests were deployed where bats were expected to fly low or in a somewhat defined air space; and visual surveys were conducted during the day and night at potential roost sites, and at dusk while observing bats in flight.	SMEA 1995B
	San Marino Environmental Associates	May 1993–September 1994	This report provides results of a number of surveys conducted to document the presence of rare plants and animals within approximately 80 square miles of the Santa Clarita water district service area, which includes a portion of Los Angeles County Sensitive Ecological Area (SEA) 23 (also known as the River Corridor SMA/SEA 23). This document contains lists of anticipated species and indicates the species actually found during the surveys.	SMEA 1995B
<i>General Biological Surveys</i>	RECON and Impact Sciences	1995	This report provides general biological resources information derived from surveys conducted on the Specific Plan area and its vicinity during the spring and summer months. These surveys included habitat, vegetation identification, percentages and mapping; avian surveys; river surveys that included documentation of fish, reptiles, and amphibian species; plant species documentation; butterfly surveys; and other wildlife surveys that included small mammal trapping methods.	RECON and Impact Sciences 1996

Taxonomic Group/Technical Report	Consultant	Survey Dates/ Season	Methods	Survey References
	Impact Sciences	Spring 1999	This habitat assessment report was created based on the results of vegetation surveys along the Santa Clara River on the portion of the Specific Plan site. Data were collected based on structure and composition of habitat and were used to assess the likelihood or potential for occurrence of special-status species that may occur on this portion of the river. In addition, during this study the potential for mitigation through habitat creation or enhancement of riparian habitat was also assessed.	RECON 1999B
	Impact Sciences	1996	This report provides results from a number of surveys conducted at four sites, two of which were located within the Specific Plan area. The focus of these surveys was to study the relation between upland habitat quality and use by riparian bird species and small mammals along the edge of the Santa Clara River in order to make habitat buffer recommendations.	Impact Sciences 1997
	Dudek	November and December 2005	Biologists conducted general wildlife surveys throughout the High Country SMA/SEA 20 portion of the Specific Plan and Salt Creek areas in 2005 and within the VCC and Entrada planning areas in 2006.	Dudek and Associates 2006B, 2006C, 2006D, 2006E
	Compliance Biology	September 2006	This report was conducted upstream of the VCC planning area in Castaic Mesa. The purpose was to assess the existing on-site biological conditions and the suitability of on-site habitats to support sensitive biological resources.	Compliance Biology 2006D

Table 4.4-4
Existing Vegetation Communities, Floristic Alliances, and Associations and Land Cover Types
in the Project Area

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	Acreage
Grass and Herb Dominated Communities	Non-Native Grassland	California annual grassland	Not mapped to association level	52.7
	Coastal Scrub	California sagebrush scrub	Not mapped to association level	80.7
			California sagebrush - Artemesia	0.4
			California sagebrush-purple sage	8.5
			California sagebrush-black sage scrub	6.0
			California sagebrush-California buckwheat scrub	26.1
			California sagebrush scrub-undifferentiated chaparral	61.8
			Undifferentiated Chaparral Scrubs	Not mapped to alliance level
	Chaparral with Chamise	Chamise chaparral	Not mapped to association level	1.2
	Broad Leafed Upland Tree Dominated	Oak Woodland and Forest	Coast live oak forest and woodland	Coast live oak woodland
Riparian and Bottomland Habitat	Other Riparian/Wetland	Herbaceous wetland	Not mapped to association level	3.5
		River wash	Not mapped to association level	15.2
		Alluvial scrub	Not mapped to association level	0.5
		Big sagebrush scrub	Not mapped to association level	12.2
		Big sagebrush-California buckwheat	0.5	
	Low to High Elevation Riparian Scrub	Arrow weed scrub	Not mapped to association level	7.0

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	Acreage
		Mulefat scrub	Not mapped to association level	12.0
			Disturbed mulefat scrub	1.1
	Riparian Forest and Woodland	Southern willow scrub	Not mapped to association level	3.8
		Coast live oak forest and woodland	Southern coast live oak riparian forest	0.6
		Fremont cottonwood riparian forest and woodland	Southern cottonwood-willow riparian	31.5
Man-Made Land Cover Types		Agriculture	N/A	428.1
		Developed land	N/A	11.1
		Disturbed land	N/A	249.0
		Total		1,063.2

6. BIOLOGICAL RESOURCES

a. Plant Communities and Land Uses

A total of 21 plant communities (and alliances/associations) and three existing land use areas (active agriculture, disturbed land, and developed areas) were identified and characterized as occurring on the project site during the field investigations. These are shown in **Table 4.4-4, Existing Vegetation Communities, Floristic Alliances, and Associations and Land Cover Types in Project Area**. Sixteen of the 21 plant communities (and associated alliances/associations³) correspond with the *Vegetation Classification and Mapping Program, List of California Terrestrial Natural Communities Recognized by the*

³ Alliances are named for constant dominants or codominants in the uppermost canopy layer. When a group concept contains two layers of vegetation (e.g., tall temperate grassland with sparse broad-leaved evergreen shrubs), the alliance is named after species in the dominant stratum, while the association name includes species from the dominant and uppermost strata.

Associations are named with species from the alliance name, and have additional species that represent dominants or indicators from any layer of the vegetation. When an association has several layers, an attempt is made to include species that are dominants or indicators from at least the two most dominant layers. Indicator species are those species, other than dominants, which have been chosen to distinguish an association or alliance from others like it, or to indicate specific environmental conditions that have a controlling influence on vegetation in the community. However, the indicator species are seldom limited to controlling influence on vegetation in the community. Descriptive terms such as wetland, mesic, serpentine, etc., are used sparingly, when species composition for a type is not known well enough to provide full representation using species alone.

California Natural Diversity Database (CDFG 2003, updated 2007, Recirculated Draft EIR, **Appendix 4.4**). These 16 communities (and alliances/associations) include the following:

- California annual grassland
- southern cottonwood–willow riparian
- coast live oak woodland
- coastal scrub (including California sagebrush scrub)
- California sagebrush (California sagebrush–purple sage, California sagebrush–black sage, California sagebrush–California buckwheat scrub, California sagebrush scrub–undifferentiated chaparral)
- undifferentiated chaparral scrubs
- chamise chaparral
- arrow weed scrub
- mulefat scrub (including disturbed)
- southern willow scrub
- southern coast live oak riparian forest
- big sagebrush scrub (including big sagebrush scrub–California buckwheat)

Table 4.4-4 includes, where applicable, the vegetation communities corresponding to the CDFG (2003, updated 2007, Recirculated Draft EIR, **Appendix 4.4**) system. Three of the described communities (herbaceous wetland, river wash, and alluvial scrub) do not fit a defined CDFG plant community classification and, therefore, are defined by their dominant plant species on a site-specific basis. The plant communities and the land uses occurring on the project site are discussed below. The plant communities and land uses have been mapped on the project site as shown on **Figure 4.4-3, Plant Communities and Land Uses at the Landmark Village Project Site**. A list of all plant species observed on the project site is included in CNDDDB Map.⁴

(1) Non-Native Grassland (42.000.00)

California Annual Grassland (42.040.00). There are 52.7 acres of California annual grassland on the project site. These grasslands occur along the northwestern portion of the tract map site, and within the Adobe Canyon borrow site and the Chiquito Canyon grading site. These areas are dominated by

⁴ The CNDDDB Map is available on the California Department of Fish and Game Web site at www.dfg.ca.gov/biogeodata/cnddb/rarefind/asp (last accessed July 22, 2009).

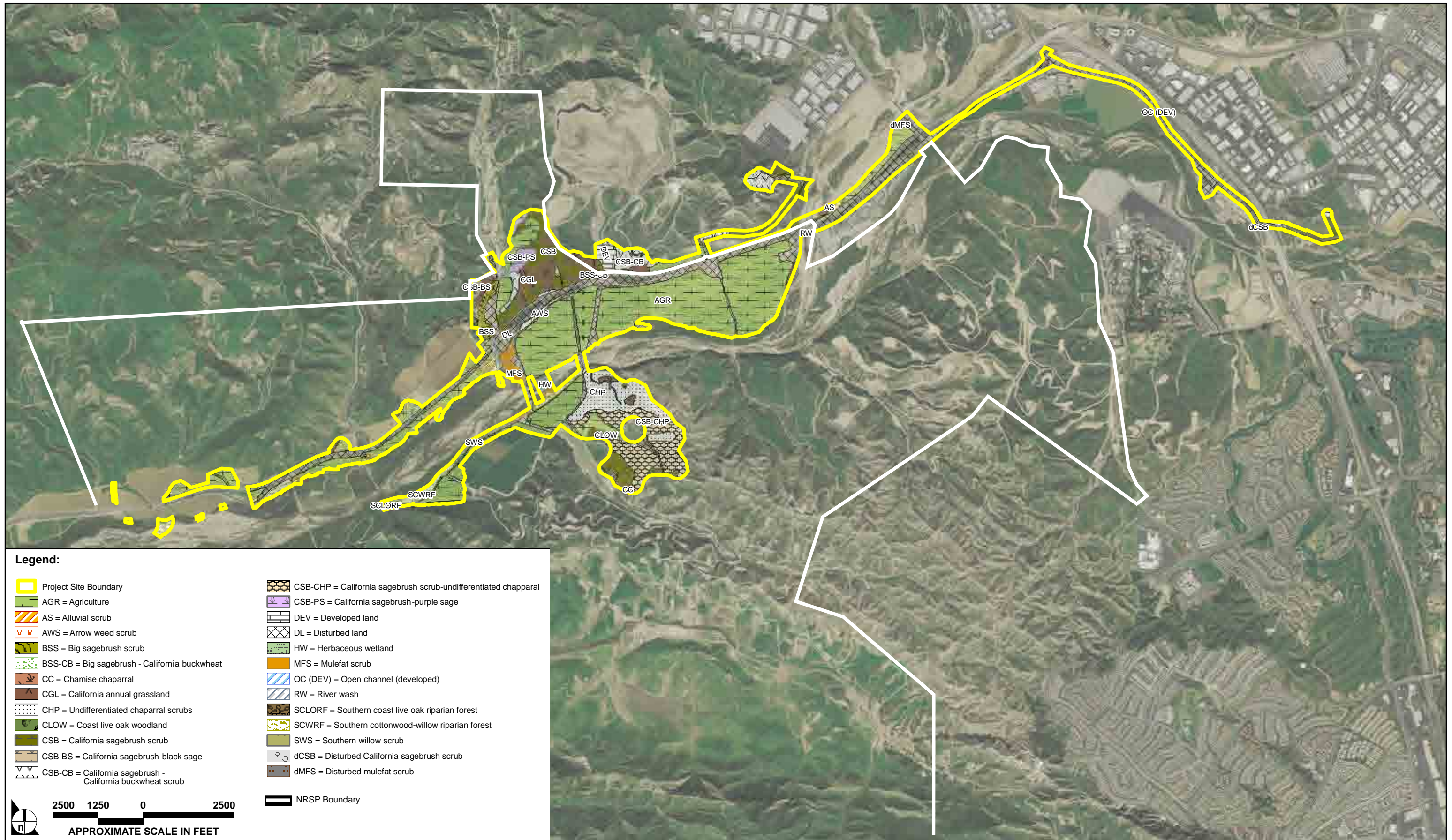
non-native grasses such as brome grasses (*Bromus diandrus*, *B. madritensis* ssp. *rubens*, *B. hordeaceus*), wild oats (*Avena fatua*, *A. barbata*) and rat-tail fescue (*Vulpia myuros* ssp. *myuros*) The areas also include herbaceous ruderal species such as red-stemmed filaree, dead nettle (*Lamium amplexicaule*), black mustard, milk thistle (*Silybum marianum*), and star-thistle (*Centaurea* spp.). Native grass species occurring in low densities (less than 10 percent) within the non-native grasslands include purple needlegrass (*Nassella pulchra*), valley needlegrass (*Nassella lepida*), one-sided bluegrass (*Poa secunda*), and few-flowered fescue (*Vulpia microstachys*).

(2) Scrub and chaparral (30.000.00)

(a) Coastal Scrub (32.000.00)

There are 183.5 acres of coastal scrub (including alliances and associations) on the project site. Of this acreage, 89.6 acres are mapped as the California sagebrush scrub alliance, including 8.9 acres of two California sagebrush scrub associations; 26.1 acres mapped as the California sagebrush–California buckwheat scrub alliance; 6.0 acres mapped as the California sagebrush-black sage association; and 61.8 acres mapped as the California sagebrush scrub–undifferentiated chaparral alliance. Coastal scrubs occur primarily on hill slopes (gentle to steep) within the Chiquito Canyon grading site and the borrow site, as well as in an isolated area in the northwest portion of the tract map site and within the utility corridor. Dominant native species found in these plant communities include California buckwheat (*Eriogonum fasciculatum* var. *foliolosum*) and California sagebrush (*Artemisia californica*). Other common plants include various sages (*Salvia leucophylla*, *S. mellifera*, *S. apiana*), deerweed (*Lotus scoparius*), California aster (*Lessingia filaginifolia* var. *filaginifolia*), California encelia (*Encelia californica*), giant wild-rye (*Leymus condensatus*), and chaparral bushmallow (*Malacothamnus fasciculatus*). The understory generally is sparse and contains native grasses, including valley needlegrass and native herbs such as wishbone bush (*Mirabilis californica*) and morning glory (*Calystegia macrostegia*).

Coastal scrub has been mapped to the alliance level, and in some cases to the association level. Each type is dominated by a particular species that characterizes the alliance/association. In some cases, the dominant plant species may be the only species that is readily apparent. These alliances and associations are listed below.



SOURCE: Impact Sciences, Inc. – December 2009

FIGURE 4.4-3

Plant Communities and Land Uses on the Landmark Village Project Site

California Sagebrush Scrub (32.010.00). There are 89.6 acres mapped as California sagebrush scrub on site. The unburned California sagebrush scrub on site includes a mixture of California sagebrush, black sage, purple sage, and California buckwheat. Other native shrubs in this community located on site include our Lord's candle (*Yucca whipplei*), Mexican elderberry (*Sambucus mexicana*), white sage, California encelia, chaparral bushmallow, giant wild-rye (*Elymus condensatus*), bush monkeyflower (*Mimulus aurantiacus*), coastal prickly-pear (*Opuntia littoralis*), and skunk bush (*Rhus trilobata*). Smaller native species that occur on site include yellow pincushion (*Chaenactis glabriuscula*), long-stem golden yarrow (*Eriophyllum confertiflorum*), common forget-me-not (*Cryptantha intermedia*), common owl's clover, deerweed, wild cucumber (*Marah macrocarpus* var. *macrocarpus*), silver puffs (*Uropappus lindleyi*), slender woolly buckwheat (*Eriogonum gracile* var. *gracile*), granny's hairnet (*Pterostegia drymarioides*), cliff malacothrix (*Malacothrix saxatilis*), and California melic (*Melica imperfecta*). Non-native species occurring on the site include red-stemmed filaree (*Erodium cicutarium*), totalote (*Centaurea melitensis*), Russian thistle (*Salsola tragus*), horehound (*Marrubium vulgare*), and tree tobacco (*Nicotiana glauca*).

(3) Grass and herb dominated communities (40.000.00)⁵

Two associations of California sage scrub alliance are also present on site: California sagebrush (32.010.01) and California sagebrush–purple sage (32.010.04). These associations were mapped in areas where California sagebrush and purple sage are the co-dominant species, although lesser amounts of the other species listed above may occur.

- California sagebrush (association of California Sagebrush Scrub, dominated only by California sagebrush) (32.010.01) – 0.4 acre
- California Sagebrush–Purple Sage (association of California Sagebrush Scrub, dominated by California sagebrush and purple sage) (32.010.04), including disturbed – 8.5 acres

California Sagebrush–Black Sage Scrub (32.120.00). There are 6.0 acres of this alliance on site, in the California Sagebrush–Black Sage association. In addition to California sagebrush and black sage, this vegetation community supports the following species on site: shrubs, such as yerba santa (*Eriodictyon crassifolium*), our Lord's candle, Great Basin sagebrush (*Artemisia tridentata*), Mexican elderberry, giant wild-rye, and California encelia; native herbaceous species, including yellow-fiddleneck (*Amsinckia menziesii*), common forget-me-not, common eucrypta (*Eucrypta chrysanthemifolia*), California chicory (*Rafinesquia californica*), wild cucumber, and southern sun cup (*Camissonia bistorta*); and non-native species such as short-podded mustard, red-stemmed filaree, and horehound.

⁵ Species identification numbers refer to California Natural Diversity Database (CNDDDB) vegetation classifications for that species.

California Sagebrush–California Buckwheat Scrub (32.110.00). There are 26.1 acres of this alliance present on site. On site, this vegetation community is dominated by California sagebrush and California buckwheat, and also supports native shrubs such as skunk bush, purple sage, Mexican elderberry, goldenbush (*Ericameria palmeri* var. *pachylepis*), and chaparral bushmallow; native wildflowers including wishbone-bush, California poppy (*Eschscholzia californica*), blue dicks (*Dichelostemma capitatum*), coast goldfields (*Lasthenia californica*), globe and angel gilia (*Gilia capitata* and *G. angelensis*); and non-native species, including red-stemmed filaree and short-podded mustard (*Hirschfeldia incana*).

California Sagebrush Scrub–Undifferentiated Chaparral (modified from 32.300.00 Coastal Sage Chaparral Scrub). There are 61.8 acres of this alliance present on site. On site, this vegetation community includes native shrubs, such as California sagebrush, skunk bush, California buckwheat, purple sage, and chaparral bushmallow; smaller native species, such as coastal lotus (*Lotus salsuginosus*), angel's gilia (*Gilia angelensis*), blue dicks, California peony (*Peonia californica*), California aster, whispering bells (*Emmenanthe penduliflora*), fascicled tarweed (*Hemizonia fasciculata*), and tansy-leaved phacelia (*Phacelia tanacetifolia*); and non-native species, including red-stemmed filaree and short-podded mustard.

Undifferentiated Chaparral Scrubs (37.000.00). There are 47.2 acres of undifferentiated chaparral scrubs. Undifferentiated chaparral scrubs occur on the steepest north-facing slopes in Long Canyon. Species found in this plant community include chamise (*Adenostoma fasciculatum*), hoary leaf ceanothus (*Ceanothus crassifolius*), black sage, toyon (*Heteromeles arbutifolia*), California buckwheat, California encelia, bush monkey flower, mountain mahogany (*Cercocarpus betuloides* var. *betuloides*), Mexican elderberry, and heart-leaved penstemon (*Keckiella cordifolia*). The understory is poorly developed due to the dense vegetation cover.

(a) Chaparral with Chamise (37.100.00)

Chamise Chaparral (37.101.00). The 1.2 acres of the mapped chamise chaparral alliance present on site is dominated by chamise and also supports the following: native shrub species, such as hoaryleaf ceanothus, skunk bush, toyon, bladder pod (*Isomeris arborea*), California buckwheat, giant wild-rye, black sage, and California encelia; smaller native plants, including California peony, California aster, wishbone-bush, common forget-me-not, globe gilia, wild cucumber, and chaparral nightshade; and non-native species, including black mustard (*Brassica nigra*) and short-podded mustard.

(4) Broad leafed and upland tree dominated (70.000.00)

Coast Live Oak Woodland (71.060.19). There are 2.4 acres of coast live oak woodland on the project site. This community occurs at the base of north-facing slopes in Chiquito Canyon and Long Canyon and is dominated by coast live oak (*Quercus agrifolia*). The understory is characterized by annual grasses, spiny

redberry (*Rhamnus crocea*), skunkbrush, Mexican elderberry, holly-leaf cherry (*Prunus ilicifolia* ssp. *ilicifolia*), wild cucumber, eucrypta, clarkias (*Clarkia* spp.), and bedstraw (*Galium* spp.).

(5) Riparian and bottomland habitat (60.000.00)

(a) Other Riparian/Wetland Communities

Herbaceous Wetland. There are 3.2 acres of herbaceous wetland on the project site. This plant community occurs within the banks of the Santa Clara River and its tributaries. Common species within herbaceous wetland include Hooker's evening primrose (*Oenothera elata*), cocklebur (*Xanthium strumarium*), immature mulefat, willows, and Fremont cottonwood seedlings and saplings. This community does not fit into a CDFG (2003, Recirculated Draft EIR, **Appendix 4.4**) defined plant community classification and was defined on site by the dominant plant species.

River Wash. There are 15.2 acres of river wash within the project boundaries. The stretch of the Santa Clara River occurring within and bordering the location of the proposed bridge and haul routes, as well as areas within Chiquito Canyon Creek, are sparsely vegetated and subject to scouring by seasonal storm flows. Soils are sandy riverwash and gravel, and in places form sand bars and low terraces within the channels. Shrub species occurring in and adjacent to the channel include mulefat, sandbar willow, tamarisk, scale-broom, sandwash groundsel (*Senecio flaccidus* var. *douglasii*), big saltbush (*Atriplex lentiformis* ssp. *lentiformis*), and big sagebrush. Smaller species growing in the riverbed include white sweetclover (*Melilotus albus*), buckwheat (*Eriogonum baileyi*), cocklebur, California croton (*Croton californicus*), California evening primrose (*Oenothera californica* ssp. *californica*), Mediterranean schismus (*Schismus barbata*), foxtail chess (*Bromus madritensis* ssp. *rubens*), and annual bur-sage (*Ambrosia acanthicarpa*).

Alluvial Scrub. There is 0.5 acre of alluvial scrub on the project site. This plant community occurs in small pockets at the base of Chiquito Canyon and within the utility corridor. This plant community is characterized as a mixture of shrubs that colonize alluvial materials within intermittent creeks, arroyos and the drier terraces within large washes. Plant species observed in this plant community include big sagebrush, scalebroom (*Lepidospartum squamatum*), Mexican elderberry, big saltbush, and skunk bush, with some areas having high densities of big sagebrush.

Big Sagebrush Scrub. As a CDFG (2003, Recirculated Draft EIR, **Appendix 4.4**) recognized alliance (35.110.00) of Great Basin Scrub, big sagebrush scrub is a widespread and characteristic shrub of the high desert and Great Basin floristic provinces, where it often occurs with pines and junipers. In the Santa Clarita area, however, it seems to occur in vegetation transitional to more typical cismontane coastal scrub. There are 12.7 acres of big sagebrush scrub and alliances on the project site. This includes 12.2 acres

of big sagebrush scrub and 0.5 acre of the alliance big sagebrush scrub-California buckwheat. Big sagebrush scrub occurs along the outer margins of the floodplains of Chiquito Creek and the Santa Clara River. On the site (and within the greater Newhall Ranch landscape), big sagebrush scrub is characterized by almost pure stands of big sagebrush, including *Artemisia tridentata* ssp. *tridentata*, *A. t.* ssp. *parishii*, and presumed hybrids of these subspecies (Dudek 2006).

(b) Low to High Elevation Riparian Scrub (63.000.00)

Arrow Weed Scrub (63.710.00). There are six stands of arrow weed scrub on the project site totaling 7.0 acres, located to the south of SR-126 (**Figure 4.4-3**). This plant community occurs in two locations in the northeast portion of the tract map site, as well as within the utility corridor. This community is characterized by a dense growth of arrow weed, but also contains scattered elderberry shrubs and annual grasses.

Mulefat Scrub (63.510.00). There are 12 acres of mulefat scrub and 1.1 acres of disturbed mulefat scrub on the project site. Several stands of this community occur in the western portion of the tract map site, adjacent to the river floodplain, and within the utility corridor in locations within the floodplain of Castaic Creek and the Santa Clara River. The dominant species in this community are mulefat and arrow weed. Tree tobacco, tamarisk, and giant reed also are common. The understory is sparse or absent, but when present can include such species as Mexican rush (*Juncus mexicanus*), salt heliotrope (*Heliotropium curassavicum*), and annual grasses.

Southern Willow Scrub (63.130.00). There are 3.8 acres of southern willow scrub vegetation on the project site. This plant community is present in locations within the floodplain of Castaic Creek and the Santa Clara River. This community is dominated by willow shrubs, but also includes mulefat and Mexican elderberry. The understory is sparse, with species such as mugwort, shrubby phacelia (*Phacelia ramosissima*), and annual grasses present.

(c) Riparian Forest and Woodland (61.000.00)

Southern Coast Live Oak Riparian Forest (71.060.20). There is 0.6 acre of Southern Coast Live Oak Riparian Forest on the project site. This plant community is present in one location toward the western end of the tract map site within the floodplain of the Santa Clara River. Southern live oak riparian forest is characterized by open to dense woodlands dominated by oak species (*Quercus* sp.), with western sycamore, scalebroom scrub, mulefat scrub, or southern willow scrub as an understory, as well as sclerophyllous shrubs such as laurel sumac, Mexican elderberry, fuschia-flowered gooseberry (*Ribes speciosum*), toyon, poison oak (*Toxicodendron diversilobum*), giant rye grass and lemonadeberry. Large grassland areas dominated by brome grasses may also be present.

Southern Cottonwood-Willow Riparian (61.130.02). There are 31.5 acres of southern cottonwood-willow riparian forest on the project site. This community occurs on low terraces above the main channel of the Santa Clara River and along Castaic Creek. It consists of tall, open, broadleaved, winter-deciduous trees, and is dominated by Fremont cottonwood (*Populus fremontii* ssp. *fremontii*) and willows (*Salix laevigata*, *S. exigua*, *S. lasiolepis*). Understory plants include mulefat (*Baccharis salicifolia*), arrow weed (*Pluchea sericea*), Mexican elderberry, mugwort (*Artemisia douglasiana*), hoary nettle (*Urtica dioica* ssp. *holosericea*), ripgut grass (*Bromus diandrus*), and alkali rye (*Leymus triticoides*). Two invasive plant species, giant reed (*Arundo donax*) and tamarisk (*Tamarix ramosissima*), are also common throughout this plant community.

(6) Man-Made Land Cover Types

Agricultural. There are 428 acres of land on the project site actively used for agricultural purposes. The majority of the tract map site is used for agricultural purposes. The agricultural fields are disked regularly.

Other Developed Land Uses. There are 11 acres of developed lands with the project area. These areas primarily include road corridors, parking lots, commercial areas along the eastern utility corridor, and various impermeable surfaces throughout the project site.

Disturbed Land. A total of 249 areas on the project site comprise disturbed land. These areas include portions of the site that are mostly void of vegetation located immediately adjacent to SR-126 and Chiquito Canyon Road but still retain permeable surfaces.

b. Common Wildlife

Discussed below are representative common wildlife species (those not provided a sensitivity status by regulatory agencies) that were observed on the project site during the field surveys. A complete list of wildlife species observed or potentially occurring on the Landmark Village project site is provided in the CNDDDB Map.⁶ Special-status wildlife species observed or potentially occurring on the project site are discussed under **Subsection 7, Sensitive Biological Resources**, below.

(1) Amphibians and Reptiles

The Santa Clara River is perennial in the vicinity of the Landmark Village site and provides habitat for amphibians. Western toad (*Bufo boreas*), Pacific chorus frog (*Pseudacris regilla*), and California chorus frog (*Pseudacris cadaverina*), all of which are common in the project area, and were observed in the portion of

⁶ The CNDDDB Map is available on the California Department of Fish and Game Web site at www.dfg.ca.gov/biogeodata/cnddb/rarefind/asp (last accessed July 22, 2009).

the river bordering the project site. Additionally, numerous tadpoles, juveniles, and adult forms of the invasive African clawed frog (*Xenopus laevis*) were observed throughout backwater areas of the Santa Clara River along and adjacent to the project site (Compliance Biology 2004). No other amphibian species have been observed or detected during the site surveys. Amphibian populations on the project site are expected to be largely restricted to the riverine and riparian habitats.

Common reptile species observed on the project site include western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), red coachwhip (*Masticophis flagellum piceus*), San Diego alligator lizard (*Elgaria multicarinata webbii*), western skink (*Eumeces skiltonianus*), San Diego gopher snake (*Pituophis catenifer annectens*), California whipsnake (*Masticophis lateralis*), common kingsnake (*Lampropeltis getulus*), Western diamondback rattlesnake (*Crotalus atrox*), and southwestern rattlesnake (*Crotalus viridis helleri*). Reptile populations on the tract map site are limited by ongoing agricultural activities. Common reptile species are expected to be more abundant within the riparian, coastal scrub, and chaparral habitats on the project site.

(2) Birds

The agricultural and scattered grassland areas on the tract map site provide foraging habitat for a number of common raptor species, including turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), and American kestrel (*Falco sparverius*). The eucalyptus trees along the northern portion of the tract map site provide nesting habitat for raptors. Other common bird species observed within the agricultural and grassland portions of the project site include American robin (*Turdus migratorius*), house finch (*Carpodacus mexicanus*), savannah sparrow (*Passerculus sandwichensis*), Brewer's blackbird (*Euphagus cyanocephalus*), house sparrow (*Passer domesticus*), northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), European starling (*Sturnus vulgaris*), and white-throated swift (*Aeronautes saxatalis*).

The riparian habitats on and bordering the project site also provide nesting and foraging habitat for numerous common bird species. Bird species observed within the riparian plant communities include bushtit (*Psaltriparus minimus*), Wilson's warbler (*Wilsonia pusilla*), orange-crowned warbler (*Vermivora celata*), black phoebe (*Sayornis nigricans*), Bewick's wren (*Thryomanes bewickii*), brown-headed cowbird (*Molothrus ater*), wrentit (*Chamaea fasciata*), and numerous other species. In addition, cliff swallow (*Petrochelidon pyrrhonota*) has been observed nesting under the SR-126/Castaic Creek Bridge.

Common bird species observed within the coastal scrub and chaparral habitats on the two off-site grading sites include California towhee (*Pipilo crissalis*), canyon wren (*Catherpes mexicanus*), rock wren

(*Salpinctes obsoletus*), western scrub-jay (*Aphelocoma californica*), California thrasher (*Toxostoma redivivum*), and hermit thrush (*Catharus guttatus*).

(3) Mammals

A variety of common mammal species occur in the vicinity of the project site. During mammal surveys conducted at the two off-site grading sites in 2004 (which included small mammal trapping for rodents), the following common species were observed or identified by tracks, scat, or other sign:

- mule deer (*Odocoileus hemionus*)
- coyote (*Canis latrans*)
- bobcat (*Lynx rufus*)
- desert cottontail (*Sylvilagus auduboni*)
- California ground squirrel (*Spermophilus beecheyi*)
- Botta's pocket gopher (*Thomomys bottae*)
- raccoon (*Procyon lotor*)
- gray fox (*Urocyon cinereoargenteus*)
- striped skunk (*Mephitis mephitis*)
- western harvest mouse (*Reithrodontomys megalotis*)
- deer mouse (*Peromyscus maniculatus*)
- dusky-footed woodrat (*Neotoma fuscipes*)
- California mouse (*Peromyscus californicus*)
- California pocket mouse (*Chaetodipus californicus*)
- California vole (*Microtus californicus*)
- Pacific kangaroo rat (*Dipodomys agilis*).

The medium to larger mammals observed on the site (i.e., mule deer, coyote, bobcat, desert cottontail, raccoon, fox, and striped skunk) do not typically rely on a specific single habitat and are presumed to utilize all of the habitat types on the project site. However, based on the results of the 2004 mammal surveys, medium to larger mammals were found to be most abundant in coastal scrub, margins of agricultural fields, riparian woodland, and grassland habitats (Impact Sciences 2005). Similarly, based on

the results of the 2004 surveys, small mammals were found to utilize all the habitat types on the project site, but were most abundant in coastal scrub, margins of agricultural fields, coast live oak woodland, and dry wash habitats.

In addition, during 2006 bat surveys, observations or vocalizations of the following common bat species were recorded in the vicinity of the Landmark Village project site: big brown bat (*Eptesicus fuscus*), California myotis (*Myotis californicus*), western pipistrelle (*Pipistrellus hesperus*), and Mexican free-tailed bat (*Tadarida brasiliensis*). (Johnson 2006.)

c. **Wildlife Habitat Linkages/Regional Open Space**

Wildlife corridors are described as pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural or human induced factors such as urbanization. The fragmentation of natural habitat creates isolated “islands” of vegetation that may not provide sufficient area or resources to accommodate sustainable populations for a number of species. Wildlife corridors: (1) allow animals to move between remaining habitats to replenish depleted populations and increase the available gene pool; (2) provide live-in habitat for some species; (3) provide escape routes from fire, predators, and human disturbances, which reduce the risk that catastrophic events (such as fire or disease) will result in population or species extinction; and (4) serve as travel paths for individual animals moving throughout their home range in search of food, water, mates, and other needs, or for dispersing juveniles in search of new home ranges.

The following discussion of wildlife movement and habitat linkages with respect to the project site and surrounding open space areas is based on extensive field visits of these areas that have occurred during varying seasons over the past decade by numerous biologists surveying and studying the Newhall Ranch Specific Plan area, particularly in association with the Newhall Ranch Specific Plan Program EIR, the Final Additional Analysis, and the related Biological Constraints Analysis (BCA) and Biota Report for the Specific Plan. It is also based on: (1) a review of available aerial photography and mapping of the Specific Plan and adjacent watersheds in both Los Angeles County and Ventura County; (2) an evaluation of habitat types and distribution associated with the Landmark Village project site and surrounding areas; (3) a review of the animal species known to use or expected to utilize these habitats; and (4) the conceptual regional wildlife habitat linkage design identified in the South Coast Missing Linkages Project (Penrod et al. 2006, Recirculated Draft EIR, **Appendix 4.4**). While numerous observations have been made over the past decade of a variety of wildlife species within and adjacent to the Specific Plan area (including the Landmark Village site), the focus of this discussion is from a watershed and habitat perspective, as the preservation of habitats within watersheds that link remaining open space areas is

critical to providing movement corridors for the variety of wildlife species that occur in the Specific Plan area, inclusive of the Landmark Village project site.

The Landmark Village project site, indeed the Newhall Ranch Specific Plan area, is part of a larger regional wildlife movement interface that exists between the Los Padres and Angeles National Forests, the Santa Clara River, and the Santa Susana Mountains (e.g., see Penrod et al. 2006, Recirculated Draft EIR, **Appendix 4.4**). This interface spans a distance of approximately 35 miles, from approximately Saticoy on the west in Ventura County to Castaic Junction on the east in Los Angeles County. The Santa Clara River forms the central east-west corridor of this interface, extending throughout the Newhall Ranch Specific Plan area and west into Ventura County. As shown on **Figure 4.4-4, Potential Wildlife Movement Corridors**, the Newhall Ranch Specific Plan site represents an approximately 2- to 5-mile-wide portion (6 to 14 percent) of this 35-mile-wide interface. The Santa Clara River flows from its origins in the San Gabriel Mountains to where it eventually empties into the Pacific Ocean approximately 50 miles to the west. The river is an important migration and genetic dispersion corridor for many wildlife species, including aquatic taxa, riparian obligate species (resident and migratory), and larger, more mobile, terrestrial animals.

Penrod et al. (2006, Recirculated Draft EIR, **Appendix 4.4**) identified regional wildlife habitat linkages that would provide for upland landscape-scale habitat connectivity between the Santa Susana Mountains to the south and the Los Padres National Forest to the north (**Figure 4.4-8, South Coast Wildlands Open Space Connectivity and Linkage**, shown later in this section). These conceptual linkages encompass the High Country SMA/SEA 20 and the Salt Creek area within the Project area and the Santa Clara River west of the Project area. Penrod et al. (2006, Recirculated Draft EIR, **Appendix 4.4**) considered the High Country SMA/SEA 20 and Salt Creek area, along with regional open space conservation areas and initiatives such as "SOAR,"⁷ in recommending a linkage design that would connect the Santa Monica Mountains, San Gabriel Mountains, and the Sierra Madre Mountains. This linkage design was also based on a "least cost analysis" that quantitatively models the most efficient routes that target animals could take to travel between these open space areas.

Within the Newhall Ranch Specific Plan area, south of the Santa Clara River, several drainages, including Long Canyon, Potrero Creek, and Salt Creek, are directly connected to the Santa Clara River through their own drainage systems, providing potential wildlife movement routes between the river and the Santa Susana Mountains to the south. These drainages serve to provide habitat linkages between the High

⁷ Save Open-Space and Agricultural Resources (SOAR) is a non-profit organization that seeks to maintain agricultural, open space, and rural lands within Ventura County and surrounding regions. Development activities within the SOAR boundaries are limited by County Ordinance.

Country areas within the Newhall Ranch Specific Plan and the Santa Clara River. Other drainages, including Chiquito Canyon, San Martinez Grande, and Castaic Creek, connect the river to open space areas to the north and eventually the Angeles National Forest further north and the Los Padres National Forest to the southeast.

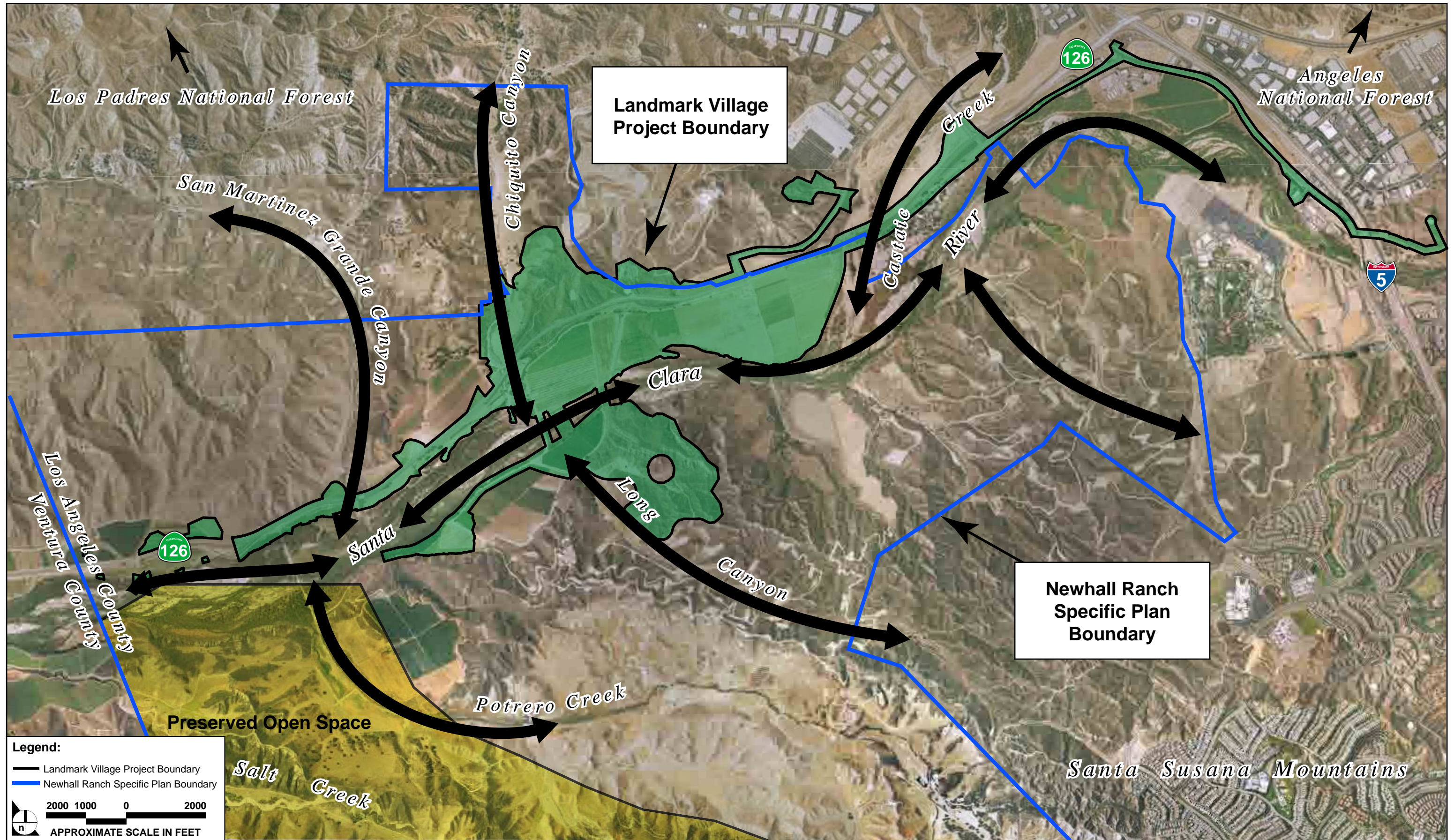
Chiquito Canyon borders the project site to the west and the Castaic Creek drainage borders the project site to the east. Both of these drainages are tributaries of the Santa Clara River and serve as suitable habitat/movement corridors for wildlife route from the river to the north towards the Angeles and Los Padres National Forests. Given the presence of a culvert underneath SR-126 (located to the north of the Chiquito Canyon-Santa Clara River confluence along the western edge of the project site), wildlife could cross under SR-126 and continue to move north through Chiquito Canyon.

As previously stated, the majority of the Landmark Village tract map site is actively used for agricultural purposes and is disked regularly. These activities, and the lack of native vegetation cover, limit the use of the main portion of the site as a movement corridor for most species of wildlife. While several species are expected to occasionally forage over and within these agricultural areas, most species, with respect to local and regional movement patterns, are expected to use Chiquito Canyon to the west and/or Castaic Creek to the east. Consequently, the Landmark Village tract map site itself is not expected to serve as a locally or regionally important wildlife movement corridor.

Finally, from a broader regional perspective, Dudek completed a comprehensive study of the Santa Clara River watershed (Dudek 2007F, Landmark Village Final EIR, November 2007, Appendix A).

That study analyzed the cumulative impacts of development including past projects, current land use zoning, and future and approved projects in the Los Angeles County portion of the watershed. Based on that analysis, the study found that while land conversion has occurred in the Santa Clara River Valley and adjacent foothills, and will continue to occur in the future, the vast majority of the watershed is comprised of natural lands. The study also concluded that the additional impacts of the Landmark Village project, Newhall Land and Farming projects in general, and other planned and approved projects in the Los Angeles County portion of the watershed are relatively small in proportion to the size of overall watershed. Key findings of the study include:

- The Santa Clara River watershed is, and will remain for the most part, undeveloped – lands converted to agriculture and urban development comprise about 10 percent of the Los Angeles County portion of the upper watershed. Planned and approved projects in Los Angeles County (including the City of Santa Clarita) would increase the amount of development in the upper watershed by about three percent.



SOURCE: Newhall Ranch Specific Plan – May 2003

FIGURE 4.4-4

Potential Wildlife Movement Corridors

- The watershed includes substantial existing public lands and planned open spaces that will be protected in perpetuity. Based on current public lands and currently zoned open space, approximately 71 percent of the upper watershed (733,526 acres) is existing or zoned open space.
- Under current land use zoning, important biological and physical features of the entire watershed would be retained. The major vegetation communities (coastal scrubs, chaparral, non-native grassland, woodlands and forest, and riparian/wetlands) will remain relatively common in the watershed.
- Newhall lands are a very small proportion (less than 2 percent) of the entire watershed and are limited to a small area in the southern portion of the watershed. Planned development on Newhall lands (including the Landmark Village project) would impact only 1 percent of the entire watershed and would be 26 percent less than the amount of development that could be allowed on Newhall lands under the current land use zoning.
- Planned development on Newhall lands is downstream of substantial existing, planned, and approved urban land uses in the City of Santa Clarita and the Valencia community and occurs in the lower elevation areas of the watershed, thus protecting headwaters and upper portions of sub-basins within the watershed and the functions and services these sub-basins provide.
- Regional wildlife corridors and habitat linkages will be preserved in the watershed.

Although encroachment by past development (including agriculture) has caused habitat loss and fragmentation and impacts to species in the watershed, the Dudek watershed study concluded that the existing and proposed cumulative development in the watershed will not significantly impact sensitive biological resources, based on the findings noted above. In addition, the watershed study found that the Santa Clara River is still considered a natural river system and still provides habitat for several listed threatened or endangered species such as the least Bell's vireo, southwestern willow flycatcher, unarmored threespine stickleback, and arroyo toad, as well as a number of non-listed special-status species.

7. SENSITIVE BIOLOGICAL RESOURCES

The following discussion focuses on those species and plant communities considered by local, state and/or federal resource agencies, and by recognized conservation organizations, to have special status, that are known to occur, or could potentially occur, on the project site. A list of all plant and wildlife species, both common and special-status, observed or expected to potentially occur on the project site is found in the CNDDDB Map.⁸

⁸ The CNDDDB Map is available on the California Department of Fish and Game Web site at www.dfg.ca.gov/biogeodata/cnddb/rarefind/asp (last accessed July 22, 2009).

All of the surveys and reports referenced in this section are incorporated by reference, as permitted in section 15150 of the *State CEQA Guidelines*. All referenced documents are available for public inspection and review upon request to: County of Los Angeles, Department of Regional Planning, 320 West Temple Street Los Angeles, California 90012 (Samuel Dea; (213) 974-6461) or Impact Sciences, Inc., 803 Camarillo Springs Road, Suite A-1, Camarillo, California 93012 (Susan Tebo; (805) 437-1900). Additionally, many of these documents are included in the appendices to the Newhall Ranch Resource Management and Development Plan and the Spineflower Conservation Plan Draft EIS/EIR (SCH No. 2000011025), and can be obtained from the California Department of Fish and Game's Web site at <http://www.dfg.ca.gov/regions/5/newhall/docs/>.

a. Special-Status Plants

For purposes of the analysis presented in this subsection, special-status plants include those species that are: (1) state or federally listed as Rare, Threatened or Endangered; (2) federal candidates for listing; (3) proposed for state or federal listing; (4) included on Lists 1, 2, 3 or 4 of the CNPS Inventory of Rare and Endangered Plants of California (CNPS Inventory); (5) species of undescribed taxa; or (6) species designated as special-status by the County of Los Angeles. Plants included on the CNPS Inventory are broken down into the following classifications: List 1A is comprised of plants presumed extinct in California; List 1B is comprised of plants that are Rare, Threatened, or Endangered in California and elsewhere; List 2 is comprised of plants that are Rare, Threatened or Endangered in California, but more common elsewhere; List 3 is comprised of plants about which more information is needed (a review list); and List 4 is comprised of plants of limited distribution (a watch list).

Additionally, there is a second designation that follows the List classification, denoting the threat classification. When a List number is assigned to a special-status plant, a further designation of ".1" means that the plant is seriously endangered in California, a further designation of ".2" means that the plant is fairly endangered in California, and a further designation of ".3" signifies that the plant is not considered to be very endangered in California. Therefore, for example, the slender mariposa lily discussed below is a CNPS List 1B.2 plant, meaning the CNPS has classified this species as being Rare, Threatened, or Endangered in California and elsewhere, and further, the threat classification means that the plant is fairly endangered in California.

Based on a review of the CNDDDB and CNPS databases and the survey reports prepared for the Newhall Ranch Specific Plan area and the Landmark Village project site, a total of 41 special-status plant species were identified as occurring in the region. This list formed the basis of the following analysis, wherein each of the identified species is addressed in one of the following two subsections: **Subsection 7.a.(1), Special-Status Plant Species Observed on or Adjacent to the Project Site**, and **Subsection 7.a.(2), Special-Status Plant Species Known to Occur in the Project Area but not Observed on or Adjacent to the Project Site**. **Table 4.4-3** details the specificity of the focused surveys.

(1) Special-Status Plant Species Observed on or Adjacent to the Project Site

Special-status plant species that were observed on the project site during focused surveys include slender mariposa lily (*Calochortus clavatus* var. *gracilis*), mainland cherry (*Prunus ilicifolia* ssp. *ilicifolia*), island mountain-mahogany (*Cercocarpus betuloides* var. *blancheae*), Peirson's morning-glory (*Calystegia peirsonii*), southern California black walnut (*Juglans californica* var. *californica*), and Parish's sagebrush. In addition, a previously undescribed species of everlasting (*Gnaphalium* sp. *nova*) was observed. While this plant currently has no sensitivity status, it is described in this report because of its unique nature and potential to be assigned a sensitivity status in the future. San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*) was observed in areas bordering the borrow site. These six species are discussed in more detail below, and their locations with respect to on the project site are shown in **Figure 4.4-5, Special-Status Plant Species Locations** (see map box).

Slender mariposa lily is a CNPS List 1B (S1.1)⁹ plant, but has no federal status. This species is typically found in chaparral, coastal scrub, and grasslands, often on clay and/or rocky soils. Populations of this species have been documented on the project's Adobe Canyon borrow site, the Chiquito Canyon grading site, and the Valencia Commerce Center water tank site. These populations contain an estimated total of 750 plants in year 2003, 257 plants in year 2004, and 509 plants in 2005, occupying a total cumulative area of 2.3 acres. The fluctuations of plant numbers result from variations in rainfall. This species was not observed in the study area in 2006 and 2007 (Dudek 2002A, 2004C, 2004F, 2006F, 2006I, and 2007F).

Mainland cherry. The mainland cherry has no state or federal sensitivity status, but it is locally protected through the County of Los Angeles. This large shrub to tree was incidentally observed from 2002 to 2006 in the Specific Plan area, Entrada, and VCC planning areas as an occasional component of

⁹ California Heritage (CNDDDB) Element Ranking

S1: Less than 6 Eos or less than 1,000 individuals or less than 2,000 acres

S1.1 = very threatened

S1.2 = threatened

S1.3 = no current threats known.

S2: 6 to 20 Eos or 1,000 to 3,000 individuals or 2,000 to 10,000 acres

S2.1 = very threatened

S2.2 = threatened

S2.3 = no current threats known.

S3: 21 to 80 Eos or 3,000 to 10,000 individuals or 10,000 to 50,000 acres

S3.1 = very threatened

S3.2 = threatened

S3.3 = no current threats known.

S4: Apparently secure within California. This rank is clearly lower than S3, but factors exist to cause some concern; *i.e.*, there is some threat, or somewhat narrow habitat. NO THREAT RANK.

S5: Demonstrably secure to ineradicable in California. NO THREAT RANK.

undifferentiated chaparral, big sagebrush scrub, and river wash. Given the low sensitivity status of the species, individual mainland cherry trees were not mapped.

Island mountain-mahogany. The island mountain-mahogany is a CNPS List 4 (S3.3) plant, but it has no federal status. It is an evergreen shrub or shrubby tree that is typically found in chaparral and closed-cone coniferous forests in Los Angeles and Ventura counties, as well as on several of the Channel Islands. Within the Specific Plan, Salt Creek, and Entrada areas, island mountain-mahogany occurs as an occasional component of chaparral communities at the base of north-facing slopes. The species has not been detected in the VCC planning area. Given the low sensitivity status of the species, individual island mountain-mahogany plants have not been mapped.

Peirson's morning-glory is a CNPS List 4 (S3.2) plant, but has no federal status. This species is typically found in chaparral, coastal scrub, chenopod scrub, cismontane woodland, lower montane coniferous forest, and grasslands. This species has been documented within the Landmark Village project's borrow site and the Chiquito Canyon grading site (FLx 2002). While never abundant, Peirson's morning-glory is widespread on site and was observed on ridges and slopes, weakly climbing over undifferentiated chaparral, California sagebrush, California buckwheat, and in annual grasslands (Dudek 2002A, 2004C, 2004F, 2006F, 2006I, and 2007F). Given the low sensitivity status of the species, observations were not mapped.

Southern California black walnut is a CNPS List 4 (S3.2) plant, but has no federal status. This species typically inhabits chaparral and cismontane woodlands with Miocene–Pliocene shale and coastal scrub with alluvial soils. The only stand of this species within the Landmark Village project site occurs along Chiquito Canyon, which includes a total of 10 trees.

Figure 4.4-5 Special-Status Plant Species Locations

MAP BOX

Parish's sagebrush is considered special status by the County of Los Angeles, but it has no federal, state, or CNPS status. This species grows intermixed with the big sagebrush scrub community within the Salt Creek watershed (Dudek 2004I), co-occurring with the more common big sagebrush (*Artemisia tridentata* ssp. *tridentata*). According to *The Jepson Manual* (Hickman 1993), the differentiating characteristics between the two subspecies in question are as follows: drooping inflorescence branches and hairy fruit in subspecies *parishii* and erect to spreading inflorescence branches and glandular fruit in subspecies *tridentata*. These differences are confirmed by Shultz (2006A, 2006B). Parish's sagebrush occurs along coastal ranges in Baja California and southern California, extending inland to regions south of the Great Basin (Shultz 2006A, 2006B). It is considered regionally rare by local botanists (Mary Meyer, personal communication, October 2007). Where big sagebrush scrub occurs along the outer margins of the Chiquito Creek and Santa Clara River floodplains, Parish's sagebrush may be present. This species was not observed in the Entrada planning area, but there is suitable big sagebrush scrub habitat on site where Parish's sagebrush potentially exists. There is no big sagebrush scrub found on the VCC planning area, and this species has not been observed within the VCC planning area.

A previously undescribed species of **Everlasting** (*Gnaphalium* sp. *nova*) was documented within the study area. Because this plant is undescribed (a physical description of the plant with known distribution and species name has not been published in a peer reviewed publication) and its extent and distribution are unknown, for the purposes of this analysis it is considered a special-status species. Two main populations and a number of smaller populations of this undescribed species were documented within the Specific Plan area during the 2003, 2004, 2005, and 2007 field seasons (Dudek 2004C, 2004F, 2006F, 2007; FLx 2004B). These occurrences are primarily on secondary alluvial benches in the Santa Clara River near the mouth of Long Canyon and where Castaic Creek and the Santa Clara River converge, south of SR-126. Within the Landmark Village project site, the population has ranged from three in 2007 to ten in 2004. One of these populations was documented as partially occurring within the proposed utility corridor (to the east of the Landmark Village tract map site) while the other population was documented within the proposed temporary construction zone associated with the Long Canyon bridge across the Santa Clara River.

San Fernando Valley spineflower is a federal candidate plant species, is state-listed as Endangered, and is a CNPS List 1B species. This species has been observed in four general areas within the Newhall Ranch Specific Plan area: Airport Mesa, Grapevine Mesa, Potrero Canyon, and San Martinez Grande Canyon. The cumulative spineflower footprint, representing data collected annually from 2002 through 2007, occupies 17.6 acres within the Newhall Ranch Specific Plan area. Most of the plants were found on slopes with a south-facing aspect within openings in sparsely vegetated habitat characterized as open California sagebrush scrub and associations, California annual grasslands, or at the edge of agricultural fields on

mesas. Most of the observed San Fernando Valley spineflower were found on soils mapped by the USDA (1969) as slightly eroded to eroded Castaic-Balcom silty clay loam (30 to 50 percent slopes) or Terrace Escarpments. Plants in the vicinities of Grapevine and Airport mesas were observed downslope of terrace surfaces capped by Zamora clay loam (2 to 9 percent slopes), with a few plants occurring on artificial fill or alluvium derived from adjacent terrace deposits. Vegetative cover in the area of San Fernando Valley spineflower occurrences ranged from 5 to 100 percent but was most commonly between 60 and 80 percent. The soil type for all mapped San Fernando Valley spineflower occurrences in the Project area consisted of sandy loams. Elevations at San Fernando Valley spineflower locations on site range from approximately 1,000 to 1,300 feet AMSL. This species has not been documented on the Landmark Village tract map site or other project areas where grading would occur. However, several of the populations in Long Canyon occur in proximity to the project site's disturbance boundary. Specifically, populations occur to the south of the project site a minimum of 300 feet from areas to be disturbed by the project. Additionally, a population of this species was identified in proximity to the northern project site boundary (north of SR 126, east of the access road to the Valencia Commerce Center business park) and more than 500 feet away from the project.

(2) Special-Status Plant Species Known to Occur in the Project Area but Not Observed on or Adjacent to the Project Site

The special-status plant species identified in **Table 4.4-5**, below, are known to occur in the project area and were target species of the focused plant surveys conducted on, and in the vicinity of, the Landmark Village project site. None of these species were observed on or adjacent to the Landmark Village project site during those focused surveys. Given the thoroughness of the survey efforts (**Table 4.4-3**), it is unlikely that any of the species identified below are present on the project site, though the potential of some of these species to occur on-site in future seasons cannot be entirely ruled out.

**Table 4.4-5
Special-Status Plant Species Documented in the Project Area but
Not Observed on or Adjacent to the Project Site**

Common Name <i>Scientific Name</i>	Sensitivity Status				Habitat	Growth Form (Blooming)
	Federal	State	CNPS	California Heritage (CNDDDB) Element Ranking		
Marsh sandwort <i>Arenaria paludicola</i>	FE	CE	1B.1	S1.1	Dense freshwater marsh.	PH (May–August)
Braunton’s milk-vetch <i>Astragalus brauntonii</i>	FE	--	1B.1	S2.1	Chaparral, coastal sage scrub, grasslands; often on carbonate substrates.	PH-b (March–July)
Coulter’s saltbush <i>Atriplex coulteri</i>	--	--	1B.2	S2.2	Coastal sage scrub and grasslands on alkaline or clay substrate.	PH (March–October)
Davidson’s saltscale <i>Atriplex serenana</i> var. <i>dauidsonii</i>	--	--	1B.2	S2?	Coastal bluff scrub and coastal sage scrub on alkaline substrate.	AH (May–October)
Malibu baccharis <i>Baccharis malibuensis</i>	--	--	1B.1	S1.1	Chaparral, coastal sage scrub, cismontane woodland.	Sh-d (August)
Nevin’s barberry <i>Berberis nevinii</i>	FE	CE	1B.1	S2.2	Chaparral, coastal sage scrub, riparian scrub, cismontane woodland on sandy or gravelly substrate.	Sh-e (March–April)
Thread-leaved brodiaea <i>Brodiaea filifolia</i>	FT	CE	1B.1	S2.1	Clay substrate openings in chaparral, sage scrub, and grasslands.	PH-b (March–June)
Plummer’s mariposa lily <i>Calochortus plummerae</i>	--	--	1B.2	S3.2	Chaparral, coastal sage scrub, cismontane woodland, grasslands on rocky granitic substrate.	PH-b (May–July)
Late-flowering mariposa lily <i>Calochortus weedii</i> var. <i>vestus</i>	--	--	1B.2	S2.2	Chaparral, cismontane and riparian woodland.	PH-b (June–August)

Common Name Scientific Name	Sensitivity Status				Habitat	Growth Form (Blooming)
	Federal	State	CNPS	California Heritage (CNDDDB) Element Ranking		
Southern tarplant <i>Centromadia</i> [=Hemizonia] <i>parryi</i> ssp. <i>Australis</i>	--	--	1B.1	S2.1	Mesic edges of marshes in grasslands.	AH (May–November)
Island mountain-mahogany <i>Cercocarpus betuloides</i> var. <i>blancheae</i>	--	--	4.3	S3.3	Chaparral, closed-cone coniferous forest.	Sh-e (February–May)
Santa Susana tarplant <i>Deinandra</i> [=Hemizonia] <i>minthornii</i>	--	CR	1B.2	S2.2	Chaparral and coastal sage scrub on rocky substrate.	Sh-d (July–November)
Slender-homed spineflower <i>Dodecahema leptoceras</i>	FE	CE	1B.1	S1.1	Alluvial scrub on sandy substrate.	AH (April–June)
Blochman's dudleya <i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	--	--	1B.1	S2.1	Clay openings in chaparral and coastal sage scrub, grasslands.	PH (April–June)
Marcrescent dudleya <i>Dudleya cymosa</i> ssp. <i>marcescens</i>	FT	CR	1B.2	S2.2	Chaparral, often on volcanic substrate.	PH (April–June)
Santa Monica Mountains dudleya <i>Dudleya cymosa</i> ssp. <i>ovatifolia</i>	FT	--	1B.2	S2.2	Chaparral and coastal sage scrub, often on volcanic substrate.	PH (March–June)
Many-stemmed dudleya <i>Dudleya multicaulis</i>	--	--	1B.1	S2.1	Coastal bluff scrub, coastal sage scrub, valley and foothill grassland, rocky, often clay substrate.	PH (April–June)
Conejo dudleya <i>Dudleya parva</i>	FT	--	1B.2	S2.1	Coastal sage scrub and grassland on rocky, gravelly clays.	PH (May–June)
Round-leaved filaree <i>Erodium macrophylla</i>	--	--	2.2	S3.1	Cismontane woodland and grasslands on clay substrate.	AH (March–May)

Common Name Scientific Name	Sensitivity Status				Habitat	Growth Form (Blooming)
	Federal	State	CNPS	California Heritage (CNDDDB) Element Ranking		
Palmer's grappling hook <i>Harpagonella palmeri</i> var. <i>palmeri</i>	--	--	4.2	S3.2	Chaparral, coastal scrub, valley and foothill grasslands.	AH (March–May)
Los Angeles sunflower <i>Helianthus nuttallii</i> ssp. <i>parishii</i>	--	--	1A	SH	Marshes and swamps.	PH (August–October)
Undescribed sunflower <i>Helianthus</i> sp. <i>nova</i>	--	--	--	N/A	Seeps.	PH (mid-summer)
Mesa horkelia <i>Horkelia cuneata</i> var. <i>puberula</i>	--	--	1B.1	S2.1	Chaparral, cismontane woodland, coastal sage scrub on sandy or gravelly substrate.	PH (February–December)
Southwestern spiny rush <i>Juncus acutus</i> sp. <i>leopoldii</i>	--	--	4.2	S3.2	Coastal dunes, meadows, seeps, marshes, and swamps.	PH (May–June)
Davidson's bush mallow <i>Malacothamnus davidsonii</i>	--	--	1B.2	S1.1	Chaparral, coastal sage scrub, riparian woodland.	Sh-d (June–January)
California muhly <i>Muhlenbergia californica</i>	--	--	4.3	S3.3	Chaparral, coastal scrub, lower mountain coniferous forest, meadows and seeps/mesic, seeps and streambanks.	PH-r (June–September)
Mud nama <i>Nama strenocarpum</i>	--	--	2.2	S1S2	Edges of lakes, rivers, ponds, vernal pools.	AH (January–July)
Spreading navarretia <i>Navarretia fossalis</i>	FT	--	1B.1	S2.1	Chenopod scrub, marshes, and swamps, playas, vernal pools.	AH (April–June)
Chaparral nolina <i>Nolina cismontana</i>	--	--	1B.2	S1.1	Chaparral, coastal sage scrub on sandstone or gabbro substrate.	SH-e (April–July)
Short-joint beavertail <i>Opuntia basilaris</i> var. <i>brachyclada</i>	--	--	1B.2	S1.2	Chaparral, Joshua tree woodland, Mojavean desert scrub.	Sh-ss (April–June)

Common Name <i>Scientific Name</i>	Sensitivity Status				Habitat	Growth Form (Blooming)
	Federal	State	CNPS	California Heritage (CNDDDB) Element Ranking		
California Orcutt grass <i>Orcuttia californica</i>	FE	CE	1B.1	S2.1	Vernal pools.	AH (April–August)
Lyon’s pentachaeta <i>Pentachaeta lyonii</i>	FE	CE	1B.1	S1.1	Openings in chaparral and coastal sage scrub, grasslands.	AH (March–August)
Pringle’s yampah <i>Perideridia pringlei</i>	--	--	4.3	S3.3	Chaparral, cismontane woodland, coastal scrub, pinyon, and juniper woodlands, serpentinite, clay soils.	PH (April–July)
Gambel’s watercress <i>Rorippa gambelii</i>	FE	CT	1B	N/A	Marsh and swamps (freshwater and brackish).	PH-r (April– September)
Rayless ragwort <i>Senecio aphanactis</i>	--	--	2	S1.2	Chaparral, coastal sage scrub, cismontane woodland on alkaline substrate.	AH (January–April)
Salt spring checkerbloom <i>Sidalcea neomexicana</i>	--	--	2	S2/S3	Chaparral, coastal sage scrub, and playas on alkaline substrate.	PH (March–June)

Common Name <i>Scientific Name</i>	Sensitivity Status				Habitat	Growth Form (Blooming)
	Federal	State	CNPS	California Heritage (CNDDDB) Element Ranking		
Sonoran maiden fern <i>Thelypteris puberula</i> var. <i>sonorensis</i>	--	--	2	S2.2?	Meadows and seeps.	PH-r (January– September)

STATUS KEY:

Federal: FE = Federal Endangered; FC = Federal Candidate

State: CE = California Endangered; CT = California Threatened; CR = California Rare

CNPS: List 1A = Presumed extinct

List 1B = Plants Rare and Endangered in California and elsewhere

List 2 = Plants Rare, Threatened, or Endangered in California, but more common elsewhere

List 4 = Plants of limited distribution (watch list)

Threat Code Extensions:

.1: The plant is seriously endangered in California

.2: The plant is fairly endangered in California

.3: The plant is not considered to be very endangered in California.

Growth Form:

AH = Annual Herb; Sh = Shrub; r = rhizomatous; PH = Perennial Herb; b = bulb; e = evergreen; d = deciduous; ss = stem succulent

Note:

For CNDDDB element ranking, uncertainty about the rank of an element is expressed in two major ways: First, by expressing the ranks as a **range** of values: e.g., S2S3 means the rank is somewhere between S2 and S3. Second, by adding a "?" to the rank: e.g., S2? This represents more certainty than S2S3, but less certainty than S2.

b. Oaks

The County of Los Angeles Oak Tree Ordinance (CLAOTO), Sections 22.56.2050–22.56.2260, protects oak trees that are at least 8 inches in diameter, as well as trees that have two trunks totaling at least 12 inches in diameter, as measured 4.5 feet above natural ground. A heritage oak, as defined by CLAOTO, is an individual of any species in the genus *Quercus* that measures 36 inches or more in diameter as measured 4.5 feet above natural ground, or any oak of 36 inches or less in diameter having a significant historical or cultural importance to the community. CLAOTO requires that all potential impacts to oak trees regulated by this ordinance be preceded by an application to the County that includes detailed Impact Sciences oak tree report (Impact Sciences 2009, Recirculated Draft EIR, **Appendix 4.4**). Mitigation for impacts to oak trees is usually required as a condition of an Oak Tree Permit issued by the County.

In addition, Public Resources Code section 21083.4 addresses oak woodlands conservation and contains the following three elements: (a) counties must determine whether a project may result in the conversion of oak woodlands; (b) if so, the county must determine if the conversion will have a significant impact on the environment; and (c) if there is a conversion, and it has a significant impact, the county must impose one or more of the following mitigation measures:

- (1) Conserve oak woodlands, through the use of conservation easements.
- (2) Plant an appropriate number of trees, including maintaining plantings and replacing dead trees.
 - (a) Maintain planted oak trees for seven years.
 - (b) The planting of oak trees shall not fulfill more than one-half of the mitigation requirement for the project.
- (3) Contribute funds to the Oak Woodlands Conservation fund.
- (4) Other mitigation measures developed by the County.

During 2005 and 2006, Impact Sciences conducted an oak tree survey of the on-site oak trees occurring within 200 feet of the proposed grading limits (Impact Sciences 2009, Recirculated Draft EIR, **Appendix 4.4**). The survey identified 171 oaks potentially regulated by CLAOTO. The vast majority of the oaks on the site are coast live oak, but valley oaks (*Quercus lobata*), scrub oaks (*Q. berberidifolia*), and one MacDonald oak (*Q. x macdonaldii*) [a hybrid of a valley oak and a scrub oak] also occur. Of the 171 oaks, 28 are heritage oaks as defined by CLAOTO.

c. Sensitive Plant Communities

The CDFG Wildlife and Habitat Data Analysis Branch has developed a *List of California Terrestrial Natural Communities*, which was used as the classification system for this document. The most recent version of this list, dated September 2003 (updated 2007, Recirculated Draft EIR, **Appendix 4.4**), is derived from the California Natural Diversity Database (CNDDDB) and is intended to supersede all other lists developed from the CNDDDB. It is based on the detailed classification put forth in *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995). It is also structured to be compatible with previous CNDDDB lists (e.g., Holland 1986).

Two of the primary purposes of the CNDDDB classifications are to assist in characterizing vegetation in a consistent manner and to identify rare and declining vegetation types. The ranking of natural communities by rarity or threat is an important facet of this system. For the purposes of this EIR, vegetation communities denoted on the October 2007 (CDFG 2007D) list as G1, G2, or G3 (high priority for inventory) or otherwise regulated by local, state, and/or federal resource agencies are considered to have "special status."

Of the 21 vegetation communities and land covers occurring on the Project site, southern willow scrub, southern coast live oak riparian forest, and southern cottonwood–willow riparian are currently denoted as G1, G2, or G3 by CDFG (2007D) and, therefore, are considered special-status. In addition to those vegetation communities ranked as G1, G2, G3, riparian and wetland vegetation communities on site are considered special-status, including herbaceous wetland, river wash, alluvial scrub, arrow weed scrub, and mulefat scrub. Given the occurrence of *Artemisia tridentata* ssp. *parishii* (which is considered special-status by the County of Los Angeles) within the big sagebrush scrub community, this EIR treats big sagebrush scrub as a special-status vegetation community. Please see **Subsection 6, Biological Resources**, below, for a more detailed discussion of these plant communities and their distribution on the project site.

It should be noted that the Newhall Ranch Specific Plan Program EIR identified coastal sage scrub (coastal scrub) as a special-status plant community. However, this determination was based on a previous CDFG list of terrestrial natural communities, which has been superseded by the current *List of California Terrestrial Natural Communities*, dated September 2003 (updated 2007, Recirculated Draft EIR, **Appendix 4.4**). Consequently, coastal scrub is not considered of special-status in this EIR.

d. Special-Status Wildlife

Special-status wildlife species include those that are (1) state or federally listed as Threatened or Endangered, (2) proposed for listing as Threatened or Endangered, (3) designated as state or federal

candidates for listing, (4) considered state Species of Special Concern, or (5) considered a state Fully Protected Animal.

Based on a review of the CNDDDB and the biological documentation prepared for the Landmark Village project site and the greater Newhall Ranch Specific Plan area, a total of 81 special-status wildlife species were identified that are known to occur in the project region. This list formed the basis of the following analysis, wherein each of the identified species is addressed under one of the following three headings:

- **Subsection 7.d.(1)**, below, addresses the special-status wildlife species that were observed on or adjacent to the project site during the course of various field surveys;
- **Subsection 7.d.(2)**, below, addresses the special-status wildlife species that have not been observed on the site, but based on the presence of suitable habitat and known occurrences in the area, have the potential to occur on the site as a resident, over-wintering or nesting species; and
- **Subsection 7.d.(3)**, below, addresses the special-status wildlife species known to occur in the project area, but for which the project site does not provide suitable habitat to support the species as a resident or nesting species or for which the species is only expected to utilize the site on rare occasions, such as during migration for bird species.

(1) Special-Status Wildlife Species Observed on the Project Site

During the course of various field surveys conducted for the proposed project or greater Newhall Ranch Specific Plan area (**Table 4.4-3**, above), 35 special-status wildlife species were observed on or bordering the project site. **Table 4.4-6**, below, identifies these species and provides the species' listing status, habitat requirements, and observation information.

(2) Special-Status Wildlife Species with Potential to Occur on the Project Site

Twenty-six special-status wildlife species have been identified as having the potential to occur on the site, based on the presence of suitable habitat and known occurrences in the area, despite the fact that they have not been observed during general or focused surveys of the project site. **Table 4.4-7, Special-Status Wildlife Species with Potential to Occur on the Project Site**, identifies these species and provides the species' listing status, habitat requirements, and an explanation of why the species has the potential to occur on the site as a resident, over-wintering, nesting, or roosting species.

**Table 4.4-6
Special-Status Wildlife Species Observed on or Adjacent to the Project Site**

Common Name Scientific Name	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
Insects (Butterflies)					
monarch butterfly (wintering sites) <i>Danaus plexippus</i>	—	***	—	Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, Monterey cypress), with nectar and water sources nearby.	Individual monarchs have been observed within the Newhall Ranch Specific Plan area (NRSP), including the High Country (Compliance Biology 2004A, 2005; Dudek and Associates 2006B) and Entrada (Compliance Biology 2004C); due to sites distance from coast, it is unlikely that the Project site would be used by large numbers of overwintering adults (Compliance Biology 2004A). Not expected to occur in Project site, Salt Creek area, or VCC.
San Emigdio blue butterfly <i>Plebulina emigdionis</i>	—	***	—	Often near streambeds, washes, or alkaline areas. Associated with four-wing saltbush (<i>Atriplex canescens</i>) and quail brush (<i>Atriplex lentiformis</i>).	A colony was observed in Potrero Canyon in NRSP in association with <i>Atriplex lentiformis</i> plants (Compliance Biology 2004A and 2005). Suitable habitat occurs within Salt Creek, VCC, and Entrada.
Mollusks					
undescribed species of snail	—	—	—	Occupies groundwater-dependent spring, occurring on muddy and gravelly substrate and in water of depths up to several centimeters.	This species was observed on the NRSP in 2006 at the Middle Canyon Spring complex (Dudek 2007).
Fish					
Santa Ana sucker <i>Catostomus santaanae</i>	FT	CSC	--	Occupies small- to medium-sized perennial streams with water ranging in depth from a few centimeters to a meter or more.	This species is known to occur in the Santa Clara River and has been sparsely observed in the portion of the river within NRSP (CDFG 2007A; Impact Sciences 2003A), and within or adjacent to Entrada (SMEA 1995; Haglund and Baskin 2000; Impact Sciences 2003B). Population in the Santa Clara River system is not listed as threatened because it is introduced to the area. Not expected to occur in Salt Creek or VCC.

Common Name Scientific Name	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
unarmored threespine stickleback <i>Gasterosteus aculeatus williamsoni</i>	FE	CE, CFP	--	Slow-moving and backwater areas.	This species is known to occur in the Santa Clara River and has been observed evenly distributed in the portion of the river within NRSP (Aquatic Consulting Services 2002B, 2002C; Impact Sciences 2003A, 2003B; ENTRIX 2005) and within Entrada (Aquatic Consulting Services 2002D; SMEA 1995; Haglund and Baskin 2000; Impact Sciences 2003B). It was also observed in Castaic Creek (Haglund 1989).
arroyo chub <i>Gila orcutti</i>	—	CSC	--	Slow-moving or backwater sections of warm to cool streams with mud or sand substrates.	This species is known to occur in the Santa Clara River and has been observed abundantly in the portion of the river within NRSP (Aquatic Consulting Services 2002B, 2002C; Impact Sciences 2003A, 2003B; ENTRIX 2005), within Entrada (Aquatic Consulting Services 2002D; SMEA 1995; Haglund and Baskin 2000), and within VCC (Haglund 1989). Not expected to occur in Salt Creek.
Amphibians					
arroyo toad <i>Bufo californicus</i>	FE	CSC	--	Restricted to rivers with shallow, gravely pools adjacent to sandy terraces that have a nearly complete closure of cottonwoods, oaks, or willows, and almost no herbaceous cover. Requires shallow pools with minimal current, little to no emergent vegetation and a sand or pea gravel substrate overlain with flocculent silt for egg deposition.	

Common Name Scientific Name	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
					Numerous focused surveys have been conducted for the arroyo toad throughout NRSP and along the Santa Clara River east of the Project site. Surveys include SMEA (1995); RECON (1999A); Aquatic Consulting Services (2002A, 2002B, 2002C, 2002D); Nancy Sandburg (2001); Impact Sciences (2001, 2002); Ecological Sciences (2003A, 2003B, 2003C, 2003D, 2003E, 2003F, 2004A, 2004B, 2004C, 2004D); Compliance Biology 2004D). Adult toads have been documented in limited numbers upstream of the Project area along the Santa Clara River and tributaries (Impact Sciences 2001; Sandburg 2001). One study (Aquatic Consulting Services 2002A) detected three arroyo toad tadpoles in the river within NRSP, downstream of the Commerce Center Drive Bridge site; and another study (Aquatic Consulting Services 2002D) detected three arroyo toad tadpoles, two near the Valencia Water Treatment Plant and one upstream of Commerce Center Drive.
western spadefoot toad <i>Spea hammondi</i>	—	CSC	—	Open areas in lowland grasslands, chaparral and pine-oak woodlands; requires temporary rain pools that last approximately three weeks.	Two pools were found with western spadefoot toad tadpoles, one near the western boundary of Mission Village and the other near Grapevine Mesa (Compliance Biology 2006C). Western spadefoot toad eggs and tadpoles were observed in VCC in an area that has now been developed (Dave Crawford, Compliance Biology, pers. comm., 2007; Compliance Biology, Inc. 2004G). Upstream of the Commerce Center Bridge, one western spadefoot toad was observed in an isolated pool (Aquatic Consulting Services 2002A). Seasonal backwater areas within NRSP, as well as seasonal stock ponds and depressions within existing dirt roads, provide breeding habitat. Given documented occurrences of the species at several on-site locations, and the presence of suitable breeding habitat, the species could occupy additional suitable on-site habitats. Not expected to occur in Entrada.

Common Name Scientific Name	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
Reptiles					
southwestern pond turtle <i>Actinemys marmorata pallida</i>	—	CSC	--	Streams, ponds, freshwater marshes, and lakes with growth of aquatic vegetation.	This species was observed in the reach of the Santa Clara River within NRSP (SMEA 1995; Aquatic Consulting Services 2002D; Impact Sciences 2002; Compliance Biology 2004D), within the Santa Clara River in Entrada (Impact Sciences 2001; Ecological Sciences 2004A; Dudek and Associates 2006E), and in Salt Creek (Dudek and Associates 2006B); river and riparian habitats within NRSP, Salt Creek, and VCC provide suitable habitat.
silvery legless lizard <i>Anniella pulchra pulchra</i>	—	CSC	--	Stabilized dunes, beaches, dry washes, chaparral, pine, oak, and riparian woodlands; associated with sparse vegetation and sandy or loose, loamy soils.	This species has been observed within NRSP in 2004 (Impact Sciences 2006) in leaf litter of coast live oak woodland; suitable habitat occurs within Salt Creek, VCC, and Entrada in association with California sagebrush scrub, chaparral, oak woodland, and riverbank habitats.
coastal western whiptail <i>Aspidoscelis tigris stejnegeri</i>	--	***	--	Open areas in semiarid grasslands, scrublands, and woodlands.	Observed within NRSP in the High Country (Dudek and Associates 2006B) and one was observed off site in Castaic Mesa (Compliance Biology 2006D); suitable habitat occurs within Salt Creek, VCC and Entrada in association with grassland, scrub, oak woodland and riverbank habitats.
coast horned lizard <i>Phrynosoma coronatum</i>	—	CSC	--	Exposed gravelly-sandy soils with minimal shrubs, riparian woodland clearings, dry chamise chaparral, and annual grasslands with scattered seepweed or saltbush	This species was also observed during reptile surveys in 2004 and 2006 (Impact Sciences 2006). Suitable habitat occurs within NRSP, Salt Creek, VCC, and Entrada in association with scrub, chaparral, and riverbank habitats; species presumed to occur on site within suitable habitat.
two-striped garter snake <i>Thamnophis hammondi</i>	—	CSC	--	Perennial and intermittent streams with rocky or sandy beds and artificially created aquatic habitats (manmade lakes and stock ponds); requires dense riparian vegetation.	This species was observed in the reach of the Santa Clara River within and adjacent to NRSP (Aquatic Consulting Services 2002C; Impact Sciences 2002; Compliance Biology 2004), within Entrada (Impact Sciences 2001), and within VCC (Ecological Sciences 2003A); river and riparian habitats within Salt Creek, VCC, and Entrada provide suitable habitat.

Common Name Scientific Name	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
Birds					
Cooper's hawk (nesting) <i>Accipiter cooperii</i>	--	WL	LC	Dense stands of live oak, riparian woodlands, or other woodland habitats near water.	This species is known to be a year-round resident within NRSP (Bloom Biological 2007A) and Entrada and VCC (Guthrie 2001A); it occurs commonly along the Santa Clara River and in Potrero Canyon (Bloom Biological 2008). This species has been observed nesting within NRSP near Grapevine Mesa and in Entrada north of the Santa Clara River (Guthrie 2000B; Bloom Biological 2007A, respectively), and with active territories in NRSP (Bloom Biological 2007A). It has observed over multiple years foraging within Salt Creek, VCC, and Entrada adjacent to the Santa Clara River during annual bird surveys. The Project site provides foraging and nesting habitat for the species.
sharp-shinned hawk (nesting) <i>Accipiter striatus</i>	--	WL	LC	Nests in woodlands and forages over dense chaparral and scrublands.	This species has been observed within NRSP hunting along agriculture fields along the Santa Clara River (Bloom Biological 2008) and was observed by Guthrie in the NRSP (Guthrie 1997B, 1999C) and Entrada (Guthrie 2002A). It was also observed east of the site along the Santa Clara River (Guthrie 1995A) and one individual was observed in Salt Creek (Bloom Biological 2008). All observations were thought to be migrants and/or wintering birds. The Project site is outside the known breeding range for this species. This species forages in woodlands, chaparral, scrublands, and edge/ecotone areas between habitats which occur throughout the Project site.

Common Name Scientific Name	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
tricolored blackbird (nesting colony) <i>Agelaius tricolor</i>	BCC, USBC	CSC	—	Freshwater marshes and riparian scrub (nesting). Grassland and agriculture (foraging).	This species has been observed on the Project site during focused bird surveys. A flock of approximately 200 breeding pairs of tricolored blackbirds was observed in Castaic Junction (Guthrie 1994A). Another flock of approximately 20 breeding pairs of tricolored blackbirds was observed next to Castaic Creek (Guthrie 1994A). In 1995 (Guthrie 1995A) and 1996 (Guthrie 1996A) small flocks visited the Castaic Creek site again in April and May, but did not breed there. Labinger <i>et al.</i> (1995) observed a small nesting colony within the Project site (specific location is not known). Migrants also have been observed within the NRSP (Guthrie 1996B, 1999B), VCC (Guthrie 1999A, 2006E) and Entrada (Guthrie 2000E, 2001A, 2006A; Dudek and Associates 2006E) boundaries during surveys, but no breeding colonies have been observed since 1994, despite annual surveys through 2007. A flock of 20 tricolored blackbirds was observed in Potrero Canyon in 1994 (Guthrie 1994), and a flock of 50 birds was seen on the Newhall Ranch property north of Mayo Crossing (County of Los Angeles 2003A).
southern California rufous-crowned sparrow <i>Aimophila ruficeps canescens</i>	--	WL	LC	Coastal scrub.	This species has been observed over multiple years as a fairly common resident within the Coastal scrub within NRSP, Salt Creek, VCC, and Entrada during annual bird surveys and has been observed foraging in upland scrub on the south side of the Santa Clara River, and in upland areas (Bloom Biological 2008), and near the Santa Clara River (Guthrie 2000A, 2000B, 2001A, 2002C, 2004A, 2004D), and nesting in 2007 (Bloom Biological 2007A); the Project site provides suitable nesting and foraging habitat with large concentrations of coastal scrub in the northeastern portion of NRSP and southeastern portion of High Country.

Common Name Scientific Name	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
golden eagle (nesting and wintering) <i>Aquila chrysaetos</i>	BCC	WL CFP	—	Nests on cliff-walled canyons and large trees in open areas. Forage in open shrublands, agriculture, and grassland.	One pair was seen frequently in upper Potrero Canyon and a juvenile was seen once in the same area; this is likely a resident pair, but no nests have been observed to date (Bloom Biological 2008). An individual was observed over the Santa Clara River corridor in Castaic Junction area in 1993 and 1995 (Guthrie 1993A, 1993B, 1995) and another was flushed in a woodland west of Grapevine Mesa in the NRSP in 2000 (Guthrie 2000B); no nesting eagles have been observed on the Project site but suitable nesting and foraging habitat is present within NRSP, Salt Creek, VCC, and Entrada. These species have also been observed along Santa Clara River east and west of the project site (Guthrie 1993A, 1997A, 2004F, 2006A; Labinger <i>et al.</i> 1997A).
short-eared owl (nesting) <i>Asio flammeus</i>	USBC	CSC	—	Grassland, prairies, dunes, meadows, irrigated lands, saline and freshwater emergent wetlands.	This species was observed in the Salt Creek area just west of the Ventura/Los Angeles County line in the fall of 2005 (Dudek and Associates 2006B). A freshly dead individual was found at the edge of a cultivated field just west of I-5 during the Santa Clarita Bird Count in December 2006 (Olson 2007). This species is likely a winter visitor and is not known to nest in the Project vicinity.
long-eared owl (nesting) <i>Asio otus</i>	—	CSC	—	Dense, riparian and live oak thickets near meadow edges, nearby woodland and forest habitats. Also found in dense conifer stands at higher elevations. Forages in grassland and agriculture.	This species was observed within NRSP near Via Canyon in Fall 2005 (Dudek and Associates 2006B). Some suitable nesting habitat is present along the Santa Clara River and Castaic Creek, and foraging habitat is present throughout the NRSP, Salt Creek, VCC, and Entrada.
western burrowing owl (burrow sites) <i>Athene cunicularia</i>	BCC	CSC	—	Grasslands, open scrub, and agriculture, particularly with ground squirrel burrows.	A single individual was observed within NRSP (Babcock 2007). Given the timing of the sighting (winter 2006), the observed individual may have been wintering on site or temporarily using the site during migration. Another individual was observed in December 2006 and on April 11, 2007 (Miller 2007). NRSP, Salt Creek, VCC, and Entrada provide suitable foraging and nesting habitat for the species; California ground squirrel burrows occur on the Project site

Common Name Scientific Name	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
oak titmouse (nesting) <i>Baeolophus inornatus</i>	USBC	***	ABC, LC, Aud	Montane hardwood-conifer, montane hardwood, blue oak, valley oak and coastal oak woodlands, montane and valley foothill riparian habitats.	This species is a common resident and nests on site in cottonwood riparian and coast live oak communities; it has been observed over multiple years in the NRSP, Entrada and VCC sites. Recent observations have been in 2006 (Guthrie 2006C) and 2007 and 2008 (Bloom Biological 2007A, 2008).
ferruginous hawk (wintering) <i>Buteo regalis</i>	BCC	WL	NT, Aud	Grasslands, agricultural fields, and open scrublands.	This species is an infrequent seasonal migrant. Individuals of this species were observed almost every day in east alfalfa fields, Wolcott fields, Potrero Cnayon, and other agriculture fields along the Santa Clara River in winter 2008 (Bloom Biological 2008). Although suitable foraging habitat is present on the Project site, this species has not been documented to nest in California and is expected to forage on the site.
Costa's hummingbird (nesting) <i>Calypte costae</i>	USBC	***	—	Shrubs and arid habitats. Edges of desert riparian and valley foothill riparian, coastal scrub, desert scrub, desert succulent scrub, arid shrublands, lower elevation chaparral, and palm oasis.	This species has been observed over multiple years within the NRSP, Entrada and VCC sites; it is thought to be a summer resident, although does not appear to be an abundant species within the Project site based on the number of sightings each year. Recent observations have been in 2006 (Guthrie 2006C).
Lawrence's goldfinch <i>Carduelis lawrencei</i>	BCC, USBC	***	ABC, LC, Aud	Valley foothill hardwood, valley foothill hardwood-conifer; and, in southern California, desert riparian, palm oasis, pinyon-juniper and lower montane habitats.	This species has been observed as a resident in the coastal scrub in the northern and northeaster portions of the Project site, and has been observed within the riparian habitats of the Santa Clara River over multiple years within NRSP and Entrada during annual bird surveys. Recent observations have been in 2006 (Guthrie 2006C) and 2007 and 2008 (Bloom Biological 2007A, 2008). Suitable nesting and foraging habitat is present within NRSP, Salt Creek, VCC, and Entrada.
Turkey vulture <i>Cathartes aura</i>	—	†	—	Rangeland, agriculture, grassland; uses cliffs and large trees for roosting, nesting and resting.	This species has been observed over multiple years within NRSP, Salt Creek, VCC, and Entrada; recent observations in the Project site have been made in 2006 (Guthrie 2006C; Bloom Biological 2007A); nesting opportunities are also present within the Project site.
northern harrier (nesting) <i>Circus cyaneus</i>	--	CSC	LC	Coastal salt marsh, freshwater marsh, grasslands, and agricultural fields.	This species has been observed within NRSP in 1999 and 2000 (Guthrie 1999B, 2000A) and in 2007 and 2008 near the Santa Clara River in the NRSP and Entrada sites (Bloom Biological 2007A, 2008).

Common Name Scientific Name	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
					This species has also been observed within the vicinity of the project site (Compliance Biology 2003B, 2006A); suitable foraging and nesting habitat is present within NRSP, Salt Creek, VCC, and Entrada.
western yellow-billed cuckoo (nesting) <i>Coccyzus americanus occidentalis</i>	FC BCC	CE	—	Nests along the broad, lower flood-bottoms of larger river systems. Also nests in riparian forests and riparian jungles of willow often mixed with cottonwoods, with an understory of blackberry, nettles, or wild grape.	One individual was heard at the Magic Mountain (Entrada) area in 1997 and thought to be a migrant (Labinger <i>et al.</i> 1997B). Single individuals (thought to be migrants) were observed along the Santa Clara River east of the Project site in 1997 and 1998 (Guthrie 1997A; Labinger and Greaves 1999A), and west of the Ventura county line (Guthrie 1997B); none have been observed since then; species has not been observed nesting on site; suitable nesting and foraging habitat present within NRSP, VCC and Entrada. This species has been observed historically in 1979, 1981 and 1992 (Labinger <i>et al.</i> 1997A).
yellow warbler (nesting) <i>Dendroica petechia brewsteri</i>	--	CSC	LC	Riparian thickets and woodlands.	This species has been observed over multiple years during annual bird surveys and nests in the riparian areas within NRSP, Salt Creek, VCC, and Entrada. These species have been observed both during nesting season and migration. Recent observations of these species within the Project site in 2006 (Guthrie 2006A, 2006B, 2006C) and 2007 (Bloom Biological, Inc. 2007A).
white-tailed kite (nesting) <i>Elanus leucurus</i>	--	CFP	--	Inhabits herbaceous and open stages of most habitats, common in cismontane in California. Nests are placed near top of dense oak, willow or other tree stand; usually 6 to 20 meters (20 to 100 feet) above ground. Nest located near open foraging area.	This species has been observed successfully nesting on site and in the vicinity of the project site along the Santa Clara River over multiple years within NRSP, Salt Creek, VCC, and Entrada during annual bird surveys (Guthrie 1994A, 1995A, 1997A, 1998B, 2000E, 2000F, 2006B) and during focused survey (Bloom Biological 2007A, 2009); suitable foraging and nesting habitat is present on the Project site.

Common Name Scientific Name	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
willow flycatcher (nesting) <i>Empidonax traillii</i>	USBC	CE	—	Riparian woodlands that contain water and low willow thickets.	This species has been observed along the Santa Clara River over multiple years within the NRSP, Entrada and VCC project sites. The observations have usually been of individual species, thought to be migrants passing through the area based on their behavior and time of year (no observations occurred after June 22). Recent observations along the Santa Clara River within the NRSP, Entrada, and VCC have been made in 2005 and 2006 (Guthrie 2005B, 2006B). These species have also been observed adjacent to the project site. No nesting has been observed.
southwestern willow flycatcher (nesting) <i>Empidonax traillii extimus</i>	FE, USBC	CE	—	Riparian woodlands that contain water and low willow thickets.	Most of the observations of the willow flycatcher have not identified individuals to the subspecies level. Individuals were considered to be migrating through the site as they were not located after June 22. Within the vicinity of the project site, two individuals identified as southwestern willow flycatchers were observed in Castaic Creek in 2006 (Forde Biological Consultants 2006). These individuals, however, were not displaying any nesting behavior. Suitable nesting and foraging habitat is present within NRSP, VCC, and Entrada. The most recent observation of this subspecies displaying territorial behavior is downstream approximately 18 miles, near Saticoy (Labinger and Greaves 1999A).
California horned lark <i>Eremophila alpestris actia</i>	--	WL	LC	Grasslands, disturbed areas, agriculture fields, and beach areas.	This species has been observed within NRSP, Entrada, and VCC during annual bird surveys foraging in plowed and graded fields near the Santa Clara River and Castaic Creek over multiple years. In winter 2008 flocks of 250-500 individuals were observed in the Wolcott agriculture fields and east alfalfa field on several occasions (Bloom Biological 2008), and was observed in agriculture fields in 2007 (Bloom Biological 2007A); this species is thought to be a resident with recent observations (Guthrie 2000A, 2000C, 2001A, 2005B, 2006C); no nesting has been observed, but suitable foraging and nesting habitat is present on the Project site.

Common Name Scientific Name	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
merlin (wintering) <i>Falco columbarius</i>	--	WL	LC	Coastlines, wetlands, woodlands, agricultural fields, and grasslands.	Several individuals observed on different occasions hunting over agriculture fields along the Santa Clara River and in Potrero Canyon (Bloom Biological 2008). A male and female were observed flying over agriculture fields bordering riparian habitat near Indian Dunes in the NRSP in March 2007 (Bloom Biological 2007A). Although this species does not nest in California, CDFG considers wintering birds to be of Special Concern.
prairie falcon (nesting) <i>Falco mexicanus</i>	BCC	WL	LC	Grasslands, savannas, rangeland, agricultural fields, and desert scrub; requires sheltered cliff faces for shelter and nesting.	At least two individuals were observed on several occasions in Potrero Canyon; and two other individuals were observed along the Santa Clara River on single occasions (Bloom Biological 2008). Individuals observed foraging within NRSP in 2000 (Guthrie 2000A), along Castaic Creek in 2001 (Guthrie 2001A), and Salt Creek in 2005 (Dudek and Associates 2006B); it was observed flying north over the NRSP on April 29, 2007 (Bloom Biological 2007A); all of these occurrences were thought to be migrants in the Project site; moderate potential to occur within Entrada. No nesting individuals have been observed and available nesting habitat is marginal.
American peregrine falcon <i>Falco peregrinus anatum</i>	BCC, Delisted	CE, CFP	LC	Nests near wetlands, lakes, rivers, or other water bodies, on cliffs, banks, dunes, and other human-made structures.	One individual was observed on one occasion over Wolcott agriculture field (Bloom Biological 2008). An individual was observed foraging over the Santa Clara River corridor near the Grapevine Mesa area within NRSP in 2000 (Guthrie 2000B); no other occurrences of this species have been documented on site during annual bird surveys. No nesting peregrine falcons have been observed on the Project site. Moderate potential for foraging within NRSP, Salt Creek, VCC, and Entrada. The species may nest in the Santa Susana Mountains, south of the Project site (Guthrie 2000B).
California condor <i>Gymnogyps californianus</i>	FE, USBC	CE, CFP	—	Forages over wide areas of open rangelands, roosts on cliffs and in large trees and snags.	Until April 2008, California condors had not been known to nest or land within the Project area within the last 25 years (Bloom Biological 2007A, 2008). In April 2008, a California condor was observed feeding on a dead calf in a Potrero side canyon by wildlife biologist Chris Niemela (Carpenter 2008). It is a wide-ranging species that nests on remote cliffs, but forages over hundreds of square miles and is known to at least fly over the site (Bloom Biological 2008).

Common Name Scientific Name	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
yellow-breasted chat (nesting) <i>Icteria virens</i>	--	CSC	LC	Riparian thickets and riparian woodlands with a dense understory.	This species was observed nesting in riparian thickets in 2007 (Bloom Biological 2007A) and has been observed over multiple years along the Santa Clara River within dry riparian woodland habitat in the NRSP, Salt Creek, Entrada, and VCC during annual bird surveys. Recent observations were made within the Project site in 2006 (Guthrie 2006A, 2006C); suitable foraging and nesting habitat is present on the Project site.
loggerhead shrike <i>Lanius leudovicianus</i>	BCC	CSC	LC	Grasslands and open shrublands with scattered shrubs, trees, fences, or other perches.	This species is a resident on site (Bloom Biological 2007A, 2008). In winter 2008 it was observed regularly in Potrero Canyon, Tapo Canyon, near Magic Mountain ranch gate, and Wolcott agriculture fields (Bloom Biological 2008). Observed to be fairly common within California sagebrush scrub and grasslands in the NRSP and also observed within VCC (Guthrie 1995A, 2004H), Salt Creek (Dudek and Associates 2006B) and Entrada (Dudek and Associates 2006E); it was observed nesting near Potrero Canyon and near an agriculture field near the Santa Clara River in 2007 (Bloom Biological 2007A); it was thought to have nested within and adjacent to the Entrada site (Guthrie 2000D, 2004G); suitable nesting and foraging habitat is present on the Project site.
black-crowned night-heron (rookery) <i>Nycticorax nycticorax</i>	—	***	LC	Riparian; nests in dense-foliaged trees and dense emergent wetlands.	This species has been observed along the Santa Clara River within the NRSP, most recently in 2007 (Bloom Biological 2008), and in 2006 (Guthrie 2006A and Bloom Biological 2007A); within Entrada, in 2006 (Guthrie 2006C); and along Castaic Creek, in 2000 (Guthrie 2000E). This species was observed early in the year and is thought to be a wintering or migratory species within the Project site. No rookery sites have been detected on or near the site (Bloom Biological 2008). It is not known if this species has a rookery site within or adjacent to the Project site (Bloom Biological 2007A). Some suitable foraging and nesting habitat is present on site.
Nuttall's woodpecker (nesting) <i>Picoides nuttallii</i>	USBC	***	ABC, LC, Aud	Lower elevation riparian deciduous and oak habitats.	This species is a common, year-round resident in cottonwood and willow riparian habitat along the Santa Clara River and Castaic Creek (Bloom Biological 2007A, 2008). It has been observed nearly every year since surveys began in 1988 (see Guthrie and Bloom Biological surveys).

Common Name Scientific Name	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
summer tanager (nesting) <i>Piranga rubra</i>	—	CSC	—	Cottonwood-willow riparian habitats, especially older, dense stands along rivers and streams.	Individuals have been observed during annual bird surveys within NRSP in 1994 (Guthrie 1994B), in Entrada in 1991 and 1993 (Guthrie 1991A, 1993A, 1993B); it has also been observed east of the project site in 2000 and 2003 (Guthrie 2000E, 2003A); suitable nesting and foraging habitat present along the Santa Clara River and Castaic Creek within NRSP, VCC, and Entrada.
coastal California gnatcatcher <i>Poliophtila californica californica</i>	FT, USBC	CSC	—	Various sage scrub communities, often dominated by California sage and buckwheat; generally avoids nesting in areas with a slope of greater than 40%, and typically less than 820 feet in elevation.	Suitable nesting and/or foraging habitat types are present on site, but all at higher elevations and/or with steeper slopes than typical of this species. The species has not been observed on site during numerous annual bird surveys (including USFWS protocol surveys). Focused protocol surveys have been conducted throughout the Project site in 2000 (Guthrie 2000A, 2000B, 2000D) 2004 (Guthrie 2004A, 2004B, 2004D, 2004E, 2004G) and 2007 (Dudek 2007B). Focused surveys have also been conducted off site in Legacy Village (Guthrie 2004C; Impact Sciences, Inc 2000; SAIC 2003) and other areas (Compliance Biology 2003A and 2003B, 2006A; PCR 1998). However, during the course of biological monitoring conducted in the VCC planning area, an individual California gnatcatcher was observed on October 5, 2007 by Dudek biologist Jeff Priest and biologist Ron Francis, a sub-consultant to Dave Crawford, Compliance Biology, Inc. (Priest 2007A). Given the time of year and the fact that no other California gnatcatchers have been observed within the Project site (despite extensive focused and general surveys), this observation is believed to have been that of a dispersing or transient individual.
vermillion flycatcher (nesting) <i>Pyrocephalus rubinus flammeus</i>	—	CSC	—	Breeding habitat includes riparian woodlands, riparian scrub, and freshwater marshes.	A single individual was observed along the Santa Clara River in 1993 (Guthrie 1993B); suitable breeding and foraging habitat present on site along the Santa Clara River in the NRSP and Entrada and along Castaic Creek in VCC; some suitable habitat exists in Salt Creek.

Common Name Scientific Name	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
Allen's/ Rufous hummingbird (nesting) <i>Selasphorus sasin/rufus</i>	USBC/ USBC, BCC	***	ABC, LC, Aud	Breeds in coastal scrub, valley foothill hardwood, and valley foothill riparian habitats. Migrates in woodland and scrub habitats.	This species has been observed along the Santa Clara River within and adjacent to the NRSP (Bloom Biological 2008; Guthrie 1998A, 1999B, and 2004F), in the upland area of the Entrada site (Guthrie 2004G), and along Castaic Creek in VCC (Guthrie 2004B). These observations were thought to be of migrants. The Project site provides suitable foraging, nesting, and migrating habitat throughout the NRSP, Entrada and VCC. The Project site is within this species' year-long range.
chipping sparrow (nesting) <i>Spizella passerina</i>	--	***	LC	Open woodlands with sparse or low shrubs.	This species has been observed as a common migrant in the Project site (Bloom Biological 2007A); additional observations are within and adjacent to the NRSP near the Santa Clara River (Guthrie 1994B, 1997B, 1999B, and 2002A), near Grapevine Mesa (Guthrie 2000B) and Homestead Canyon (Guthrie 2004A), in Entrada (Guthrie 1991A, 1992, 1993A, and 1999A), and in VCC (Guthrie 1991B). Suitable habitat occurs on site, mostly in High Country with some open woodland areas in Potrero Canyon as well. The Project site is within this species' year-long range.
least Bell's vireo (nesting) <i>Vireo bellii pusillus</i>	FE, USBC, BCC	CE	ABC, NT, Aud	Riparian vegetation with extensive willows below 2,000 feet.	This species has been observed almost every year along the Santa Clara River within the NRSP, and over multiple years in Entrada and VCC. It has been observed nesting within NRSP and Entrada most recently in 2007 (Bloom Biological 2007A) during annual bird surveys; on-site nesting sites in willow riparian habitats associated with the Santa Clara River and Castaic Creek. Suitable nesting and foraging habitat present within NRSP, VCC, and Entrada.
yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	--	CSC	LC	Nests in freshwater marsh and forages in annual grassland, native grassland and agriculture.	This species has been observed within the NRSP (Guthrie 1996B, 1997B, 1999B, 2001B), in Entrada (Guthrie 1988, 2000E), and in VCC (Guthrie 1997A, 2006C). All observations were thought to be migrants. While suitable nesting and foraging habitat occurs on the Project site, this species is expected to occur very rarely on site.

Common Name Scientific Name	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
Mammals					
pallid bat <i>Antrozous pallidus</i>	—	CSC	WBWG High, LC	Arid habitats, including grasslands, shrublands, woodlands and forests; prefers rocky outcrops, cliffs and crevices with access to open habitats for foraging.	This species was detected within NRSP during ANABAT surveys (Impact Sciences 2005) and in 2006 (Johnson 2006); on-site habitats and structures (e.g., oak woodlands, buildings, SR-126 bridge) provide suitable roosting habitat within NRSP, Salt Creek, VCC, and Entrada.
western mastiff bat <i>Eumops perotis californicus</i>	—	CSC	LC, WBWG High	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub and urban.	This species was not detected within NRSP during ANABAT surveys (Impact Sciences 2005), but it was observed in 2006 (Johnson 2006) within the NRSP; suitable roosting and foraging habitat is present throughout the Project site.
western red bat <i>Lasiurus blossevillii</i>	—	CSC	WBWG High	Occurs in a wide variety of habitats, including scrub, grassland, woodland, and riparian areas.	There were three acoustic detections of the western red bat in the Project area. Two 2004 detections (Impact Sciences 2005) were in willow riparian habitat, and the 2006 detection was under The Old Road Bridge (Johnson 2006). Suitable roosting and foraging habitat is present throughout the Project site.
San Diego black-tailed jackrabbit <i>Lepus californicus bennettii</i>	—	CSC	—	Open chaparral and California sagebrush scrub, grassland and agriculture.	Observed at mouth of Potrero Canyon within NRSP (Impact Sciences 2005). Suitable habitat is present within California sagebrush scrub and chaparral habitats within NRSP, Salt Creek, High Country, VCC, and Entrada.
fringed myotis <i>Myotis thysanodes</i>	—	***	—	Occurs in a wide variety of habitats. Optimal habitats include pinyon–juniper, valley foothill hardwood and hardwood–conifer woodlands. Forms maternity colonies and roosts in caves, mines, buildings and crevices.	This species was detected within NRSP in coast live oak habitat during ANABAT surveys (Impact Sciences 2005); suitable roosting and foraging habitat is present within the Project site in oak woodlands scattered throughout NRSP and larger concentrations in High Country.
Yuma myotis <i>Myotis yumanensis</i>	—	***	—	Inhabits open forests and woodlands with sources of water. Species is closely tied to bodies of water, over which it feeds. Forms maternity colonies in caves, mines, buildings, or crevices.	This species was not detected within NRSP during ANABAT surveys (Impact Sciences 2005), but it was observed in 2006 (Johnson 2006) within the NRSP; suitable roosting and foraging habitat is present within the Project site.

Common Name Scientific Name	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	--	CSC	—	Open chaparral, California sagebrush scrub, cactus patches, and the understory of tree thickets.	A species of desert woodrat was observed during 2004 small mammal surveys within NRSP (Impact Sciences 2005). Single woodrat middens were observed within Entrada (Dudek and Associates 2006E) and within High Country (Dudek and Associates 2006B). Moderate potential to occur within Salt Creek and VCC. Based on the known range of this species, It is assumed that the animals observed were the San Diego (<i>intermedia</i>) subspecies.
pocketed free-tailed bat <i>Nyctinomops femorosaccus</i>	--	CSC	WBWG Medium	Occurs in a wide variety of habitats, including scrub, grassland, woodland, and riparian areas.	The pocketed free-tailed bat was acoustically detected in 2006 in lower Potrero Creek (Johnson 2006). It roosts in crevices in cliffs and forages in open air in all habitats. The Project area is at the extreme northwestern part of pocketed free-tailed bat range in California and does not contain the desert habitats typically used by this species. Though present on site, it is probably an occasional visitor.
Mule deer <i>Odocoileus hemionus</i>	—	†	—	Variety of habitats including forests, woodlands, brush, meadows and standing waters.	This species has been observed during surveys within Entrada (Dudek and Associates 2006E), NRSP (Impact Sciences 2005), and High Country and Salt Creek (Dudek and Associates 2006B). Suitable habitat exists throughout the Project site.
Mountain lion <i>Puma concolor</i>	—	★	—	Occurs in a variety of scrub and forested habitats.	This species has been observed within NRSP (Impact Sciences 2005), and High Country and Salt Creek (Dudek and Associates 2006B); the Project site is expected to host transient individuals and to be part of local lion(s)' home range.

Common Name Scientific Name	Status			Habitat Requirements	On-Site Status
	Federal	State	Other		
American badger <i>Taxidea taxus</i>	—	—	—	Grasslands, agriculture, drier open stages of shrub, forest, and herbaceous habitats with friable soils.	Observed during small mammal surveys within NRSP (Impact Sciences 2004; Dudek and Associates 2006B). Suitable habitat exists within central portions of NRSP. Moderate potential to occur in some areas of VCC and Entrada.
Black bear <i>Ursus americanus</i>	—	†	—	Dense forests; forages in brush forests, valley foothill riparian and wet meadows.	Observed within High Country in 2005 (Dudek and Associates 2006B). Some suitable habitat occurs within the southern portion of High Country.

STATUS KEY:Federal:

FE = Federally listed as endangered

FT = Federally listed as threatened

FC = Federal Candidate

BCC = Bird of Conservation Concern

State:

CE = California-listed as endangered

CT = California-listed as threatened

CFP = California Fully Protected

CSC = California Species of Special Concern

WBWG = Western Bat Working Group †: Trust resource

FC = Federal Candidate for listing as threatened or endangered

WL = Watch List

CDF = California Department of Forestry Sensitive

*** = Special Animal

★ = Specially protected mammal

† = Trust resource

Other:

LC = Least Concern (IUCN)

NT = Near Threatened (IUCN)

Aud = Audubon Watch List

ABC = American Bird Conservancy Green List

USBC = U.S. Bird Conservation Watch List

¹ On October 11, 2007, the California Fish and Game Commission designated the American peregrine falcon (*F. p. anatum*) as a candidate for delisting under CESA (California Regulatory Notice Register 2007).

**Table 4.4-7
Special-Status Wildlife Species with Potential to Occur on the Project Site**

Common Name <i>Scientific Name</i>	Status			Habitat Requirements	Habitat Suitability
	Federal	State	Other		
FISH					
southern steelhead <i>Oncorhynchus mykiss</i>	FE	—		As juveniles and for spawning: relatively cool freshwater streams, well oxygenated water with adequate depth and cover in the way of gravel, cobble, boulder, undercut banks, large and small woody debris, and overhanging vegetation. As non-spawning adults: Pacific Ocean.	<p>Within the Santa Clara River drainage, southern steelhead historically inhabited Piru Creek, Sespe Creek, Santa Paula Creek, Hopper Creek, and possibly Pole Creek (Titus <i>et al.</i> n.d.). Presently, southern steelhead occur downstream of the proposed Project in the Santa Clara River watershed in Piru Creek between the confluence with the Santa Clara River and Santa Felicia Dam, in Sespe Creek, in Santa Paula Creek, and possibly in Hopper and Pole Creeks (Stoeker and Kelly 2005).</p> <p>Although reconnaissance surveys conducted along the Santa Clara River and tributary drainages within the Specific Plan area of the NRSP were negative in 2004 and 2005 (ENTRIX 2009), this species was included in this category (Potential to Occur on Site) due to potential downstream effects of the proposed Project.</p>

Common Name Scientific Name	Status			Habitat Requirements	Habitat Suitability
	Federal	State	Other		
AMPHIBIANS					
California red-legged frog <i>Rana aurora draytonii</i>	FT	CSC	--	Permanent water sources such as ponds, lakes, reservoirs, streams, and adjacent riparian woodlands.	Field investigations indicate that potential breeding or summer habitat is generally absent from the portion of the Santa Clara River within the NRSP (ENTRIX 2009); the species generally avoids large river channels with widely fluctuating flows because such habitat does not permit successful reproductive activity (Hayes and Jennings 1988). Not documented in the Santa Clara River (CNDDB). Surveys for this species were conducted within the Santa Clara River in 1995 (SMEA 1995) and 2001 (Sandburg 2001) with negative results. The species has been documented within the Piru Creek and San Francisquito Creek tributaries to the River; given the occurrence of California red-legged frog in nearby upstream and downstream tributaries, non-breeding frogs could occur within the portion of the Santa Clara River (and other drainages) on the Project site. Additionally, the stock ponds on the NRSP provide suitable habitat and could support breeding frogs, although none have been found there.
REPTILES					
Rosy boa <i>Charina trivirgata</i> ssp. <i>roseofusca</i>	—	***	--	Inhabits desert and chaparral habitats with rocky soils in coastal canyons and hillsides, desert canyons, washes and mountains.	Suitable scrub and chaparral habitat occurs within the Project with large concentrations in the northeastern portion of NRSP and southeastern portion of High Country, and some in Potrero Canyon; riverbank habitat occurs on site along the Santa Clara River and Castaic Creek; oak woodlands are sparsely scattered throughout the NRSP with larger concentrations in High Country; this species is known to occur in the Project region and presumed to occur on site.

Common Name Scientific Name	Status			Habitat Requirements	Habitat Suitability
	Federal	State	Other		
San Bernardino ringneck snake <i>Diadophis punctatus modestus</i>	—	***	-	Inhabits open, relatively rocky areas, often in somewhat moist microhabitats near intermittent streams. Avoids moving through open or barren areas by restricting movements to areas of surface litter or herbaceous vegetation.	Suitable habitat occurs within the Project site in association with oak woodland and riverbank habitats; ; riverbank habitat occurs on site along the Santa Clara River and Castaic Creek; oak woodlands are sparsely scattered throughout the NRSP with larger concentrations in High Country; species is known to occur in the Project region and presumed to occur on site.
coast patch-nosed snake <i>Salvadora hexalepis virgulata</i>	--	CSC	--	Inhabits brushy or shrubby vegetation. Requires small mammal burrows for refuge and overwintering sites.	Suitable habitat occurs throughout the Project site in association with shrub habitats (upland and riparian scrub, chaparral and riverwash); California ground squirrel and Botta's pocket gopher burrows occur on site; species is known to occur in the Project region and presumed to occur on site.
south coast garter snake <i>Thamnophis sirtalis</i> ssp.	--	CSC	--	Inhabits scrub, chaparral, annual and native grassland, freshwater marsh, and agriculture.	Suitable habitat occurs throughout the Project site in association with scrub, chaparral, grassland, and agriculture habitats.
BIRDS					
Bell's sage sparrow (nesting) <i>Amphispiza belli belli</i>	BCC	WL	LC	Coastal scrub and chaparral.	This species has been observed off site in Castaic Mesa (Compliance Biology 2006A), near Soledad Canyon in 2002 (Compliance Biology 2003), and in the Legacy Village project site, adjacent to the NRSP and Salt Creek area (Guthrie 2004C). Suitable nesting and foraging habitat present within the Project site with concentrations of coastal scrub and chaparral in the northeastern portion of the NRSP and southeastern portion of High Country.
black-chinned sparrow (nesting) <i>Spizella atrogularis</i>	BCC, USBC	***	ABC, LC, Aud, USBC	Chaparral and sagebrush scrub.	Suitable habitat occurs within Project site in association with chaparral and coastal scrub habitats which are concentrated in the northeastern portion of the NRSP and the southeastern portion of High Country.

Common Name Scientific Name	Status			Habitat Requirements	Habitat Suitability
	Federal	State	Other		
MAMMALS					
ringtail <i>Bassariscus astutus</i>	—	CFP	—	Mixture of forest and shrubland in close association with rocky areas and riparian habitats; uses hollow trees, snags, and logs for cover and reproduction.	This species was surveyed for during the mammal surveys in 2004 (Impact Sciences 2005). Cameras, scent/track stations and spotlight survey techniques were used to detect these species. Low potential to occur based on lack of suitable habitat, such as hollow trees, logs, snags and abundant rocky areas. In addition, these species are not usually found more than 1 kilometer away from permanent water; therefore these species would most likely have been detected during the numerous studies performed near the Santa Clara River and its tributaries (Haglund & Baskin 2000; Impact Sciences 2005; Dudek and Associates 2006D, 2006E).
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	—	CSC	WBWG High	Utilizes a variety of communities, including conifer and oak woodlands and forests, arid grasslands and deserts and high-elevation forests and meadows. Requires appropriate roosting, maternity and hibernacula sites free from human disturbance.	This species was not detected within NRSP during ANABAT surveys (Impact Sciences 2005). Suitable roosting and foraging habitat is present within the Project site.
western small-footed myotis <i>Myotis ciliolabrum</i>	—	CSC	WBWG Medium	Occurs in a wide variety of habitats, including scrub, grassland, woodland, and riparian areas. Requires appropriate roosting, maternity and hibernacula sites free from human disturbance.	Impact Sciences (2005) identified the 40 kHz frequency range species in 2004 as the western small-footed myotis, but without additional information (<i>e.g.</i> , longer time-series recording or capture); this identification could not be confirmed because this frequency is characteristic of at least two other species that could occur on site: long-legged myotis and little brown bat. In 2006, 40 kHz bat species were recorded in all three survey locations along Potrero Creek, along the Santa Clara River at Wolcott Road, and off site at the plant nursery site in upper Long Canyon. Without definitive presence/absence information, for the purpose of this analysis, it is assumed that the western small-footed myotis occurs in the Project area.

Common Name Scientific Name	Status			Habitat Requirements	Habitat Suitability
	Federal	State	Other		
long-legged myotis <i>Myotis volans</i>	—	CSC	WBWG Medium	Occurs in a wide variety of habitats, including scrub, grassland, woodland, and riparian areas. Requires appropriate roosting, maternity and hibernacula sites free from human disturbance.	The presence of the long-legged myotis was not confirmed in the Project area during the acoustic and mist netting surveys conducted in 2004 and 2006 (Impact Sciences 2005; Johnson 2006). However, bats with acoustic signatures in the 40 kHz range, which is the range for the long-legged myotis, were detected on site in 2004 and 2006. Impact Sciences (2005) identified the 40 kHz frequency-range species in 2004 as the western small-footed myotis, but without additional information (<i>e.g.</i> , longer time-series recording or capture), this identification could not be confirmed. Based on the frequency data alone, the 40 kHz species could be western small-footed myotis, long-legged myotis, or little brown bat; therefore, all three species should be considered to be potentially present on site. In 2006, 40 kHz bat species were recorded in all three survey locations along Potrero Creek, along the Santa Clara River at Walcott Road, and at the plant nursery site in upper Long Canyon.
southern grasshopper mouse <i>Onychomys torridus ramona</i>	—	CSC	--	Inhabits desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	This species has not been detected within NRSP during small mammal trapping (Impact Sciences 2005). This species has potential to occur at least in low densities on site within coastal scrub and grassland vegetation communities; it is not expected to occur within other habitats on the Project site.

STATUS KEY:Federal:

FT = Federally listed as Threatened
FC = Federal Candidate for listing as threatened or endangered
BCC = Bird of Conservation Concern
USBC = U.S. Bird Conservation Watch List

State:

CT = California-listed (state-listed) as threatened
CFP = California Fully Protected
SSC = California Species of Special Concern
WL: = Watch List
*** = Special Animal

FE = Federally listed as endangered CE = California-listed (state-listed) as endangered

(3) Special-Status Wildlife Species Not Expected or Rarely Occurring on the Project Site

The project site lacks suitable habitat to support the species addressed in **Table 4.4-8**, below, as resident or nesting species or is expected to only support the species on rare occasions, such as during migration. **Table 4.4-8** provides the species' regulatory status, habitat requirements, and an explanation of why the species is not expected to reside or substantially utilize the project site. If any of these species were observed during site surveys, they are listed in **Table 4.4-6**, above. As these species are not expected to breed, nest, or otherwise reside on or substantially utilize the project site, they are not discussed further in this document.

e. Jurisdictional Wetlands and Drainages

(1) Corps Jurisdiction

Wetlands, creeks, streams, and permanent and intermittent drainages are generally subject to the jurisdiction of the Corps under Section 404 of the federal Clean Water Act. The Corps has jurisdiction up to the "ordinary high water mark" of rivers, creeks, and streams that are considered "waters of the U.S." as defined by the Clean Water Act. If adjacent wetlands occur, the limits of jurisdiction extend beyond the ordinary high water mark to the outer edge of the wetlands. Wetlands are defined by Corps as "those areas that are inundated or saturated by surface or groundwater at a frequency or duration to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." (Corps 1987) The presence and extent of wetland areas are normally determined by examination of the vegetation, soils, and hydrology of a site. The Corps definition of wetlands requires that all three wetland identification parameters be met.

A jurisdictional delineation of "waters of the U.S." associated with the Santa Clara River and Chiquito Canyon Creek within the Specific Plan was conducted by URS in 2003 in accordance with Corps protocol. (URS 2003, Recirculated Draft EIR, **Appendix 4.4**.) Castaic Creek was not delineated at that time. The jurisdictional delineation conducted by URS (December 2003) for the proposed project (as well as the greater Newhall Ranch Specific Plan Area) was verified by the Corps on February 4, 2004. The Corps verification was based on the review of the Jurisdictional Delineation Permit Package submitted by URS (December 15, 2003), as well as on site visits conducted on August 7, August 19, and October 27, 2003.

**Table 4.4-8
Special-Status Wildlife Species Not Expected or Rarely Occurring on the Project Site**

Common Name <i>Scientific Name</i>	Status			Habitat Requirements	Habitat Suitability
	Federal	State	Other		
INVERTEBRATES					
vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT	--		Vernal pools.	Wet season vernal pool surveys were conducted in December 2007 to March 2008 in five previously identified depressions associated with western spadefoot surveys, including three in Potrero Canyon, one between Grapevine Mesa and Lion Canyon, and one east of Lion Canyon (Compliance Biology 2006C; Crawford 2007). Two of the five pools retained adequate water for testing, and results were negative. One depression located between Grapevine Mesa and Lion Canyon was a detention basin, and the other depression in Potrero Canyon was located on an oil well pad and storage area where water collected next to a bermed area. Neither of these depressions exhibited typical fairy shrimp habitat characteristics. No discernable depressions that could collect water were found at the other three previously identified locations, and water was not retained at these sites. All three were on dirt access roads. There is no indication of vernal pools or other seasonal pools on site that are suitable for fairy shrimp. The nearest documented vernal pools in relation to the Project area that could be source populations for fairy shrimp include at least two vernal pools located in the Plum Canyon area of Los Angeles County (Cruzan Mesa), approximately 10 miles from the Project area, and the Carlsberg vernal pools in Moorpark in Ventura County, approximately 15 miles from the Project area (Root 2008). Both the Carlsberg and Cruzan Mesa pools support the vernal pool fairy shrimp (USFWS 1998A).
San Diego fairy shrimp <i>Branchinecta sandiegoensis</i>	FE	--	--	Vernal pools.	
Riverside fairy shrimp <i>Streptocephalus woottoni</i>	FE	--	--	Vernal pools.	

Common Name Scientific Name	Status			Habitat Requirements	Habitat Suitability
	Federal	State	Other		
INVERTEBRATES (continued)					
					(continued) The USFWS is in concurrence that the Project is not likely to adversely affect listed fairy shrimp because these species are not known to occur in the Project area and suitable habitat is not known to occur in the Project area (Root 2008).
Insecta Order Lepidoptera (butterflies and moths)					
Quino checkerspot butterfly <i>Euphydryas editha quino</i>	FE	--	Xerces Critical	Occurs in localized colonies, always closely associated with the larval foodplant dot-seed plantain (<i>Plantago erecta</i>) and clay or cryptobiotic soils.	Based on a focused habitat assessment, it was concluded that the primary larval food plant (<i>Plantago erecta</i>) does not occur on the site (Compliance Biology 2004A, 2004C). This butterfly was last documented in the Santa Susana Mountains, approximately 30 miles south and southwest of the Project site in 1954.
AMPHIBIANS					
coast range newt <i>Taricha torosa torosa</i>	—	CSC	—	Often occurs in areas where streams and ponds dry up in the summer. Occurs beneath logs, boards, rocks, and in rodent burrows, but adults must return to water to breed. May be found in drier habitats, such as oak forests, chaparral, and rolling grasslands. Commonly found in or near ditches, ponds, lakes, and streams; however, a permanent water source is not necessary. Stream-breeding populations typically breed in slow moving or stagnant pools in streams	While suitable habitat occurs in the Project area, this species is not known to occur in the Project area. The nearest current occurrences range from 20 to 25 miles from the Project site, in the Santa Monica Mountains. Other southern California occurrences are in the Angeles National Forest in the San Gabriel Mountains, the Coast Ranges in Santa Barbara County, and the Cuyamaca Range in San Diego County.

Common Name Scientific Name	Status			Habitat Requirements	Habitat Suitability
	Federal	State	Other		
BIRDS					
coastal (San Diego) cactus wren <i>Campylorhynchus brunneicapillus sandiegensis</i>	BCC	CSC	—	Southern cactus scrub, maritime succulent scrub, cactus thickets in coastal sage scrub	No observations of cactus wrens have been made in the Project area, and the coastal (San Diego) cactus wren subspecies is not expected to occur on site based on its range. There are no large concentrations of cactus thickets on site that provide the necessary habitat constituent for nest sites.
great egret (rookery) <i>Ardea alba</i>	--	***	LC	Nests colonially in large trees. Rookery sites are typically located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes.	Individuals commonly observed over multiple years foraging within the Santa Clara River in NRSP, Entrada, and VCC; moderate potential for foraging within Salt Creek. Recent observations were made in 2006 (Guthrie 2006A, 2006C) No rookery sites have been observed on the project site during annual bird surveys.
great blue heron (rookery) <i>Ardea herodias</i>	--	***	LC	Nests colonially in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites are usually in close proximity to foraging areas such as marshes, lake margins, tide-flats, wet meadows, rivers, and streams.	Individuals commonly observed over multiple years foraging within the Santa Clara River within NRSP, Entrada and VCC; moderate potential for foraging within Salt Creek. Recent observations were made in 2006 (Guthrie 2006A, 2006C). No rookery sites have been observed on the Project site during annual bird surveys.
Swainson's hawk <i>Buteo swainsoni</i> (migrant)	BCC, USBC	CT	USBC, Aud., ABC	Open grassland, shrublands, croplands.	This species is a seasonal migrant. One individual (thought to be a migrant) was observed in 2000 in the NRSP (Guthrie 2000C). Two more observations were made within the vicinity of the Project site: one individual was observed northeast of VCC (Compliance Biology 2006A), and another east of Old Road bridge (Guthrie 1997A). Although suitable foraging habitat is present on the Project site, this species has not been documented to nest in southern California and is only expected to rarely forage over the site.

Common Name Scientific Name	Status			Habitat Requirements	Habitat Suitability
	Federal	State	Other		
BIRDS (continued)					
mountain plover <i>Charadrius montanus</i>	BCC, USBC	CSC	ABC, Aud, USBC	Nests in open, short-grass prairies or grasslands; winters in shortgrass plains, plowed fields, open sagebrush, and sandy deserts.	Some suitable habitat exists on site in agriculture and California annual grassland communities, which primarily are located in the central portion of the NRSP, San Martinez Grande, and adjacent to the Santa Clara River riparian areas. These communities have marginal habitat quality on site to support this species. This species only winters in southern California and only rarely occurs. It is not expected to breed on the project site.
bald eagle <i>Haliaeetus leucocephalus</i>	Delisted	CE, CFP	—	Seacoasts, rivers, swamps, large lakes; winters at large bodies of water in lowlands and mountains.	No suitable lake habitat exists on the project site and no records of nesting on the project site. There are no large bodies of water, large rivers, or seacoasts within the vicinity of the Project site.
least bittern (nesting) <i>Ixobrychus exilis</i>	--	CSC	LC	Dense emergent wetlands of cattails and tules are essential.	Cattails and tules occur within the Santa Clara River corridor; however, these areas do not contain the dense emergent vegetation characteristic of nesting habitat of this species.
long-billed curlew (nesting) <i>Numenius americanus</i>	BCC, USBC	WL	ABC, USBC, NT, Aud,	Nests in grazed, mixed grass and short-grass prairies. Localized nesting along the California coast. Coastal estuaries, mudflats, open grasslands and croplands are used in winter for foraging.	Some suitable habitat exists on site in agriculture and California annual grassland communities, which primarily are located in the central portion of the NRSP, San Martinez Grande, and adjacent to the Santa Clara River riparian areas. This species may occur rarely in the winter in the Project vicinity, but the Project site is outside its nesting range.
osprey (nesting) <i>Pandion haliaetus</i>	—	WL	—	Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest habitats, but widely observed along the coast.	Ospreys need areas that support fish for long periods of time. There are no large bodies of water on site or adjacent to the Project site that could support fish for long periods of time. One individual was observed on March 31 (Guthrie 2000B) and was probably in migration.

Common Name Scientific Name	Status			Habitat Requirements	Habitat Suitability
	Federal	State	Other		
BIRDS (continued)					
double-crested cormorant <i>Phalacrocorax auritus</i>	—	WL	—	Lakes, rivers, reservoirs, estuaries, ocean; nests in tall trees, rock ledges on cliffs, rugged slopes.	No suitable lake habitat exists on the project site and no records of nesting on the Project site. There are no large bodies of water, large rivers, estuaries or seacoasts within the vicinity of the Project site.
white-faced ibis (rookery site) <i>Plegadis chihi</i>	—	WL	—	Nests in dense emergent wetlands and marshes; winter foraging in shallow lacustrine waters, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields and estuaries.	Very little marsh habitat exists on site, and is primarily located south of the Santa Clara River in Potrero Canyon. This species is not known to regularly breed in California anymore, and there is not enough suitable habitat on the Project site to support rookery sites.
purple martin (nesting) <i>Progne subis</i>	--	CSC	LC	Nests in tall sycamores, pines, oak woodlands, coniferous forest; forages over riparian, forest and woodland.	This species may occasionally forage in the Project vicinity, but the site is outside its nesting range. There is limited suitable nesting habitat because there are no tall sycamores, pines, or coniferous forest communities on the Project site, and this species is not expected to nest on site. One individual was observed within NRSP (Guthrie 1994B).
Bank swallow (nesting) <i>Riparia riparia</i>	--	CT	LC	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, or the ocean to dig a nesting hole.	The Project site is not within this species' range. The required nesting habitat does not exist on the Project site, and no recent records of nesting in the area. Typically these species nest in areas such as the Sacramento and Feather rivers.

Common Name Scientific Name	Status			Habitat Requirements	Habitat Suitability
	Federal	State	Other		
BIRDS (continued)					
California spotted owl <i>Strix occidentalis occidentalis</i>	BCC, USBC	CSC	NT, Aud, USBC	Old growth oak and oak-conifer habitats	The Project site is within the species' yearlong range. However, this species generally requires dense, old growth forest areas for foraging and cover; breeds in mature, multi-layered forest stands and nests generally in a tree or snag cavity. No conifer habitats occur on site. Oak woodlands exist on site, but are generally more open and often occur as oak savannahs. Dense, mature coast live oak woodlands exist within canyons in High Country and Salt Creek that may be suitable habitat for these species; however in the Angeles National Forest (east of the Project site), these species have been documented using canyon live oak habitats with co-dominant conifer species (Stephenson 1991). In the Cleveland National Forest in San Diego, they have been documented in woodlands dominated by both coast and canyon live oak, but also with co-dominant conifer species (Stephenson 1991). Overall, there is limited dense oak woodland on site to support this species.

Common Name Scientific Name	Status			Habitat Requirements	Habitat Suitability
	Federal	State	Other		
MAMMALS					
Mexican long-tongued bat <i>Choeronycteris mexicana</i>	—	CSC	—	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland. Roosts in caves, mines, and buildings.	The Project site is not within this species' range. The closest range (and only known range in California) is in coastal San Diego County, approximately 100 miles southwest. This species requires habitats associated with desert habitats, and these are not found within the Project site.
spotted bat <i>Euderma maculatum</i>	—	CSC	WBWG High	Occupies a wide variety of habitats from arid deserts and grasslands, to mixed conifer forests. Feeds over water and along washes. Needs rock crevices in cliffs or caves for roosting.	The Project site is within this species' yearlong range. This species was not detected within NRSP during AnaBat surveys conducted in 2004 (Impact Sciences 2005) or in 2006 (Johnson 2006). There are no cliffs or caves on site; therefore there is limited suitable roosting habitat on or bordering the Project site. Some suitable foraging habitat may occur in grasslands on site; however no desert or mixed conifer habitats occur on site or near the Project site. Only rare to occasional spotted bat sightings have been recorded in the Project vicinity.
Los Angeles pocket mouse <i>Perognathus longimembris brevinasus</i>	—	CSC	--	Inhabits lower elevation grasslands and coastal sagebrush communities on open ground with fine sandy soils. May not dig extensive burrows, hiding instead under weeds and dead leaves.	This species has not been detected within NRSP during small mammal trapping (Impact Sciences 2005). Some suitable habitat may exist on site in grasslands; however there are no fine sandy soils associated with grassland or coastal scrub communities on site. The coastal scrub communities may be too in high elevation for the species. This species is not expected to occur on other portions of the Project site because the known range is south of the Project site.

Common Name Scientific Name	Status			Habitat Requirements	Habitat Suitability
	Federal	State	Other		
MAMMALS (continued)					
big free-tailed bat <i>Nyctinomops macrotis</i>	—	CSC	—	Rugged, rocky canyons.	This species has not been observed during wildlife surveys within the Project site. The closest range is in southwest San Diego County and is rare in California. This species is not expected to occur on site due to the distance from its known range.

STATUS KEY:

Federal:

FE = Federally listed as endangered
 FT = Federally listed as threatened
 FC = Federal Candidate for listing as threatened or endangered
 BCC = Bird of Conservation Concern
 USBC = United States Bird Conservation Watch List

State:

CE = California-listed (state-listed) as endangered
 CT = California-listed (state-listed) as threatened
 CFP = California Fully Protected
 CSC = California Species of Special Concern
 WL = Watch List
 *** = *Special Animal*

The Landmark Village tract map site is generally bordered to the east by Castaic Creek, to the south by the Santa Clara River and to the west by Chiquito Canyon Creek. As shown in **Figure 4.4-6, Jurisdictional Resources**, below, portions of Chiquito Canyon Creek and the Santa Clara River are within the project boundaries, as are portions of Castaic Creek. All of these drainages are considered to be under Corps jurisdiction. Additionally, portions of five seasonal tributaries of the Santa Clara River, one seasonal tributary of Chiquito Canyon Creek, and two agricultural drainages located on the project site have been determined to be under the jurisdiction of the Corps. The delineation conducted by URS indicated a total of 13.4 acres on the project site under the jurisdiction of the Corps. Based on an interpretation of an aerial photograph of the site, it is estimated that approximately 1.7 acres of Castaic Creek occur within the project boundary, just north and south of SR-126, and are expected to be under Corps jurisdiction, for a total estimated 15.1 acres of Corps jurisdiction within the project site boundary. There are no other features within the proposed project boundaries that are under the jurisdiction of the Corps.







(2) CDFG Jurisdiction

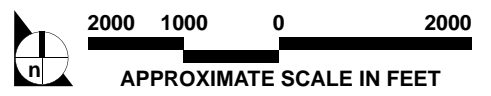
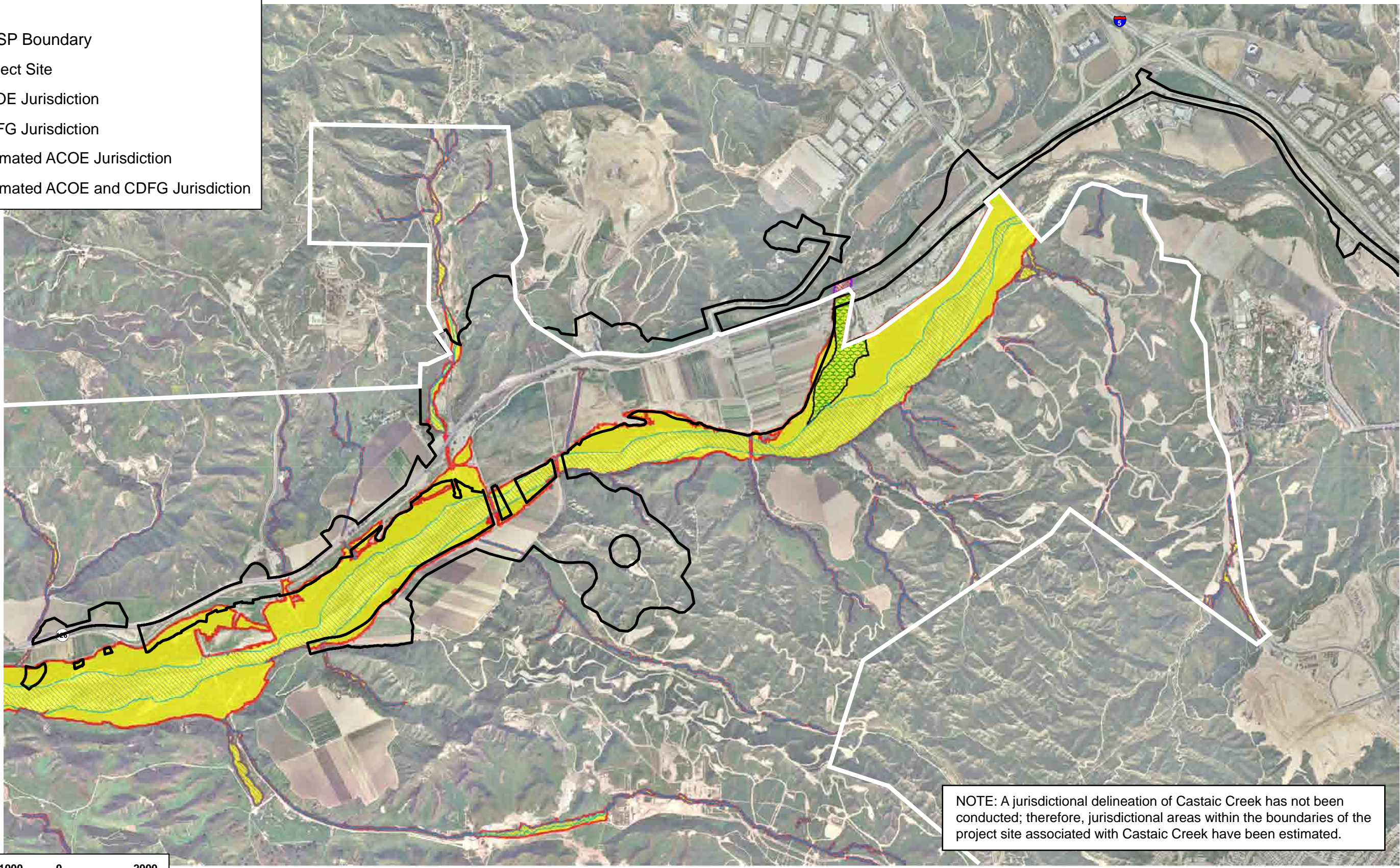
Streambeds within the project site are subject to regulation by CDFG under Section 1602 of the California Fish and Game Code. A stream is defined under these regulations as a body of water that flows at least periodically or intermittently through a bed or channel having banks, and that supports fish or other aquatic life. In many cases, CDFG's jurisdiction overlaps substantially with the Corp's jurisdiction.

According to the URS delineation (URS 2003, Recirculated Draft EIR, **Appendix 4.4**), CDFG jurisdiction on the project site encompasses the 15.1 acres under Corps jurisdiction. (See **Figure 4.4-6**, below). However, because CDFG also has jurisdiction over all riparian vegetation associated with creeks, drainages, and rivers, there is an additional 53.3 acres of riparian vegetation on the site under CDFG jurisdiction. The Landmark Village applicant is seeking approval of a Section 404 Permit from the Corps and a Master 1600 Agreement from the CDFG for the Newhall Ranch Specific Plan area, including the Landmark Village project site. The draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) has been released for public review in April 2009. For further information concerning the EIS/EIR Project, please refer to **Topical Response 2: EIS/EIR Project** of the Landmark Village Final EIR (November 2007).

f. Characteristics of Surrounding Areas

Plant communities in the immediate vicinity of the Landmark Village project site include coastal scrub, coast live oak woodland, valley oak/grass, undifferentiated chaparral, big sagebrush scrub, alluvial scrub, California annual grassland, southern cottonwood-willow riparian, southern willow scrub, and mulefat scrub.

- Legend:**
-  NRSP Boundary
 -  Project Site
 -  ACOE Jurisdiction
 -  CDFG Jurisdiction
 -  Estimated ACOE Jurisdiction
 -  Estimated ACOE and CDFG Jurisdiction



SOURCE: AirPhoto USA - 2004, Impact Sciences, Inc. - October 2008

FIGURE 4.4-6

Jurisdictional Resources

Similar to those on the project site, the surrounding riparian plant communities are of high biological value and provide suitable habitat for numerous common and special-status wildlife species. The latter include the Santa Ana sucker, unarmored threespine stickleback, arroyo chub, southwestern pond turtle, two-striped garter snake, least Bell's vireo, Cooper's hawk, Lawrence's goldfinch, yellow warbler, white-tailed kite, and yellow-breasted chat. (See **Tables 4.4-6** and **4.4-7**.) Additionally, the portion of the Santa Clara River (and associated riparian habitats) that is located on and borders the project site is an important migration and genetic dispersion corridor for many wildlife species, including aquatic taxa, riparian obligate species (resident and migratory) and larger, more mobile terrestrial animals.

The upland habitats surrounding the project site also provide suitable habitat for numerous common and special-status wildlife species, including the silvery legless lizard, coastal western whiptail, coast horned lizard, southern rufous-crowned sparrow, northern harrier, California horned lark, loggerhead shrike, pallid bat, western mastiff bat, pocketed free-tail bat, and San Diego desert woodrat. (**Tables 4.4-6** and **4.4-7**.) The upland habitats surrounding the project site also support populations of San Fernando Valley spineflower, slender mariposa lily, and Peirson's morning glory.

8. PROPOSED PROJECT IMPROVEMENTS

The Landmark Village project will be developed on 292.6 acres of land, in the first phase of the Riverwood Village, within the boundaries of the approved Specific Plan. At buildout, the project would contain 1,444 dwelling units, 1,033,000 square feet of commercial space, 9-acre elementary school, 16-acre Community Park, fire station, public and private recreational facilities, open space, trails, trailhead, park and ride, and road improvements. To facilitate development of this site, several off-site, project-related components would be implemented on an additional 770.8 acres of land, which lies mostly within the boundaries of the approved Specific Plan. Note that for purposes of this report, the "tract map site" refers only to the proposed location of the Landmark Village development site itself, and the "project site" includes the tract map site, plus the borrow site, the Chiquito Canyon grading site, the utility corridor, the Long Canyon Road Bridge, bank stabilization, drainage improvements and related haul routes (on a total of 1,063.4 acres).

Project-related components include the following:

- (1) A cut and fill grading operation, which includes fill imported to the tract map site from a 181-acre borrow site (and related haul routes), located south of the Santa Clara River (the Adobe Canyon borrow site); grading to accommodate roadway improvements to State Route 126 (SR-126); grading the utility corridor area, which runs parallel to SR-126; and constructing four debris basins for stormwater flows collected by the tract map's storm drainage system on approximately 120 acres of land, located directly north of SR-126 and east and west of Chiquito Canyon (Chiquito Canyon grading site);

- (2) 227-acre utility corridor, which would run parallel to SR-126, from the western boundary of the tract map site to the approved Newhall Ranch WRP near the Los Angeles County/Ventura County line, from the eastern boundary of the tract map site to the Old Road/Interstate 5 (I-5), and then south to Round Mountain, which would extend municipal services to and from the tract map site;
- (3) Potable water tank(s);
- (4) Conversion of a potable water tank to a recycled water tank; and
- (5) Construction of the Long Canyon Road Bridge, bank stabilization and storm drainage improvements.

9. PROJECT IMPACTS

a. Significance Threshold Criteria

Significant impacts of proposed development on the project site were determined from criteria included in the *State CEQA Guidelines*. As stated in Appendix G of the 2005 *State CEQA Guidelines*, a project could have a significant impact on the environment if it would result in any of the following:

- 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;
- Substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS;
- 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 *State CEQA Guidelines* also states that a project may have a significant effect on the environment when the project has the potential for the following:

- 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
- Substantially reduce the number or restrict the range of an Endangered, Rare, or Threatened species.

These significance criteria are applied to the proposed project.

b. Impact Analysis

Direct impacts represent the physical alteration (i.e., typically habitat degradation or loss) of biological resources that occur on site as a result of project implementation. Indirect impacts are those reasonably foreseeable effects caused by project construction and operation on remaining or adjacent biological resources. The significance of each of these impacts is determined by applying criteria defined above. For example, if the project causes a substantial adverse effect on a species identified as a “candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFG or USFWS,” that effect would be considered significant unless mitigated. Similarly, if the project causes a substantial adverse effect on a natural community identified as sensitive “... in local or regional plans, policies, or regulations, or by the CDFG or USFWS,” this impact would be considered significant.

To determine whether an impact on biological resources is “substantial” and, therefore, significant, the EIR must consider both the resource itself and the significance threshold criteria being applied. For example, because most plant and animal species are dependent on native habitats to satisfy various life cycle requirements, a habitat-based approach that addresses the overall biological value of a particular vegetation community or habitat area is appropriate when determining whether alteration of that habitat will “substantially” affect special-status species, sensitive habitats, wetlands, or movement corridors. The relative biological value of a particular habitat area—its functions and services—can be determined by such factors as disturbance history, biological diversity, its importance to particular plant and wildlife species, its uniqueness or sensitivity status, the surrounding environment and the presence or absence of special-status resources.

However, direct impacts to specific plant and wildlife resources (e.g., active nests and individual plants and animals) are also evaluated and discussed when impacts to these resources, in and of themselves, could be considered significant or conflict with local, state, and federal statutes or regulations. The analysis of direct impacts on individuals or populations of plant and animal species takes into consideration the number of individual plants or animals potentially affected, how common or uncommon the species is both on the project site and in the region and the species' sensitivity status according to resource agencies. These factors are evaluated based on the results of on-site biological

surveys and studies, results of literature and database reviews, discussions with biological experts, and established and recognized ecological and biodiversity theory and assumptions.

(1) Direct Impacts

The following subsection focuses on the project's direct effects on plant communities, common and special-status plant and wildlife species, special-status habitats, and wildlife movement corridors. The acreage calculation of impacts to plant communities includes required fire/fuel management areas. **Table 4.4-9, Plant Community/Land Use Impact Summary**, below, shows the acreage of each plant community/land use that would be developed and/or temporarily disturbed during construction of the proposed project.

An analysis of the "significance" of project impacts on biological resources is provided below. In addition, each impact discussion notes whether the findings of this report are consistent with the findings of the previously certified Newhall Ranch Specific Plan Program EIR. If approved, the Landmark Village project would be subject to the mitigation measures/conditions of approval contained in the RMP of the Newhall Ranch Specific Plan and the Newhall Ranch Specific Plan Program EIR. These mitigation measures and conditions were adopted by the County Board of Supervisors in association with approval of the Newhall Ranch Specific Plan and WRP (May 27, 2003). These adopted measures, as well as additional mitigation measures proposed to further reduce significant impacts, are included under **Subsection 10, Project Mitigation Measures**.

(a) Common Plant Communities and Land Covers

Grass and herb dominated communities (40.000.00)

Non-Native Grassland (42.000.00)

California Annual Grassland (42.040.00). The proposed project would result in the permanent conversion of 38.8 acres of California annual grassland. An additional 13.9 acres would be temporarily disturbed by bank stabilization and/or haul roads, but would be revegetated following completion of construction. Small pockets of grassland occur in scattered locations along the eastern portion of the project site and within both off-site grading locations. Given that these areas have already been altered or disturbed, and that this habitat type is not considered a sensitive natural community by resource agencies, the project would have a less than significant impact on this plant community. California annual grasslands may support special-status plant and animal species and provide foraging habitat for raptors (birds of prey). Therefore, the Newhall Ranch Specific Plan Program EIR included the impacts to

this plant community as part of its analysis of the overall loss of wildlife habitat (**Subsection 9.b.1.(b), Wildlife Habitat Loss**).

Scrub and chaparral (30.000.00)

Coastal Scrub (32.000.00)

The proposed project would result in the permanent and temporary conversion of 156.5 and 27.0 acres of coastal scrub and alliances/associations, respectively, as follows:

- **California Sagebrush Scrub** (32.010.00): 70.9 acres permanently converted, 18.7 acres temporarily converted.
- **California Sagebrush Scrub** (not mapped to the association level): 62.4 acres permanently converted, 18.3 acres temporarily converted.
- **California sagebrush** (association of California Sagebrush Scrub, dominated only by California sagebrush) (32.010.01): 0.0 acres permanently converted, 0.4 acres temporarily converted.
- **California Sagebrush-Black Sage Scrub** (32.120.00): 1.0 acre permanently converted, 5.0 acres temporarily converted.
- **California Sagebrush—California Buckwheat Scrub** (32.110.00): 22.8 acres permanently converted, 3.3 acres temporarily converted.
- **California Sagebrush Scrub—Undifferentiated Chaparral** (modified from 32.300.00 Coastal Sage Chaparral Scrub): 61.8 acres permanently converted, 0.0 temporarily converted.

Given the acreage that would be removed and the habitat value this plant community provides for common and special-status plant and wildlife species, the impacts on coastal scrub and alliances/associations, described above, would be significant. Additionally, the Newhall Ranch Specific Plan Program EIR previously identified a significant unavoidable impact to coastal sage scrub habitat. The magnitude of impacts to this plant community would be reduced by:

- implementation of RMP Mitigation Measures **SP 4.6-37** through **SP 4.6-42** (which would protect 1,311 acres of coastal scrub in the High Country SMA/SEA 20),
- implementation of additional proposed Mitigation Measures **LV 4.4-2** (preservation of 156.5 acres of coastal scrub off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Landmark Village), and
- protection of the Salt Creek Area (which contains 631 acres of this habitat type).

These mitigation measures will reduce impacts to this vegetation type to a level that is less than significant.

**Table 4.4-9
Plant Community/Land Use Impact Summary**

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	Total Acres present	Acres Developed	Acres Temporarily Disturbed	Total Acres Developed or Disturbed	Percent Acres Developed or Disturbed
Grass and Herb Dominated Communities (40.000.00)	Non-Native Grassland (42.000.00)	California annual grassland (42.040.00)	Not mapped to association level	52.7	38.8	13.9	52.7	100%
Scrub and Chaparral (30.000.00)	Coastal Scrub (32.000.00)	California sagebrush scrub (32.010.00)	Not mapped to association level	80.7	62.4	18.3	80.7	100%
			California sagebrush– <i>Artemisia californica</i> (32.010.01)	0.4	0.0	0.4	0.4	100%
			California sagebrush–purple sage (32.010.04)	8.5	8.5	0.0	8.5	100%
		California sagebrush–black sage scrub (32.120.00)	California sagebrush–black sage	6.0	1.0	5.0	6.0	100%
		California sagebrush–California buckwheat scrub (32.110.00)	Not mapped to association level	26.1	22.8	3.3	26.1	100%

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	Total Acres present	Acres Developed	Acres Temporarily Disturbed	Total Acres Developed or Disturbed	Percent Acres Developed or Disturbed
		California sagebrush scrub–undifferentiated chaparral (32.300.00)	Not mapped to association level	61.8	61.8	0.0	61.8	100%
		Not mapped to alliance level	Not mapped to association level	47.2	46.8	0.4	47.2	100%
	Undifferentiated Chaparral Scrubs (37.000.00)	Chamise chaparral (37.101.00)	Not mapped to association level	1.2	1.2	0.0	1.2	100%
	Chaparral with Chamise (37.100.00)	Coast live oak forest and woodland (71.060.00)	Coast live oak woodland (71.060.19)	2.4	2.4	0.0	2.4	100%
	Oak Woodland and Forest (71.000.00)							
Riparian and Bottomland Habitat (60.000.00)		Herbaceous wetland	Not mapped to association level	3.5	0.4	3.1	3.5	100%
	Other Riparian/Wetland	River wash	Not mapped to association level	15.2	2.5	12.7	15.2	100%
		Alluvial scrub	Not mapped to association level	0.5	0.0	0.5	0.5	100%
		Big sagebrush scrub (35.110.00)	Not mapped to association level	12.2	2.2	10.0	12.2	100%

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	Total Acres present	Acres Developed	Acres Temporarily Disturbed	Total Acres Developed or Disturbed	Percent Acres Developed or Disturbed
		Big sagebrush scrub	Big sagebrush-California buckwheat	0.5	0.4	0.1	0.5	100%
		Arrow weed scrub (63.710.00)	Not mapped to association level	7.0	5.1	1.9	7.0	100%
	Low to High Elevation Riparian Scrub (63.000.00)	Mulefat scrub (63.510.00)	Not mapped to association level	12.0	6.9	5.1	12.0	100%
		Southern willow scrub (63.130.00)	Not mapped to association level	3.8	0.0	3.8	3.8	100%
		Fremont cottonwood riparian forest and woodland (61.130.00)	Southern cottonwood-willow riparian (61.130.02)	31.5	4.9	26.6	31.5	100%
		Coast Live Oak Forest and Woodland (71.060.00)	Southern Coast Live Oak Riparian Forest (71.060.20)	0.6	0.0	0.6	0.6	100%
			NA	428.1	357.9	70.2	428.1	100%
Man-Made Land Cover Types		Agriculture	NA	11.1	9.1	2.0	11.1	100%
		Developed land	NA	249.0	83.2	165.8	249.0	100%
		Disturbed land		1,063.2	718.3	345.0	1,063.2	100%

¹ Temporarily disturbed by bank stabilization, utility corridor, and/or haul roads, but would be revegetated to native vegetation following completion of construction

Undifferentiated Chaparral Scrubs (37.000.00)

The proposed project would result in the permanent and temporary conversion of 46.8 and 0.4 acres of undifferentiated chaparral scrubs, respectively.

This plant community is a dominant natural vegetation type in the region and is not considered a sensitive natural community in Southern California by resource agencies. Given the small amount of acreage that would be removed, and the common nature of this plant community in the project region, the proposed project would have a less-than-significant impact on this plant community. The Newhall Ranch Specific Plan Program EIR included the impacts to this plant community as part of the analysis of the overall loss of wildlife habitat (**Subsection 9.b.(1)(b), Wildlife Habitat Loss**).

Chaparral with Chamise with or without codominant shrubs (37.100.00)

Chamise Chaparral (37.101.00). – 1.2 acres permanently converted, 0.0 acre temporarily converted

This plant community is a dominant natural vegetation type in the region and is not considered a sensitive natural community in Southern California by resource agencies. Given the small amount of acreage that would be removed, and the common nature of this plant community in the project region, the proposed project would have a less-than-significant impact on this plant community. The Newhall Ranch Specific Plan Program EIR included the impacts to this plant community as part of the analysis of the overall loss of wildlife habitat (**Subsection 9.b.(1)(b), Wildlife Habitat Loss**).

Broad leaved upland tree dominated (70.000.00)

Coast Live Oak Woodland (71.060.19). The proposed project permanently convert 2.4 acres of coast live oak woodland (no temporary impacts are anticipated). Coast live oak woodlands are a significant biological resource because they provide nesting and roosting habitat for a number of special-status species (including raptors), nesting habitat and food sources for a number of common wildlife species, and provide general cover for a number of larger mammal species. For these reasons, the removal of coast live oak woodland is considered to be a significant impact. Implementation of proposed Mitigation Measures **LV 4.4-6** and **LV 4.4-7** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation and temporary fencing of protected oak trees) would reduce impacts to coast live oak woodland to a less than significant level. The Newhall Ranch Specific Plan Program EIR included the impacts to this plant community as part of its analysis of the overall loss of wildlife habitat (**Subsection 9.b.1.(b), Wildlife Habitat Loss**).

Man-Made Land Cover Types

Agriculture. The proposed project would result in the permanent conversion of 357.9 acres of land currently used for agricultural purposes. An additional 70.2 acres would be temporarily disturbed by bank stabilization and/or haul roads, but would be revegetated to its natural condition following completion of construction. Given that this area is already disturbed, and that this land cover type is not considered a natural community by resource agencies, the proposed project would have a less-than-significant impact on agricultural land. The Newhall Ranch Specific Plan Program EIR included the loss of this land cover as part of the analysis of the overall loss of wildlife habitat (**Subsection 9.b.1.(b), Wildlife Habitat Loss**).

Developed Land. The proposed project would result in the permanent and temporary conversion of 9.1 and 2.0 acres of developed land, respectively. Because developed land provides little, if any, wildlife habitat value, the permanent and temporary conversion of 11.1 acres of developed land would be a less-than-significant impact.

Disturbed Land. The proposed project would result in the permanent conversion of 83.2 acres of disturbed land. An additional 165.8 acres would be temporarily disturbed by bank stabilization and/or haul roads, but would be revegetated following completion of construction. Because disturbed land provides little, if any, wildlife habitat value, the permanent and temporary conversion of 249.0 acres of disturbed land would be a less-than-significant impact. The Newhall Ranch Specific Plan Program EIR included the loss of this plant community as part of its analysis of the overall loss of wildlife habitat (**Subsection 9.b.1.(b), Wildlife Habitat Loss**).

(b) Wildlife Habitat Loss

(i) Riparian Habitat

The proposed project would result in the permanent conversion of 22.4 acres of riparian habitat, including 4.9 acres of southern cottonwood-willow riparian, 0.4 acre of herbaceous wetland, 5.1 acres of arrow weed scrub, 6.9 acres of mulefat scrub, 2.5 acres of river wash, 2.2 acres of big sagebrush scrub, and 0.4 acre of big sagebrush scrub – California buckwheat. An additional 65.5 acres of riparian habitat would be temporarily disturbed by bank stabilization and/or haul roads, but would be revegetated with native plants following completion of construction activities. As summarized in **Tables 4.4-5** and **4.4-6**, the riparian habitat on the Landmark Village project site (and the greater Newhall Ranch Specific Plan Area) provides habitat for numerous special-status wildlife species, as well as being designated critical habitat for least Bell's vireo. Given the amount of riparian habitat to be developed or temporarily disturbed, the loss of habitat for riparian-associated wildlife species would be a significant impact absent mitigation.

Implementation of the following mitigation measures would replace any riparian vegetation temporarily or permanently removed:

- RMP Mitigation Measures **SP 4.6-1** through **SP 4.6-16** (habitat restoration/enhancement in the River Corridor SMA/SEA 23),
- RMP Mitigation Measure **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),
- RMP Mitigation Measures **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23),
- RMP Mitigation Measure **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23),
- RMP Mitigation Measures **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23),
- Proposed Mitigation Measure **LV 4.4-1** (development of a conceptual wetlands mitigation plan),
- Proposed Mitigation Measure **LV 4.4-15** (restriction of construction activities in the riverbed to specified areas),
- Proposed Mitigation Measure **LV 4.4-28** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and
- Proposed Mitigation Measures **LV 4.4-29** through **LV 4.4-41** (wetlands mitigation plan and riparian restoration activities on the Project site).

Additionally, the River Corridor SMA/SEA 23 (totaling 977.5 acres) would be protected in perpetuity. Combined, these measures would reduce the project impacts to below a level of significance. This finding is consistent with the findings of the Newhall Ranch Final Additional Analysis (May 2003).

(ii) Upland Habitat

The proposed project would permanently convert 686.8 acres of upland wildlife habitat into developed uses, including 357.9 acres of agricultural land, 38.8 acres of California annual grassland, 2.4 acres of coast live oak woodland, 156.5 acres of coastal scrub and alliances and associations, 46.8 acres of undifferentiated chaparral scrubs, 1.2 acres of chamise chaparral, and 83.2 acres of disturbed land (see **Subsection 9.b.(1)(a), Common Plant Communities**, and **9.b.(1)(i) Sensitive Plant Communities**). An additional 277.3 acres of upland habitat would be temporarily disturbed during construction but would be revegetated with native plants following completion of construction activities. While these upland plant communities vary in botanical value, each provides habitat for a multitude of wildlife species. When viewed in isolation, the impacts on a single plant community within the project site may not

represent a substantial loss of wildlife habitat. However, as most wildlife species depend on a variety of habitat types to meet various ecological and life history requirements (i.e., food, shelter, nesting), the project's impact on habitat provided by these upland plant communities, when considered as a whole, is substantial. To address this potential impact, the Newhall Ranch Specific Plan Program EIR and this EIR recommend mitigation measures which, when implemented, will result in a large, permanent open space system that will conserve habitat for numerous upland-associated common and special-status wildlife species, including silvery legless lizard, rosy boa, San Bernardino ringneck snake, coast horned lizard, coast patch-nosed snake, northern harrier, white-tailed kite, southern rufous-crowned sparrow, Bell's sage sparrow, western burrowing owl, San Diego desert woodrat, pallid bat, and San Diego black-tailed jackrabbit. (See **Subsection 9.b.(1)(h), Special-Status Wildlife Species**, for a discussion of direct impacts to these species.) A total of 6,113 acres of potential habitat will be protected and managed, in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area. Therefore, after mitigation, the loss of 686.8 acres of currently undeveloped upland habitat would be adverse but not significant.

This finding is not consistent with the findings of the Newhall Ranch Program EIR, which identified the loss of wildlife habitat as a significant unavoidable impact; however, the mitigation proposed in the Specific Plan EIR was not as extensive as this Recirculated Draft Landmark Village EIR, in which additional measures have been added.

- The Newhall Ranch Specific Plan Program EIR identified several mitigation measures that would mitigate permanent and temporary impacts to habitat for general wildlife. The following previously incorporated mitigation measures will reduce impacts to wildlife habitat: **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23); **SP 4.6-27** (removal of grazing and enhancement of riparian habitat in the High Country SMA/SEA 20); **SP 4.6-28** (mitigation banking for various habitat types in the High Country SMA/SEA 20); **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23); **SP 4.6-29** (recreational usage and access restrictions within the High Country SMA/SEA 20); **SP 4.6-33** (protection of transition areas along the High Country SMA/SEA 20, including planting palettes and FMZs); **SP 4.6-20**, **SP 4.6-34**, and **SP 4.6-35** (guidelines for grading activities in the River Corridor SMA/SEA 23 and the High Country SMA/SEA 20); **SP 4.6-36** through **SP 4.6-42** (open space dedication of the High Country SMA/SEA 20); **SP 4.6-43** (Open Area use for mitigation of riparian or oak resources or elderberry scrub); and **SP 4.6-48** (restoration and enhancement of oak resources in the High Country SMA/SEA 20 and Open Area).
- This EIR recommends additional mitigation measures that would help reduce significant impacts to general wildlife individuals and upland habitat: **LV 4.4-2** (preservation of 156.5 acres of coastal scrub off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Landmark Village); **LV 4.4-6** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation).

- This EIR recommends a mitigation measure that ensures that impacts to nesting birds, including adults, nests, eggs, nestlings, and fledglings, do not occur during construction activities, in accordance with the Migratory Bird Treaty Act (MBTA): LV 4.4-21 (pre-construction surveys for nesting native bird species and construction setbacks for active nests).

Implementation of these mitigation measures would reduce impacts to upland habitat to a level that is adverse, but not significant.

(c) Buffers/Setbacks from Riparian Resources

The structural diversity of the various riparian and aquatic vegetation communities in the Santa Clara River drainage provides habitat for a large variety of wildlife species, including a number of special-status bird species. Each of these species 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 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. A study conducted by Impact Sciences (1997) along the Santa Clara River recommended preserving (and restoring, if necessary) a buffer or setback of at least 100 feet of high quality upland habitat (upland preserve zone), as measured from the outer edge of the riparian habitat associated with the Santa Clara River (“resource line”). This upland preserve zone would provide adequate forage and breeding habitat for riparian-associated bird and small mammal species and would help maintain species diversity within the riparian ecosystem, inclusive of the riparian/upland ecotone. The conclusions of this study were partially based on focused bird surveys (1,100 man-hours over a 62-calendar-day period) and small mammal trapping (a total of 1,210 cumulative trap nights were conducted).

Note also that the proposed 100-foot upland preserve zone is consistent with CDFG (Northern California-North Coast [Region 1]) buffer criteria for avoiding significant impacts to riparian species and habitats adjacent to urban development (CDFG 2001).¹⁰ In developing the buffer criteria, CDFG stated that

¹⁰ Please see Appendix A of the Final Landmark Village EIR for the CDFG (Northern California-North Coast, Region 1) buffer criteria.

“[d]epartment biologists have relied on scientific research and literature and professional experience to develop the following recommendations to protect the public’s fish, wildlife and native plant resources.” For example, CDFG recommended a 75-foot buffer from the outside edge of the riparian habitat for the Sacramento River, a 50-foot buffer for main tributaries, and a 25-foot buffer for secondary tributaries. CDFG also stated that “[i]f development restrictions related to mandatory requirements do not allow a project to completely avoid the area of the buffer zone outside the riparian vegetation, the project proponent may average the setback distance along the riparian habitat for the length of the project.” Therefore, there is some flexibility in the minimum buffer width as long as the average width criteria are met.

In addition, the buffer between the Santa Clara River and development was addressed and heavily debated during the Newhall Ranch Specific Plan environmental review and approval process. Prior to final Specific Plan approval, the County Board of Supervisors required that the Specific Plan design be revised to incorporate a 100-foot-wide setback to protect riparian habitat and special-status species within the River Corridor SMA/SEA 23 boundaries. The Board of Supervisors arrived at this conclusion after evaluating the potential impacts of the proposed land uses along the entire length of the River, in light of the existing habitat protection and enhancement provisions contained in the Specific Plan’s Resource Management Plan and Design Guidelines. The overall buffer area is comprised of the following five components: (1) the Salt Creek wildlife corridor connection and the High Country 0.5-mile-wide buffer at the westerly end of the Specific Plan on the south side of the River; (2) native upland habitats in the Open Area along the south side of the River; (3) disturbed areas in the River corridor that will be restored or enhanced as riparian habitat; (4) buried bank stabilization that will be revegetated with native riparian and upland plant species; and (5) landscaped open space areas such as community parks, the Regional River Trail, and community trails.

In approving the Specific Plan and Conditional Use Permit No. 94-087-(5), the Board of Supervisors found that the Specific Plan contained sufficient natural vegetative cover and open space to buffer critical resources in the River Corridor SMA/SEA 23 from the development shown in the Specific Plan. The Board of Supervisors further found that the Specific Plan incorporated extensive buffer areas to protect critical resources within the Santa Clara River. The Specific Plan’s adopted Resource Management Plan requires a minimum 100-foot-wide setback adjacent to the Santa Clara River between (a) the river side of the top of bank stabilization and (b) development within certain specified land use designations (including those of the Landmark Village project site). This requirement may be modified if the Planning Director, in consultation with the County staff biologist, determines that a smaller buffer would adequately protect the riparian resources within the River Corridor SMA/SEA 23, or that a 100-foot-wide

setback is infeasible for physical infrastructure planning. Again, these buffer criteria are consistent with the Buffer Study (Impact Sciences 1997) and CDFG recommendations described above.

This buffer analysis does not presume that the project's indirect effects on sensitive biological resources in the river corridor will be avoided completely. Therefore, in combination with the 100-foot setback, the Specific Plan's Resource Management Plan provides standards by which biological resources will be managed during construction and for the life of the community, including provisions for (1) restoration and enhancement of disturbed areas; (2) restrictions on pedestrian and vehicular access to the river corridor; (3) design standards for transition areas between development and the river; (4) conveyance of conservation easements; and (5) preparation of a financial plan and the long-term management of the riparian resources by the Center for Natural Lands Management.

As stated above, the Landmark Village project would maintain a 100-foot setback between the top of the bank and proposed residential, mixed-use, and commercial development. Based on the site-specific analysis conducted, the Landmark Village buffer is consistent with the approved Specific Plan. Again, however, the 100-foot-wide buffer will not eliminate the potential for indirect effects. Specific to the Landmark Village project, potential long-term indirect effects are analyzed below, including increases in (1) pesticides, herbicides, and pollutants; (2) lighting and glare impacts on wildlife species; (3) non-native plant and wildlife species; and (4) human activity and domestic pets. The Project Design Features (PDFs) and mitigation measures to reduce these potential indirect impacts are also discussed below.

PDFs to address urban runoff from irrigation and stormwater include site design, source control, treatment control, and hydromodification control Best Management Practices (BMPs). Stormwater runoff from all urban areas within the Landmark Village project will be routed to bioretention areas, vegetated swales, and/or extended detention basin treatment controls BMPs. The effectiveness of these water quality PDFs was analyzed by GeoSyntec Consultants.¹¹

The mitigation measures to address the other identified potential indirect effects include previously incorporated measures from the Newhall Ranch Specific Plan Program EIR, and additional measures recommended by this EIR. Significant impacts related to buffers and edge effects and mitigation measures to reduce the level of impact include:

- Restriction of Wildlife Habitat Linkages – mitigated by previously incorporated Mitigation Measure **SP 4.6-18** (provision of transition areas adjacent to the River Corridor SMA/SEA 23).

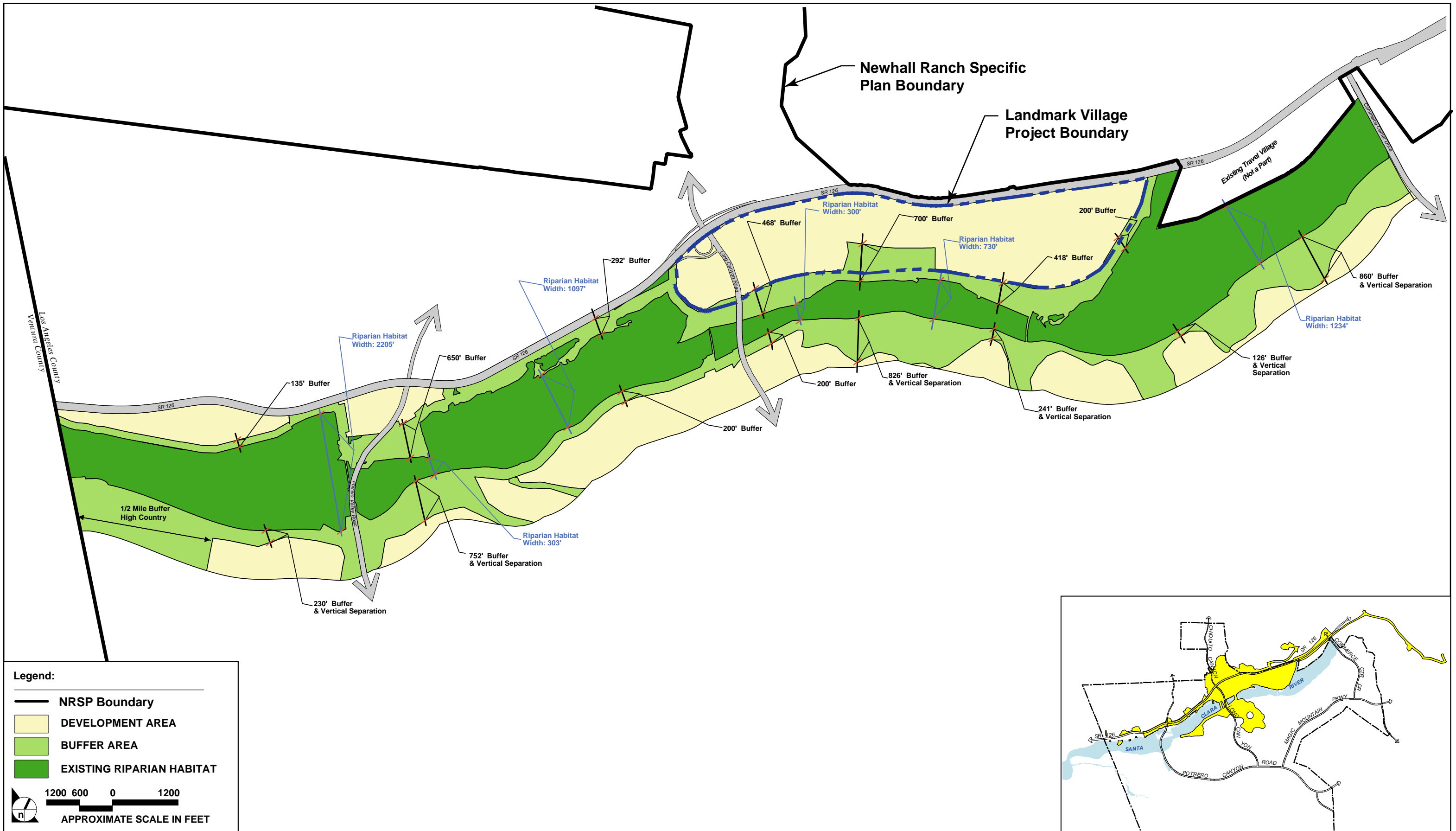
¹¹ GeoSyntec Consultants. September 2006. *Landmark Village Water Quality Technical Report* (see Draft EIR, Appendix 4.3).

- Increased Light and Glare – mitigated by previously incorporated Mitigation Measure **SP 4.6-56** (downcast lighting design along the boundaries of natural areas).
- Increase in Populations of Non-Native Plant and Wildlife Species – mitigated by the Landmark Village EIR Mitigation Measures **LV 4.4-44** (review of plant palettes and inspection of container plants for use within 100 feet of native vegetation for pests and disease; restrictions on invasive plants and irrigation) and **LV 4.4-46** (develop an integrated pest management plan that addresses pesticide use).
- Increased Human and Domestic Animal Presence Within SMA/SEA 23 – mitigated by previously incorporated Mitigation Measures **SP 4.6-17** through **SP 4.6-19** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23; transition areas along the River Corridor SMA/SEA 23) and Landmark EIR Mitigation Measures **LV 4.4-47** (trash and debris removal from riparian habitats) and **LV 4.4-48** (control of pet, stray, and feral cats and dogs in or near open space areas).

In regard to the adequacy of the buffer/setback for particular special-status wildlife species, arroyo toads generally burrow within sand or loam substrates with no associated canopy cover, within mulefat scrub, willow patches, or under woody debris left by fallen, dead willows, or woodrat nests (Ramirez 2003). Accordingly, should arroyo toad occur on the project site, most would be expected to burrow within the preserved riparian habitats. Arroyo toads have been found in agricultural fields (Griffin 1999) and can occur within portions of the site outside of the proposed riparian setback zone. However, agricultural fields may constitute sinks (areas where mortality rates are higher than reproduction rates) over the long term, due to tilling, pesticide and fertilizer applications, and heavy equipment use, especially during the winter aestivation period (Griffin and Case 2001). Consequently, the agricultural portions of the project site under existing conditions would not be expected to contribute to the species' persistence on the site.

With regard to western spadefoot, the species rarely moves extensively between breeding ponds and upland areas used for burrowing (California Wildlife Habitat Relationships System 2002). Accordingly, should western spadefoot breed in seasonal pools located within the riparian zone, the proposed riparian setbacks should preserve associated burrow habitat.

As shown in **Figure 4.4-7, Riparian Habitat Buffer**, below, the proposed project generally maintains a 100-foot setback between top of bank and proposed residential, mixed-use, and commercial development, and up to a 600-foot buffer between top of bank and toe of slope (e.g., riparian resources). One area of reduced buffer width (90 feet) is characterized by disturbed sandy soils and areas of sparse, disturbed riparian vegetation. This area is located south of SR-126 and to the north of the well-developed cottonwood-willow riparian forest associated with the confluence of Chiquito Canyon Creek and the Santa Clara River.



SOURCE: FORMA – August 2001

FIGURE 4.4-7

Riparian Habitat Buffer

Given the proximity of the reduced buffer area to SR-126, and the disturbed condition and limited extent of riparian habitat present, current use of the reduced-buffer area by special-status bird or other wildlife species is expected to be limited. A minimum 100-foot buffer is present along all other portions of the tract map site and in all areas bordering mature cottonwood-willow riparian forest and willow scrub habitats. Furthermore, the vegetation within portions of the setback or buffer area will be restored and/or enhanced to increase habitat values when compared to existing conditions. Given the above, the proposed riparian buffers are sufficient to maintain the function and values of the adjacent riparian habitat and to protect the diversity of riparian-associated wildlife species occurring within these areas, despite the limited extent of reduced buffer at the Chiquito Creek/Santa Clara River confluence. This finding is consistent with the findings of the Newhall Ranch Final Additional Analysis (May 2003) that concluded the proposed land use plan and other design features were sufficient to maintain the function and values of the riparian habitat within the SMA/SEA 23.

(d) Impacts to Common Wildlife

In addition to the impacts to vegetation and wildlife habitat, construction and grading activities associated with the proposed project would directly disturb common wildlife species on the project site. In particular, species of low mobility (particularly small mammals, amphibians, and reptiles) would be affected, as some individuals would be eliminated during site preparation and construction. During the construction period, some wildlife species may emigrate from the project site and become vulnerable to mortality by predation, auto collisions, and unsuccessful competition for food and territory.

Because of the common nature of wildlife species that would be affected by construction activities, project implementation is not expected to reduce regional populations to below self-sustaining levels. Consequently, impacts to common fish, mammal, and reptile species would be less than significant. Nonetheless, implementation of **LV 4.4-20** (surveys to capture and relocate special-status reptiles) would provide more mobile wildlife species the opportunity to move from the disturbance area into adjacent undisturbed habitat. The Newhall Ranch Specific Plan Program EIR did not address the construction-related impacts to common wildlife as an individual topic, but did include an analysis of the overall loss of wildlife habitat (**Subsection 9.b.1.(b), Wildlife Habitat Loss**).

Construction activities could result in the direct loss or abandonment of active nests by adult birds of common bird species. The Migratory Bird Treaty Act and the California Fish and Game Code protect active nests of native bird species. (See 16 United States Code (USC) Sections 703–712; see also California Fish and Game Code Sections 3503, 3513.) Therefore, any construction-related impacts to active nests of common bird species would conflict with these federal and state laws and be considered a significant impact. Implementation of proposed Mitigation Measure **LV 4.4-21** (pre-construction surveys for nesting

native bird species and construction setbacks for active nests) would ensure compliance with state and federal laws protecting active bird nests and eliminate this potential impact.

(e) Wildlife Habitat Linkages

The proposed project design would preserve the integrity of the Santa Clara River as a wildlife movement corridor and minimize impacts on local and regional wildlife movement by maintaining nearly all of the Santa Clara River as open space with a minimum width of about 1,000 feet. The River corridor will retain sufficient dimensions to convey a variety of larger, mobile wildlife species, such as mule deer, coyote, gray fox, bobcat, and mountain lion, as well as allow for dispersal of many smaller and less mobile species, including birds, small mammals, reptiles, and amphibians that live in the river.

The Specific Plan RMP includes mitigation measures that will minimize impacts to riparian vegetation and replace any vegetation temporarily or permanently removed. These include:

- Mitigation Measures **SP 4.6-1** through **SP 4.6-16** (habitat restoration/enhancement in the River Corridor SMA/SEA 23),
- Mitigation Measure **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),
- Mitigation Measures **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23), **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA), and
- Mitigation Measures **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23).

With these mitigation measures in place, the project's impacts on riparian vegetation will not substantially affect the long-term ability of resident and non-resident species to use the river as a movement corridor.

The Long Canyon Road Bridge is proposed to be approximately 1,000 feet in length and a maximum of 100 feet in width. It will range from approximately 11 to 22 feet in height above the riverbed with an estimated 11 vertical support columns or piers extending into the riverbed. The piers will be approximately 100 feet apart from one another. When confronted with bridges or overpasses along a preferred movement corridor, wildlife, particularly larger mammals, will generally move under these structures as long as there is adequate vertical and horizontal spacing, a natural (dirt, sand, vegetation) substrate on which to travel while under the structure, and an "openness" effect that allows the animal to detect light, open space and habitat at the exiting end of the structure. In addition, as described in **LV 4.4-42** (signage indicating likely road crossings for mule deer and mountain lion), wildlife signage will be placed along SR-126 north of the tract map site to alert drivers of wildlife movement. Specific Plan measures **SP 4.6-37** through **SP 4.6-42** would protect a large area of habitat south of the River Corridor SMA/SEA 23 (i.e., the High Country SMA/SEA 20) which would be linked to the River Corridor

SMA/SEA 23 by the preservation of the Salt Creek Area. The proposed Long Canyon Road bridge will adequately meet these requirements and is not expected to significantly alter wildlife movement along the river corridor.

Consistent with the findings of the Newhall Ranch Specific Plan Program EIR, development of the proposed project would limit northern access to or conveyance from the Santa Clara River for wildlife moving through the area. However, given that the tract map site is currently used for agriculture and is frequently devoid of cover, the Landmark Village tract map site is not expected to be a substantial part of a currently functioning regional north-south wildlife movement corridor.

Further, the conceptual regional open space connectivity identified by Penrod et al. (2006, Recirculated Draft EIR, **Appendix 4.4**) that provides for landscape-scale habitat connectivity between the Santa Susana Mountains to the south and the Los Padres National Forest to the north (see **Figure 4.4-8, South Coast Wildlands Open Space Connectivity and Linkage**) encompasses the High Country SMA/SEA 20 and the Salt Creek area and the Santa Clara River west of Landmark Village, as shown in **Figure 4.4-9, Protected and Preserved Lands**. The High Country SMA/SEA 20 and Salt Creek area comprise an important part of the least cost path linkage design identified by Penrod et al. (2006, Recirculated Draft EIR, **Appendix 4.4**). They provide a key part of the east-west linkage that crosses I-5 and connects to the Angeles National Forest in the San Gabriel Mountains to the east and to Ventura County SOAR open space to the southwest. They also provide a significant part of the north-south linkage between the Santa Susana Mountains and the "Fillmore Greenbelt" to the northwest that further links to the Los Padres National Forest and the Angeles National Forest to the north.

In light of the above, impacts to regional wildlife movement would be less than significant.

(f) Special-Status Plant Species

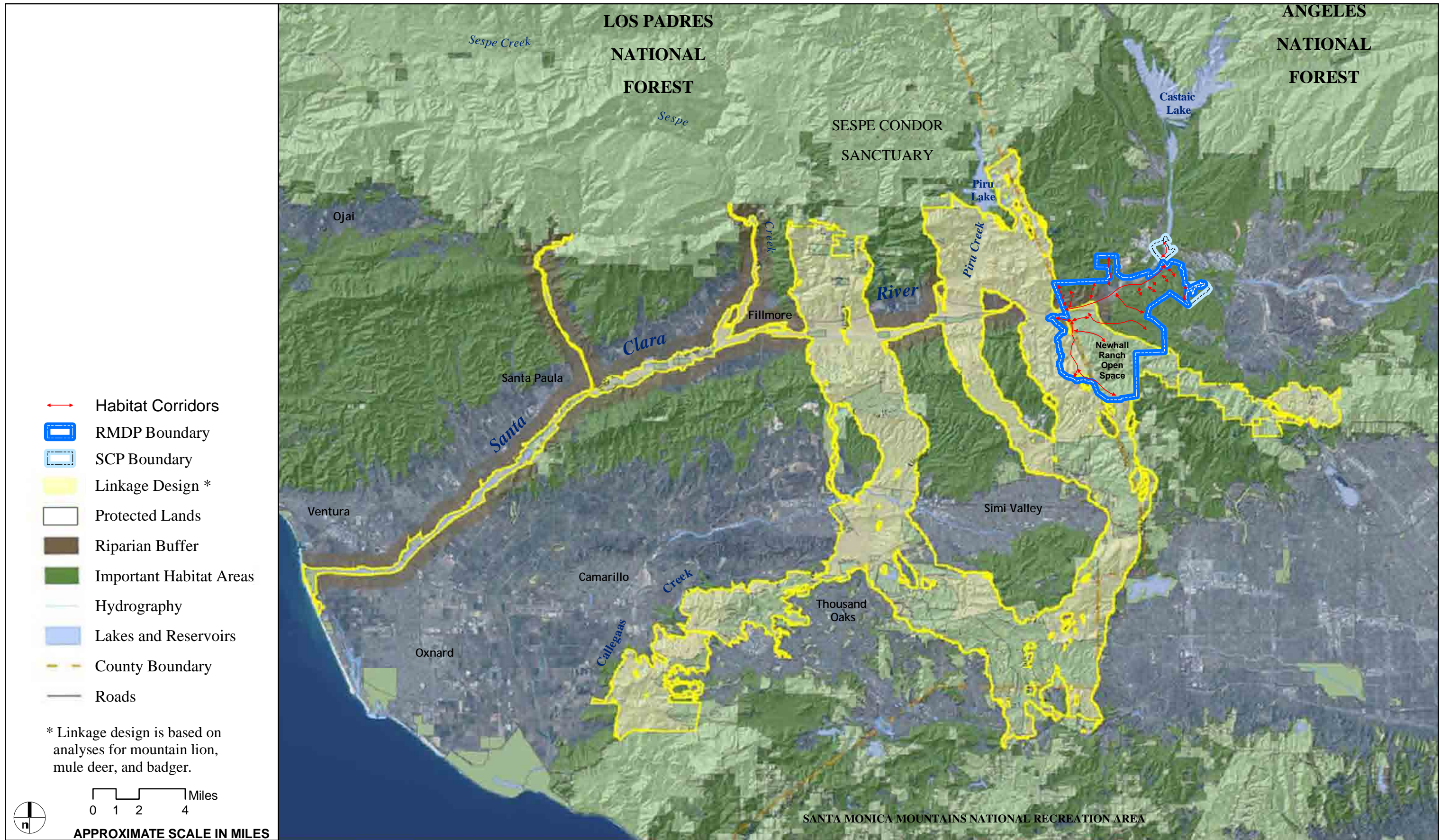
As shown in **Table 4.4-5**, the following special-status plant species were eliminated from further consideration because they were not observed on or adjacent to the Landmark Village project site during focused plant surveys conducted on the site from 2002 through 2006: marsh sandwort, Braunton's milkvetch, Coulter's saltbush, Davidson's saltscale, Malibu baccharis, Nevin's barberry, thread-leaved brodiaea, round-leaved filaree, Plummer's mariposa lily, late-flowering mariposa lily, southern tarplant, island mountain-mahogany, Santa Susana tarplant, slender-horned spineflower, Blochman's dudleya, marcescent dudleya, Santa Monica Mountains dudleya, many-stemmed dudleya, Conejo dudleya, Palmer's grappling hook, Los Angeles sunflower, the undescribed sunflower species known from Middle Spring, mesa horkelia, southwestern spiny rush, Davidson's bush mallow, California muhly, mud nama, spreading navarretia, chaparral nolina, short-joint beavertail cactus, California Orcutt grass, Lyon's pentachaeta, Pringle's yampah, Gambel's watercress, rayless ragwort, Salt Spring checkerbloom, and Sonoran maiden fern. Given the thoroughness of the previous survey efforts (**Table 4.4-3**), it is unlikely

that any of these species are present on the site and, therefore, no significant impacts to these plant species are expected to occur.

Special-status plant species that were observed on the project site during the focused special-status plant surveys include slender mariposa lily, Peirson's morning-glory, and Southern California black walnut. In addition, as stated above, a previously undescribed species of everlasting was observed and several populations of San Fernando Valley spineflower have been documented near the disturbance boundary of the Adobe Canyon borrow site south of the Santa Clara River. Impacts to these species are discussed below.

Slender mariposa lily. This species has no state or federal status, but is a CNPS List 1B plant. Los Angeles County considers it a "species of special concern," as this species appears to be endemic to Los Angeles County and is threatened by urban development. The proposed project would result in impacts to the 2.3 acres of cumulative occupied area within the study area (see, **Figure 4.4-6**). Given that the slender mariposa lily is highly sensitive, and that Los Angeles County considers it a "species of special concern," impacts to this species would be significant. The Draft RMDP Slender Mariposa Lily Mitigation and Monitoring Plan (Dudek 2007I); attached as Appendix A to the Landmark Village Final EIR (November 2007),) will be revised and submitted to CDFG and the County for review and approval prior to ground disturbance to occupied habitat. Upon approval, the plan will be implemented by the applicant or its designee. The revised plan will demonstrate the feasibility of enhancing or restoring slender mariposa lily habitat in selected areas to be managed as natural open space (i.e., the Salt Creek area or High Country SMA/SEA 20, spineflower preserves, or River Corridor SMA/SEA 23) without conflicting with other resource management objectives. Habitat replacement/enhancement will be at a 1:1 ratio (acres restored/enhanced to acres impacted). In addition, the applicant would implement a number of mitigation measures designed to avoid and minimize construction-related indirect impacts to the slender mariposa lily. Applicable mitigation measures include the following:

- Mitigation Measure **SP 4.6-27** (enhancement of habitat values within the High Country SMA/SEA 20),
- Mitigation Measures **SP 4.6-29** through **SP 4.6-32** (recreation and access restrictions within the High Country SMA/SEA 20),
- Mitigation Measure **SP 4.6-33** (protection of transition areas between the development edge and the High Country SMA/SEA 20),
- Mitigation Measure **SP 4.6-34** (clear marking of grading perimeters within or adjacent to the High Country SMA/SEA 20),



SOURCE: South Coast Wildlands, 2006

FIGURE 4.4-8



Legend:

- Spineflower Preserve
- Newhall Ranch Specific Plan
- Newhall Ranch Open Space

4000 2000 0 4000
 APPROXIMATE SCALE IN FEET

SOURCE: Newhall Ranch - December 2008

FIGURE 4.4-9

Protected and Preserved Lands

- Mitigation Measures **SP 4.6-37** through **SP 4.6-42** (long-term management of the High Country SMA/SEA 20), and
- Mitigation Measures **SP 4.6-53** and **SP 4.6-59** (requires current, updated, site-specific surveys for special-status species in consultation with CDFG).

This impact would also be reduced through the implementation of the following:

- Mitigation Measure **LV 4.4-5** (requires the *Draft RMDP Slender Mariposa Lily Mitigation and Monitoring Plan* (see Landmark Village Final EIR (November 2007), Appendix A) to be implemented by the applicant. The plan shall be subject to the approval of the County prior to the issuance of a grading permit.
- Mitigation Measure **LV 4.4-18** (requires a qualified biologist to conduct a Workers Environmental Awareness Program (WEAP) for all construction/contractor personnel and to provide guidance to construction/contractor personnel regarding environmental/permit regulations and mitigation measures.)

This impact would also be reduced through the implementation of Mitigation Measure **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. Given the availability of suitable mitigation sites, implementation of proposed Mitigation Measure **LV 4.4-5** (implementation of an approved slender mariposa lily mitigation plan) (see **Subsection 10, Project Mitigation Measures**, below) would further reduce impacts to this species to below a level of significance. The finding that impacts to this species can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR and Additional Analysis.

Mainland cherry. The mainland cherry has no state or federal sensitivity status, but it is locally protected through the County of Los Angeles. On site, this species is found as an occasional component of undifferentiated chaparral, big sagebrush scrub, and river wash. In order to reduce direct impacts to this species, the applicant would implement a series of mitigation measures designed to replace impacted mainland cherry trees and shrubs, and restore, enhance, and maintain natural woodland communities in perpetuity, consistent with the Newhall Ranch Specific Plan Oak Resources Replacement Program (2003). Applicable mitigation measures include the following previously incorporated measures:

- Mitigation Measures **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-21** through **SP 4.6-26** (habitat restoration, enhancement, and preservation of the River Corridor SMA/SEA 23);
- Mitigation Measure **SP 4.6-17** (restrictions on human and pet access to the River Corridor SMA/SEA 23);

- Mitigation Measures **SP 4.6-18** and **SP 4.6-19** (establishment of transition areas between the River Corridor SMA/SEA 23 and development);
- Mitigation Measure **SP 4.6-28** (mitigation banking for riparian habitats);
- Mitigation Measures **SP 4.6-29** through **SP 4.6-32** (recreation and access restrictions within the High Country SMA/SEA 20)
- Mitigation Measure **SP 4.6-33** (protection of transition areas between the development edge and the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-34** and **SP 4.6-35** (clear marking of grading perimeters and avoidance of inadvertent impacts to biological resources outside the grading area within or adjacent to the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-37** through **SP 4.6-42** (long-term management of the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-43** through **SP 4.6-47** (acceptable uses of and long-term management of the Open Area);
- Mitigation Measure **SP 4.6-48** (standards for the restoration and enhancement of mainland cherry resources); and
- Mitigation Measure **SP 4.6-61** (site-specific survey for mainland cherry at County request).

This impact would also be reduced through the implementation of the following:

- Mitigation Measure **LV 4.4-1** (development of a conceptual wetlands mitigation plan);
- Mitigation Measure **LV 4.4-6** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation);
- Mitigation Measure **LV 4.4-15** (restriction of construction activities in the riverbed to specified areas);
- Mitigation Measure **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities);
- Mitigation Measures **LV 4.4-29** through **LV 4.4-41** (wetlands mitigation plan and riparian restoration activities on the Project site);
- Mitigation Measure **LV 4.4-2** (dedication of the Salt Creek area to the public); and
- Mitigation Measure **LV 4.4-53** (replacement of mainland cherry trees or shrubs outside riparian areas).

Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Island mountain-mahogany. The island mountain-mahogany is a CNPS List 4 (S3.3) plant, but it has no federal status. Within the project site, island mountain-mahogany occurs as an occasional component of chaparral communities at the base of north-facing slopes. Given the low sensitivity status of the species, observations were not mapped. Because of the common occurrence of Peirson's morning-glory within the Newhall Ranch Specific Plan area, and because CNPS List 4 plants are not considered Rare from a statewide perspective, are not defined as Rare, Threatened, or Endangered pursuant to the California Endangered Species Act, are not eligible for state listing as Threatened or Endangered, and the vulnerability or susceptibility to threats on a statewide basis are considered low at this time (CNPS 2004), the loss of Peirson's morning-glory would not be considered a substantial adverse effect on a special-status species. Nor would it be expected to reduce regional populations of the species to below self-sustaining numbers. Therefore, impacts to island mountain-mahogany would be less than significant. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR and Additional Analysis, which found that impacts to this species would not be significant assuming implementation of Specific Plan Mitigation Measures **SP 4.6-27** (removal of grazing and enhancement of riparian habitat in the High Country SMA/SEA 20), **SP 4.6-34** (marking and inspection of grading perimeters prior to impacts within or adjacent to the High Country SMA/SEA 20), **SP 4.6-35** (avoidance of inadvertent impacts to biological resources within or adjacent to the High Country SMA/SEA 20), and **SP 4.6-53** (updated site-specific surveys for rare, threatened, or endangered plant or animal species at County request).

Peirson's morning-glory. This species has no state or federal status, but is a CNPS List 4 plant. This species has been documented on the project site within the off-site grading sites (FLx 2002). The proposed project would result in impacts to Peirson's morning-glory from these locations. While never abundant, Peirson's morning-glory occurs throughout the Newhall Ranch Specific Plan area on virtually all ridges and slopes (Dudek 2002A, 2004C, 2004F, 2006F, 2006I, and 2007F). Because Peirson's morning-glory commonly occurs within the Newhall Ranch Specific Plan area, and because CNPS List 4 plants are not considered Rare from a statewide perspective, are not defined as Rare, Threatened or Endangered pursuant to the California Endangered Species Act, are not eligible for state listing as Threatened or Endangered, and currently are not significantly threatened statewide (CNPS 2004), the impacts to Peirson's morning-glory would not be considered a substantial adverse effect on a special-status species. Nor would this loss be expected to reduce regional populations of the species to below self-sustaining numbers. Therefore, impacts to Peirson's morning-glory would be less than significant. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR and Additional Analysis, which found that impacts to this species would not be significant assuming implementation of Specific Plan Mitigation Measures **SP 4.6-27** (removal of grazing and enhancement of riparian habitat in the High Country SMA/SEA 20), **SP 4.6-34** (marking and inspection of grading perimeters prior to impacts within

or adjacent to the High Country SMA/SEA 20), **SP 4.6-35** (avoidance of inadvertent impacts to biological resources within or adjacent to the High Country SMA/SEA 20), and **SP 4.6-53** (updated site-specific surveys for rare, threatened, or endangered plant or animal species at County request).

Southern California black walnut. This species has no state or federal status, but is a CNPS List 4 plant. The proposed project would result in the removal of 10 black walnut trees. 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 currently are not significantly threatened statewide (CDFG 2000). In order to reduce direct impacts to this species, the applicant would implement a series of mitigation measures designed to replace impacted southern California black walnut trees, and restore, enhance, and maintain natural woodland communities in perpetuity, consistent with the Newhall Ranch Specific Plan Oak Resources Replacement Program (2003). Applicable mitigation measures include the following previously incorporated measures:

- Mitigation Measures **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-21** through **SP 4.6-26** (habitat restoration, enhancement, and preservation of the River Corridor SMA/SEA 23);
- Mitigation Measure **SP 4.6-17** (restrictions on human and pet access to the River Corridor SMA/SEA 23);
- Mitigation Measures **SP 4.6-18** and **SP 4.6-19** (establishment of transition areas between the River Corridor SMA/SEA 23 and development);
- Mitigation Measure **SP 4.6-28** (mitigation banking for riparian habitats);
- Mitigation Measures **SP 4.6-29** through **SP 4.6-32** (recreation and access restrictions within the High Country SMA/SEA 20)
- Mitigation Measure **SP 4.6-33** (protection of transition areas between the development edge and the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-34** and **SP 4.6-35** (clear marking of grading perimeters and avoidance of inadvertent impacts to biological resources outside the grading area within or adjacent to the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-37** through **SP 4.6-42** (long-term management of the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-43** through **SP 4.6-47** (acceptable uses of and long-term management of the Open Area); and
- Mitigation Measure **SP 4.6-48** (standards for the restoration and enhancement of southern California black walnut resources).

This impact would also be reduced through the implementation of the following:

- Mitigation Measure LV 4.4-1 (development of a conceptual wetlands mitigation plan);
- Mitigation Measure LV 4.4-6 (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation);
- Mitigation Measure LV 4.4-15 (restriction of construction activities in the riverbed to specified areas);
- Mitigation Measure LV 4.4-18 (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities);
- Mitigation Measures LV 4.4-29 through LV 4.4-41 (wetlands mitigation plan and riparian restoration activities on the Project site); and
- Mitigation Measure LV 4.4-2 (dedication of the Salt Creek area to the public).

Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. This finding is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Parish's sagebrush. Parish's sagebrush, which is considered special-status by the County of Los Angeles, grows intermixed with the big sagebrush subspecies, which has no special status. Implementation of the proposed project would permanently impact 2.6 of the 12.7 acres of big sagebrush scrub on site. Thus potential impacts to Parish's sagebrush as a result of implementation of the proposed project would (1) constitute a substantial direct adverse effect on this species, (2) conflict with local policies and ordinances protecting biological resources, and (3) substantially reduce the number and range of this species. Thus, this impact is significant, absent mitigation. In order to reduce direct impacts to this species, the Project applicant would implement a series of mitigation measures designed to avoid or minimize the impact of Project implementation on Parish's sagebrush to a level that is adverse but not significant. Applicable mitigation measures include the following previously incorporated measures:

- Mitigation Measures SP 4.6-1 through SP 4.6-16 and SP 4.6-21 through SP 4.6-26 (habitat restoration, enhancement, and preservation of the River Corridor SMA/SEA 23); and
- Mitigation Measure SP 4.6-28 (mitigation banking for riparian habitats).

This impact would also be reduced through the implementation of the following:

- Mitigation Measure LV 4.4-1 (development of a conceptual wetlands mitigation plan);
- Mitigation Measure LV 4.4-15 (restriction of construction activities in the riverbed to specified areas);
- Mitigation Measure LV 4.4-18 (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities);

- Mitigation Measures LV 4.4-29 through LV 4.4-41 (wetlands mitigation plan and riparian restoration activities on the Project site); and
- Mitigation Measure LV 4.4-2 (dedication of the Salt Creek area to the public).

Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. Impacts to this species were not previously analyzed as part of the Newhall Ranch Specific Plan Program EIR and Additional Analysis because the plant was identified after that environmental documentation was certified.

Everlasting. While the undescribed species of everlasting that was observed on the project site currently has no sensitivity status, its apparent rarity may cause it to be assigned a sensitivity status by CNPS or state/federal resource agencies in the future. The County has been informed of the presence of this undescribed species on the Newhall Ranch Specific Plan area and work is being conducted by UC Riverside herbarium staff to describe this species and to learn more about its distribution in California. As previously discussed, two populations of this undescribed species were observed on the project site (within the Santa Clara River and Castaic Creek) during surveys conducted in 2004 and 2007. One of these populations was documented as partially occurring within the proposed utility corridor (to the east of the tract map site) while the other population was documented within the proposed construction zone associated with Long Canyon bridge across the Santa Clara River. Based on current conditions, the proposed project would temporarily impact ten of the individuals observed in 2004 and three of the individuals observed in 2007.

Additionally, the large storm events of 2005 and associated large flows within Castaic Creek and the Santa Clara River resulted in extensive scouring and the removal of the terraces and benches on which plants had previously occurred. As several feet of channel bottom has been washed away, the existing seed bank within these locations was also presumably washed downstream. Therefore, given the potential of seeds from plant populations upstream of the project site to be washed onto the site, this species could occur at additional locations within the project boundaries in the future. The impacts to individual plants of this undescribed species would be considered a significant impact. In order to reduce indirect impacts to this species, the Project applicant would implement a series of mitigation measures designed to protect this undescribed everlasting species from impacts due to buildout of the proposed project. Applicable mitigation measures include the following previously incorporated measures:

- Mitigation Measure SP 4.6-16 (guidelines for the control of access to the River Corridor SMA);
- Mitigation Measure SP 4.6-20 (guidelines for grading activities within the River Corridor SMA/SEA 23);

- Mitigation Measure **SP 4.6-24** (prohibits razing and agriculture within the River Corridor and restricts recreation use to the established trail system); and
- Mitigation Measures **SP 4.6-53** and **SP 4.6-59** (requires current, updated, site-specific surveys for special-status species in consultation with CDFG).

This impact would also be reduced through the implementation of the following:

- Mitigation Measure **LV 4.4-3** (preconstruction surveys for undescribed everlasting);
- Mitigation Measure **LV 4.4-4** (prepare and implement an Undescribed Everlasting Mitigation and Monitoring Plan); and
- Mitigation Measure **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities).

Implementation of these mitigation measures would reduce this significant impact to a level that is not significant. Impacts to this species were not previously analyzed as part of the Newhall Ranch Specific Plan Program EIR and Additional Analysis because the plant was identified after that environmental documentation was certified.

San Fernando Valley spineflower. No populations of San Fernando Valley spineflower occur within the project site's disturbance boundaries. However, one population occurs at a location surrounded by the Adobe Canyon borrow site. (To avoid impacts to this population, grading in this location will be redesigned to be a minimum of 300-feet away from known spineflower plants).¹² Other spineflower populations occur to the west and the south of the borrow site's disturbance boundary, but a minimum of 300 feet also will be provided from known spineflower locations. Given that grading and/or clearing areas would be over 300 feet from known spineflower populations, spineflower would not be significantly impacted by development of the proposed project with incorporation of the mitigation measures described below.

In 2000, the Conservation Biology Institute (CBI) prepared a report that assessed the potential indirect impacts to the San Fernando Valley spineflower from proposed adjacent development on the Ahmanson Ranch project site in Ventura County.¹³ The report focused on potential "risk factors" or edge effects to sensitive plants, particularly those factors that may adversely affect the spineflower, based on current

¹² According to the Conservation Biology Institute, spineflower buffer areas need to be at least 80 to 100 feet to be moderately effective (CBI 2000).

¹³ The CBI report entitled, *Review of Potential Edge Effects on the San Fernando Valley Spineflower*, January 19, 2000, is included in Appendix 2.6 of the Newhall Ranch Revised Additional Analysis, Volume VIII (May 2003), and incorporated herein by reference. The CBI report is also available at the offices of the County of Los Angeles, Department of Regional Planning, 320 West Temple Street Los Angeles, California 90012 (Samuel Dea; (213) 974-6461).

knowledge of the spineflower's biology. The report identified seven overlapping risk factors, or edge effects, which could threaten the spineflower. These factors include (1) the presence of non-native invasive plant species; (2) the presence of non-native invasive animal species; (3) vegetation clearing for fuel management or for the creation of roads and trails; (4) trampling; (5) changes in hydrological conditions (i.e., increases in water supply due to urban irrigation and runoff); (6) chemical pollutants (e.g., herbicides, pesticides, fertilizers); and (7) increased fire frequency. The CBI report concluded that the ability of buffer areas to be effective in minimizing each of these edge effects, without additional management actions and to the exclusion of any other factors, depends upon the width of the buffer between the development edge and spineflower populations. For chemicals, buffers need to be from 30–50 feet wide to be moderately effective; for invasive plants, vegetation clearing, hydrological changes, and trampling, buffers need to be at least 80 to 100 feet wide to be moderately effective; and spineflower buffers need to be at least 200 feet wide to be moderately effective against invasive animals and increased fire frequency.

However, the CBI report also concluded that a number of other biological and geomorphological factors can influence the overall effectiveness of buffers at varying widths in minimizing indirect impacts of development on spineflower populations. These factors included the size and juxtaposition of spineflower preserves to developed areas; the degree of fragmentation or continuity between preserved spineflower populations and to open space areas; the relative abundance of non-native vegetation to native vegetation in proposed buffer and preserve areas; soil chemistry and type; and the disturbance history of proposed buffers and preserves. In addition, the implementation of various short- and long-term management actions to buffers and along the development edge can result in buffers being more effective at shorter widths, up to a point, than if the actions were not taken. Depending on the degree to which other factors discussed above are present, and to the extent management actions are implemented, buffers can be effective at smaller widths than those discussed above.

Without the implementation of various measures included in the Newhall Ranch Specific Plan EIR and Revised Additional Analysis (May 2003), proposed grading and vegetation clearing could result in significant indirect impacts to preserved populations of San Fernando Valley spineflower. However, Specific Plan Mitigation Measures **SP 4.6-65** through **SP 4.6-80** contain management actions that would increase the effectiveness of the buffers to be maintained around San Fernando Valley spineflower populations. Specifically, consistent with the requirements of the mitigation program (Mitigation Measure **SP 4.6-68**), the spineflower buffer areas would be fenced with temporary orange fencing during grading/construction to ensure that no disturbance will take place within this buffer. A biological monitor (subject to approval by the CDFG and County) would monitor all grading activities and fence installation adjacent to the preserved spineflower populations (Mitigation Measure **SP 4.6-74**). Also required by the

mitigation program (Mitigation Measure **SP 4.6-67**), the buffer area would be revegetated with a native seed mix to prevent erosion and reduce the potential of invasive plants from encroaching on the preserved spineflower populations. Consistent with requirements of the mitigation program (Mitigation Measure **SP 4.6-69**), the grading concept considered the effects of indirect impacts associated with altered hydrologic patterns. Manufactured slopes surrounding the plant population have been contoured to direct storm water runoff away from the plants. Since the population occurs at a high point, the amount and location of runoff received by these populations would not be affected in the post-developed condition.

Other potential indirect impacts resulting from trampling, domestic animals, incidental application of chemicals, increased fire frequency, and supplemental irrigation would be mitigated by the design of the proposed project. Specifically, the proposed project has been designed such that areas that would be occupied by humans (e.g., residences, business, schools, parks) are separated from preserved populations of San Fernando Valley spineflower by the Santa Clara River or SR-126. Additionally, no landscaping or other uses involving the application of chemicals or irrigation are proposed near preserved spineflower populations. Therefore, it is not expected that the occupancy or operation of the proposed project would result in trampling, a substantial increase in domestic animals (i.e., cats and dogs), incidental application of chemicals, increased fire frequency, or supplemental irrigation (and a corresponding increase in Argentine ants) to preserved spineflower populations. For the reasons discussed above, the proposed project design, grading concept, buffers, and implementation of the measures contained in the Newhall Ranch Specific Plan EIR and Revised Additional Analysis, would reduce the potential for indirect impacts to San Fernando Valley spineflower to below a level of significance.

(g) Protected Oaks and Live Oak Woodland

As previously discussed (**Subsection 7.b, Oaks**), CLAOTO protects any species in the genus *Quercus* that is at least 8 inches in diameter or has a combined trunk circumference of any two trunks of at least 38 inches (12 inches in diameter), as measured 4.5 feet above the mean natural grade. A heritage oak, as defined by CLAOTO, is an oak tree that measures 36 inches or more in diameter as measured 4.5 feet above natural ground, or any oak of 36 inches or greater in diameter having a significant historical or cultural importance to the community. CLAOTO requires that all potential impacts to oak trees be preceded by an application to the County that includes a detailed oak tree report and that loss of or damage to protected oaks be mitigated at a minimum 2:1 ratio.

Public Resources Code Section 21083.4 addresses oak woodlands conservation, and contains provisions for counties to mitigate impacts to oak woodlands that would be significant under CEQA. Section 21083.4 provides for several mitigation alternatives that can be implemented to mitigate significant impacts on

oak woodlands. Among the options are the preservation of oak woodlands under conservation easements and the planting of oak trees to replace those lost or damaged.

Based on the proposed grading plan, 2.4 acres of coast live oak woodland would be removed. The proposed project would result in the potential loss of 65 oak trees, including 10 heritage oak trees, and the encroachment of 8 additional oak trees, including 2 heritage oak trees. (Impact Sciences 2009, Recirculated Draft EIR, **Appendix 4.4.**) A total of 98 oak trees occur within 200 feet from the grading limit line and will not be removed or subjected to damage. Given the biological value of oak woodlands, and given that the project would result in the removal or impacts to oak trees, the loss of oak woodland and protected oak trees is considered a significant impact under CLAOTO.

As discussed in the Newhall Ranch Specific Plan, 2.6 Resource Management Plan, an estimated 13,660 oak trees would be protected within the SMA, particularly in the High Country SMA/SEA 20. Further, as discussed in the *Draft Newhall Ranch Mitigation Feasibility Study* (Dudek 2007), Dudek has identified the opportunity of creating 11 acres of coast live oak woodland and planting an additional 189 oak trees within the High Country SMA/SEA 20 and Salt Creek Area (see November 2007 Landmark Village Final EIR, Appendix A). The actual number of trees to be planted would be that number necessary to comply with the requirements stipulated in the Oak Tree Permit issued by the County pursuant to CLAOTO and to provide an adequate mitigation acreage for losses to oak woodland per Section 21083.4. In order to reduce direct impacts to oak resources, the Project applicant would implement a series of mitigation measures designed to replace impacted oak trees in accordance with the CLAOTO; restore, enhance, and maintain natural woodland communities in perpetuity; and create new woodlands in areas that supported oaks and oak woodlands prior to development. Applicable mitigation measures include the following previously incorporated measures:

- Mitigation Measures **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-21** through **SP 4.6-26** (habitat restoration, enhancement, and preservation of the River Corridor SMA/SEA 23);
- Mitigation Measure **SP 4.6-17** (restrictions on human and pet access to the River Corridor SMA/SEA 23);
- Mitigation Measures **SP 4.6-18** and **SP 4.6-19** (establishment of transition areas between the River Corridor SMA/SEA 23 and development);
- Mitigation Measure **SP 4.6-27** (habitat enhancement of the High Country SMA/SEA 20);
- Mitigation Measure **SP 4.6-28** (mitigation banking for oak resources);
- Mitigation Measures **SP 4.6-29** through **SP 4.6-32** (recreation and access restrictions within the High Country SMA/SEA 20);

- Mitigation Measure **SP 4.6-33** (protection of transition areas between the development edge and the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-34** and **SP 4.6-35** (clear marking of grading perimeters and avoidance of inadvertent impacts to biological resources outside of the grading area within or adjacent to the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-37** through **SP 4.6-42** (long-term management of the High Country SMA/SEA 20);
- Mitigation Measures **SP 4.6-43** through **SP 4.6-47** (acceptable uses of and long-term management of Open Area);
- Mitigation Measure **SP 4.6-48** (standards for the restoration and enhancement of oak resources); and
- Mitigation Measure **SP 4.6-62** (any changes to an approved oak tree permit would require that the oak tree report for that oak tree permit be amended for the area of change).

This impact would also be reduced through the implementation of the following:

- Mitigation Measure **LV 4.4-6** (Oak Resource Management Plan identifying areas suitable for oak woodland enhancement and creation);
- Mitigation Measure **LV 4.4-7** (protective fencing around oaks during clearing and grading activities);
- Mitigation Measure **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities); and
- Mitigation Measure **LV 4.4-2** (dedication of the Salt Creek area to the public).

Compliance with the permit conditions and implementation of Specific Plan Mitigation Measure **SP 4.6-48**, as well as the above proposed Mitigation Measures, would reduce impacts to oak trees and oak woodland habitat to below a level of significance. These measures would also meet the requirements of Section 21083.4. The finding that impacts to protected oaks can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

For discussion on the temporary loss of carbon sequestration through vegetation removal, including oak woodlands, please see **Section 4.23, Global Climate Change**, of this EIR.

(h) Special-Status Wildlife Species

Certain special-status wildlife species that known to occur in the project region were eliminated from further consideration in this report because the project site lacks suitable habitat to support the species as a resident or nesting species or because surveys have established that the species is not expected to frequently utilize the project site. As a result, the species are not expected to reside on or substantially

utilize the project site. As shown in **Table 4.4-8**, above, these species include the following: vernal pool fairy shrimp, San Diego fairy shrimp, Riverside fairy shrimp, Quino checkerspot butterfly, coast range newt, coastal (San Diego) cactus wren, great egret, great blue heron, Swainson's hawk, mountain plover, bald eagle, least bittern, long-billed curlew, osprey, double-crested cormorant, white-faced ibis, purple martin, bank swallow, California spotted owl, Mexican long-tongued bat, spotted bat, Los Angeles pocket mouse, and big free-tailed bat.

As noted in **Table 4.4-6**, above, the following special-status wildlife species were observed during the course of various field surveys conducted on or adjacent to the project site: monarch butterfly, the undescribed snail species known from Middle Spring, San Emigdio blue butterfly, Santa Ana sucker, unarmored threespine stickleback, arroyo chub, arroyo toad, western spadefoot toad, southwestern pond turtle, silvery legless lizard, coastal western whiptail, coast horned lizard, two-striped garter snake, Cooper's hawk (nesting), sharp-shinned hawk (nesting), tricolored blackbird (nesting colony), southern California rufous-crowned sparrow, golden eagle (nesting and wintering), short-eared owl (nesting), long-eared owl (nesting), western burrowing owl (burrow sites), oak titmouse (nesting), ferruginous hawk (wintering), Costa's hummingbird (nesting), Lawrence's goldfinch, turkey vulture, northern harrier (nesting), western yellow-billed cuckoo (nesting), yellow warbler (nesting), white-tailed kite (nesting), willow flycatcher (nesting), southwestern willow flycatcher (nesting), California horned lark, merlin (wintering), prairie falcon (nesting), American peregrine falcon, California condor, yellow-breasted chat (nesting), loggerhead shrike, black-crowned night heron (rookery), Nuttall's woodpecker (nesting), summer tanager (nesting), coastal California gnatcatcher, vermilion flycatcher (nesting), Allen's/Rufous hummingbird (nesting), chipping sparrow (nesting), least Bell's vireo (nesting), yellow-headed blackbird, pallid bat, western mastiff bat, western red bat, San Diego black-tailed jackrabbit, fringed myotis, Yuma myotis, San Diego desert woodrat, pocketed free-tailed bat, mule deer, mountain lion, American badger, and black bear.

Based on the presence of suitable habitat on the project site, it is reasonable to conclude that certain special-status species could occur on site prior to grading or construction activities associated with project implementation (see **Table 4.4-7**, above). Although not observed during surveys, the following species could potentially occur on the project site: southern steelhead, California red-legged frog, rosy boa, San Bernardino ringneck snake, coast patch-nosed snake, south coast garter snake, Bell's sage sparrow, black-chinned sparrow, ringtail, Townsend's big-eared bat, western small-footed myotis, long-legged myotis, and southern grasshopper mouse.

Impacts to Species Observed On or Adjacent to the Landmark Village Site

Monarch Butterfly (*Danaus plexippus*). The monarch butterfly is a listed California Special Animal. The species' distribution is controlled by the distribution of its larval host plants (i.e., various milkweeds, genus *Asclepias*). Individual monarch butterflies were observed during surveys conducted in April and May of 2004 and 2005 as well as during various other wildlife and plant surveys that have been conducted. However, no wintering sites have been observed, and, due to the site's distance from the coast, it is unlikely that the Project area would be used by large numbers of overwintering adults (Compliance Biology, Inc. 2004A). The proposed project does not include any development or construction-related activities that would affect a wintering site. Therefore, impacts to this species would be less than significant. Impacts to this species were not previously analyzed as part of the Newhall Ranch Specific Plan Program EIR and Additional Analysis because the species was identified after that environmental documentation was certified.

San Emigdio Blue Butterfly (*Plebulina emigdionis*). The San Emigdio blue butterfly is designated by CDFG as a California Special Animal. This butterfly can be locally abundant in association with its primary host plant, four-wing saltbush (*Atriplex canescens*), but has also been observed in association with quail brush (*A. lentiformis*) (Compliance Biology, Inc., 2004C, 2005). During the 2004 surveys, San Emigdio blue butterfly was documented within the Specific Plan area in the west-central edge of Potrero Canyon. During the 2005 surveys, five adult San Emigdio blue butterflies were again observed at this location. One San Emigdio blue butterfly was also observed in the High Country SMA/SEA 20 at the northwestern edge of Salt Canyon during the 2005 surveys; however, no additional observations of the species were made at this location or other portions of Salt Canyon during the 2005 surveys (Compliance Biology, Inc., 2005). The proposed project does not include any development or construction-related activities that would affect a population or a concentration of the host plant. Therefore, impacts to this species would be less than significant. Impacts to this species were not previously analyzed as part of the Newhall Ranch Specific Plan Program EIR and Additional Analysis because the species was identified after that environmental documentation was certified.

Undescribed Snail (*Pyrgulopsis sp. nova*). The undescribed snail has no current status; however, in 2006, it was observed within portions of the Middle Canyon Spring within the Specific Plan EIR. In addition, the snail's habitat requirements are unknown and a comprehensive distribution survey has not yet been attempted. The species was first observed within Middle Canyon Spring by USFWS biologists in 2006. In 2007, Dudek biologists observed over 100 snails (these snails were not identified to genus or species, and it is not known whether they were the undescribed snail or another freshwater snail) in Middle Canyon Spring and the lower-most reach of the Middle Canyon drainage, and immediately below the river terrace where the spring discharges into the upper river floodplain. At the time the unidentified snails

were observed in the mouth of the Middle Canyon drainage (non-spring area), agricultural runoff from irrigated fields in the lower valley of Middle Canyon supported flow in the lower portion of the drainage (Dudek 2007C). The proposed project does not include any development or construction-related activities that would affect the Middle Canyon Spring. Therefore, impacts to this species would be less than significant. Impacts to this species were not previously analyzed as part of the Newhall Ranch Specific Plan Program EIR and Additional Analysis because the species was identified after that environmental documentation was certified.

Santa Ana sucker (*Catostomus santaanae*). The Santa Ana sucker is listed as a California Species of Special Concern throughout its range. Outside of the Newhall Ranch Specific Plan area, populations within the species' natural historic range, including the Los Angeles, San Gabriel, and Santa Ana River basins, are listed federally as threatened. It is also considered sensitive by the U.S. Forest Service, critically imperiled by the Natural Heritage Program, and vulnerable by the IUCN World Conservation Union. The fish are most abundant in cool, shallow streams with good water quality and with streamside riparian vegetation that can provide refuge during seasonal floods and repopulation after flooding (Buth and Crabtree 1982; NatureServe 2007). This species has been documented within the Specific Plan area throughout the Santa Clara River. In their collections within the Specific Plan area of the NRSP Project site, ENTRIX (2009) found that the Santa Ana sucker was common. Surveys conducted on June 3 and July 14, 2000, found this species within 500 meters upstream and downstream of the I-5 Bridge over the Santa Clara River (Impact Sciences, Inc. 2003A, 2003B; Haglund and Baskin 2000). This species is not expected to occur in Salt Creek. Construction activities associated with the proposed Long Canyon Road Bridge, bridge abutments, and temporary haul routes could cause impacts to individual fish. Although the proposed bank stabilization features are set back beyond the existing riparian corridor in most of the project site and would not interface with the active stream channel, a significant impact could occur, depending on the number and extent of this species that may be disturbed or removed during construction of the bridge. Mitigation measures to reduce these impacts below significant levels include the following:

- **SP 4.6-53** (surveys for special-status species),
- **SP 4.6-57** (exclusion/removal of fish from areas of proposed bridge construction),
- **SP 4.6-58** (require compliance with water quality permits), and
- **SP 4.6-59** (surveys for special-status species).
- **LV 4.4-8** (pre-construction surveys of the riverbed for unarmored threespine stickleback, arroyo chub, and Santa Ana sucker),
- **LV 4.4-10** (development of a Stream Crossing and Diversion Plan),

- LV 4.4-11 (regulating stream diversion bypass channels and dewatering),
- LV 4.4-12 (creation of habitat for special-status fish during construction),
- LV 4.4-13 (installation of structures within the riverbed not to impair movement of aquatic life),
- LV 4.4-14 (prevention of mud and pollutants from entering streams and storm flows),
- LV 4.4-15 (restriction of construction activities in the riverbed to specified areas),
- LV 4.4-43 (dust control measures to protect vegetation communities and special-status plant and aquatic wildlife species).

These mitigation measures would reduce direct impacts to the Santa Ana sucker to less than significant. The finding that impacts to Santa Ana sucker can be reduced to less than significant with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*). The unarmored threespine stickleback is listed as both state and federally endangered and is a California Fully Protected species. The USFWS (1985) notes that the unarmored threespine stickleback can be found in all areas of streams; however, they tend to gather in slow-moving and standing water or behind obstructions, at the edges of streams, or in vegetation in faster-moving water. This species has been documented in the Santa Clara River adjacent to the Landmark Village project site and within the Santa Clara River portion of the Specific Plan in 1988, 1995, 2000, 2002–2005, and 2007 (Aquatic Consulting Services, Inc., 2002A–D; ENTRIX 2009; Haglund 1989; SMEA 1995, 2000; Impact Sciences, Inc., 2003A–C). Construction activities associated with the proposed Long Canyon Road Bridge, bridge abutments, and temporary haul routes could impact individual fish, and there is a potential for significant residual impacts to the unarmored threespine stickleback. However, the proposed bank stabilization features are set back beyond the existing riparian corridor at most of the project site and would not interface with the active stream channel. Mitigation measures to reduce impacts on the unarmored threespine stickleback to less than significant include the following:

- SP 4.6-53 (surveys for special-status species),
- SP 4.6-54 (consultation with USFWS),
- SP 4.6-57 (exclusion/removal of fish from areas of proposed bridge construction),
- SP 4.6-58 (require compliance with water quality permits),
- SP 4.6-59 (surveys for special-status species).

- LV 4.4-8 (pre-construction surveys of the riverbed for unarmored threespine stickleback, arroyo chub, and Santa Ana sucker),
- LV 4.4-10 (development of a Stream Crossing and Diversion Plan),
- LV 4.4-11 (regulating stream diversion bypass channels and dewatering),
- LV 4.4-12 (construction of habitat for special-status fish during construction),
- LV 4.4-13 (installation of structures within the riverbed not to impair movement of aquatic life),
- LV 4.4-14 (prevention of mud and pollutants from entering streams and storm flows),
- LV 4.4-15 (restriction of construction activities in the riverbed to specified areas), and
- LV 4.4-43 (dust control measures to protect vegetation communities and special-status plant and aquatic wildlife species).

Implementation of these mitigation measures would prevent direct impacts to the unarmored threespine stickleback. The finding that impacts to unarmored threespine stickleback can be reduced to less than significant with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Arroyo chub (*Gila orcutti*). The arroyo chub is listed as a California Species of Special Concern, is considered imperiled regionally and globally under the Natural Heritage Program methodology, and is considered sensitive by the U.S. Forest Service. It occurs in slow-moving or backwater sections of warm to cool (10°C to 24°C) streams with mud or sand substrates (ENTRIX 2009). This species has been documented in the Santa Clara River and could occur in the portion of the river adjacent to the project site. In their collections within the Specific Plan area of the NRSP Project site, ENTRIX (2009) found that the arroyo chub was common to abundant. ENTRIX (2009) describes the arroyo chub as the dominant species of the Santa Clara River within the Project area. Construction activities associated with the proposed Long Canyon Road Bridge, bridge abutments, and temporary haul routes could result in impacts to the species. Although the proposed bank stabilization features are set back beyond the existing riparian corridor at most of the project site and would not interface with the active stream channel, a significant impact could occur, depending on the number and extent of this species that may be disturbed or removed during construction of the bridge. Mitigation measures to reduce impacts to less-than-significant levels include the following:

- SP 4.6-44 (soft bottoms for all flows greater than 2,000 cubic feet per second [cfs]),
- SP 4.6-53 (surveys for special-status species),
- SP 4.6-54 (consultation with USFWS),

- **SP 4.6-57** (removal of fish from areas of proposed bridge construction), **SP 4.6-58** (require compliance with water quality permits),
- **SP 4.6-59** (consultation with County and CDFG before surveys for special-status species).
- **LV 4.4-8** (pre-construction surveys of the riverbed for unarmored threespine stickleback, arroyo chub, and Santa Ana sucker),
- **LV 4.4-10** (development of a Stream Crossing and Diversion Plan),
- **LV 4.4-11** (regulating stream diversion bypass channels and dewatering),
- **LV 4.4-12** (creation of habitat for special-status fish during construction),
- **LV 4.4-13** (installation of structures within the riverbed not to impair movement of aquatic life),
- **LV 4.4-14** (prevention of mud and pollutants from entering streams and storm flows),
- **LV 4.4-15** (restriction of construction activities in the riverbed to specified areas), and
- **LV 4.4-43** (dust control measures to protect vegetation communities and special-status plant and aquatic wildlife species).

Implementation of these measures and Specific Plan Mitigation Measures **SP 4.6-57** and **SP 4.6-58** would reduce direct impacts to the arroyo chub to less than significant. The finding that impacts to arroyo chub can be reduced to less than significant with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Arroyo toad (*Bufo californicus*). The arroyo toad is listed as a California Species of Special Concern and is federally endangered. The species utilizes aquatic, riparian, and upland habitats to different degrees depending on the individual's stage of development and the season. The riparian areas on and adjacent to the project site provide suitable habitat for this species. No adult or subadult arroyo toads have been observed in the Project area. However, in 2000, arroyo toad tadpoles were observed in the Castaic Junction area (in a location on or adjacent to the project site) east of the project (Aquatic Consulting Services, Inc. 2002A–D). Specifically, during the surveys conducted by Aquatic Consulting Services, arroyo toad tadpoles were observed in the Santa Clara River upstream and downstream of the proposed Commerce Center Drive Bridge site and near the Valencia Water Treatment Plant. Arroyo toad was not observed breeding or otherwise utilizing habitats on or bordering the project site during more recent protocol surveys (Compliance Biology 2004F; Bloom Biological 2007). In addition, on April 13, 2005, the USFWS issued a revised critical habitat designation for the arroyo toad. (See 70 Fed. Reg. 19562.) In that Final Rule, effective May 13, 2005, the USFWS deleted the entire Newhall Ranch Specific Plan area from the designated critical habitat for the arroyo toad. Note, however, that USFWS is currently reassessing the

2005 Final Rule to determine whether the critical habitat designation should be adjusted. Should USFWS propose any changes to the 2005 Final Rule, they will be published in the Federal Register sometime in 2009.

Given that the site provides suitable habitat for the arroyo toad, that this species has been recorded in low numbers upstream of the project site, and that tadpoles were documented in the river on and adjacent to the project site, construction-related activities could result in impacts to individual toads, which would be a significant impact. In order to reduce impacts to this species, the Project applicant would implement a series of mitigation measures designed to limit construction activities within high quality habitat areas and capture and relocate animals away from the work area prior to construction. Equipment would not be operated within areas of ponded or flowing water (unless otherwise approved by the Corps and CDFG), and water containing mud, silt, and other pollutants would not be allowed to enter flowing water. Further, any arroyo toads potentially present would be removed from the disturbance footprint by qualified biologists and placed in a pre approved area capable of supporting the species. In addition, the Project applicant would conduct biological monitoring during ground disturbing activities in an effort to salvage animals that may be uncovered during construction activities. Applicable mitigation measures include the following:

- **SP 4.6-53** and **SP 4.6-59** (surveys for special-status species within the Project area),
- **SP 4.6-55** (federal and state permits for wetland impacts), and
- **SP 4.6 58** (NPDES and water quality permits).
- **LV 4.4-10** (development of a Stream Crossing and Diversion Plan),
- **LV 4.4-11** (regulating stream diversion bypass channels and dewatering),
- **LV 4.4-12** (creation of habitat for special-status fish during construction),
- **LV 4.4-13** (installation of structures within the riverbed not to impair movement of aquatic life),
- **LV 4.4-14** (prevention of mud and pollutants from entering streams and storm flows),
- **LV 4.4-15** (restriction of construction activities in the riverbed to specified areas),
- **LV 4.4-17** (surveys of riverbed area for arroyo toad), and
- **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities).

Implementation of these mitigation measures would reduce this impact to a level that is less than significant. The finding that impacts to arroyo toad can be reduced to less than significant with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Western spadefoot toad (*Spea hammondi*). The western spadefoot toad is a listed California Species of Special Concern. The species prefers open areas with sandy or gravelly soils in a variety of habitats, including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, river floodplains, alluvial fans, playas, and alkali flats (Stebbins 2003; Holland and Goodman 1998). In total, there have been four separate documented occurrences of the western spadefoot toad in the Specific Plan area based on the focused surveys and incidental observations. Two occurrences of tadpoles are known from the Mission Village development area (Compliance Biology, Inc., 2006C). A western spadefoot toad was also observed within an isolated pool along the Santa Clara River upstream of the Commerce Center Bridge (Aquatic Consulting Services 2002A). Western spadefoot toads were observed in the Potrero Village development area within a rain pool in winter 2005; this location is believed to be extant (Dave Crawford, Compliance Biology, pers. comm., 2007). As western spadefoot toads have been observed in various locations in the Specific Plan area, and because suitable conditions for the species are expected elsewhere in unsurveyed portions of the Project area, there is a high potential for this species to occur in additional areas that contain seasonal pools.

Southwestern pond turtle (*Actinemys marmorata pallida*). The southwestern pond turtle is listed as a California Species of Special Concern. Western pond turtles use a variety of aquatic habitats, including lakes, natural ponds, rivers, oxbows, streams (perennial/ephemeral), marshes, vernal pools, freshwater and brackish estuaries, drainage ditches, reservoirs, mill ponds, ornamental park ponds, stock ponds, abandoned gravel pits, and sewage treatment plants (Buskirk 2002; NatureServe 2007). This species has been observed in the portion of the Santa Clara River bordering the project site (Compliance Biology 2004), and could also occur within the riparian habitats on and bordering the project site. The removal of riparian vegetation and construction activities associated with the proposed bridge and/or bank protection could result in impacts to individual pond turtles. These impacts may be significant, depending on the number and extent of this species that may be disturbed or removed. To address these impacts, the following mitigation measures would be implemented:

- **LV 4.4-9** (surveys of riverbed area for southwestern pond turtle),
- **LV 4.4-13** (installation of structures within the riverbed not to impair movement of aquatic life),
- **LV 4.4-14** (prevention of mud and pollutants from entering streams and storm flows),
- **LV 4.4-15** (restriction of construction activities in the riverbed to specified areas), and
- **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities).

These mitigation measures would reduce impacts to the southwestern pond turtle to a less-than-significant level. The finding that impacts to southwestern pond turtle can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Silvery legless lizard (*Anniella pulchra pulchra*). The silvery legless lizard is designated by CDFG as a California Species of Special Concern. This species may be found in sparsely vegetated areas in a variety of habitats, including beach dunes, chaparral, California sagebrush scrub, oak woodlands, pine forests, pine-oak woodland, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks (Zeiner et al. 1988; Stebbins 2003; Holland and Goodman 1998). This species has been observed on the project site within the leaf litter of coast live oak woodlands in Chiquito Canyon. Overall, 23 individual silvery legless lizards were captured and released (Impact Sciences, Inc. 2006A). Silvery legless lizard was also observed at two locations in Long Canyon in 2005 (Chris Huntley, personal communication, October 2006). Because suitable habitat occurs on site in the form of riparian and riverbank habitats within the SMA/SEA 23, as well as scrub, chaparral and oak woodland habitats outside of the SMA/SEA boundary, silvery legless lizard could occur throughout those portions of the site with these habitat types. Construction-related activities could result in impacts to individual lizards. In order to reduce impacts to this species the Project applicant would implement a series of mitigation measures designed to capture and relocate animals away from the work area prior to construction. While the fossorial behavior of the silvery legless lizard would prevent the capture and relocation of all individuals occurring, specific measures (e.g., seasonal timing and hand raking) are required to maximize capture rates. The captured animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the Project applicant would conduct biological monitoring during ground disturbing activities in an effort to salvage silvery legless lizards that may be uncovered during construction activities. Applicable mitigation measures are LV 4.4-18 (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and LV 4.4-20 (surveys to capture and relocate special-status reptiles). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR concluded that the substantial loss of habitat, and potential impacts to individuals of this species, would be considered an unavoidable significant impact; however, the mitigation proposed in the Specific Plan EIR was not as extensive as this Recirculated Landmark Village EIR. See **Subsection 9.b.(1)(b), Wildlife Habitat Loss**, for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Coastal western whiptail (*Aspidoscelis tigris stejnegeri*). The coastal western whiptail is designated by CDFG as a California Special Animal. The coastal western whiptail is found in a variety of habitats,

primarily in areas where plants are sparse and there are open areas for running. The species is also found in woodland and streamside growth and avoids dense grassland and thick shrub growth. While coastal western whiptails were not trapped or otherwise observed during pitfall trap surveys, the subspecies was identified as having the potential to occur in the Project area (Impact Sciences, Inc., 2006A). Because of observations in the High Country SMA/SEA 20 and nearby locations (Compliance Biology, Inc., 2006; Dudek and Associates, Inc., 2006B), the presence of suitable habitat, observance that the Project area is within the range of the subspecies as described by Stebbins (2003), and the fact that the entire Project area was not surveyed by Impact Sciences (2006A) at a level of detail necessary to determine presence or absence of a particular reptile species, the coastal western whiptail is assumed to be present in the Project area. Construction-related activities could result in impacts to individual whiptails. In order to reduce impacts to this species, the Project applicant would implement four mitigation measures designed to capture and relocate animals away from the work area prior to construction. The captured animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the subspecies. In addition, the Project applicant would conduct biological monitoring during ground disturbing activities in an effort to salvage animals that may be uncovered during construction activities. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (surveys for special-status species within the Project area). Additional applicable mitigation measures are **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-20** (surveys to capture and relocate special-status reptiles). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Program EIR concluded that the substantial loss of habitat, and potential impacts to individuals of this species, would be considered a significant unavoidable impact; however, the mitigation proposed in the Specific Plan EIR was not as extensive as this Recirculated Landmark Village EIR. See **Subsection 9.b.(1)(b), Wildlife Habitat Loss**, for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Coast horned lizard (*Phrynosoma coronatum*). The coast horned lizard is listed as a California Species of Special Concern. The species is found in a wide variety of vegetation types with the requisite loose sandy soils, including California sagebrush scrub, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest (Klauber 1939; Stebbins 1954). One coast horned lizard was captured during the 2006 pitfall trap surveys and five additional coast horned lizards were incidentally observed during the 2004 reptile surveys (Impact Sciences, Inc., 2006A). The coast horned lizard observed during the 2006 surveys was captured in the eastern portion of the Specific Plan area (in the vicinity of the Potrero Village development area) in an area described as containing sandy soils and riparian and non-native grassland vegetation (Impact Sciences, Inc. 2006A). No location or habitat association information was provided for the coast horned lizards incidentally observed during the 2004 surveys. Coast horned

lizard was also observed along the Santa Clara River floodplain, approximately 500 feet south of The Old Road Bridge in 2006 (Chris Huntley, personal communication, October 2006). Construction-related activities could result in impacts to individual horned lizards. In order to reduce these impacts, the Project applicant would implement a series of mitigation measures designed to capture and relocate animals away from the work area prior to construction. The captured animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the Project applicant would conduct biological monitoring during ground-disturbing activities in an effort to salvage animals that may be uncovered during construction activities. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (surveys for special-status species within the Project area). Additional applicable mitigation measures are **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-20** (surveys to capture and relocate special-status reptiles). Implementation of these mitigation measures would reduce this impact to a level that is less than significant. The Newhall Ranch Specific Plan Program EIR concluded that the substantial loss of habitat, and potential impacts to individuals of this species, would be considered an unavoidable significant impact; however, the mitigation proposed in the Specific Plan EIR was not as extensive as this Recirculated Landmark Village EIR. See **Subsection 9.b.(1)(b), Wildlife Habitat Loss**, for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Two-striped garter snake (*Thamnophis hammondi*). The two-striped garter snake is a California Species of Special Concern. Two-striped garter snakes are found in a variety of perennial and intermittent freshwater streams within oak woodlands, shrublands, and sparse coniferous forests from sea level to 2,400 meters (7,874 feet) AMSL (Stebbins 2003; Zeiner *et al.* 1988). This species was observed in the reach of the Santa Clara River within and adjacent to the Specific Plan area (Aquatic Consulting Services, Inc., 2002C; Impact Sciences, Inc., 2002; Compliance Biology, Inc., 2004; ENTRIX 2006B). The removal of riparian vegetation and construction activities associated with the proposed bridge and/or bank protection could result in impacts to individual two-striped garter snakes. This may be a significant impact, depending on the number and extent of this species that may be disturbed or removed. In order to reduce these impacts, the Project applicant would implement a series of mitigation measures designed to limit construction activities within high quality habitat areas and capture and relocate animals away from the work area prior to construction. Mitigation measures to reduce impacts below significant levels include **SP 4.6-53** (surveys for special-status species) and **SP 4.6-58** (require compliance with water quality permits). In addition, equipment would not be operated within areas of ponded or flowing water (unless otherwise approved by the Corps and CDFG) and water containing mud, silt, and other pollutants would not be allowed to enter flowing water. Further, any two-stripe garter snakes potentially present would be removed from the disturbance footprint by qualified biologists and placed in a pre approved area capable of supporting the species. The Project applicant would also conduct biological

monitoring during ground disturbing activities in an effort to salvage animals that may be uncovered during construction activities. Other applicable mitigation measures recommended in this EIR include:

- LV 4.4-10 (development of a Stream Crossing and Diversion Plan),
- LV 4.4-11 (regulating stream diversion bypass channels and dewatering),
- LV 4.4-12 (creation of habitat for special-status fish during construction),
- LV 4.4-13 (installation of structures within the riverbed not to impair movement of aquatic life),
- LV 4.4-14 (prevention of mud and pollutants from entering streams and storm flows),
- LV 4.4-15 (restriction of construction activities in the riverbed to specified areas),
- LV 4.4-16 (surveys of riverbed area for two-striped garter snake and south coast garter snake),
- LV 4.4-18 (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities).

Implementation of the mitigation measures described above would reduce this impact to a level that is less than significant. The finding that impacts to two-striped garter snake can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Cooper's hawk (*Accipiter cooperii*). The Cooper's hawk is on CDFG Watch List. Cooper's hawks are found in areas with dense stands of live oak, riparian, or other forest communities near water (Zeiner et al. 1990A). The Cooper's hawk frequents landscapes where wooded areas occur in patches and groves and often uses patchy woodlands and edges with snags for perching (Beebe 1974). The Cooper's hawk has been regularly observed within riparian and oak woodland habitats over multiple years during bird surveys conducted from 1988 through 2006 along the Santa Clara River (Guthrie 1988–1990, 1991A–B, 1992, 1993A–B, 1994A–B, 1995A–B, 1996A–B, 1997A–B, 1998A–B, 1999A–C, 2000B–C, 2000E–F, 2001A–B, 2002A, 2002C, 2003A–B, 2004F, 2004H–I, 2005A–B, 2006A–C; Labinger and Greaves 1995, 1996, 1997A–B; Labinger and Greaves 1999A). This species is known to be a year-round resident within the Project area (Bloom Biological, Inc. 2007A). If active hawk nests are present, the proposed removal of riparian vegetation and/or construction-related noise could cause the nests to be lost or abandoned during that year's nesting season. Depending on the number and extent of this species' bird nests on the site that may be disturbed or removed, the loss of active nests could be a significant impact. In order to reduce impacts to this species, the Project applicant would implement mitigation measures to reduce impacts to Cooper's hawk before and during construction. Previously incorporated mitigation measures include **SP 4.6-53** (updated site specific surveys) and **SP 4.6-59** (consultation with County and CDFG at important

benchmarks). This impact would also be reduced through the implementation of Mitigation Measures LV 4.4-18 (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and LV 4.4-21 (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The finding that impacts to Cooper's hawk can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Grasshopper sparrow (*Ammodramus savannarum*). The grasshopper sparrow has been designated by CDFG as a California Species of Special Concern. The species frequents dense, dry or well-drained grassland, especially native grassland with a mix of grasses and forbs for foraging and nesting. Grasshopper sparrows require fairly continuous native grassland areas with occasional taller grasses, forbs, or shrubs for song perches (Garrett and Dunn 1981). No observations of the grasshopper sparrow have been made within the Project area, but potential habitat exists on site. Depending on the number and extent of this species' bird nests that may be disturbed or removed, the loss of active nests would be a potentially significant impact. Applicable mitigation measures include previously incorporated measures SP 4.6-53 and SP 4.6-59 (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of Mitigation Measures LV 4.4-18 (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and LV 4.4-21 (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant.

Sharp-shinned hawk (*Accipiter striatus*). The sharp-shinned hawk is on CDFG Watch List. Sharp-shinned hawks prefer riparian forest and woodlands (NatureServe 2007). They are found in a variety of ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats (Joy et al. 1984; Zeiner et al. 1990A; NatureServe 2007). Sharp-shinned hawks have been observed several times during the course of the avian surveys conducted along the Santa Clara River corridor. Guthrie observed two adults on two separate occasions in 1995 and again in 1997 and 1999 (Guthrie 1995B, 1997A, 1999B). Another sharp-shinned hawk was observed in March 2007 by Bloom Biological (Bloom Biological, Inc., 2007A). Because sharp-shinned hawks are highly mobile and are a rare winter visitor on the site, the proposed Project would not result in mortality of individuals occupying this habitat during construction and/or grading activities. Furthermore, because the species does not nest on site, construction and grading activities associated with the proposed Project would not result in impacts to nesting birds of this species. Implementation of the proposed project would not directly impact this species. The Newhall Ranch Specific Plan Program EIR concludes that due to the substantial loss of habitat resulting from buildout of the Specific Plan, impacts to sharp-shinned hawk would be considered a significant

unavoidable impact; however, the mitigation proposed in the Specific Plan EIR was not as extensive as this Recirculated Landmark Village EIR.

Tricolored blackbird (*Agelaius tricolor*). The tricolored blackbird is a California Species of Special Concern and a Bird of Conservation Concern with regard to its nesting colony status. It was petitioned for state and federal listing by the Center for Biological Diversity in 2004, but the USFWS made a decision not to warrant protection in December 2006. These birds prefer to breed in freshwater marshes with dense growths of emergent vegetation dominated by cattails (*Typha* spp.) or bulrushes (*Schoenoplectus* spp.), but have also established colonies in willows (*Salix* spp.), blackberries (*Rubus* spp.), thistles (*Cirsium* and *Centaurea* spp.), and nettles (*Urtica* spp.). This species has been observed on the Project site during focused bird surveys. Labinger et al. (1995) observed a small nesting colony within the Project site; however, the specific location is not known and was not mapped. Migrants have also been observed within the Specific Plan area along the Santa Clara River (Guthrie 1996B, 1999B, County of Los Angeles 2003) and within Potrero Canyon in 1994 (County of Los Angeles 2003). Tricolored blackbird has been observed office along Castaic Creek (Guthrie 1994A, 1995A, 1996A, 1999A, 2006C), and at Castaic Junction (Guthrie 1994A, 2000E, 2001A, 2006C; Dudek 2006E). No breeding colonies have been observed since 1994, despite annual surveys through 2007 as described above. However, should this species nest on the site prior to development, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of bird nests on the site that may be disturbed or removed, the loss of active nests would be a potentially significant impact. In order to avoid impacts to this species, the Project applicant would implement mitigation measures to reduce the loss of or harm to tricolored blackbird before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant.

The Newhall Ranch Specific Plan Program EIR concludes that because the potential to successfully relocate breeding colonies at new locations is relatively low, impacts to breeding colonies (if present) would remain significant. However, given that no breeding colonies have been documented on or adjacent to the project site during annual bird surveys, and the requirements of proposed Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests), impacts to nesting tricolored blackbird (if present) can be reduced to below a level of significance at the project level.

Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*). The southern California rufous-crowned sparrow is on CDFG Watch List. This species is not federally listed as threatened or endangered within any part of its range (Collins 1999B). The rufous-crowned sparrow occupies moderate to steep hillsides that are rocky, grassy, or covered by coastal sage scrub or chaparral. The southern California rufous-crowned sparrow has been observed over multiple years as a fairly common resident in the coastal scrub within the Specific Plan area during annual bird surveys. It has been observed foraging upland and near the Santa Clara River (Guthrie 2000A, 2000B, 2001A, 2002C, 2004A, 2004D) and was observed nesting in 2007 (Bloom Biological, Inc., 2007A). Construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of this species' bird nests on the site that may be disturbed or removed, the loss of active nests would be a significant impact. In order to reduce impacts to this species, the Project applicant would implement mitigation measures to reduce impacts to Southern California rufous-crowned sparrow before and during construction. Previously incorporated mitigation measures include **SP 4.6-53** (updated site specific surveys) and **SP 4.6-59** (consultation with County and CDFG at important benchmarks). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR concludes that due to the substantial loss of habitat resulting from buildout of the Specific Plan, impacts to Southern California rufous-crowned sparrow would be considered unavoidably significant impact; however, the mitigation proposed in the Specific Plan EIR was not as extensive as this Recirculated Landmark Village EIR. See **Subsection 9.b.(1)(b), Wildlife Habitat Loss**, for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Golden eagle (*Aquila chrysaetos*). The golden eagle is on CDFG Watch List and a Fully Protected species. The golden eagle requires rolling foothills, mountain terrain, and wide arid plateaus deeply cut by streams and canyons, open mountain slopes and cliffs, and rock outcrops (Zeiner *et al.* 1990A). On site, this species has occasionally been observed during annual bird surveys conducted from 1988 through 2007 along the Santa Clara River. A golden eagle was observed flying over the Santa Clara River in the vicinity of the Six Flags Magic Mountain Amusement Park within the Entrada planning area (Guthrie 1993A, 1993B). No known nests occur on site or in the immediate vicinity and the project site is not considered suitable for nesting eagles. However, suitable foraging habitat occurs on the project site. Because this species is not expected to nest or otherwise substantially utilize the project site, no significant impacts to golden eagle are expected to occur as a result of the Landmark Village development. Despite no significant impacts, applicable mitigation measures include previously incorporated measures

SP 4.6-53 and SP 4.6-59 (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Any impacts also would be reduced through the implementation of Mitigation Measures LV 4.4-18 (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and LV 4.4-21 (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would avoid impacts to nesting golden eagle if nests were located in the future.

The Newhall Ranch Specific Plan Program EIR concluded that due to the substantial loss of habitat, and potential impacts to individuals resulting from buildout of the Specific Plan, impacts to golden eagle would be considered significant and unavoidable; however, because the species is not expected to nest or otherwise substantially utilize the Landmark Village project site, as stated above, no significant impacts to golden eagle are expected to occur as a result of the Landmark Village development. In addition, since the Newhall Ranch Specific Plan Program EIR was certified, new mitigation measures have been added to the Landmark Village Recirculated EIR. Those measures, referenced above, ensure that any impacts to golden eagle are minimized to less-than-significant levels.

Short-eared owl (*Asio flammeus*). The short-eared owl is a federally listed Bird of Conservation Concern as well as a CDFG-designated California Species of Special Concern. The short-eared owl is a resident of mixed and tall grass habitats. The species is usually found in open areas with few trees, such as annual and perennial grasslands, prairies, tundra, dunes, meadows, agricultural lands, and saline and fresh emergent wetlands (Zeiner *et al.* 1990A; Terres 1980). Short-eared owls have never been documented in the Project area. However, an individual was observed just outside the Project boundary in the Salt Creek area just west of the Ventura/Los Angeles County line in the fall of 2005 (Dudek 2006B). Short-eared owl could potentially forage on site in grasslands during the winter months. Because short-eared owls are highly mobile and are a rare winter visitor on the site, the proposed Project would not result in impacts to individuals occupying this habitat during construction and/or grading activities. Furthermore, because the species does not nest on site, construction and grading activities associated with the proposed Project would not result in impacts to young or eggs. Implementation of the proposed project would not directly impact this species. Impacts to this species were not addressed by the Newhall Ranch Specific Plan Program EIR due to more recent identification of the species in later surveys. See **Subsection 9.b.(1)(b), Wildlife Habitat Loss**, for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Long-eared owl (*Asio otus*). The long-eared owl has been designated by CDFG as a California Species of Special Concern. The long-eared owl primarily uses riparian habitat for roosting and nesting, but can also use live oak thickets and other dense stands of trees (Zeiner *et al.* 1990A). It appears to be more associated with forest edge habitat than with open habitat or forest habitat (Holt 1997). Dudek observed a

long-eared owl during wildlife transect surveys within the Specific Plan area in live oak woodland south of Via Canyon during fall 2005 (Dudek 2006B). The observed individual was not nesting. The species was not observed during 2007 surveys despite several nights spent camping in oak woodlands surrounding the Landmark Village project area (Bloom Biological, Inc. 2007A). Should this species occur on the site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of bird nests on site that may be disturbed or removed, the loss of active nests could be a significant impact. The Project applicant would implement mitigation measures to reduce impacts to long-eared owl before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Western burrowing owl (*Athene cunicularia hypugaea*). The western burrowing owl is a Bird of Conservation Concern and designated by CDFG as a California Species of Special Concern. In California, western burrowing owls are yearlong residents of flat, open, dry grassland and desert habitats at lower elevations (Bates 2006). They can inhabit annual and perennial grasslands and scrublands characterized by low-growing vegetation. On site, the western burrowing owl has been observed anecdotally at two locations. A single western burrowing owl individual was observed twice at the same location within a four-week period (November and December 2006) in the northern portion of Middle Canyon, east of Airport Mesa, in ruderal habitat. Another individual was observed in December 2006 in Middle Canyon, and again on April 11, 2007 (Miller 2007). Construction-related activities could result in the loss or abandonment of active burrows. Depending on the number and extent of active burrows on the site that may be disturbed or removed, the loss of active burrows could be a significant impact. The Project applicant would implement mitigation measures to reduce impacts to western burrowing owl before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-22** (pre-construction surveys for burrowing owl). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR concludes that due to the substantial loss of habitat, and potential impacts to individuals resulting from buildout of the Specific

Plan, impacts to western burrowing owl would be considered a significant unavoidable impact; however, the mitigation proposed in the Specific Plan EIR was not as extensive as this Recirculated Landmark Village EIR. See **Subsection 9.b.(1)(b), Wildlife Habitat Loss**, for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Oak titmouse (*Baeolophus inornatus*). The oak titmouse is designated by CDFG as a California Special Animal. This species is not federally listed as threatened or endangered within any part of its range. Oak titmice inhabit a variety of habitat types, but are primarily associated with oaks, especially those in warm, dry habitats (Cicero 2000). The oak titmouse is common and abundant in the Project area, nesting on site in cottonwood riparian and coast live oak communities. It has been observed over multiple years along the Santa Clara River in the Specific Plan area. The oak titmouse was observed most recently by Guthrie in 2006 (Guthrie 2006C) and by Bloom Biological in 2007 (Bloom Biological, Inc., 2007A). Bloom Biological reported seeing between two and 14 individuals of this species daily. Most observations of this species were not mapped, but individuals have been sighted along the Santa Clara River and its tributaries. Construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of bird nests on the site that may be disturbed or removed, the loss of active nests would be a significant impact. In order to avoid impacts to this species, the Project applicant would implement mitigation measures to reduce impacts to oak titmouse before and during construction. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (require surveys of special-status species within the Project site). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Ferruginous hawk (*Buteo regalis*). The ferruginous hawk is on CDFG Watch List is a Bird of Conservation Concern. The ferruginous hawk forages in open grasslands, agriculture, sagebrush flats, desert scrub, surrounding valleys in low foothills, and fringes of pinyon-juniper habitats (Polite and Pratt 1999). On site, has been observed in the eastern alfalfa fields, Wolcott agricultural fields, Potrero Canyon, and other agriculture fields along the Santa Clara River in winter 2008 (Bloom Biological, Inc. 2008). The Project area is outside of the species' breeding range and it is not expected to nest on site. Because ferruginous hawks are highly mobile and are a winter visitor on the site, the proposed Project would not result in mortality of individuals occupying this habitat during construction and/or grading activities. Furthermore, because

the species does not nest on site, construction and grading activities associated with the proposed Project would not result in impacts to young or eggs of this species. Implementation of the proposed project would not directly impact this species. The Newhall Ranch Specific Plan Program EIR concludes that due to the substantial loss of habitat resulting from buildout of the Specific Plan, impacts to ferruginous hawk would be considered a significant unavoidable impact; however, the mitigation proposed in the Specific Plan EIR was not as extensive as this Recirculated Landmark Village EIR.

Costa's hummingbird (*Calypte costae*). The Costa's hummingbird is designated by CDFG as a California Special Animal. It has a CNDDDB ranking of global: demonstrably widespread, abundant, and secure; subnational: vulnerable to extirpation or extinction. It is not federally listed as threatened or endangered within any part of its range. Primary habitats are desert wash, edges of desert riparian and valley foothill riparian areas, coastal scrub, desert scrub, desert succulent scrub, lower-elevation chaparral, and palm oasis (Zeiner et al. 1990A). The species has been observed over multiple years during bird surveys conducted from 1988 through 2006 along the Santa Clara River within riparian scrub and woodland habitat; however, there are no mapped locations for observations. This species likely occurs as a migrant and could nest in suitable habitats on the borrow and grading sites. If nesting were to occur within or adjacent to the project site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of nests on the site that may be disturbed or removed, the loss of active nests could be a significant impact. Implementation of proposed Mitigation Measure LV 4.4-21 (pre-construction surveys for nesting native bird species and construction setbacks for active nests) would reduce impacts to nesting hummingbirds to below a level of significance. Impacts to this species were not previously analyzed in the Newhall Ranch Specific Plan Program EIR.

Lawrence's goldfinch (*Carduelis lawrencei*). The Lawrence's goldfinch is designated by CDFG as a California Special Animal. Additionally, this species is recognized under the NatureServe system of Natural Heritage Programs as vulnerable at the state level within California and throughout its range and is listed as a Bird of Conservation Concern by the USFWS. Lawrence's goldfinches are found in cropland and hedgerows, shrubland and chaparral, conifer, hardwood and mixed woodlands (NatureServe 2007). On site, this species was observed in upland areas and riparian thickets in 2007 (Bloom Biological, Inc., 2007A) and has been observed over multiple years during the bird surveys conducted from 1988 through 2006 along the Santa Clara River (Compliance Biology 2006A; Guthrie 1988, 1990, 1992, 1993A-B, 1994A, 1996A-B, 1997A-B, 1998A-B, 1999A-B, 2000A-G, 2001A-B, 2002A, 2002C, 2003A-B, 2004C-E, 2004H-I, 2006C; Labinger *et al.* 1996, 1997A-B; Labinger and Greaves 1999A). Two to 70 were recorded daily throughout March, mostly in migrant flocks (Bloom Biological, Inc., 2007A). If present, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of bird nests on the site that may be disturbed or removed, the loss

of active nests would be a significant impact. In order to avoid impacts to this species, the Project applicant would implement mitigation measures to reduce impacts to Lawrence's goldfinch before and during construction. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (require surveys of special-status species within the Project site). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Turkey vulture (*Cathartes aura*). Although the turkey vulture has no federal or state status, it is being discussed, for the purposes of this report, as a CDFG trust resource. Turkey vultures use a variety of habitats while foraging for both wild and domestic carrion. They prefer open stages of most habitats. In the western United States, they tend to occur regularly in areas of hilly pastured rangeland, nonintensive agriculture, and areas with rock outcrops suitable for nesting, although they are not generally found in high-elevation mountain areas (Kirk and Mossman 1998; Zeiner *et al.* 1990A). On site, this species has been observed over multiple years during bird surveys conducted from 1988 through 2007 along the Santa Clara River (Guthrie 1993B, 1994B, 1996B, 1997B, 1999B-C, 2000A-B, 2000E-F, 2001A-B, 2002A, 2003B, 2004A, 2004D-F, 2004H, 2005B, 2006A), Dudek (2006B, 2008B), Labinger *et al.* (1995, 1997A-B), and Bloom Biological, Inc. (2007); and off site in the Castaic Junction area by Guthrie (1988, 1990, 1991A, 1993A, 1994A, 1995A, 1996A, 1997A, 1998A, 1999A, 2001A, 2002A, 2003A, 2004I, 2005A, 2006C) and Haglund and Baskin (2000). However, no mapped occurrences of this species were recorded. If present, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of bird nests on the site that may be disturbed or removed, the loss of active nests would be a significant impact. In order to avoid impacts to this species, the project applicant would implement mitigation measures to reduce impacts to turkey vulture before and during construction. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (require surveys of special-status species within the Project site). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant.

Northern harrier (*Circus cyaneus*). The northern harrier has been designated by CDFG as a California Species of Special Concern. Northern harriers use a wide variety of open habitats in California, including deserts, coastal sand dunes, pasturelands, croplands, dry plains, grasslands, estuaries, flood plains, and marshes (Macwhirter and Bildstein 1996). The species can also forage over coastal sage scrub or other open scrub communities (Bloom Biological, Inc., 2007A). The northern harrier has been observed in or near the Project area infrequently during the 20 years when surveys were conducted (Guthrie 1999B, 2000A). More recently, Dudek observed a northern harrier in the Mission Village area (Dudek 2008B), and in March 2007, Bloom Biological made three separate observations of a single male at different locations in or near the Project area along the Santa Clara River (Bloom Biological, Inc. 2007A). While no active nests were observed during surveys, suitable nesting habitat occurs in association with the agricultural and grassland habitats on site. Should this species nest on the project site, construction-related activities could result in the loss or abandonment of active nests. Depending on the number and extent of this species' active nests on site that may be disturbed or removed, the loss of active nests would be a significant impact. In order to avoid impacts to this species, the Project applicant would implement mitigation measures to reduce impacts to the northern harrier before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** (requiring updated surveys of special-status species within the Project area) and **SP 4.6-59** (consultation with Los Angeles County and CDFG at important benchmarks). This impact would also be reduced by the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is not significant. The Newhall Ranch Specific Plan Program EIR concludes that due to the substantial loss of habitat resulting from buildout of the Specific Plan, impacts to northern harrier would be considered a significant unavoidable impact; however, the mitigation proposed in the Specific Plan EIR was not as extensive as this Recirculated Landmark Village EIR. See **Subsection 9.b.(1)(b), Wildlife Habitat Loss**, for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). The western yellow-billed cuckoo is a candidate for listing under the federal ESA, is a CESA-listed endangered species, and is a Bird of Conservation Concern with regard to its nesting status. The eastern yellow-billed cuckoo prefers a diverse variety of habitats, including open woodland with clearings and low, dense, scrubby vegetation as well as abandoned farmland, overgrown fruit orchards, successional shrubland, dense thickets along streams and marshes, shade trees, and gardens (Hughes 1999). The habitat preference of the western yellow-billed cuckoo, in contrast, is much more restricted in both species composition and size of the patch of preferred habitat. The habitat of the western yellow-billed cuckoo primarily consists of large

blocks of riparian habitat, particularly cottonwood–willow riparian woodlands (66 FR 38611–38626). The western yellow-billed cuckoo has occasionally been documented within the Santa Clara River corridor during focused bird surveys in the NRSP area, although the locations of these observations were not mapped. Single individuals (thought to be migrants) were observed along the Santa Clara River east of the Project site in 1997 and 1998 (Guthrie 1997A; Labinger *et al.* 1997B; Labinger and Greaves 1999A) and west of the Ventura county line in 1997 (Guthrie 1997B). However, none have been observed in the Project area since then. In addition, suitable habitat does occur in association with the riparian habitats on site, and western yellow-billed cuckoo could nest in those areas. Should this species occur on the site, construction-related activities could result in the loss or abandonment of active nests. Depending on the number and extent of active nests on site that may be disturbed or removed, the loss of active nests could be a significant impact. The Project applicant would implement mitigation measures to reduce impacts to yellow-billed cuckoo before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Yellow warbler (*Dendroica petechia brewsteri*). The yellow warbler has no federal or state sensitivity status but is designated as a California Species of Special Concern by CDFG. In general, the yellow warbler breeds most commonly in wet, deciduous thickets, especially those dominated by willows, and in disturbed and early successional habitats (Lowther *et al.* 1999). A single migrant was observed in the Entrada planning area in 2000 (Guthrie 2000D). If present, the proposed removal of riparian vegetation and/or construction-related noise could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of bird nests on the site that may be disturbed or removed, the loss of active nests would be a significant impact. In order to avoid impacts to this species, the Project applicant would implement mitigation measures to reduce impacts to the yellow warbler before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** (special-status species presence/absence survey requirements) and **SP 4.6-59** (consultation with the CDFG prior to surveys to establish appropriate survey methodology). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests).

Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The finding that impacts to yellow warbler can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

White-tailed kite (*Elanus leucurus*). The white-tailed kite is a California Fully Protected species. The white-tailed kite is commonly associated with agriculture areas (Grinnell and Miller 1944). It also inhabits low-elevation grasslands, savannah-like habitats, open sage scrub, meadows, wetlands, and oak woodlands, particularly in areas with a dense population of voles (Waian and Stendell 1970). On the project site, white-tailed kite has been observed primarily along the Santa Clara River, where it nests in associated riparian woodlands and forages in adjacent grasslands, open sage scrub, and agricultural fields (Guthrie 2005C; Bloom Biological, Inc., 2007A, 2009). It has been observed within the Specific Plan, including High Country SMA/SEA 20 and Salt Creek (Guthrie 1994B, 1995B, 1996B, 1997B, 1998A, 1999B, 2000A–C, 2002C, 2003B, 2004D, 2004F; Labinger *et al.* 1995, 1996, 1997A–B; Labinger and Greaves 1999A; Dudek 2006B; Bloom Biological, Inc. 2007A); and off site within Castaic Junction (Guthrie 1988–1990, 1993A, 1994A, 1995A, 1998B, 1999A, 2000E, 2001A, 2003A, 2004F, 2005A, 2006C; Dudek 2006E; Bloom Biological, Inc., 2007A) and within the Santa Clara River and adjacent agricultural areas just upstream of Las Brisas Bridge in Ventura County and just west of the Ventura/Los Angeles County line (Bloom Biological, Inc. 2009). If nesting kites are present during construction, construction-related activities could adversely affect kites during that year's nesting season. Due to the kite's status as a California Fully Protected species, project impacts on active nests would be a significant impact. In order to avoid such impacts, the Project applicant would implement mitigation measures to reduce impacts to the white-tailed kite before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** (special-status species presence/absence survey requirements) and **SP 4.6-59** (consultation with the CDFG prior to surveys to establish appropriate survey methodology). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would avoid impacts to nesting white-tailed kites. The Newhall Ranch Specific Plan Program EIR concludes that due to the substantial loss of habitat resulting from buildout of the Specific Plan, impacts to white-tailed kite would be considered a significant unavoidable impact; however, the mitigation proposed in the Specific Plan EIR was not as extensive as this Recirculated Landmark Village EIR. See **Subsection 9.b.(1)(b), Wildlife Habitat Loss**, for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Willow flycatcher (*Empidonax traillii*)/**Southwestern willow flycatcher** (*E. t. extimus*). The full species of willow flycatcher, including the southwestern willow flycatcher, little willow flycatcher (*E. t. brewsteri*), and *E. t. adastus* (no common name other than willow flycatcher) subspecies, was listed as state endangered by CDFG in 1991. The subspecies southwestern willow flycatcher was listed as federally endangered species by the USFWS in 1995. The willow flycatcher has been detected almost every year within the River corridor in the Project area during the focused bird surveys. However, because all observations were early in the breeding season and no observations occurred after June 22, indicating nesting on site, all individuals are assumed to have been migrants and were probably either the little willow flycatcher or *E. t. adastus*. No southwestern willow flycatchers have been observed to nest on site. Along the Santa Clara River in the NRSP, willow flycatchers were observed by Guthrie (1993B, 1997B, 1998A, 1999B, 2000C, 2001B, 2002C, 2004H, 2005B), Labinger *et al.* (1995), and Bloom Biological, Inc., (2007A); along Castaic Creek in VCC by Guthrie (1988, 1990, 2000E, 2001A, 2002A, 2003A, 2004F, 2005A); and adjacent to Entrada in the Castaic Junction area by Guthrie (1990, 1997A, 1999A, 2000E, 2002A, 2003A, 2006C) and Dudek (2006E). No southwestern willow flycatchers exhibiting nesting, paired, or territorial behavior have been observed in the Project site or vicinity. The most recent observation of the southwestern willow flycatcher displaying territorial behavior is downstream approximately 18 miles, near Saticoy (Labinger and Greaves 1999A). The CNDDDB (CDFG 2007, Recirculated Draft EIR, **Appendix 4.4**) lists one occurrence of nesting southwestern willow flycatchers in the Santa Clara River corridor upstream of the Project area, along Soledad Canyon Road near Agua Dulce, in 1997. A single willow flycatcher was observed east of the project site foraging along the Santa Clara River on May 31, 2004 (Guthrie 2004); however, given the timing of this observation and lacking any subsequent evidence of nesting, the observed willow flycatcher cannot be positively identified as belonging to the southwestern category of willow flycatchers (Guthrie 2004). Similarly, several adult willow flycatchers were observed during recent surveys, but no nesting was confirmed (Bloom 2007). However, as suitable nesting habitat does occur in association with the riparian habitats on site, southwestern willow flycatcher could nest in those areas. Should this species occur on site, construction-related activities could result in the loss or abandonment of active nests. The loss of active nests would be a significant impact. The Project applicant would implement mitigation measures to reduce or avoid impacts to southwestern willow flycatcher before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The finding that impacts to southwestern willow flycatcher can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

California horned lark (*Eremophila alpestris actia*). The California horned lark is on CDFG Watch List. California horned larks are common and abundant residents in a variety of open habitats, usually where trees and shrubs are absent. California horned larks have been observed regularly foraging in plowed and graded fields near the Santa Clara River within the NRSP Project area Guthrie (1994B, 1995B, 1996B, 1998A, 1999B–C, 2000A–C, 2005B), Labinger *et al.* (1995, 1996, 1997B; Labinger and Greaves 1999A), and Bloom Biological, Inc. (2007A); in the VCC planning area (Guthrie 1990, 1991B, 1992, 1996B, 1997B, 2000C, 2001A, 2002A, 2003A, 2004B, 2005A–B, 2006C; Dudek 2006D); and off site in the Castaic Junction area (Guthrie 1991B, 1993A, 1994A–B, 1995B, 2000F, 2003A, 2004, 2005A). More recent surveys have observed several individuals in the agricultural fields along the Santa Clara River and a flock of approximately 20 individuals was observed adjacent to the Project site foraging in a dirt agricultural field within the Landmark Village impact area (Bloom Biological, Inc., 2007A). Should this species nest on the project site, construction-related activities could result in the loss or abandonment of active nests. Depending on the number and extent of active nests on site that may be disturbed or removed, the loss of active nests could be a significant impact. In order to avoid such impacts, the Project applicant would implement mitigation measures to reduce impacts to the California horned lark before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** (special-status species presence/absence survey requirements) and **SP 4.6-59** (consultation with the CDFG prior to surveys to establish appropriate survey methodology). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. Impacts to this species were not addressed by the Newhall Ranch Specific Plan Program EIR due to more recent identification of the species in later surveys.

Merlin (*Falco columbarius*). The merlin is on CDFG Watch List. The merlin uses a wide variety of semi-open to open habitats during breeding and wintering (Garrett and Dunn 1981; Sodhi *et al.* 2005). Individuals frequent coastlines, grasslands, savannahs, open woodlands, lakes, wetlands, edges, and communities in early successional stages while foraging. In 2007, Bloom Biological made four observations of wintering or migrating merlins between March 4 and March 23 (Bloom Biological, Inc., 2007A). One male and one female were documented hunting over agriculture fields bordering riparian habitat near Indian Dunes, which is located east of the Landmark Village site in the Specific Plan area. Merlins were not observed during bird surveys in any other year between 1988 and 2007. Merlins are highly mobile and visit the site only during the winter. For these reasons, the proposed project would not result in mortality of individuals occupying this habitat during construction and/or grading activities. Furthermore, because the species does not nest on site, construction and grading activities associated

with the proposed project would not result in impacts to young birds or eggs. Implementation of the proposed project would not directly impact this species. Impacts to this species were not addressed by the Newhall Ranch Specific Plan Program EIR due to more recent identification of the species in later surveys.

Prairie falcon (*Falco mexicanus*). North America's only endemic falcon, the prairie falcon is a Bird of Conservation Concern and is on CDFG Watch List. Additionally, the prairie falcon is a migratory bird protected under the Migratory Bird Treaty Act (16 U.S.C. § 703 *et seq.*) and the USFWS identified the prairie falcon as a Bird of Conservation Concern (USFWS 2002B). Prairie falcons inhabit open habitats in North America, including arid plains and steppe habitats. In the western states they prefer chaparral, desert grasslands, and creosote bush habitats. Surveys conducted by Guthrie detected two individual prairie falcons foraging during various surveys; one prairie falcon was detected on April 7, 2000, in the Potrero Canyon and Long Canyon area, and the other on July 2, 2001, along Castaic Creek between the confluence with the Santa Clara River and I-5 (Guthrie 2000D, 2001A). Dudek biologists detected a prairie falcon within the Salt Creek watershed in late November 2005 and an incidental sighting was made in late August 2007 over Salt Creek within the High Country SMA/SEA 20 (Dudek and Associates, Inc., 2006B; Trow, personal observation, 2007). Prairie falcons are highly mobile and visit the site only during the winter. For these reasons, the proposed project would not result in mortality of individuals occupying this habitat during construction and/or grading activities. Furthermore, because the species does not nest on site, construction and grading activities associated with the proposed project would not result in impacts to young birds or eggs. Implementation of the proposed project would not directly impact this species. Impacts to this species were not addressed by the Newhall Ranch Specific Plan Program EIR due to more recent identification of the species in later surveys.

American peregrine falcon (*Falco peregrinus anatum*). A subspecies of the peregrine falcon, the American peregrine falcon is listed as endangered under the California Endangered Species Act (CESA) and is also a California Fully Protected species. On October 11, 2007, the California Fish and Game Commission designated the American peregrine falcon as a candidate for delisting under CESA (California Regulatory Notice Register 2007, p. 1856). Peregrine falcons in general use a large variety of open habitats for foraging, including tundra, marshes, seacoasts, savannahs, grasslands, meadows, open woodlands, and agricultural areas. One American peregrine falcon was observed hunting along the Santa Clara River Corridor near the Grapevine Mesa area within the Specific Plan area by Guthrie in July 2000 (Guthrie 2000C). No other occurrences of this species have been documented on site during annual bird surveys between 1988 and 2007. American peregrine falcons have never been documented nesting on the Project site. American peregrine falcons are highly mobile and visit the site only during the winter. For these reasons, the proposed Project would not result in mortality of individuals occupying this habitat during

construction and/or grading activities. Furthermore, because the species does not nest on site, construction and grading activities associated with the proposed project would not result in impacts to young or eggs. Implementation of the proposed project would not directly impact this species. Impacts to this species were not addressed by the Newhall Ranch Specific Plan Program EIR due to more recent identification of the species in later surveys.

California condor (*Gymnogyps californianus*). The California condor is federally and state listed as endangered and is also a California Fully Protected species. California condors require vast expanses of open savannah, grasslands, and foothill chaparral, with cliffs, large trees, and snags for roosting and nesting (Zeiner *et al.* 1990A). Until April 2008, California condors had not been known to nest or land within the Project area in the last 25 years (Bloom Biological 2007A, 2008). In April 2008, a California condor was observed feeding on a dead calf in a Potrero side canyon by wildlife biologist Chris Niemela (pers. comm. M. Carpenter, Newhall Ranch 2008). No other mention of California condor observations have been made during numerous other plant and wildlife surveys conducted over the past 30 years within various portions of the Project area. Observations of California condors within the Newhall Ranch Specific Plan area have been associated where cattle grazing currently occurs and dead calves have provided feeding opportunities. Therefore, because grazing does not occur within the proposed Project site, there is a lack of carcasses. Implementation of the proposed project would not directly impact this species. Impacts to this species were not addressed by the Newhall Ranch Specific Plan Program EIR due to more recent identification of the species in later surveys.

Yellow-breasted chat (*Icteria virens*). The yellow-breasted chat is designated by CDFG as a California Species of Special Concern. This species is not federally listed as threatened or endangered, but has been listed as threatened, endangered, or of special concern in some states and provinces on the periphery of its range (*e.g.*, Connecticut, New Jersey, New York, Ontario, and British Columbia) (Eckerle and Thompson 2001). In southern California, the yellow-breasted chat is primarily found in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. This species has been observed on site nesting in riparian thickets in 2007 (Bloom Biological, Inc., 2007A) and has also been observed over multiple years during bird surveys conducted from 1988 through 2006 (Guthrie 1988–1990, 1991A, 1992, 1993A–B, 1994A–B, 1995A–B, 1996A–B, 1997A–B, 1998A–B, 1999A–B, 2000B–C, 2000E–F, 2001A–B, 2002A, 2002C, 2003A–B, 2004F, 2004H, 2005A–B, 2006A, 2006C; Labinger *et al.* 1995, 1997B; Labinger and Greaves 1999A). The proposed removal of riparian vegetation and/or construction-related noise could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of bird nests on the site that may be disturbed or removed, the loss of active nests would be a significant impact. In order to avoid impacts to this species, the Project applicant would implement mitigation measures to reduce the impacts to

yellow-breasted chat before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** (special-status species presence/absence survey requirements) and **SP 4.6-59** (consultation with the CDFG prior to surveys to establish appropriate survey methodology). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. Impacts to this species were not addressed by the Newhall Ranch Specific Plan Program EIR due to more recent identification of the species in later surveys.

Loggerhead shrike (*Lanius ludovicianus*). The loggerhead shrike is a Bird of Conservation Concern and has been designated by CDFG as a California Species of Special Concern. The species occurs most frequently in riparian areas along the woodland edge, grasslands with sufficient perching and butchering sites, scrublands, and open-canopied woodlands, although they can be quite common in agricultural and grazing areas and can sometimes be found in mowed roadsides, cemeteries, and golf courses. The loggerhead shrike is a breeding resident on site (Bloom Biological, Inc., 2007A). It has been observed to be fairly common within California sagebrush scrub and grasslands in the Specific Plan area (Guthrie 1993B, 1996A, 2000A–B, 2002C, 2004A, 2004E, 2005B; Labinger *et al.* 1995; Lemons 2008; Bloom Biological, Inc., 2007A) and has been observed within the VCC planning area (Guthrie 1995A, 2004B); however, no mapped locations were recorded. Should this species occur on site, construction-related activities could result in the loss or abandonment of active nests. Depending on the number and extent of active nests on the site that may be disturbed or removed, the loss of active nests could be a significant impact. In order to avoid this impact to the loggerhead shrike, the Project applicant would implement mitigation measures to reduce the impacts to loggerhead shrike before and during construction. Applicable mitigation measures include **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks), **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would result in the avoidance of impacts and, therefore, a significant impact would not occur. The finding that impacts to loggerhead shrike can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Black-crowned night-heron (*Nycticorax nycticorax*). The black-crowned night heron is designated by CDFG as a California Special Animal. This species is not federally listed as threatened or endangered within any part of its range. Its habitat requirements are varied, including all types of wetland areas, including fresh, brackish, and saltwater ecosystems and even man-made ditches, canals, reservoirs, and

wet agricultural fields (IHRMP 2001G). On site, this species was observed early in the year and is thought to be a wintering or migratory species within the Project site and VCC planning area (Guthrie 1988, 1992, 1994A, 1995A, 1996A, 1997A, 1998B, 1999A, 2000E). In the most recent survey, several adults and juveniles were observed along the Santa Clara River after dusk and before dawn (Bloom Biological, Inc., 2007A). Observations of the species were mapped along the Santa Clara River in the NRSP Project area south of Landmark Village and near the Ventura County line (Bloom Biological, Inc., 2007A). No roosts or rookeries (nesting colonies) have been detected during the surveys within or adjacent to the Project site during any of the surveys that have been conducted over the years. Should nesting occur adjacent to the site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of nests on the site that may be disturbed or removed, the loss of active nests could be a significant impact. In order to avoid this impact to the black-crowned night-heron, the Project applicant would implement mitigation measures to reduce impacts to the black-crowned night-heron before and during construction. Applicable mitigation measures include **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks), **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would result in the avoidance of impacts and, therefore, a significant impact would not occur. The finding that impacts to this species can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Nuttall's woodpecker (*Picoides nuttallii*). The Nuttall's woodpecker is designated by CDFG as a California Special Animal. This species is not federally listed as threatened or endangered within any part of its range. The woodpecker is primarily found in oak woodlands, to a lesser extent in riparian woodlands, and rarely in conifer forests. Nuttall's woodpecker has been described as a species characteristic of, if not confined to, oak woodlands in California (Lowther 2000). It has been observed nearly every year along the Santa Clara River since surveys began in 1988. Nuttall's woodpeckers are common residents in cottonwood and willow riparian habitat along Santa Clara River, Castaic Creek and other tributaries, and in coast live oak woodlands in adjoining canyons. Bloom Biological recorded three to 14 daily within the RMDP Project area in 2007 (Bloom Biological, Inc., 2007A). Bloom Biological recorded additional sightings along the Santa Clara River east of Castaic Creek in the VCC planning area (Bloom Biological, Inc., 2007). Should nesting occur within or adjacent to the project site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of nests on the site that may be disturbed or removed, the loss of active nests could be a significant impact. In order to avoid this impact to the Nuttall's woodpecker, the Project applicant would implement mitigation measures to reduce impacts to the Nuttall's woodpecker before and during

construction. Applicable mitigation measures include **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks), **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would result in the avoidance of impacts and, therefore, a significant impact would not occur. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Summer tanager (*Piranga rubra*). The summer tanager is not state or federally endangered, but is designated by CDFG as a California Species of Special Concern. Western populations of summer tanagers occupy riparian woodlands dominated by willows and cottonwoods (*Populus* spp.) at lower elevations (Robinson 1996; Rosenberg *et al.* 1982, 1991); and at higher elevations they utilize mesquite (*Prosopis* spp.) and salt cedar (*Tamarix* spp.) habitats (Robinson 1996). No individuals have been observed within the Project site during annual bird surveys. One individual was observed off site west of the Ventura County line in 1993 and 1994 (Guthrie 1993B, 1994B); within Castaic Junction in 1991 (Guthrie 1991A); in April, May, and July 1993 in dense cottonwoods downstream of the Valencia Wastewater Plant (Castaic Junction area) (Guthrie 1993A); and it has also been observed east of the project site in 2000 and 2003 (Guthrie 2000E, 2003A). These observations were not mapped. Construction-related activities could result in the loss or abandonment of active nests. Depending on the number and extent of this species' active nests on site that may be disturbed or removed, the loss of active nests would be a potentially significant impact. The Project applicant would implement mitigation measures to reduce or avoid impacts to summer tanager before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The finding that impacts to summer tanager can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Coastal California gnatcatcher (*Poliioptila californica californica*). The coastal California gnatcatcher is a federally listed threatened species and a CDFG Species of Special Concern. It occurs in coastal southern California and Baja California year-round, where it depends on a variety of arid scrub habitats. While isolated occurrences of California gnatcatchers occur off site to the east and southwest, no California gnatcatchers have been observed during the course of the focused surveys conducted for this species within the Specific Plan or Entrada areas. However, during the course of surveys conducted within the VCC planning area, an individual California gnatcatcher was observed on October 5, 2007, by Dudek biologist Jeff Priest and biologist Ron Francis, a subconsultant to Dave Crawford, Compliance Biology, Inc. (Priest 2007A). Should this species occur on the site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of this species' bird nests that may be disturbed or removed, the loss of active nests would be a potentially significant impact. The Project applicant would implement mitigation measures to reduce or avoid impacts to California gnatcatcher before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Vermilion flycatcher (*Pyrocephalus rubinus*). The vermilion flycatcher is designated by CDFG as a California Species of Special Concern. This species is found in riparian thickets near open, mesic habitats. It breeds in cottonwood, willow, mesquite, oak, sycamore, and other vegetation in desert riparian communities that are located adjacent to irrigated fields, irrigated ditches, or pastures (Zeiner *et al.* 1990A; Wolf and Jones 2000). A single individual was observed along the Santa Clara River on June 19, 1993 (Guthrie 1993B). This is the only observation of a vermilion flycatcher from any of the many years of surveys both within and adjacent to the Project site, and its location was not mapped. Should this species occur on the site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of this species' bird nests that may be disturbed or removed, the loss of active nests would be a potentially significant impact. The Project applicant would implement mitigation measures to reduce or avoid impacts to vermilion flycatcher before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings,

construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and LV 4.4-21 (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Allen's/Rufous hummingbird (*Selasphorus rufus/sasin*). The Allen's hummingbird is designated by CDFG as a California Special Animal. This species is not federally listed as threatened or endangered within any part of its range and according to Sauer *et al.* (1996) showed no statistically significant declines in population for the period from 1966 to 1996. The vegetation communities most commonly used by breeding Allen's hummingbirds are coastal scrub, valley foothill hardwood, and valley foothill riparian habitats. Allen's hummingbird has been documented numerous times within the NRSP Project area. Five individuals were observed in March and April 2004 in the southern and western portions of Legacy Village, which includes Long, Potrero, and Pico canyons (Guthrie 2004G).

If nesting were to occur within or adjacent to the project site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of nests on the site that may be disturbed or removed, the loss of active nests could be a significant impact. In order to avoid impacts to these species, the Project applicant would implement mitigation measures to reduce impacts to the rufous/Allen's hummingbird before and during construction. Applicable mitigation measures include SP 4.6-53 and SP 4.6-59 (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks), LV 4.4-18 (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), and LV 4.4-21 (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Chipping sparrow (*Spizella passerine*). The chipping sparrow is designated by CDFG as a California Special Animal. This species is not federally listed as threatened or endangered within any part of its range and Sauer *et al.* (1997) have concluded that continental populations appear healthy. Chipping sparrows prefer open wooded habitats with a sparse or low herbaceous layer and few shrubs, if any (Zeiner *et al.* 1990A). On site, this species has been observed as a common migrant in the NRSP area, and one to 12 individuals were observed near edges of agricultural fields most days in early March (Bloom Biological, Inc., 2007A). The chipping sparrow has been observed over multiple years during bird surveys conducted from 1988 through 2007 along the Santa Clara River within riparian scrub and woodland

habitat; however, there are no mapped occurrences of these observations. If nesting were to occur, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of nests on the site that may be disturbed or removed, the loss of active nests could be a significant impact. In order to avoid impacts to this species, the Project applicant would implement mitigation measures to reduce the impacts to chipping sparrow before and during construction. Applicable mitigation measures include **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks), **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Least Bell's vireo (*Vireo bellii pusillus*). The least Bell's vireo was state listed as endangered in 1980 and federally listed as endangered by the USFWS in 1986 (51 FR 16474). The USFWS made a final critical habitat designation for the least Bell's vireo in 1994 (59 FR 4845). Least Bell's vireos primarily occupy riverine riparian habitats that typically feature dense cover within 1 to 2 meters of the ground and a dense, stratified canopy. The least Bell's vireo inhabits low, dense riparian growth along water or along dry parts of intermittent streams and is typically associated with southern willow scrub, cottonwood forest, mulefat scrub, sycamore alluvial woodland, southern coast live oak riparian forest, arroyo willow riparian forest, wild blackberry, or mesquite in desert localities. The least Bell's vireo has been observed almost every year along the Santa Clara River within the Specific Plan area (Guthrie 1993B, 1995B, 1996B, 1997B, 1998A, 1999B, 2000C, 2001B, 2002C, 2003B, 2004H, 2005B, 2006A; Labinger *et al.* 1995, 1996, 1997A-B; Labinger and Greaves 1999A; Bloom Biological, Inc., 2007A), and off site in Castaic Junction (Guthrie 1988, 1990, 1991A, 1996A, 1997A, 1998B, 2000E, 2001A, 2002A, 2003A, 2004F, 2004I, 2005A, 2006C; Dudek 2006E; Bloom Biological, Inc. 2007A) and has also been observed over multiple years within the VCC planning area (Guthrie 1994A, 1995A, 1996A, 2003A, 2006C). Most recently, Bloom Biological observed at least 56 territories and three active nests within the Specific Plan area and adjacent areas (Bloom Biological, Inc., 2007A). If least Bell's vireo are nesting during development of the site, the proposed removal of riparian vegetation and/or construction-related noise could result in the loss or abandonment of active nests during that year's nesting season. In light of the vireo's status as a federal- and state-listed endangered species, loss of active nests would be a significant impact. In order to avoid this impact to the least Bell's vireo, the Project applicant would implement mitigation measures to reduce impacts to the least Bell's vireo before and during construction. Applicable mitigation measures include **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and

CDFG at important benchmarks), **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would avoid impacts on the least Bell's vireo. As a result, no significant impact would occur. The finding that impacts to least Bell's vireo can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Yellow-headed blackbird (*Xanthocephalus xanthocephalus*). The yellow-headed blackbird is designated by CDFG as a California Species of Special Concern. This species is not federally listed as threatened or endangered within any part of its range. It is found primarily within prairie wetlands, but it is also found commonly in wetlands associated with quaking aspen parks, mountain meadows, and arid regions. This species has been observed within the Specific Plan area (Guthrie 1996B, 1997B, 1999B, 2001B; Bloom Biological, Inc., 2007A) and within the VCC planning area (Guthrie 1997A, 2006C). Bloom Biological observed one individual in an agriculture field within a flock of red-winged blackbirds on April 1, 2007 (Bloom Biological, Inc., 2007A). No nesting colonies have been observed within the Project site. If nesting were to occur within or adjacent to the project site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of nests on the site that may be disturbed or removed, the loss of active nests could be a significant impact. In order to avoid impacts to these species, the Project applicant would implement mitigation measures to reduce impacts to the yellow-headed blackbird before and during construction. Applicable mitigation measures include **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks), **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Pallid bat (*Antrozous pallidus*), California Species of Special Concern; **western mastiff bat** (*Eumops perotis*), California Species of Special Concern; **western red bat** (*Lasiurus blossewillii*), California Species of Special Concern; **pocketed free-tailed bat** (*Nyctinomops femorosaccus*), California Species of Special Concern; fringed myotis (*Myotis thysanodes*), California Species of Special Concern; and yuma myotis (*Myotis yumanensis*), California Special Animal. These species were observed and/or detected in the vicinity of the project site during active AnaBat surveys conducted in 2004 and 2006. Suitable western mastiff bat and pocketed free-tailed bat roosting habitat does not occur on or adjacent to the project site; however, the SR-126 bridge and oak woodlands provide suitable roosting habitat for the pallid bat. Suitable western

red bat roosting habitat and fringed myotis habitat occurs throughout the project site. Forests and woodlands are primary habitats for the yuma myotis. Should active bat roosts be present, construction-related activity could result in the direct loss or abandonment of active roost sites. In order to reduce these impacts, the Project applicant would avoid direct effects on pallid bat individuals during construction and establish new day roosts should any existing day roosts be permanently lost as a result of the project. The applicable mitigation measure for impacts during construction is **LV 4.4-25** (pre-construction surveys for active roosts of special-status bats), which requires that, no earlier than 30 days prior to the commencement of construction activities, a pre-construction survey be conducted by a qualified biologist to determine whether active roosts of special-status bats, including the pallid bat, are present on or within 300 feet of the Project disturbance boundaries. Should an active maternity roost be identified (the breeding season of native bat species in California, including the pallid bat, generally occurs from April 1 through August 31), the roost shall not be disturbed and construction within 300 feet shall be postponed or halted, at the discretion of the biological monitor, until the roost is vacated and juveniles have fledged, as determined by the biologist. The applicable mitigation measure for permanent loss of a day roost is **LV 4.4-26** (day roost site replacement), which requires the Project applicant to prepare and implement a bat roost site creation plan that would establish (an) alternative roost site(s) within suitable preserved open space located at an adequate distance from sources of human disturbance. Implementation of these mitigation measures would reduce this impact to a level that is not significant. The finding that impacts to special-status bats can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Program EIR.

San Diego black-tailed jackrabbit (*Lepus californicus*). The San Diego black-tailed jackrabbit is listed as a California Species of Special Concern. The black-tailed jackrabbit occupies many diverse habitats, but is primarily found in arid regions supporting shortgrass habitats. Systematic surveys of the Project area have not been conducted, but the San Diego black-tailed jackrabbit has been anecdotally observed on site (Impact Sciences, Inc., 2005). Based on the Impact Sciences (2005) report of the San Diego black-tailed jackrabbit in the Project area, it is assumed that the species potentially occurs in suitable habitat throughout the site. Construction-related activities could result in the impacts to individual black-tailed jackrabbit. In order to reduce impacts to this species, the Project applicant would implement four mitigation measures designed to avoid impacts and otherwise capture and relocate animals away from the work area prior to construction. These animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the Project applicant would conduct biological monitoring during ground-disturbing activities, in an effort to salvage animals that may be discovered during construction activities. These measures will reduce impacts to San Diego black-tailed jackrabbit individuals to the extent feasible and practicable. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable mitigation measures are **LV 4.4-18** (pre-construction educational meetings, construction-limit staking,

and biological monitoring during vegetation clearing and grading activities), LV 4.4-23 (pre-construction surveys and relocation of San Diego black-tailed jackrabbit and San Diego desert woodrat), and LV 4.4-28 (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR concluded that the substantial loss of habitat, and potential impacts to individuals of this species, would be considered a significant unavoidable impact; however, the mitigation proposed in the Specific Plan EIR was not as extensive as this Recirculated Landmark Village EIR. See **Subsection 9.b.(1)(b), Wildlife Habitat Loss**, for a discussion of project-related impacts to special-status wildlife due to habitat loss.

San Diego desert woodrat (*Neotoma lepida intermedia*). The San Diego desert woodrat is listed as a California Species of Special Concern. Desert woodrats are found in a variety of shrub and desert habitats and are primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth (Bleich 1973; Bleich and Schwartz 1975; Brown *et al.* 1972; Cameron and Rainey 1972; Thompson 1982). The mammal assessment conducted by Impact Sciences (2005) found that the San Diego desert woodrat is a relatively common rodent within the Specific Plan area of the NRSP site. Dudek observed a single midden in the High Country SMA (Dudek 2006B). San Diego desert woodrat was observed in Long and Potrero Canyons in 2005 (Chris Huntley, personal communication, October 2006). Construction-related activities would result in the direct impacts to individual woodrats or active woodrat nests (stick houses). Implementation of proposed Mitigation Measures LV 4.4-18 (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), LV 4.4-23 (pre-construction surveys and relocation of San Diego black-tailed jackrabbit and San Diego desert woodrat), and LV 4.4-28 (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation) would reduce the magnitude of impacts to the San Diego desert woodrat to less than significant. The Newhall Ranch Specific Plan Program EIR concludes that due to the substantial loss of habitat resulting from buildout of the Specific Plan, impacts to San Diego desert woodrat would be considered a significant unavoidable impact; however, the mitigation proposed in the Specific Plan EIR was not as extensive as this Recirculated Landmark Village EIR. See **Subsection 9.b.(1)(b), Wildlife Habitat Loss**, for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Mule deer (*Odocoileus hemionus*). The mule deer is considered a CDFG trust resource and is considered a special-status species for the purposes of this analysis, because take of the species requires a game permit. Mule deer have been documented within and adjacent to the Project area during focused surveys in 2004 for mammals by Impact Sciences (2005). Mule deer were also observed in the High Country SMA/SEA 20 in 2005 (Dudek and Associates, Inc. 2006B). Construction-related activities could result in impacts to individual mule deer. Potentially significant impacts to mule deer could occur without mitigation,

depending on the number and extent of the species on site that may be disturbed or removed. In order to reduce impacts to this species, the Project applicant would implement several mitigation measures designed to avoid impacts during the rearing season (i.e., the period from birth to dispersal of young) and otherwise capture and relocate animals away from the work area prior to construction. These animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the Project applicant would conduct biological monitoring during ground disturbing activities, in an effort to salvage animals that may be discovered during construction activities. These measures will reduce impacts to badger individuals to the extent feasible and practicable. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable mitigation measures are **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), and **LV 4.4-28** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Mountain lion (*Odocoileus hemionus*). The mountain lion is designated by CDFG as a Specially Protected Mammal, which affords it some protections: it is unlawful to take, injure, possess, transport, import, or sell any species that are considered Specially Protected Mammals (except with a depredation permit for mountain lion). The mountain lion is considered a special-status species for the purposes of this analysis. Mountain lions prefer habitats that provide cover, such as thickets of brush and timber in woodland vegetation communities (Zeiner *et al.* 1990B). They also utilize caves and other natural cavities for cover and breeding. Mountain lions have been documented within and adjacent to the Project area during focused surveys in 2004 for mammals by Impact Sciences (2005). Specific locations for mountain lions in the Project area were not provided, but it is assumed that mountain lions could occur anywhere in the Project area where deer also occur. Construction-related activities could result in impacts to individual mountain lion. Potentially significant impacts to mountain lion could occur without mitigation, depending on the number and extent of the species on site that may be disturbed or removed. In order to reduce impacts to this species, the Project applicant would implement several mitigation measures designed to avoid impacts during the rearing season (i.e., the period from birth to dispersal of young) and otherwise capture and relocate animals away from the work area prior to construction. These animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the Project applicant would conduct biological monitoring during ground disturbing activities, in an effort to salvage animals that may be discovered during construction activities. These measures will reduce impacts to badger individuals to the extent feasible and practicable.

Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable mitigation measures are **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), and **LV 4.4-28** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

American badger (*Taxidea taxus*). The American badger is listed as a California Species of Special Concern (CSC). Badgers are generally associated with dry, open, treeless regions, prairies and grasslands, low-intensity agriculture (e.g., pasture and dryland crops), drier open shrublands and forest, parklands, and cold desert areas (Long 1973; Zeiner *et al.* 1990B). The badger, although not common on site, has been documented through systematic surveys and anecdotal observations of badger dens and tracks in three locations in the Project area, including the Specific Plan area (Impact Sciences, Inc., 2005), Potrero Creek in the Specific Plan area (Behrends, personal observation, 2006), and High Country SMA/SEA 20 (Dudek 2006B). Construction-related activities could result in impacts to individual American badger. Potentially significant impacts to American badgers could occur without mitigation, depending on the number and extent of the species on site that may be disturbed or removed. In order to reduce impacts to this species, the Project applicant would implement several mitigation measures designed to avoid impacts during the rearing season (i.e., the period from birth to dispersal of young) and otherwise capture and relocate animals away from the work area prior to construction. These animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the Project applicant would conduct biological monitoring during ground disturbing activities, in an effort to salvage animals that may be discovered during construction activities. These measures will reduce impacts to badger individuals to the extent feasible and practicable. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable mitigation measures are **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), **LV 4.4-28** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and **LV 4.4-24** (American badger natal den avoidance). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Black bear (*Ursus americanus*). The American black bear is considered special status as a trust resource by CDFG for the purposes of this report. The black bear is found in dense, mature stands of a variety of forest types. It can utilize valley foothill riparian forests, wet meadows, and brushy stands of forests. The black bear was anecdotally observed within High Country SMA/SEA 20 in 2005 (Dudek 2006B). The specific location was not recorded, but it is assumed that black bears utilize portions of the High Country SMA/SEA 20 due to its connection to the Santa Susana Mountains to the south. Construction-related activities could result in impacts to individual black bear. Potentially significant impacts to black bear could occur without mitigation, depending on the number and extent of the species on site that may be disturbed or removed. In order to reduce impacts to this species, the Project applicant would implement several mitigation measures designed to avoid impacts during the rearing season (i.e., the period from birth to dispersal of young) and otherwise capture and relocate animals away from the work area prior to construction. These animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the Project applicant would conduct biological monitoring during ground disturbing activities, in an effort to salvage animals that may be discovered during construction activities. These measures will reduce impacts to badger individuals to the extent feasible and practicable. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable mitigation measures are **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), and **LV 4.4-28** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Impacts to Species Potentially Occurring on the Landmark Village Site

Southern Steelhead (*Oncorhynchus mykiss*). The southern steelhead is listed as federally endangered and is listed as a California Species of Special Concern. Within the Santa Clara River drainage, southern steelhead historically inhabited Piru Creek, Sespe Creek, Santa Paula Creek, Hopper Creek, and possibly Pole Creek (Titus *et al.* n.d.). Presently, southern steelhead occur downstream of the proposed Project in the Santa Clara River watershed in Piru Creek, between the confluence with the Santa Clara River and Santa Felicia Dam, in Sespe Creek, in Santa Paula Creek, and possibly in Hopper Creek and Pole Creek (Stoeker and Kelly 2005). Habitat for juveniles and spawning adults is described as relatively cool freshwater streams, well-oxygenated water with adequate depth and cover in the way of gravel, cobble, boulder, undercut banks, large and small woody debris, and overhanging vegetation. As non-spawning adults, southern steelhead are found in the Pacific Ocean (McEwan and Jackson 1996; Moyle 2002). Reconnaissance surveys conducted along the Santa Clara River and tributary drainages within the

Specific Plan area of the NRSP were negative in 2004 and 2005 (ENTRIX 2009). This species is not expected to occur in the Project area and the requisite habitat features to support spawning and rearing are not present on site. Implementation of the proposed project would not directly impact this species. Impacts to this species were not addressed by the Newhall Ranch Specific Plan Program EIR due to more recent identification of the species in later surveys.

California red-legged frog (*Rana aurora draytonii*). The California red-legged frog is a federally threatened species and is also designated by CDFG as a California Species of Special Concern. Breeding occurs in streams, deep pools, backwaters within streams and creeks, ponds, marshes, sag ponds, dune ponds, lagoons, and stock ponds. California red-legged frogs can occur in ephemeral ponds or permanent streams and ponds; however, populations probably cannot persist in ephemeral streams (Jennings and Hayes 1985). The California red-legged frog has not been observed in the Project area. While there are no records of California red-legged frog from the Project site in the numerous wildlife surveys conducted since 1992, the species is known from the Project region. The San Marino Environmental Associates (1995) report states that Thomas Haglund observed red-legged frogs in the mid-1970s in the Santa Clara River at Fillmore and that "this may represent the last sighting of this species in the Santa Clara River" (p. 37). Given that this species has been documented upstream of the project site within tributaries of the river, it is possible that non-breeding frogs could move through the river corridor within the project site. Should construction and/or grading activities occur when individual frogs are moving through the river corridor, the species may be adversely affected. In order to reduce impacts to this species, the Project applicant would implement a series of mitigation measures designed to limit construction activities within aquatic habitats and capture and relocate animals away from the work area prior to construction. Equipment would not be operated within areas of ponded or flowing water (unless otherwise approved by the Corps and CDFG), and water containing mud, silt, and other pollutants would not be allowed to enter flowing water. Further, any California red legged frogs potentially present would be removed from the disturbance footprint by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the Project applicant would conduct biological monitoring during ground disturbing activities in an effort to salvage animals that may be uncovered during construction activities.

Applicable mitigation measures include the following previously incorporated measures:

- Mitigation Measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks); and
- Mitigation Measure **SP 4.6-55** (federal and state permits for wetland impacts), and **SP 4.6-58** (NPDES and water quality permits).

Additional applicable mitigation measures include:

- Mitigation Measure LV 4.4-10 (development of a Stream Crossing and Diversion Plan);
- Mitigation Measure LV 4.4-11 (regulating stream diversion bypass channels and dewatering);
- Mitigation Measure LV 4.4-12 (creation of habitat for special-status fish during construction);
- Mitigation Measure LV 4.4-13 (installation of structures within the riverbed not to impair movement of aquatic life);
- Mitigation Measure LV 4.4-14 (prevention of mud and pollutants from entering streams and storm flows);
- Mitigation Measure LV 4.4-15 (restriction of construction activities in the riverbed to specified areas);
- Mitigation Measure LV 4.4-18 (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities);
- Mitigation Measure LV 4.4-54 (patrol for stranded fish and aquatic organisms); and
- Mitigation Measure LV 4.4-55 (surveys of riverbed for California red-legged frog).

Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Program EIR did not address potential impacts to California red-legged frog given the species limited potential to occur on the project site.

Rosy boa (*Charina trivirgata*). The rosy boa is designated by CDFG as a California Special Animal. The rosy boa inhabits rocky shrubland and desert habitats and is attracted to oases and streams but does not require permanent water (Stebbins 2003). Rosy boas were not trapped or otherwise observed during surveys conducted on portions of the Specific Plan area in 2004 and 2006 (Impact Sciences, Inc., 2006A). Suitable habitat occurs in association with scrub, chaparral, riverbank, and oak woodland habitats, and rosy boa is presumed to occur in portions of the site supporting these habitat types. Construction-related activities could result in the direct impacts to individual animals. In order to reduce impacts to this species, the Project applicant would implement four mitigation measures designed to capture and relocate animals away from the work area prior to construction. The captured animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the Project applicant would conduct biological monitoring during ground-disturbing activities in an effort to salvage animals that may be uncovered during construction activities. Applicable mitigation measures include the previously incorporated measures SP 4.6-53 and SP 4.6-59 (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable mitigation measures are LV 4.4-18 (pre-construction educational meetings, construction-limit

staking, and biological monitoring during vegetation clearing and grading activities) and LV 4.4-20 (surveys to capture and relocate special-status reptiles). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR concluded that the substantial loss of habitat, and potential impacts to individuals of this species, would be considered an unavoidable significant impact; however, the mitigation proposed in the Specific Plan EIR was not as extensive as this Recirculated Landmark Village EIR. See **Subsection 9.b.(1)(b), Wildlife Habitat Loss**, for a discussion of project-related impacts to special-status wildlife due to habitat loss.

San Bernardino ringneck snake (*Diadophis punctatus modestus*). The San Bernardino ringneck snake is designated by CDFG as a California Special Animal. The ringneck snake is found in moist habitats, including woodlands, hardwood and conifer forest, grassland, sage scrub, chaparral, croplands/hedgerows, and gardens (NatureServe 2007; Stebbins 2003). San Bernardino ringneck snakes were not trapped or otherwise observed during surveys conducted on portions of the Specific Plan area in 2004 and 2006 (Impact Sciences, Inc., 2006A). Suitable habitat occurs at the project site in association with scrub, chaparral, riverbank and oak woodland habitats, and San Bernardino ringneck snake is presumed to occur in portions of the site supporting these habitat types. Construction-related activities could result in direct impacts to individual animals. In order to reduce impacts to this subspecies, the Project applicant would implement two mitigation measures designed to capture and relocate animals away from the work area prior to construction. The captured animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the subspecies. In addition, the Project applicant would conduct biological monitoring during ground disturbing activities in an effort to salvage animals that may be uncovered during construction activities. Applicable mitigation measures are LV 4.4-18 (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and LV 4.4-20 (surveys to capture and relocate special-status reptiles). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR concluded that the substantial loss of habitat, and potential impacts to individuals of this species, would be considered an unavoidable significant impact; however, the mitigation proposed in the Specific Plan EIR was not as extensive as this Recirculated Landmark Village EIR. See **Subsection 9.b.(1)(b), Wildlife Habitat Loss**, for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Coast patch-nosed snake (*Salvadora hexalepis virgulata*). The coast patch-nosed snake is listed as a California Species of Special Concern. It occupies desert scrub, coastal chaparral, washes, sandy flats, and rocky areas. Coast patch-nosed snakes were not trapped or otherwise observed during surveys conducted on portions of the Specific Plan area in 2004 and 2006 (Impact Sciences, Inc., 2006A). The Project area is located towards the northern extent of the subspecies' range (Stebbins 2003), and based on the CNDDDB, the coast patch-nosed snake has only been documented south of the Project area. Suitable

habitat occurs in association with scrub habitat on site, and coast patch-nosed snake is presumed to occur in areas supporting this habitat type. Construction-related activities could result in the direct impacts to individual animals. In order to reduce impacts to this species, the Project applicant would implement a series of mitigation measures designed to capture and relocate animals away from the work area prior to construction. The captured animals would be handled by qualified biologists and placed in a pre-approved area capable of supporting the species. In addition, the Project applicant would conduct biological monitoring during ground disturbing activities in an effort to salvage animals that may be uncovered during construction activities. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable mitigation measures are **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-20** (surveys to capture and relocate special-status reptiles). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR concluded that the substantial loss of habitat, and potential impacts to individuals of this species, would be considered an unavoidable significant impact; however, the mitigation proposed in the Specific Plan EIR was not as extensive as this Recirculated Landmark Village EIR. See **Subsection 9.b.(1)(b), Wildlife Habitat Loss**, for a discussion of project-related impacts to special-status wildlife due to habitat loss.

South coast garter snake (*Thamnophis sirtalis* ssp.). The south coast garter snake is designated by CDFG as a California Species of Special Concern. No focused surveys have been conducted for this species, and no observations have been noted in previous wildlife surveys for other riparian and aquatic species (SMEA 1995; Aquatic Consulting Services, Inc., 2002A, 2002B, 2002C, 2002D; Impact Sciences, Inc., 2002; Compliance Biology, Inc., 2004D; Impact Sciences, Inc., 2001; Ecological Sciences, Inc., 2004A). Natural history records for the south coast garter snake in California include sightings from Santa Clara River Valley (Ventura County), south to San Pasqual (San Diego County) (NatureServe 2007). Suitable habitat for the species occurs on site in association with marsh, riparian and adjacent habitats. The removal of riparian vegetation and construction activities associated with the proposed bridge and/or bank protection could result in impacts to individual south coast garter snakes. Impacts to the south coast garter snake would be potentially significant, depending on the number and extent of this species that may be disturbed or removed. Implementation of proposed Mitigation Measures **LV 4.4-10** (development of a Stream Crossing and Diversion Plan), **LV 4.4-11** (regulating stream diversion bypass channels and dewatering), **LV 4.4-13** (installation of structures within the riverbed not to impair movement of aquatic life), **LV 4.4-14** (prevention of mud and pollutants from entering streams and storm flows), **LV 4.4-15** (restriction of construction activities in the riverbed to specified areas), **LV 4.4-16** (surveys of riverbed area for, two-striped garter snake and south coast garter snake), and **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing

and grading activities) would reduce impacts to the species to a less than significant level. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Bell's sage sparrow (*Amphispiza belli belli*). The Bell's sage sparrow is not state or federally endangered, but is on CDFG Watch List and is a USFWS Bird of Conservation Concern. The scrub habitats on the off-site grading sites provide suitable nesting habitat for this species. Should this species occur on the site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of this species' bird nests that may be disturbed or removed, the loss of active nests would be a potentially significant impact. In order to avoid impacts to this species, the Project applicant would implement mitigation measures to reduce the impacts to Bell's sage sparrow before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR concludes that due to the substantial loss of habitat, and potentially direct impacts to individuals, resulting from buildout of the Specific Plan, impacts to Bell's sage sparrow would be considered unavoidably significant impact; however, the mitigation proposed in the Specific Plan EIR was not as extensive as this Recirculated Landmark Village EIR. See **Subsection 9.b.(1)(b), Wildlife Habitat Loss**, for a discussion of project-related impacts to special-status wildlife due to habitat loss.

Black-chinned sparrow (*Spizella atrogularis*). The black-chinned sparrow is designated by CDFG as a California Special Animal and is a USFWS Bird of Conservation Concern. This species is not federally listed as threatened or endangered within any part of its range. The black-chinned sparrow was not detected within the Project area or region. The species has not been detected in the area for over a dozen years; it is not believed to occur within the Project area. However, the species is likely to occur as a migrant on sage scrub- and chaparral-covered hillsides and a few could remain to breed on more rugged slopes on the borrow and grading sites. Should this species occur on the site, construction-related activities could result in the loss or abandonment of active nests during that year's nesting season. Depending on the number and extent of this species' bird nests that may be disturbed or removed, the loss of active nests would be a potentially significant impact. The Project applicant would implement mitigation measures to reduce or avoid impacts to black-chinned sparrow before and during construction. Applicable mitigation measures include previously incorporated measures **SP 4.6-53** and

SP 4.6-59 (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). This impact would also be reduced through the implementation of Mitigation Measures **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) and **LV 4.4-21** (pre-construction surveys for nesting native bird species and construction setbacks for active nests). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Ringtail cat (*Bassariscus astutus*). The ringtail cat (ringtail) is a California Fully Protected species. Suitable habitat for ringtails consists of broken semi-arid country with a mixture of hardwood forest and shrubland in close association with rocky areas or riparian habitats (Poglayen-Neuwall and Toweill 1988; Zeiner *et al.* 1990B). Although no ringtails were documented during the mammal survey, Impact Sciences (2005) concluded that the species has a moderate potential to occur on site in dense woodland or riparian areas. However, in addition to the negative Impact Sciences (2005) study findings, this species has never been observed in the numerous wildlife surveys conducted in the Specific Plan area, including recent wildlife surveys conducted by Dudek (2006A, 2006B, 2006C, 2006D). Should ringtail be present, construction-related activity could result in the loss of individual ringtail. Potentially significant impacts to ringtail could occur without mitigation, depending on the number and extent of the species on site that may be disturbed or removed. In order to reduce impacts to this species, the project applicant would implement several mitigation measures designed to avoid impacts, including conducting pre-construction surveys for ringtail in suitable habitat in and within 300 feet of the construction zone and, if the species is observed in the breeding and rearing period, no construction-related activities shall occur within 300 feet until it has been determined that construction activities would not adversely affect the rearing of young. In addition, the Project applicant would conduct biological monitoring during ground disturbing activities, in an effort to salvage animals that may be discovered during construction activities. These measures will reduce impacts to badger individuals to the extent feasible and practicable. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable mitigation measures are **LV 4.4-18** (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities), **LV 4.4-28** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and **LV 4.4-52** (ringtail avoidance). Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to

occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Townsend's big-eared bat (*Corynorhinus townsendii townsendii*), California Species of Special Concern; **western small-footed myotis** (*Myotis ciliolabrum*), California Species of Special Concern; and **long-legged myotis** (*Myotis volans*), California Species of Special Concern have not been observed on the project site, but given the presence of suitable habitat, these species could roost and/or forage on or adjacent to the site. Should active bat roosts be present, construction-related activity could result in the direct loss or abandonment of active roost sites. In order to reduce impacts to this species, the Project applicant would implement mitigation measures designed to avoid direct impacts to pallid bat individuals during construction and to establish new day roosts should any existing day roosts be permanently lost as a result of the project. The applicable mitigation measure for impacts during construction is **LV 4.4-25** (pre-construction surveys for active roosts of special-status bats), which requires that, no earlier than 30 days prior to the commencement of construction activities, a pre-construction survey be conducted by a qualified biologist to determine whether active roosts of special-status bats, including the pallid bat, are present on or within 300 feet of the Project disturbance boundaries. Should an active maternity roost be identified (the breeding season of native bat species in California, including the pallid bat, generally occurs from April 1 through August 31), the roost shall not be disturbed and construction within 300 feet shall be postponed or halted, at the discretion of the biological monitor, until the roost is vacated and juveniles have fledged, as determined by the biologist. The applicable mitigation measure for permanent loss of a day roost is **LV 4.4-26** (day roost site replacement), which requires the Project applicant to prepare and implement a bat roost site creation plan that would establish (an) alternative roost site(s) within suitable preserved open space located at an adequate distance from sources of human disturbance. Implementation of these mitigation measures would reduce this impact to a level that is not significant. The finding that impacts to special-status bats can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Southern grasshopper mouse (*Onychomys torridus ramona*). The southern grasshopper mouse is designated by CDFG as a California Species of Special Concern. This species has not been detected on the project site or the greater Newhall Ranch Specific Plan area during small mammal trapping (Impact Sciences 2004). This species has the potential to occur on site in scrub and grassland habitat. Should this species occur on site, construction-related activities could result in direct impacts to the individual southern grasshopper mouse. In order to reduce impacts to this species, the Project applicant would conduct biological monitoring during ground-disturbing activities, in an effort to salvage animals that may be discovered during construction activities. These measures will reduce impacts southern grasshopper mouse individuals to the extent feasible and practicable. Applicable mitigation measures include the previously incorporated measures **SP 4.6-53** and **SP 4.6-59** (updated surveys for special-status species and consultation with the County and CDFG at important benchmarks). Additional applicable Mitigation

Measure LV 4.4-18 (pre-construction educational meetings, construction-limit staking, and biological monitoring during vegetation clearing and grading activities) would also be implemented. Implementation of these mitigation measures would reduce this impact to a level that is adverse but not significant. The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.

Impacts to Special-Status Wildlife Species Occurring Downstream of the Project Site

The following special-status wildlife species are known to, or could, occur within the Santa Clara River downstream of the Landmark Village project site: Santa Ana sucker, unarmored threespine stickleback, arroyo chub, southwestern pond turtle, and two-striped garter snake. The *Flood Technical Report for the Landmark Village Project* (PACE 2006) found that there would be no significant changes in water flows, velocities, depth, sedimentation, or floodplain and channel conditions downstream of the project site as a result of the proposed project (see Landmark Village Draft EIR, November 2006, Appendix 4.2). These hydraulic effects were also found to be insufficient to alter the amount, location, and nature of aquatic and riparian habitats in the project area and downstream into Ventura County. The technical analysis further determined that the river would still retain sufficient width to allow natural fluvial processes to continue; consequently, the mosaic of habitats in the river that support various special-status species would be maintained and the population of the species within and immediately adjacent to the river corridor would not be significantly affected. Based on that technical assessment, and the analysis of these species and their habitat described in the PACE 2006 report (these conclusions were reached by Entrix based upon the PACE report), no significant impacts to downstream populations of these special-status wildlife species are expected to occur.

(i) Sensitive Plant Communities

As discussed under **Subsection 9.b.(1)(i)**, three of the plant communities found within the Landmark Village project site are considered sensitive by CDFG: southern willow scrub, southern cottonwood-willow riparian, and big sagebrush scrub. Impacts to these sensitive plant communities are discussed below.

Herbaceous Wetlands

Herbaceous Wetland (NA/NA¹⁴). The proposed project would result in the permanent conversion of 0.4 acre of herbaceous wetland. An additional 3.1 acres would be temporarily disturbed by bank

¹⁴ A conservation status rank is not applicable because the species is not a suitable target for conservation activities.

stabilization and/or haul roads, but would be revegetated following completion of construction. Given the riparian nature of this plant community, the loss of herbaceous wetland would be a significant impact. Implementation of proposed mitigation measures **LV 4.4-1** (development of a conceptual wetlands mitigation plan), **LV 4.4-15** (restriction of construction activities in the riverbed to specified areas), **LV 4.4-28** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and **LV 4.4-29** through **LV 4.4-41** (wetlands mitigation plan and riparian restoration activities on the Project site) would reduce impacts to this vegetation type to a level that is less than significant. The Newhall Ranch Specific Plan Program EIR included analysis of this plant community as part of the overall loss of wildlife habitat (**Subsection 9.b.1.(b), Wildlife Habitat Loss**).

River Wash (NA/NA). The proposed project would result in the permanent conversion of 2.5 acres of river wash. An additional 12.7 acres would be temporarily disturbed by bank stabilization and/or haul roads, but would be revegetated following completion of construction. The river wash in the Project study area occurs in CDFG and Corps jurisdiction where it is associated with (1) wetlands, (2) state and/or U.S. waters, and (3) seasonally wetted portions of river wash. These areas may provide breeding habitat for aquatic species. Because river wash is a riparian vegetation community, the losses resulting from the project would represent a significant impact on biological resources absent mitigation. Impacts to this vegetation community also would be considered significant due to their potential to affect numerous sensitive species, which use this habitat, including the unarmored threespine stickleback, arroyo chub, arroyo toad, and others. Implementation of proposed mitigation measures **LV 4.4-1** (development of a conceptual wetlands mitigation plan), **LV 4.4-15** (restriction of construction activities in the riverbed to specified areas), **LV 4.4-28** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and **LV 4.4-29** through **LV 4.4-41** (wetlands mitigation plan and riparian restoration activities on the Project site) would reduce impacts to this vegetation type to a level that is less than significant. The Newhall Ranch Specific Plan Program EIR included analysis of this plant community as part of the overall loss of wildlife habitat (**Subsection 9.b.1.(b), Wildlife Habitat Loss**).

Riparian Scrub

Alluvial Scrub. The proposed project would result in the temporary loss of 0.5 acre of alluvial scrub. Given the riparian nature of this plant community, the impacts to alluvial scrub would be significant. Implementation of proposed mitigation measures **LV 4.4-1** (development of a conceptual wetlands mitigation plan), **LV 4.4-15** (restriction of construction activities in the riverbed to specified areas), **LV 4.4-28** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and **LV 4.4-29** through **LV 4.4-41** (wetlands mitigation plan and riparian restoration activities on the Project site) would reduce impacts to this vegetation type to a level that is less than

significant. The Newhall Ranch Specific Plan Program EIR included analysis of this plant community as part of the overall loss of wildlife habitat (**Subsection 9.b.1.(b), Wildlife Habitat Loss**).

Arrow Weed Scrub. The proposed project would result in the permanent conversion of 5.1 acres of arrow weed scrub. An additional 1.9 acres would be temporarily disturbed by bank stabilization and/or haul roads, but would be revegetated following completion of construction. Given the riparian nature of this plant community, the impacts to arrow weed scrub would be significant. Implementation of proposed mitigation measures **LV 4.4-1** (development of a conceptual wetlands mitigation plan), **LV 4.4-15** (restriction of construction activities in the riverbed to specified areas), **LV 4.4-28** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and **LV 4.4-29** through **LV 4.4-41** (wetlands mitigation plan and riparian restoration activities on the Project site) would reduce impacts to this vegetation type to a level that is less than significant. The Newhall Ranch Specific Plan Program EIR included analysis of this plant community as part of the overall loss of wildlife habitat (**Subsection 9.b.1.(b), Wildlife Habitat Loss**).

Big Sagebrush Scrub. The proposed project would result in the permanent impacts to 2.2 acres of big sagebrush scrub and temporary disturbance of an additional 10.0 acres. The proposed project would also result in permanent impacts to 0.4 acre and a temporary loss of 0.1 acre of big sagebrush - California buckwheat scrub, an association of big sagebrush scrub. Given the occurrence of *Artemisia tridentata* ssp. *parishii* (which is considered sensitive by the County of Los Angeles) within the big sagebrush scrub, the impact to this vegetation community would be significant. The following mitigation measures are will address these impacts:

- **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-63** (habitat restoration/enhancement in the River Corridor SMA/SEA 23; 1:1 riparian resource replacement),
- **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),
- **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23),
- **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23),
- **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23), and
- **LV 4.4-1** (development of a conceptual wetlands mitigation plan)

Once implemented, these mitigation measures would reduce impacts to big sagebrush scrub to below a level of significance. The Newhall Ranch Specific Plan Program EIR included analysis of this plant community as part of the overall loss of wildlife habitat (Wildlife Habitat Loss).

Mulefat Scrub. The proposed project would result in the permanent conversion of 6.9 acres of mulefat scrub. An additional 6.2 acres would be temporarily disturbed by bank stabilization and/or haul roads, but would be revegetated following completion of construction. Mulefat scrub is not recognized as a sensitive natural community by resource agencies; however, given the extent of this plant community on the project site, and given the ongoing loss of riparian plant communities in the project area, the project's impacts to mulefat scrub are considered significant absent mitigation.

Proposed mitigation measures include the following:

- **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-63** (habitat restoration/enhancement in the River Corridor SMA/SEA 23; 1:1 riparian resource replacement),
- **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),
- **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23), **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23),
- **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23),
- **LV 4.4-1** (development of a conceptual wetlands mitigation plan),
- **LV 4.4-15** (restriction of construction activities in the riverbed to specified areas),
- **LV 4.4-29** through **LV 4.4-41** (wetlands mitigation plan and riparian restoration activities on the Project site).

Once implemented, these mitigation measures would reduce impacts to this plant community to a less than significant level. The Newhall Ranch Specific Plan Program EIR included analysis of this plant community as part of the overall loss of wildlife habitat (**Subsection 9.b.1.(b), Wildlife Habitat Loss**).

Southern Willow Scrub. The proposed project would result in the temporary loss of 3.8 acres of southern willow scrub from the project site through bank stabilization and/or haul roads, but would be revegetated following completion of construction. Given the biological value and sensitivity of this riparian habitat, and given that it falls under the jurisdiction of the CDFG, the impacts to southern willow scrub would be significant. To address this impact, the following mitigation measures are recommended:

- **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-63** (habitat restoration/enhancement in the River Corridor SMA/SEA 23; 1:1 riparian resource replacement),
- **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),
- **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23),

- **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23),
- **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23),
- **LV 4.4-1** (development of a conceptual wetlands mitigation plan),
- **LV 4.4-15** (restriction of construction activities in the riverbed to specified areas),
- **LV 4.4-28** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and
- **LV 4.4-29** through **LV 4.4-41** (wetlands mitigation plan and riparian restoration activities on the Project site)

Once implemented, these mitigation measures would reduce impacts to this plant community to below a level of significance. The finding that impacts to southern willow scrub can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Riparian Forest and Woodland

Southern Cottonwood-Willow Riparian. The proposed project would result in the permanent loss of 4.9 acres of southern cottonwood-willow riparian forest from the project site. An additional 26.6 acres would be temporarily disturbed by bank stabilization and/or haul roads, but would be revegetated following completion of construction. Given the biological value and sensitivity of this riparian habitat, and given that it falls under the jurisdiction of the CDFG, the loss of southern cottonwood-willow riparian forest would be a significant impact. To address this impact, the following mitigation measures are recommended:

- **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-63** (habitat restoration/enhancement in the River Corridor SMA/SEA 23; 1:1 riparian resource replacement),
- **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),
- **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23),
- **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23),
- **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23),
- **LV 4.4-1** (development of a conceptual wetlands mitigation plan),
- **LV 4.4-15** (restriction of construction activities in the riverbed to specified areas),

- LV 4.4-28 (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and
- LV 4.4-29 through LV 4.4-41 (wetlands mitigation plan and riparian restoration activities on the Project site)

Once implemented, these mitigation measures would reduce impacts to this plant community to below a level of significance. The finding that impacts to southern cottonwood-willow riparian forest can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR.

Southern Coast Live Oak Riparian Forest. The proposed project would result in the temporary loss of 0.6 acre of southern coast live oak riparian forest through bank stabilization and/or haul roads, but would be revegetated following completion of construction. Because it is a riparian vegetation community, the impacts to southern coast live oak riparian forest would be significant. Implementation of proposed Mitigation Measures LV 4.4-1 (development of a conceptual wetlands mitigation plan), LV 4.4-15 (restriction of construction activities in the riverbed to specified areas), LV 4.4-28 (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and LV 4.4-29 through LV 4.4-41 (wetlands mitigation plan and riparian restoration activities on the Project site) would reduce impacts to southern coast live oak riparian forest to a less than significant level. The Newhall Ranch Specific Plan Program EIR included analysis of this plant community as part of the overall loss of wildlife habitat (**Subsection 9.b.1.(b), Wildlife Habitat Loss**).

(j) Jurisdictional Resources

The proposed project would result in the permanent fill of 5.43 acres and the temporary disturbance of an additional 2.82 acres of drainages under the jurisdiction of the Corps (**Figure 4.4-10, Impacted Jurisdictional Resources**). Areas to be permanently filled include 1.97 acres of agricultural drains, 1.95 acres within Chiquito Creek, 0.13 acre of a seasonal tributary to Chiquito Creek, 0.78 acre within the Santa Clara River, and 0.60 acre of tributaries to the Santa Clara River. Temporary impacts (resulting from haul routes, utility corridor, and bank stabilization) would occur to 1.36 acres of Chiquito Canyon Creek, 0.09 acre of an agricultural drain, 1.35 acres of the Santa Clara River, 0.03 acre of tributaries to the Santa Clara River, and approximately 1.36 acres of Castaic Creek (Castaic Creek was not delineated in the field; the approximate acreage was estimated using Geographic Information Systems [GIS]).

These areas, as well as the permanent conversion of 22.4 acres of associated riparian vegetation (**Sensitive Plant Communities**), are also under the jurisdiction of CDFG. The fill/removal of these jurisdictional resources would be a significant impact. To address these impacts, the following mitigation measures are recommended:

- **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-63** (habitat restoration/enhancement in the River Corridor SMA/SEA 23; 1:1 riparian resource replacement),
- **SP 4.6-17** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23),
- **SP 4.6-18** and **SP 4.6-19** (transition areas along the River Corridor SMA/SEA 23),
- **SP 4.6-20** (marking and inspection of grading perimeters; avoiding inadvertent impacts to riparian resources in the River Corridor SMA/SEA 23),
- **SP 4.6-21** through **SP 4.6-26** (open space dedication of the River Corridor SMA/SEA 23),
- **LV 4.4-1** (development of a conceptual wetlands mitigation plan),
- **LV 4.4-15** (restriction of construction activities in the riverbed to specified areas),
- **LV 4.4-28** (grading and construction activities should begin in disturbed areas and avoid isolating patches of vegetation), and
- **LV 4.4-29** through **LV 4.4-41** (wetlands mitigation plan and riparian restoration activities on the Project site)

Once implemented, these mitigation measures would reduce impacts to jurisdictional resources to below a level of significance. The finding that impacts to jurisdictional resources can be reduced to below a level of significance with mitigation is consistent with the findings of the Newhall Ranch Specific Plan Program EIR. The environmental document is in process at this time and a draft of the EIR/EIS is expected to be released for public review in 2009.

Figure 4.4-10 Impacted Jurisdictional Resources

MAP BOX

(2) Indirect Impacts

Indirect impacts to biological resources would occur in those habitat areas surrounding the development envelope, as well as in remaining habitat areas within the proposed development area, both during and after the completion of the proposed project. Indirect impacts on biological resources as a result of project development on the site can include the following: (1) increased lighting and glare effects on wildlife species in remaining and adjacent open space areas; (2) a potential increase in pesticides, herbicides and pollutants into adjacent drainages, creeks, rivers and wetlands, as a result of landscaping irrigation and stormwater runoff; (3) an increase in non-native plant and wildlife species that are adapted to more urban environments and can out-compete native species for available resources, thus reducing the distribution and population of native species; (4) increased human activity and domestic animal presence that can disturb natural habitat areas and displace wildlife populations; and (5) erosion and dust resulting from construction/grading activities.

Indirect impacts associated with the proposed project are not quantifiable, but are reasonably foreseeable. As such, the following discussion identifies expected types of secondary impacts and their relative magnitude, such that decision makers and the general public are aware of the indirect impact potential associated with implementation of the proposed project. The following discussions are not species-specific, in contrast to the discussions of direct impacts above. Nevertheless, general classes of indirect impacts are relevant to suites of species, whether through alterations of behavior or physiology, and those effects are indicated, in the discussions of indirect impact types. This type of analysis is consistent with the requirements of CEQA.

(a) Increased Light and Glare

The development of a residential community would increase the number of nighttime light and glare sources on the site over current levels, which are very low to nonexistent. Nighttime lighting can disturb nesting and foraging behavior, can potentially alter breeding cycles and nesting behavior, and can make some wildlife (e.g., rodents) more vulnerable to predation. If uncontrolled, artificial light near riparian areas associated with the Santa Clara River and Castaic Creek could adversely impact the composition and behavior of the animal species that occur in these areas. Due to its potential to disrupt breeding, movement, and foraging behavior of wildlife species and increase predation risk, increased nighttime lighting and glare from proposed project is a significant impact. Implementation of Specific Plan Mitigation Measure **SP 4.6-56** (downcast lighting design along the boundaries of natural areas) would reduce potential impacts resulting from increased light and glare to below a level of significance.

(b) Landscaping Irrigation and Stormwater 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 river corridor containing high levels of nutrients, particularly fertilizers and waste products such as nitrogen and phosphorous, could result in eutrophication (excessive nutrient buildup). This, in turn, could deplete available oxygen due by increasing biological oxygen demand (BOD), facilitating algal blooms, and reducing available dissolved oxygen for aquatic organisms. Other chemicals, pesticides, and herbicides could also adversely affect aquatic systems. In addition, paved or other artificial impermeable surfaces would contribute runoff into the river corridor during storm events. Depending on the magnitude and frequency of storm events and the overall level of water quality, this runoff could cause increased eutrophication, algal blooms, depleted oxygen levels, long-term buildup of toxic compounds and heavy metals, and other adverse effects to biological resources associated with aquatic systems.

Project Design Features (PDFs) incorporated into the project to address water quality and hydrologic impacts include site design, source control, treatment control, and hydromodification control Best Management Practices (BMPs). Stormwater runoff from all urban areas within the proposed project will be routed to bioretention areas, vegetated swales, and/or extended detention basin treatment control BMPs.

The proposed measures to maintain water quality in the Santa Clara River were analyzed by GeoSyntec Consultants.¹⁵ The following summarizes the PDFs in reducing impacts on surface water quality.

Nutrients (Phosphorus and Nitrogen [Nitrate+Nitrite-N and Ammonia-N]): MS4 Permit, General Construction Permit, Dewatering General Permit, and Standard Urban Stormwater Mitigation Plan (SUSMP)-compliant BMPs will be incorporated into the project to address nutrients in both the construction phase and post-development. Nitrate-nitrogen plus nitrite-nitrogen concentrations and loads are predicted to decrease in the post-development condition. Total phosphorus concentration is predicted to be below the minimum observed value in the Santa Clara River. Nitrate-N plus nitrite-N and ammonia-N concentrations are predicted to be well below Los Angeles Basin Plan objectives and below or in the low range of observed values in the Santa Clara River Reach 7E. The predicted nutrient concentrations are not expected to cause increased algae growth. On this basis, the impact of the project on nutrients is considered less than significant.

Trace Metals: MS4 Permit, General Construction Permit, General Dewatering Permit, and SUSMP-compliant BMPs will be incorporated into the project to address trace metals in both the construction and post-development phases. The mean loads of dissolved copper and dissolved zinc are predicted to

¹⁵ GeoSyntec Consultants. September 2006. *Landmark Village Water Quality Technical Report* (Recirculated Draft EIR Appendix 4.3).

increase with project development, while all trace metal concentrations and the mean load of total lead are predicted to decrease. Mean concentrations of dissolved copper, total lead, and dissolved zinc are below benchmark Basin Plan objectives and California Toxics Rule criteria. Cadmium is not expected to be present in runoff discharges from the project. On this basis, the impact of the project on trace metals is considered less than significant.

Pesticides: Pesticides in runoff may or may not increase with development as a result of landscape applications. Proposed pesticide management practices, including source control, removal with sediments in infiltration basins, and advanced irrigation controls in compliance with the requirements of the MS4 Permit and the SUSMP, will minimize the presence of pesticides in runoff. Final site stabilization will limit mobility of legacy pesticides that may be present in pre-development conditions. On this basis, the impact of pesticides is considered less than significant.

Pathogens: Pathogen sources include both natural and anthropogenic sources. The natural sources include bird and mammal excrement. Anthropogenic sources include leaking septic and sewer systems and pet wastes. A reduction in open space within the project area will reduce the bacteria produced by wildlife. The project will not include septic systems and the sewer system will be designed to current standards, which minimizes the potential for leaks. Thus pet wastes are the primary source of concern. The PDFs will include source controls and treatment controls, which in combination should help to reduce pathogen indicator levels in stormwater runoff. On this basis, the project's impact on pathogen and pathogen indicators is considered less than significant.

Hydrocarbons: Hydrocarbon concentrations will likely increase with development because of vehicular emissions and leaks. In stormwater runoff, hydrocarbons are often associated with soot particles that can combine with other solids in the runoff. Such materials are subject to treatment in the proposed infiltration basins and vegetated swales. Source control BMPs incorporated in compliance with the MS4 Permit, the General Construction Permit, and the SUSMP will also minimize the presence of hydrocarbons in runoff. On this basis, the impact of the project on hydrocarbons is considered less than significant.

Chloride: MS4 Permit, General Construction Permit, Dewatering General Permit, and SUSMP-compliant BMPs will be incorporated into the project to address chloride in both the construction and post-development phase. The mean concentration and load of chloride is predicted to decrease with development; the predicted concentration is well below the Los Angeles Basin Plan objective and is near the low range of observed values in the Santa Clara River Reach 7E. On this basis, the impact of the project on chloride is considered less than significant.

Methylene Blue Activated Substances (MBAS): The presence of soap in runoff from the project will be controlled through the source control PDFs, including a public education program on residential and

charity car washing. Other sources of MBAS, such as cross connections between sanitary and storm sewers, are unlikely given modern sanitary sewer installation methods and inspection and maintenance practices. Therefore, MBAS are not expected to significantly impact the receiving waters of the proposed project.

Bioaccumulation: The primary pollutants that are of concern with regard to bioaccumulation are mercury and selenium. Mercury and selenium will not be introduced by the project and are not naturally present at levels of concern in the Santa Clara River watershed (GeoSyntec 2005). On that basis, the potential for bioaccumulation in the project PDFs or in the Santa Clara River and attendant adverse effects on waterfowl and other species is considered less than significant.

(c) Increase in Populations of Non-Native Plant and Wildlife Species

After project completion, a number of non-native plant species that are more adapted to urban environments could increase in population and potentially displace native species within the riparian corridor because of the ability of non-natives to compete more effectively for resources. The degree to which non-native plant species will displace native species in adjacent habitat areas is unknown. However, because non-native and exotic plants are commonly included in landscaping plans of both common areas and private lots of new development projects, project development could result in identifiable increases in non-native and/or exotic plant populations.

In particular, non-native plant species are often more adapted to a wider variety of growing conditions and can out-compete native plant populations for available nutrients, prime growing locations, and other resources. Because these plants reproduce so quickly and in such large numbers, these species can quickly replace many native plant populations, resulting in lower native species diversity, loss of suitable breeding and/or nesting habitat for common and special-status wildlife species, changes to the riparian ecosystem, and overall reductions in habitat values. Therefore, the impact on native biological resources as a result of increased non-native plant species is considered potentially significant. Implementation of proposed Mitigation Measure **LV 4.4-44** (review of plant palettes and inspection of container plants for use within 100 feet of native vegetation for pests and disease; restrictions on invasive plants and irrigation) would reduce the magnitude of impacts resulting from an increased non-native population to below a level of significance.

Urban development also tends to attract wildlife species that are more typical of, and more adaptable to, urban settings, including bullfrogs, African clawed frogs, house sparrows, European starlings, rock doves, brown-headed cowbirds, American crows, ravens, striped skunks, opossum, red foxes, raccoons, and Norway rats. An increase in meso-predators (i.e., skunk, opossum, fox) in an area can adversely impact native rodent and bird populations. Additionally, a number of native species are not adapted to urban development and their populations tend to decrease in the vicinity of residential or recreational

developments either directly as a result of habitat alteration or as a result of competition with or displacement or predation by urban-adapted species.

Developed areas also attract and encourage non-native Argentine ants where moisture tends to collect, such as in irrigated areas or in features that trap or collect moisture (e.g., fences). These ants negatively affect native ant populations, which may serve as secondary pollinators and seed dispersers of many native flower species. Additionally, as coast horned lizards primarily feed on native harvester ants, the reduction of native ant populations by Argentine ants could adversely affect the local coast horned lizard population. As discussed in the Newhall Ranch Specific Plan Program EIR, wildlife species typical of an urban environment currently occur in the area. Accordingly, development of the proposed project would further exacerbate an already adverse condition. Therefore, the project's potential to increase non-native animal species, and the effects those non-native species will have on indigenous wildlife, are considered significant. Implementation of proposed Mitigation Measures LV 4.4-45 (installation of waste and recycling receptacles that discourage wildlife foraging in common areas/parks), LV 4.4-46 (develop an integrated pest management plan that addresses pesticide use), LV 4.4-27 (monitoring and control of invasive, non-native aquatic wildlife species for up to 5 years), LV 4.4-50 (cowbird monitoring and trapping program); and LV 4.4-51 (quarterly monitoring and control measures for Argentine ants for up to 5 years) would reduce the magnitude of the project's contribution towards an already adverse condition to below a level of significance.

(d) Increased Human and Domestic and Pet Animal Presence

The proposed project would increase the number of people living and recreating adjacent to the Santa Clara River. The effect of this increase in human population would be the potential for increased human disturbances to, and ongoing degradation of, adjacent riparian habitats associated with the Santa Clara River. Increased recreation and other human activity along proposed trails and unauthorized entry into the riparian area could cause: (1) noise disturbances (especially during the breeding season of birds) which can result in nest abandonment; (2) the harassment and/or capture of slower moving species, including certain reptiles and amphibians; (3) the displacement of other wildlife species; (4) an increase in the amount of refuse and pollutants in the area; (5) compaction of soils; and (6) trampling of ground-dwelling flora and fauna.

Increased use of the project site by future residents of Landmark Village would also result in a corresponding increase in use of the area by domestic and pet animals. Dogs can disturb nesting or roosting sites and disrupt the normal foraging activities of wildlife in adjacent habitat areas. Should this activity occur frequently, and over a long period, these disturbances may have a long-term effect on the behavior of both common and special-status species and can result in their extirpation from the area. Feral cats and domestic house cats can cause substantial damage to the species composition of natural areas, including the populations of special-status species, through predation. Additionally, the use of

anticoagulant-based rodenticides to control pest animals attracted to novel niches brought about by development can lead to secondary poisoning of native wildlife. Implementation of Specific Plan Mitigation Measures **SP 4.6-17** through **SP 4.6-19** (standards for trail design and limitations on human and pet access to the River Corridor SMA/SEA 23; transition areas along the River Corridor SMA/SEA 23), as well as proposed Mitigation Measures **LV 4.4-45** (installation of waste and recycling receptacles that discourage wildlife foraging in common areas/parks), **LV 4.4-46** through **LV 4.4-48** (develop an integrated pest management plan that addresses pesticide use; trash and debris removal from riparian habitats; and control of pet, stray, and feral cats and dogs in or near open space areas), **LV 4.4-27** (monitoring and control of invasive, non-native aquatic wildlife species for up to 5 years), **LV 4.4-42** (trail signage and homeowner education regarding sensitive resources in preserved natural habitat areas), and **LV 4.4-49** (permanent fencing along trails in the River Corridor SMA/SEA 23) would reduce the magnitude of impacts related to increased human and domestic animal presence. The Newhall Ranch Specific Plan Program EIR concluded that impacts caused by increased human and domestic and feral animal presence would be significant. However, with implementation of the new mitigation measures, referenced above, the proposed project's impacts resulting from increased human, domestic, and pet animal presence is considered less than significant.

(e) Construction and Grading Activities

Construction and grading activities associated with project implementation that are proposed adjacent to or within the Santa Clara River ecosystem could adversely affect sensitive vegetation and special-status wildlife within portions of the ecosystem not directly affected by the project. These activities can result in the following impacts: (1) siltation and erosion into creek and river drainages that could adversely affect fish spawning and movement; (2) excessive dust accumulation on vegetation that could result in impacts to some plant species; and (3) soil compaction around remaining trees. These impacts will be minimized through implementation of construction BMPs that will meet or exceed measures required by the General Construction Permit. A Stormwater Pollution and Prevention Plan (SWPPP) will be developed as required by, and in compliance with, the General Construction Permit and Los Angeles County Standard Conditions. The General Construction Permit requires the SWPPP to include a menu of BMPs to be selected, implemented, and maintained, based on the phase of construction and weather conditions, to effectively control erosion and sediment to the Best Available Technology Economically Achievable and

Best Conventional Pollutant Control Technology (BAT/BCT).¹⁶ BMPs to be included in this menu include slope stabilization using rock or vegetation; revegetation; hydroseeding or using tackifiers on exposed areas; installation of energy dissipaters; drop structures; catch basin inlet protection; construction materials management and cover; and containment of construction materials and wastes. On this basis, the construction-related impacts of the project are considered less than significant.

10. PROJECT MITIGATION MEASURES

The Landmark Village project would be subject to the mitigation measures/conditions of approval contained in the RMP of the Newhall Ranch Specific Plan and the Newhall Ranch Specific Plan Program EIR. These mitigation measures have been reviewed and approved by the County in association with the Newhall Ranch Specific Plan Program EIR (May 2003). These previously approved mitigation measures are included in their entirety under **Subsection 10.b., Previously Adopted Mitigation Measures**, and **Table 4.4-10, Significant Impact and Mitigation Summary**, below, identify how specific measures relate to addressing project-specific impacts to biological resources. The numbering system of the previously adopted mitigation measures corresponds with the numbering system used in the adopted revised Newhall Ranch Specific Plan Mitigation Monitoring Plan.

To further reduce potential impacts to biological resources, additional mitigation measures are recommended and incorporated into this EIR. These measures are consistent with, and supplement, the measures included in the Newhall Ranch Specific Plan Program EIR and RMP. The measures are included under **Subsection 10.c., Additional Measures Incorporated into the EIR**. These additional measures, as well as the previously approved measures, are also referenced in **Table 4.4-10** as they relate to addressing project-specific significant impacts to biological resources. To provide context for the mitigation measures incorporated into this EIR, a summary of the lands to be protected/preserved is provided below under **Subsection 10.a., Protected Lands**.

¹⁶ BAT/BCT are Clean Water Act technology-based standards that are applicable to construction site stormwater discharges. Federal law specifies factors relating to the assessment of BAT including: (i) age of the equipment and facilities involved; (ii) the process employed; (iii) the engineering aspects of the application of various types of control techniques; (iv) process changes; (v) the cost of achieving effluent reduction; (vi) non-water quality environmental impacts (including energy requirements); and (vii) other factors as the administrator of the U.S. Environmental Protection Agency (EPA) deems appropriate. *See*, Clean Water Act section 304(b)(2)(B). Factors relating to the assessment of BCT include: (i) reasonableness of the relationship between the costs of attaining a reduction in effluent and the effluent reduction benefits derived; (ii) comparison of the cost and level of pollutant reduction from publicly-owned treatment works' discharge to the cost and level of pollutant reduction from a class or category of industrial sources; (iii) the age of the equipment and facilities involved; (iv) the process employed; (v) the engineering aspects of the application of various types of control techniques; (vi) process changes; (vii) non-water quality environmental impact (including energy requirements); and (viii) other factors as the administrator deems appropriate. *See*, Clean Water Act section 304(b)(4)(B). The administrator of the U.S. EPA has not issued regulations specifying BAT or BCT for construction site discharges.

The Landmark Village applicant is seeking approval of a Section 404 Permit from the Corps and a Master 1600 Agreement from the CDFG as part of the proposed Newhall Ranch Resource Management and Development Plan (RMDP) and Spineflower Conservation Plan (SCP) project. The RMDP/SCP project is the subject of a separate EIS/EIR prepared at the direction of the Corps and CDFG. The EIS/EIR was released for public review in April 2009. The applicant also would be subject to all mitigation measures and permit conditions contained in the Final EIS/EIR and associated agreements/authorizations/permits. Although it is expected that these measures would feasibly mitigate impacts to jurisdictional resources, they cannot be relied upon for CEQA compliance because they have not yet been adopted by the resource agencies. Therefore, consistent with the requirements of CEQA, the applicant shall, at a minimum, implement the measures described below under **Subsections 10.b., Previously Adopted Mitigation Measures** and **10.c., Additional Measures Incorporated into the EIR.**

a. Protected Lands

The adopted Newhall Ranch Specific Plan established the regulations and standards for the protection of large areas of land within the 977-acre River Corridor SMA/SEA 23 and the 4,205-acre High Country SMA/SEA 20. In addition, an off-site condition requires the applicant to dedicate to the public 1,517 acres of land in the Salt Creek watershed in Ventura County, adjacent to the Newhall Ranch Specific Plan site. Further, the applicant has proposed to place a conservation easement over a 164.8-acre Spineflower Conservation Area (SCA). The approximately 6,864.8 acres of land to be preserved and protected (including the River Corridor SMA/SEA 23, High Country SMA/SEA 20, Salt Creek Area, and SCA) provide unique on-site mitigation opportunities. In addition, the Specific Plan includes approximately 1,003 acres of land with the Open Area land designation; approximately 500 acres of the Open Area would remain in a natural condition. Land with the Open Area designation will often function as a transition area between developed areas and the SMA's and includes community parks, prominent ridges, bluffs, slopes, creek beds, and utility and trail system easements. The plant communities to be protected in perpetuity are summarized in **Table 4.4-11, Total Conservation Area and Preserved Vegetation Communities, Floristic Alliances, Associations, and Land Cover Types.** The location relative to the Landmark Village project site of the River Corridor SMA/SEA 23, High Country SMA/SEA 20, Salt Creek Area, SCA, and Open Areas are shown in **Figure 4.4-9, Protected and Preserved Lands.**

**Table 4.4-10
Significant Impact and Mitigation Summary**

Significant Impact	Relevant Previously Adopted Measures	Additional Measures Proposed by EIR	Significance After Mitigation	Consistency with Findings of Newhall Ranch Specific Plan EIR
Impacts to Coastal Scrub	SP 4.6-37 to SP 4.6-42. These measures would protect in perpetuity 1,311 acres of coastal scrub in the High Country SMA/SEA 20. The protection of the Salt Creek Area would preserve and additional 631 acres of this community type.	LV 4.4-2	Less than significant	Inconsistent
Impacts to Riparian Plant Communities (i.e., Mulefat Scrub, Southern Willow Scrub, Southern Cottonwood-Willow Riparian, Arrow Weed Scrub, Alluvial Scrub, and River Wash).	SP 4.6-1 to SP 4.6-26, SP 4.6-63. These measures would protect in perpetuity 977.5 acres of habitat along the Santa Clara River.	LV 4.4-1, LV 4.4-15, LV 4.4-28, LV 4.4-29 through LV 4.4-41	Less than Significant	Consistent
Impacts to Big Sagebrush Scrub	SP 4.6-1 through SP 4.6-16, SP 4.6-21 through SP 4.6-26, SP 4.6-28	LV 4.4-1, LV 4.4-15, LV 4.4-18, LV 4.4-29 through LV 4.4-33	Less than Significant	Consistent
Impacts to Wildlife Upland Habitat	SP 4.6-21 through SP 4.6-26, SP 4.6-27, SP 4.6-28, SP 4.6-17, SP 4.6-29, SP 4.6-33, SP 4.6-20, SP 4.6-34, SP 4.6-35, SP 4.6-36 through SP 4.6-42, SP 4.6-43, and SP 4.6-48. The preservation of the River Corridor SMA/SEA 23 and High Country SMA/SEA 20 would protect approximately 5,182 acres of wildlife habitat in perpetuity. The preservation of the Salt Creek Area would protect an additional 1,518 acres of wildlife habitat in perpetuity.	LV 4.4-2, LV 4.4-6, LV 4.4-21	Less Than Significant	Inconsistent
Restrictions of Wildlife Movement Corridors/Habitat Linkages	SP 4.6-1 to SP 4.6-26, SP 4.6-37 to SP 4.6-42, SP 4.6-56. The preservation of the River Corridor SMA/SEA 23 would protect a regionally important wildlife movement corridor. The preservation of the High Country SMA/SEA 20 would protect a large area of habitat south of the River Corridor SMA/SEA 23 (which would be linked to the River Corridor SMA/SEA 23 by the preservation of the Salt Creek Area).	LV 4.4-42	Less than Significant	Inconsistent. Given that the tract map site is currently used for agriculture and is frequently devoid of cover, the tract map site is not expected to be a substantial part of a regional north-south wildlife movement corridor.
Impacts to Slender Mariposa Lily	SP 4.6-27, SP 4.6-29 to SP 4.6-32, SP 4.6-33, SP 4.6-34, SP 4.6-37 to SP 4.6-42, SP 4.6-53, SP 4.6-59.	LV 4.4-5, LV 4.4-18. Approximately 559 acres considered suitable for slender mariposa lily mitigation have been identified in the High Country SMA/SEA 20 and Salt Creek Area (Dudek 2007).	Less than Significant	Consistent

Significant Impact	Relevant Previously Adopted Measures	Additional Measures Proposed by EIR	Significance After Mitigation	Consistency with Findings of Newhall Ranch Specific Plan EIR
Impacts to Southern California Black Walnut	SP 4.6-1 to SP 4.6-19, SP 4.6-21 to SP 4.6-35, SP 4.6-37 to SP 4.6-48. The preservation of the River Corridor SMA/SEA 23 and the High Country SMA/SEA 20 would protect approximately 585 acres of oak woodland and 300 acres of valley oak/grass in perpetuity. The preservation of the Salt Creek Area would protect approximately 266 acres of oak woodland and 113 acres of valley oak/grassland in perpetuity. In total, conservation easements would be placed over 851 acres of oak woodland and 413 acres of oak savannah (including the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek Area).	LV 4.4-1, LV 4.4-2, LV 4.4-6, LV 4.4-15, LV 4.4-18, LV 4.4-29 to LV 4.4-41	Less than Significant	Consistent
Impacts to Parish's Sagebrush	SP 4.6-1 to SP 4.6-16, SP 4.6-21 to SP 4.6-26, SP 4.6-28.	LV 4.4-1, LV 4.4-2, LV 4.4-15, LV 4.4-18, LV 4.4-29 through LV 4.4-41	Less than Significant	The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.
Impacts to Everlasting	SP 4.6-16, SP 4.6-20, SP 4.6-24, SP 4.6-53, SP 4.6-59.	LV 4.4-3, LV 4.4-4, LV 4.4-18	Less than Significant	The Newhall Ranch Specific Plan Program EIR did not address potential impacts to this species, given its limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.
Impacts to San Fernando Valley Spineflower	SP 4.6-65 to SP 4.6-80.	None proposed.	Less than Significant	Consistent
Impacts to Protected Oaks Coast Live Oak Woodland, and Southern Coast Live Oak Riparian Forest	SP 4.6-1 to SP 4.6-19, SP 4.6-21 to SP 4.6-35, SP 4.6-37 to SP 4.6-48. The preservation of the River Corridor SMA/SEA 23 and the High Country SMA/SEA 20 would protect approximately 585 acres of oak woodland and 300 acres of oak savannah in perpetuity. The preservation of the Salt Creek Area would protect approximately 266 acres of oak woodland and 113 acres of oak savannah in perpetuity. In total, conservation easements would be placed over 851 acres of oak woodland and 413 acres of oak savannah (including the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek Area).	LV 4.4-1, LV 4.4-2, LV 4.4-6, LV 4.4-7, LV 4.4-15, LV 4.4-18, LV 4.4-28 through LV 4.4-39	Less than Significant	Consistent
Impacts to Special-Status Fish Species (i.e., Santa Ana Sucker, Unarmored Threespine Stickleback, and Arroyo Chub)	SP 4.6-53 SP 4.6-54, SP 4.6-57, SP 4.6-58, SP 4.6-59, SP 4.6-44.	LV 4.4-8 to LV 4.4-15, LV 4.4-43	Less than Significant	Consistent
Impacts to Special-Status Amphibians and Aquatic Associated Reptiles (i.e., Arroyo Toad, Two-Striped Garter Snake, South Coast Garter Snake, and Southwestern Pond Turtle)	SP 4.6-53, SP 4.6-55, SP 4.6-58, SP 4.6-59.	LV 4.4-9 to LV 4.4-18	Less than Significant	Consistent

Significant Impact	Relevant Previously Adopted Measures	Additional Measures Proposed by EIR	Significance After Mitigation	Consistency with Findings of Newhall Ranch Specific Plan EIR
Impacts to Western Spadefoot Toad and California Red-Legged Frog	SP 4.6-53, SP 4.6-55, SP 4.6-58, SP 4.6-59.	LV 4.4-10, LV 4.4-12 to LV 4.4-14, LV 4.4-18, LV 4.4-19, LV 4.4-55	Less than Significant	Consistent
Impacts to Upland-Associated Special-Status Reptiles (i.e., Coast Horned Lizard, Silvery Legless Lizard, Coastal Western Whiptail, Rosy Boa, San Bernardino Ringneck Snake, and Coast Patch-Nosed Snake)	SP 4.6-37 to SP 4.6-42, SP 4.6-53, SP 4.6-59. The preservation of High Country SMA/SEA 20 would protect in perpetuity 4,205 acres of habitat. The preservation of the Salt Creek Area would preserve an additional 1,518 acres of habitat.	LV 4.4-18, LV 4.4-20	Less than significant	Inconsistent
Impacts to Special-Status Bird Species (i.e., Least Bell's Vireo, Willow Flycatcher, Southwestern Willow Flycatcher, Western Yellow-Billed Cuckoo, Cooper's Hawk, Sharp-Shinned Hawk, Ferruginous Hawk, Tricolored Blackbird, Lawrence's Goldfinch, Tuekey Vulture, Northern Harrier, Yellow Warbler, White-Tailed Kite, Yellow-Breasted Chat, Southern California Rufous-Crowned Sparrow, Western Burrowing Owl, California Horned Lark, Merlin, Prairie Falcon, American Peregrine Falcon, California Condor, Loggerhead Shrike, Long-Eared Owl, Summer Tanager, Coastal California Gnatcatcher, Vermilion Flycatcher, Golden Eagle, Short-Eared Owl, Costa's Hummingbird, Yellow-Headed Blackbird, Allen's/Rufous Hummingbird, Nuttall's Woodpecker, Chipping Sparrow, Black-Crowned Night Heron, and Oak Titmouse)	SP 4.6-53, SP 4.6-59	LV 4.4-18, LV 4.4-21, LV 4.4-22	Less than Significant	Inconsistent – the Tricolored Blackbird, Northern Harrier, White-Tailed Kite, Southern California Rufous-Crowned Sparrow, Western Burrowing Owl, Golden Eagle, Mountain Plover, Ferruginous Hawk and Sharp Shinned Hawk were found to be significantly impacted in the Newhall Ranch Specific Plan EIR, prior to the additional mitigation measures incorporated in this Recirculated Landmark Village EIR.
Impacts to San Diego Desert Woodrat, San Diego Black-Tailed Jackrabbit, Black Bear, American Badger, Mountain Lion, and Mule Deer.	SP 4.6-53, SP 4.6-59	LV 4.4-18, LV-4.4-20, LV 4.4-23, LV 4.4-24, LV 4.4-28	Less than Significant	Inconsistent
Impacts to Pallid Bat, Western Mastiff Bat, Western Red Bat, Long-Legged Myotis, Pocketed Free-tailed Bat, Townsend's Big-Eared Bat, Western Small-Footed Myotis, Fringed Myotis, Yuma Myotis	No applicable measures.	LV 4.4-25, LV 4.4-26	Less than Significant	Consistent (The Newhall Ranch Specific Plan Program EIR did not address potential impacts to each of these species, given their limited potential to occur on the project site; however, detection during more recent surveys warrants its inclusion in this analysis.)
Restriction of Wildlife Habitat Linkages	SP 4.6-18	LV 4.4-42	Less than Significant	Consistent
Increased Light and Glare	SP 4.6-56	None proposed.	Less than Significant	Consistent
Increase in Populations of Non-Native Plant and Wildlife Species	No applicable measures.	LV 4.4-44 through LV 4.4-46, LV 4.4-27, LV 4.4-51	Less than Significant	Consistent
Increased Human and Domestic Animal Presence	SP 4.6-17 to SP 4.6-19	LV 4.4-27, LV 4.4-44 to LV 4.4-48, LV 4.4-49	Less than Significant	Inconsistent

Table 4.4-11
Total Conservation Area and Preserved Vegetation Communities, Floristic Alliances, Associations, and Land Cover Types

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	River Corridor SMA/SEA 23 Acreage ¹	High Country SMA/SEA 20 Acreage ²	Salt Creek Acreage ³	Total Conservation Area ⁴ Acreage
Grass and Herb Dominated Communities	Non-Native Grassland	California annual grassland	Not mapped to association level	9.4	465.0	187.9	662.3
	Native Grassland	Purple needlegrass	Not mapped to association level	0.0	0.6	0.0	0.6
Scrub and Chaparral	Coastal Scrub	California sagebrush scrub	Not mapped to association level	22.3	437.0	11.8	471.1
			Burned California sagebrush scrub	0.0	784.8	615.5	1400.3
		California sagebrush	0.4	0.3	0.0	0.7	
		California sagebrush–purple sage	31.4	84.1	2.1	117.6	
			0	0	0	0	
		Burned California sagebrush scrub–undifferentiated chaparral	2.6	5.2	0.0	7.8	
		Coyote brush scrub	Not mapped to association level	0.0	2.2	0.0	2.2
	Undifferentiated Chaparral Scrubs	Not mapped to alliance level	Not mapped to association level	1.5	537.1	9.1	547.7
			Burned undifferentiated chaparral	0.0	831.2	115.5	946.7
	Chaparral with Oak	Scrub oak chaparral	Not mapped to association level	0.0	0.2	0.0	0.2

4.4 Biota

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	River Corridor SMA/SEA 23 Acreage ¹	High Country SMA/SEA 20 Acreage ²	Salt Creek Acreage ³	Total Conservation Area ⁴ Acreage
Broad Leafed Upland Tree Dominated	Upland Walnut Woodland and Forest	California walnut woodland and forest	California walnut woodland	0.0	6.8	20.4	27.2
	Oak Woodland and Forest	Coast live oak forest and woodland	Coast live oak woodland	16.1	446.7	148.0	610.8
		Mixed oak woodland and forest	Not mapped to association level	0.0	74.2	94.6	168.8
		Valley oak forest and woodland	Valley oak woodland	0.0	47.8	23.9	71.7
			Valley oak/grass	0.0	300.3	113.4	413.7
Bog and Marsh	Marsh	Bulrush-cattail wetland	Not mapped to association level	0.0	1.4	0.0	1.4
		Cismontane alkali marsh	Not mapped to association level	0.0	3.3	0.0	3.3
Riparian and Bottomland Habitat	Other Riparian/Wetland	Herbaceous wetland	Not mapped to association level	182.2	0.0	0.0	182.2
		River wash	Not mapped to association level	201.1	33.3	7.4	241.8
		Alluvial scrub	Not mapped to association level	0.0	0.5	0.4	0.9
		Big sagebrush scrub	Big sagebrush-California buckwheat	2.7	8.5	0.0	11.2
		Giant reed	Not mapped to association level	5.6	0.0	0.0	5.6
	Low to High Elevation Riparian Scrub	Arrow weed scrub	Not mapped to association level	12.6	0.0	0.7	13.3
		Mexican elderberry	Not mapped to association level	0.0	3.2	1.4	4.6

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	River Corridor SMA/SEA 23 Acreage ¹	High Country SMA/SEA 20 Acreage ²	Salt Creek Acreage ³	Total Conservation Area ⁴ Acreage
		Mulefat scrub	Not mapped to association level	15.0	14.1	20.1	49.2
	Riparian Forest and Woodland	Southern willow scrub	Not mapped to association level	13.1	4.3	2.5	19.9
		Tamarisk scrub and woodland	Shrub tamarisk	2.3	0.0	0.2	2.5
		Coast live oak forest and woodland	Southern coast live oak riparian forest	0.6	0.0	0.0	0.6
		Fremont cottonwood riparian forest and woodland	Southern cottonwood–willow riparian	318.5	0.9	0.0	319.4
Manmade Land Cover Types		Agriculture	NA	101.8	59.8	99.1	260.7
		Disturbed land	NA	37.1	52.7	43.9	133.7
		Total		976.4	4205.5	1517.9	6699.8

¹ The acreages and vegetation types depicted for the River Corridor SMA/SEA 23 were determined during field mapping in the Biological Resources Technical Report for the Newhall Ranch Specific Plan Area, Los Angeles County, California, Dudek and Associates, Inc., 2006 (Dudek 2006, Recirculated Draft EIR, **Appendix 4.4**).

² The acreages and vegetation types depicted for the High Country SMA/SEA 20 were determined during field mapping (Dudek 2006).

³ The acreages and vegetation types depicted for Salt Creek were determined during field mapping (Dudek 2006).

⁴ The Conservation Area includes areas to be protected in perpetuity by conservation easements, inclusive of the River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek Area.

b. Previously Adopted Mitigation Measures

The County of Los Angeles adopted mitigation measures for potential impacts as part of the Newhall Ranch Specific Plan. These mitigation measures are found in the certified Newhall Ranch Specific Plan Program EIR and the adopted Mitigation Monitoring Plan for the Specific Plan (May 2003), and were intended to be implemented upon the applicant proposing a specific development project. Landmark Village functions as that project. As a result, the applicant has committed to implementing these mitigation measures, along with others recommended in this EIR, discussed below. **Table 4.4-10** identifies which of the previously adopted Specific Plan mitigation measures as they relate to project-specific impacts.

(1) Mitigation Measures Required by the Adopted Newhall Ranch Specific Plan, as they Relate to the Landmark Village Project

The Los Angeles County Board of Supervisors adopted the following mitigation measures in connection with its approval of the Newhall Ranch Specific Plan (May 2003). Those mitigation measures applicable to the Landmark Village project will be implemented, as appropriate.

Mitigation measures are separated into three categories. The first includes an overview of those design features that are incorporated as part of the Specific Plan to reduce the biological impact potential. The second category includes specific mitigation measures incorporated as part of the Resource Management Plan. The last category includes additional mitigation measures recommended as part of the Newhall Ranch Specific Plan Program EIR. The specific mitigation measures in each of these categories are defined below.

(a) Specific Plan Mitigation Measures

The Specific Plan was designed to partially mitigate potential impacts to sensitive biological resources through avoidance in order to maximize the conservation of important biological features of the site. Specific elements of Specific Plan design that are intended to reduce impacts to plants, animals, and habitat would be implemented through adoption and approval of the Specific Plan.

The Specific Plan includes a conservation strategy designed to protect the vegetation community types and associated plant and wildlife species on and off site, while still allowing development on portions of the property. This conservation strategy incorporates design and management techniques that safeguard the biological values of important open. To devise these techniques, the applicant first had to assess the conservation value of habitats on the property, which required that the property's physical features be characterized using GIS mapping methodology. An additional component of the conservation strategy

was the consideration of the larger regional context in the conservation design of biological resources on the site. Newhall Ranch, which extends from the ridgeline of the Santa Susana Mountains across the Santa Clara River to the uplands on the north, offers the potential for significant habitat contributions to a Santa Susana Mountains open area and a key segment of the Santa Clara River system, as well as regionally important connections between these habitat areas and across the river.

The biological resource conservation strategy developed for the Newhall Ranch property addresses the sequencing recommended by the resource agencies: avoidance, minimization, and mitigation for unavoidable impacts to key sensitive resources. The proposed large, open areas on the Newhall Ranch property avoid impacts to many of the highly sensitive special-status species present or potentially occurring on the site and their habitats. Further design, with respect to potential unavoidable impacts to biological resources, has minimized encroachments into key areas of the property, decreasing the overall impacts. Indirect impacts to biological resources are minimized through the dedication of large blocks of habitat that decreases the edge-area ratio, and thus, buffers the habitat from noise, lighting, and encroachment by domestic pets, non-native plants, and humans. The result of these design efforts has produced a biological resource conservation strategy that has focused conservation and mitigation efforts on the Newhall Ranch property into two Special Management Areas and their connection:

- The Santa Clara River Corridor (River Corridor SMA/SEA 23);
- The large block of relatively undisturbed habitats on higher elevations into the Santa Susana Mountains (High Country SMA/SEA 20); and
- The connection between these two areas along the Salt Creek drainage.

In this design, the Conceptual Grading Plan (Recirculated Draft EIR, **Figure 1.0-14**) has been developed to allow for preservation of significant large areas of sensitive native plant communities associated with the natural drainage areas of the site, as well as maintaining major landforms. Large contiguous blocks of valuable habitat have been avoided and linked together, allowing wildlife to pass freely between them. The Specific Plan focused on conserving the two key habitat resource areas into consolidated blocks (connected by the Salt Creek drainage), resulting in minimal interfaces with developed areas. The assembly of these three elements will facilitate their management as a single Special Management Area system within the Specific Plan Area, as well as allowing coordination and interface with other programs outside the boundary of Newhall Ranch. The transitions between development and the special management areas will be the focus of special design treatments to protect the integrity of the conserved areas. As indicated above, the “edges” of urban development areas have been minimized to reduce the indirect impact potential of the Specific Plan, and native and compatible species will be used for landscaping in these areas.

The open area system for Newhall Ranch includes the most important habitat areas of the Santa Clara River (River Corridor SMA/SEA 23) and the areas that have been least impacted by agricultural, oil, and natural gas production activities (High Country SMA/SEA 20). It also includes the largest, least fragmented patches of each plant community type that remain on Newhall Ranch. In addition to consolidating the plant communities on the Ranch into two major interconnected blocks, the open areas include the largest remaining individual blocks of each of the important community types. Substantial proportions of each of the plant communities that occur on the Ranch will be conserved within the open area system. The incorporation of the river, the mountains, and habitat connection provides for conservation of the entire range of terrain and vegetation types on Newhall Ranch.

By connecting the open areas into two major blocks with a major linkage, the land use plan for the Ranch provides for a minimum edge-to-area ratio within the Specific Plan area. The least accessible portion of the property, in terms of topography and presence of roads, is the High Country SMA/SEA 20. In addition, there is limited existing access to the river and to the Salt Creek corridor area. The topography along the High Country and river provide the opportunity to focus management activities and thereby effectively limit human intrusion into these key resource areas. Additional management practices are intended to restrict future access as the Specific Plan is implemented.

A critical component of the open area system within the Newhall Ranch property, and in the region as a whole, is the connection between the High Country and the River Corridor along Salt Creek. The corridor will provide continuity between the habitats and will connect the wildlife populations within the property. It will also form a permanent regional linkage between the Santa Clara River and the Santa Susana Mountains. Salt Creek is the most appropriate location for such a wildlife corridor connection for several reasons, including: (1) the corridor provides a direct link between the two major open areas; (2) there is less disturbance than any of the other potential connections; (3) it is bound through most of its length by open area on the north side and, therefore, will not be surrounded by development in the future; (4) it is the only drainage that would provide more than a discontinuous, narrow connection; (5) it includes both upland and riparian vegetation through most of the corridor; and (6) it is topographically isolated from areas of development on Newhall Ranch. Currently, a portion of the wildlife corridor is situated in Ventura County. Future land use decisions will be required to define the corridor's final configuration in areas that occur outside the County of Los Angeles.

(b) Specific Plan Resource Management Plan Mitigation

Approval of the Specific Plan and its associated Resource Management Plan (RMP) involved an amendment to the Los Angeles County zoning ordinance such that the provisions of the Specific Plan and RMP are binding. RMP measures designed to mitigate impacts to biological resources have been

incorporated into this project to the extent they apply to the Newhall Ranch Specific Plan. These measures are identified below and preceded by "SP," which stands for Specific Plan.

(c) Santa Clara River (River Corridor) SMA/SEA 23

Mitigation for impacts for the Specific Plan on riparian resources will include restoration of riparian habitat and may also include enhancement activities. In addition, a mitigation bank may be established, as discussed in this section. The general areas in which riparian mitigation activities may take place are shown on Exhibit 2.6-3, Candidate Riparian Restoration/Enhancement Areas, of the Specific Plan.

The mitigation of Specific Plan impacts through restoration of habitat and enhancement of existing habitat quality shall conform to the requirements set forth below:

Mitigation through Restoration

Habitat restoration as referred to in the Specific Plan means the revegetation of native plant communities on sites that have had the habitat removed due to past activities, such as agricultural or oil and natural gas operations.

Riparian resources along the Santa Clara River affected by the Newhall Ranch Specific Plan will require restoration of similar habitat and values. Avoidance of impacts to riparian resources shall be the primary goal during the design of the individual development stages of the Specific Plan. Unavoidable impacts to riparian resources shall be minimized through Specific Plan design, and then mitigated by the implementation of a revegetation plan. The revegetation plan may be prepared as part of a California Department of Fish and Game 1602 Streambed Alteration Agreement or Corps Section 404 Permit and shall include the following:

- SP 4.6-1 The restoration mitigation areas located within the River Corridor SMA shall be in areas that have been disturbed by previous uses or activities. Mitigation shall be conducted only on sites where soils, hydrology, and microclimate conditions are suitable for riparian habitat. First priority will be given to those restorable areas that occur adjacent to existing patches (areas) of native habitat that support sensitive species, particularly Endangered or Threatened species. The goal is to increase habitat patch size and connectivity with other existing habitat patches while restoring habitat values that will benefit sensitive species.
- SP 4.6-2 A qualified biologist shall prepare or review revegetation plans. The biologist shall also monitor the restoration effort from its inception through the establishment phase.

- SP 4.6-3 Revegetation plans may be prepared as part of a California Department of Fish and Game 1602 Streambed Alteration Agreement and/or an U.S. Army Corps of Engineers Section 404 Permit, and shall include:
- (1) Input from both the Project proponent and resource agencies to assure that the project objectives applicable to the River Corridor SMA and the criteria of this RMP are met.
 - (2) The identification of restoration/mitigation sites to be used. This effort shall involve an analysis of the suitability of potential sites to support the desired habitat, including a description of the existing conditions at the site(s) and such base line data information deemed necessary by the permitting agency.
- SP 4.6-4 The revegetation effort shall involve an analysis of the site conditions such as soils and hydrology so that site preparation needs can be evaluated. The revegetation plan shall include the details and procedures required to prepare the restoration site for planting (i.e., grading, soil preparation, soil stockpiling, soil amendments, etc.), including the need for a supplemental irrigation system, if any.
- SP 4.6-5 Restoration of riparian habitats within the River Corridor SMA shall use plant species native to the Santa Clara River. Cuttings or seeds of native plants shall be gathered within the River Corridor SMA or purchased from nurseries with local supplies to provide good genetic stock for the replacement habitats. Plant species used in the restoration of riparian habitat shall be listed on the approved project plant palette (Specific Plan Table 2.6-1, Recommended Plant Species for Habitat Restoration in the River Corridor SMA) or as approved by the permitting state and federal agencies.
- SP 4.6-6 The final revegetation plan shall include notes that outline the methods and procedures for the installation of the plant materials. Plant protection measures identified by the project biologist shall be incorporated into the planting design/layout.
- SP 4.6-7 The revegetation plan shall include guidelines for the maintenance of the mitigation site during the establishment phase of the plantings. The maintenance program shall contain guidelines for the control of non-native plant species, the maintenance of the irrigation system, and the replacement of plant species.
- SP 4.6-8 The revegetation plan shall provide for monitoring to evaluate the growth of the developing habitat. Specific performance goals for the restored habitat shall be defined by qualitative and quantitative characteristics of similar habitats on the river (e.g., density, cover, species composition, structural development). The monitoring effort shall include an evaluation of not only the plant material installed, but the use of the site by wildlife. The length of the monitoring period shall be determined by the permitting state and/or federal agency.
- SP 4.6-9 Monitoring reports for the mitigation site shall be reviewed by the permitting state and/or federal agency.

SP 4.6-10 Contingency plans and appropriate remedial measures shall also be outlined in the revegetation plan.

Mitigation through Enhancement

SP 4.6-11 Habitat enhancement as referred to in this document means the rehabilitation of areas of native habitat that have been moderately disturbed by past activities (e.g., grazing, roads, oil and natural gas operations, etc.) or have been invaded by non-native plant species such as giant cane (*Arundo donax*) and tamarisk (*Tamarix* sp.).

SP 4.6-12 Removal of grazing is an important means of enhancement of habitat values. Without ongoing disturbance from cattle, many riparian areas will recover naturally. Grazing except as permitted as a long-term resource management activity will be removed from the River Corridor SMA pursuant to the Long-Term Management Plan set forth in Section 4.6 of the Specific Plan EIR.

SP 4.6-13 To provide guidelines for the installation of supplemental plantings of native species within enhancement areas, a revegetation plan shall be prepared prior to implementation of mitigation (see guidelines for revegetation plans above). These supplemental plantings will be composed of plant species similar to those growing in the existing habitat patch (see Specific Plan Table 2.6-1).

SP 4.6-14 Not all enhancement areas will necessarily require supplemental plantings of native species. Some areas may support conditions conducive for rapid “natural” reestablishment of native species. The revegetation plan may incorporate means of enhancement to areas of compacted soils, poor soil fertility, trash or flood debris, and roads as a way of enhancing riparian habitat values.

SP 4.6-15 Removal of non-native species such as giant cane (*Arundo donax*), salt cedar or tamarisk (*Tamarix* sp.), tree tobacco (*Nicotiana glauca*), castor bean (*Ricans communis*), if included in a revegetation plan to mitigate impacts, shall be subject to the following standards:

- (1) First priority shall be given to those habitat patches that support or have a high potential for supporting sensitive species, particularly Endangered or Threatened species.
- (2) All non-native species removals shall be conducted according to a resource agency approved exotics removal program.
- (3) Removal of non-native species in patches of native habitat shall be conducted in such a way as to minimize impacts to the existing native riparian plant species.

Mitigation Banking

SP 4.6-16 Mitigation banking activities for riparian habitats will be subject to state and federal regulations and permits. Mitigation banking for oak resources shall be conducted pursuant to the Oak Resources Replacement Program. Mitigation banking for elderberry scrub shall be subject to approval of plans by the County Forester.

Management Requirements

Recreation and Access

Habitat values in the River Corridor SMA will benefit from the control of human access to riparian areas. Guidelines for the control of access to the River Corridor SMA include the following:

- SP 4.6-17 Access to the River Corridor SMA for hiking and biking shall be limited to the river trail system (including the Regional River Trail and various Local Trails) as set forth in this Specific Plan.
- (1) The River trail system shall be designed to avoid impacts to existing native riparian habitat, especially habitat areas known to support sensitive species. Where impacts to riparian habitat are unavoidable, disturbance shall be minimized and mitigated as outlined above under Mitigation Measures **SP 4.6-1** through **SP 4.6-8**.
 - (2) Access to the River Corridor SMA will be limited to day time use of the designated trail system.
 - (3) Signs indicating that no pets of any kind will be allowed within the River Corridor SMA, with the exception that equestrian use is permitted on established trails, shall be posted along the River Corridor SMA.
 - (4) No hunting, fishing, or motor or off-trail bike riding shall be permitted.
 - (5) The trail system shall be designed and constructed to minimize impacts on native habitats.

Transition Areas

SP 4.6-18 Where development lies adjacent to the boundary of the River Corridor SMA a transition area shall be designed to lessen the impact of the development on the conserved area. Transition areas may be comprised of Open Area, natural or revegetated manufactured slopes, other planted areas, bank areas, and trails. Exhibits 2.6-4, 2.6-5, and 2.6-6 indicate the relationship between the River Corridor SMA and the development (disturbed) areas of the Specific Plan. The SMAs and the Open Area as well as the undisturbed portions of the development areas are shown in green. As indicated on the exhibits, on the south side of the river the River Corridor SMA is separated from development by the river bluffs, except in one location. The Regional River Trail will serve as transition area on the north side of the river where development areas adjoin the River Corridor SMA (excluding Travel Village).

SP 4.6-19 The following are the standards for design of transition areas:

- (1) In all locations where there is no steep grade separation between the River Corridor SMA and development, a trail shall be provided along this edge.

- (2) Native riparian plants shall be incorporated into the landscaping of the transition areas between the River Corridor SMA and adjacent development areas where feasible for their long-term survival. Plants used in these areas shall be those listed on the approved plant palette (Specific Plan Table 2.6-2 of the Resource Management Plan [Recommended Plants for Transition Areas Adjacent to the River Corridor SMA]).
- (3) Roads and bridges that cross the River Corridor SMA shall have adequate barriers at their perimeters to discourage access to the River Corridor SMA adjacent to the structures.
- (4) Where bank stabilization is required to protect development areas, it shall be composed of ungrouted rock, or buried bank stabilization as described in Section 2.5.2.a, except at bridge crossings and other locations where public health and safety requirements necessitate concrete or other bank protection.
- (5) A minimum 100-foot-wide buffer adjacent to the Santa Clara River should be required between the top river side of bank stabilization and development within the Land Use Designations Residential Low Medium, Residential Medium, Mixed-Use and Business Park unless, through Planning Director review in consultation with the staff biologist, it is determined that a lesser buffer would adequately protect the riparian resources within the River Corridor, or that a 100-foot-wide buffer is infeasible for physical infrastructure planning. The buffer area may be used for public infrastructure, such as flood control access; sewer, water, and utility easements; abutments; trails and parks, subject to findings of consistency with the Specific Plan and applicable County policies.

SP 4.6-20 The following guidelines shall be followed during any grading activities that take place within the River Corridor SMA:

- (1) Grading perimeters shall be clearly marked and inspected by the project biologist prior to grading occurring within or immediately adjacent to the River Corridor SMA.
- (2) The project biologist shall work with the grading contractor to avoid inadvertent impacts to riparian resources.

(d) Grading Activities Long-Term Management Plan

- SP 4.6-21 Upon final approval of the Newhall Ranch Specific Plan, the Special Management Area designation for the River Corridor SMA shall become effective. The permitted uses and development standards for the SMA are governed by the Development Regulations, Chapter 3 of the Specific Plan.
- SP 4.6-22 Upon completion of development of all land uses, utilities, roads, flood control improvements, bridges, trails, and other improvements necessary for implementation of the Specific Plan within the River Corridor in each subdivision allowing construction within or adjacent to the River Corridor, a permanent, non-revocable *conservation and public access easement* shall be offered to the County of Los Angeles pursuant to Mitigation Measure **SP 4.6-23**, below, over the portion of the River Corridor SMA within that subdivision.
- SP 4.6-23 The River Corridor SMA *Conservation and Public Access Easement* shall be offered to the County of Los Angeles prior to the transfer of the River Corridor SMA ownership, or portion thereof to the management entity described in Mitigation Measure **SP 4.6-26**, below.
- SP 4.6-24 The River Corridor SMA *Conservation and Public Access Easement* shall prohibit grazing, except as a long-term resource management activity, and agriculture within the River Corridor and shall restrict recreation use to the established trail system.
- Agricultural land uses and grazing for purposes other than long-term resource management activities within the River Corridor shall be extended in the event of the filing of any legal action against Los Angeles County challenging final approval of the Newhall Ranch Specific Plan and any related project approvals or certification of the Final EIR for Newhall Ranch. Agricultural land uses and grazing for purposes other than long-term resource management activities within the River Corridor shall be extended by the time period between the filing of any such legal action and the entry of a final judgment by a court with appropriate jurisdiction, after exhausting all rights of appeal, or execution of a final settlement agreement between all parties to the legal action, whichever occurs first.
- SP 4.6-25 The River Corridor SMA conservation and public access easement shall be consistent in its provisions with any other conservation easements to state or federal resource agencies which may have been granted as part of mitigation or mitigation banking activities.
- SP 4.6-26 Prior to the recordation of the River Corridor SMA *Conservation and Public Access Easement* as specified in Mitigation Measure **SP 4.6-23**, above, the land owner shall provide a plan to the County for the permanent ownership and management of the River Corridor SMA, including any necessary financing. This plan shall include the transfer of ownership of the River Corridor SMA to the Center for Natural Lands Management, or if the Center for Natural Lands Management is declared bankrupt or dissolved, ownership will transfer or revert to a *joint powers authority* consisting of Los Angeles County (4 members), the City of Santa Clarita (2 members), and the Santa Monica Mountains Conservancy (2 members).

(e) High Country Special Management Area SMA

SP 4.6-26a Two types of habitat restoration may occur in the High Country SMA: (1) riparian revegetation activities principally in Salt Creek Canyon; and (2) oak tree replacement in, or adjacent to, existing oak woodlands and savannahs.

- (1) Mitigation requirements for riparian revegetation activities within the High Country SMA are the same as those for the River Corridor SMA and are set forth in Mitigation Measures **SP 4.6-1** through **SP 4.6-11** and **SP 4.6-13** through **SP 4.6-16**, above.
- (2) Mitigation requirements for oak tree replacement are set forth in Mitigation Measure **SP 4.6-48**, below.

Mitigation Requirements

Mitigation activities that may occur in the High Country SMA, either for impacts associated with the construction of Estate lots, trails, or access roads, or for impacts identified during the subdivision process in other portions of the Specific Plan Area, include restoration of disturbed habitat and/or enhancement of existing habitat (see discussion below). Mitigation banking may be established as provided below. In addition, Salt Creek Canyon is a high priority area for riparian mitigation.

Mitigation through Restoration and Enhancement**Restoration of Habitat**

Two types of habitat restoration may occur in the High Country SMA: (1) riparian revegetation activities principally in Salt Creek Canyon; and (2) oak resource replacement in, or adjacent to, existing oak woodlands and savannas.

Mitigation requirements for riparian revegetation activities within the High Country SMA are the same as those for the River Corridor SMA and are set forth above.

Mitigation requirements for oak resource replacement are set forth in Specific Plan Section 2.6, paragraph 3b of the Oak Tree Replacement Program of the Resource Management Program.

Enhancement of Habitat

SP 4.6-27 Removal of grazing from the High Country SMA except for those grazing activities associated with long-term resource management programs, is a principal means of enhancing habitat values in the creeks, brushland, and woodland areas of the SMA. The removal of grazing in the High Country SMA is discussed below under (b)4 Long Term Management. All enhancement activities for riparian habitat within the High Country SMA shall be governed by the same provisions as set forth for enhancement in the River Corridor SMA. Specific Plan Table 2.6-3 of the Resource Management Plan provides a list of appropriate plant species for use in enhancement areas in the High Country SMA.

Mitigation Banking

- SP 4.6-28 Mitigation banking activities for riparian habitats will be subject to state and federal regulations and permits. Mitigation banking for oak resources, shall be conducted pursuant to the Oak Resource Replacement Program. Mitigation banking for elderberry scrub shall be subject to approval of plans by the County Forester.

Management Requirements

Recreation and Access

The recreation opportunities presented by the High Country SMA are a major benefit of the SMA. However, recreational needs must be balanced with the preservation of the habitat values, which are conserved in the SMA. Recreation and access will be governed by the following standards:

- SP 4.6-29 Access to the High Country SMA will be limited to day time use of the designated trail system.
- SP 4.6-30 No pets of any kind will be allowed within the High Country SMA, with the exception that equestrian use is permitted on established trails.
- SP 4.6-31 No hunting, fishing, or motor or trail bike riding shall be permitted.
- SP 4.6-32 The trail system shall be designed and constructed to minimize impacts on native habitats.

Transition/Fuel Modification Areas

Fire poses a major threat to both natural habitat areas and proposed residential and commercial structures. Development areas are generally separated from the High Country SMA by steep slopes. Specific Plan Exhibit 2.6-7 of the Resource Management Program, Salt Creek Wildlife Corridor Land Use Perspective, illustrates that development adjacent to the Salt Creek Wildlife Corridor is significantly separated vertically from the corridor. To minimize fire dangers from the project or affecting the project, the fuel load around and near development areas must be modified and reduced in volatility. The following mitigation measures will be implemented to achieve this goal.

- SP4.6-33 Construction of buildings and other structures (such as patios, decks, etc.) shall only be permitted upon developed pads within Planning Areas OV-04, OV-10, PV-02, and PV-28 and shall not be permitted on southerly slopes facing the High Country SMA (Planning Area HC-01) or in the area between the original SEA 20 boundary and the High Country boundary. If disturbed by grading, all southerly facing slopes which adjoin the High Country SMA within those Planning Areas shall have the disturbed areas revegetated with compatible trees, shrubs, and herbs from the list of plant species for south and west facing slopes as shown in Table 2.6-3, Recommended Plant Species For Use In Enhancement Areas In The High Country.

Transition from the development edge to the natural area shall also be controlled by the standards of wildfire fuel modification zones as set forth in Mitigation Measure **SP 4.6-49**. Within fuel modification areas, trees and herbs from Table 2.6-3 of the Resource Management Plan should be planted toward the top of slopes; and trees at lesser densities and shrubs planted on lower slopes.

Grading Activities

- SP 4.6-34 Grading perimeters shall be clearly marked and inspected by the project biologist prior to impacts occurring within or adjacent to the High Country SMA.
- SP 4.6-35 The project biologist shall work with the grading contractor to avoid inadvertent impacts to biological resources outside of the grading area.

Long-Term Management

- SP 4.6-36 Upon final approval of the Newhall Ranch Specific Plan, the Special Management Area designation for the High Country SMA shall become effective. The permitted uses and development standards for the SMA are governed by the Development Regulations, Chapter 3.
- SP 4.6-37 The High Country SMA shall be offered for dedication in three approximately equal phases of approximately 1,400 acres each proceeding from north to south, as follows:
- (1) The first offer of dedication will take place with the issuance of the 2,000th residential building permit of Newhall Ranch;
 - (2) The second offer of dedication will take place with the issuance of the 6,000th residential building permit of Newhall Ranch; and
 - (3) The remaining offer of dedication will be completed by the 11,000th residential building permit of Newhall Ranch.
 - (4) The Specific Plan applicant shall provide a quarterly report to the Departments of Public Works and Regional Planning which indicates the number of residential building permits issued in the Specific Plan area by subdivision map number.
- SP 4.6-38 Prior to dedication of the High Country SMA, a *conservation and public access easement* shall be offered to the County of Los Angeles and a conservation and management easement offered to the Center for Natural Lands Management. The High Country SMA *Conservation and Public Access Easement* shall be consistent in its provisions with any other *conservation easements* to state or federal resource agencies which may have been granted as part of mitigation or mitigation banking activities.
- SP 4.6-39 The High Country SMA conservation and public access easement shall prohibit grazing within the High Country, except for those grazing activities associated with the long-term resource management programs, and shall restrict recreation to the established trail system.

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

(f) Open Area Mitigation Requirements

- SP 4.6-43 Suitable portions of *Open Area* may be used for mitigation of riparian, *oak resources*, or elderberry scrub. Mitigation activities within *Open Area* shall be subject to the following requirements, as applicable.
- (1) River Corridor SMA Mitigation Requirements, including Mitigation Measures **SP 4.6-1** through **SP 4.6-11** and **SP 4.6-13** through **SP 4.6-16**; and
 - (2) High Country SMA Mitigation Requirements, including Mitigation Measures **SP 4.6-27**, **SP 4.6-29** through **SP 4.6-42**, and
 - (3) Mitigation Banking — Mitigation Measure **SP 4.6-16**.

Management Requirements

- SP 4.6-44 Drainages with flows greater than 2,000 cfs will have soft bottoms. Bank protection will be of ungrouted rock, or buried bank stabilization as described in Section 2.5.2.a, except at bridge crossings and other areas where public health and safety considerations require concrete or other stabilization.
- SP 4.6-45 The precise alignments and widths of major drainages will be established through the preparation of drainage studies to be approved by the County at the time of subdivision maps which permit construction.
- SP 4.6-46 While Open Area is generally intended to remain in a natural state, some grading may take place, especially for parks, major drainages, trails, and roadways. Trails are also planned to be within Open Area.

SP 4.6-47 At the time that final subdivision maps permitting construction are recorded, the Open Area within the map will be offered for dedication to the Center for Natural Lands Management. Community Parks within Open Area are intended to be public parks. Prior to the offer of dedication of Open Area to the Center for Natural Lands Management, all necessary conservation and public access easements, as well as easements for infrastructure shall be offered to the County.

Mitigation Banking

SP 4.6-47a Mitigation Banking will be permitted within the River Corridor SMA, the High Country SMA, and the *Open Area land use designations*, subject to the following requirements:

- (1) Mitigation banking activities for riparian habitats will be subject to state and federal regulations, and shall be conducted pursuant to the mitigation requirements set forth in Mitigation Measure **SP 4.6-1** through **SP 4.6-15** above.
- (2) Mitigation banking for oak resources shall be conducted pursuant to **SP 4.6-48**, below.
- (3) Mitigation banking for elderberry scrub shall be subject to approval of plans by the County Forester.

Oak Resources Replacement Program

SP 4.6-48 Standards for the restoration and enhancement of oak resources within the High Country SMA and the Open Area include the following (oak resources include oak trees of the sizes regulated under the County Oak Tree Ordinance, southern California black walnut trees, and mainland cherry trees/shrubs):

- (1) To mitigate the impacts to oak resources that may be removed as development occurs in the Specific Plan Area, replacement trees shall be planted in conformance with the oak tree ordinance in effect at that time.
- (2) Oak resource species obtained from the local gene pool shall be used in restoration or enhancement.
- (3) Prior to recordation of construction-level final subdivision maps, an oak resource replacement plan shall be prepared that provides the guidelines for the oak tree planting and/or replanting. The Plan shall be reviewed by the Los Angeles Department of Regional Planning and the County Forester and shall include the following: site selection and preparation, selection of proper species including sizes and planting densities, protection from herbivores, site maintenance, performance standards, remedial actions, and a monitoring program.
- (4) All plans and specifications shall follow County oak tree guidelines, as specified in the County Oak Tree Ordinance.

(g) Wildfire Fuel Modification

The Specific Plan Area is within the extreme and moderate fire hazard zones as identified in the County of Los Angeles General Plan. The moderate fire hazard zone extends to those areas of Newhall Ranch where native brush can be found growing in its natural state. This is most common in the hillside areas. The extreme fire hazard zone includes high brush and woodlands, and all steep slopes regardless of vegetation (refer to **Section 4.14, Fire Protection Services**, for a detailed description of on-site fire zones).

Development of Newhall Ranch will reduce the amount of native flammable vegetation present within the Specific Plan Area. Fire fighting capabilities will be provided by two fire stations on the Specific Plan site (see Figure 1.0-3, Land Use Plan), other nearby stations, and a system of improved roads and an urban water system with fire flows as required by the County Fire Department. Existing and proposed off-site fire facilities will also serve the Specific Plan Area.

Property damage and public safety risks associated with wildfire are greatest where homes and other structures will be located adjacent to large open areas dominated by native vegetation. This condition will occur primarily in the southern portion of the Specific Plan site and where portions of the development area in the northwest section of Riverwood Village abut large natural open areas.

Access is currently provided to the Los Angeles County Fire Department for fire prevention control of the Specific Plan Area. Access will continue to be provided as the Specific Plan is implemented.

Fuel modification mitigation includes

- SP 4.6-49 To minimize the potential exposure of the development areas, Open Area, and the SMAs to fire hazards, the Specific Plan is subject to the requirements of the Los Angeles County Fire Protection District (LACFPD), which provides fire protection for the area. At the time of final subdivision maps permitting construction in development areas that are adjacent to Open Area and the High Country SMA, a wildfire fuel modification plan shall be prepared in accordance with the fuel modification ordinance standards in effect at that time and shall be submitted for approval to the County Fire Department.
- SP 4.6-50 The wildfire fuel modification plan shall depict a fuel modification zone the size of which shall be consistent with the County fuel modification ordinance requirements. Within the zone, tree pruning, removal of dead plant material and weed and grass cutting shall take place as required by the fuel modification ordinance.
- SP 4.6-51 In order to enhance the habitat value of plant communities that require fuel modification, fire retardant plant species containing habitat value may be planted within the fuel modification zone. Typical plant species suitable for Fuel Modification Zones are indicated in Specific Plan Table 2.6-5 of the Resource Management Plan. Fuel modification zones adjacent to SMAs and Open Areas containing habitat of high value such as oak woodland

and savannas shall utilize a more restrictive plant list, which shall be reviewed by the County Forester.

- SP 4.6-52 The wildfire fuel modification plan shall include the following construction period requirements: (a) a fire watch during welding operations; (b) spark arresters on all equipment or vehicles operating in a high fire hazard area; (c) designated smoking and non-smoking areas; and (d) water availability pursuant to the County Fire Department requirements.

(h) EIR Mitigation Measures

To further reduce impacts to biological resources that would result from Specific Plan implementation the following mitigation measures are proposed:

- SP 4.6-53 If, at the time any subdivision map proposing construction is submitted, the County determines through an Initial Study, or otherwise, that there may be Rare, Threatened or Endangered, plant or animal species on the property to be subdivided, then, in addition to the prior surveys conducted on the Specific Plan site to define the presence or absence of sensitive habitat and associated species, current, updated site-specific surveys for all such animal or plant species shall be conducted in accordance with the consultation requirements set forth in Mitigation Measure **SP 4.6-59** within those areas of the Specific Plan where such animal or plant species occur or are likely to occur.

The site-specific surveys shall include the unarmored threespine stickleback, the arroyo toad, the southwestern pond turtle, the California red-legged frog, the southwestern willow flycatcher, the least Bell's vireo, the San Fernando Valley spineflower and any other Rare, Sensitive, Threatened, or Endangered plant or animal species occurring, or likely to occur, on the property to be subdivided. All site-specific surveys shall be conducted during appropriate seasons by qualified botanists or qualified wildlife biologists in a manner that will locate any Rare, Sensitive, Threatened, or Endangered animal or plant species that may be present. To the extent there are applicable protocols published by either the United States Fish and Wildlife Service or the California Department of Fish and Game, all such protocols shall be followed in preparing the updated site-specific surveys.

All site-specific survey work shall be documented in a separate report containing at least the following information: (a) project description, including a detailed map of the project location and study area; (b) a description of the biological setting, including references to the nomenclature used and updated vegetation mapping; (c) detailed description of survey methodologies; (d) dates of field surveys and total person-hours spent on the field surveys; (e) results of field surveys, including detailed maps and location data; (f) an assessment of potential impacts; (g) discussion of the significance of the Rare, Threatened or Endangered animal or plant populations found in the project area, with consideration given to nearby populations and species distribution; (h) mitigation measures, including avoiding impacts altogether, minimizing or reducing impacts, rectifying or reducing impacts through habitat restoration, replacement or enhancement, or compensating for impacts by replacing or providing substitute resources or environments, consistent with CEQA (*State CEQA*

Guidelines Section 15370); (i) references cited and persons contacted; and (j) other pertinent information, which is designed to disclose impacts and mitigate for such impacts."

- SP 4.6-54 Prior to development within or disturbance to occupied unarmored threespine stickleback habitat, a formal consultation with the USFWS shall occur.
- SP 4.6-55 Prior to development or disturbance within wetlands or other sensitive habitats, permits shall be obtained from pertinent federal and state agencies and the Specific Plan shall conform to the specific provisions of said permits. Performance criteria shall include that described in Mitigation Measures **SP 4.6-1** through **SP 4.6-16** and **SP 4.6-42** through **SP 4.6-47** for wetlands, and Mitigation Measures **SP 4.6-27**, **SP 4.6-28**, and **SP 4.6-42** through **SP 4.6-48** for other sensitive habitats.
- SP 4.6-56 All lighting along the perimeter of natural areas shall be downcast luminaries with light patterns directed away from natural areas.
- SP 4.6-57 Where bridge construction is proposed and water flow would be diverted, blocking nets and seines shall be used to control and remove fish from the area of activity. All fish captured during this operation would be stored in tubs and returned unharmed back to the river after construction activities were complete.
- SP 4.6-58 To limit impacts to water quality the Specific Plan shall conform with all provisions of required NPDES permits and water quality permits that would be required by the State of California Regional Water Quality Control Board.
- SP 4.6-59 Consultation shall occur with the County of Los Angeles ("County") and California Department of Fish and Game ("CDFG") at each of the following milestones:
- (1) Before Surveys. Prior to conducting sensitive plant or animal surveys at the Newhall Ranch subdivision map level, the applicant, or its designee, shall consult with the County and CDFG for purposes of establishing and/or confirming the appropriate survey methodology to be used.
 - (2) After Surveys. After completion of sensitive plant or animal surveys at the subdivision map level, draft survey results shall be made available to the County and CDFG within sixty (60) calendar days after completion of the field survey work.
 - (3) Subdivision Map Submittal. Within thirty (30) calendar days after the applicant, or its designee, submits its application to the County for processing of a subdivision map in the Mesas Village or Riverwood Village, a copy of the submittal shall be provided to CDFG. In addition, the applicant, or its designee, shall schedule a consultation meeting with the County and CDFG for purposes of obtaining comments and input on the proposed subdivision map submittal. The consultation meeting shall take place at least thirty (30) days prior to the submittal of the proposed subdivision map to the County.
 - (4) Development/Disturbance and Further Mitigation. Prior to any development within, or disturbance to, habitat occupied by Rare, Threatened, or Endangered plant or animal species, or to any portion of the Spineflower Mitigation Area Overlay, as

defined below, all required permits shall be obtained from both USFWS and CDFG, as applicable. It is further anticipated that the federal and state permits will impose conditions and mitigation measures required by federal and state law that are beyond those identified in the Newhall Ranch Final EIR (March 1999), the Newhall Ranch DAA (April 2001) and the Newhall Ranch Revised DAA (2002). It is also anticipated that conditions and mitigation measures required by federal and state law for project-related impacts on Endangered, Rare or Threatened species and their habitat will likely require changes and revisions to Specific Plan development footprints, roadway alignments, and the limits, patterns, and techniques associated with project-specific grading at the subdivision map level.

- SP 4.6-60 If at the time subdivisions permitting construction are processed, the County determines through an Initial Study that there may be elderberry scrub vegetation on the property being subdivided, then a site-specific survey shall be conducted to define the presence or absence of such habitat and any necessary mitigation measures shall be determined and applied. *(This measure is not applicable to Landmark Village because the project would not impact elderberry scrub.)*
- SP 4.6-61 If at the time subdivisions permitting construction are processed, the County determines through an Initial Study that there may be mainland cherry trees and/or mainland cherry shrubs on the property being subdivided, then a site-specific survey shall be conducted to define the presence or absence of such habitat and any necessary mitigation measures shall be determined and applied. *(This measure is not applicable to Landmark Village because the project would not impact cherry trees.)*
- SP 4.6-62 When a map revision or Substantial Conformance determination on any subdivision map or Conditional Use Permit would result in changes to an approved oak tree permit, then the oak tree report for that oak tree permit must be amended for the area of change, and the addendum must be approved by the County Forester prior to issuance of grading permits for the area of the map or CUP being changed. *(This measure is not applicable to the Landmark Village project because the project does not propose any change to an existing oak tree permit.)*
- SP 4.6-63 Riparian resources that are impacted by buildout of the Newhall Ranch Specific Plan shall be restored with similar habitat at the rate of 1 acre replaced for each acre lost. *(This measure has been addressed by project-specific Mitigation Measure LV 4.4-1.)*
- SP 4.6-64 The operator of the golf course shall prepare a Golf Course Maintenance Plan which shall include procedures to control storm water quality and ground water quality as a result of golf course maintenance practices, including irrigation, fertilizer, pesticide and herbicide use. This Plan shall be prepared in coordination with the County biologist and approved by the County Planning Director prior to the issuance of a Certificate of Occupancy. *(This measure is not applicable to the Landmark Village project because the project does not include construction and operation of a golf course.)*

(i) Spineflower Special Study Mitigation Overlay

SP 4.6-65 In order to facilitate the conservation of the spineflower on the Newhall Ranch Specific Plan site, the applicant, or its designee, shall, concurrent with Specific Plan approval, agree to the identified special study areas shown in Figure 2.6-8, Spineflower Mitigation Area Overlay. The applicant, or its designee, further acknowledges that, within and around the Spineflower Mitigation Area Overlay (Figure 2.6-8), changes will likely occur to Specific Plan development footprints, roadway alignments, and the limits, patterns and techniques associated with project-specific grading at the subdivision map level. The applicant, or its designee, shall design subdivision maps that are responsive to the characteristics of the spineflower and all other Endangered plant species that may be found on the Specific Plan site.

Spineflower Preserves

SP 4.6-66 Direct impacts to known spineflower populations within the Newhall Ranch Specific Plan area shall be avoided or minimized through the establishment of one or more on-site preserves that are configured to ensure the continued existence of the species in perpetuity. Preserve(s) shall be delineated in consultation with the County and CDFG, and will likely require changes and revisions to Specific Plan development footprints for lands within and around the Spineflower Mitigation Area Overlay (Figure 2.6-8).

Delineation of the boundaries of Newhall Ranch spineflower preserve(s) for the entire Specific Plan area shall be completed in conjunction with approval of the first Newhall Ranch subdivision map filed in either the Mesas Village, or that portion of Riverwood Village in which the San Martinez spineflower population occurs.

A sufficient number of known spineflower populations shall be included within the Newhall Ranch spineflower preserve(s) in order to ensure the continued existence of the species in perpetuity. The conservation of known spineflower populations shall be established in consultation with the County and CDFG, and as consistent with standards governing issuance of an incidental take permit for spineflower pursuant to Fish and Game Code Section 2081, subdivision (b).

In addition to conservation of known populations, spineflower shall be introduced in appropriate habitat and soils in the Newhall Ranch preserve(s). The creation of introduced populations shall require seed collection and/or top soil at impacted spineflower locations and nursery propagation to increase seed and sowing of seed. The seed collection activities, and the maintenance of the bulk seed repository, shall be approved in advance by the County and CDFG.

Once the boundaries of the Newhall Ranch spineflower preserve(s) are delineated, the project applicant, or its designee, shall be responsible for conducting a spineflower population census within the Newhall Ranch spineflower preserve(s) annually for 10 years. (These census surveys shall be in addition to the surveys required by Mitigation Measure **SP 4.6-53**, above.) The yearly spineflower population census documentation shall be submitted to the County and CDFG, and maintained by the project applicant, or its designee. If there are any persistent population declines documented in the annual

population census reports, the project applicant, or its designee, shall be responsible for conducting an assessment of the ecological factor(s) that are likely responsible for the decline, and implement management activity or activities to address these factors where feasible. In no event, however, shall project-related activities jeopardize the continued existence of the Newhall Ranch spineflower populations. If a persistent population decline is documented, such as a trend in steady population decline that persists for a period of 5 consecutive years, or a substantial drop in population is detected over a 10-year period, spineflower may be introduced in consultation with CDFG in appropriate habitat and soils in the Newhall Ranch preserve(s), utilizing the bulk spineflower seed repository, together with other required management activity or activities. These activities shall be undertaken by a qualified botanist/biologist, subject to approval by the County and CDFG. The project applicant, or its designee, shall be responsible for the funding and implementation of the necessary management activity or activities, including monitoring, as approved by the County and CDFG.

Annual viability reports shall be submitted to the County and CDFG for 10 years following delineation of the Newhall Ranch spineflower preserve(s) to ensure long-term documentation of the spineflower population status within the Newhall Ranch preserve(s). In the event annual status reports indicate the spineflower population within the Newhall Ranch preserve(s) is not stable and viable 10 years following delineation of the spineflower preserve(s), the project applicant, or its designee, shall continue to submit annual status reports to the County and CDFG for a period of no less than an additional 5 years.

Connectivity, Reserve Design, and Buffers to Benefit Spineflower

SP 4.6-67 Indirect impacts associated with the interface between the preserved spineflower populations and planned development within the Newhall Ranch Specific Plan shall be avoided or minimized by establishing open space connections with Open Area, River Corridor, or High Country land use designations. In addition, buffers (i.e., setbacks from developed, landscaped, or other use areas) shall be established around portions of the delineated preserve(s) not connected to Open Area, the River Corridor or the High Country land use designations. The open space connections and buffer configurations shall take into account local hydrology, soils, existing and proposed adjacent land uses, the presence of non-native invasive plant species, and seed dispersal vectors.

Open space connections shall be configured such that the spineflower preserves are connected to Open Area, River Corridor, or High Country land use designations to the extent practicable. Open space connections shall be of adequate size and configuration to achieve a moderate to high likelihood of effectiveness in avoiding or minimizing indirect impacts (e.g., invasive plants, increased fire frequency, trampling, chemicals, etc.) to the spineflower preserve(s). Open space connections for the spineflower preserve(s) shall be configured in consultation with the County and CDFG. Open space connections for the spineflower preserve(s) shall be established for the entire Specific Plan area in conjunction with approval of the first Newhall Ranch subdivision map filed in either the Mesa Village, or that portion of the Riverwood Village in which the San Martinez spineflower location occurs.

For preserves and/or those portions of preserves not connected to Open Area, River Corridor, or High Country land use designations, buffers shall be established at variable distances of between 80 and 200 feet from the edge of development to achieve a moderate to high likelihood of effectiveness in avoiding or minimizing indirect impacts (e.g., invasive plants, increased fire frequency, trampling, chemicals, etc.) to the spineflower preserve(s). The buffer size/configuration shall be guided by the analysis set forth in the "*Review of Potential Edge Effects on the San Fernando Valley Spineflower*," prepared by Conservation Biology Institute, January 19, 2000, and other sources of scientific information and analysis, which are available at the time the preserve(s) and buffers are established. Buffers for the spineflower preserve(s) shall be configured in consultation with the County and CDFG for the entire Specific Plan area. Buffers for the spineflower preserve(s) shall be established in conjunction with approval of the first Newhall Ranch subdivision map filed in either the Mesa Village, or that portion of the Riverwood Village in which the San Martinez spineflower location occurs.

Roadways and road rights-of-way shall not be constructed in any spineflower preserve(s) and buffer locations on Newhall Ranch unless constructing the road(s) in such location is found to be the environmentally superior alternative in subsequently required tiered EIRs in connection with the Newhall Ranch subdivision map(s) process. No other development or disturbance of native habitat shall be allowed within the spineflower preserve(s) or buffer(s).

The project applicant, or its designee, shall be responsible for revegetating open space connections and buffer areas of the Newhall Ranch spineflower preserve(s) to mitigate temporary impacts due to grading that will occur within portions of those open space connections and buffer areas. The impacted areas shall be reseeded with a native seed mix to prevent erosion, reduce the potential for invasive non-native plants, and maintain functioning habitat areas within the buffer area. Revegetation seed mix shall be reviewed and approved by the County and CDFG.

Spineflower Preserve Protection/Fencing

SP 4.6-68 To protect the preserved Newhall Ranch spineflower populations, and to further reduce potential direct impacts to such populations due to unrestricted access, the project applicant, or its designee, shall erect and maintain temporary orange fencing and prohibitive signage around the Newhall Ranch preserve(s), open space connections and buffer areas, which are adjacent to areas impacted by proposed development prior to and during all phases of construction. The areas behind the temporary fencing shall not be used for the storage of any equipment, materials, construction debris, or anything associated with construction activities.

Following the final phase of construction of any Newhall Ranch subdivision map adjacent to the Newhall Ranch spineflower preserve(s), the project applicant, or its designee, shall install and maintain permanent fencing along the subdivision tract bordering the preserve(s). Permanent signage shall be installed on the fencing along the preservation boundary to indicate that the fenced area is a biological preserve, which contains protected species and habitat, that access is restricted, and that trespassing and fuel modification are prohibited within the area. The permanent fencing shall be designed to allow wildlife movement.

The plans and specifications for the permanent fencing and signage shall be approved by the County and CDFG prior to the final phase of construction of any Newhall Ranch subdivision map adjacent to a Newhall Ranch spineflower preserve(s).

Spineflower Preserve Protection/Hydrological Alterations

- SP 4.6-69 Indirect impacts resulting from changes to hydrology (i.e., increased water runoff from surrounding development) at the interface between spineflower preserve(s) and planned development within the Newhall Ranch Specific Plan shall be avoided or mitigated to below a level of significance.

Achievement of this standard will be met through the documented demonstration by the project applicant, or its designee, that the storm drain system achieves pre-development hydrological conditions for the Newhall Ranch spineflower preserve(s). To document such a condition, the project applicant, or its designee, shall prepare a study of the pre- and post-development hydrology, in conjunction with Newhall Ranch subdivision maps adjacent to spineflower preserve(s). The study shall be used in the design and engineering of a storm drain system that achieves pre-development hydrological conditions. The study must conclude that proposed grade changes in development areas beyond the buffers will maintain pre-development hydrology conditions within the preserve(s). The study shall be approved by the Planning Director of the County, and the resulting conditions confirmed by CDFG.

The storm drain system for Newhall Ranch subdivision maps adjacent to any spineflower preserves must be approved by the County prior to the initiation of any grading activities.

Road Construction Measures to Protect Spineflowers

- SP 4.6-70 Consistent with the Spineflower Mitigation Area Overlay reflected in Mitigation Measure **SP 4.6-65**, direct impacts to known Newhall Ranch spineflower populations associated with proposed road construction or modifications to existing roadways shall be further assessed for proposed road construction at the Newhall Ranch subdivision map level, in conjunction with the tiered EIR required for each subdivision map. To avoid or substantially lessen direct impacts to known spineflower populations, Specific Plan roadways shall be redesigned or realigned, to the extent practicable, to achieve the spineflower preserve and connectivity/preserve design/buffer standards set forth in Mitigation Measures **SP 4.6-66** and **SP 4.6-67**. The project applicant, or its designee, acknowledges that that road redesign and realignment is a feasible means to avoid or substantially lessen potentially significant impacts on the now known Newhall Ranch spineflower populations. Road redesign or alignments to be considered at the subdivision map level include

- (a) Commerce Center Drive;
- (b) Magic Mountain Parkway;
- (c) Chiquito Canyon Road;
- (d) Long Canyon Road;

- (e) San Martinez Grande Road;
- (f) Potrero Valley Road;
- (g) Valencia Boulevard; and
- (h) Any other or additional roadways that have the potential to significantly impact known Newhall Ranch spineflower populations.

Roadways and road rights-of-way shall not be constructed in any spineflower preserve(s) and buffer locations on Newhall Ranch, unless constructing the road(s) in such location is found to be the environmentally superior alternative in subsequently required tiered EIRs in connection with the Newhall Ranch subdivision map(s) process.

Engineering, Design and Grading Modifications for Spineflower Preserves

- SP 4.6-71 Consistent with the Spineflower Mitigation Area Overlay reflected in Mitigation Measure **SP 4.6-65**, direct impacts to known Newhall Ranch spineflower populations shall be further assessed at the Newhall Ranch subdivision map level, in conjunction with the required tiered EIR process. To avoid or substantially lessen impacts to known spineflower populations at the subdivision map level, the project applicant, or its designee, may be required to adjust Specific Plan development footprints, roadway alignments, and the limits, patterns and techniques associated with project-specific grading to achieve the spineflower preserve and connectivity/preserve design/buffer standards set forth in Mitigation Measures **SP 4.6-66** and **SP 4.6-67** for all future Newhall Ranch subdivision maps that encompass identified spineflower populations.

Spineflower Fire Management Plan

- SP 4.6-72 A Fire Management Plan shall be developed to avoid and minimize direct and indirect impacts to the spineflower, in accordance with the adopted Newhall Ranch Resource Management Plan (RMP), to protect and manage the Newhall Ranch spineflower preserve(s) and buffers.

The Fire Management Plan shall be completed by the project applicant, or its designee, in conjunction with approval of any Newhall Ranch subdivision map adjacent to a spineflower preserve.

The final Fire Management Plan shall be approved by the County of Los Angeles Fire Department through the processing of subdivision maps.

Under the final Fire Management Plan, limited fuel modification activities within the spineflower preserves will be restricted to selective thinning with hand tools to allow the maximum preservation of Newhall Ranch spineflower populations. No other fuel modification or clearance activities shall be allowed in the Newhall Ranch spineflower preserve(s). Controlled burning may be allowed in the future within the Newhall Ranch preserve(s) and buffers, provided that it is based upon a burn plan approved by the County of Los Angeles Fire Department and CDFG. The project applicant, or its designee, shall also be responsible for annual maintenance of fuel modification zones, including, but not limited

to, removal of undesirable non-native plants, revegetation with acceptable locally indigenous plants and clearing of trash and other debris in accordance with the County of Los Angeles Fire Department.

Water Flow Diversion and Management to Protect Spineflower

SP 4.6-73 At the subdivision map level, the project applicant, or its designee, shall design and implement project-specific design measures to minimize changes in surface water flows to the Newhall Ranch spineflower preserve(s) for all Newhall Ranch subdivision maps adjacent to the preserve(s) and buffers, and avoid and minimize indirect impacts to the spineflower. Prior to issuance of a grading permit for each such subdivision map, the project applicant, or its designee, shall submit for approval to the County plans and specifications that ensure implementation of the following design measures:

- (1) During construction activities, drainage ditches, piping or other approaches will be put in place to convey excess storm water and other surface water flows away from the Newhall Ranch spineflower preserve(s) and connectivity/preserve design/buffers, identified in Mitigation Measures **SP 4.6-66** and **SP 4.6-67**;
- (2) Final grading and drainage design will be developed that does not change the current surface and subsurface hydrological conditions within the preserve(s);
- (3) French drains will be installed along the edge of any roadways and fill slopes that drain toward the preserve(s);
- (4) Roadways will be constructed with slopes that convey water flows within the roadway easements and away from the preserve(s);
- (5) Where manufactured slopes drain toward the preserve(s), a temporary irrigation system would be installed to the satisfaction of the County in order to establish the vegetation on the slope area(s). This system shall continue only until the slope vegetation is established and self sustaining;
- (6) Underground utilities will not be located within or through the preserve(s). Drainage pipes installed within the preserve(s) away from spineflower populations to convey surface or subsurface water away from the populations will be aligned to avoid the preserve(s) to the maximum extent practicable; and
- (7) Fencing or other structural type barriers that will be installed to reduce intrusion of people or domestic animals into the preserve(s) shall incorporate footing designs that minimize moisture collection.

Biological Monitor for Spineflower Preserves

SP 4.6-74 A knowledgeable, experienced botanist/biologist, subject to approval by the County and CDFG, shall be required to monitor the grading and fence/utility installation activities that involve earth movement adjacent to the Newhall Ranch spineflower preserve(s) to avoid the incidental take through direct impacts of conserved plant species, and to avoid disturbance of the preserve(s). The biological monitor will conduct biweekly inspections of the project

site during such grading activities to ensure that the mitigation measures provided in the adopted Newhall Ranch Mitigation Monitoring Program (Biota section) are implemented and adhered to.

Monthly monitoring reports, as needed, shall be submitted to the County verifying compliance with the mitigation measures specified in the adopted Newhall Ranch Mitigation Monitoring Program (Biota section).

The biological monitor will have authority to immediately stop any such grading activity that is not in compliance with the adopted Newhall Ranch Mitigation Monitoring Program (Biota section), and to take reasonable steps to avoid the take of, and minimize the disturbance to, spineflower populations within the preserve(s).

Construction Impact Avoidance Measures to Protect Spineflower

SP 4.6-75 The following measures shall be implemented to avoid and minimize indirect impacts to Newhall Ranch spineflower populations during all phases of project construction:

- (1) **Water Control.** Watering of the grading areas would be controlled to prevent discharge of construction water into the Newhall Ranch preserve(s) or on ground sloping toward the preserve(s). Prior to the initiation of grading operations, the project applicant, or its designee, shall submit for approval to the County an irrigation plan describing watering control procedures necessary to prevent discharge of construction water into the Newhall Ranch preserve(s) and on ground sloping toward the preserve(s).
- (2) **Storm Water Flow Redirection.** Diversion ditches would be constructed to redirect storm water flows from graded areas away from the Newhall Ranch preserve(s). To the extent practicable, grading of areas adjacent to the preserve(s) would be limited to spring and summer months (May through September) when the probability of rainfall is lower. Prior to the initiation of grading operations, the project applicant, or its designee, would submit for approval to the County a storm water flow redirection plan that demonstrates the flow of storm water away from the Newhall Ranch spineflower preserve(s).
- (3) **Treatment of Exposed Graded Slopes.** Graded slope areas would be trimmed and finished as grading proceeds. Slopes would be treated with soil stabilization measures to minimize erosion. Such measures may include seeding and planting, mulching, use of geotextiles and use of stabilization mats. Prior to the initiation of grading operations, the project applicant, or its designee, would submit for approval to the County the treatments to be applied to exposed graded slopes that would ensure minimization of erosion. *(This measure has been omitted because the project design directly incorporates these measures.)*

Spineflower Impact Reassessment Requirement

SP 4.6-76 In conjunction with submission of the first Newhall Ranch subdivision map in either Mesas Village or that portion of Riverwood Village in which the San Martinez spineflower location occurs, the project applicant, or its designee, shall reassess project impacts, both direct and

indirect, to the spineflower populations using subdivision mapping data, baseline data from the Newhall Ranch Final EIR and data from the updated plant surveys (see, Specific Plan EIR Mitigation Measure **SP 4.6-53**).

This reassessment shall take place during preparation of the required tiered EIR for each subdivision map. If the reassessment results in the identification of new or additional impacts to Newhall Ranch spineflower populations, which were not previously known or identified, the mitigation measures set forth in this program, or a Fish and Game Code Section 2081 permit(s) issued by CDFG, shall be required, along with any additional mitigation required at that time.

Newhall Ranch Monitoring and Management of Spineflower Preserves

SP 4.6-77 Direct and indirect impacts to the preserved Newhall Ranch spineflower populations shall require a monitoring and management plan, subject to the approval of the County. The applicant shall consult with CDFG with respect to preparation of the Newhall Ranch spineflower monitoring/management plan. This plan shall be in place when the preserve(s) and connectivity/preserve design/buffers are established (see Mitigation Measures **SP 4.6-66** and **SP 4.6-67**). The criteria set forth below shall be included in the plan.

Monitoring. The purpose of the monitoring component of the plan is to track the viability of the Newhall Ranch spineflower preserve(s) and its populations, and to ensure compliance with the adopted Newhall Ranch Mitigation Monitoring Program (Biota section).

The monitoring component of the plan shall investigate and monitor factors such as population size, growth or decline, general condition, new impacts, changes in associated vegetation species, pollinators, seed dispersal vectors, and seasonal responses. Necessary management measures will be identified. The report results will be sent annually to the County, along with photo documentation of the assessed site conditions.

The project applicant, or its designee, shall contract with a qualified botanist/biologist, approved by the County, with the concurrence of CDFG, to conduct quantitative monitoring over the life of the Newhall Ranch Specific Plan. The botanist/biologist shall have a minimum of three years experience with established monitoring techniques and familiarity with southern California flora and target taxa. Field surveys of the Newhall Ranch spineflower preserve(s) will be conducted each spring. Information to be obtained will include (a) an estimate of the numbers of spineflowers in each population within the preserve(s); (b) a map of the extent of occupied habitat at each population; (c) establishment of photo monitoring points to aid in documenting long-term trends in habitat; (d) aerial photographs of the preserved areas at five-year intervals; (e) identification of significant impacts that may have occurred or problems that need attention, including invasive plant problems, weed problems and fencing or signage repair; and (f) overall compliance with the adopted mitigation measures.

For a period of three years from Specific Plan re-approval, all areas of potential habitat on the Newhall Ranch site will be surveyed annually in the spring with the goal of identifying previously unrecorded spineflower populations. Because population size and distribution limits are known to vary depending on rainfall, annual surveys shall be conducted for those

areas proposed for development in order to establish a database appropriate for analysis at the project-specific subdivision map level (rather than waiting to survey immediately prior to proceeding with the project-specific subdivision map process). In this way, survey results gathered over time (across years of varying rainfall) will provide information on ranges in population size and occupation. New populations, if they are found, will be mapped and assessed for inclusion in the preserve program to avoid impacts to the species.

Management. Based on the outcome of ongoing monitoring and additional project-specific surveys addressing the status and habitat requirements of the spineflower, active management of the Newhall Ranch spineflower preserve(s) will be required in perpetuity. Active management activities will be triggered by a downward population decline over 5 consecutive years, or a substantial drop in population over a 10-year period following County re-approval of the Specific Plan. Examples of management issues that may need to be addressed in the future include, but are not limited to, control of exotic competitive non-native plant species, herbivory predation, weed control, periodic controlled burns, or fuel modification compliance.

After any population decline documented in the annual populations census following County re-approval of the Specific Plan, the project applicant, or its designee, shall be responsible for conducting an assessment of the ecological factor(s) that are likely responsible for the decline, and implement management activity or activities to address these factors where feasible. If a persistent population decline is documented, such as a trend in steady population decline persistent for a period of 5 consecutive years, or a substantial drop in population detected over a 10-year period, spineflower may be introduced in appropriate habitat and soils in the Newhall Ranch preserve(s), utilizing the bulk spineflower seed repository, together with other required management activity or activities. In connection with this monitoring component, the project applicant, or its designee, shall contract with a qualified botanist/biologist, approved by the County, to complete (a) a study of the breeding and pollination biology of the spineflower, including investigation into seed physiology to assess parameters that may be important as management tools to guarantee self-sustainability of populations, which may otherwise have limited opportunity for germination; and (b) a population genetics study to document the genetic diversity of the Newhall Ranch spineflower population. The criteria for these studies shall be to develop data to make the Newhall Ranch spineflower management program as effective as possible. These studies shall be subject to approval by the County's biologist, with the concurrence of CDFG. These activities shall be undertaken by a qualified botanist/biologist, subject to approval by the County with the concurrence of CDFG. The project applicant, or its designee, shall be responsible for the funding and implementation of the necessary management activity or activities, as approved by the County and CDFG.

The length of the active management components set forth above shall be governed by attainment of successful management criteria set forth in the plan rather than by a set number of years.

Spineflower Translocation/Reintroduction Program

SP 4.6-78 To the extent project-related direct and indirect significant impacts on spineflower cannot be avoided or substantially lessened through establishment of the Newhall Ranch spineflower preserve(s), and other avoidance, minimization, or other compensatory mitigation measures, a translocation and reintroduction program may be implemented in consultation with CDFG to further mitigate such impacts. Direct impacts (i.e., take) to occupied spineflower areas shall be fully mitigated at a 4:1 ratio. Impacts to occupied spineflower areas caused by significant indirect effects shall be mitigated at a 1:1 ratio.

Introduction of new spineflower areas will be achieved through a combination of direct seeding and translocation of the existing soil seed bank that would be impacted by grading. Prior to any development within, or disturbance to, spineflower populations, on-site and off-site mitigation areas shall be identified and seed and top soil shall be collected. One-third of the collected seed shall be sent to the Rancho Santa Ana Botanical Garden for storage. One third of the seed shall be sent to the USDA National Seed Storage Lab in Fort Collins, Colorado for storage. One third shall be used for direct seeding of the on-site and off-site mitigation areas.

Direct seeding. Prior to the initiation of grading, the project applicant, or its designee, shall submit to the County a program for the reintroduction of spineflower on Newhall Ranch. The reintroduction program shall include, among other information: (a) location map with scale; (b) size of each introduction polygon; (c) plans and specifications for site preparation, including selective clearing of competing vegetation; (d) site characteristics; (e) protocol for seed collection and application; and (f) monitoring and reporting. The program shall be submitted to CDFG for input and coordination. The project applicant, or its designee, shall implement the reintroduction program prior to the initiation of grading. At least two candidate spineflower reintroduction areas will be created within Newhall Ranch and one candidate spineflower reintroduction area will be identified off site. Both on-site and off-site reintroduction areas will be suitable for the spineflower in both plant community and soils, and be located within the historic range of the taxon. Success criteria shall be included in the monitoring/management plan, with criteria for the germination, growth, and production of viable seeds of individual plants for a specified period.

Although the reintroduction program is experimental at this stage, the County considers such a program to be a feasible form of mitigation at this juncture based upon available studies. Botanists/biologists familiar with the ecology and biology of the spineflower would prepare and oversee the reintroduction program.

Translocation. Prior to the initiation of grading, the project applicant, or its designee, shall submit to the County a translocation program for the spineflower. Translocation would salvage the topsoil of spineflower areas to be impacted due to grading. Salvaged spineflower soil seed bank would be translocated to the candidate spineflower reintroduction areas. The translocation program shall include, among other information: (a) location map with scale; (b) size of each translocation polygon; (c) plans and specifications for site preparation, including selective clearing of competing vegetation; (d) site characteristics; (e) protocol for topsoil collection and application; and (f) monitoring and reporting. The translocation program shall be submitted to CDFG for input and coordination. Translocation shall occur

within the candidate spineflower reintroduction areas on site and off site. Successful criteria for each site shall be included in the monitoring/management plan/with criteria for the germination and growth to reproduction of individual plants for the first year a specified period.

Although the translocation program is experimental at this stage, the County considers such a program to be a feasible form of mitigation at this juncture based upon available studies. Botanists/biologists familiar with the ecology and biology of the spineflower would prepare and oversee the translocation program.

Minimizing Impacts of Agricultural Activities on Spineflower

- SP 4.6-79 The project applicant, or its designee, shall engage in regular and ongoing consultation with the County and CDFG in connection with its ongoing agricultural operations in order to avoid or minimize significant direct impacts to the spineflower.

In addition, the project applicant, or its designee, shall provide 30 days advance written notice to the County and CDFG of the proposed conversion of its ongoing rangeland operations on Newhall Ranch to more intensive agricultural uses. The purpose of the advance notice requirement is to allow the applicant, or its designee, to coordinate with the County and CDFG to avoid or minimize significant impacts to the spineflower prior to the applicant's proposed conversion of its ongoing rangeland operations to more intensive agricultural uses. This coordination component will be implemented by or through the County's Department of Regional Planning and/or the Regional Manager of CDFG. Implementation will consist of the County and/or CDFG conducting a site visit of the proposed conversion area(s) within the 30-day period, and making a determination of whether the proposed conversion area(s) would destroy or significantly impact spineflower population in or adjacent to those areas. If it is determined that the conversion area(s) do not destroy or significantly impact spineflower populations, then the County and/or CDFG will authorize such conversion activities in the proposed conversion area(s). However, if it is determined that the conversion area(s) may destroy or significantly impact spineflower populations, then the County and/or CDFG will issue a stop work order to the applicant, or its designee. If such an order is issued, the applicant, or its designee, shall not proceed with any conversion activities in the proposed conversion area(s). However, the applicant, or the designee, may take steps to relocate the proposed conversion activities in an alternate conversion area(s). In doing so, the applicant, or its designee, shall follow the same notice and coordination provisions identified above. This conversion shall not include ordinary pasture maintenance and renovation or dry land farming operations consistent with rangeland management. *(This measure is not applicable to the Landmark Village project because the project does not include an agricultural component.)*

San Martinez Spineflower Population

- SP 4.6-80 Upon approval of tentative tract map(s) impacting the San Martinez portion of the Specific Plan site, the applicant shall work with the Department of Regional Planning staff and SEATAC to establish an appropriately sized preserve area to protect the spineflower population at San Martinez Canyon. *(This measure is not applicable to the Landmark Village project because the project is not proposed within the San Martinez portion of the Newhall Ranch Specific Plan.)*

c. Additional Measures Incorporated into the EIR

To further reduce the magnitude of impacts to biological resources that would result from project implementation, the following mitigation measures are recommended and incorporated into this EIR:

LV 4.4-1 Mitigation Measures **SP 4.6-1** through **SP 4.6-16** specify requirements for riparian mitigation conducted in the High Country SMA/SEA 20, Salt Creek area, and Open Area. The applicant will prepare and implement a plan for mitigation of both riparian and upland habitats (such as riparian adjacent big sagebrush scrub), and incorporates these Mitigation Measures (**SP 4.6-1** through **SP 4.6-16**). A Comprehensive Mitigation Implementation Plan (CMIP) has been developed by Newhall Land that provides an outline of mitigation to offset impacts. The CMIP demonstrates the feasibility of creating the required mitigation acreage to offset project impacts (see **LV 4.4-29**).

Detailed wetlands mitigation plans, in accordance with the CMIP, shall be submitted to, and are subject to the approval of, the Corps and CDFG as part of the sub-notification letters for individual projects. Individual project submittals shall include applicable CMIP elements, complying with the requirements outlined below. The detailed wetlands mitigation plan shall specify, at a minimum, the following: (1) the location of mitigation sites; (2) site preparation, including grading, soils preparation, irrigation installation, (2a) the quantity (seed or nursery stock) and species of plants to be planted (all species to be native to region); (3) detailed procedures for creating additional vegetation communities; (4) methods for the removal of non-native plants; (5) a schedule and action plan to maintain and monitor the enhancement/restoration area; (6) a list of criteria by which to measure success of the mitigation sites (e.g., percent cover and richness of native species, percent survivorship, establishment of self-sustaining native plantings, maximum allowable percent of non-native species); (7) measures to exclude unauthorized entry into the creation/enhancement areas; and (8) contingency measures in the event that mitigation efforts are not successful. Individual project detailed wetlands mitigation plans shall also classify the biological value (as "high," "moderate," or "low") of the vegetation communities to be disturbed as defined in these conditions, or may be based on an agency-approved method (e.g., Hybrid Assessment of Riparian Communities (HARC)). The biological value shall be used to determine mitigation replacement ratios required under **LV 4.4-29** and **LV 4.4-37**. The detailed wetlands mitigation plans shall provide for the 3:1 replacement of any Southern California black walnut to be removed from the riparian corridor for individual projects. The plan shall be subject to the approval of the CDFG and the Corps and approved prior to the impact to riparian resources. **LV 4.4-31** describes that the functions and values will be assessed for the riparian areas that will be removed, and **LV 4.4-29** and **LV 4.4-37** describe the replacement ratios for the habitats that will be impacted.

LV 4.4-2 Approximately 156.5 acres of coastal scrub shall be preserved off-site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Landmark Village.

LV 4.4-3 Focused surveys for the undescribed species of everlasting (a special-status plant species) shall be conducted by a qualified botanist prior to the commencement of grading/construction activities wherever suitable habitat (primarily river terraces) could be

affected by direct, indirect, or secondary construction impacts. The surveys shall be conducted no more than one year prior to commencement of construction activities within suitable habitat, and the surveys shall be conducted at a time of year when the plants can be located and identified. Should the species be documented within the Project boundary, avoidance measures shall be implemented to minimize impacts to individual plants wherever feasible. These measures shall include minor adjustments to the boundaries/location of haul routes and other Project features. If, due to Project design constraints, avoidance of all plants is not possible, then further measures, described in LV 4.4-4, shall be implemented to salvage seeds and/or transplant individual plants. All seed collection and/or transplantation methods, as well as the location of the receptor site for seeds/plants (assumed to be within preserved open space areas of Newhall Ranch along the Santa Clara River), shall be coordinated with CDFG prior to impacting known occurrences of the undescribed everlasting.

- LV 4.4-4 For any individual project, or any phase of an individual project, to be located where undescribed everlasting plants may occur, the applicant shall prepare and implement an Undescribed Everlasting Mitigation and Monitoring Plan prior to the issuance of grading permits.

The Plan shall provide for replacement of individual plants to be removed at a minimum 1:1 ratio, within suitable habitat at a site where no future construction-related disturbance will occur. The plan shall specify the following: (1) the location of the mitigation site in protected/preserved areas within the Specific Plan site; (2) methods for harvesting seeds or salvaging and transplantation of individual plants to be impacted; (3) measures for propagating plants (from seed or cuttings) or transferring living specimens from the salvage site to the introduction site; (4) site preparation procedures for the mitigation site; (5) a schedule and action plan to maintain and monitor the mitigation area; (6) the list of criteria and performance standards by which to measure the success of the mitigation site (below); (7) measures to exclude unauthorized entry into the mitigation areas; and (8) contingency measures such as erosion control, replanting, or weeding to implement in the event that mitigation efforts are not successful. The performance standards for the Undescribed Everlasting Mitigation and Monitoring Plan shall be the following:

- a. Within four years after reintroducing the undescribed everlasting to the mitigation site, the extent of occupied acreage and the number of established, reproductive plants will be no smaller than at the site lost for project construction.
- b. Non-native species cover will be no more than 5 percent absolute cover through the term of the restoration.
- c. Giant reed (*Arundo donax*), tamarisk (*Tamarix ramosissima*), perennial pepperweed (*Lepidium latifolium*), tree of heaven (*Ailanthus altissimus*), pampas grass (*Cortaderia selloana*), and any species listed on the California State Agricultural list (CDFA 2009) or Cal-IPC list of noxious weeds (Cal-IPC 2006, 2007) will not be present on the revegetation site as of the date of completion approval.

LV 4.4-5 The Draft RMDP Slender Mariposa Lily Mitigation and Monitoring Plan (Dudek 2007I) shall be revised and submitted to CDFG and the County for review and approval prior to ground disturbance to occupied habitat. Upon approval, the plan will be implemented by the applicant or its designee. The revised plan will demonstrate the feasibility of enhancing or restoring slender mariposa lily habitat in selected areas to be managed as natural open space (*i.e.*, the Salt Creek area or High Country SMA/SEA 20, spineflower preserves, or River Corridor SMA/SEA 23) without conflicting with other resource management objectives. Habitat replacement/enhancement will be at a 1:1 ratio (acres restored/enhanced to acres impacted).

The revised plan will describe habitat improvement/restoration measures to be completed prior to introducing slender mariposa lily. Habitat improvement/restoration will be based on native occupied slender mariposa lily habitat. The revised plan will specify: (1) the location of mitigation sites (may be selected from among 559 acres of suitable mitigation land in the High Country SMA/SEA 20 and Salt Creek area identified in the Draft Newhall Ranch Mitigation Feasibility Study (Dudek 2007A); (2) a description of "target" vegetation (native shrubland or grassland) to include estimated cover and abundance of native shrubs and grasses in occupied slender mariposa lily habitat on Newhall Ranch land (either at sites to be destroyed by construction or at sites to be preserved); (3) site preparation measures to include topsoil treatment, soil decompaction, erosion control, temporary irrigation systems, or other measures as appropriate; (4) methods for the removal of non-native plants (*e.g.*, mowing, weeding, raking, herbicide application, or burning); (5) the source of all plant propagules (seed, potted nursery stock, *etc.*), the quantity and species of seed or potted stock of all plants to be introduced or planted into the restoration/enhancement areas; (6) a schedule and action plan to maintain and monitor the enhancement/restoration areas, to include at minimum, qualitative annual monitoring for revegetation success and site degradation due to erosion, trespass, or animal damage for a period no less than two years; (7) as needed where sites are near trails or other access points, measures such as fencing, signage, or security patrols to exclude unauthorized entry into the restoration/enhancement areas; and (8) contingency measures such as replanting, weed control, or erosion control to be implemented if habitat improvement/restoration efforts are not successful.

Habitat restoration/enhancement will be judged successful when (1) percent cover and species richness of native species reach 50 percent of their cover and species richness at undisturbed occupied slender mariposa lily habitat at reference sites; and (2) the replacement vegetation has persisted at least one summer without irrigation. At that point slender mariposa lily propagules (seed or bulbs) will be introduced onto the site.

The revised plan will specify methods to collect propagules and introduce slender mariposa lily into these mitigation sites. Introductions will use source material (seeds or bulbs) from no more than 1.0 mile distant, similar slope exposures, and no more than 500 ft. elevational difference from the mitigation site, unless otherwise approved by CDFG and the County. Bulbs may be salvaged and transplanted from slender mariposa lily occurrences to be lost; alternately, seed may be collected from protected occurrences, following CDFG-approved seed collection guidelines (*i.e.*, MOU for rare plant seed collection). Newhall Land or its designee will monitor the reintroduction sites for no fewer than five additional years to estimate slender mariposa lily survivorship (for bulbs) or seedling establishment (for seeded sites).

Annual monitoring reports will be prepared and submitted to CDFG and the County and will be made available to the public to guide future mitigation planning for slender mariposa lily. Monitoring reports will describe all restoration/enhancement measures taken in the preceding year; describe success and completion of those efforts and other pertinent site conditions (erosion, trespass, animal damage) in qualitative terms; and describe mariposa lily survival or establishment in quantitative terms.

- LV 4.4-6 The Oak Resource Replacement Plan to be prepared (as described in **SP 4.6-48**) shall include measures to create, enhance, and/or restore 7.82 acres of coast live oak woodland within the High Country SMA/SEA 20. The plan shall be subject to the requirements outlined in **SP 4.6-48**.

The applicant shall prepare an Oak Resource Management Plan that incorporates the findings of the Draft Newhall Ranch Mitigation Feasibility Report (Dudek 2007A) and areas identified (in the technical report) as being suitable for oak woodland enhancement and creation shall be used as mitigation. Other mitigation sites may be used upon approval by the County. The plan shall be reviewed by the County Forester. The plan shall include the following: (1) site selection and preparation; (2) selection of proper species, including sizes and planting densities; (3) protection from herbivores; (4) site maintenance; (5) success criteria; (6) remedial actions; and (7) a monitoring program.

- LV 4.4-7 All oaks that will not be removed that are regulated under the County of Los Angeles Oak Tree Ordinance (CLAOTO) with driplines within 50 feet of land clearing (including brush clearing) or areas to be graded shall be enclosed in a temporary fenced zone for the duration of the clearing or grading activities. Fencing shall extend to the root protection zone (i.e., the area at least 15 feet from the trunk or half again as large as the distance from the trunk to the drip line, whichever distance is greater). No parking or storage of equipment, solvents, or chemicals that could adversely affect the trees shall be allowed within 25 feet of the trunk at any time. Removal of the fence shall occur only after the project arborist or qualified biologist confirms the health of preserved trees.

- LV 4.4-8 Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities that result in any disturbance to the banks or wetted channel, aquatic habitats within construction sites and access roads, as well as all aquatic habitats within 300 feet of construction sites and access roads, shall be surveyed by a qualified biologist for the presence of the unarmored threespine stickleback, arroyo chub, and Santa Ana sucker. The Corps and CDFG shall be notified at least 14 days prior to the survey and shall have the option of attending. The biologist shall file a written report of the survey with both agencies within 14 days of the survey and no later than 10 days prior to any construction work in the riverbed. If there is evidence that fish spawn has occurred in the survey area, then surveys shall cease unless otherwise authorized by USFWS. If surveys determine that gravid fish are present, that spawning has recently occurred, or that juvenile fish are present in the proposed construction areas, all activities within aquatic habitat will be suspended. Construction within aquatic habitats shall only occur when it is determined that juvenile fish are not present within the Project area.

LV 4.4-9 Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities, all construction sites and access roads within the riverbed as well as all riverbed areas within 500 feet of construction sites and access roads shall be surveyed at the appropriate season for southwestern pond turtle. Focused surveys shall consist of a minimum of four daytime surveys, to be completed between April 1 and June 1. The survey schedule may be adjusted in consultation with CDFG to reflect the existing weather or stream conditions. The applicant shall develop a Plan to address the relocation of southwestern pond turtle. The Plan shall include but not be limited to the timing and location of the surveys that would be conducted for this species; identify the locations where more intensive efforts should be conducted; identify the habitat and conditions in the proposed relocation site(s); the methods that would be utilized for trapping and relocating individuals; and provide for the documentation/recordation of the numbers of animals relocated. The Plan shall be submitted to CDFG for approval 60 days prior to any ground-disturbing activities within potentially occupied habitat.

If southwestern pond turtles are detected in or adjacent to the Project, nesting surveys shall be conducted. Focused surveys for evidence of southwestern pond turtle nesting shall be conducted in, or adjacent to, the Project when suitable nesting habitat exists within 1,300 feet of occupied habitat in an area where Project-related ground disturbance will occur (*e.g.*, development, ground disturbance). If both of those conditions are met, a qualified biologist shall conduct focused, systematic surveys for southwestern pond turtle nesting sites. The survey area shall include all suitable nesting habitat within 1,300 feet of occupied habitat in which Project-related ground disturbance will occur. This area may be adjusted based on the existing topographical features on a case-by-case basis with the approval of CDFG. Surveys will entail searching for evidence of pond turtle nesting, including remnant eggshell fragments, which may be found on the ground following nest depredation.

If a southwestern pond turtle nesting area would be adversely impacted by construction activities, the applicant shall avoid the nesting area. If avoidance of the nesting area is determined to be infeasible, the authorized biologist shall coordinate with CDFG to identify if it is possible to relocate the pond turtles. Eggs or hatchlings shall not be moved without written authorization from CDFG.

The qualified biologist shall be present during all activities immediately adjacent to or within habitat that supports populations of southwestern pond turtle. Clearance surveys for pond turtles shall be conducted within 500 feet of potential habitat by the authorized biologist prior to the initiation of construction each day. The resume of the proposed biologist will be provided to CDFG for approval prior to conducting the surveys.

LV 4.4-10 Temporary bridges, culvert crossings, or other feasible methods of providing access across the river shall be constructed outside of the winter season and not during periods when spawning is occurring. Prior to the construction of any temporary or permanent crossing of the Santa Clara River, the applicant shall develop a Stream Crossing and Diversion Plan. The plan shall include the following elements: the timing and methods for pre-construction aquatic species surveys; a detailed description of the diversion methods (*e.g.*, berms shall be constructed of on-site alluvium materials of low silt content, inflatable dams, sand bags, or other approved materials); special-status species relocation; fish exclusion techniques, including the use of block netting and fish relocation; methods to maintain fish passage

during construction; channel habitat enhancement, including the placement of vegetation, rocks, and boulders to produce riffle habitat; fish stranding surveys; and the techniques for the removal of crossings prior to winter storm flows. The plan shall be submitted to the USFWS and CDFG for approval at least 30 days prior to implementation.

If adult special-status fishes are present and spawning has not occurred, they shall be relocated prior to the diversion or crossing. Block nets of 0.125-inch woven mesh will be set upstream and downstream. On days with possible high temperature or low humidity (temperatures in excess of 80° F), work will be done in the early morning hours, as soon as sufficient light is available, to avoid exposing fishes to high temperatures and/or low humidity. If high temperatures are present, the fishes will be herded to downstream areas past the block net. Once the fishes have been excluded by herding, a USFWS staff member or his or her agents shall inspect the site for remaining or stranded fish. A USFWS staff member or his or her agents shall relocate the fish to suitable habitat outside the Project area (including those areas potentially subject to high turbidity). During the diversion/relocation of fishes, the USFWS or his or her agents shall be present at all times.

LV 4.4-11

a. Stream diversion bypass channels:

Stream diversion bypass channels will be constructed when the active wetted channel is within the work zone. Diversion bypass channels will be built in consultation with CDFG/USFWS. Equipment shall not be operated in areas of ponded or flowing water unless authorized by CDFG/USFWS.

The diversion channel shall be of a width and depth comparable to the natural river channel. In all cases where flowing water is diverted from a segment of the stream channel, the bypass channel will be constructed prior to the diversion of the active stream. The bypass channel will be constructed prior to diverting the stream, beginning in the downstream area and continuing in an upstream direction. Where feasible and in consultation with CDFG/USFWS, the configuration of the diversion channel will be curved (sinuous) with multiple sets of obstructions (*i.e.*, boulders, large logs, or other CDFG/USFWS-approved materials) placed in the channel at the point of each curve (*i.e.*, on alternating sides of the channel). If emergent aquatic vegetation is present in the original channel, the applicant will transplant suitable vegetation into the diversion channel and on the banks prior to or at the time of the water diversion. A qualified restoration ecologist will supervise the construction of the diversion channels on site. The integrity of the channel and diversion shall be maintained throughout the intended diversion period. Channel bank or barrier construction shall be adequate to prevent seepage into or from the work area.

Construction of diversion channels shall not occur if surveys determine that gravid fish are present, spawning has recently occurred, or juvenile fish are present in the proposed construction areas.

At the conclusion of the diversion, either at the commencement of the winter season, or the completion of construction, the applicant will coordinate with CDFG/USFWS to

determine if the diversion should be left in place or the stream returned to the original channel. If CDFG/USFWS determine the stream should be diverted to the original channel, the original channel will be modified prior to re-diversion (*i.e.*, while dry) to construct curves (sinuosity) into that channel, including the placement of obstructions (*i.e.*, boulders, large logs, or other CDFG/USFWS-approved materials). The original channel will be replanted with emergent vegetation as the diversion channel was planted. If the diversion channel is abandoned, the boulders will remain in place.

b. Dewatering:

Construction dewatering in close proximity to stream flow shall implement the following:

- Assess local stream and groundwater conditions, including flow depths, groundwater elevations, and anticipated dewatering cone of influence (radius of draw down).
- Assess surface water elevations upstream, adjacent to, and downstream of the extraction points, to assess any critical flow regimes susceptible to excessive draw down and therefore fish stranding issues.
- Assess surface water elevations downstream of the discharge locations (if discharge is proposed to the flowing stream) to assess any flow regimes and overbank areas that may be susceptible to flooding and therefore fish stranding at the cessation of discharge. Discharge locations shall also be assessed for potential channel bed erosion from dewatering discharge, and appropriate BMPs must be implemented to prevent excessive erosion or turbidity in the discharge.
- The information above shall be summarized and provided in a plan approved by CDFG and Corps.

Fish shall be excluded from any artificial flowing channels from dewatering discharge. Methods to ensure separation may include, but are not limited to: block netting at the confluence; creation of a physical drop greater than 4 inches at the confluence; or maintaining a velocity range unsuitable for fish passage, such as a berm at the confluence with small diameter pipes for discharge.

LV 4.4-12 Slow-moving water habitats shall be constructed upstream and downstream of any river crossing or bridge construction area to provide refuge for special-status fishes during construction. Where feasible and in consultation with CDFG and USFWS, the applicant shall enhance slow-moving water habitats for each linear foot disturbed by hand-excavating shallow side channels and placing multiple sets of obstructions (*e.g.*, boulders, large logs, or other CDFG- and USFWS-approved materials) in the channel.

LV 4.4-13 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. Culvert crossings shall include provisions for a low flow channel where velocities are less than two feet per second to allow fish passage.

- LV 4.4-14 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.
- LV 4.4-15 Temporary impacts from construction activities in the riverbed shall be restricted to the following areas of disturbance: (1) an 85-foot-wide zone that extends into the river from the base of the rip-rap or gunite bank protection where it intercepts the river bottom; (2) 100 feet on either side of the outer edge of a new bridge or bridge to be modified; (3) a 60-foot-wide corridor for utility lines; (4) 20-foot-wide temporary access ramps; and (5) 60-foot roadway width temporary construction haul routes. The locations of these temporary construction sites and the routes of all access roads shall be shown on maps submitted with the sub-notification letter submitted to the Corps and CDFG for individual project approval. Any variation from these limits shall be submitted, with a justification for a variation for Corps and CDFG approval. The construction plans should indicate what type of vegetation, if any, would be temporarily disturbed or removed and the post-construction activities to facilitate revegetation of the temporarily impacted areas. The boundaries of the construction site and any temporary access roads within the riverbed shall be marked in the field with stakes and flagging. No construction activities, vehicular access, equipment storage, stockpiling, or significant human intrusion shall occur outside the work area and access roads.
- LV 4.4-16 Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities, all construction sites and access roads within the riverbed as well as all riverbed areas within 300 feet of construction sites and access roads shall be surveyed at the appropriate season for two-striped garter snake and south coast garter snake. Focused surveys shall consist of a minimum of four daytime surveys, to be completed between April 1 and September 1. The survey schedule may be adjusted in consultation with CDFG to reflect the existing weather or stream conditions. If located, the species will be relocated to suitable pre-approved locations identified in the two-striped garter snake and/or south coast garter snake Relocation Plan.

The applicant shall develop a Plan to address the relocation of two-striped garter snake and south coast garter snake. The Plan shall include but not be limited to the timing and location of the surveys that would be conducted for each species, identify the locations where more intensive efforts should be conducted, identify the habitat and conditions in the proposed relocation site(s), identify the methods that would be utilized for trapping and relocating the individual species, and provide for the documentation/recording of the species and number of animals relocated. The Plan shall be submitted to CDFG for approval 60 days prior to any ground-disturbing activities, within potentially occupied habitat.

The qualified biologist shall be present during all activities immediately adjacent to or within habitat that supports populations of two-striped garter snake and/or south coast garter snake. Clearance surveys for garter snakes shall be conducted within 200 feet of potential habitat by the authorized biologist prior to the initiation of construction each day. The resume of the proposed biologists will be provided to CDFG for approval prior to conducting the surveys.

LV 4.4-17 Focused surveys for arroyo toad shall be conducted. Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities, all construction sites and access roads within the riverbed as well as all riverbed areas within 1,000 feet of construction sites and access roads shall be surveyed at the appropriate season for arroyo toad. The applicant shall contract with a qualified biologist to conduct focused surveys for arroyo toad. If detected in or adjacent to the Project area, no work will be authorized within 500 feet of occupied habitat until the applicant provides concurrence from the USFWS to CDFG and the Corps. The applicant shall implement measures required by the USFWS Biological Opinion that either supplement or supercede these measures. If present, the applicant shall develop and implement a monitoring plan that includes the following measures in consultation with the USFWS and CDFG.

1. The applicant shall retain a qualified biologist with demonstrated expertise with arroyo toads to monitor all construction activities in potential arroyo toad habitat and assist the applicant in the implementation of the monitoring program. This person will be approved by the USFWS prior to the onset of ground-disturbing activities. This biologist will be referred to as the authorized biologist hereafter. The authorized biologist will be present during all activities immediately adjacent to or within habitat that supports populations of arroyo toad.
2. Prior to the onset of construction activities, the applicant shall provide all personnel who will be present on work areas within or adjacent to the Project area the following information:
 - a. A detailed description of the arroyo toad, including color photographs;
 - b. The protection the arroyo toad receives under the Endangered Species Act and possible legal action that may be incurred for violation of the Act;
 - c. The protective measures being implemented to conserve the arroyo toad and other species during construction activities associated with the proposed Project; and
 - d. A point of contact if arroyo toads are observed.
3. All trash that may attract predators of the arroyo toad will be removed from work sites or completely secured at the end of each work day.
4. Prior to the onset of any construction activities, the applicant shall meet on site with staff from the USFWS and the authorized biologist. The applicant shall provide information on the general location of construction activities within habitat of the arroyo toad and the actions taken to reduce impacts to this species. Because arroyo toads may occur in various locations during different seasons of the year, the applicant, USFWS, and authorized biologists will, at this preliminary meeting, determine the seasons when specific construction activities would have the least adverse effect on arroyo toads. The goal of this effort is to reduce the level of mortality of arroyo toads during construction. The parties realize that complete elimination of all mortality is likely not possible because some arroyo toads may occur anywhere within suitable habitat during any

given season; the detection of every individual over large areas is impossible because of the small size, fossorial habits, and cryptic coloration of the arroyo toad.

5. Where construction can occur in habitat where arroyo toads are widely distributed, work areas will be fenced in a manner that prevents equipment and vehicles from straying from the designated work area into adjacent habitat. The authorized biologist will assist in determining the boundaries of the area to be fenced in consultation with the USFWS/CDFG. All workers will be advised that equipment and vehicles must remain within the fenced work areas.
6. The authorized biologist will direct the installation of the fence and conduct a minimum of three nocturnal surveys to move any arroyo toads from within the fenced area to suitable habitat outside of the fence. If arroyo toads are observed on the final survey or during subsequent checks, the authorized biologist will conduct additional nocturnal surveys if he or she determines that they are necessary in concurrence with the USFWS/CDFG.
7. Fencing to exclude arroyo toads will be at least 24 inches in height.
8. The type of fencing must be approved by the authorized biologist and the USFWS/CDFG.
9. Construction activities that may occur immediately adjacent to breeding pools or other areas where large numbers of arroyo toads may congregate will be conducted during times of the year (fall/winter) when individuals have dispersed from these areas. The authorized biologist will assist the applicant in scheduling its work activities accordingly.
10. If arroyo toads are found within an area that has been fenced to exclude arroyo toads, activities will cease until the authorized biologist moves the arroyo toads.
11. If arroyo toads are found in a construction area where fencing was deemed unnecessary, work will cease until the authorized biologist moves the arroyo toads. The authorized biologist in consultation with USFWS/CDFG will then determine whether additional surveys or fencing are needed. Work may resume while this determination is being made, if deemed appropriate by the authorized biologist and USFWS.
12. Any arroyo toads found during clearance surveys or otherwise removed from work areas will be placed in nearby suitable, undisturbed habitat. The authorized biologist will determine the best location for their release, based on the condition of the vegetation, soil, and other habitat features and the proximity to human activities. Clearance surveys shall occur on a daily basis in the work area.
13. The authorized biologist will have the authority to stop all activities until appropriate corrective measures have been completed.
14. Staging areas for all construction activities will be located on previously disturbed upland areas designated for this purpose. All staging areas will be fenced within potential toad habitat.

15. To ensure that diseases are not conveyed between work sites by the authorized biologist or his or her assistants, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force (DAPTF 2009) will be followed at all times.
16. Drift fence/pitfall trap surveys will be implemented in toad sensitive areas prior to construction in an effort to reduce potential mortality to this species. Prior to any construction activities in the Project area, silt fence shall be installed completely around the proposed work area and a qualified biologist should conduct a preconstruction/clearance survey of the work area for arroyo toads. Any toads found in the work area should be relocated to suitable habitat. The silt fence shall be maintained for the duration of the work activity.
17. The applicant shall restrict work to daylight hours, except during an emergency, in order to avoid nighttime activities when arroyo toads may be present on the access road. Traffic speed should be maintained at 15 mph or less in the work area.

LV 4.4-18 Prior to grading and construction activities, a qualified biologist shall be retained to conduct a Worker Environmental Awareness Program (WEAP) for all construction/contractor personnel. A list of construction personnel who have completed training prior to the start of construction shall be retained on site and this list shall be updated as required when new personnel start work. No construction worker may work in the field for more than five days without participating in the WEAP. The qualified biologist shall provide ongoing guidance to construction personnel and contractors to ensure compliance with environmental/permit regulations and mitigation measures. The qualified biologist shall perform the following:

1. Provide training materials and briefings to all personnel working on site. The material shall include but not be limited to the identification and status of plant and wildlife species, significant natural plant community habitats (e.g., riparian), fire protection measures, and review of mitigation requirements.
2. A discussion of the federal and state Endangered Species Acts, Bald and Golden Eagle Protection Act, Migratory Bird Treaty Act, other state or federal permit requirements and the legal consequences of non-compliance with these acts;
3. Attend the pre-construction meeting to ensure that timing/location of construction activities do not conflict with other mitigation requirements (e.g., seasonal surveys for nesting birds, pre-construction surveys, or relocation efforts);
4. Conduct meetings with the contractor and other key construction personnel describing the importance of restricting work to designated areas. Maps showing the location of special-status wildlife or populations of rare plants, exclusion areas, or other construction limitations (e.g., limitations on nighttime work) will be provided to the environmental monitors and construction crews prior to ground disturbance;
5. Discuss procedures for minimizing harm to or harassment of wildlife encountered during construction and provide a contact person in the event of the discovery of dead or injured wildlife;

6. Review/designate the construction area in the field with the contractor in accordance with the final grading plan;
7. Ensure that haul roads, access roads, and on-site staging and storage areas are sited within grading areas to minimize degradation of vegetation communities adjacent to these areas (if activities outside these limits are necessary, they shall be evaluated by the biologist to ensure that no special-status species habitats will be affected);
8. Flag or temporarily fence any construction activity areas immediately adjacent to riparian areas;
9. Be present during initial vegetation clearing and grading; and
10. Submit to the CDFG an immediate report (within 72 hours) of any conflicts or errors resulting in impacts to special-status biological resources.

LV 4.4-19 Prior to the ground disturbance in aquatic areas, construction, or site preparation activities, the applicant shall retain the services of a qualified biologist to conduct pre-construction surveys for western spadefoot toad within all portions of the Project site containing suitable breeding habitat. Surveys shall be conducted during a time of year when the species could be detected (*e.g.*, the presence of rain pools). If western spadefoot toad is identified on the Project site, the following measures will be implemented.

1. Under the direct supervision of the qualified biologist, western spadefoot toad habitat shall be created within suitable natural sites on the Specific Plan site outside the proposed development envelope. The amount of occupied breeding habitat to be impacted by the Project shall be replaced at a 2:1 ratio. The actual relocation site design and location shall be approved by CDFG. The location shall be in suitable habitat as far away as feasible from any of the homes and roads to be built. The relocation ponds shall be designed such that they only support standing water for several weeks following seasonal rains in order that aquatic predators (*e.g.*, fish, bullfrogs, and crayfish) cannot become established. Terrestrial habitat surrounding the proposed relocation site shall be as similar in type, aspect, and density to the location of the existing ponds as feasible. No site preparation or construction activities shall be permitted in the vicinity of the currently occupied ponds until the design and construction of the pool habitat in preserved areas of the site has been completed and all western spadefoot toad adults, tadpoles, and egg masses detected are moved to the created pool habitat.
2. Based on appropriate rainfall and temperatures, generally between the months of February and April, the biologist shall conduct pre-construction surveys in all appropriate vegetation communities within the development envelope. Surveys will include evaluation of all previously documented occupied areas and a reconnaissance-level survey of the remaining natural areas of the site. All western spadefoot adults, tadpoles, and egg masses encountered shall be collected and released in the identified/created relocation ponds described above.
3. The qualified biologist shall monitor the relocation site for five years, involving annual monitoring during and immediately following peak breeding season such that surveys

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

- LV 4.4-20 Prior to construction the applicant shall develop a relocation plan for coast horned lizard, silvery legless lizard, coastal western whiptail, rosy boa, San Bernardino ringneck snake, and coast patch-nosed snake. The Plan shall include but not be limited to the timing and location of the surveys that would be conducted for each species; identify the locations where more intensive efforts should be conducted; identify the habitat and conditions in the proposed relocation site(s); the methods that would be utilized for trapping and relocating the individual species; and provide for the documentation/recordation of the species and number of the animals relocated. The Plan shall be submitted to CDFG for approval 60 days prior to any ground disturbing activities within potentially occupied habitat.

The Plan shall include the specific survey and relocation efforts that would occur for construction activities that occur both during the activity period of the special status species (generally March to November) and for periods when the species may be present in the work area but difficult to detect due to weather conditions (generally December through February). Thirty days prior to construction activities in coastal scrub, chaparral, oak woodland, riparian habitats, or other areas supporting these species qualified biologists shall conduct surveys to capture and relocate individual coast horned lizard, silvery legless lizard, coastal western whiptail, rosy boa, San Bernardino ringneck snake, and coast patch-nosed snake in order to avoid or minimize take of these special-status species. The plan shall require a minimum of three surveys conducted during the time of year/day when each species is most likely to be observed. Individuals shall be relocated to nearby undisturbed areas with suitable habitat. If construction is scheduled to occur during the low activity period (generally December through February) the surveys shall be conducted prior to this period if possible and exclusion fencing shall be placed to limit the potential for re-colonization of the site prior to construction. The qualified biologist will be present during ground-disturbing activities immediately adjacent to or within habitat that supports populations of these species. Clearance surveys for special-status reptiles shall be conducted by a qualified biologist prior to the initiation of construction each day.

Results of the surveys and relocation efforts shall be provided to CDFG in the annual mitigation status report. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

- LV 4.4-21 Within 30 days of ground disturbance activities associated with construction or grading that would occur during the nesting/breeding season of native bird species potentially nesting on the site (typically March through August in the Project region, or as determined by a qualified biologist), the applicant shall have weekly surveys conducted by a qualified biologist to determine if active nests of bird species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code are present in the disturbance zone or within 300 feet (500 feet for raptors) of the disturbance zone. The surveys shall continue on a weekly basis with the last survey being conducted no more than seven days prior to initiation of disturbance work. If ground disturbance activities are delayed, then additional

pre-disturbance surveys shall be conducted such that no more than seven days will have elapsed between the survey and ground disturbing activities.

If active nests are found, clearing and construction within 300 feet of the nest (500 feet for raptors) shall be postponed or halted, at the discretion of the biologist in consultation with CDFG, until the nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting. In the event that golden eagles establish an active nest in the River Corridor SMA/SEA 23, the buffers will be established in consultation with CDFG. Potential golden eagle nesting will be reported to CDFG within 24 hours. Limits of construction to avoid an active nest shall be established in the field with flagging, fencing, or other appropriate barriers and construction personnel shall be instructed on the sensitivity of nest areas. The biologist shall serve as a construction monitor during those periods when construction activities will occur near active nest areas to ensure that no inadvertent impacts on these nests occur. Results of the surveys shall be provided to CDFG in the annual mitigation status report.

For listed riparian songbirds (least Bell's vireo, southwestern willow flycatcher, yellow-billed cuckoo) USFWS protocol surveys shall be conducted. If active nests are found, clearing and construction within 300 feet of the nest shall be postponed or halted, at the discretion of the biologist in consultation with CDFG and USFWS, until the nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting. If no active nests are observed, construction may proceed. If active nests are found, work may proceed provided that construction activity is located at least 300 feet from active nests (or as authorized through the context of the Biological Opinion and 2081b Incidental Take Permit). This buffer may be adjusted provided noise levels do not exceed 60 dB(A) hourly L_{eq} at the edge of the nest site as determined by a qualified biologist in coordination with a qualified acoustician.

If the noise meets or exceeds the 60 dB(A) L_{eq} threshold, or if the biologist determines that the construction activities are disturbing nesting activities, the biologist shall have the authority to halt the construction and shall devise methods to reduce the noise and/or disturbance in the vicinity. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nest site and the construction activities, and working in other areas until the young have fledged. If noise levels still exceed 60 dB(A) L_{eq} hourly at the edge of nesting territories and/or a no-construction buffer cannot be maintained, construction shall be deferred in that area until the nestlings have fledged. All active nests shall be monitored on a weekly basis until the nestlings fledge. The qualified biologist shall be responsible for documenting the results of the surveys and the ongoing monitoring and for reporting these results to CDFG and USFWS.

For coastal California gnatcatcher, the applicant shall conduct USFWS protocol surveys in suitable habitat within the Project area and all areas within 500 feet of access or construction-related disturbance areas. Suitable habitats, according to the protocol, include "coastal sage scrub, alluvial fan, chaparral, or intermixed or adjacent areas of grassland and riparian habitats." A permitted biologist shall perform these surveys according to the USFWS' (1997a) Coastal California Gnatcatcher Presence/Absence Survey Guidelines. If a territory or nest is confirmed, the USFWS and CDFG shall be notified immediately. If present, a 500-foot disturbance-free buffer shall be established and demarcated by fencing or flagging.

No Project activities may occur in these areas unless otherwise authorized by USFWS and CDFG. Construction activities in suitable gnatcatcher habitat will be monitored by a full-time qualified biologist. The monitoring shall be of a sufficient intensity to ensure that the biologist could detect the presence of a bird in the construction area.

- LV 4.4-22 Thirty days prior to construction activities, a qualified biologist shall conduct CDFG protocol surveys to determine whether the burrowing owl is present at the site. The surveys shall consist of three site visits and shall be conducted in areas dominated by field crops, disturbed habitat, grasslands, and along levee locations, or if such habitats occur within 500 feet of a construction zone. If located, occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFG verifies through non-invasive methods that either the birds have not begun egg-laying and incubation or that juveniles from the occupied burrows are foraging independently and are capable of independent survival. If the burrowing owl is detected but nesting is not occurring, construction work can proceed after any owls have been evacuated from the site using CDFG-approved burrow closure procedures and after alternative nest sites have been provided in accordance with the CDFG Staff Report on Burrowing Owl Mitigation (10-17-95).

Unless otherwise authorized by CDFG, a 500-foot buffer, within which no activity will be permissible, will be maintained between Project activities and nesting burrowing owls during the nesting season. This protected area will remain in effect until August 31 or at CDFG's discretion and based upon monitoring evidence, until the young owls are foraging independently.

Results of the surveys and relocation efforts shall be provided to CDFG in the annual mitigation status report.

- LV 4.4-23 Thirty days prior to construction activities in grassland, scrub, chaparral, oak woodland, riverbank, and agriculture habitats, or other suitable habitat, a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for San Diego black-tailed jackrabbit and San Diego desert woodrat.

If San Diego black-tailed jackrabbits are present, non-breeding rabbits shall be flushed from areas to be disturbed. Dens, depressions, nests, or burrows occupied by pups shall be flagged and ground-disturbing activities avoided within a minimum of 200 feet during the pup-rearing season (February 15 through July 1). This buffer may be reduced based on the location of the den upon consultation with CDFG. Occupied maternity dens, depressions, nests, or burrows shall be flagged for avoidance, and a biological monitor shall be present during construction. If unattended young are discovered, they shall be relocated to suitable habitat by a qualified biologist. The applicant shall document all San Diego black-tailed jackrabbit identified, avoided, or moved and provide a written report to CDFG within 72 hours. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

If active San Diego desert woodrat nests (stick houses) are identified within the disturbance zone or within 100 feet of the disturbance zone, a fence shall be erected around the nest site adequate to provide the woodrat sufficient foraging habitat at the discretion of the qualified biologist in consultation with CDFG. Clearing and construction within the fenced area will be postponed or halted until young have left the nest. The biologist shall serve as a

construction monitor during those periods when disturbance activities will occur near active nest areas to ensure that no inadvertent impacts to these nests will occur. If avoidance is not possible, the applicant will take the following sequential steps: (1) all understory vegetation will be cleared in the area immediately surrounding active nests followed by a period of one night without further disturbance to allow woodrats to vacate the nest, (2) each occupied nest will then be disturbed by a qualified wildlife biologist until all woodrats leave the nest and seek refuge off site, and (3) the nest sticks shall be removed from the Project site and piled at the base of a nearby hardwood tree (preferably a coast live oak or California walnut). Relocated nests shall not be spaced closer than 100 feet apart, unless a qualified wildlife biologist has determined that a specific habitat can support a higher density of nests. The applicant shall document all woodrat nests moved and provide a written report to CDFG.

All woodrat relocation shall be conducted by a qualified biologist in possession of a scientific collecting permit.

- LV 4.4-24 Thirty days prior to construction activities in grassland, scrub, chaparral, oak woodland, riverbank, and agriculture habitats, or other suitable habitat a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for American badger.

If American badgers are present, occupied habitat shall be flagged and ground-disturbing activities avoided within 50 feet of the occupied den. Maternity dens shall be avoided during the pup-rearing season (February 15 through July 1) and a minimum 200 foot buffer established. This buffer may be reduced based on the location of the den upon consultation with CDFG. Maternity dens shall be flagged for avoidance, identified on construction maps, and a qualified biologist shall be present during construction. If avoidance of a non-maternity den is not feasible, badgers shall be relocated either by trapping or by slowly excavating the burrow (either by hand or mechanized equipment under the direct supervision of the biologist, removing no more than four inches at a time) before or after the rearing season (February 15 through July 1). Any relocation of badgers shall occur only after consultation with CDFG. A written report documenting the badger removal shall be provided to CDFG within 30 days of relocation.

Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

- LV 4.4-25 No earlier than 30 days prior to the commencement of construction activities, a preconstruction survey shall be conducted by a qualified biologist to determine if active roosts of special-status bats are present on or within 300 feet of the Project disturbance boundaries. Should an active maternity roost be identified (the breeding season of native bat species in California generally occurs from April 1 through August 31), the roost shall not be disturbed and construction within 300 feet shall be postponed or halted, at the discretion of the biological monitor, until the roost is vacated and juveniles have fledged. Surveys shall include rocky outcrops, caves, structures, and large trees (particularly trees 12 inches in diameter or greater at 4.5 feet above grade with loose bark or other cavities). Trees and rocky outcrops shall be surveyed by a qualified bat biologist (*i.e.*, a biologist holding a CDFG collection permit and a Memorandum of Understanding with CDFG allowing the biologist to handle bats). If active maternity roosts or hibernacula are found, the rock outcrop or tree

occupied by the roost shall be avoided (*i.e.*, not removed) by the Project. If avoidance of the maternity roost must occur, the bat biologist shall survey (through the use of radio telemetry or other CDFG approved methods) for nearby alternative maternity colony sites. If the bat biologist determines in consultation with and with the approval of CDFG that there are alternative roost sites used by the maternity colony and young are not present then no further action is required.

If a maternity roost will be impacted by the Project, and no alternative maternity roosts are in use near the site, substitute roosting habitat for the maternity colony shall be provided on, or in close proximity to, the Project site no less than three months prior to the eviction of the colony. Large concrete walls (*e.g.*, on bridges) on south or southwestern slopes that are retrofitted with slots and cavities are an example of structures that may provide alternative potential roosting habitat appropriate for maternity colonies. Alternative roost sites must be of comparable size and proximal in location to the impacted colony. CDFG shall also be notified of any hibernacula or active nurseries within the construction zone.

If non-breeding bat hibernacula are found in trees scheduled to be removed or in crevices in rock outcrops within the grading footprint, the individuals shall be safely evicted, under the direction of a qualified bat biologist, by opening the roosting area to allow airflow through the cavity or other means determined appropriate by the bat biologist (*e.g.*, installation of one-way doors). In situations requiring one-way doors, a minimum of one week shall pass after doors are installed and temperatures should be sufficiently warm for bats to exit the roost because bats do not typically leave their roost daily during winter months in southern coastal California. This action should allow all bats to leave during the course of one week. Roosts that need to be removed in situations where the use of one-way doors is not necessary in the judgment of the qualified bat biologist in consultation with CDFG shall first be disturbed by various means at the direction of the bat biologist at dusk to allow bats to escape during the darker hours, and the roost tree shall be removed or the grading shall occur the next day (*i.e.*, there shall be no less or more than one night between initial disturbance and the grading or tree removal). These actions should allow bats to leave during nighttime hours, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight.

If an active maternity roost is located on the Project site, and alternative roosting habitat is available, the demolition of the roost site must commence before maternity colonies form (*i.e.*, prior to March 1) or after young are flying (*i.e.*, after July 31) using the exclusion techniques described above.

- LV 4.4-26 Any special-status species bat day roost sites found by a qualified biologist during pre-construction surveys conducted per LV 4.4-25, to be directly (within project disturbance footprint) or indirectly (within 300 feet of project disturbance footprint) impacted are to be mitigated with creation of artificial roost sites. The Project applicant shall establish (an) alternative roost site(s) within suitable preserved open space located at an adequate distance from sources of human disturbance.
- LV 4.4-27 The Project applicant will retain a qualified biologist to develop an Exotic Wildlife Species Control Plan and implement a control program for bullfrog, African clawed frog, and crayfish. The program will require the control of these species during construction within the River corridor and modified tributaries (bridges, diversions, bank stabilization, drop

structures). The Plan shall include a description of the species targeted for eradication, the methods of harvest that will be employed, the disposal methods, and the measures that would be employed to avoid impacts to sensitive wildlife (e.g., stickleback, arroyo toad, nesting birds) during removal activities (i.e., timing, avoidance of specific areas). Annual monitoring shall occur for the first five years after construction of Project facilities. Monitoring will be conducted within sentinel locations along the River Corridor SMA/SEA 23 and where the Project provides potential habitat for these species (e.g., future ponds and water features). Control shall be conducted within Project facilities where monitoring results indicate that exotic species have colonized an area.

- LV 4.4-28 In order to reduce impacts to biological resources from grading and construction activities, all related activities will be conducted to facilitate the escape of animals to natural areas. Construction and grading activities will begin in disturbed areas in order to avoid stranding animals in isolated patches of vegetation. Trenches will be covered at night to prevent animals from falling into and being trapped in trenches.
- LV 4.4-29 The permanent removal of CDFG jurisdictional riparian habitats in the river and tributaries shall be replaced by creating riparian habitats of similar functions and values (see LV 4.4-31 on the Project site, or as allowed under LV 4.4-37. Riparian habitat meeting success criteria (see LV 4.4-34) two years in advance of the removal or riparian habitat cannot meet the success criteria two years in advance of the project, the ratios listed below in Table 4.4-12 will apply.

Table 4.4-12
CDFG Jurisdictional Permanent Impacts Mitigation Ratios

Ratios Listed by Vegetation Types & Quality				
Vegetation Community	Veg Code / ID	HIGH Reach	MEDIUM Reach	LOW Reach
		Value* (Mit. Ratio)	Value** (Mit. Ratio)	Value*** (Mit. Ratio)
Southern Cottonwood–Willow Riparian Forrest	SCWRF	4:1	3:1	2:1
Southern Willow Scrub	SWS	3:1	2.5:1	2:1
Oak Woodland (Coast Live, Valley)	CLOW / VOW	3:1	2.5:1	2:1
Big Sagebrush Scrub	BSS	2.5:1	2:1	1.5:1
Mexican Elderberry Scrub	MES	2.5:1	2:1	1.5:1
Cismontane Alkaline Marsh	CAM	2.5:1	2:1	1.5:1
Coastal and Valley Fresh Water Marsh	CFWM	2:1	1.5:1	1:1
Mulefat Scrub	MFS	2:1	1.5:1	1.25:1
Arrowweed Scrub	AWS	2:1	1.5:1	1:1
California Sagebrush scrub, and CSB-dominated habitats	CSB, CSB-A, -BS, -CB, -CHP, and -PS	2:1	1.5:1	1:1

Ratios Listed by Vegetation Types & Quality				
Vegetation Community	Veg Code / ID	HIGH Reach	MEDIUM Reach	LOW Reach
		Value* (Mit. Ratio)	Value** (Mit. Ratio)	Value*** (Mit. Ratio)
Herbaceous Wetland	HW	1.5:1	1.25:1	1:1
River Wash, emergent veg.	RW	1.5:1	1.25:1	1:1
Chaparral, Chamise Chaparral	CHP, CC	1.5:1	1.25:1	1:1
Coyote Brush Scrub	CYS	1.5:1	1.25:1	1:1
Eriodictyon Scrub	EDS	1.5:1	1.25:1	1:1
California Grass Lands	CGL	1:1	1:1	1:1
Agricultural / Disturbed / Developed	AGR / DL / DEV	1:1	1:1	1:1

Notes:

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

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

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

Ratios for Permanent Impacts to all classifications: Mitigation initiated two years prior to disturbance: 1:1 ratio; mitigation initiated less than two years after disturbance shall follow ratios in table above; mitigation initiated two to five years after disturbance shall add 0.5 to each value in the table above; and over five years, 1.0 is added to each value in the table above. (For example, initiation of mitigation of mulefat scrub three years after disturbance for a high habitat impact would be a ratio of 2.5:1, instead of 2:1 if initiated within two years of disturbance or 3:1 if initiated more than five years after disturbance.)

Ratios for Temporary Impacts to all classifications: Disturbance period less than two years, 1:1; two to five years, 1.5:1; over five years, 2:1, except for removal of southern cottonwood and oak woodlands, which shall be mitigated at 2:1 for High, 1.5:1 for Medium, and 1:1 for Low for all periods (except for pre-mitigated, which is 1:1).

Exotic/Invasive Species Removal, followed by restoration/revegetation, may be used to offset impacts above. Mitigation shall be credited at an acreage equivalent to the percentage of exotic vegetation at the restoration site. This means, for example, if a 10-acre area is occupied by 10% exotic species, restoration will be credited for 1 acre of impact. As appropriate and authorized by CDFG, reduced percentage credits may be applied for invasive removal with passive restoration (weeding and documentation of natural recruitment only).

LV 4.4-30 Creation of new vegetation communities and restoration of impacted vegetation communities shall occur at suitable sites in or adjacent to the watercourses or in areas where bank stabilization would occur. The highest-priority vegetation community restoration sites are to be new riverbed and tributary areas created, or disturbed sites impacted, during the excavation of uplands for bank protection/stabilization activities. Restoration sites may also occur at locations outside the riverbed where there are appropriate hydrologic conditions to create a self-sustaining riparian vegetation community and where upland and riparian vegetation community values are absent or very low. All sites shall contain suitable hydrological conditions and surrounding land uses to ensure a self-sustaining functioning riparian vegetation community. Candidate restoration sites shall be described in the annual mitigation status report (LV 4.4-41). Sites will be approved when the detailed wetlands mitigation plans are submitted to the Corps and CDFG as part of the sub-notification letters submitted for individual projects. Status of the sites will be addressed as part of the annual mitigation status report and mitigation accounting form agency review. Each revegetation plan will include acreages, maps and site specific descriptions of the proposed revegetation

site, including analysis of soils, hydrologic suitability, and present and future adjacent land uses.

- LV 4.4-31 Replacement vegetation communities shall be designed to replace the functions and values of the vegetation communities being removed. The replacement vegetation communities shall have similar dominant trees and understory shrubs and herbs (excluding exotic species) to those of the affected vegetation communities (see Table 4.4-13 for example of recommended plant species for the River Corridor SMA/SEA 23 and tributaries). In addition, the replacement vegetation communities shall be designed to replicate the density and structure of the affected vegetation communities once the replacement vegetation communities have met the mitigation success criteria.

**Table 4.4-13
Potential Plant Species for Vegetation Community Restoration in
the River Corridor SMA/SEA 23 and Tributaries**

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

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

- LV 4.4-32 Average plant spacing shall be determined based on an analysis of vegetation communities to be replaced. The applicant shall develop plant spacing specifications for all riparian vegetation communities to be restored. Plant spacing specifications shall be reviewed and approved by the Corps and CDFG when restoration plans are submitted to the agencies as part of the sub-notification letters submitted to the Corps and CDFG for individual projects or as part of the annual mitigation status report and mitigation accounting form.

LV 4.4-33 If at any time prior to Agency approval of the restoration area, the site is subject to an act of God (flood, fires, or drought), the applicant shall be responsible for replanting the damaged area. The site will be subject to the same success criteria as provided for LV 4.4-34. Should a second act of God occur prior to Agency approval of the restoration area, the applicant shall coordinate with the Agencies to develop an alternative restoration strategy(ies) to meet success requirements. This may include restoration elsewhere in the River corridor or tributaries.

LV 4.4-34 The revegetation site will be considered "complete" upon meeting all of the following success criteria. In a sub-notification letter, the applicant may request modification of success criteria on a project by project basis. Acceptance of such request will be at the discretion of CDFG and the Corps.

1. Regardless of the date of initial planting, any restoration site must have been without active manipulation by irrigation, planting, or seeding for a minimum of three years prior to Agency consideration of successful completion.
2. The percent cover and species richness of native vegetation shall be evaluated based on local reference sites established by CDFG and the Corps for the plant communities in the impacted areas.
3. Native shrubs and trees shall have at least 80 percent survivorship after two years beyond the beginning of the success evaluation start date. This may include natural recruitment.
4. Non-native species cover will be no more than 5 percent absolute cover through the term of the restoration.
5. Giant reed (*Arundo donax*), tamarisk (*Tamarix ramosissima*), perennial pepperweed (*Lepidium latifolium*), tree of heaven (*Ailanthus altissimus*), pampas grass (*Cortaderia selloana*) and any species listed on the California State Agricultural list, or Cal-IPC list of noxious weeds will not be present on the revegetation site as of the date of completion approval.

Using the HARC assessment methodology, the compensatory mitigation site shall meet or exceed the baseline functional scores of the impact area in jurisdictional waters of the United States. If the compensatory mitigation site cannot meet or exceed the baseline functional score of the impact area in jurisdictional waters of the United States, additional mitigation area would be required to compensate for the functional loss.

LV 4.4-35 Temporary irrigation shall be installed as necessary for plant establishment. Irrigation shall continue as needed until the restoration site becomes self sustaining regarding survivorship and growth. Irrigation shall be terminated in the fall to provide the least stress to plants.

LV 4.4-36 As an alternative to the creation/restoration of vegetation communities to compensate for permanent removal of riparian vegetation communities, in the Santa Clara River, the applicant may control invasive exotic plant species within the Upper Santa Clara River Sub-Watershed for a portion of the Santa Clara River mitigation required under LV 4.4-29. The applicant may perform this work or contribute "in-lieu fees" to the Upper Santa Clara

River Arundo/Tamarisk Removal Program to perform this work, if available. The weed control sites shall be selected in a coordinated, logical manner to ensure that giant reed and other invasive weeds are controlled to improve and expand wildlife and endangered species habitat; reduce flooding, erosion, and fire hazards; improve water quality; and potentially increase stream flow/water quantity in the project watercourses. Removal areas shall be kept free of exotic plant species for 5 years after initial treatment. In areas where extensive exotic removal occurs, revegetation with native plants or natural recruitment shall be documented.

- LV 4.4-37 The exotics control program may utilize methods and procedures in accordance with the provisions in the Upper Santa Clara River Watershed Arundo/Tamarisk Removal Plan Final Environmental Impact Report, dated February 2006, or the applicant may propose alternative methods and procedures for Corps and CDFG review and approval pursuant to a sub-notification letter. Exotic plant species control will be credited for 1 acre of mitigation.
- LV 4.4-38 All native riparian trees with a 3-inch diameter at breast height (dbh) or greater in temporary construction areas shall be replaced using 1- or 5-gallon container plants, containered trees, or pole cuttings in the temporary construction areas in the winter following the construction disturbance. The growth and survival of the replacement trees shall meet the performance standards specified in **LV 4.4-34**. In addition, the growth and survival of the planted trees shall be monitored until they meet the self-sustaining success criteria in accordance with the methods and reporting procedures specified in **LV 4.4-34**, **LV 4.4-40**, and **LV 4.4-41**.
- LV 4.4-39 Vegetation communities temporarily impacted by the proposed project shall be revegetated as described in LV 4.4-29. Large trunks of removed trees may also remain on site to provide habitat for invertebrates, reptiles, and small mammals or may be anchored within the project site for erosion control. To facilitate restoration, mulch, or native topsoil (the top 6- to 12-inch deep layer containing organic material), may be salvaged from the work area prior to construction. Following construction, salvaged topsoil shall be returned to the work area and placed in the restoration site. Within one year, the project biologist will evaluate the progress of restoration activities in the temporary impact areas to determine if natural recruitment has been sufficient for the site to reach performance goals. In the event that native plant recruitment is determined by the project biologist to be inadequate for successful habitat establishment, the site shall be revegetated in accordance with the methods designed for permanent impacts (i.e., seeding, container plants, and/or a temporary irrigation system may be recommended). This will help ensure the success of temporary mitigation areas. The applicant shall restore
- the temporary construction area per the success criteria and ratios described in **LV 4.4-1**, **LV 4.4-29**, and **LV 4.4-34**. Annual monitoring reports on the status of the recovery or temporarily impacted areas shall be submitted to the Corps and CDFG as part of the annual mitigation status report (**LV 4.4-40** and **LV 4.4-41**).
- LV 4.4-40 To provide an accurate and reliable accounting system for mitigation, the applicant shall file a mitigation accounting form annually with the Corps and CDFG by April 1.
- LV 4.4-41 An annual mitigation status report shall be submitted to the Corps and CDFG by April 1 of each year until satisfaction of success criteria identified in **LV 4.4-34**. This report shall

include any required plans for plant spacing, locations of candidate restoration and weed control sites or proposed "in-lieu fees," restoration methods, and vegetation community restoration performance standards. For active vegetation community creation sites, the report shall include the survival, percent cover, and height of planted species; the number by species of plants replaced; an overview of the revegetation effort and its success in meeting performance criteria; the method used to assess these parameters; and photographs. For active exotics control sites, the report shall include an assessment of weed control; a description of the relative cover of native vegetation, bare areas, and exotic vegetation; an accounting of colonization by native plants; and photographs. The report shall also include the mitigation accounting form (see LV 4.4-40), which outlines accounting information related to species planted or exotics control and mitigation credit remaining. The annual mitigation and monitoring report shall document the current functional capacity of the compensatory mitigation site using the HARC assessment methodology, as well as documenting the baseline functional scores of the impact site in jurisdictional waters of the United States.

- LV 4.4-42 Prior to the construction of adjacent developments, signs will be placed along the roads indicating potential wildlife crossings where mountain lions and mule deer are known to cross in consultation with CDFG.
- LV 4.4-43 Development areas shall have dust control measures implemented and maintained to prevent dust from impacting vegetation communities and special-status plant and aquatic wildlife species. Dust control shall comply with SCAQMD Rule 403d (SCAQMD 2005). Where construction activities occur within 100 feet of known special-status plant species locations, chemical dust suppression shall not be utilized. Where determined necessary by a qualified biologist, a screening fence (*i.e.*, a six-foot-high chain link fence with green fabric up to a height of 5 feet) shall be installed to protect special-status species locations.
- LV 4.4-44 Plant palettes proposed for use on landscaped slopes, street medians, park sites, and other public landscaped and FMZ areas within 100 feet of native vegetation communities shall be reviewed by a qualified restoration specialist to ensure that the proposed landscape plants will not naturalize and require maintenance or cause vegetation community degradation in the open space areas (River Corridor SMA/SEA 23, High Country SMA/SEA 20, Salt Creek area, and natural portions of the Open Area). Container plants to be installed within public areas within 200 feet of the open space areas shall be inspected by a qualified restoration specialist for the presence of disease, weeds, and pests, including Argentine ants. Plants with pests, weeds, or diseases shall be rejected. In addition, landscape plants within 100 feet of native vegetation communities shall not be on the Cal-IPC California Invasive Plant Inventory (most recent version) or on the list of Invasive Ornamental Plants listed in Appendix B of the SCP. The current Cal-IPC list can be obtained from the Cal-IPC website (<http://www.cal-ipc.org/ip/inventory/index.php>). Landscape plans will include a plant palette composed of native or non-native, non-invasive species that do not require high irrigation rates. Except as required for fuel modification, irrigation of perimeter landscaping shall be limited to temporary irrigation (*i.e.*, until plants become established).
- LV 4.4-45 Waste and recycling receptacles that discourage foraging by wildlife species adapted to urban environments shall be installed in common areas and parks throughout the Landmark Village site.

- LV 4.4-46 An Integrated Pest Management (IPM) plan that addresses the use of pesticides (including rodenticides and insecticides) on site will be prepared prior to the issuance of building permits for the initial tract map. Preparation of the covenants, conditions, and restrictions (CC&Rs) for each tract map shall include language that prohibits the use of anticoagulant rodenticides in the Project site.
- LV 4.4-47 The Natural Lands Management Organization (NLMO) shall fund or otherwise coordinate the regular removal of trash and debris from riparian habitats on or adjacent to the project site. The removal of trash shall be conducted in a manner as to not disturb sensitive habitats.
- LV 4.4-48 Each tract map Home Owners' Association shall supply educational information to future residents regarding pets, wildlife, and open space areas. The material shall discuss the presence of native animals (e.g., coyote, bobcat, mountain lion), indicate that those native animals could prey on pets, indicate that no actions shall be taken against native animals should they prey on pets allowed outdoors, and indicate that pets must be leashed while using the designated trail system and/or in any areas within or adjacent to open space. Control of stray and feral cats and dogs will be conducted in open space areas on an as-needed basis by the NLMO(s) or the Newhall Ranch JPA managing the River Corridor SMA/SEA 23, High Country SMA/SEA 20, or Salt Creek area or by the HOAs managing the Open Areas. Feral cats and dogs may be trapped and deposited with the local Society for the Prevention of Cruelty to Animals or the Los Angeles County Department of Animal Control.
- LV 4.4-49 Permanent fencing shall be installed along all River Corridor SMA/SEA 23 trails adjacent to the Santa Clara River, or other sensitive resources, in order to minimize impacts associated with increased human presence on protected vegetation communities and special-status plant and wildlife species. The fencing will be split rail to avoid inhibiting wildlife movement. Viewing platforms will be located in land covers currently mapped as agriculture, disturbed land, or developed land.
- LV 4.4-50 A cowbird trapping program shall be implemented once vegetation clearing begins and maintained throughout the construction, maintenance, and monitoring period of the riparian restoration sites. A minimum of five traps shall be utilized, with at least one trap adjacent to the project site and one or two traps located at feeding areas or other CDFG-approved location. The trapping contractor may consult with CDFG to request modification of the trap location(s). CDFG must approve any relocation of the traps. Traps will be maintained beginning each year on April 1 and concluding on/about November 1 (may conclude earlier, depending upon weather conditions and results of capture). The trapping contractor may also consult CDFG on a modified, CDFG-approved trapping schedule modification. The applicant shall follow CDFG and USFWS protocol. In the event that trapping is terminated after the first few years, subsequent phases of the RMDP development will require initiation of trapping surveys to determine whether re-establishment of the trapping program is necessary.
- LV 4.4-51 Following the completion and occupancy of a development area, quarterly monitoring shall be initiated for Argentine ants along the urban–open space interface at sentinel locations where invasions could occur (e.g., where moist microhabitats that attract Argentine ants may be created). A qualified biologist shall determine the monitoring locations. Ant pitfall traps will be placed in these sentinel locations and operated on a quarterly basis to detect

invasion by Argentine ants. If Argentine ants are detected during monitoring, direct control measures will be implemented immediately to help prevent the invasion from worsening. These direct controls may include but are not limited to nest/mound insecticide treatment, or available natural control methods being developed. A general reconnaissance of the infested area would also be conducted to identify and correct the possible source of the invasion, such as uncontrolled urban runoff, leaking pipes, or collected water. Monitoring and control of Argentine ants would occur for a five-year period.

- LV 4.4-52 Thirty days prior to construction activities, a qualified biologist shall conduct a preconstruction survey for ringtail. The survey area shall include suitable riparian and woodland habitat (southern coast live oak riparian forest, southern cottonwood–willow riparian forest, southern willow scrub, coast live oak woodland, valley oak woodland, and mixed oak woodland) within the construction disturbance zone and a 300-foot buffer around the construction site. Should the ringtail be observed in the breeding and rearing period of February 1 through August 31, no construction-related activities shall occur within 300 feet of the occupied area for the period of February 1 through August 31 or until the ringtail has been determined by a qualified biologist (in consultation with CDFG) to no longer occupy areas within 300 feet of the construction zone and/or that construction activities would not adversely affect the successful rearing of young. If the ringtail is observed within the construction disturbance zone or in the 300-foot buffer around the construction site in the nonbreeding/rearing period of September 1 through January 31, and avoidance is not possible, denning ringtail shall be safely evicted under the direction of a qualified biologist (as determined by a Memorandum of Understanding with CDFG). All activities that involve the ringtail shall be documented and reported to CDFG.
- LV 4.4-53 Any southern California black walnut and mainland cherry trees or shrubs outside riparian areas greater than one inch dbh shall be replaced in the ratio of at least 2:1. Multi-trunk trees/shrub dbh shall be calculated based on combined trunk dbh. Mitigation shall be deemed complete when each replacement tree attains at least one inch in diameter one foot above the base.
- LV 4.4-54 During any stream diversion or culvert installation activity, a qualified biologist(s) shall be present and shall patrol the areas within, upstream, and downstream of the work area. The biologists shall inspect the diversion and inspect for stranded fish or other aquatic organisms. Under no circumstances shall the unarmored threespine stickleback be collected or relocated, unless USFWS personnel or their agents implement this measure. Any event involving stranded fish shall be recorded and reported to CDFG and USFWS within 24 hours.
- LV 4.4-55 Conduct focused surveys for California red-legged frogs. Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities, all construction sites and access roads within the riverbed as well as all riverbed areas within 1,000 feet of construction sites and access roads shall be surveyed at the appropriate season for California red-legged frogs. The applicant shall contract with a qualified biologist to conduct focused surveys for California red-legged frogs. If detected in or adjacent to the Project area, no work will be authorized within 500 feet of occupied habitat until the applicant provides concurrence from the USFWS to CDFG and Corps. If present, the applicant shall implement measures required by the

USFWS Biological Opinion for California red-legged frog that either supplement or supercede these measures. If present, the applicant shall develop and implement a monitoring plan that includes the following measures in consultation with the USFWS and CDFG.

1. The applicant shall retain a qualified biologist with demonstrated expertise with California red-legged frogs to monitor all construction activities in potential red-legged frog habitat and assist the applicant in the implementation of the monitoring program. This person will be approved by the USFWS prior to the onset of ground-disturbing activities. This biologist will be referred to as the authorized biologist hereafter. The authorized biologist will be present during all activities immediately adjacent to or within habitat that supports populations of California red-legged frogs.
2. Prior to the onset of construction activities, the applicant shall provide all personnel who will be present on work areas within or adjacent to the Project area the following information:
 - a. A detailed description of the California red-legged frogs, including color photographs;
 - b. The protection the California red-legged frog receives under the Endangered Species Act and possible legal action that may be incurred for violation of the Act;
 - c. The protective measures being implemented to conserve the California red-legged frogs and other species during construction activities associated with the proposed Project; and
 - d. A point of contact if California red-legged frogs are observed.
3. All trash that may attract predators of the California red-legged frogs will be removed from work sites or completely secured at the end of each work day.
4. Prior to the onset of any construction activities, the applicant shall meet on site with staff from the USFWS and the authorized biologist. The applicant shall provide information on the general location of construction activities within habitat of the California red-legged frogs and the actions taken to reduce impacts to this species. Because California red-legged frogs may occur in various locations during different seasons of the year, the applicant, USFWS, and authorized biologist will, at this preliminary meeting, determine the seasons when specific construction activities would have the least adverse effect on California red-legged frogs. The goal of this effort is to reduce the level of mortality of California red-legged frogs during construction.
5. Work areas will be fenced in a manner that prevents equipment and vehicles from straying from the designated work area into adjacent habitat. The authorized biologist will assist in determining the boundaries of the area to be fenced in consultation with the USFWS/CDFG. All workers will be advised that equipment and vehicles must remain within the fenced work areas.

6. The authorized biologist will direct the installation of the fence and conduct a minimum of three nocturnal surveys to move any California red-legged frogs from within the fenced area to suitable habitat outside of the fence. If California red-legged frogs are observed on the final survey or during subsequent checks, the authorized biologist will conduct additional nocturnal surveys if he or she determines that they are necessary in concurrence with the USFWS/CDFG.
7. Fencing to exclude California red-legged frogs will be at least 24 inches in height.
8. The type of fencing must be approved by the authorized biologist and the USFWS/CDFG.
9. Construction activities that may occur immediately adjacent to breeding pools or other areas where large numbers of California red-legged frogs may congregate will be conducted during times of the year (fall/winter) when individuals have dispersed from these areas. The authorized biologist will assist the applicant in scheduling its work activities accordingly.
10. If California red-legged frogs are found within an area that has been fenced to exclude California red-legged frogs, activities will cease until the authorized biologist moves the California red-legged frog(s).
11. If California red-legged frogs are found in a construction area where fencing was deemed unnecessary, work will cease until the authorized biologist moves the California red-legged frogs. The authorized biologist in consultation with USFWS/CDFG will then determine whether additional surveys or fencing are needed. Work may resume while this determination is being made, if deemed appropriate by the authorized biologist and USFWS.
12. Any California red-legged frogs found during clearance surveys or otherwise removed from work areas will be placed in nearby suitable, undisturbed habitat. The authorized biologist will determine the best location for their release, based on the condition of the vegetation, access to deep perennial pools, soil, and other habitat features and the proximity to human activities. Clearance surveys shall occur on a daily basis in the work area.
13. The authorized biologist will have the authority to stop all activities until appropriate corrective measures have been completed.
14. Staging areas for all construction activities will be located on previously disturbed upland areas, if possible, designated for this purpose. All staging areas will be fenced.
15. To ensure that diseases are not conveyed between work sites by the authorized biologist or his or her assistants, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force (DAPTF 2009) will be followed at all times.

11. CUMULATIVE IMPACTS

a. Introduction

The Landmark Village project is a component of the Newhall Ranch Specific Plan. The Specific Plan guides the long-term development of the 11,999-acre Newhall Ranch community, comprising a broad range of residential, mixed-use, and non-residential land uses developed within five village areas. Buildout of the Newhall Ranch Specific Plan will occur through submission of individual tentative subdivision maps. Landmark Village represents the first subdivision map filed within the Specific Plan area. Other subdivision maps on file with the County or that are considered reasonably foreseeable include Mission Village, Potrero, and Homestead.

Buildout of the Specific Plan would permanently convert acreage from a natural, albeit partially disturbed habitat condition, to that of an urban environment. Buildout of individual tracts filed under the Specific Plan would significantly impact the following vegetation communities absent mitigation: coastal scrub, big sagebrush scrub, oak communities, Mexican elderberry scrub, riparian scrub, riparian woodland, coastal and valley freshwater marsh, southern cottonwood-willow riparian, alluvial scrub, and cismontane alkali marsh.

Construction and operation of uses developed within the Specific Plan would directly disturb wildlife on and near the site. Within the planned development areas, species of low mobility would be lost during site preparation. Conversion of existing open space to developed uses consisting of structures and ornamental landscaping would eliminate natural communities on developed portions of the site and result in a reduction in native wildlife species diversity. Buildout of uses within the Specific Plan would also limit the local movement of wildlife species that currently make use of areas proposed for development.

Other proposed and reasonably foreseeable projects beside those uses in the Newhall Ranch Specific Plan are described below. Where the potential impacts are known, the impacts likely to be associated with these projects are first identified. The potential for these impacts to combine with similar impacts due to the proposed project is also evaluated. This list of projects is not intended to include all projects that are proposed in the project region. Instead, the analysis focuses on those projects that support or would potentially affect similar plant communities, jurisdictional resources, and special-status plant and animal species that occur on the Landmark Village project site. The analysis also focuses on those related projects that would likely be constructed during the same timeframe as Landmark Village. Those projects that also are adjacent to or that otherwise may affect resources associated with the Santa Clara River were included.

In close proximity to the proposed Landmark Village site is the Valencia Commerce Center (VCC). The VCC project consists of a light industrial and commercial development over 1,500 acres on undeveloped farmlands north of the Newhall Ranch Specific Plan site and SR-126, and west of I-5. Castaic Creek traverses the VCC site. The County approved this VCC project in 1992 and a considerable portion of the site is now developed. A 404 Permit was issued for the VCC project by the Corps to line the existing banks with gunite bank protection. Castaic Creek contains dense riparian woodland and supports the least Bell's vireo and arroyo toad. As such, construction of the 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; (6) impacts to mariposa lily, everlasting, and San Fernando Valley spineflower; and (7) modification of visual qualities due to urban development, bank protection, and bridges. The remaining undeveloped portion of the VCC project is assessed as a part of the Landmark Village applicant's RMDP/SCP project.

Also in proximity to the proposed Landmark Village project is the proposed Entrada project. The Entrada project, consisting of approximately 820 acres, is located within unincorporated Los Angeles County in the Santa Clarita Valley. More specifically, the project site is located directly west of I-5, both north and south of Magic Mountain Parkway. The project applicant proposes to develop the property with up to 3,300 residential units and 3.1 million square feet of commercial floor area. Approximately 48 percent of the site would be retained as open space. Bank stabilization along a portion of the Santa Clara River would be constructed in conjunction with the project. Construction and development of this project could cause potentially significant cumulative impacts to mariposa lily, everlasting, San Fernando Valley spineflower, and valley oak savannah. As stated, a portion of Entrada includes spineflower. To facilitate a portion of the development within Entrada, the project applicant is currently seeking a Section 2081 permit authorizing the take of spineflower as part of the RMDP/SCP project. This separate project is being evaluated in a Draft EIS/EIR prepared under the direction of the Corps and CDFG.

In addition, the project applicant is currently processing federal and state permit applications and the preparation of a combined EIS/EIR under both the National Environmental Policy Act (NEPA) and CEQA to assess the environmental implications of implementing the Newhall Ranch Resource Management and Development Plan/Spineflower Conservation Plan (RMDP/SCP) project. The project's RMDP component consists of those improvements, facilities, and activities associated with implementation of the Newhall Ranch Specific Plan, which will require federal and state permits and agreements from the Corps and the CDFG. The proposed RMDP consists specifically of various flood

control improvements, stream bank protection, drainage facilities, roads, building pads, pipeline and utility river crossings, nature trails, new and widened bridges, and the Newhall Ranch WRP outfall facilities. The proposed SCP component consists of a conservation management framework to permanently protect and manage designated preserve areas designed to maximize the long-term persistence of the spineflower, and to authorize the take of spineflower located outside of the preserve system.

The proposed federal action required to implement the RMDP/SCP project consists of the issuance of a long-term Section 404 permit for the Newhall Ranch RMDP facilities and improvements associated with the Newhall Ranch Specific Plan that would potentially result in the discharge of fill or dredged material in and adjacent to the Santa Clara River and its side drainages. As part of the federal permit review process, the Corps also will comply with Section 7 of the Endangered Species Act, which requires consultation with the USFWS for any federal permit that may affect an ESA-listed species or their critical habitat. In addition, a federal Clean Water Act Section 401 water quality certification will be required from the Los Angeles Regional Water Quality Control Board (RWQCB) as part of the Corps permit review process. The USFWS also will review a candidate conservation agreement and the SCP for the spineflower and consider whether to enter into such an agreement for the long-term conservation of the spineflower.

The proposed state action required to implement the RMDP/SCP project consists of the issuance by CDFG of a long-term master streambed alteration agreement under Section 1600 of the California Fish and Game Code for Newhall Ranch RMDP construction activities associated with the Newhall Ranch Specific Plan that occur within the bed, bank, or streambed channel of the Santa Clara River and its side drainages. The proposed state action also would include issuance by CDFG of an incidental take permit for Newhall Ranch RMDP construction activities that impact state-listed species under the California Endangered Species Act. The proposed state action also includes CDFG's review and possible approval of the SCP and issuance of a Section 2081 incidental take permit for spineflower. For further updated information concerning the RMDP/SCP project, please refer to the Landmark Village Final EIR (November 2007), Topical Response 2.

b. Cumulative Impact Analysis Study Area

Under the *State CEQA Guidelines* (Cal. Code Regs., tit. 14, § 15130, subd. (b)(3)), the lead agency should provide a reasonable explanation of the geographic limitation used in the cumulative impacts analysis. As permitted under section 15130, this cumulative impacts analysis uses a "project list" approach. (Cal. Code Reg. tit. 14, § 15130(b)(1)(A)). Under such an approach, the proposed project's impacts are considered in conjunction with impacts from past, present, and reasonably foreseeable projects within a

designated study area, which, in this case, is the Santa Clara River Watershed (SCRW). Because the SCRW is so large and spans across multiple jurisdictions, the project list for this cumulative impacts analysis includes projects in the watershed from: (1) Los Angeles County and the City of Santa Clarita; and (2) Ventura County, extending west to the City of Santa Paula and including the community of Piru and the City of Fillmore. Note that this analysis generally addresses past, present, and reasonably foreseeable projects located within the watershed itself; however, for some biological resources other scales are more applicable and are used as appropriate. For certain species, the scope of analysis extends beyond the watershed boundary (*e.g.*, San Fernando Valley spineflower), and for other species the scope of analysis is more focused based on limited distribution and use of habitat within the watershed (*e.g.*, unarmored threespine stickleback).

This cumulative analysis describes the effects of past, present, and reasonably foreseeable projects on the biological resources of SCRW. The list of past, present, and reasonably foreseeable cumulative development projects used to conduct this cumulative impact analysis was prepared for the Santa Clara River Watershed Study (Watershed Study's Dudek 2007). The Watershed Study is provided in Appendix A of the Landmark Village Final EIR (November 2007). The Watershed Study also includes a review of cumulative impacts within the Santa Clara River watershed based on information from permits issued between 1988 and 2006¹⁷ by the U.S. Army Corps of Engineers (Corps) and California Department of Fish and Game (CDFG) regarding jurisdictional wetlands and waters impacts and mitigation. In addition, 14 cumulative development projects that have the potential to result in impacts to biological resources **also** were added to the evaluation of cumulative biological impacts because those projects were not included on the Watershed Study project list. In general, the additional projects are located in the Santa Clarita area and are small- to moderately sized (*i.e.*, one to 100 acres) urban "infill" projects. In total, 14 additional projects encompassing an area of 337 acres were added to this analysis. For this EIR, the geographic scope of the cumulative impacts analysis is shown on **Figure 4.4-11**.¹⁸ The "Project Area" shown on this figure is the Newhall Ranch Specific Plan and the VCC and Entrada planning areas, including the Landmark Village project site.

The review for this cumulative section also generally reviewed major NCCP and HCPs for other areas of Southern California, including Kern, Riverside, Orange, and San Diego Counties, but found those areas to be so geographically distant (*e.g.*, greater than 25–30 miles) from the Landmark Village project area so as to not be reasonable or meaningful for inclusion in this analysis.

¹⁷ The permits from CDFG date back to 1983, but the information provided on those permits was insufficient to quantify impacts. Therefore, impacts were quantified beginning from 1988.

¹⁸ This scope was used for analysis of the following resource categories: Hydrology, Floodplain Modification, Water Quality, Cultural Resources, Paleontological Resources, Geology, Visual Resources, Parks and Recreation, Hazards, Public Services, and Solid Waste.

In order to present a reasonable cumulative impacts analysis in this EIR, the local development and infrastructure projects lists were reduced and consolidated according to the following parameters: (1) projects outside the geographic scope, with the exception of a few large projects, were excluded from further analysis due to their distance from the proposed project; (2) projects more than 5 miles away from the project area (but within the roughly 10-mile geographic scope) and/or smaller-scale projects are listed in a consolidated manner, and are grouped by local jurisdiction (note that due to the approximately 12,000-acre size of the Newhall Ranch Specific Plan area, which includes Landmark Village, "smaller-scale" projects in this context include projects roughly 700 acres and smaller); and (3) large projects within 5 miles of the Newhall Ranch Specific Plan area are listed individually. Projects selected for individual listing also are included in the consolidated lists, to reflect overall development patterns in the geographic study area. The consolidated project lists are grouped according to the following jurisdictions: City of Santa Clarita; unincorporated areas of Los Angeles County; City of Fillmore (Ventura County); City of Santa Paula (Ventura County); Corps (section 404 permit); USFWS biological opinions; CDFG (streambed); and CDFG (take authorizations).

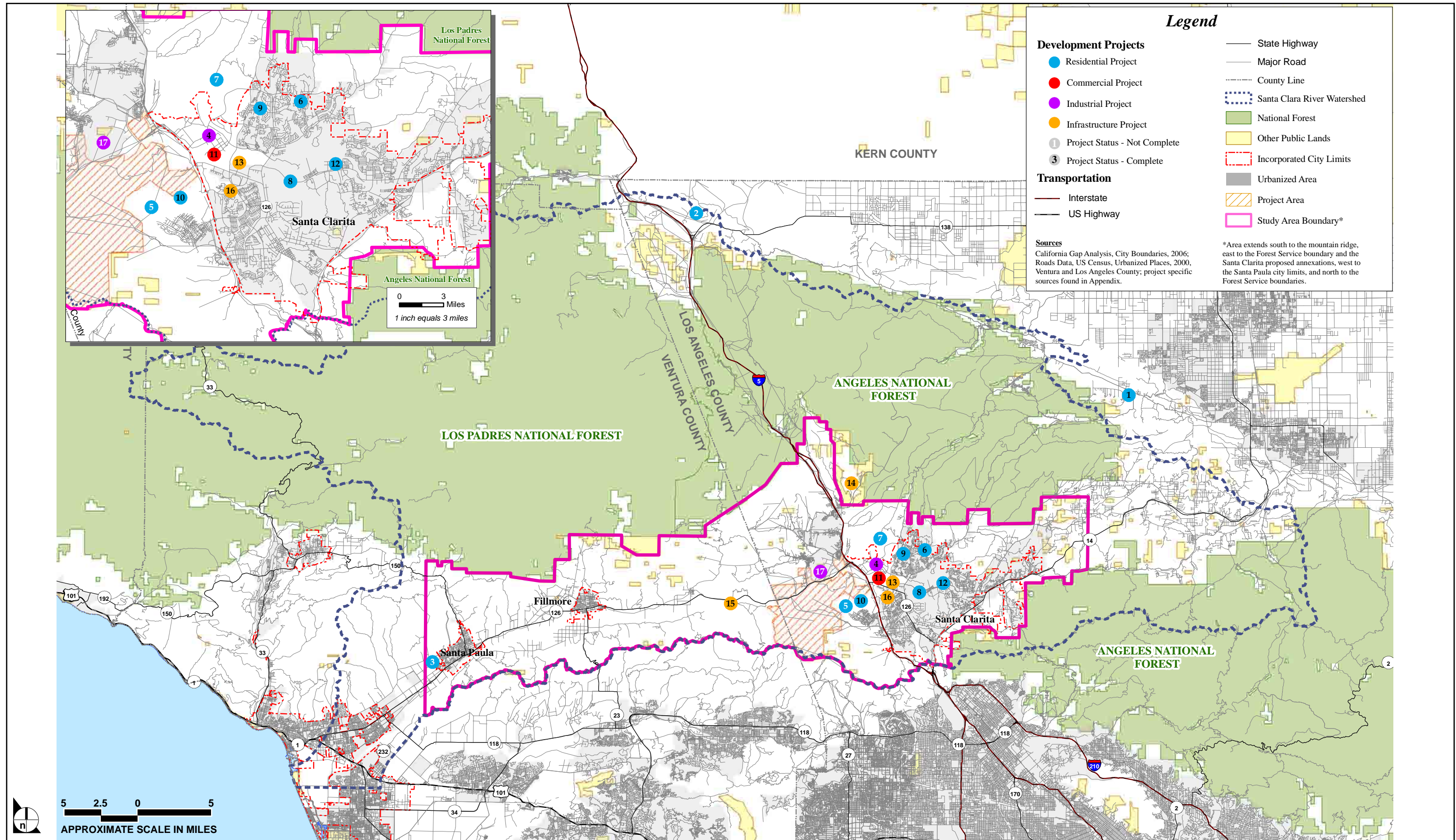
c. Consolidated Projects

(1) City of Santa Clarita Consolidated Projects

Table 4.4-14 contains the City of Santa Clarita consolidated projects analysis. Projects more than 5 miles away from the Newhall Ranch Specific Plan area and/or smaller-scale projects (less than 700 acres) are listed in a consolidated manner, and are grouped by local jurisdiction. **Table 4.4-14** also includes the projects selected for individual listing, which are discussed further in **Subsection 4.4.11.a.(2)**, below.

(2) Unincorporated Los Angeles County Consolidated Projects

Table 4.4-15 contains the Los Angeles County consolidated projects analysis. Projects more than 5 miles away from the Newhall Ranch Specific Plan area and/or smaller-scale projects (less than 700 acres) are listed in a consolidated manner, and are grouped by local jurisdiction. **Table 4.4-15** also includes the projects selected for individual listing, which are discussed further in **Subsection 4.4.11.a.(2)**, below.



SOURCE: URS – February 2008

FIGURE 4.4-11

Cumulative Individual Project Location Map

**Table 4.4-14
City of Santa Clarita Consolidated Projects (Includes Individually Reviewed Projects)**

Name	Location	Units	Commercial/ Industrial (sf)	Acres ¹	Status
Residential/Mixed Use Projects					
Golden Valley Ranch (TR 52414)	Newly annexed area southeast of SR-14 and north of Placerita Canyon Road; 8 miles east of the proposed RMDP/SCP project.	498	618,759	1,259 (974 open space)	Approved 2002; Under Construction
Whittaker Bermite /Porta Bella Project (TR 51599)	Map ID #8 - West of Golden Valley Road, south of Soledad Canyon Road, and east of San Fernando Road; 3 miles east of the proposed RMDP/SCP project.	2,911	609,832	996 (407 open space)	On Hold Pending Remediation Activities
Riverpark (TR 53425)	Map ID #12 - Located at the eastern terminus of Newhall Ranch Road, east of Bouquet Canyon Road, and north of Soledad Canyon Road and the Santa Clara River; 4 miles east of the proposed RMDP/SCP project.	1,089	16,000	695	Under Construction
North Valencia Specific Plan No. II (MC 04-205)	Two miles east of the Newhall Ranch Specific Plan along the east side of San Francisquito Creek, north of Newhall Ranch Road, south of Decoro Drive, east of Rye Canyon Road, and west of McBean Parkway; 2 miles east of the proposed RMDP/SCP project.	1,900	210,000	596	Approved 2000; Near Buildout
Keystone/Synergy Project (TR 60258)	South of Bouquet Canyon Road, adjacent to the RiverPark project; 5 miles east of the proposed RMDP/SCP project.	499	30,476	246 (137 open space)	Approved 2006
Stonecrest Annexation	Annexation of existing developed area on the far east side of the City of Santa Clarita, north of Soledad Canyon Road, and east of Shadow Pines Boulevard; 10 miles east of the proposed RMDP/SCP project; no new construction.	631	0	427	Annexed 2006; Existing Development
Downtown Newhall Specific Plan	Redevelopment of downtown Newhall area (along San Fernando Road), 3 miles southeast of the proposed RMDP/SCP project.	1,092	1,017,000	320	Approved
North Newhall Specific Plan	Redevelopment along San Fernando Road in Newhall, 3 miles southeast of the proposed RMDP/SCP project.	673	660,500 (Comm.) 261,000 (Elem. School)	213	Pending

Name	Location	Units	Commercial/ Industrial (sf)	Acres ¹	Status
Lyons Ranch (TR 53653)	West of I-5 and south of Pico Canyon Road; 2 miles east of the proposed RMDP/SCP project.	186	800	235	Approved
Stetson Ranch (TR 49621)	East of Sand Canyon Road at the northern terminus of Gary and Marilyn Drives; 9 miles east of the proposed RMDP/SCP project.	265	0	176	Approved
Sand Canyon Joint Venture (TT 53255, 53074)	The northeast corner of Soledad Canyon Road and Sand Canyon Road; 9 miles east of the proposed RMDP/SCP project.	87	110,000	89	Approved
DR Horton (TR 48892)	Northeast corner of Sierra Highway and Golden Valley Road; 6 miles east of the proposed RMDP/SCP project.	148	0	61	Approved
Centex Homes (TR 61811)	Located north of Golden Valley Road, west of Sierra Highway; 6 miles east of the proposed RMDP/SCP project.	52	0	14	Under Construction
Soledad Village Project (MC 04-444)	North of Soledad Canyon Road, south of Santa Clara River, approximately 1 mile east of Bouquet Canyon Road; 6 miles east of the proposed RMDP/SCP project.	407	8,000	30	Approved 2006
Friendly Valley Association 11 (TR 52385)	Generally located north of Sierra Highway and east of Via Princessa; 6 miles east of the proposed RMDP/SCP project.	43	0	22	Proposed
Valle de Oro (TR 53419)	Located at the northwest corner of Sierra Highway and Golden Valley Road; 6 miles east of the proposed RMDP/SCP project.	111	0	21	Completed
Soledad Circle Estates	South of Soledad Canyon Road at Penlon Court, 4 miles east of the proposed RMDP/SCP project.	147	0	20	Pending
Flying Tiger (TR 259166)	North of Via Princessa and east of Sierra Highway; 7 miles east of the proposed RMDP/SCP project.	200	0	13	Approved
Total Santa Clarita Residential/Mixed Use		10,939	3,542,367	5,433	

Name	Location	Units	Commercial/ Industrial (sf)	Acres ¹	Status
Commercial/Industrial Projects					
Rye Canyon Business Park (TR 23916, 51826)	At the northeast corner of Rye Canyon Road and Newhall Ranch Road; 2 miles northeast of the proposed RMDP/SCP project.	0	4,400,000	376	Under Construction
Gate King (TR 50283)	Southern Santa Clarita, west of SR-14 and Sierra Highway, south of San Fernando Road; 6 miles southeast of the proposed Project.	0	4,200,000	682	Approved
Centre Pointe Business Park (TR 42670)	South of Soledad Canyon road, east of Bouquet Canyon Road, west of Golden Valley Road; 5 miles east of the proposed RMDP/SCP project.	0	2,300,000	45	Near Buildout
North Valencia Specific Plan No. I	Map ID #11 - South of Newhall Ranch Road, north of Magic Mountain Parkway, east of Rye Canyon Road, west of Bouquet Canyon Road; 0.5 mile east of the proposed RMDP/SCP project.	2,000	803,000	707 (365 open space)	Near Buildout
Valencia Town Center Expansion	Northeast corner of Valencia Boulevard and McBean Parkway; 2 miles east of the proposed RMDP/SCP project.	0	491,860	10	Proposed
Bridgeport Market Place	Northeast corner of McBean Parkway and Newhall Ranch Road, 2 miles east of the proposed RMDP/SCP project.	0	160,000	32	Under Construction
Henry Mayo Newhall Memorial Master Plan (MC 04-325)	23845 West McBean Parkway; 2 miles east of the proposed RMDP/SCP project.	0	600,000	21	Proposed
Tourney North	Magic Mountain Parkway west of The Old Road and I-5; 1 mile east of the proposed RMDP/SCP project.	0	450,000	100	Under Construction
Tourney South	Wayne Mills Place east of I-5; 1 mile east of the proposed RMDP/SCP project.	0	165,000	12	Under Construction
Aspen Investment Company (MC 02-273)	North of Soledad Canyon Road and west of Valley Center Drive; 6 miles east of the proposed RMDP/SCP project.	0	109,000	6	Proposed

Name	Location	Units	Commercial/ Industrial (sf)	Acres ¹	Status
Chinque Terra Office Park	On Sierra Highway between Dockweiler Drive and San Fernando Road, 4 miles southeast of the proposed RMDP/SCP project.	0	90,900	6	Pending
Rice Self Storage (MC 02-231)	Southwest corner of Seco Canyon Road and Copperhill Drive; 3 miles north east of the proposed RMDP/SCP project.	0	84,000	3	Completed
Facey Medical Building	26357 McBean Parkway; 2 miles east of the proposed RMDP/SCP project.	0	79,000	4	Completed
HH Seco II LLC (MC 01-317)	Southwest corner of Seco Canyon Road and Copperhill Drive; 3 miles northeast of the proposed RMDP/SCP project.	0	40,000	2	Completed
VTC Square	Northwest corner of McBean Parkway and Valencia Boulevard, 2 miles east of the proposed RMDP/SCP project.	10	37,000	1	Pending
Rodgers Development Master Case 02-232	Northeast corner of Bouquet Canyon Road and Plum Canyon Road; 7 miles northeast of the proposed RMDP/SCP project.	0	34,000	4	Completed
Total Santa Clarita Commercial/Industrial		2,010	14,043,760	2,011	
Institutional Projects					
College of the Canyons Expansion	South of Valencia Boulevard and west of Rockwell Canyon Road, 1.5 miles east of the proposed RMDP/SCP project.	n/a	180,000	5	Pending
Master's College Master Plan and TM 66503	21726 Placerita Canyon Road; 2 miles east of the proposed RMDP/SCP project.	54	0	95	Pending
UCLA Film Archives	North of McBean Parkway and west of Rockwell Canyon Road, 3 miles northeast of the proposed RMDP/SCP project.	n/a	368,730	65	Pending
Total Santa Clarita Institutional		54	548,730	165	

Name	Location	Units	Commercial/ Industrial (sf)	Acres ¹	Status
Infrastructure Projects					
Sand Canyon Road Bridge Widening	Tentative Tract Map No. 52004 filed with City of Santa Clarita, Robinson Ranch Golf Course project. Crosses the Santa Clara River 6 miles upstream of the RMDP/SCP project area where riverbed is dry. Two new lanes are proposed for an existing bridge.	n/a	n/a	n/a	Approved
Wiley Canyon Road/Via Princessa Bridge (South fork)	1,100-foot bridge, crosses South Fork of Santa Clara River near city of Santa Clarita; 5 miles east of the proposed RMDP/SCP project.	n/a	n/a	n/a	Permitted
Saugus Water Reclamation Plant	Near Bouquet Canyon Road, discharges to Santa Clara River; 3 miles east of the proposed RMDP/SCP project.	n/a	n/a	n/a	Completed
City of Santa Clarita General Plan Circulation Element Amendment, all watercourses	City of Santa Clarita.	n/a	n/a	n/a	City General Plan Circulation Element
Total Santa Clarita Infrastructure		n/a	n/a	n/a	
Total Santa Clarita		13,003	18,134,857	7,609	(includes at least 1,883 acres of open space)

¹ Open space acreage information was not available for all projects, but is provided where available.
Source: City of Santa Clarita.

**Table 4.4-15
Los Angeles County Consolidated Projects**

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Residential/Mixed Use Projects					
Ritter Ranch ³	Map ID #1 - South of Bouquet Canyon Road and Elizabeth Lake Road, west of Antelope Valley Freeway, and north of Sierra Highway; 40 miles east of the proposed RMDP/SCP project.	7,200	0	10,258	Partially Built Out
Centennial ³	Map ID #2 - Located on the Tejon Ranch, approximately 60 miles north of Los Angeles, just south of the Kern County/Los Angeles County border, located next to SR-138, just east of I-5; 40 miles north of the proposed RMDP/SCP project.	23,000	0	11,700	Pending
Fair Oaks Ranch (TR 47200, 52833, 52938)	East of SR-14, northeast of Via Princessa, and west of Sand Canyon Road; 7 miles east of the proposed RMDP/SCP project.	1,476	19 acres [827,640 sf]	839 (497 open space)	Under Construction
Stevenson Ranch Phase IV (PD #2528; TR 52796, 43896)	West of I-5 and southwest of Magic Mountain Parkway; 0.5 mile east of the proposed RMDP/SCP project.	1,130	0	488 (113 open space)	Built out
Plum Canyon (TR 46018)	East of Bouquet Canyon Road and north of the northern terminus of Whites Canyon Road; 6 miles northeast of the proposed RMDP/SCP project.	4,051	150,000	603	Under Construction
Skyline Ranch (TR 060922)	East of Whites Canyon Road, west of Sierra Highway; 8 miles northeast of the proposed RMDP/SCP project.	1,325	0	2,196 (1,604 open space)	Pending
Plum Canyon (SunCal) (TR 31803)	South of Plum Canyon Road, east of Bouquet Canyon Road; 5 miles east of the proposed RMDP/SCP project.	499	0	209 (90 open space)	Under Construction
Legacy Village (formerly Stevenson Ranch V)	Map ID #5 - Adjacent to/southeast of the Newhall Ranch Specific Plan area.	3,425	840,200	1,759	Pre-Application

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Tesoro del Valle (TR 51644)	Map ID #6 - West side of San Francisquito Creek, north of Copperhill Drive; 5 miles northeast of the proposed RMDP/SCP project.	1,791	0	1,793	Under Construction
West Creek/West Hills Valencia Project (TR 52445)	Map ID #9 - West side of San Francisquito Creek, north of Newhall Ranch Road and south of the Copperhill Drive bridge; 4 miles northeast of the proposed RMDP/SCP project.	2,545	180,000	966	Under Construction
Westridge Project (TR 45433 & MP 19050)	Map ID #10 - Just west of I-5, north of Stevenson Ranch, and directly south of Six Flags Magic Mountain Amusement Park; 0.5 mile east of the proposed RMDP/SCP project.	1,939	192,000	794	Under Construction
Northlake (TR 51852)	Near Castaic Lake; 7 miles north of the proposed RMDP/SCP project.	1,698	388,775	1,330 (312 open space)	Pending
Tapia Ranch (TR 53822)	Map ID #7 - Tapia Canyon Road, west of Tesoro Residential Development. Access to the site currently <i>via</i> Parker Road exit from I-5; 4 miles east of the proposed RMDP/SCP project.	405	0	1167	Pending
Spring Canyon (TR 48086)	East of city of Santa Clarita boundary, south of Sierra Highway, north of SR-14 and Soledad Canyon Road; 14 miles east of the proposed RMDP/SCP project.	542	0	548 (279 open space)	Approved
Bee Canyon (TR 54020)	East of city of Santa Clarita boundary, south of SR-14; 12 miles east of the proposed RMDP/SCP project.	556	0	211 (76 open space)	On Hold
Tick Canyon/Park Place (TR 060259)	Along Shadow Pines Boulevard just east of city of Santa Clarita boundary, north of Stonecrest Annexation area and SR-14; 14.35 miles east of the proposed RMDP/SCP project.	492	0	523 (272 open space)	Pending
Hasley Golf Course (TR 52584)	North of Hasley Canyon Road, west of I-5; 3 miles north of the proposed RMDP/SCP project.	209	0	438 (67 open space)	Approved

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Meadow Peak Project (TT 47760)	South of the Angeles National Forest, north of the city of Santa Clarita boundary, and northeast of the intersection of Copperhill Drive and Haskell Canyon Road; 6 miles east of the proposed RMDP/SCP project.	495	0	454	Pending
Tincher (TR 060319)	Located at The Old Road and Villa Canyon Road; 2 miles north of the proposed RMDP/SCP project.	36	0	8	Pending
G. H. Palmer and Associates (TR 45023)	North of Fair Oaks Ranch, east of SR-14; 7 miles east of the proposed RMDP/SCP project.	752	0	8	Map Recorded
North Park (TR 46389)	West of Seco Canyon Road, east of Mc Bean Parkway, north of Decoro Drive; 2 miles east of the proposed RMDP/SCP project.	744	0	350	Map Recorded
Pacific Bay Homes (TR 36943)	East of city of Santa Clarita boundary and Stonecrest Annexation area, north of Highway 14; 12 miles east of the proposed RMDP/SCP project.	636	0	213	Completed
Stevenson Ranch III (TR 33608)	North of Pico Canyon Road, west of The Old Road; 1 mile southeast of the proposed RMDP/SCP project.	972	0	112	Built Out
Fair Oaks Ranch (TR 44492)	East of Sierra Highway, north of Via Princessa; 9 miles east of the proposed RMDP/SCP project.	634	0	37	Map Recorded
Centex Homes Bouquet Canyon (TR 46908)	South of the Angeles National Forest, north of Copperhill Drive, west of the Meadow Peak project; 6 miles northeast of the proposed RMDP/SCP project.	594	0	381	Completed
Ion Communities, Castaic (Tract 46443)	West of I-5 in Castaic; 3 miles north of the proposed RMDP/SCP project.	95	0	159	Pending
Johannes Van Tiburge (TR 43570)	West of I-5, east of Hasley Golf Course; 3 miles north of the proposed RMDP/SCP project.	540	0	8	Map Recorded
Curtis Development Corporation (TR 47657)	North of Haskell Canyon Road and Copperhill Drive; 6 miles northeast of the proposed RMDP/SCP project.	223	0	63	Map Recorded

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
G. H. Palmer and Associates (TR 45287)	On Sandy Drive and Jakes Way, between Sierra Highway and SR-14, south of the Santa Clara River; 10 miles east of the proposed RMDP/SCP project.	463	0	23	Map Recorded
Davidon Homes (TR 35783)	North of Copperhill Drive and east of Seco Canyon Road; 5 miles east of the proposed RMDP/SCP project.	419	0	149	Map Recorded
Green Valley Ranch Residential (TR 62000, 60257, and 062275)	Located south of Del Valle Road near Cromwell Avenue. The property is located approximately 0.5 mile west of the intersection of Hasley Canyon Road and Del Valle Road, and approximately 1.5 miles north of SR-126; 1 mile north of the proposed RMDP/SCP project.	233	30,000	224 (25 open space)	Pending Approval
Newhall Land (TR 44429)	Along Ridge Route Road, east of I-5 in Castaic; 3 miles north of the proposed RMDP/SCP project.	293	0	113	Map Recorded
Valencia Company (TR 48202)	Northeast corner of Decoro Drive and Copperhill Drive; 3 miles northeast of the proposed RMDP/SCP project.	458	3.5 acres [152,460 sf]	9	Map Recorded
Valencia Company (TR 45084)	Corner of Commerce Center Drive and Hasley Canyon Road; 2 miles north of the proposed RMDP/SCP project.	294	0	150	Completed
Valencia Company (TR 36668)	West of The Old Road, north of Commerce Center Drive; 2 miles north of the proposed RMDP/SCP project.	359	one lot	134	Completed
Curtis Development Corporation (TR 45958)	West of I-5 in Castaic; 5 miles north of the proposed RMDP/SCP project.	296	0	357	Map Recorded
Gerald Nordeman (TR 44373)	Along Hillcrest Parkway, west of I-5, north of Hasley Golf Course; 2 miles north of the proposed RMDP/SCP project.	1,114	4 acres [174,240 sf]	376	Map Recorded
Vista Canyon Ranch	Along Lost Canyon Road and the Santa Clara River, east of the Fair Oaks Ranch community, south of the 14 Freeway and west of Sand Canyon Road, 7 miles east of the proposed RMDP/SCP project.	1,600	1,500,000	217 (80 open space)	Pending

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Davidon Homes (TR 46183)	West of Haskell Canyon Road, north of Copperhill Drive; 5 miles northeast of the proposed RMDP/SCP project.	213	0	80	Completed
Forest Edge Project (Western Pacific Housing, TR 51789)	West of Haskell Canyon Road, north of Copperhill Drive; 5 miles northeast of the proposed RMDP/SCP project.	194	0	79 (30 open space)	Map Recorded
Bouquet Canyon Land Fund 8, LLC (TR 52193)	Located west of Bouquet Canyon Road near the intersection of Bouquet and Vasquez Canyon Road; 6 miles northeast of the proposed RMDP/SCP project.	179	20,000	260	Pending
Westshire (Pardee Homes, TR 063483)	Located immediately south of SR-14, southwest of Via Princessa and north of Lost Canyon Road; 7 miles east of the proposed RMDP/SCP project.	190	0	13 (3 open space)	Pending
Overland National Land Fund (TR 52192)	Southwest of the intersection of Bouquet Canyon Road and Vasquez Canyon Road; 6 miles northeast of the proposed RMDP/SCP project.	155	0	204	Pending
Condo III Development, Larwin Company, Val Verde (TR 51995)	West of I-5, south of Hillcrest Parkway; 3 miles north of the proposed RMDP/SCP project.	114	0	15	Map Recorded
Forecast Homes (TR 46353)	Located in Mint Canyon just southeast of Sierra Highway and west of Sand Canyon Road, just north of the city of Santa Clarita boundary; 9 miles east of the proposed RMDP/SCP project.	110	0	65	Map Recorded
Golden Valley Ranch (TR 52535)	West of I-5 in Castaic; 6 miles north of the proposed RMDP/SCP project.	80	0	260	Pending
Decoro Drive Residential (TR 45440)	West of McBean, east of San Francisquito Creek; 3 miles northeast of the proposed RMDP/SCP project.	182	0	99	Completed
Dierckman & Mayh (PM 19784) (TR 42537)	West of Commerce Center Drive, north of SR-126; 0.25 mile north of the proposed RMDP/SCP project. West of I-5 in Castaic; 4 miles north of the proposed RMDP/SCP project.	115 95	0 0	288 553	Map Recorded Approved

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Sierra Way Estates (TR 47573)	Located northeast of the intersection of Sierra Highway and Vasquez Canyon Road; 12 miles northeast of the proposed RMDP/SCP project.	75	0	246 (179 open space)	Pending
(TR 47807)	West of Sloan Canyon Road and I-5 in Castaic; 3 miles north of the proposed RMDP/SCP project.	77	0	197	Approved
SunCal Burnam Project (TR 53189)	Along San Francisquito Creek, west of McBean Parkway and north of Copperhill Drive; 5 miles northeast of the proposed RMDP/SCP project.	60	0	186	Pending
Hasley Ranch Co. Greystone Homes Inc. (TR 45645)	Hasley Canyon Road and Romero Canyon Road, west of the Hasley Canyon Golf Course and I-5; 2 miles north of the proposed RMDP/SCP project.	67	0	160	Approved
Arciero and Sons, Inc. (TR 53725)	West of Hasley Canyon Golf Course and I-5; 2 miles north of the proposed RMDP/SCP project.	42	0	139	Pending
Del Valle Project (TR 060665)	South of Hasley Canyon Golf Course; 0.5 mile north of the proposed RMDP/SCP project.	111	0	134	Pending
Tract 52475	North of Hasley Canyon Road, west of Del Valle Road, 3 miles north of the proposed RMDP/SCP project.	46	0	70	Pending
Sterling Gateway (TR 60030)	Located east of Chiquita Canyon Road, just north of the RMDP/SCP project area; 0.5 mile north of the proposed RMDP/SCP project.	21	1,300,000	108	Pending
Total Los Angeles County Residential/Mixed Use³		35,459	5,755,315	20,565	

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Industrial/Commercial Projects					
Castaic Junction (PM 26574)	North of Henry Mayo Drive, west of The Old Road, north of the I-5 and SR-126 interchange; 0.25 mile northeast of the proposed RMDP/SCP project.	0	1,879,500	114	Under Construction
Valencia Industrial Center	Map ID #4 - East of I-5, south of Newhall Ranch Road, north of Magic Mountain Parkway; 0.25 mile northeast of the proposed RMDP/SCP project.	0	12,900,000	1,840	Approved
PM 18654	Northwest of The Old Road and Magic Mountain Parkway, near Six Flags Magic Mountain Amusement Park; 0.25 mile east of the proposed RMDP/SCP project.	0	200,000	9	Approved
Curtis Sand and Gravel Mine and Aggregate Plant	Upper Santa Clara River, about 10 miles upstream from Newhall Ranch Specific Plan area.	0	n/a	185	Operating since 1955
Transit Mix (CEMEX) Soledad Canyon Mine	East of City of Santa Clarita boundary, at the entrance to Soledad Canyon; 16 miles east of the proposed RMDP/SCP project.	0	n/a	300	Suspended pending federal legislation
Chiquita Canyon Landfill Expansion	Map ID #17 - West of I-5, north of SR-126 at Wolcott Way; 0.25 mile north of the proposed RMDP/SCP project.	0	n/a	98	Pending
Industrial/Commercial Subtotal		0	14,879,500	2,546	
Institutional Projects					
Castaic High School	North of Lake Hughes Road, east of Ridge Route Road, 4 miles north of the proposed RMDP/SCP project.	0	500,000	50	Pending
Total Los Angeles County Institutional		0	500,000	50	
Infrastructure Projects					
CLWA Reclaimed Water Master Plan (Santa Clara River)	Map ID #14 - Los Angeles County and city of Santa Clarita; 6 miles north of the proposed RMDP/SCP project.	n/a	n/a	n/a	Pending
Bouquet Canyon Bridge Widening	Adding one lane in each direction on Bouquet Canyon Bridge at Santa Clara River; 2 miles east of the proposed RMDP/SCP project.	n/a	n/a	n/a	Completed

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Copperhill Drive Bridge	Upper San Francisquito Creek, 565-foot bridge, six lanes; 3 miles northeast of the proposed RMDP/SCP project.	n/a	n/a	n/a	Completed
Commerce Center Drive Extension	Extension of Commerce Center Drive and Bridge over Castaic Creek; 0.25 mile east of the proposed RMDP/SCP project.	n/a	n/a	n/a	Completed
Cross Valley Connector	Two-mile extension of Newhall Ranch Road to east of Bouquet Canyon Road, including approximately 120-foot-wide bridge over Santa Clara River, connecting with Golden Valley Road; 3 miles east of the proposed RMDP/SCP project.	n/a	n/a	n/a	Approved; estimated completion 2008
Santa Clarita Valley Joint Sewerage Facilities Plan	Map ID #16 - Los Angeles County.	n/a	n/a	n/a	Approved
DPW Channel maintenance (South Fork)	70 acres of channel excavation, center of Santa Clara River, South Fork.	n/a	n/a	n/a	Provisional Corps permit in 1997
Natural River Management Plan (NRMP)	Map ID #13 - Natural River Management Plan for 1,200 acres along the Santa Clara River.	n/a	n/a	n/a	Approved in 1998; half built-out
Santa Clara River Enhancement and Management Plan	Map ID #15 - Santa Clara River from Acton to Pacific Ocean, in Los Angeles and Ventura Counties.	n/a	n/a	n/a	Approved
I-5 and SR-126	I-5/SR-126 interchange; 0.5 mile northeast of the proposed RMDP/SCP project.	n/a	n/a	n/a	Completed
I-5/Hasley Canyon Road	Within Valencia Commerce Center, I-5 at the I-5/Hasley Canyon Road interchange; within the proposed RMDP/SCP project area.	n/a	n/a	n/a	Under Construction since 10/07
I-5/Magic Mountain Parkway Interchange Project	Modify the I-5/Magic Mountain Parkway interchange, reconstruct the Santa Clara River Bridge, realign The Old Road, and realign and widen Magic Mountain Parkway from six to eight lanes; 0.5 mile northeast of the proposed RMDP/SCP project.	n/a	n/a	n/a	Construction scheduled to be complete Spring 2009

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Valencia Water Reclamation Plant	Immediately downstream of the I-5 bridge, discharges to the Santa Clara River; 0.5 mile east of the proposed RMDP/SCP project.	n/a	n/a	n/a	Completed
I-5 Santa Clara River Bridge Replacement	Santa Clara River and I-5; 0.5 mile east of the proposed RMDP/SCP project.	n/a	n/a	n/a	Completed
Castaic Junction Project	I-5/SR-126 interchange improvement project; 0.25 mile east of the proposed RMDP/SCP project.	n/a	n/a	n/a	Under Construction
DPW Del Valle Sediment Placement Site	Near intersection of SR-126 and Chiquito Canyon Road; 0.5 mile north of the proposed RMDP/SCP project	n/a	n/a	n/a	Pending
Soledad Canyon Road Trail (Santa Clara River)	South side of Santa Clara River from Metro Link Station to west side of Bouquet Canyon Bridge, continuing along the west side of Valencia Boulevard across South Fork at the Valencia Bridge; 3 miles east of the proposed RMDP/SCP project.	n/a	n/a	n/a	Pending
Infrastructure Subtotal		n/a	n/a	n/a	
Total		35,459	21,134,815	23,161	(includes at least 3,627 acres of open space)

Note: The Las Lomas Project (PM 060792) application was denied, and thus, it was not included in this list because it is currently not reasonably foreseeable.

¹ In some instances, commercial/industrial square footage was not available but an acreage for such uses was provided. That acreage was converted to square footage [shown in brackets] to provide an estimated basis for aggregating square footage totals.

² Open space acreage information was not available for all projects, but is provided where available.

³ Ritter Ranch and Centennial are not included in the totals because they are located in a different watershed.

Source: Los Angeles County.

**Table 4.4-16
City of Fillmore Consolidated Projects**

Name	Location	Units	Commercial/ Industrial (sf)¹	Acres²	Status
Residential/Mixed Use Projects					
Heritage Valley Parks Specific Plan	Located within and adjacent to the southeastern boundary of the city of Fillmore; 10 miles east of the proposed RMDP/SCP project.	750	0	301 (52 open space)	Under Construction
North Fillmore Specific Plan	North of B Street and 7 th Street; 11 miles east of the proposed RMDP/SCP project.	350	15,000	101 (2 open space)	Pending
Residential Subtotal		1,100	15,000	402	
Commercial/Industrial Projects					
South West Business Park Master Plan Commercial	South West corner of the city of Fillmore; 10 miles west of the proposed RMDP/SCP project.	0	90 acres [3,920,400 sf]	90	Under Construction
Commercial/Industrial Subtotal		0	3,920,400	90	
Infrastructure Projects					
Fillmore Water Recycling Plant	SR-126 and "E" Street, city of Fillmore; 10 miles west of the proposed RMDP/SCP project.	n/a	n/a	n/a	Under Construction
Total		1,100	3,935,400	492	(includes at least 54 acres of open space)

¹ In some instances, commercial/industrial square footage was not available but an acreage for such uses was provided. That acreage was converted to square footage [shown in brackets] to provide an estimated basis for aggregating square footage totals.

² Open space acreage information was not available for all projects, but is provided where available.

Source: City of Fillmore.

(4) City of Santa Paula (Ventura County) Consolidated Projects

Table 4.4-17 contains the City of Santa Paula consolidated project list. Projects more than 5 miles away from the Newhall Ranch Specific Plan area and/or smaller-scale projects (less than 700 acres) are listed in a consolidated manner, and are grouped by local jurisdiction.

Table 4.4-17
City of Santa Paula Consolidated Projects

Name	Location	Units	Commercial (sf)	Acres	Status
Residential Projects					
Adams Canyon	Map ID #3 - West of SR-150; 22 miles west of the proposed RMDP/SCP project.	450	unknown	6,578	Pending (See Table 4.4-22)
East Area 1 Specific Plan	The property is bounded by hillside agricultural land to the north, Haun Creek to the east, Main Street and Southern Pacific Railroad to the south, and Santa Paula Creek to the west; 20 miles west of the proposed RMDP/SCP project.	900	810,800	541	Annexation Pending
Residential Subtotal		1,350	810,800	7,119	
Total		1,350	810,800	7,119	

Source: City of Santa Paula.

(5) Unincorporated Ventura County Consolidated Projects

Table 4.4-18 contains the unincorporated Ventura County consolidated project list. Projects more than five miles away from the Newhall Ranch Specific Plan area and/or smaller-scale projects (less than 700 acres) are listed in a consolidated manner, and are grouped by local jurisdiction.

Table 4.4-18
Ventura County Consolidated Projects

Name	Location	Units	Commercial/ Industrial (sf)	Status
Residential/Mixed Use Projects				
Permit No. LU08-0062	Located within the Piru area of Ventura County; approximately 7 miles west of the proposed RMDP/SCP project.	66	0	Pending
Residential Subtotal		66	0	
Commercial/Industrial Projects				
Permit No. LU08-0047	Located in the Piru area of Ventura County; approximately 7 miles west of the proposed RMDP/SCP project.	0	19,300	Pending
Commercial/Industrial Subtotal		0	19,300	
Recreational Projects				
Permit No. LU07-0088	Located in the Piru area of Ventura County; approximately 8 miles northwest of the proposed RMDP/SCP project.	0	(1)	Approved
Total		66	19,300	

(1) This project consists of minor improvements to existing buildings, structures and utilities at Lake Piru
Source: Ventura County

(6) Consolidated Projects Overview

Table 4.4-19 contains a summary of the consolidated project information contained in **Tables 4.4-14 to 4.4-17**, above.

Table 4.4-19
Summary of Total City/County/Caltrans Consolidated Projects

Agency	Units	Comm./Ind (sf)¹	Total Acres/Open Space Acres²
Santa Clarita	13,003	18,134,857	7,609/1,883
Los Angeles County	35,459	21,134,815	23,161/3,627
Fillmore	1,100	3,935,400	492/54
Santa Paula	1,350	810,800	7,119
Ventura County	66	19,300	unknown
Total	50,978	44,035,172	59,929/5,564

Notes:

¹ Includes some instances where commercial/industrial acreages were converted to square footage [shown in brackets in **Tables 4.4-14 to 4.4-16**] to provide an estimated basis for aggregating square footage totals.

² Open space acreage information was not available for all projects; therefore, the "Open Space Acres" number represents the minimum open space that is planned for the projects in **Tables 4.4-14 to 4.4-16**.

Source: **Tables 4.4-14 to 4.4-18**.

(7) Corps (Section 404 Permit) Projects

Between 1988 and 2006, the Corps issued an average of approximately 12 section 404 permits per year within the Santa Clara River watershed. (See **Figures 4.4-12 and 4.4-13**, below.) In general, the acreages of waters of the United States affected by projects authorized under section 404 permits in a given year were related to the number of projects authorized that year. The data for 1998 and 2005 (years in which major El Niño events occurred), showed peaks in the number of authorizations granted, and a corresponding trend with respect to acreages of jurisdictional areas impacted. This is likely due to the fact that dramatic flood events necessitate the need for repairs and maintenance of existing facilities, and may also underscore the general need to construct additional flood and erosion facilities for protection against future disasters.

Of the 228 projects permitted by the Corps under section 404 permits in the Santa Clara River watershed between 1988 and 2006, more were associated with emergency repairs and maintenance than any other type of activity. Combined, the permits issued for emergency repairs and maintenance of existing facilities accounted for a combined 25 percent of the total permits issued (16 percent were emergency

repairs, 9 percent maintenance). Flood protection activities, including bank protection, riprap, rock groin, and culver/levee improvements, accounted for 25 percent of the total permits issued. Another 17 percent of the permits issued were associated with residential development. Unknown activities (largely from older permits with minimal available data) comprised 15 percent of the permits. The remaining 18 percent include bridges, channel alterations, sediment removal, storm drains, and other projects. (See **Figure 4.4-14.**)

(8) Federal Biological Opinions

Table 4.4-20 summarizes federal biological opinions issued in the Santa Clara River watershed between 1993 and 2006 as they relate to the species that are the most likely to be reviewed by the USFWS and CDFG as part of the species-related determinations and/or authorizations that are being sought as part of the Newhall Ranch Specific Plan process. A total of 25 USFWS biological opinions were reviewed. One of those opinions is not incorporated below because it did not affect any species of primary concern. Three opinions have been combined into one entry below because they concern the same request.

(9) CDFG Streambed Projects

Between 1983 and 2006, CDFG issued an average of 21 streambed alteration agreements per year in the Santa Clara River watershed. (See **Figures 4.4-15** and **4.4-16.**) In general, the acreages of jurisdictional streambeds affected by projects authorized under the Fish and Game Code section 1600 program, in a given year, were related to the number of projects authorized that year. The years following the 1998 and 2005 El Niño events showed peaks in the number of authorizations granted, and a corresponding trend with respect to acreages of jurisdictional areas impacted. This is likely due to the fact that dramatic flood events necessitate the need for repairs and maintenance of existing facilities, and may also underscore the need to construct additional flood and erosion facilities for protection against future disasters.

Of the 503 projects permitted under the section 1600 program in the Santa Clara River watershed between 1983 and 2006, 32 percent of the project activities were associated with bridges and maintenance activities. The combined number of streambed alteration agreements issued for the installation of riprap, bank protection, and miscellaneous flood/erosion control facilities accounted for 19 percent of the total authorizations issued. Sediment removal and fill activities accounted for 12 percent of the authorized activities, while channel alterations account for 11 percent of the total authorized activities. Unknown activities (largely from older permits with minimal available data) comprised 3 percent of the permits. (See **Figure 4.4-17.**) The remaining 23 percent include culverts, storm drains, vegetation removal, and other projects.

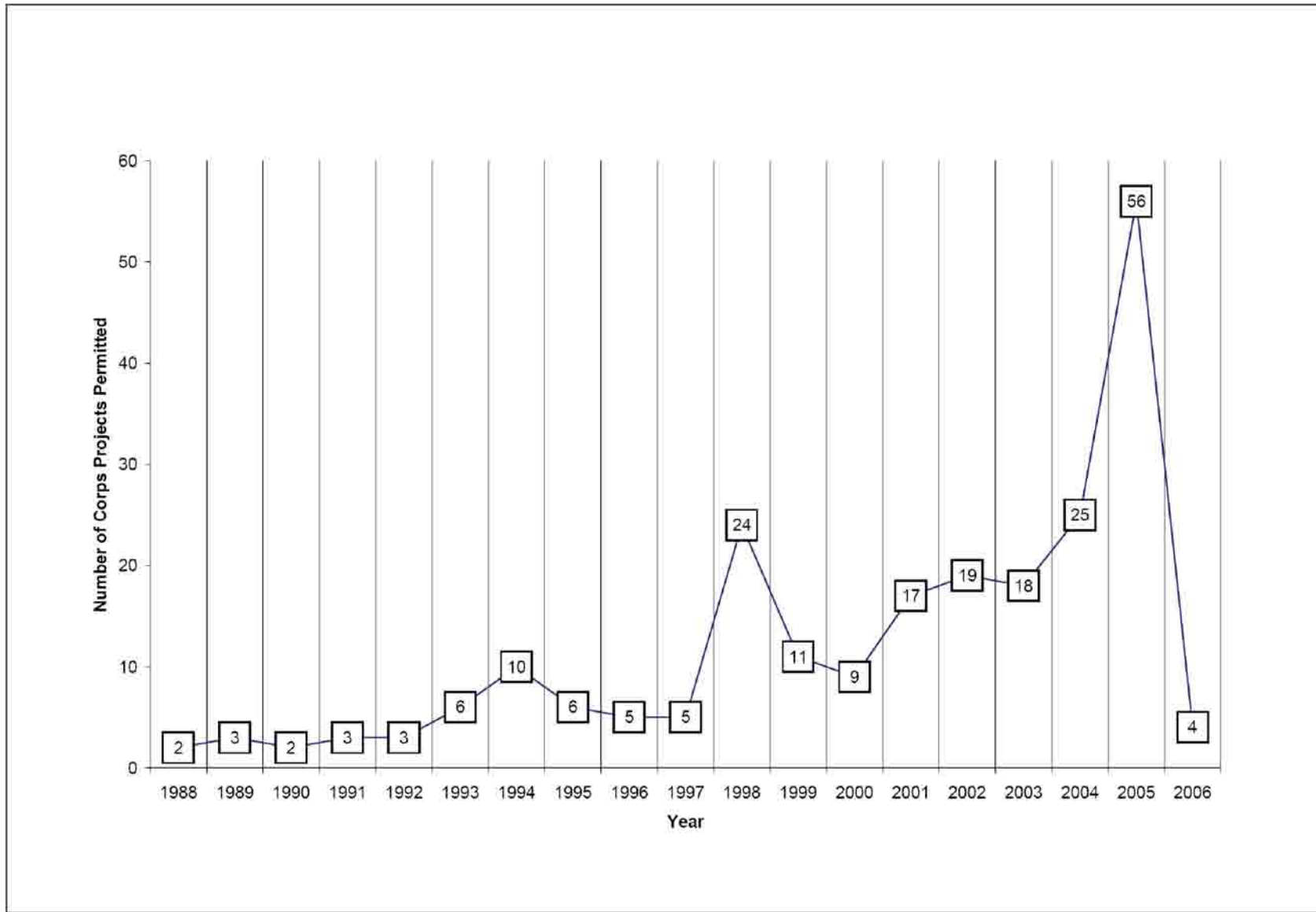
(10) CDFG Take Authorizations

Prior to 1997, CDFG issued Memoranda of Understanding and a few permits for authorization of incidental take of species listed under the California ESA. Between 1988 and 1997, CDFG considered 273 incidental take authorizations statewide, of which 174 were ultimately signed. Of those 174 authorizations, three were for western yellow-billed cuckoo, 11 for least Bell's vireo, and one for unarmored threespine stickleback. In the bioregion that includes the proposed project (the South Coast bioregion), approximately 20 take authorizations were issued during that time period, which authorized a total of roughly 1,000 acres of habitat impacts (including coastal sage scrub, alluvial fan sage scrub, non-native grassland, riparian, and wetland habitat types) and required 2,000 acres of mitigation.¹⁹

More recently, CDFG has issued 48 take authorizations in the general regional vicinity of the project (*i.e.*, generally within Los Angeles, Ventura, and Santa Barbara Counties, but also including some authorizations in San Diego County). Most of those authorizations were for projects that are a significant distance from the Newhall Ranch Specific Plan area, which includes Landmark Village (*e.g.*, greater than 25-30 miles), and/or for species that are not of primary concern for the proposed project. The four most relevant authorizations are summarized in **Table 4.4-21**, below. Relevancy was determined by proximity to the proposed project and shared species impacts.

In addition, several NCCPs recently have been proposed and/or approved in Southern California. These NCCPs (or combination HCP/NCCPs) would provide comprehensive take authorizations for larger planning areas in parts of Kern, Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties. However, none of these proposed or approved planning/take authorization documents were deemed to be relevant for analysis in this EIR because of their distance from the proposed project (*e.g.*, greater than 25-30 miles) and/or their lack of similarity of species of primary concern.

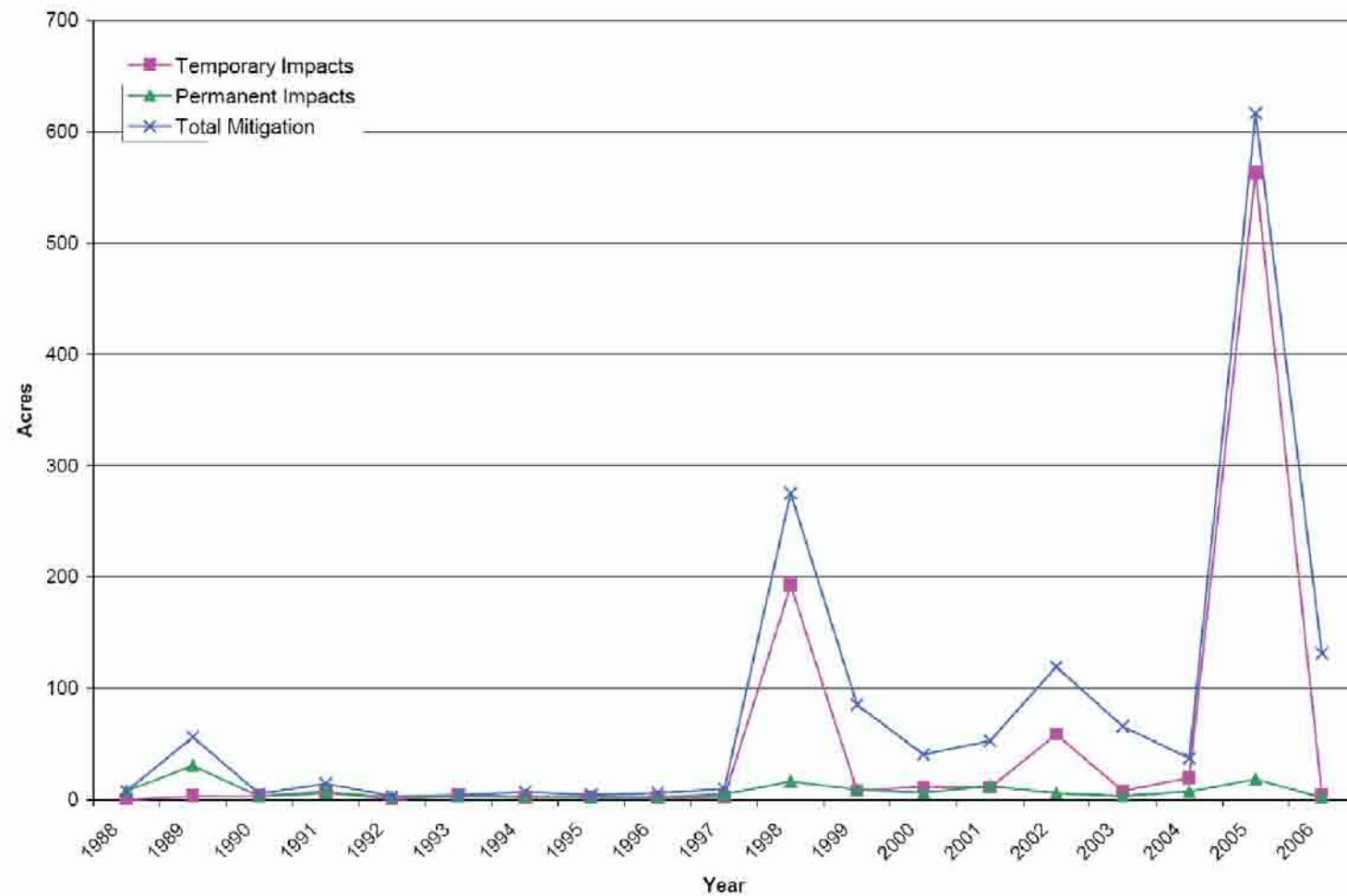
¹⁹ The California Department of Fish and Game and U.S. Army Corps of Engineers, "Final Environmental Impact Report/Environmental Impact Statement: 404 Permit and 1603 Streambed Alteration Agreement for Portions of the Santa Clara River and its Tributaries, Los Angeles County (SCH No. 1997061090)" (August 1998) is incorporated by reference, as permitted in section 15150 of the *State CEQA Guidelines*. All referenced documents are available for public inspection and review upon request to: County of Los Angeles, Department of Regional Planning, 320 West Temple Street Los Angeles, California 90012 (Samuel Dea; (213) 974-6461) or Impact Sciences, Inc., 803 Camarillo Springs Road, Suite A-1, Camarillo, California 93012 (Susan Tebo; (805) 437-1900).



SOURCE: CORPS2008

FIGURE 4.4-12

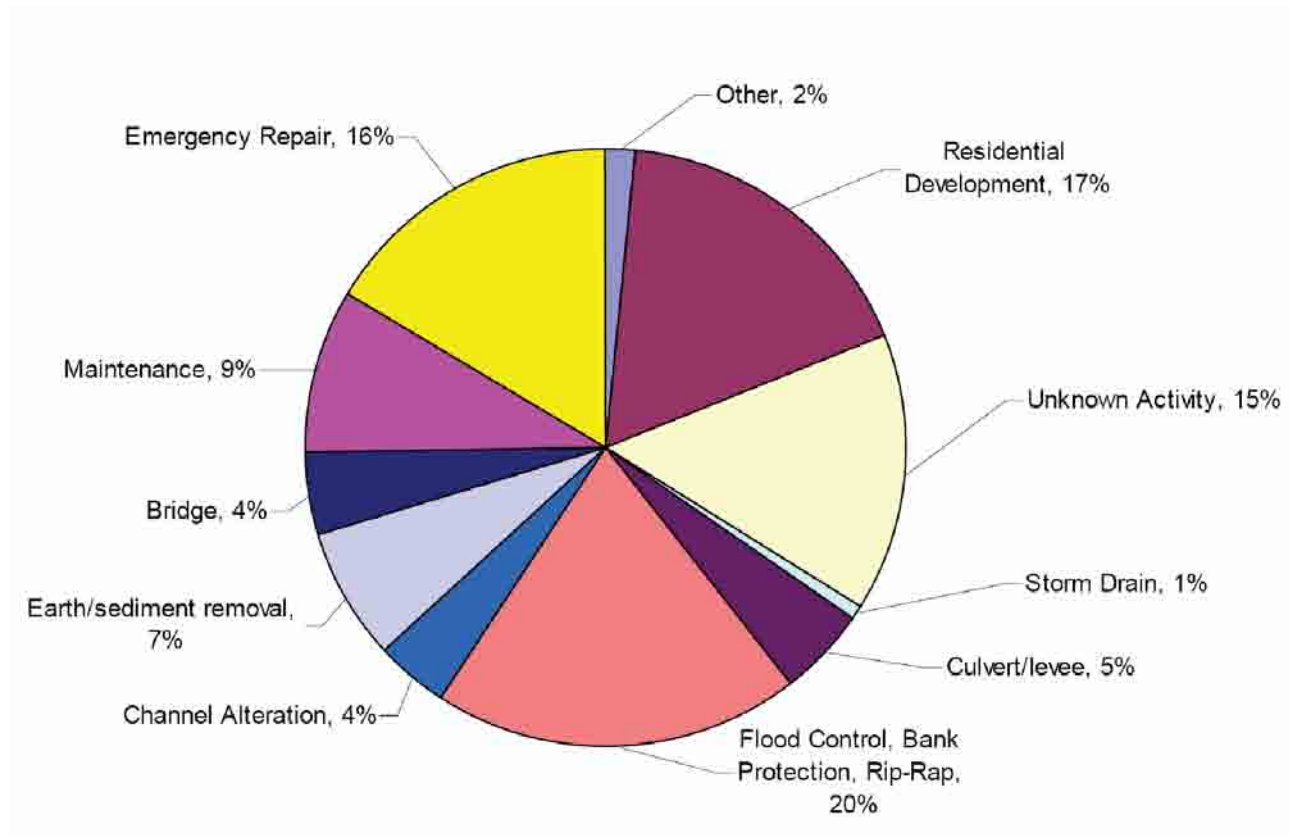
Consolidated Corps Projects (1988 and 2006)



SOURCE: CORPS 200 8

FIGURE 4.4-13

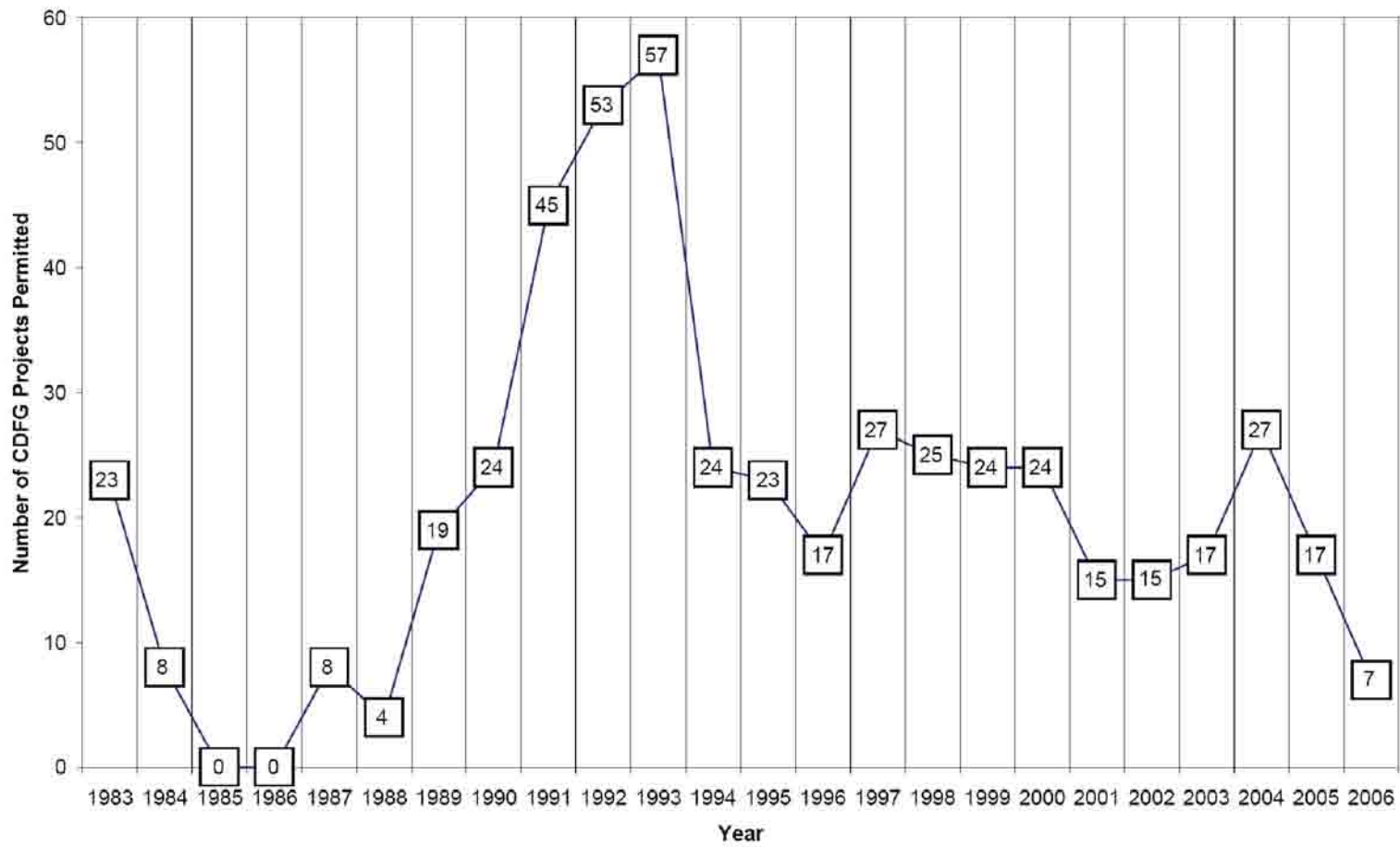
Consolidated Corps Permits, Acreage of Impacts and Mitigation (1988 to 2006)



SOURCE: CORPS 2006, URS 2009

FIGURE 4.4-14

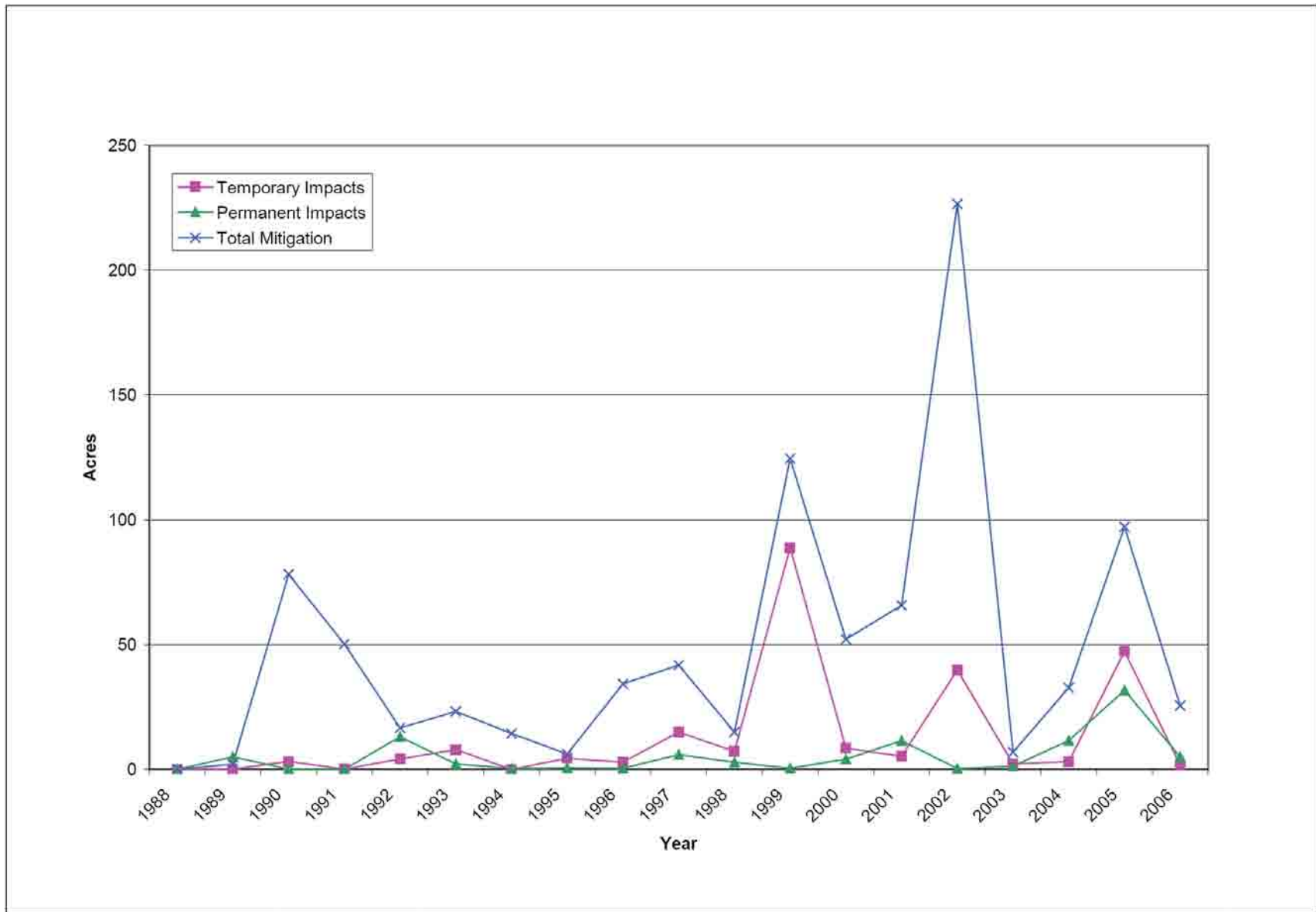
Corps Permitted Activities by Types (1998-2006)



SOURCE: DUDEK – 2008

FIGURE 4.4-15

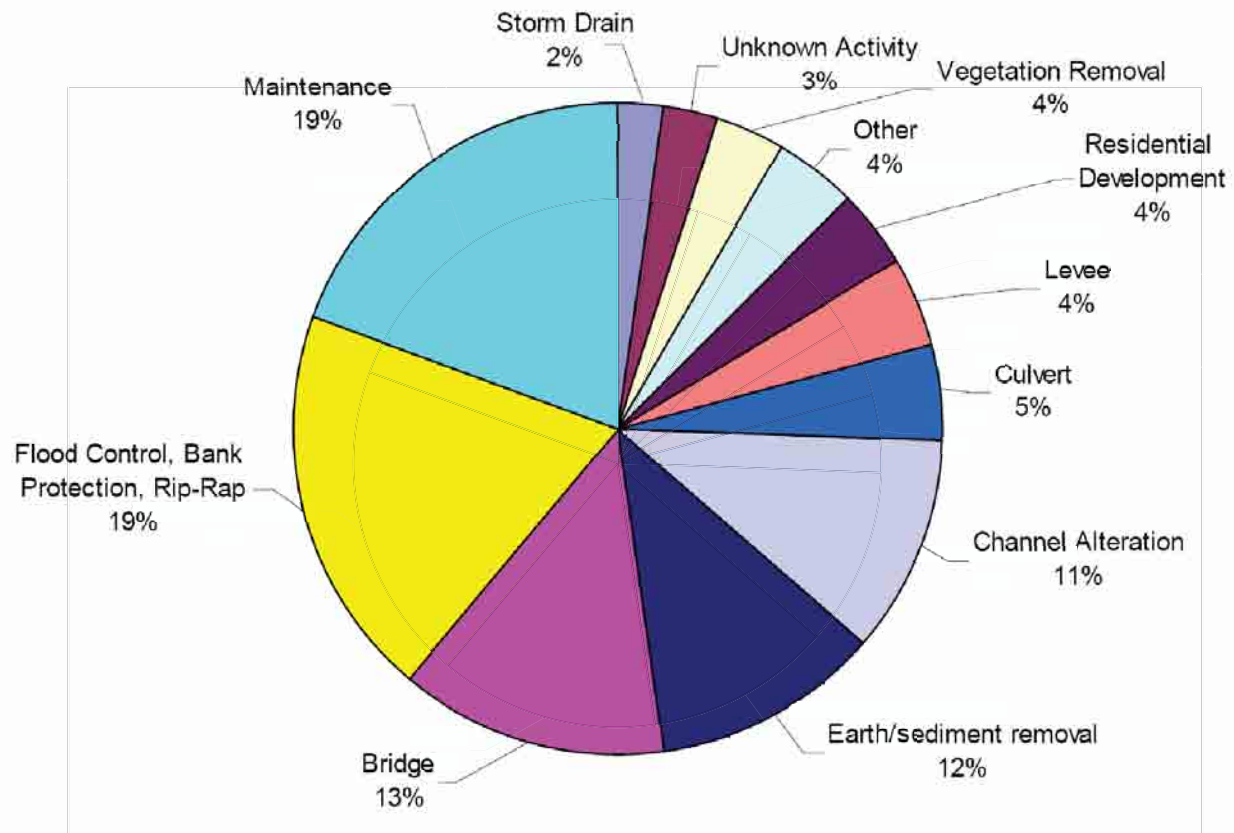
Consolidated CDFG Streambed Projects (1983-2006)



SOURCE: DUDEK - 2008

FIGURE 4.4-16

Consolidated CDFG Streambed Permits, Acreages of Impacts and Mitigation (1983-2006)



SOURCE: DUDEK – 2008

FIGURE 4.4-17

Consolidated CDFG Streambed Permits by Type (1983-2006)

**Table 4.4-20
Federal Biological Opinion Summary, Santa Clara Watershed (1993-2006)**

Project	Species Covered	Acres Permanently (P) or Temporarily (T) Disturbed	Location	Description	Conclusion
Temporary Diversion Berm on the Santa Clara River on the Newhall Ranch Op. 1065.1163.1544 October 26, 1993	UTS	0 P 0.09 T (est.)	Along the Santa Clara River on the Newhall Ranch.	Construction of a 2' x 10' x 400' berm to divert water away from an exempt levee which is to be rebuilt.	Project is not likely to jeopardize the continued existence of the UTS; no adverse modification of critical habitat.
Southern Pacific Milling Company Sand and Gravel Mine Op.1025.1129.1492 February 7, 1994	LBV	19 P T-unknown	Within and adjacent to the Santa Clara River from the western edge of the city of Santa Paula downstream to the confluence with the Lindsay Barranca in Ventura County.	The applicant proposes to install a sand and gravel mine.	Project is not likely to jeopardize the continued existence of the LBV; no adverse modification of critical habitat.
Installation of a Southern California Gas Company Pipeline Op. 1380.1517.2051 August 28, 1995	UTS	0 P .23 (est.) T	Santa Clara River at Castaic Creek.	Installation of an 8-mile gas line that crosses the Santa Clara River and Castaic Creek.	Project is not likely to jeopardize the continued existence of the UTS; no adverse modification of critical habitat.
Installation of Irrigation Pipelines on the Santa Clara River in Newhall Ranch Op. 1392.1533.2075 October 23, 1995	UTS	0.005 P 1.45 T	Santa Clara River at Summer Crossing.	Installation of 18" x 12" PVC irrigating pipe and removal of fill that comprises Summer Crossing; purpose is to irrigate nearby Citrus Orchards.	Project is not likely to jeopardize the continued existence of the UTS; no adverse modification of critical habitat.

Project	Species Covered	Acres Permanently (P) or Temporarily (T) Disturbed	Location	Description	Conclusion
Construction of Erosion Control Facilities for the Valencia Water Reclamation Plant Op. 1406.1547.2098 February 29, 1996	UTS & LBV	1.4 P T-unknown	Santa Clara River near the Valencia Water Reclamation Plant.	Construction of a 50' x 12' x 630' keystone retaining wall.	Project is not likely to jeopardize the continued existence of either species; no adverse modification of critical habitat.
Repair of I-5 Bridge Over Santa Clara River Op. 1443.1591.2158 September 6, 1996	UTS ~LBV & ~SWF	1.4 P T-unknown	The Intersection of I-5 and the Santa Clara River.	The repair of two pier footings of the I-5 bridge crossing the Santa Clara River.	Project is not likely to jeopardize the continued existence of the UTS; no adverse modification of critical habitat.
Widening of SR-126 Op. 1472.1623.2199 April 20, 1997	LBV	0.5 P T-unknown	SR-126 just east of Rancho Camulos, from city of Piru to Los Angeles County line.	Grubbing, vegetation removal, and installation of retaining walls for ROW expansion.	Project is not likely to jeopardize the continued existence of the LBV; no adverse modification of critical habitat.
Sewer Line and Force Main Op. 2390.3666.4402 September 28, 1998	UTS ~LBV	0.7 P T-unknown	Near the intersection of the Santa Clara River and Old Road Bridge in the city of Santa Clarita.	Replacement of two underground sewer lines that cross the Santa Clara River.	Not likely to jeopardize the continued existence of the species or adversely affect critical habitat.
Newhall Land and Farming's Summer Crossings and Water Diversions Op. 911.1015.1329, 911.1015.1330, & 911.1351.1804 September 25, 1998 Note: Duplicate Letters	UTS	0 P 14 T	Santa Clara River from the Castaic Creek confluence to the Rancho Camulos vicinity.	Installation of six temporary vehicle crossings and four water diversions along the Santa Clara River from native materials.	The action as is not likely to jeopardize the continued existence of the UTS or modify critical habitat.

Project	Species Covered	Acres Permanently (P) or Temporarily (T) Disturbed	Location	Description	Conclusion
Natural River Management Plan Op. 116.122.166 Nov. 27, 1998	UTS, LBV & SWF	96 P 71 T	Along the Santa Clara River and its tributaries in Valencia and Santa Clarita and adjacent unincorporated areas of Los Angeles County at the inlet of the San Francisquito Creek and confluence with the South Fork of the Santa Clara River.	81,150 lf of bank protection along the River and San Francisquito Creek; a 1,700 foot long inlet structure at the confluence with the South Fork; approximately 85 storm drain outlets; eight new bridges; a replacement for an existing bridge; and upgrades to six existing bridges.	Activities are not likely to jeopardize the continued existence of these species or result in destruction or adverse modification of critical habitat.
Replacement of the I-5 Bridge over the Santa Clara River, Los Angeles County Op. 148.155.1274 December 26, 2000	UTS & LBV	1.18 P 0.42	Where I-5 crosses the Santa Clara River.	Caltrans (with FHWA funding), proposes to replace the existing bridges where I-5 crosses the Santa Clara River, with a single structure, consisting of 10 traffic lanes. Construction activities would include major and minor grading, installing pier supports, and the demolition and removal of the existing bridges.	Not likely to jeopardize the existence of these three species and is not likely to destroy or adversely modify the critical habitat of the LBV or the proposed critical habitat of the UTS.
Replacement of the Highway 101 Bridge over the Santa Clara River, Ventura County, California Op. 852.921.1190 May 3, 2001	LBV & SWF	1.18 P 0.42 T	Highway 101 and the Santa Clara River; activities are expected to occur only on and under the bridge, and within 100 feet up- and downstream of the bridge.	Caltrans, (with FHWA funding) proposes to replace existing Highway 101 bridges over the Santa Clara River with a single concrete bridge with 12 lanes, a bike path, 12 piers and two abutments.	The action as is not likely to jeopardize the continued existence of these species; no critical habitat present.
Amendment to the Biological Opinion for the Santa Clara River Bridge Replacement Project Op. 852.921.1195 April 3, 2002	LBV & SWF	1.18 P 0.42 T	Interstate 101 and the Santa Clara River (although the opinion inadvertently references I-5).	Caltrans was unable to comply with term and condition 7 of the May 3, 2001, opinion requiring removal of riparian vegetation within 100 yards of the bridge before March 15 of each construction year.	Qualified ornithologists conducted surveys for breeding birds in the project area and concluded that no LBV or SWF had been detected. Therefore, the biological opinion can be amended without resulting in additional take of the species.

Project	Species Covered	Acres Permanently (P) or Temporarily (T) Disturbed	Location	Description	Conclusion
Hardluck Campground Low Water Crossing Replacement Op. 2409.3697.4463 September 10, 2002	AT	0.25 P T - unknown	Piru Creek near Hardluck Campground in Los Padres National Forest.	Replacement of a concrete low water crossing.	Not likely to jeopardize the continued existence of the AT or adversely affect critical habitat.
Natural River Management Plan (NRMP) (Supplement to previous application dated November 27, 1998) Op. 116.154.212 Nov. 15, 2002	AT	66 P 71 T (smaller acreage for permanent reflects that a portion of the project had already been completed)	Same as previous.	Same as previous.	The NRMP, as proposed, is not likely to jeopardize the continued existence of the AT.
Castaic Creek Bank Protection, Valencia Commerce Center, Los Angeles County, California Op. 189.203.342 December 17, 2002	UTS & AT ~LBV	135 P 8.3 T	Castaic and Hasley creeks adjacent to the Santa Clara River.	Installation of approximately 19,400 feet of bank protection along Castaic and Hasley creeks over a period of four years.	The project, as proposed, is not likely to jeopardize the continued existence of either of these species.
Re-initiation of the replacement of the I-5 Bridge over the Santa Clara River, Los Angeles County Op. 148.156.215 August 1, 2003	UTS, LBV, SWF, & AT	1.28 P 0.42 T	Where I-5 crosses the Santa Clara River.	Same as above, but permanently impacted area will be expanded by 0.1 acre.	Action is not likely to jeopardize the continued existence of the species.

Project	Species Covered	Acres Permanently (P) or Temporarily (T) Disturbed	Location	Description	Conclusion
Santa Clara River Reaches 71 & 82 Op. 884.976.1397 October 24, 2004	UTS & AT	5.81 P T-unknown	Reaches 71 & 82 of the Santa Clara River.	Clearing of soft-bottom channels using both heavy mechanical equipment and hand clearing.	The action is not likely to jeopardize the continued existence of these species.
Townhomes at the River Development and Construction of a Flood Control Levee Op. 1726.2067.3266 March 31, 2005	LBV	11.4 P T-unknown	City of Fillmore.	66 residential units on an 11.4 acre site and 26' x 730' x 10' x 90' levee installation.	Not likely to jeopardize the continued existence of the LBV; critical habitat will not be adversely affected.
I-5 Hasley Canyon Interchange Improvement Op. 2141.3126.3703 May 31, 2005	UTS & AT	0.01 P 0.42 T (est)	I-5 at Castaic Creek and Hasley Canyon.	Replacement of existing over-crossings, ramps, and supports.	Not likely to jeopardize the continued existence of either species; critical habitat will be adversely affected.
Amendment to Biological Opinion for Santa Clara Bridge Replacement Op. 852.921.4942 February 16, 2006	LBV & SWF	1.18 P 0.42 T	Interstate 101 and the Santa Clara River.	Proposed revision of project description to include underground drainage and outlet.	The revised project is not likely to adversely affect these species.

Project	Species Covered	Acres Permanently (P) or Temporarily (T) Disturbed	Location	Description	Conclusion
Santa Paula Water Recycling Facility Op. 2260.3483.5550 September 5, 2006	LBV	0 P 9.4 T	Approximately 58 acres immediately south of SR-126 and west of Peck Road in Santa Paula.	Construction of a new water recycling facility including new percolation ponds that would discharge into the Santa Clara River.	Not likely to jeopardize the continued existence of the LBV; critical habitat will not be adversely affected.

Notes:

UTS - Unarmored Threespine Stickleback

SWF - Southwestern Willow Flycatcher

LBV - Least Bell's Vireo

AT - Arroyo toad

~ - species mentioned but not discussed

Source: USFWS.

Table 4.4-21
Recent CDFG Take Authorizations in Project Vicinity

Project Number	Project Name	Project Location	Project Impact Description	Relevant Species
2080-2001-029-05	I-5/Santa Clara River Bridge Replacement	City of Santa Clarita.	Unknown.	LBV, SWF, UTS*
2081-2002-008-05	SR 101 Santa Clara River Bridge Replacement	Santa Clara River Bridge where it is crossed by SR 101, between Post miles 22 and 24 in Ventura County.	The permanent destruction of 1.0 acres of habitat and temporary impacts to 0.9 acre of habitat during 4 breeding seasons.	LBV, SWF
2080-2003-018-05	I-5 Santa Clara River Bridge Replacement Additional Work Area	City of Santa Clarita.	Permanent acres-1.28; temporary acres-3.30.	LBV, SWF, UTS*
2081-1998-49-5	NRMP	Santa Clara River in Los Angeles County by City of Santa Clarita.	74 acres.	LBV, SWF, UTS*

UTS - *Unarmored Threespine Stickleback*. *Discussed, but no take authorized.

SWF - *Southwestern Willow Flycatcher*.

LBV - *Least Bell's Vireo*.

Source: CDFG, 2007, Recirculated Draft EIR, **Appendix 4.4**.

d. Individual Projects

Major residential/mixed use, commercial, and industrial projects of 700 or more acres within 5 miles of the project area, as well as larger-scale infrastructure projects involving the Santa Clara River, are listed below. A summary of these projects' size, location, and current status appears in the following table (**Table 4.4-22**). These projects are identified by the same numbers used in **Figure 4.4-11, Cumulative Individual Project Location Map**.

(1) Cumulative Impacts on Biological Resources

The Landmark Village proposed project's impacts to biological resources are summarized in **Table 4.4-10, Significant Impact and Mitigation Summary**.

The following discussion evaluates the proposed project's cumulative impacts on biological resources located within the SCRW. The cumulative impacts analysis relies heavily on the Watershed Study (see Landmark Village Final EIR [November 2007], Appendix A), which addresses impacts related to the Newhall Ranch Resource Management and Development Plan/Spineflower Conservation Plan

(RMDP/SCP) project, because the Landmark Village project site is included within the larger RMDP/SCP project area.

The evaluation of cumulative impacts also was based on two vegetation and land cover data sets: (1) for the RMDP/SCP project area, including the Landmark Village project site, project-level vegetation and land covers data were used, as summarized in **Table 4.4-23**; and (2) for areas outside of the RMDP/SCP project area boundaries, data provided by the California Gap Analysis Program (GAP) database (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**) were used, as these were the only other vegetation and land cover data available for the entire SCRW. The California GAP data were compiled in 1998 by overlaying existing land use maps, vegetation maps, and forest inventory data. The minimum mapping unit for upland vegetation communities was 100 hectares (247 acres), the minimum mapping unit for major wetland areas was 40 hectares (99 acres), and smaller wetlands were included with the same attributes as larger upland polygons. Thus, the California GAP vegetation database was mapped at a broader scale and necessarily lower precision than the RMDP/SCP project-level vegetation community and land cover mapping. Nonetheless, the GAP data provide reasonable estimates of watershed-wide vegetation community conditions (*i.e.*, acreage) that existed prior to 1998, and, in conjunction with the project-level data, have been used as a starting point for this assessment's quantitative evaluation of cumulative impacts to various types of vegetation communities and land covers. To estimate cumulative impacts to vegetation communities and land covers that have occurred since 1998, this analysis relied on an assessment of the development projects included on the list of past, present, and reasonably foreseeable future development projects. This list includes development projects located in the watershed area that were under consideration by Los Angeles County and the City of Santa Clarita during a period that generally extends between the late 1990s and 2008. Cumulative development projects within the study area located in Ventura County and the cities of Santa Paula and Fillmore include projects under consideration by those jurisdictions in late 2008 and early 2009.

The surveys, reports, studies, and maps referenced in this section are incorporated by reference, as permitted in section 15150 of the *State CEQA Guidelines*. All referenced documents are available for public inspection and review upon request to: County of Los Angeles, Department of Regional Planning, 320 West Temple Street Los Angeles, California 90012 (Samuel Dea; (213) 974-6461) or Impact Sciences, Inc., 803 Camarillo Springs Road, Suite A-1, Camarillo, California 93012 (Susan Tebo; (805) 437-1900). Additionally, many of these documents are included in the appendices to the Newhall Ranch Resource Management and Development Plan and the Spineflower Conservation Plan Draft EIS/EIR (SCH No.2000011025), and can be obtained from the California Department of Fish and Game's Web site at <http://www.dfg.ca.gov/regions/5/newhall/docs/>.

**Table 4.4-22
Individual Project Summary**

Map ID	Name	Jurisdiction	Project Type	Location and Distance from Proposed Project	Residential Units/ Comm./Ind. Square Feet	Size (Acres)	Status
1	Ritter Ranch	City of Palmdale (Los Angeles County)	Residential/Mixed Use	South of Bouquet Canyon Road and Elizabeth Lake Road, west of Antelope Valley Freeway, and north of Sierra Highway; 40 miles east of the proposed project.	7,200	10,258	Partially Built Out
2	Centennial	Northern Los Angeles County	Residential/Mixed Use	Located on the Tejon Ranch, just south of the Kern County/Los Angeles County border, located next to SR-138, just east of I-5; 40 miles north of the proposed project.	23,000	11,700	Pending
3	Adams Canyon	City of Santa Paula	Residential/Mixed Use	West of SR-150; 22 miles west of the proposed project.	450	6,578	Pending
4	Valencia Industrial Center	Los Angeles County	Industrial Park and Commercial Retail	East of I-5, south of Newhall Ranch Road, and north of Magic Mountain Parkway; 0.25 mile northeast of the proposed project.	12,900,000	1,840	Completed
5	Legacy Village (Stevenson Ranch V)	Los Angeles County	Residential/Mixed Use	Adjacent to/southeast of the Newhall Ranch Specific Plan area.	3,425/ 840,200	1,759	Pre-Application
6	Tesoro del Valle (TR 51644)	Los Angeles County	Residential/Mixed Use	West side of San Francisquito Creek, north of Copperhill Drive; 5 miles northeast of the proposed project.	1,791	1,793	Under construction
7	Tapia Ranch (TR 53822)	Los Angeles County	Residential/Mixed Use	Tapia Canyon Road, west of Tesoro Residential Development. Access to the site currently via Parker Road exit from I-5; 4 miles east of the proposed project.	405	1167	Pending
8	Whittaker Bermite/ Porto Bello Project (TR 51599)	City of Santa Clarita	Residential/Mixed Use	West of Golden Valley Road, south of Soledad Canyon Road, and east of San Fernando Road; 3 miles east of the proposed project.	2911/ 609,832	996 (407 open space)	On hold pending remediation activities and bankruptcy proceedings.
9	West Creek/West Hills Valencia Project (TR 52445)	Los Angeles County	Residential/Mixed Use	West side of San Francisquito Creek, north of Newhall Ranch Road, and south of the Copperhill Drive bridge; 4 miles northeast of the proposed project.	2,545/ 180,000	966	Near buildout.
10	Westridge Project (TR 45433 & MP 19050)	Los Angeles County	Residential/Mixed Use	Just west of I-5, north of Stevenson Ranch, and directly south of Six Flags Magic Mountain Amusement Park; 0.5 mile east of the proposed project.	1,939/ 192,000	794	Under Construction
11	North Valencia Specific Plan No. 1 (Industrial Park)	City of Santa Clarita	Industrial and Business Park	South of Newhall Ranch Road, north of Magic Mountain Parkway, east of Rye Canyon Road, and west of Bouquet Canyon Road; 0.5 mile east of the proposed project.	2,000/ 803,000	707 (365 open space)	Completed

Map ID	Name	Jurisdiction	Project Type	Location and Distance from Proposed Project	Residential Units/ Comm./Ind. Square Feet	Size (Acres)	Status
12	RiverPark (TR 53425)	City of Santa Clarita	Residential/Mixed Use	Located at the eastern terminus of Newhall Ranch Road, east of Bouquet Canyon Road, and north of Soledad Canyon Road and the Santa Clara River; 4 miles east of the proposed project.	1,089/ 16,000	695	Under Construction
13	NRMP	Los Angeles County	Infrastructure	Approved NRMP for 1,200 acres of the Santa Clara River.	NA	NA	Approved and Partially Built Out
14	CLWA Reclaimed Water Master Plan (SCR)	Los Angeles County and the City of Santa Clarita	Infrastructure	Los Angeles County and the City of Santa Clarita; 6 miles north of the proposed project.	NA	NA	Approved
15	Santa Clara River Enhancement and Management Plan	Los Angeles and Ventura Counties	Infrastructure/Environmental	Santa Clara River from Acton to Pacific Ocean.	NA	NA	Approved
16	Santa Clarita Valley Joint Sewerage Facilities Plan	Los Angeles County	Infrastructure	Los Angeles County	NA	NA	Approved
17	Chiquita Canyon Landfill Expansion	Los Angeles County	Industrial	West of I-5, north of SR-126 at Wolcott Way; 0.5 mile north of the proposed project.	NA	98	Pending

Source:

- 1 Final EIR, dated March 1992, Lead Agency City of Palmdale Planning Department; SCH No. 1990010124.
- 2 Notice of Preparation dated March 2004, Lead Agency Los Angeles County Regional Planning; SCH No. 2004031072; <http://www.ceqanet.ca.gov>, (September 22, 2008).
- 3 Two different projects have been proposed for this site. The Ventura County version would provide for 34 single-family lots ranging in size from 40 to 160 acres (SCH No. 2007021073, NOP dated February 2007, <http://www.ceqanet.ca.gov>, last visited on September 22, 2008). In May 2007, City of Santa Paula voters amended the City's urban restriction boundary to include Adams Canyon and amended the City's General Plan to allow 495 residential units, 100 acres of public recreation facilities, open space, a 40-acre school site, a hotel and a golf course on the site. (See <http://www.ci.santa-paula.ca.us/adams canyon/>; <http://recorder.countyofventura.org/Results/050807/Election%20Result.htm>.) According to City planning staff, as of February, 2009, the current proposal for the site is 450 estate homes. Any proposed development on the site would still require discretionary approvals from the City Council (e.g., a specific plan and development agreement), and would require annexation to the City's jurisdiction before it could be developed with City approvals. (See http://www.ci.santa-paula.ca.us/adams canyon/ImpartialAnalysis_A7.pdf.)
- 4 Applicant provided information.
- 5 Applicant provided information.
- 6 Initial Study dated 2/6/2007, Lead Agency Los Angeles County Regional Planning; SCH No. 1993021007.
- 7 Initial Study dated November 2006, Lead Agency Los Angeles County Regional Planning; SCH No. 2006121016.
- 8 SCH No. 1995101595 (cleanup being processed under SCH No. 2001051089); more information can be found at <http://www.santa-clarita.com/cityhall/cd/planning/bermite.asp>.
- 9 CEQA findings dated July 2005, Los Angeles County; SCH No. 1998021052.
- 10 Revised Draft EIR, dated May 1999, Lead Agency Los Angeles County Regional Planning; SCH No. 1990011146, containing text revisions to Draft EIR text based on comments received during the project review process. Los Angeles County certified the Final EIR for this project in May 1999.
- 11 Draft EIR, dated August 1997, Lead Agency City of Santa Clarita Planning Department; SCH No. 1996071077.
- 12 Draft EIR, dated March 2004, Lead Agency City of Santa Clarita; SCH No. 2002091081. The City of Santa Clarita certified a Final EIR for this project in May 2005. The Final EIR did not change the Draft EIR's conclusions regarding impacts and their significance.
- 13 CEQA findings from August 2003, California Department of Fish and Game; SCH No. 1997061090.
- 14 Draft EIR, dated November 2006, Lead Agency Castaic Lake Water Agency (CLWA); SCH No. 2005041138. The CLWA certified a Final EIR for this project in March 2007. The Final EIR did not change the Draft EIR's conclusions regarding impacts and their significance.
- 15 Document and information available at: <http://www.santaclarariverparkway.org/wkb/projects/scremp>, last visited on September 9, 2008.
- 16 Final EIR, dated January 1998, Lead Agencies County Sanitation Districts 26 and 32 of Los Angeles; SCH No. 1998109408.
- 17 NOP/IS dated July 20, 2005, Lead Agency Los Angeles County Regional Planning; SCH No. 2005081071.

No other readily available sources of habitat data were determined to be available that would facilitate the analysis of cumulative impacts on a watershed-wide basis. By estimating impacts to vegetation communities and land covers reasonably expected to occur as a result of the identified past, present, and reasonably foreseeable development projects, and comparing those impact estimates to the available GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), reasonable characterizations of impact trends throughout the SCRW have been provided. Based on the review and analysis of the project list that has been prepared, conclusions regarding the effects of cumulative impacts have been provided that reflect the "severity of the impacts and their likelihood occurrence" as required by the *State CEQA Guidelines* (14. Cal. Code Reg. § 15130, subd. (b)). Although cumulative impacts are often expressed in this analysis in terms of acres and proportion of habitat loss, *etc.*, it should be recognized that these numbers are only meant to be estimates of cumulative impact conditions and trends, and not project-specific evaluations of impacts to biological resources in the watershed. Where acreages are reported for those areas outside of the RMDP/SCP project area, they should be considered approximations and not precise measurements. Because the California GAP data are general and the minimum mapping units are very coarse, these data cannot be used to provide specific analyses of impacts to habitats for wildlife and plant species. However, these data can be used to provide the context of the size of the watershed in relation to the impact associated with present and reasonably foreseeable projects.

Where acreages are reported throughout this cumulative impact analysis for the SCRW as a whole, and the California GAP vegetation database (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**) is referenced, the project-level mapping for the RMDP/SCP boundary has been incorporated into the reported acreage.

Table 4.4-23
Existing Vegetation Communities, Floristic Alliances and Associations, and Land Cover Types in Project Area

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	RMDP Acreage	VCC Acreage	Entrada Acreage
Grass and Herb Dominated Communities	Non-Native Grassland	California annual grassland	Not mapped to association level	2,175.5	71.1	53.2
	Native Grassland	Purple needlegrass	Not mapped to association level	0.6	0.0	0.0
Scrub and Chaparral	Coastal Scrub	California sagebrush scrub	Not mapped to association level	1,529.3	35.6	59.0
			Burned California sagebrush scrub	1,469.3	0.0	0.0
			California sagebrush– <i>Artemisia californica</i>	82.5	0.0	3.4
			California sagebrush–purple sage	393.5	0.0	0.0
			Disturbed California sagebrush–purple sage	4.5	0.0	0.0
		California sagebrush–black sage scrub	California sagebrush–black sage	196.3	0.0	0.0
		California sagebrush–California buckwheat scrub	Not mapped to association level	310.0	6.0	97.5
		California sagebrush scrub–undifferentiated chaparral	Not mapped to association level	135.0	0.0	0.0
			Burned California sagebrush scrub–undifferentiated chaparral	5.2	0.0	0.0
		Coyote brush scrub	Not mapped to association level	9.2	0.0	0.0
		Undifferentiated Chaparral Scrubs	Not mapped to alliance level	Not mapped to association level	1,106.9	0.0
Burned undifferentiated chaparral	957.2			0.0	0.0	
Chaparral with	Chamise chaparral	Not mapped to association level	55.7	0.0	0.0	

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	RMDP Acreage	VCC Acreage	Entrada Acreage
	Chamise		Burned chamise chaparral	0.0	0.0	0.0
	Chaparral with Oak	Scrub oak chaparral	Not mapped to association level	1.5	0.0	0.0
	Other Scrubs	Eriodictyon scrub	Not mapped to association level	0.2	0.0	0.0
Broad Leafed Upland Tree Dominated	Upland Walnut Woodland and Forest	California walnut woodland and forest	California walnut woodland	27.2	0.0	0.0
	Oak Woodland and Forest	Coast live oak forest and woodland	Coast live oak woodland	757.8	0.0	0.0
		Mixed oak woodland and forest	Not mapped to association level	168.9	0.0	0.0
		Valley oak forest and woodland	Valley oak woodland	79.4	0.0	0.0
			Valley oak/grass	461.4	0.0	0.0
Bog and Marsh	Marsh	Bulrush-cattail wetland	Not mapped to association level	1.4	0.0	0.0
		Cismontane alkali marsh	Not mapped to association level	18.6	0.0	0.0
		Fresh-brackish water marsh	Coastal and valley freshwater marsh	2.0	0.0	0.0
Riparian and Bottomland Habitat	Other Riparian/Wetland	Herbaceous wetland	Not mapped to association level	183.1	0.9	0.0
		River wash	Not mapped to association level	290.0	37.5	4.9
		Alluvial scrub	Not mapped to association level	1.0	0.0	0.5
		Big sagebrush scrub	Not mapped to association level	76.5	0.0	14.8
		Big sagebrush scrub	Big sagebrush-California buckwheat	0.5	0.0	0.0
		Giant reed	Not mapped to association level	5.6	0.0	0.0
	Low to High Elevation Riparian Scrub	Arrow weed scrub	Not mapped to association level	18.7	0.0	0.0
		Mexican elderberry	Not mapped to association level	12.8	0.0	0.0
		Mexican elderberry	Disturbed Mexican elderberry	0.3	0.0	0.0
		Mulefat scrub	Not mapped to association level	71.5	0.5	0.0
	Riparian Forest and	Southern willow scrub	Not mapped to association level	22.7	0.0	0.0

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	RMDP Acreage	VCC Acreage	Entrada Acreage
	Woodland	Tamarisk scrub and woodland	Shrub tamarisk	2.8	0.0	0.0
		Coast live oak forest and woodland	Southern coast live oak riparian forest	0.7	0.0	0.0
		Fremont cottonwood riparian forest and woodland	Southern cottonwood–willow riparian	358.3	63.4	0.0
Man-Made Land Cover Types		Agriculture	NA	1,576.4	40.5	0.0
		Developed land	NA	0.5	2.2	2.0
		Disturbed land	NA	1,080.6	63.7	56.2
		Total		13,651.1	321.4	316.0

This cumulative biology impacts analysis is organized into four separate discussions. The first addresses cumulative impacts to vegetation communities and land covers. The second addresses cumulative impacts to general wildlife (by species guild). The third addresses impacts to wildlife habitat linkages, wildlife corridors, and wildlife crossings (again, by species guilds). The fourth addresses impacts to special-status species, as such species are defined in **Subsection 4.4.7** of this EIR.

It should be noted that impacts associated with the RMDP/SCP are assessed as direct, indirect, and secondary. Direct and indirect impacts differ in regard to the Project component resulting in the impacts. As used here, direct impacts would occur as a result of implementation of the RMDP/SCP project and include temporary disturbance and/or permanent loss of vegetation communities, including sensitive vegetation communities, general wildlife, and special-status plant and animal species. For purposes of the impact analysis, the total loss of habitat for direct and indirect effects is evaluated in its entirety. Indirect impacts would occur as a result of buildout of the Newhall Ranch Specific Plan, Valencia Commerce Center (VCC), and Entrada planning areas. Indirect impacts also include permanent loss of vegetation communities, including sensitive vegetation communities, general wildlife, and special-status plant and animal species. For purposes of analyzing indirect impacts, any temporary disturbance areas are included in the permanent footprint. (There are no temporary impacts identified for buildout of the Specific Plan, VCC, and Entrada planning areas.)

Secondary impacts are those reasonably foreseeable effects caused by Project implementation on remaining or adjacent biological resources outside the construction disturbance zone. Secondary impacts may affect areas within the defined Project area, but outside the construction disturbance zone, including open space, and areas outside the Project area, such as downstream effects. Secondary impacts include short-term effects immediately related to construction activities and long-term or chronic effects related to the human occupation of developed areas. Both implementation of the RMDP/SCP project and buildout of the Specific Plan, VCC, and Entrada planning areas would result in short-term construction-related secondary impacts and long-term secondary impacts.

(2) Impacts to Vegetation Communities and Land Covers

As indicated in **Subsection 4.4.9.1(a)**, Project Impacts, the following vegetative communities and land covers may be affected by the proposed Landmark Village project, and are assessed for cumulative impacts: riparian communities; California annual grassland; coastal scrub communities; chaparral communities; oak woodlands; agricultural land; and disturbed land. See **Table 4.4-9, Plant Community/Land Use Impact Summary**.

There are, however, a host of vegetation communities and land covers that do not occur in the RMDP/SCP project area, which encompasses the Landmark Village project, but occur elsewhere in the SCRW and are included in the California GAP vegetation database (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**). These include coniferous forests, black oak forest, Mojavean pinyon and juniper woodlands, bare exposed rock, and sandy areas other than beaches. Because the RMDP/SCP, including the Landmark Village project, would not affect these vegetation communities and land covers, they are not included in this cumulative analysis.

The cumulative analysis of impacts to vegetation communities and land covers is organized by three general themes, as follows.

The Santa Clara River Watershed is Relatively Undeveloped and Has Substantial Existing and Designated Open Space. Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), as of 1998, approximately 52,000 acres of the 1,038,100-acre SCRW²⁰ had been converted to agricultural uses and approximately 47,300 acres had been converted to industrial, commercial, and urban uses. Combined, these developed uses comprise about 99,000 acres of the total watershed.²¹ Based on the project-level mapping for the RMDP/SCP project area, including the Landmark Village project, and the California GAP data for areas outside of the RMDP/SCP project area, chaparral is the dominant vegetation community in the SCRW, accounting for about approximately 550,300 acres of the watershed. Coastal scrub comprises approximately 174,340 acres in the watershed. The third most common grouping includes higher elevation coniferous and black oak forests and Mojavean pinyon and juniper woodlands, which together account for about 14 percent of the SCRW; as noted above, however, none of these vegetation communities occur within the proposed RMDP/SCP project area, including the Landmark Village project. Riparian and lower elevation oak woodlands account for about 3 percent of the watershed. The remainder is made up of disturbed (but not developed) lands, annual grasslands, and other land covers.

Figure 4.4-18 shows that most of the approximately 99,000 acres of land converted to development land uses (*i.e.*, agriculture, and residential, commercial, industrial, infrastructure development) has occurred: (1) in the southern portion of the watershed along the Santa Clara River, where agricultural uses dominate; and (2) in the cities of Ventura, Santa Paula, Santa Clarita, and the communities of Valencia and Acton, where urban development dominates. It should be noted that **Figure 4.4-18** shows the California GAP data for the watershed outside of the RMDP/SCP project area. Because of large scale of

²⁰ The study area is defined as the Santa Clara River Watershed within Los Angeles and Ventura Counties (CalWater Version 2.2; <http://gis.ca.gov/meta.ep?oid=22174>)

²¹ **Table 4.4-24** provides a summary of vegetation communities and land covers based on the California GAP data and the project-level mapping for the RMDP/SCP project area, including the Landmark Village project.

the vegetation and land covered data shown in **Figure 4.4-18**, the project-level data for the RMDP/SCP project, including the Landmark Village project, cannot be clearly shown on this figure. The reader is referred to **Figures 4.4-19-A1** through **4.4-19-C2**, RMDP/SCP – Vegetation Communities and Land Covers, for the project-level detail. **Figure 4.4-18a** is also provided to reflect the vegetation community categories of **Table 4.4-24**.

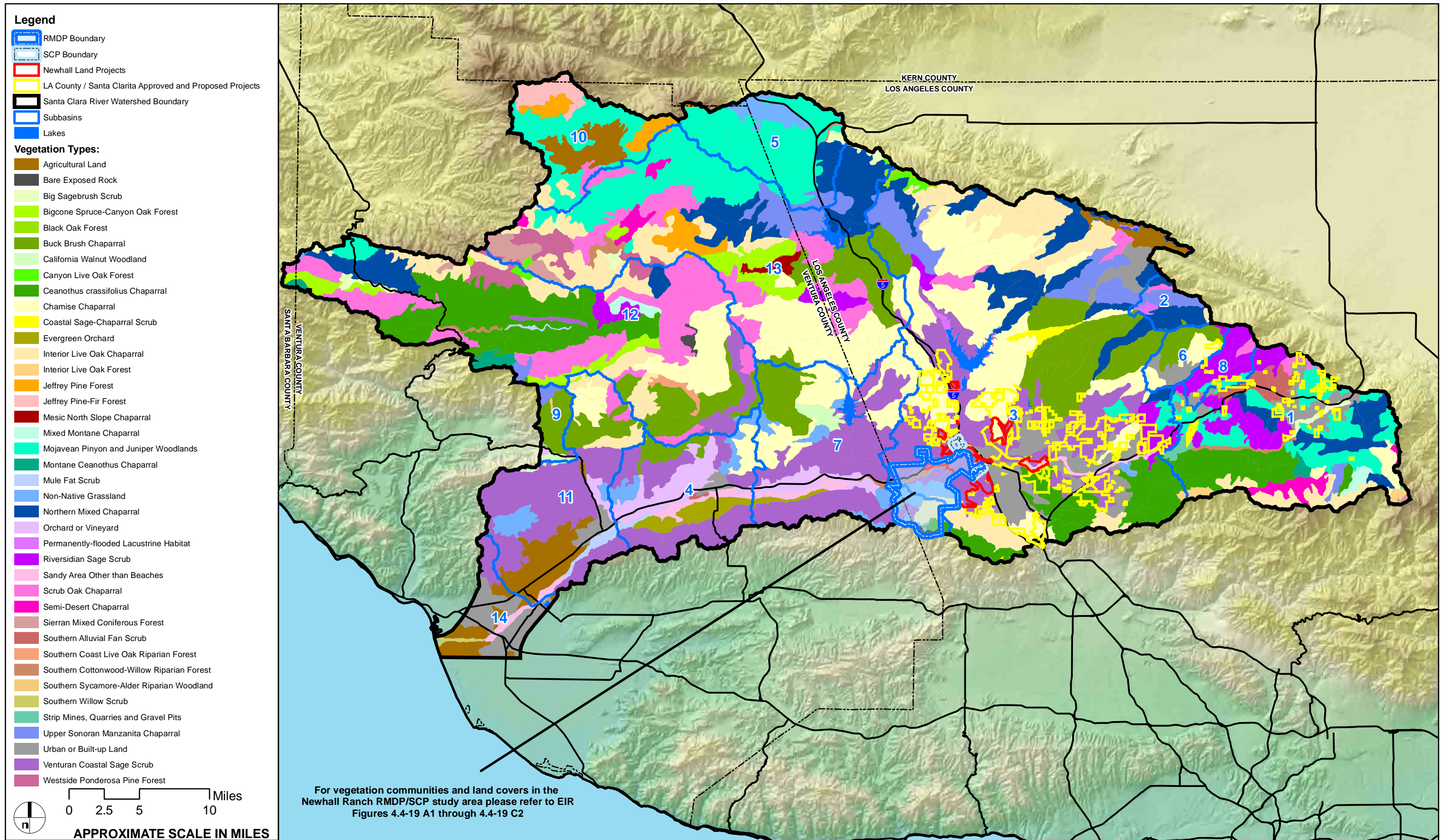
Approximately 734,000 acres of the SCRW either currently exist as open space or are classified as open space under available zoning information (**Figure 4.4-20**) (U.C. Davis 2004). Approximately 635,000 acres of the SCRW of this open space currently have a land use designation of federal (Bureau of Land Management, USFWS, U.S. Forest Service) and state (CDFG, Department of Parks and Recreation, State Lands Commission) public lands, as well as privately held reserves (The Nature Conservancy). The approximately 98,000 acres classified as open space under available zoning information is not currently protected as natural open space, and could be subject to several uses that are allowed under some open space designation, such as active recreation. Relatively large sub-basins with substantial existing and/or classified open space include Eastern (sub-basin 3), Hungry Valley (sub-basin 5), Topa Topa (sub-basin 12), and Upper Piru (sub-basin 13) (**Figure 4.4-20**). Most of the land within each of these sub-basins is open space: 55 percent of Eastern, 93 percent of Hungry Valley, 97 percent of Topa Topa, and 98 percent of Upper Piru. Eastern is the largest sub-basin. As a result, this sub-basin's approximately 160,000 acres of open space is second only to Upper Piru, which has approximately 165,000 acres of open space. Smaller sub-basins with high percentages of open space include Bouquet (sub-basin 2), Mint Canyon (sub-basin 6), Sisar (sub-basin 9), and Stauffer (sub-basin 10). Along the Santa Clara River mainstem, the NRMP upstream is conserving 4.7 miles, and the RMDP project will conserve 5 miles. An additional 13.7 miles are conserved within the County of Los Angeles, and approximately 33 miles are conserved within the County of Ventura.

Land Use Classification and Past, Present and Reasonably Foreseeable Projects. To assess the cumulative impacts of the proposed Landmark Village project to vegetation communities and land covers, **Table 4.4-9** provides a breakdown of the potential permanent loss of the different vegetation communities and land covers that would occur as a result of the proposed Landmark Village project, and **Table 4.4-24** provides a breakdown of the potential permanent loss of vegetation communities and land covers that would occur as a result of: (1) the proposed RMDP/SCP project, which encompasses the Newhall Ranch Specific Plan; and (2) present and reasonably foreseeable projects elsewhere in the SCRW.

As indicated in **Table 4.4-24**, the SCRW consists of approximately 1,038,100 acres of land and supports a variety of vegetation communities and land covers. As described above, the GAP data, although mapped at the broad, landscape level, is the best available data for vegetation communities and land covers in the SCRW outside the RMDP/SCP project area and are appropriate for the watershed-level analysis. The

project-level mapping data for the RMDP/SCP project area, including Landmark Village project were incorporated into this analysis. According to land use information provided by Los Angeles County and Ventura County, and by the cities of Santa Clarita, Ventura, Santa Paula, and Fillmore, and the community of Piru, approximately 47,300 acres (4.6 percent) of the watershed had been developed per the GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**). In addition, project list information from these government entities indicates that another 32,300 acres (3.1 percent) are expected to be developed in the foreseeable future, based on present and reasonably foreseeable future projects. Present and reasonably foreseeable future projects, including the proposed RMDP/SCP, including the Landmark Village project, would convert approximately 37,890 additional acres (3.6 percent) of the watershed to developed uses, resulting in a total of approximately 85,200 acres (8.2 percent) of watershed being developed.

From a specific vegetation community and land cover perspective, the impacts from such development (including the proposed RMDP/SCP project, which encompasses the Landmark Village project) is estimated to affect about 4.9 percent of existing California annual grassland, agriculture, and disturbed lands; 11.8 percent of existing coastal scrub communities, 2.3 percent of existing chaparral communities, and 4.2 percent of existing riparian communities within the watershed (although it is likely that there would be some level of avoidance of these riparian areas). Purple needlegrass grassland, of which 0.6 acre is mapped in the RMDP/SCP project area outside of the Landmark Village site, would not be removed as a result of grading activities, but would be at increased risk of non-native, invasive plant and animal species, litter, hydrological alterations, human disturbance, and modified fire frequency. At the broad scale and necessarily lower precision of the California GAP vegetation database (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), no oak woodlands or oak/grass vegetation communities were mapped outside of the RMDP/SCP project area within present and reasonably foreseeable development sites. The proposed RMDP/SCP project, however, would result in the loss of 95 acres of oak woodlands and oak/grass, including 2.4 acres within the proposed Landmark Village project site (see **Table 4.4-9**). It is anticipated that present and reasonably foreseeable development within the watershed also would result in impacts to oak woodland and oak/grass vegetation communities, but these impacts can not be quantified with existing information. Note also that, generally speaking, most of the existing and future projects in the watershed occur or would occur on slopes of 0 to 20 percent as these lower slopes are easier to grade and build upon than are steeper slopes, and are often adjacent to areas already developed.

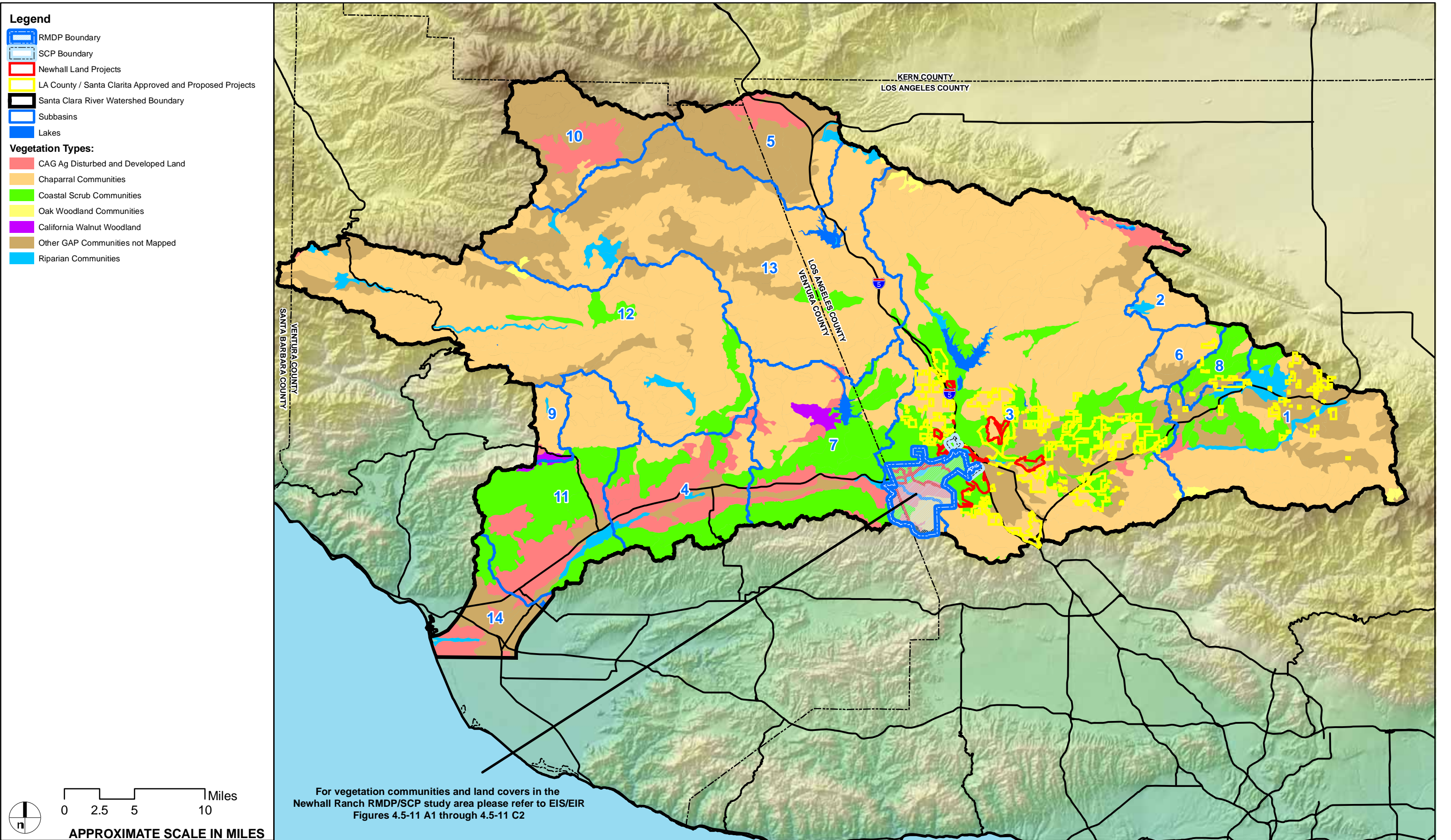


SOURCE: GAP Analysis Project, Generalized Land Cover of California

FIGURE 4.4.-18

Landmark Village EIR

Santa Clara River Watershed - Existing Vegetation Types



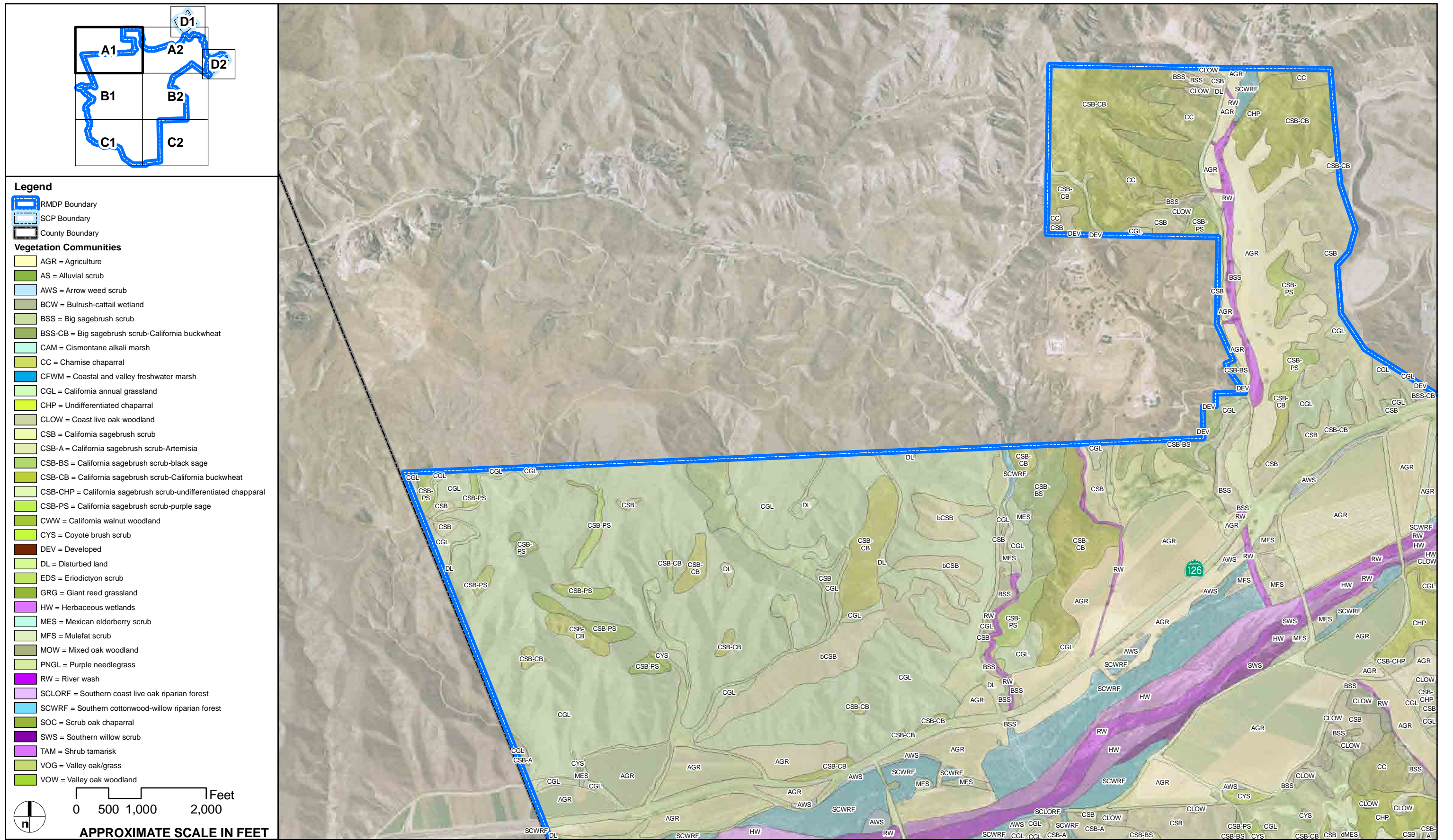
SOURCE: GAP Analysis Project, Generalized Land Cover of California

FIGURE 4.4-18a

Landmark Village EIR



Santa Clara River Watershed - Existing Vegetation Types

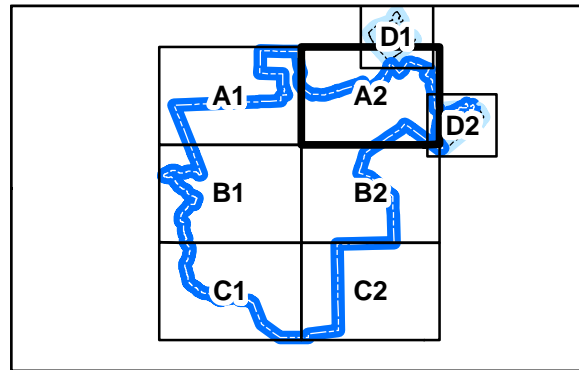


AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.4-19-A1

Landmark Village EIR

RMDP/SCP - Vegetation Communities and Land Covers



Legend

RMDP Boundary

SCP Boundary

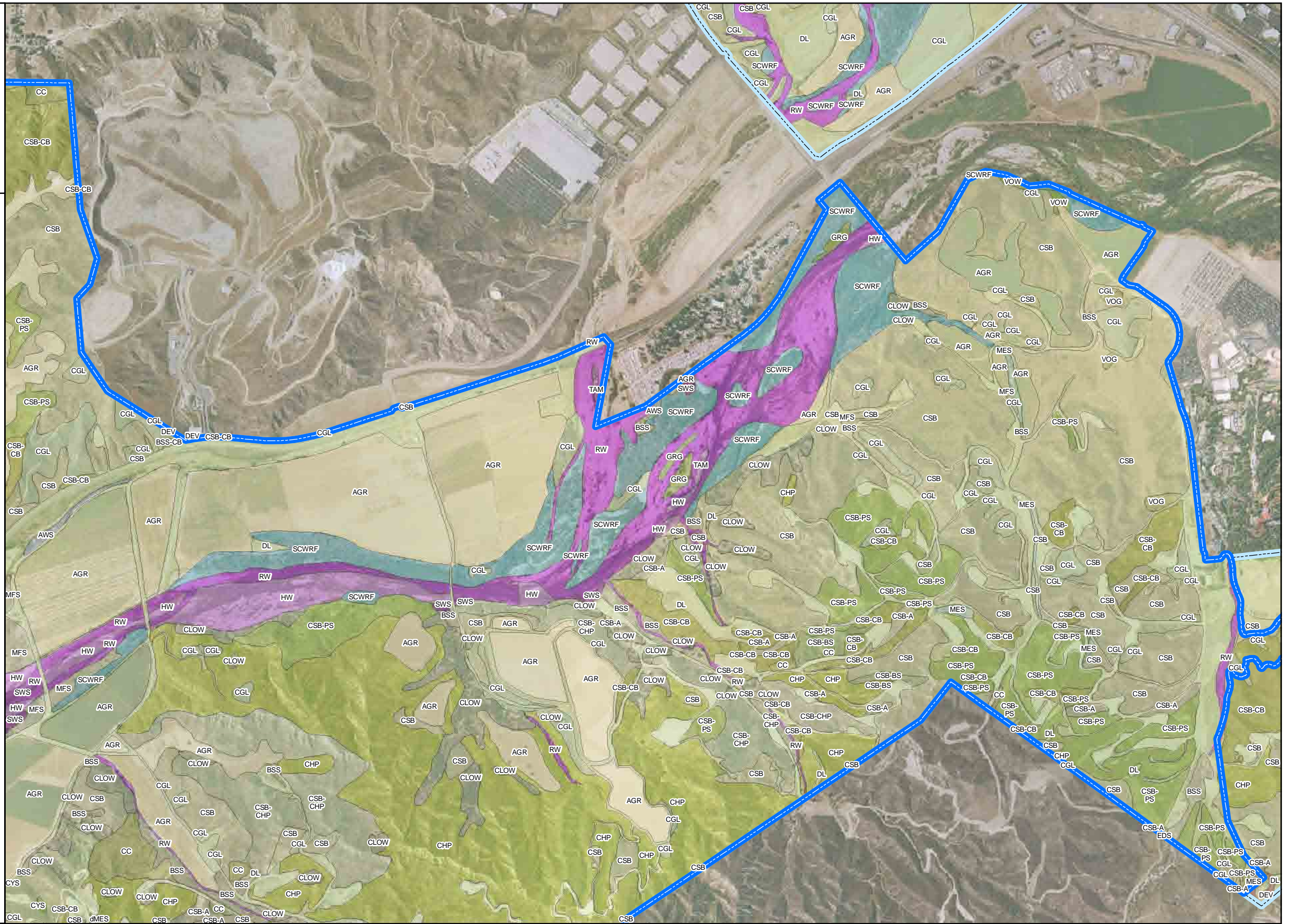
RMDP SCP Vegetation

Vegetation Communities

- AGR = Agriculture
- AS = Alluvial scrub
- AWS = Arrow weed scrub
- BCW = Bulrush-cattail wetland
- BSS = Big sagebrush scrub
- BSS-CB = Big sagebrush scrub-California buckwheat
- CAM = Cismontane alkali marsh
- CC = Chamise chaparral
- CFWM = Coastal and valley freshwater marsh
- CGL = California annual grassland
- CHP = Undifferentiated chaparral
- CLOW = Coast live oak woodland
- CSB = California sagebrush scrub
- CSB-A = California sagebrush scrub-Artemisia
- CSB-BS = California sagebrush scrub-black sage
- CSB-CB = California sagebrush scrub-California buckwheat
- CSB-CHP = California sagebrush scrub-undifferentiated chapparral
- CSB-PS = California sagebrush scrub-purple sage
- CWW = California walnut woodland
- CYS = Coyote brush scrub
- DEV = Developed
- DL = Disturbed land
- EDS = Eriodictyon scrub
- GRG = Giant reed grassland
- HW = Herbaceous wetlands
- MES = Mexican elderberry scrub
- MFS = Mulefat scrub
- MOW = Mixed oak woodland
- PNGL = Purple needlegrass
- RW = River wash
- SCLORF = Southern coast live oak riparian forest
- SCWRF = Southern cottonwood-willow riparian forest
- SOC = Scrub oak chaparral
- SWS = Southern willow scrub
- TAM = Shrub tamarisk
- VOG = Valley oak/grass
- VOW = Valley oak woodland

0 500 1,000 2,000 Feet

APPROXIMATE SCALE IN FEET



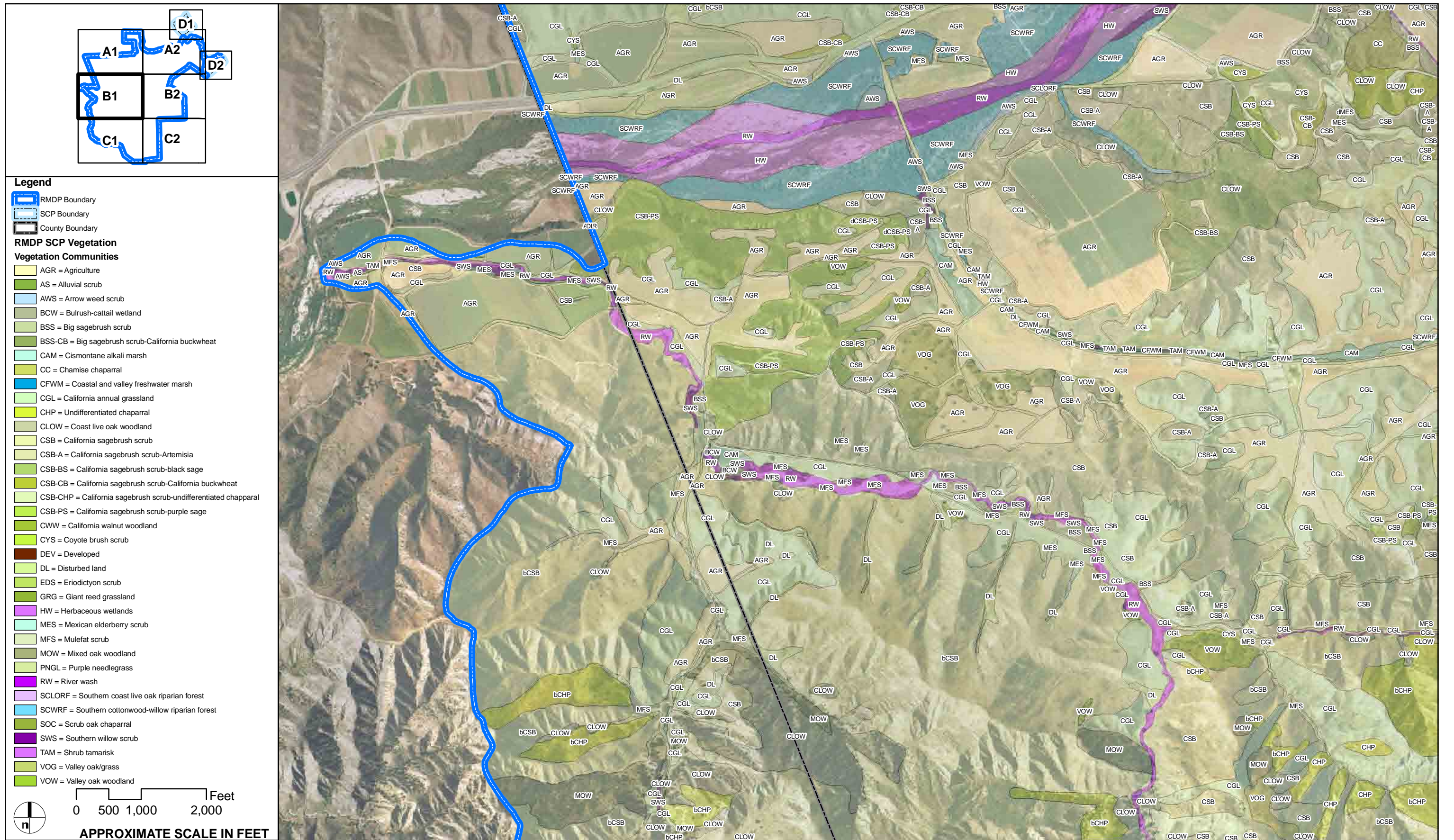
AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.4-19-A2

Landmark Village EIR

RMDP/SCP - Vegetation Communities and Land Covers



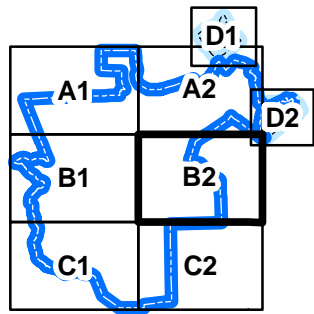


AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.4-19-B1

Landmark Village EIR

RMDP/SCP - Vegetation Communities and Land Covers



Legend

- RMDP Boundary
- SCP Boundary
- County Boundary

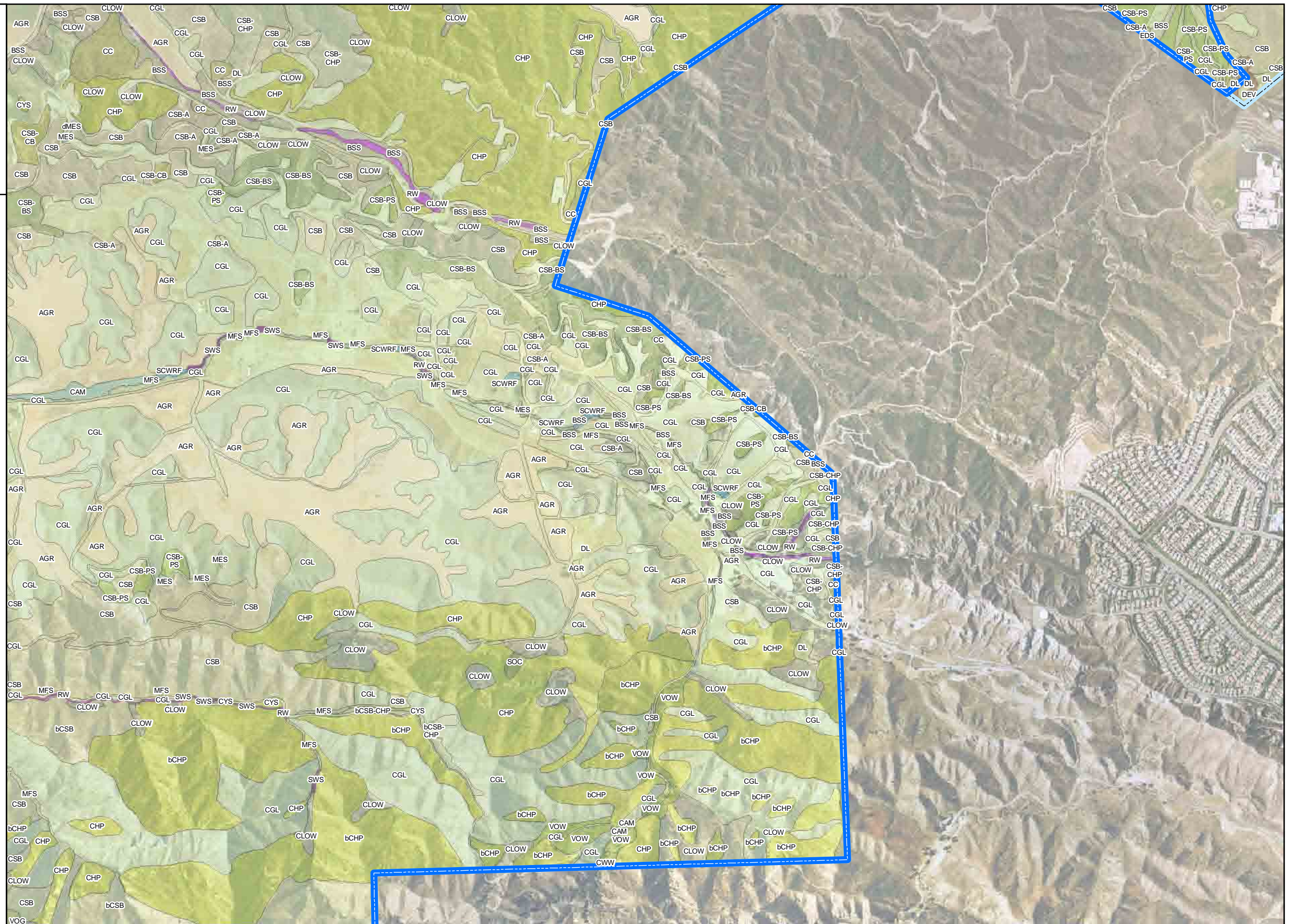
RMDP SCP Vegetation

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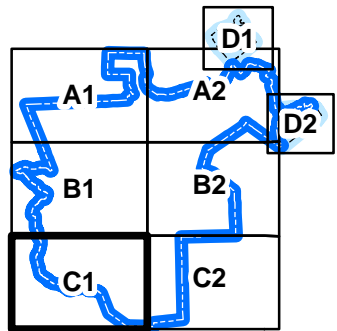
APPROXIMATE SCALE IN FEET



AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.4-19-B2

Landmark Village EIR



Legend

- RMDP Boundary
- SCP Boundary
- County Boundary

RMDP SCP Vegetation

Vegetation Communities

- AGR = Agriculture
- AS = Alluvial scrub
- AWS = Arrow weed scrub
- BCW = Bulrush-cattail wetland
- BSS = Big sagebrush scrub
- BSS-CB = Big sagebrush scrub-California buckwheat
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- CSB-CHP = California sagebrush scrub-undifferentiated chaparral
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- SWS = Southern willow scrub
- TAM = Shrub tamarisk
- VOG = Valley oak/grass
- VOW = Valley oak woodland



APPROXIMATE SCALE IN FEET



AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.4-19-C1

Landmark Village EIR



AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.4-19-C2

Landmark Village EIR

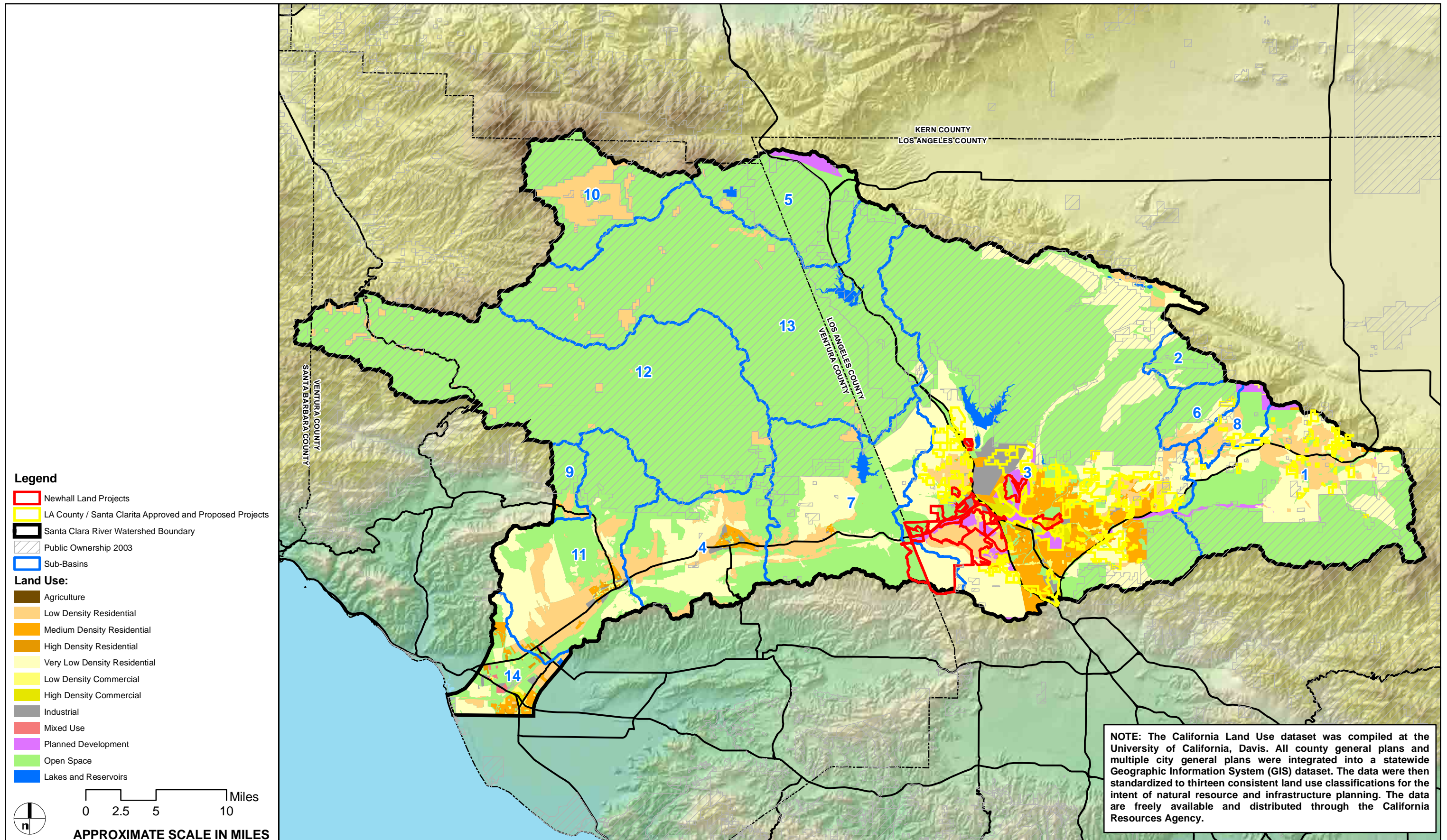


FIGURE 4.4-20

Landmark Village EIR

Santa Clara River Watershed - Current Land Use Classifications

For example, in Los Angeles County, of the 6,774 acres of coastal scrub located on land zoned for development, 6,603 acres (97 percent) occur on slopes of 0 to 20 percent.

The Proposed RMDP/SCP Project Area Comprises a Small Proportion (0.5 percent) of the Santa Clara River Watershed. The proposed RMDP/SCP project area—defined as implementation of the RMDP/SCP project and buildout of the Specific Plan, VCC, and Entrada planning areas, which includes the Landmark Village project—would affect 0.5 percent (5,590 acres of approximately 1,038,100 acres) of the vegetation communities and land covers that are in the watershed (**Table 4.4-24**). The proposed RMDP/SCP project is confined to a substantially urbanized area of one sub-basin—the Eastern sub-basin (sub-basin 3)—which has the most existing developed uses in the watershed (**Figure 4.4-18**). Nonetheless, this sub-basin supports several federal- and/or state-listed threatened and endangered species such as unarmored threespine stickleback, arroyo toad, least Bell's vireo, and San Fernando Valley spineflower. Development in this sub-basin increases the potential for cumulative effects to these species. The proposed RMDP/SCP project is downstream of, and contiguous with, urban development in the City of Santa Clarita and the community of Valencia. The proposed RMDP/SCP project would not affect the headwaters of the Eastern and Santa Felicia sub-basins (sub-basins 3 and 7, respectively). The RMDP study area includes approximately 5 miles of the Santa Clara River mainstem (6 percent of the overall mainstem total); 1.4 of the 5 miles occurs within or adjacent to the Landmark Village project site. The entire Santa Clara River mainstem is 86 miles long (The Nature Conservancy 2006); approximately 48 miles within the County of Los Angeles and 38 miles within the County of Ventura.

As shown in **Table 4.4-24**, the great majority of the SCRW watershed is currently undeveloped. Approximately 4.6 percent of the watershed has been converted to agricultural, industrial, commercial, and urban uses. Based on the project lists from the affected jurisdictions in the watershed (including the proposed RMDP/SCP, including the Landmark Village project) a total of about 3.6 percent (37,890 of 1,038,100 acres) of vegetation communities and land covers in the SCRW could be developed at some point in the future. Adding this to existing development (approximately 47,300 acres) would result in a total cumulative impact of approximately 8.2 percent (85,000 acres of 1,038,100 acres) of the SCRW. Without accounting for past, present, or reasonably foreseeable mitigation and the proposed RMDP/SCP project's individual contribution to the above impacts to vegetation communities and land covers, the estimated loss of vegetation communities and land covers in the SCRW could be a potential significant cumulative impact.

Table 4.4-24
Summary of Cumulative Impacts to Vegetation and Land Covers in the Santa Clara River Watershed (GAP Data are Approximate)

Vegetation Communities and Land Covers	California GAP Vegetation Communities	Total Acres of Vegetation Communities and Land Covers in Watershed	Permanent Direct and Indirect Impact Acres of Proposed Project (RMDP/SCP) ¹	Total Impact Acres in Watershed From Present and Reasonably Foreseeable Projects (Not Including Proposed RMDP/SCP Project)	Estimated Cumulative Impact Acres in Watershed, After Accounting for the RMDP/SCP Project Plus Present and Reasonably Foreseeable Projects
Riparian Communities	Mulefat scrub Permanently flooded lacustrine habitat Southern coast live oak riparian forest Southern cottonwood/willow riparian forest Southern sycamore/alder riparian woodland Southern willow scrub Big sagebrush scrub Southern alluvial fan scrub	GAP = 23,430 RMDP/SCP = 1,190 Total = 24,620	225	800	1,025 (4.2% for water shed; <0.1% for RMDP)
California Annual Grassland, Agriculture, and Disturbed Land	Non-native grassland Open pit mines, quarries, gravel pits Agriculture land Evergreen orchard Orchard or vineyard	GAP = 72,760 RMDP/SCP = 5,120 Total = 77,880	3,290	500	3,790(4.9% for water shed; 4.2% for RMDP)
Coastal Scrub Communities	Coastal sage/chaparral scrub Riversidean sage scrub Venturan coastal sage scrub	GAP = 170,000 RMDP/SCP = 4,340 Total = 174,340	1,520	19,000	20,520 (11.8% for water shed; <0.1% for RMDP)
Chaparral Communities	Buck brush chaparral Ceanothus crassifolius chaparral Chamise chaparral Interior live oak chaparral Mesic north slope chaparral Mixed montane chaparral Montane ceanothus chaparral Northern mixed chaparral Scrub oak chaparral Semi-desert chaparral Upper Sonoran manzanita chaparral	GAP = 548,150 RMDP/SCP = 2,150 Total = 550,300	460	12,000	12,460 (2.3% for water shed; <0.1% for RMDP)
Oak Woodland Communities (Coast Live Oak Woodland, Mixed Oak Woodland, Valley Oak Woodland, Valley Oak/Grass, Valley Oak Woodland)	Canyon live oak forest Interior live oak forest	GAP = 3,700 RMDP/SCP = 1,470 Total = 5,170	95	0	95 (1.8% for water shed; 1.8% for RMDP)
California Walnut Woodland	California walnut woodland	GAP = 3,600 RMDP/SCP = 27 Total = 3,627	<1	0	<1(0.1% for water shed; <0.1% for RMDP)
Total— California GAP Vegetation + RMDP/SCP Project Impacts		835,950	5,590	32,300	37,890

Vegetation Communities and Land Covers	California GAP Vegetation Communities	Total Acres of Vegetation Communities and Land Covers in Watershed	Permanent Direct and Indirect Impact Acres of Proposed Project (RMDP/SCP) ¹	Total Impact Acres in Watershed From Present and Reasonably Foreseeable Projects (Not Including Proposed RMDP/SCP Project)	Estimated Cumulative Impact Acres in Watershed, After Accounting for the RMDP/SCP Project Plus Present and Reasonably Foreseeable Projects
Other California GAP Vegetation Communities and Land Covers Occurring in SCRW but Not Mapped in RMDP/SCP project Area, including Landmark Village project area, in GAP Data Set²					
Other California GAP Woodland/Forest Communities not Mapped in RMDP/SCP project Area	Bigcone spruce/canyon oak forest	145,850	N/A	N/A	N/A
	Black oak forest				
	Jeffrey pine/fir forest				
	Mojavean pinyon and juniper woodlands				
	Sierran mixed coniferous forest				
	Westside ponderosa pine forest				
Other California GAP Natural Land Covers not Mapped in RMDP/SCP project Area	Bare exposed rock	9,000	N/A	N/A	N/A
	Sandy areas other than beaches				
Other California GAP Man-made Land Covers not Mapped in RMDP/SCP project Area	Urban or built-up land	47,300	N/A	N/A	N/A
Grand Total for SCRW		1,038,100	N/A	N/A	N/A

Notes:

¹ The impacts based on the project-level mapping.

² These California GAP vegetation communities and land covers do not occur in the proposed RMDP/SCP project area, including the Landmark Village project, based on the California GAP data set and, therefore, are not a part of the cumulative impact analysis. They are shown in the table to illustrate the vegetation communities and land covers within the SCRW.

Past, present, or reasonably foreseeable mitigation, other than for the proposed RMDP/SCP project, is difficult to estimate within the context of this cumulative analysis because of the variety of size, type, and impact of each past, present, or reasonably foreseeable project. In particular, for upland vegetation communities (*e.g.*, coastal scrub, chaparral, and grassland), depending on whether the impact is significant, mitigation in terms of replacement acreage may or may not have been, or be, required. Without a state- and/or federally listed species inhabiting impacted areas (*e.g.*, coastal California gnatcatcher occupation of coastal scrub), regulation of impacts of upland vegetation communities and requirements for mitigation are variable. Projects that have special-status vegetation communities and/or species on site often have and would require some set aside of open space. In addition some development projects may be required to provide habitat conservation areas.

For state and federal jurisdictional wetlands (including riparian) subject to regulation under Fish and Game Code section 1600 *et seq.* and Clean Water Act (CWA) section 404 (33 U.S.C. 1251 *et seq.*), CDFG and Corps implement "no net loss" policies as part of their respective permitting process for impacts to wetlands. California Executive Order W-59-93 established a State Wetland Conservation Policy (SWCP) that provides for the preservation and protection of wetland communities (State of California Executive Department 1993). A central goal of the SWCP is to ensure no overall net loss and to achieve a long-term net gain in the quantity, quality, and permanence of wetland acreages and values. Similarly, per a 1990 Memorandum of Agreement (MOA) between the EPA and the Corps to demonstrate compliance with the CWA section 404(b)(1) guidelines, it is the policy of the Corps to achieve the goal of no overall net loss of wetlands functions and values/services, although it is recognized in the MOA that no net loss of functions and values/services may not be achieved in every permit action (EPA and U.S. Army 1990). With these policies in place, it is reasonable to assume that the permanent cumulative impacts to jurisdictional wetlands would be substantially less than estimated for this analysis.

Oak woodlands also receive some level of protection that would reduce permanent cumulative impacts. As described in **Subsection 4.4.7.2.a.2.b**, Oaks, the County of Los Angeles Oak Tree Ordinance (CLAOTO) regulates impacts to oak trees with trunks that are at least 8 inches in diameter (or that have two trunks totaling at least 12 inches in diameter) as measured 4.5 feet above natural ground (County of Los Angeles 1988). CLAOTO requires that all potential impacts to regulated oak trees be reported in a detailed oak tree report and usually requires mitigation as a condition of an Oak Tree Permit issued by the County. Ventura County also has "Tree Protection Regulations" (County of Ventura 1992) that regulate impacts to oak trees in unincorporated areas of the County that are at least 9.5 inches in circumference (or that have two or more trunks with at least one of the trunks 6.25 inches in circumference) as measured at 4.5 feet above the ground. Impacts to oak trees in Ventura County are mitigated per the Ventura County Non-Coastal Zoning Ordinance section 8107-25.10 - Offsets for Altered,

Felled, or Removed Trees, which requires a minimum 1:1 ratio of mitigation. The proposed mitigation encompasses a three-part strategy that incorporates (1) planting replacement trees, per the requirements of CLAOTO and previously incorporated measure SP-4.6-48; (2) additional replacement ratios recommended in this EIR for impacts to oak trees and oak woodlands where they occur within stream channels falling under CDFG and Corps jurisdiction, per 1600 and 404 (LV 4.4-1); and (3) additional measures recommended in this EIR for tree replacement or woodland restoration/enhancement to mitigate for oak trees and woodland occurring in uplands outside CDFG and Corps jurisdiction at a minimum ratio of 2:1 (LV 4.4-29). With these regulations, it is reasonable to assume that the permanent cumulative impacts to oak woodlands would be substantially less than would occur absent mitigation.

Of the approximately 85,200 acres that are either developed currently or, based on the project list, expected to be developed in the foreseeable future, the proposed RMDP/SCP project would consume 5,590 acres of the approximately 37,890 acres of impact from recent past, present, and reasonably foreseeable future projects. CEQA requires an analysis of whether this contribution to a significant impact can be rendered less than "cumulatively considerable," as that term is defined under CEQA (14. Cal. Code Reg. § 15130):

An EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The Lead Agency shall identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable. (emphasis added)

As to the proposed Landmark Village project, the Newhall Ranch Specific Plan Program EIR and this EIR impose measures on the applicant to mitigate the loss of vegetation communities. These measures include: (1) replacing the functions and values/services of riparian vegetation communities that may be lost through construction; and (2) the dedication and maintenance of existing natural lands in the Open Area, River Corridor SMA, High Country SMA, and Salt Creek area, totaling approximately 9,753 acres. Mitigation also includes compliance with permits from federal and state agencies for impacts to wetlands and water quality (*i.e.*, NPDES and section 401 water quality certifications, section 404 individual permits, and section 1602 Streambed Alteration Agreements). Mitigation for impacts to wetlands would achieve the goals of CDFG's and Corps' "no net loss" policies described above and, therefore, would result in no cumulative contribution to impacts to jurisdictional wetlands. Overall, these mitigation measures would offset the proposed Landmark Village project's direct removal of most vegetation communities in the proposed project area. The measures also would offset potential secondary impacts to purple needlegrass grassland outside of the Landmark Village project area.

Thus, with the mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this Landmark Village EIR (see **Subsection 4.4.10, Project Mitigation Measures**), the proposed Landmark Village project would not result in a cumulatively considerable contribution to potential significant cumulative impacts on all of the vegetation communities and land covers in the SCRW, except for coastal sage scrub. (See **Subsection 4.4.12.b** of this EIR.)

The California GAP vegetation (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**) and the project-level mapping for the RMDP/SCP project area include approximately 174,000 acres of coastal scrub in the SCRW, including 231.9 acres in the Landmark Village project site (see **Table 4.4-9**). Without accounting for the proposed RMDP/SCP project, other past, present, and reasonably foreseeable future projects within the SCRW result in a loss of approximately 19,000 acres of coastal scrub since the California GAP data were compiled. Beginning well before 1998, coastal scrub already had been extensively cleared throughout much of California for various land use changes (mainly agriculture and urbanization). For example, Westman (1981) analyzed historic losses of coastal scrub state-wide and estimated that only about 15 percent of its original acreage was still extant at that time. Most coastal scrub occurs on relatively gentle slopes (0 to 20 percent where land use conversions for agriculture and development tend to be concentrated because these lands are more developable. The SCRW has been less extensively developed than other regions in southern California and coastal scrub loss in the watershed probably has been proportionally less than Westman's (1981) state-wide estimate. Still, it is likely that much of the upland agricultural land mapped by the 1998 California GAP project in the SCRW supported coastal scrub habitat prior to these land use conversions. The acreage of coastal sage scrub lost prior to 1998, however, cannot be quantified for this analysis.

Most coastal scrub alliances and associations mapped on the RMDP/SCP project site are ranked as G4S4 by CDFG (2007, Recirculated Draft EIR, **Appendix 4.4**), meaning that they are "apparently secure" both globally and within California, "but factors exist to cause some concern; *i.e.*, there is some threat." For coastal scrub, the primary concerns are the extensive and ongoing habitat loss (Westman 1981; O'Leary 1990). Further, coastal scrub is used almost exclusively by the federally-listed threatened coastal California gnatcatcher (Atwood 1993), and many other special-status species occur regularly in coastal scrub (Davis *et al.* 1994). In addition to land use conversions, much coastal scrub vegetation has been lost due to secondary effects of population increases and land development throughout southern California. These effects include habitat fragmentation, invasive non-native species, livestock grazing, off-highway vehicles, altered fire regime, and perhaps air pollution (O'Leary 1995; Minnich and Dezzani 1998; Rundel 2007). Some coastal scrub vegetation occurs on National Forest lands, where land use management is generally compatible with habitat conservation, but these areas tend to be at its upper elevational limits,

where many of the special-status species associated with coastal sage scrub are less common or absent (Stephenson and Calcarone 1999).

Based on this analysis, the proposed RMDP/SCP project and other past, present, and reasonably foreseeable future projects would result in a cumulative loss of approximately 20,500 acres of coastal scrub in the SCRW. This loss represents about 54 percent of the total 37,890 acres loss of all vegetation communities in the SCRW due to past, present, and reasonably foreseeable projects, including the proposed RMDP/SCP project; *i.e.*, most of this development in the watershed has or will take place on land dominated by coastal scrub. The proposed RMDP/SCP project's direct (RMDP/SCP) and indirect (buildout of the Specific Plan, VCC, and Entrada planning areas, including Landmark Village) effects would result in the permanent removal of approximately 1,520 acres of coastal scrub communities, including 231.9 acres within the Landmark Village project area (see **Table 4.4-9**), or about 35 percent of the 4,340 acres of coastal scrub communities present in the RMDP/SCP project area; proportionally lower than the overall estimated loss, but still substantial. Also, when considered from a landscape level, the coastal scrub community on site represents a relatively large, intact tract within this portion of the SCRW. Due to coastal scrub's high habitat value for a variety of special-status plants and wildlife, the extensive coastal scrub losses in southern California prior to 1998, and the substantial acreage lost as a result of past, present, and reasonably foreseeable projects, including the proposed RMDP/SCP project, the loss of 20,500 acres of coastal scrub could be a potential significant cumulative effect. The proposed Landmark Village project's contribution to this loss would be cumulatively considerable.

Whether the proposed Landmark Village project's cumulatively considerable contribution to the potential significant cumulative effect of coastal scrub loss in the SCRW can be reduced to a level less than significant is considered in the broader context of conservation planning for the community. In some regions of southern California, regional planning projects have been designed to limit continued losses of coastal scrub (*e.g.*, state Natural Community Conservation Planning (NCCP) and federal Habitat Conservation Plan (HCP) programs). These programs are designed to preserve large, contiguous tracts of coastal scrub and other natural vegetation communities in permanent managed open space areas and to minimize fragmentation and other secondary impacts to these preserved areas to mitigate for the losses that do occur. There is currently no similar comprehensive, large-scale planning effort in the SCRW to ensure long-term coastal scrub conservation in large, unfragmented tracts within the watershed.

In addition, long-term secondary (off-site) impacts to coastal scrub would occur near developed areas after project buildout. These landscape-level impacts and "edge" effects include the increased risk of non-native, invasive plant and animal species (*e.g.*, Argentine ants), human disturbance (*e.g.*, trampling, illegal trails), and shortened fire intervals that could result in type conversion of coastal scrub to annual grassland. These RMDP/SCP project-induced secondary impacts to coastal scrub are mitigated at the

project level to a level less than significant primarily through dedication of lands in the High Country SMA, River Corridor SMA, Salt Creek area, which include approximately 1,900 acres of coastal scrub, as well as preservation of smaller patches in Open Areas within or adjacent to the proposed development areas.

Despite implementation of the mitigation measures required by the Newhall Ranch Specific Plan Program EIR and recommended by this EIR, implementation of the proposed RMDP/SCP project would result in a net loss of approximately 1,520 acres of coastal scrub, including 231.9 acres within the Landmark Village project. In the context of the extensive historical losses of coastal scrub in southern California, the estimated loss of 20,500 acres in the watershed as a result of the proposed Landmark Village project and other past, present, and reasonably foreseeable future projects within the SCRW; the importance of this habitat to a variety of special-status plants and animals; and the absence of a regional conservation effort to conserve or manage remaining coastal scrub in the watershed, the proposed Landmark Village project would result in a cumulatively considerable contribution to a potential significant and unavoidable cumulative loss of coastal scrub in the SCRW.

(3) Impacts to Common Wildlife Organized by Species Guilds and Other Associations

The cumulative impact analysis for common wildlife also uses the "project list" approach for the watershed, as applied to the wildlife guilds shown in **Table 4.4-25**. For each wildlife guild or other association, the habitat relationships were analyzed in the same manner as the vegetation communities and land covers described above in **Subsection 4.4.11.c.1**.

The Santa Clara River Watershed is Relatively Undeveloped and Has Substantial Existing and Designated Open Space Providing Habitat For Wildlife. As shown in **Table 4.4-24**, approximately 991,000 acres of the SCRW are currently undeveloped and capable of providing habitat for wildlife.²² With regard to vegetation communities and land covers mapped in the proposed RMDP/SCP project area that also occur elsewhere in the watershed, the watershed includes approximately 836,000 acres. The amount of undeveloped habitat for the different wildlife guilds in the SCRW ranges from approximately 5,200 acres of oak woodlands for the Bird – Upland Woodland guild to approximately 836,000 acres for the Insect and Bat guilds.²³ This latter figure reflects the fact that insects and bats can use virtually all the undeveloped habitat in the SCRW. Of the approximately 991,000 acres of undeveloped land in the SCRW,

²² This approximately 991,000 acres figure is derived by subtracting the number of existing development acres (47,270) from the total size of the entire SCRW (1,038,100 acres).

²³ This does not mean, however, that species in each guild actually use all of the available habitat; nor does it mean that species in each guild have been observed on each acre of available habitat. For example, agricultural and disturbed lands are considered habitat for the Insect and Bat guilds and, therefore, are included in the total acreage of habitat for these guilds; however, both insects and bats tend to concentrate activities in microhabitats within the larger landscape and, therefore, are not uniformly distributed through the 836,000 acres.

approximately 734,000 acres are existing or classified open space (**Figure 4.4-20**), including 635,000 acres of lands designated for public use. Of the 734,000 acres of existing or classified open space, approximately 593,000 are comprised of the types of vegetation communities and land covers occurring on the proposed RMDP/SCP Project.

Cumulative Net Increase in Jurisdictional Waters and Wetlands Providing Wildlife Habitat. Waters and wetlands are critical resources for several of the wildlife guilds. The guilds most reliant on waters/wetlands throughout the SCRW include the Reptile and Amphibian – Semi-Aquatic guild, the Fish guild, the Bird – Riparian guild, and the Bird – Raptor guild (primarily for raptor nesting habitat). As shown in **Table 4.4-25** (Summary of Cumulative Impacts to Wildlife Guilds in the Santa Clarita River Watershed), a small proportion of the habitat used by these guilds have been or would be affected by development in the SCRW. Also, according to the Watershed Study (Dudek 2007), mitigation measures for activities permitted by CDFG and Corps between 1988 and 2006 in Los Angeles and Ventura counties have resulted in a cumulative net increase in jurisdictional waters/wetlands in the SCRW. These estimated net increases are consistent with CDFG's and Corps' "no net loss" policies for wetlands discussed above. Although the Watershed Study acreages assume 100 percent mitigation success, and although it is likely that some of the mitigated acreage has not been successful for various reasons (*e.g.*, poor design, inappropriate soils or hydrology, poor maintenance), it is reasonable to conclude that there has been no net cumulative loss of waters/wetland acreage from agency-permitted activities in the watershed since 1988 because of the estimated net increases. However, as concluded by Ambrose *et al.* (2006), acreage losses and gains resulting from agency-permitted activities do not always reflect wetland functions and values/services, and hence, wildlife habitat value. Based on Ambrose *et al.*'s (2006) review of 143 section 401 permits across 12 regional Water Boards and subregions in California, approximately 27 percent of mitigation acreage consisted of drier riparian and upland habitats that were outside of jurisdictional areas. Wildlife species that rely on wetter habitats, such as semi-aquatic amphibians and reptiles, may not use the drier riparian and wetland habitats to the same extent or for certain phases of their life cycle (*e.g.*, reproduction).

Although the success of past permitted activities likely has been mixed with regard to mitigation for impacts to waters and wetland functions and values/services, new projects are approved and constructed with updated technologies for protecting and restoring waters/wetlands. With these new technologies, the functions and values/services of the waters and wetlands within the SCRW are expected to be enhanced in the future. To this end, the Landmark Village project applicant would implement conservation measures that are designed to permanently preserve the Santa Clara River corridor and portions of tributary drainages through the proposed Landmark Village project reach and to protect and manage the waters/wetlands on the proposed Landmark Village project site. These conservation measures include previously incorporated mitigation measures from the Newhall Ranch Specific Plan Program EIR and additional mitigation measures recommended by this EIR. The River Corridor

SMA/SEA 23 is approximately 977 acres and includes approximately 332 acres of combined southern cottonwood-willow riparian forest and southern willow scrub. The River Corridor SMA/SEA 23 provides restoration and enhancement opportunities for riparian vegetation; and all riparian vegetation permanently removed from the proposed Landmark Village project would be replaced in kind at a minimum 1:1 ratio for Low Reach Value vegetation (*e.g.*, arrow weed scrub) to a 4:1 ratio for High Reach Value southern cottonwood-willow riparian forest (*e.g.*, see Mitigation Measure 4.4-29 and Table 4.4-12 in Subsection 4.4.10, Project Mitigation Measures). Implementation of these mitigation measures would result in a net increase of wetland/riparian habitat and are expected to improve the overall value of the River corridor and associated aquatic, semi-aquatic, and riparian wildlife guilds. In addition, conservation measures include protection and enhancement of riparian and wetland habitat in the High Country SMA/SEA 20 and Salt Creek area, as well as Open Area, with associated wetland mitigation plans subject to the approval of the Corps and CDFG that ensure no net loss of similar functions and values/services (see Mitigation Measures 4.4-1, 4.4-15, and 4.4-29 through 4.4-41 in Subsection 4.4.10, Project Mitigation Measures).

Land Use Classification and Present and Reasonably Foreseeable Projects. Similar to Table 4.4-24 for vegetation communities and land covers, Table 4.4-25 provides a breakdown of the estimated cumulative loss of wildlife habitat (by guild) that would result from (1) the proposed RMDP/SCP project and (2) present and reasonably foreseeable development as set forth in the "project lists" provided by the various land use jurisdictions within the SCRW.

Present and reasonably foreseeable projects, including the proposed RMDP/SCP project, with the exception of oak woodlands, would result in habitat losses ranging from approximately 980 acres for the Reptile and Amphibian – Semi-aquatic and Bird – Riparian guilds to approximately 38,000 acres for the Insect and Bat guilds. Based on the GAP data (UCSB, 1999, Recirculated Draft EIR, Appendix 4.4) alone, there would be 0 acres of impacts to habitat for the Bird – Upland Woodland outside of the RMDP/SCP project boundaries. However, based on project-level mapping, there would be 95 acres of habitat loss for this guild in the RMDP/SCP project area. Because of the coarse scale of mapping, there are almost certainly oak woodlands on other present and reasonably foreseeable projects and, consequently, it is expected that there would be impacts to oak woodlands resulting from these projects. As discussed above, mitigation for loss of upland habitats such as coastal scrub, chaparral, and grassland due to present and reasonably foreseeable projects is uncertain. While CDFG and Corps "no net loss" policies for wetlands, and mitigation required for impacts to oaks by Los Angeles and Ventura counties, are intended to offset impacts to these resources, some net loss of function and value for wildlife, such as semi-aquatic amphibians and reptiles, could occur even if there is no net loss of acreage. Due to the likely permanent net loss of several tens of thousands acres of upland habitats (*e.g.*, coastal scrub, chaparral, and grassland)

and the potential loss of some functions and values/services of riparian, wetland, and oak woodland habitats for wildlife, the cumulative impact on wildlife guild habitats could be potentially significant.

The Proposed RMDP/SCP Project's Contribution to the Potential Cumulative Impact. The proposed RMDP/SCP project's contribution to this potential cumulative impact, broken down by wildlife guild, ranges from 95 acres for the Bird – Upland Woodland guild to 5,590 acres for the Insect and Bat guilds. By proportion, the proposed RMDP/SCP project's largest contribution to the potential cumulative impact on habitat is 1,070 acres of the total 1,120 acres for the Bird – Upland Grassland guild. Without accounting for mitigation, the proposed RMDP/SCP project's contribution to the potential cumulative impact on wildlife guilds could be cumulatively considerable. However, the mitigation measures recommended in this EIR, when added to those imposed by the Newhall Ranch Specific Plan Program EIR, render the proposed RMDP/SCP Project's contribution "less than cumulatively considerable," as that term is used in *State CEQA Guidelines* (California Code of Regulations, title 14, section 15130, subdivision (a)(3)). These mitigation measures include replacing the functions and values/services of riparian vegetation communities that may be lost through construction, as well as the dedication and maintenance of existing natural lands in the Open Area, River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek area, totaling approximately 9,753 acres. Mitigation also includes compliance with permits from federal and state agencies for impacts to wetlands and water quality (*i.e.*, NPDES and section 401 water quality certifications, section 404 individual permits, and section 1602, Streambed Alteration Agreements). These mitigation measures would reduce the impacts of the direct removal of wildlife habitats in the proposed RMDP/SCP project area. Thus, with the mitigation required by the Newhall Ranch Specific Plan Program EIR and the mitigation measures recommended by this EIR, the proposed RMDP/SCP project area, including the Landmark Village project, would not result in a cumulatively considerable contribution to potential significant cumulative impacts to wildlife guilds in the SCRW.

Table 4.4-25
Summary of Cumulative Impacts to Wildlife Guilds in the Santa Clara River Watershed (GAP Data are Approximate)¹

Wildlife Guild	Habitat Relationships ²	Total Acres of Habitat in Watershed	Permanent Direct and Indirect Impact Acres of Proposed RMDP/SCP Project	Total Impact Acres in Watershed From Present and Reasonably Foreseeable Projects (Not Including Proposed RMDP/SCP Project)	Estimated Cumulative Impact Acres in Watershed Including Proposed RMDP/SCP Project Plus Present and Reasonably Foreseeable Projects
Insect Guild; Bat Guild; and Overall General Impacts	Coastal scrub Chaparral California annual grassland Riparian Oak and walnut woodland Agriculture Disturbed	836,000	5,590	32,300	37,890
Reptile–Low Mobility Guild Mammal–Low Mobility	Coastal scrub Chaparral California annual grassland	747,000	3,050	31,000	34,050
Reptile and Amphibian – Semi-Aquatic Guild Bird-Riparian	Riparian	25,000	230	800	1030
Bird-Upland Scrub and Chaparral	Coastal scrub Chaparral	725,000	1,980	31,000	32,890
Bird-Upland Grassland	Non-native grassland	22,000	1,070	50	1,120
Bird-Upland Woodland	Oak woodland	5,170	95	0	95
Mammal-High Mobility	Coastal scrub Chaparral Riparian Oak woodland	755,000	2,300	32,000	34,300

¹ Acreages were not quantified for the Aquatic Mollusk guild because impacts are site-specific; for the Fish guild because the distribution of the species in the guild is limited to the Santa Clara River; and for the Bird -- Raptor and Mammal -- Moderate Mobility guilds because habitat used by the species in these guilds is too diverse to generate a broad, watershed-scale estimate.

² Acreages based on California GAP Vegetation Communities (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**) for areas outside of the RMDP/SCP project boundaries and on the project-level data for areas within the SCP project area boundaries. Acreages are based on the totals reported in **Table 4.4-24** and are rounded to nearest 1,000 acres for totals greater than 20,000 acres at watershed level and to nearest 10 acres for project-level impacts.

(4) Impacts to Wildlife Habitat Linkages, Wildlife Corridors, and Wildlife Crossings

In this subsection, the EIR evaluates, on a guild-by-guild basis, the proposed RMDP/SCP project's contribution to potential cumulative impacts on wildlife habitat linkages, wildlife corridors, and wildlife crossings. Note that the analysis primarily focuses on watershed-level habitat linkages rather than on a project-level movement corridors and connectivity. Because project-level data are not available for project-specific movement corridors and crossings, analysis of these data would be speculative. However, it can be assumed that other projects with broad impacts over a landscape would be expected to constrain wildlife use and distribution on site, and have a potential to block movement through certain areas, including through established wildlife corridors and crossings.

As described in **Subsection 4.4.9.b.1.e, Wildlife Habitat Linkages**, landscape habitat linkages in the SCRW consist of relatively large open space areas that (1) contain natural habitat and (2) provide connection between at least two larger adjacent open spaces that can provide for both diffusion and dispersal of many species. Linkages can form contiguous tracts of habitat when adjacent to other open space areas. Large open space networks can be formed in this way to connect and conserve habitat throughout entire regions (Bennett 2003).

Figure 4.4-8 shows the conceptual regional open space connectivity identified by Penrod *et al.* (2006, Recirculated Draft EIR, **Appendix 4.4**) that would provide for landscape-scale habitat connectivity between the Santa Susana Mountains to the south and the Los Padres National Forest to the north. These conceptual linkages encompass the High Country SMA and the Salt Creek area within the proposed RMDP/SCP project area and the Santa Clara River west of the proposed RMDP/SCP project area. Penrod *et al.* (2006, Recirculated Draft EIR, **Appendix 4.4**) developed this connectivity concept using a "least cost analysis." According to Penrod *et al.* (2006, Recirculated Draft EIR, **Appendix 4.4**), the High Country SMA/SEA 20 and Salt Creek area, along with regional open space conservation areas and the limitations on development imposed by initiatives such as "SOAR,"²⁴ constitute important components of a regional linkage design—one that would connect the Santa Monica Mountains, the San Gabriel Mountains, and the Sierra Madre Mountains.

The High Country SMA/SEA 20 and Salt Creek area within the proposed RMDP/SCP project area provide a key component of the east-west linkage that crosses Interstate 5 and connects to the Angeles National Forest in the San Gabriel Mountains to the east and to Ventura County SOAR open space to the southwest. They also provide a key component of the north-south linkage between the Santa Susana

²⁴ Save Open-Space and Agricultural Resources (SOAR) initiative passed by Ventura County voters in 1998 that amended the County's General Plan to limit development on agricultural, open space, and rural lands within Ventura County. See Ventura County General Plan, GOALS, POLICIES & PROGRAMS, (2008, pp. 6–8).

Mountains and the "Fillmore Greenbelt" to the northwest that further links to the Los Padres National Forest and the Angeles National Forest to the north. Most of the upland wildlife species probably use the High Country SMA/SEA 20 and Salt Creek area extensively.

North-south movement between the Santa Susana Mountains and the "Fillmore Greenbelt" requires wildlife to cross SR-126. **Figure 4.4-21** shows the three existing crossings in Ventura County west of the proposed RMDP/SCP project area (including the Landmark Village project site) that can be accessed by wildlife moving along the Santa Clara River. These crossings, which would not be affected by the proposed RMDP/SCP project, are arched culverts large enough for vehicles to pass through and are large enough to convey wildlife. These crossings measure about 4.4 meters (14 feet 7 inches) in height, 7.5 meters (25 feet) in width, and 51.8 meters (170 feet) in length, resulting in an openness factor of 0.65, which well exceeds the openness factor of 0.25 found by Donaldson (2005) to be adequate for white-tailed deer. The easternmost of these crossings would serve wildlife movement within and through the proposed RMDP/SCP project area *via* the Salt Creek corridors, as well as Tapo Canyon in Ventura County.

The Landmark Village project site includes a potential north-south local wildlife corridors that connect to the Santa Clara River, Chiquito Canyon north of the Santa Clara River. Under current conditions, the function of this potential wildlife corridor to convey north-south wildlife movement and access to and from the Santa Clara River is limited because the Landmark Village tract map area is currently used for agriculture and frequently devoid of vegetative cover. Coyotes may use this potential wildlife corridor, but species typically requiring cover, such as bobcat and mule deer, as well as less mobile species that require "live-in" habitat, are not as likely to use this potential corridor under existing conditions.

In addition to the High County SMA/SEA 20 and Salt Creek area, the Santa Clara River corridor, including the reach through the Landmark Village project site, is a regionally important riparian and wetland resource, in part due to its role as a functioning wildlife corridor and habitat linkage for east-west wildlife movement. The River Corridor SMA/SEA 23 (*i.e.*, those portions of the River corridor that lie within the proposed RMDP/SCP project area) would be approximately 1,000 to 2,000 feet wide and would remain sufficiently wide after development to accommodate flood events while maintaining the existing mosaic of habitat types currently present along the river (PACE 2008, Recirculated Draft EIR, Appendix 4.4). Specifically within the Landmark Village project site, the River would be maintained as

open space with a minimum width of about 1,000 feet. The RMDP (Dudek 2008)²⁵ provides for minimum 100-foot-wide "transition" areas between the River Corridor SMA/SEA 23 and development, restricts recreational uses of the River Corridor SMA/SEA 23, and provides for long-term management to ensure that it continues to function as a habitat linkage and movement corridor. With the transition zones along the River, the overall width of natural habitat will be a minimum of approximately 1,200 feet wide. The River corridor will therefore maintain sufficient dimensions to convey a variety of larger, mobile wildlife species, such as mule deer, coyote, gray fox, bobcat, and mountain lion, as well as allow for dispersal of many smaller and less mobile species, including birds, small mammals, reptiles, and amphibians that live in the River Corridor. The Long Canyon Road bridge will somewhat constrict the Santa Clara River and corridor but for a rather short distance, about 100 feet, with an adequate height of 11 to 22 feet to allow for unconstrained movement of wildlife beneath the bridge. This is discussed in the RDEIR, Section 9. Project Impacts, b. Impact Analysis, 1) Direct Impacts, e) Wildlife Habitat Linkages.

The Castaic/Hasley corridor (**Figure 4.4-22**) would also remain intact as Open Space/Open Area following implementation of the RMDP/SCP and buildout of the Specific Plan, VCC, and Entrada planning areas, including the Landmark Village project. This corridor would allow for movement of many mammal – High Mobility species (*e.g.*, coyote, mule deer, and possibly mountain lion and bobcat), and would function as live-in habitat and movement habitat for the other species guilds. The Castaic/Hasley corridor would continue to have connectivity value between the Santa Clara River and upland habitats to the northeast of the proposed RMDP/SCP project area extending to Castaic Lake and the Angeles National Forest.

Other existing habitat areas currently function as linkage habitat in the undeveloped landscape and may be used by wildlife for movement between the Santa Susana Mountains to the south and the Los Padres National Forest to the north. Some of these linkages would be somewhat constrained by buildout of the Specific Plan area, including Potrero Canyon and Long Canyon south of the River corridor and Chiquito Canyon and San Martinez Grande Canyon north of the River (**Figure 4.4-22**). As noted above, Chiquito Canyon is associated with the Landmark Village site, but is currently limited in its function as a wildlife movement corridor because the site is used for agriculture.

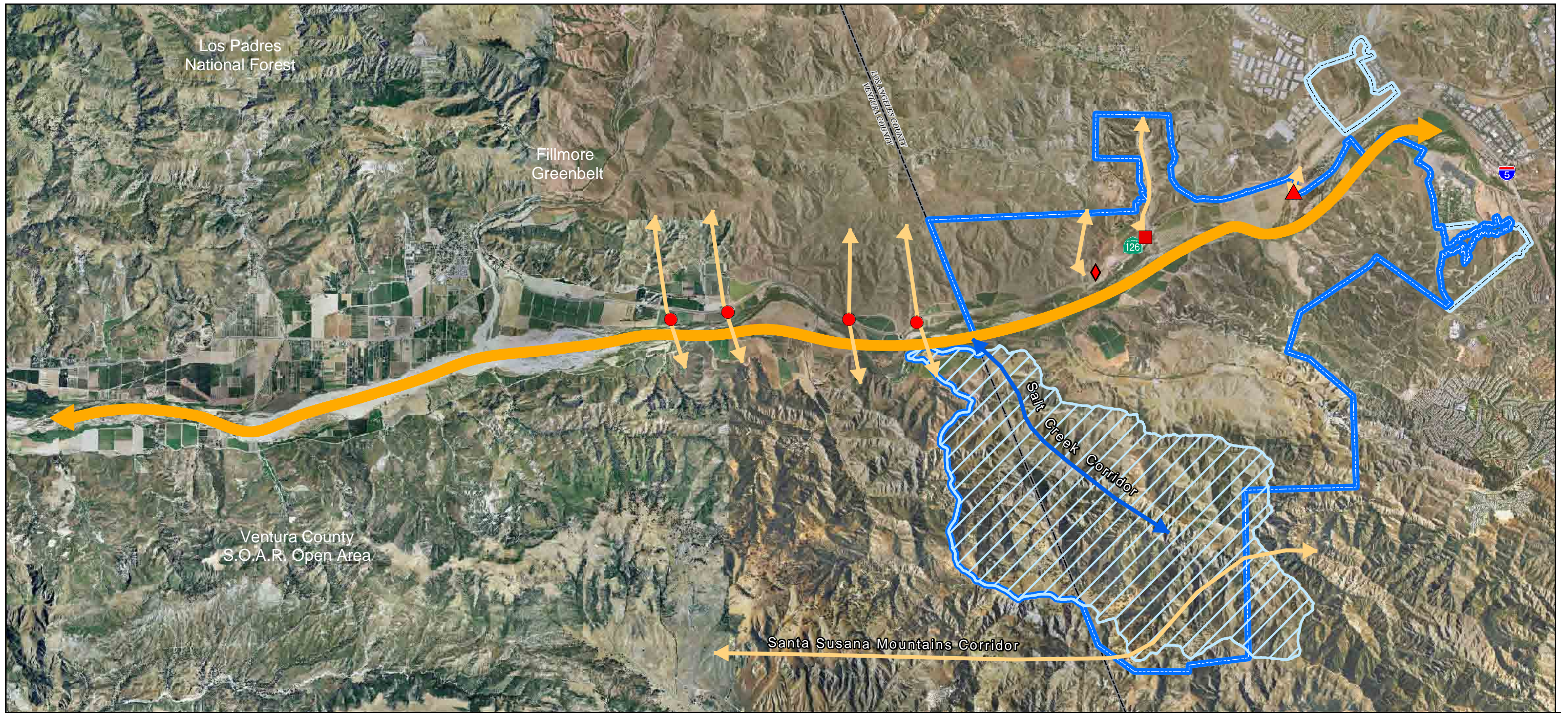
The consideration of potential cumulative impacts to wildlife landscape habitat linkages falls under the following significance criteria as previously identified in **Subsection 4.4.9.a**: whether the proposed Project

²⁵ The RMDP is incorporated by reference, as permitted in section 15150 of the *State CEQA Guidelines*. All referenced documents are available for public inspection and review upon request to: County of Los Angeles, Department of Regional Planning, 320 West Temple Street Los Angeles, California 90012 (Samuel Dea; (213) 974-6461) or Impact Sciences, Inc., 803 Camarillo Springs Road, Suite A-1, Camarillo, California 93012 (Susan Tebo; (805) 437-1900). Additionally, this document can also be obtained from the California Department of Fish and Game's Web site at <http://www.dfg.ca.gov/regions/5/newhall/docs/>.

and present and reasonably foreseeable development would interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors.

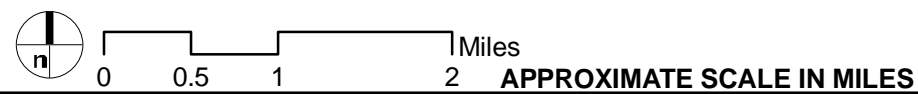
As discussed above, the Santa Clara River is an important regional habitat linkage in the SCRW. The combined High Country SMA/SEA 20 and Salt Creek area provide the most direct connections between the River corridor habitat and large upland habitat areas south of the River, and are those identified by Penrod *et al.* (2006, Recirculated Draft EIR, **Appendix 4.4**) as important components of regional habitat connectivity. Notwithstanding the preservation of these key areas, the loss of approximately 5,590 acres associated with the proposed RMDP/SCP project, including 1,063 acres associated with the Landmark Village project, and the approximately 32,300 acres of impacts from present and reasonably foreseeable projects would continue to reduce both the size and availability of linkages and corridors in the SCRW. This is particularly true for areas adjacent to the Santa Clara River where both agricultural practices and the development of commercial and residential developments have focused.

Open space, public land, and wildlife compatible uses within the SCRW include National Forest Service lands (both the Los Padres and Angeles National Forests), other designated public ownerships (*e.g.*, BLM, State Parks), utility corridors, agricultural and pasture lands, and undeveloped private areas. The SCRW also includes commercial, industrial, and residential development. Water infrastructure including dams associated with Bouquet, Piru, and Castaic Creeks and diversion structures such as the Freeman diversion dam on the Santa Clara River are also present. The rapid expansion of population centers and urban growth in this region (particularly the Santa Clara Valley) has resulted in the continued loss of undeveloped lands, and the degradation of riparian and upland habitats that support populations of unique or rare species. Natural and wilderness areas in the SCRW, particularly near the Santa Clara River, are gradually being displaced by development, and wildlife movement corridors in the region have been modified to the extent that the movement of wildlife is curtailed or limited in some areas (Penrod *et al.* 2006, Recirculated Draft EIR, **Appendix 4.4**), and expanding urban population centers are degrading the habitat values in urban/wilderness edge areas.



Legend

- RMDP Boundary
- SCP Boundary
- County Boundary
- Salt Creek Watershed
- Castaic Creek
- Chiquito Canyon
- San Martinez
- Ventura County
- Wildlife Corridor
- River Corridor





AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.4-21



















Landmark Village EIR





Legend

-  RMDP Boundary
-  SCP Boundary



Regional Habitat Linkages

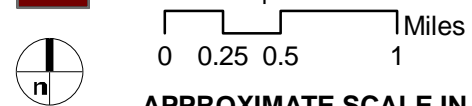
-  1 - Santa Clara River Corridor
-  2 - Salt Creek Confluence
-  3 - Salt Creek High Country
-  4 - East Fork Salt Creek
-  5 - Potrero Canyon Salt Creek
-  6 - Potrero Canyon
-  7 - Long Canyon
-  8a - Humble Canyon
-  8b - Lion Canyon
-  8c - Exxon Canyon
-  8d - Dead End Canyon
-  8e - Middle Canyon
-  8f - Magic Mountain Canyon
-  9 - Chiquito Canyon
-  10 - San Martinez Grande Canyon
-  11 - Off-Haul Canyon
-  12 - Homestead Canyon
-  13- Castaic/Hasley Corridor

Impacts

-  Direct Permanent
-  Indirect Permanent

Slope

-  Less than 25 Percent Slope
-  25 Percent Slope or Greater



APPROXIMATE SCALE IN MILES

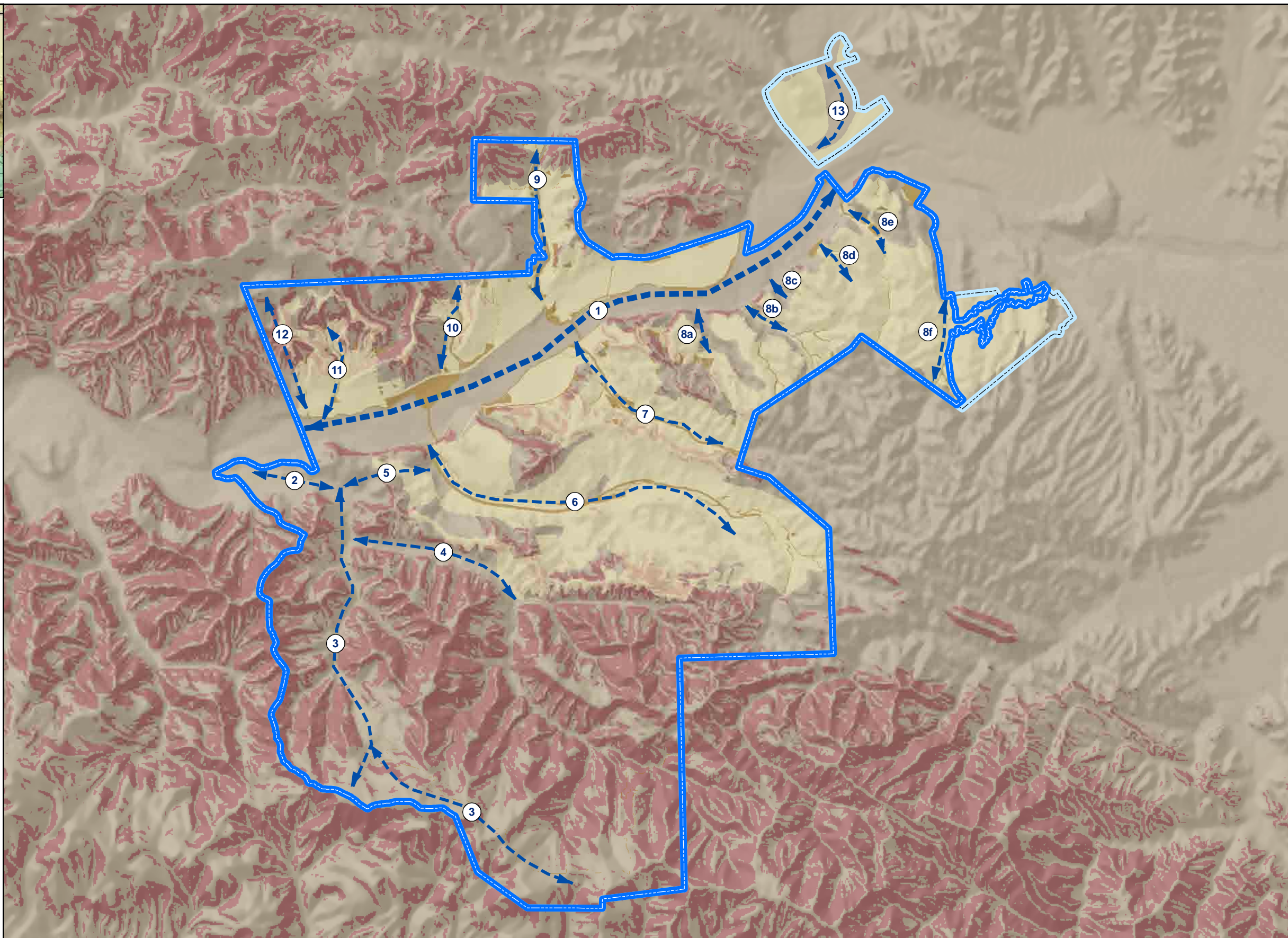


IMAGE SOURCE: USGS 24K Quad

FIGURE 4.4-22

Landmark Village EIR

Alternative 2 Impacts to RMDP/SCP Regional Wildlife Connectivity Corridors



As indicated in **Table 4.4-24**, the SCRW consists of approximately 1,038,100 acres of land and supports a variety of vegetation communities and land covers. According to the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), approximately 47,300 acres of the watershed had been developed as of 1998. In addition, project list information for the watershed within Ventura and Los Angeles counties indicates that another 37,890 acres are expected to be developed in the foreseeable future, based on past, present, and reasonably foreseeable projects, including the proposed RMDP/SCP project (which includes the Landmark Village project), resulting in a total of approximately 85,200 acres of watershed being developed.

Figure 4.4-18 shows that most of the approximately 99,000 acres of land converted to development land uses in the SCRW (*i.e.*, agriculture, and residential, commercial, industrial, infrastructure development) has occurred (1) in the southern portion of the watershed along the Santa Clara River, where agricultural uses dominate and (2) in the cities of Ventura, Santa Paula, Santa Clarita, and the communities of Valencia and Acton, where urban development dominates. In these portions of the SCRW, urbanization has resulted in alterations to the natural landscape and the fragmentation of natural vegetation communities, isolation of wildlife habitat, and the creation of discontinuous movement corridors. This is demonstrated in portions of the Santa Clara River Valley where development along the Interstate 5 corridor has narrowed the existing landscape features and now inhibits movement along much of the Valley floor. However, a large amount of relatively unobstructed and natural land still exists within this region, including large contiguous areas within the Angeles and the Los Padres National Forests and within private lands including the Forest Service lands. Development within Forest Service lands in this area is primarily limited to small residential communities on private in holdings or recreational cabins, OHV use, reservoirs and aqueducts, ranger stations, recreational areas and campgrounds, utility corridors, access roads, hiking trails, and fuel breaks.

Without accounting for past, present, or reasonably foreseeable mitigation, there could be constraints on the use of habitat linkages, wildlife corridors, and wildlife crossings in developing regions of the SCRW by present and reasonably foreseeable projects, including the proposed RMDP/SCP project (which includes the Landmark Village project with respect to north-south movement along Chiquito Canyon and east-west movement along the Santa Clara River). The proposed RMDP/SCP project would constrain the use of some regional landscape-level linkages, local wildlife corridors (*i.e.*, within the RMDP/SCP project development area), and wildlife crossings within the developed portions of the proposed RMDP/SCP project area and large areas of habitat loss would occur. The contribution of Landmark Village project's impacts to local and regional wildlife movement would be less than significant (see **Subsection 4.4.9.b.1.e**). As noted above, Chiquito Canyon is a potential local north-south wildlife movement corridor providing access to and from the River Corridor, but due to existing agricultural uses within the tract map, its function under existing conditions is limited. Constraints on this corridor with implementation

of the proposed project would not significantly affect existing use of regional movement corridors. The Santa Clara River corridor will maintain its function for east-west regional wildlife movement and connects directly to Castaic Creek, which provides for north-south wildlife movement. The open space in River corridor within the Landmark Village project site will be a minimum of 1,000 feet wide, and with the minimum 100-foot transition areas between development and the River corridor, the minimum functional width of the corridor will be about 1,200 feet. As noted above, the Long Canyon Road bridge will somewhat constrict the Santa Clara River and corridor but for a rather short distance, about 100 feet, with an adequate height of 11 to 22 feet to allow for unconstrained movement of wildlife beneath the bridge.

Although impacts to wildlife movement are less than significant, a variety of mitigation measures are recommended by Newhall Ranch Specific Plan EIR and this EIR that would further reduce impacts to wildlife corridors, including dedication of the River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek area, controls on public access to dedicated open space areas, controls on lighting at the urban-open space interface, controls on pet, stray, and feral cats and dogs, and homeowner education about sensitive biological resources.

While much of the SCRW likely would remain undeveloped or designated as public lands, including the National Forests, urbanization of the Santa Clara River corridor as a whole is where most development is expected to occur in the future. This would result in the expansion of barriers to wildlife movement in and around the River Valley. However, based on existing information for present and reasonably foreseeable projects and the proposed RMDP/SCP project, which are the scope of this cumulative analysis, movement through the Santa Clarita Valley would be maintained between both National Forests and private lands such as the Simi Hills, as shown in **Figure 4.4-8**, South Coast Wildlands Open Space Connectivity and Linkage, and **Figure 4.4-22**, Alternative 2 Impacts to RMDP/SCP Regional Wildlife Connectivity Corridors. It was concluded in the Newhall Ranch Specific Plan that combined High Country SMA/SEA 20 and Salt Creek area provide the most direct connections between the River corridor habitat and large upland habitat areas south of the River, and that these habitat linkages would remain intact and functional after implementation of buildout of the RMDP/SCP project area, including the Landmark Village project, under Alternative 2. It was for these reasons that at the project level, it was determined that impacts to landscape habitat linkages would be adverse, but not significant. It follows, therefore, that if regional wildlife movement *via* the large habitat linkages identified by Penrod *et al.* (2006, Recirculated Draft EIR, **Appendix 4.4**), including the River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek area, are maintained on site, the contribution of the proposed RMDP/SCP project (which includes the Landmark Village project area) to constraints on regional wildlife movement in the SCRW would not be cumulatively considerable. Thus, with the mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended by this EIR, the proposed Landmark Village project

would not result in a cumulatively considerable contribution to potential significant cumulative impacts to regional wildlife habitat landscape linkages and local wildlife movement corridors in the SCRW.

(5) Impacts to Special-Status Species

The cumulative impact analysis for special-status species also uses the "project list" approach for the watershed. This analysis is organized into five separate special-status categories:

- State and/or Federally Listed and California Fully Protected Wildlife Species
- California Species of Special Concern (CSC)
- California Special Animals, California Watch List Species, Specially Protected Mammals, and CDFG Trust Resource Species
- State and/or Federally Listed Plant Species
- California Native Plant Society (CNPS) and Locally Regulated Plant Species

The listed and California Fully Protected Species are analyzed in the greatest detail because they have the greatest sensitivity and generally would be expected to be most affected by cumulative impacts. For each species, the habitat relationships were analyzed in the same manner as the vegetation communities and land covers described above in **Subsection 4.4.11.c.1**. Except where noted, the combined California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**) and project-level data were used for the cumulative impact analyses because the analysis is within the context of the entire watershed.

Because of the numerous wildlife species in the two categories: (1) California Species of Special Concern (CSC); and (2) Special Animals, Watch List, Specially Protected Mammals, and Trust Resources, the analyses for the two categories are generalized to the guild level (*e.g.*, Bird – Raptor, Reptile and Amphibian – Semi-aquatic, *etc.*). The detail of the analysis is scaled to the sensitivity of the species group. For example, CSC Bird – Riparian species are analyzed in more detail than Special Animal Bird – Riparian. Where the detailed analyses for the Listed and California Fully Protected Species are applicable to species in the lower sensitivity categories (*e.g.*, least Bell's vireo analysis to the CSC Bird – Riparian guild), cumulative impacts are incorporated and summarized.

(a) Listed and California Fully Protected Wildlife Species

This section addresses cumulative impacts the following federally and state-listed and/or California Fully Protected Species:

- arroyo toad (FE)
- American peregrine falcon (CE, CFP)
- California condor (FE, CE, CFP)

- coastal California gnatcatcher (FT)
- California red-legged frog (FT)
- golden eagle (CFP)
- least Bell's vireo (FE, CE)
- ringtail cat (CFP)
- southern steelhead (FE)
- southwestern willow flycatcher (FE, CE)
- unarmored threespine stickleback (FE, CE, CFP)
- western yellow-billed cuckoo (CE)
- white-tailed kite (CFP)

The cumulative impact analysis of listed and California Fully Protected Species is summarized below. See **Subsection 4.4.9.b.1.h** for the full detail of impacts and mitigation measures as they relate to each of the species and to **Subsection 4.4.10**, Project Mitigation Measures, for full descriptions of all mitigation measures.

Arroyo Toad (FE). As described in the species account in **Subsection 4.4.9.b.1.h**, the arroyo toad (tadpoles only) occurrences documented in the proposed RMDP/SCP project area are in the Santa Clara River upstream and downstream of the proposed Commerce Center Drive Bridge site and near the Valencia Water Treatment Plant (**Figure 4.4-23, RMDP/SCP Arroyo Toad Species Occurrences**). Other documented occurrences of arroyo toad in the upper SCRW (but outside the proposed RMDP/SCP project area boundaries) include the Santa Clara River just east of I-5; Castaic Creek, including above the reservoir (Castaic Lake); Upper San Francisquito Creek; the Santa Clara River adjacent to Castaic Junction; the Santa Clara River near the confluence of San Francisquito Creek; and the Soledad Canyon area. The arroyo toad also occurs elsewhere in the SCRW, in Sespe Creek and Piru Creek. The Sespe Creek population is in the Los Padres National Forest, primarily within the Sespe Wilderness, and is one of the largest populations in the Los Padres National Forest, with thousands of juveniles observed during years of successful reproduction (70 FR 19584). The Piru Creek population occurs both upstream and downstream of the Pyramid Reservoir in the Los Padres National Forest (70 FR 19584). The upper Piru Creek population has been expanding, likely in part due to seasonal campground closures and the elimination of suction-dredge mining (70 FR 19584). The lower Piru Creek population below Pyramid Reservoir has experienced habitat degradation due to perennial water releases, excessive flows, and invasive predators, but future releases are intended to mimic natural flows and this should benefit the arroyo toad (70 FR 19584).

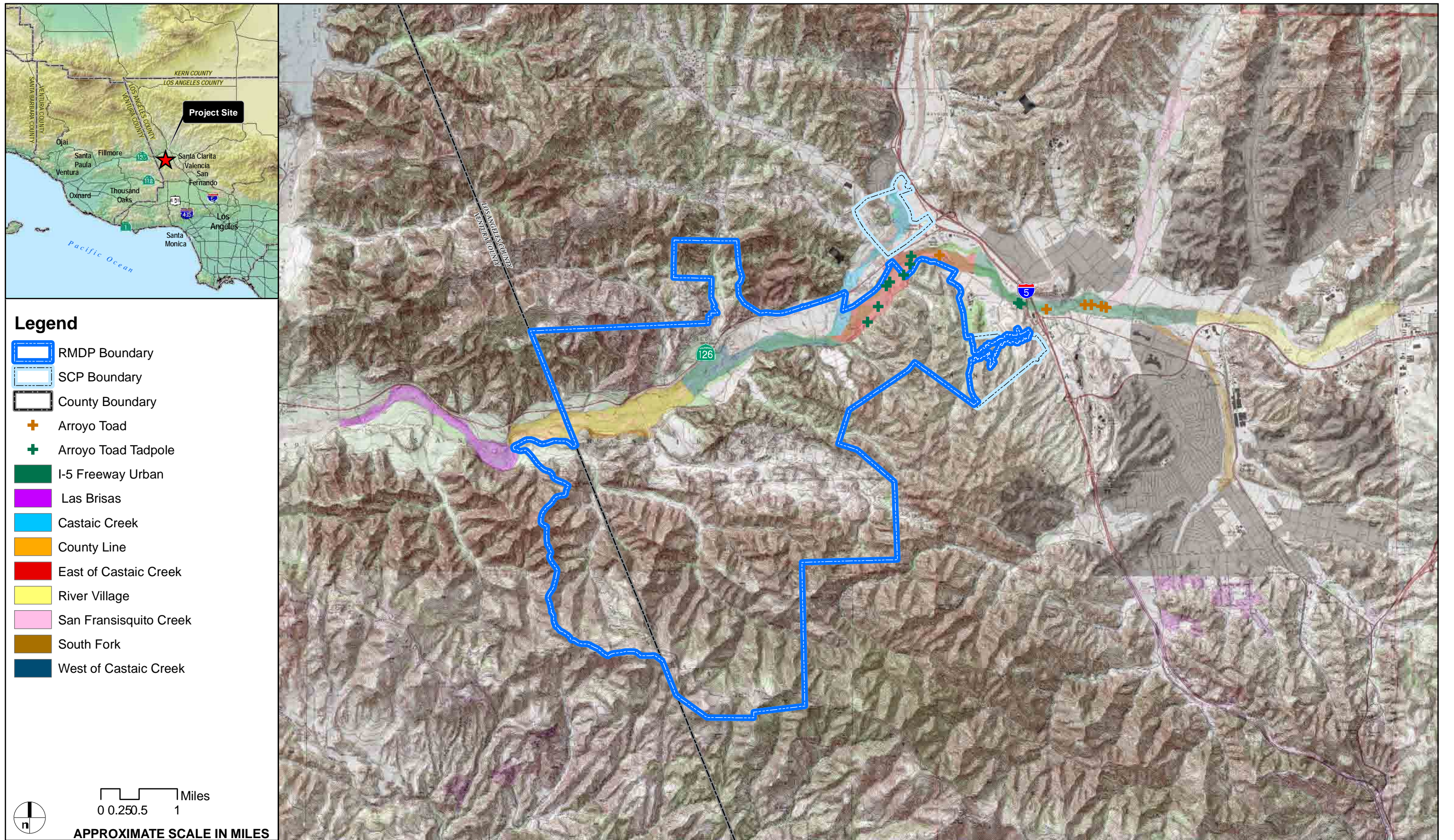


FIGURE 4.4-23

Landmark Village EIR

RMDP/SCP Arroyo Toad Species Occurrences

In 2005, USFWS designated 11,695 acres of critical habitat for arroyo toad (substantially downsizing the 95,655 acres proposed in February 2004), and excluded the proposed Unit 6 (which contained portions of the proposed RMDP/SCP project site) along with portions of many Southern California counties for economic reasons (70 FR 19562-19633). In 1999, USFWS published the Arroyo Southwestern Toad Recovery Plan (USFWS 1999), but the Santa Clara River was not specifically identified in the Recovery Plan as having a conservation role in the recovery strategy for the species. In the Santa Clara River watershed, six federal biological opinions were issued for the arroyo toad between 1993 and 2006 (Table 4.4-20), including one for the Natural River Management Plan upstream of the proposed RMDP/SCP project.

For the arroyo toad, the California GAP data are not refined enough to portray suitable arroyo toad habitat. Implementation of the RMDP and buildout of the Specific Plan, VCC, and Entrada planning areas would result in the permanent loss of 59 acres (7.4 percent) of modeled Category 1 habitat on the proposed RMDP/SCP project site, defined as habitat containing all the primary constituent elements used to designate critical habitat for the species (70 FR 19562). However, 25 acres (32.6 percent) of Category 2 habitat (habitat containing most of the primary constituent elements) and 705 acres (66.6 percent) of Category 3 habitat (primarily uplands adjacent to the Santa Clara River corridor that could be used for aestivation and hibernation, but which lack hydrology to support breeding) would also be permanently lost. Without accounting for past, present, or reasonably foreseeable mitigation, impacts to arroyo toad habitat in the SCRW resulting from present and reasonably foreseeable projects, including the proposed RMDP/SCP project, could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, in close proximity to occupied arroyo toad habitat also could result in long-term secondary effects, including disruption of nocturnal activities and greater vulnerability to predation by nocturnal predators (such as owls and coyotes) as a result of nighttime lighting; greater vulnerability to predation by pet, stray, and feral cats and dogs as well as other mesopredators (see Crooks and Soulé 1999); collecting by children; degradation of habitat from increased human use (*e.g.*, trampling, trash, and off-road vehicles) and altered fire regimes (likely too frequent fire); invasion by exotic plant (*e.g.*, giant reed, tamarisk, and pampas grass) and wildlife species (*e.g.*, Argentine ants, bullfrogs, African clawed frogs, exotic fish, and crayfish); use of pesticides; and increased risk of roadkill on roads adjacent to occupied areas. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative secondary impact could be cumulatively considerable, absent mitigation.

The mitigation required by both the Newhall Ranch Specific Plan Program EIR and this EIR to offset project-level significant impacts to arroyo toad habitat would result in a large, managed open space system (see **Subsection 4.4.10, Project Mitigation Measures**). This open space system would also reduce long-term secondary impacts on arroyo toad habitat. These mitigation measures include preservation, restoration, and enhancement of riparian and wetland habitat, controls on public access, invasive species controls, conformance with permits from federal and state agencies for impacts to wetlands and water quality (*i.e.*, NPDES and section 401 permits), and lighting controls. Large areas of suitable habitat for this species would be protected in the River Corridor SMA/SEA 23. The Floodplain Hydraulics Impacts Assessment (PACE 2008, Recirculated Draft EIR, **Appendix 4.4**) found that there would be no significant impacts in water flows, velocities, depth, sedimentation, or floodplain and channel conditions downstream of the proposed RMDP/SCP project area over the long term as a result of the proposed RMDP/SCP project improvements. These hydrologic effects were also found to be insufficient to alter the amount, location, and nature of aquatic and riparian habitats within the proposed RMDP/SCP project area and downstream into Ventura County. The technical analysis further determined that the River would retain sufficient width to allow natural fluvial processes to continue. Following buildout, the River Corridor floodplain would remain 1,000 to 2,000 feet wide and retain the mosaic of habitats, including the relatively narrow wetted channel, benches, and dry terraces that support various special-status species and meet their life history needs. These habitats and the populations of the species within and immediately adjacent to the River Corridor would not be substantially affected. A total of 738 acres (92.6 percent) of existing Category 1 habitat for the arroyo toad on the proposed RMDP/SCP project site would be maintained within the River Corridor SMA/SEA 23.

A variety of specific mitigation measures also would be implemented by the proposed Landmark Village project to avoid and reduce potential long-term secondary impacts to arroyo toad. Measures would be implemented to control human activities in the River Corridor SMA/SEA 23, including homeowner education and restrictions on recreational activities. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. All lighting along the open space-urban interface would be downcast. Pesticides would be controlled through an integrated pest management (IPM) plan. Argentine ant invasions of upland habitats in the open space system would be monitored and controlled to extent feasible. Implementation of these measures would allow this species to persist on site after development in the River Corridor SMA/SEA 23.

The vast majority of existing Category 1 habitat (92.6 percent) for the arroyo toad on the proposed RMDP/SCP project site would be protected and managed in the River Corridor SMA/SEA 23 and lands outside the 100-year floodplain would be conserved. This preservation and management would also reduce potential long-term secondary impacts to a level that is adverse but not significant. The arroyo toad has not been documented to breed on the Landmark Village site, as indicated by no observations of

adult toads during focused surveys. The flow regime from the wastewater treatment plant upstream of the RMDP/SCP project site fluctuates daily and does not support hydrologic regimes consistent with breeding habitat (*i.e.*, semi-permanent breeding pools). It is not expected that there would be a loss of an extant breeding population and no substantial loss of Category 1 habitat for this species on site. The largest populations in the SCRW occur in the Los Padres National Forest in Sespe and Piru creeks. These populations are not at risk from urban development and, with proper management, they are expected to expand in the future.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

American Peregrine Falcon (CE, CFP). The American peregrine falcon occurs occasionally in the proposed RMDP/SCP project area. One American peregrine falcon was observed hunting along the Santa Clara River corridor near the Grapevine Mesa area within the Newhall Ranch Specific Plan area by Guthrie in July 2000 (Guthrie 2000), and an adult male was observed hunting over the Wolcott agricultural field by Bloom Biological, Inc. in late December 2007 (Bloom Biological 2008). No other occurrences of this species have been documented on site during annual bird surveys between 1988 and 2008. American peregrine falcons have never been documented nesting in the proposed RMDP/SCP project area. This species is sensitive to human disturbance and usually nests in areas that are remote from human activities, such as cliffs, although tall buildings, bridges, or other tall man-made structures are also suitable for nesting if they are protected from human disturbance. Such features that would be suitable for nesting by the peregrine falcon are absent in the RMDP/SCP project area; therefore, it is not expected to nest on site.

The California breeding range for the American peregrine falcon has been expanding and now includes the Channel Islands, the coast of southern and northern California, inland north coastal mountains, the Klamath Mountains, Cascade Range and the Sierra Nevada (CDFG 2005). In California, the American peregrine falcon is an uncommon breeder or winter migrant throughout much of the state. It is absent from desert areas (Zeiner *et al.* 1990A). Active nests have been documented along the coast north of Santa Barbara, in the Sierra Nevada, and in other mountains of northern California. As a transient species, the American peregrine falcon may occur almost anywhere that suitable habitat is present (Garrett and Dunn 1981). One pair occurs within the Angeles National Forest (Stephenson and Calcarone 1999), and one occurs on the Vincent Thomas Bridge at the Port of Los Angeles in Los Angeles County. Wintering migrants can be seen inland throughout the Central Valley, in the western Sierra Nevada, along the coast, and occasionally on the Channel Islands (Zeiner *et al.* 1990A). As a transient species, the American

peregrine falcon may occur almost anywhere that suitable habitat and prey are present (Garrett and Dunn 1981).

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 103,000 acres of potentially suitable foraging habitat for the peregrine falcon within the SCRW (riparian, California annual grassland, agriculture, and disturbed land). However, this species is not expected to forage in all 103,000 acres in the SCRW. Foraging sites are often located near rivers or lakes, as well as in coastal and inland wetlands (AOU 1998; Brown 1999; Snyder 1991). It is expected that foraging by this species in the SCRW would be concentrated along the Santa Clara River and adjacent upland habitats and agricultural areas. Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of 4,815 acres of 103,000 acres of foraging habitat. Without accounting for past, present, or reasonably foreseeable mitigation, this could be a potential significant cumulative impact because several thousand acres of potential foraging habitat would be permanently lost and loss of habitat along the Santa Clara River would also affect the abundance and distribution of important prey such as waterfowl. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 3,515 acres, which could be cumulatively considerable, absent mitigation.

However, the American peregrine falcon only uses the proposed RMDP/SCP project area for occasional foraging, but has not been observed nor is it expected to nest on site. Further, despite existing and anticipated projects in the watershed, approximately 98,000 acres of potentially suitable foraging habitat would remain in the SCRW, although most of its foraging in the watershed is expected to be concentrated within and adjacent to the Santa Clara River floodplain.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP, including the Landmark Village project, also could result in potential significant cumulative secondary effects due to increased human activity in developed areas and adjacent open space which could disrupt foraging activities, and use of pesticides which could cause poisoning. At the watershed level these secondary effects could be a potential significant cumulative effect. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The mitigation required by both the Newhall Ranch Specific Plan Program EIR and this EIR to offset project-level significant impacts to American peregrine falcon foraging habitat would result in a large, managed open space system (see **Subsection 4.4.10, Project Mitigation Measures**). These mitigation measures include habitat preservation, restoration, enhancement, and management of the River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek area—areas that would form a large,

contiguous open space system totaling approximately 6,300 acres comprised of riparian and upland habitats that provide foraging habitat for American peregrine falcon. This set-aside also would reduce potential long-term secondary effects, such as increased human activity, because birds would have substantial alternative habitat in which to forage. Potential secondary poisoning from pesticides would be controlled through an integrated pest management (IPM) plan.

In addition to these mitigation measures which would reduce impacts at the project level, this species is only an occasional visitor and only documented as foraging on the RMDP/SCP project site. This species is known to forage throughout the suitable habitat within the watershed and California. Its nesting is usually limited to areas with limited human disturbance. American peregrine falcon is known to forage within National Forest system lands within the watershed in association with rivers and lakes.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

California Condor (FE, CE, CFP). California condor populations exist in Arizona, southern California, Utah, and northern Baja California (CDFG 2005). California condors are known to exist and nest in the Sespe Condor Sanctuary within the SCRW approximately 30 miles northwest of the proposed RMDP/SCP project area. This species is extremely mobile, and because of the extensive foraging range of this species, California condors could include the proposed RMDP/SCP project area, including the Landmark Village project area, within the potential foraging range of the Sespe population. Surveys for the California condor were included as part of other raptor and avian species surveys that were conducted along the Santa Clara River and throughout upland areas of the RMDP/SCP project area (Bloom Biological 2007, 2008). While California condor foraging flights have been known to take individuals over the Santa Clarita Valley, these flights are generally at high altitudes. Until April 2008, California condors had not been known to nest or land within the RMDP/SCP project area within the last 25 years (Bloom Biological 2007, 2008). In April 2008, a California condor was observed feeding on a dead calf in a Potrero side canyon by wildlife biologist Chris Niemela (Carpenter 2008) (**Figure 4.4-24, RMDP/SCP – Listed and California Fully Protected Wildlife Species Occurrences**). The USFWS also provided information to Bloom that California condors fitted with GPS transmitters had landed on Newhall Ranch on several days from April through July 2008 (Root 2008). In January 2009, up to five California condors were detected feeding on a dead calf in the middle section of Potrero Canyon south of Potrero Mesa between January 27 and 30 (Niemela 2009). A follow-up visit by Chris Niemela was conducted at the request of the USFWS to photodocument the calf carcass and site where the feeding occurred.

Critical habitat for the California condor was designated by the USFWS on September 22, 1977 (42 FR

47840-47845), however, no critical habitat was designated on the proposed RMDP/SCP project site, which includes the Landmark Village project site. The nearest critical habitat area is the Sespe-Piru Condor Area, six to seven miles north of the proposed RMDP/SCP project site. The California Condor Recovery Plan was published by the USFWS on February 26, 1980 (USFWS 1980); however, no recovery activities were identified for the proposed RMDP/SCP project site or nearby vicinity.

The California condor requires habitat that contains an adequate food supply (carrion), open space areas, and reliable winds and air movement to allow for long-duration soaring during foraging. Nest habitat typically includes cliff faces and, occasionally, large tree snags with cavities. Condors are not expected to nest in the RMDP/SCP project area due to the general lack of adequate nesting habitat and likely only opportunistically forage in the RMDP/SCP project area, as well as in other present and foreseeable future projects analyzed here for cumulative impacts. In general, these areas probably do not support large populations of large mammals (*e.g.*, mule deer) across the broad landscape area or suitable nesting sites. For these reasons, the proposed RMDP/SCP project, including Landmark Village, in combination with other present and foreseeable future projects, is not expected to result in a potential significant cumulative impact to this species due to the loss of foraging habitat.

The risk of direct injury or mortality of individual California condors due to construction activities associated with present and reasonably foreseeable projects, including the proposed RMDP/SCP project, is low. However, construction debris, litter, leaking equipment, or road kill can attract this species to construction sites. This could subject condors to strikes by construction vehicles. Condors are curious birds and have been documented in close association with oil pumps and human activity on the Los Padres National Forest. During cleanup activities at trash sites, for example, condors have been observed sitting on guard rails adjacent to the cleanup activities. If individuals were injured or killed during construction activities, this could be a potential significant cumulative impact because the loss of any individuals of this species likely would reduce its chance for long-term survival in the wildlife. The contribution of the proposed RMDP/SCP project, including the Landmark Village project, to this potential significant cumulative impact could be cumulatively considerable, absent mitigation.



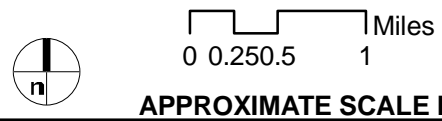
Legend

- RMDP Boundary
- SCP Boundary
- County Line

Special Status Wildlife:

Listed and Fully Protected Species

- + Arroyo Toad Tadpole
- + Arroyo Toad
- ◆ California Condor
- California Gnatcatcher
- ◆ Golden Eagle
- Least Bell's Vireo
- ▲ Swainson's Hawk
- + Unarmored Threespine Stickleback
- White-Tailed Kite
- White-Tailed Kite Nest
- Willow Flycatcher (migrant observations)



AERIAL SOURCE: DigitalGlobe, 2007

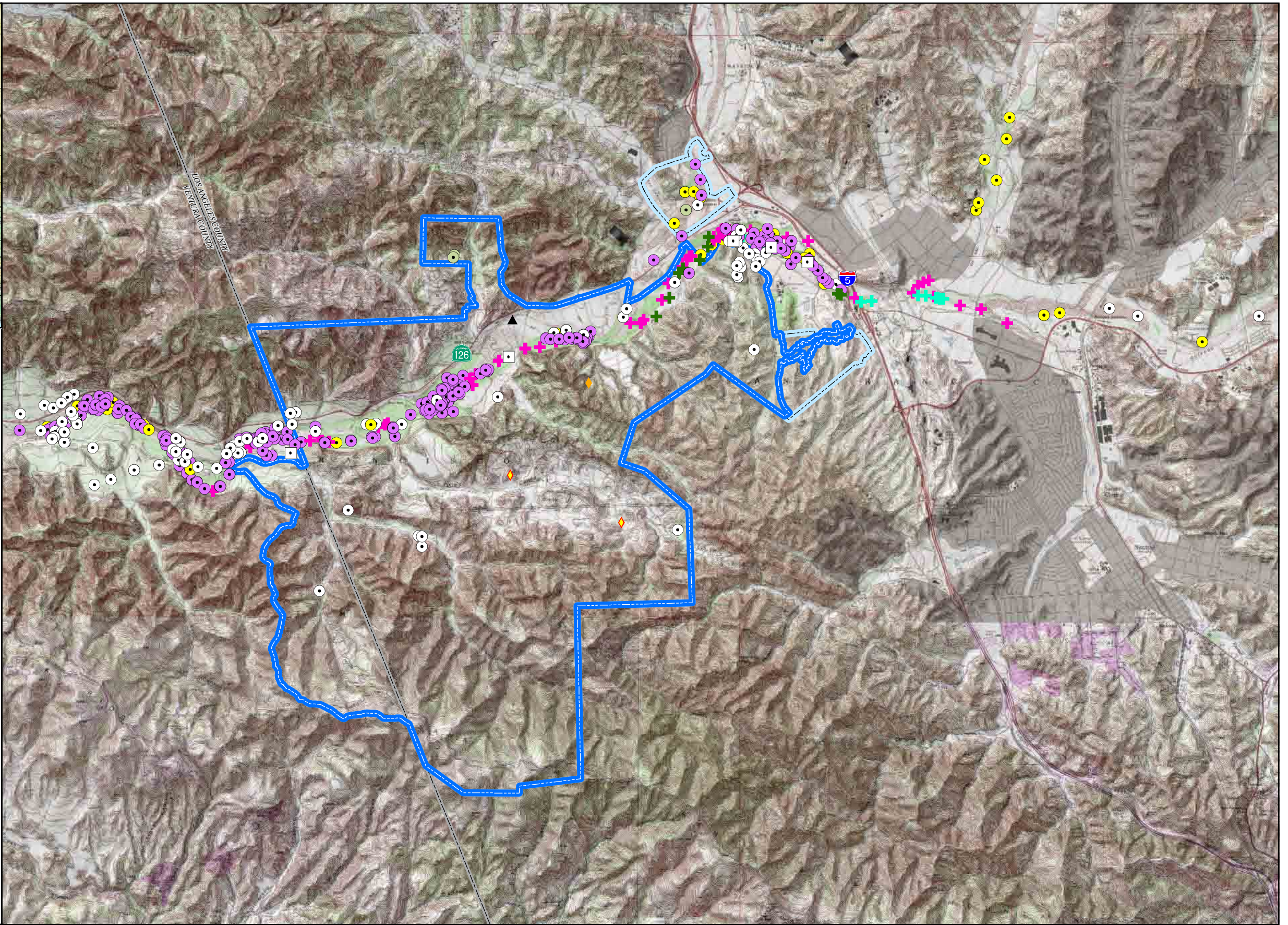


FIGURE 4.4-24

Landmark Village EIR

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, also could result in secondary effects to the California condor. Adverse secondary effects to condors may occur as a result of the animal's collection of microtrash (*i.e.*, broken glass, paper and plastic waste, small pieces of metal). This waste is often brought back to nest sites where young birds ingest the material. This can possibly lead to mortality of young birds. Ethylene glycol, a component in antifreeze and petroleum products can also be ingested by condors, which could possibly result in injury or mortality. Secondary impacts related to phone towers, power lines, and utility poles, could increase the potential for collisions; increased microtrash within residential and commercial areas, which has been known to attract and be ingested by California condors, causing sickness or possibly mortality; and the presence of various contaminants, such as radiator fluid, which have been known to be ingested by California condors, causing sickness or possibly mortality. At the watershed level these secondary effects could be a potential significant cumulative effect. The contribution of the proposed RMDP/SCP project, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The California condor sporadically forages on the proposed RMDP/SCP project site, and possibly in other present and foreseeable future project sites, but nesting is not expected to occur. Nest habitat typically includes cliff faces and, occasionally, large tree snags with cavities. Condors are not expected to nest in the RMDP/SCP project area due to the general lack of adequate nesting habitat. Other past, present, and reasonably foreseeable projects also tend to be located in the lower elevations of the watershed that lack these necessary microhabitat features. It was determined above that the loss of habitat resulting from present and foreseeable future projects, including the proposed RMDP/SCP project, would not be a significant cumulative impact. Nonetheless, potential foraging habitat is present in the upper regions of the High Country SMA/SEA 20 and Salt Creek area and would not be affected by buildout of the Specific Plan, VCC, or Entrada planning areas, including the Landmark Village project. The mitigation required by the Newhall Ranch Specific Plan Program EIR and the mitigation measures recommended by this EIR would result in a large, managed open space system (**Subsection 4.4.10, Project Mitigation Measures**). Generally, protection, restoration and enhancement, and management habitat in the High Country SMA/SEA 20 and Salt Creek area would provide California condors with a large tract (5,720 acres) of relatively undisturbed habitat suitable for foraging. Although the number of cattle would be reduced on site, ongoing resource management using cattle would occur and deer herds would continue to use the High Country SMA/SEA 20 and Salt Creek area, providing foraging opportunities for condors.

To reduce or avoid potential construction-related injury or mortality of individuals, the applicant would implement measures during construction to monitor for the presence of birds, and collect all litter, small items, vehicle fluids, and food waste from the RMDP/SCP project area on a daily basis. Workers would be

trained on the issue of microtrash; what it is, its potential effects to California condors, and how to avoid the deposition of microtrash. In the event California condors are observed landing in the construction area, all work activities shall be suspended until the bird has left the area.

To reduce long-term secondary impacts, limited recreational usage and access restrictions within the High Country SMA/SEA 20, control of pets in or near open space areas, trail signage, and homeowner education regarding special-status resources in preserved natural habitat areas would help protect California condors foraging in the High Country SMA/SEA 20 and Salt Creek area. Installation of new or relocation of existing phone and cell towers, power lines, and utility poles in the High Country SMA/SEA 20 and Salt Creek area would be coordinated with CDFG and structures would be designed in accordance with Avian Power Line Interaction Committee (APLIC 2006) guidelines and operated with anti-perching devices to help reduce collisions and electrocutions of California condors.

In addition to these mitigation measures which would reduce RMDP/SCP project-related construction and long-term impacts to California condor and provide foraging opportunities in the RMDP/SCP project area (although on a more limited scale than currently exists), this species has an extremely large foraging range that spans the SCWR and beyond. California condors are frequently observed in National Forest system lands. The USFWS maintains a feeding station to provide a reliable food source for condors in Los Padres National Forest, but individuals opportunistically forage on dead cattle on large cattle ranches within the SCRW, including Newhall Ranch (Grantham 2009).

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Coastal California Gnatcatcher (FT). Focused surveys have not documented resident breeding populations of the coastal California gnatcatcher on site in surveys between 1995 and 2007, but individuals have been observed twice in the proposed RMDP/SCP project area during the course of biological monitoring. One observation was in October 2007 in the VCC planning area and the other in August 2008 east of the Del Valle Training Center (which is just outside the proposed RMDP/SCP project boundary, north of SR-126 and west of Chiquito Canyon). Both observations were considered to be dispersing individuals because no breeding gnatcatchers have been observed in the proposed RMDP/SCP project area and the observations were made when dispersal would be expected to be occurring. Generally, there are few documented coastal California gnatcatcher populations in the SCRW. In addition to the two individuals reported in the proposed RMDP/SCP project area, there are occurrences of individuals approximately six miles to the east in Plum Canyon in 1999, Golden Valley Road in 2001, and

Golden Valley Ranch in 1997 (**Figure 4.4-25**). The nearest observation of a coastal California gnatcatcher pair (assumed breeding pair observed in 1999) is in Chivas Canyon 3.6 miles to the south, but that location is outside the SCRW boundary and on the southern side of the Santa Susanna Mountains. The nearest relatively large breeding population is in Moorpark (15 occurrences) outside the SCRW, about 12 miles to the southwest of the proposed RMDP/SCP project area and south of the Santa Susana Mountains

Based on these observations, the coastal California gnatcatcher is considered to be an irregular visitor in the proposed RMDP/SCP project area in association with dispersal. Although the site appears to provide habitat for dispersal and nesting has not been documented during protocol-level, it is unknown whether the site could support nesting populations of coastal California gnatcatcher in the future (*e.g.*, whether there could be colonization of the site by breeding individuals).

On December 19, 2007, the USFWS published the Revised Designation of Critical Habitat for the coastal California gnatcatcher (72 FR 72009-72213). The Revised Designation reduced the final critical habitat designation by 298,492 acres compared to the 2003 Proposed Rule. The Revised Designation included a re-evaluation of Unit 13 (which included the proposed RMDP/SCP project area, and the USFWS determined that the portions of the Santa Clarita Valley including the proposed RMDP/SCP project area, are "not essential to the conservation of the coastal California gnatcatcher." (72 FR 72013). The USFWS determined that the excluded area does not have the spatial configuration and primary constituent elements essential to the conservation of the species. Designated critical habitat (Unit 13) extends north to the southern boundary of Newhall Land that includes the High Country SMA/SEA 20, but the nearest proposed development zone in Potrero Canyon is approximately 2.2 miles north of the critical habitat boundary. No recovery plan for the coastal California gnatcatcher has been published.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 174,000 acres of coastal scrub habitat that support, or have the potential to support, the coastal California gnatcatcher, at least during dispersal. Because of the few and scattered observations of the species in the SCWR, however, it is likely that the vast majority of coastal scrub habitat in the watershed is not used by the coastal California gnatcatcher. This vocal species is highly detectable within its breeding range, so most important breeding locations probably have been documented. In addition, especially in the higher elevations of the watershed, temperatures are, on average, much colder and conditions are wetter. Even in the main portion of this species' range in southern California, 99 percent of occurrences are below 2,500 feet (65 FR 63680).

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 20,000 acres of coastal scrub, although it is not expected that the coastal California gnatcatcher uses all of this habitat. Without accounting for past, present, or reasonably

foreseeable mitigation, or the RMDP/SCP project's (which includes Landmark Village) individual contribution to mitigation for loss of suitable habitat, this could be a potential significant cumulative impact on habitat that is suitable for the species. Because this federally listed species occurs sporadically in the watershed and its selection of habitat for dispersal and potentially breeding in the SCRW is not understood, the relative value of coastal scrub habitat in the watershed for this species also is not known. Even a small loss of habitat, if located in a strategic area for dispersal or breeding, could have a substantial adverse effect on the habitat use and distribution of the coastal California gnatcatcher in the SCRW if it disrupted dispersal or breeding activities. The proposed RMDP/SCP project's contribution to this potentially significant cumulative impact is 1,520 acres of coastal scrub, including 231.9 acres of coastal scrub within the Landmark Village project (see **Table 4.4-9**), which could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, could also result in long-term secondary impacts, including habitat fragmentation; wildfire; increased human activity; lighting; pesticides, which may cause secondary poisoning and loss of food resources; harassment by pet, stray, and feral cats and dogs and other mesopredators; and Argentine ants that may prey on nestlings. At the watershed level these secondary effects could be a potential significant cumulative effect. The contribution of the proposed RMDP/SCP project, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

Based on existing survey information, two dispersing coastal California gnatcatcher individuals have been documented in the RMDP/SCP project vicinity and nesting has not been observed. Approximately 154,000 acres of coastal scrub habitat would remain in the watershed, although how much of this habitat is suitable for dispersal or breeding is unknown. There is at least one breeding occurrence in the SCRW in Plum Canyon. In addition, mitigation required by the Newhall Ranch Specific Plan Program EIR and the mitigation measures recommended by this EIR would result in a large, managed open space system (**Subsection 4.4.10, Project Mitigation Measures**). The proposed RMDP/SCP project also includes large mitigation areas in the High Country SMA/SEA 20 and Salt Creek area that would conserve approximately 1,940 acres of coastal scrub and would allow for dispersal by coastal California gnatcatchers.



AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.4-25

Landmark Village EIR

California Gnatcatcher Observations and Habitat within the Greater Newhall Ranch Region



Long-term secondary impacts would be minimized through several mitigation measures in addition to the preservation of 1,940 acres of suitable habitat in the High Country SMA/SEA 20 and Salt Creek area. Lighting restrictions along the perimeter of natural areas would help reduce predation of nest sites by predators and reduce behavioral disturbances and physiological stress. Limited recreational usage and access restrictions within the High Country SMA/SEA 20; control of pet, stray, and feral cats and dogs in or near open space areas; trail signage; and homeowner education regarding special-status resources in preserved natural habitat areas would help protect coastal California gnatcatchers by allowing them to nest and forage without disturbance. Controls on pesticides would reduce the chance of direct and secondary poisoning and loss of food sources.

The coastal California gnatcatcher has not been observed nesting in the RMDP/SCP project area and only one breeding occurrence has been documented in the SCRW. Although suitable habitat is present in the RMDP/SCP project area, it is unknown why this species does not breed on site. Dispersal through the RMDP/SCP project area would not be precluded and this species is still relatively common in the main portion of its range, south of the RMDP/SCP project area.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

California Red-Legged Frog (FT). The California red-legged frog has not been observed in the proposed RMDP/SCP project area during the numerous wildlife surveys conducted since 1992. The species is believed to be absent from the proposed RMDP/SCP project region. The San Marino Environmental Associates (SMEA 1995) report states that Thomas Haglund observed red-legged frogs in the mid-1970s in the Santa Clara River at Fillmore and that "this may represent the last sighting of this species in the Santa Clara River" (p. 37). The Museum of Vertebrate Zoology (U.C. Berkeley 2003) lists 17 specimens from Soledad Canyon (Santa Clara River channel) in its collection from as recently as 1953 (more precise locality data are unavailable). The California Academy of Sciences (CAS 2003) also lists a Soledad Canyon specimen, from 1950. The nearest specific locality upstream of the proposed RMDP/SCP project area is approximately 15 miles away, near the confluence with Agua Dulce Creek. Jennings and Hayes (1994) and the CNDDDB indicate that this species still occurs in the SCRW in sites along San Francisquito Creek five to 10 miles northeast of the proposed RMDP/SCP project area, and in tributaries to the Santa Clara River in Ventura County. The closest documented Ventura County occurrence is in Piru Creek 4.5 miles north of the community of Piru (USFWS 2002A), about seven miles northwest of the proposed RMDP/SCP project area. San Marino Environmental Associates (SMEA 1995) also cite a personal communication from Sam Sweet reporting sighting of red-legged frogs in Piru Creek, but no date for the

observation(s) is provided. San Marino Environmental Associates (SMEA 1995) suggested that it probably has a low probability of colonizing the RMDP/SCP project site because of the relatively long distances to extant occurrences within tributaries upstream and downstream of the RMDP/SCP project area. The only critical habitat unit upstream is the San Francisquito Creek (LOS-1) Unit, which is located approximately five miles northeast of the RMDP/SCP project area. This distance, coupled with the existing stream conditions in San Francisquito Creek (*i.e.*, dry gaps, absence of flowing water during most of the year), likely limit the potential for this species to disperse through this area. Furthermore, existing hydrologic conditions in the Santa Clara River probably limit its potential to establish breeding sites in the RMDP/SCP project area. California red-legged frogs generally avoid large river channels with widely fluctuating flows, because such habitat usually does not permit reproductive activity (Hayes and Jennings 1988). For example, episodic winter flooding typical of the Santa Clara River may dislodge egg masses. Further, fluctuating water levels before summer typical of the Santa Clara River could kill tadpoles before they could metamorphose. Given these characteristics, other portions of the Santa Clara River within the RMDP/SCP project area are also not expected to provide breeding habitat for the species.

Critical habitat was originally designated for the California red-legged frog in 2006 (71 FR 19244-19346), but revised critical habitat was proposed in September 2008 to better characterize those areas containing essential features for the species (73 FR 53492-53680). Based on the proposed revised critical habitat designation, two critical habitat units are in the SCRW: the 4,231-acre San Francisquito Creek (LOS-1) Unit located approximately five miles northeast of the proposed RMDP/SCP project area, and the 8,837-acre Piru Creek (VEN-2) Unit located seven miles northwest of the proposed RMDP/SCP project area. These two critical habitat units were not changed in the 2008 proposed revision. Three other critical habitat units were designated in Ventura County in the proposed revision: the 2,915-acre San Antonio Creek (VEN-1) Unit; the 5,000-acre Upper Las Virgenes Canyon (VEN-3) Unit; and the eastern portion of the 145,121-acre Upper Santa Ynez River and Matilija Creek, which overlaps with the western portion of Ventura County. These three other critical habitat areas are outside the SCRW. No designated critical habitat units for the California red-legged frog include any portion of the proposed RMDP/SCP project site. The Recovery Plan for the Red-legged Frog was published by the USFWS on May 28, 2002 (USFWS 2002B). In Recovery Unit 7, a core area is identified as the Ventura River-Santa Clara River. However, the portion of the Santa Clara River within the proposed RMDP/SCP project area is not in this core area and is not included in the Recovery Plan (USFWS 2002B).

Given these verified records upstream and downstream of the proposed RMDP/SCP project area and elsewhere in the SCRW, the proposed RMDP/SCP project area is within the potential distribution of the California red-legged frog along the Santa Clara River. However, as discussed above, the California red-legged frog is not likely to colonize the site because it has limited long-distance dispersal capabilities, the distances to extant upstream and downstream locations are relatively long, and existing hydrologic

conditions are not conducive to breeding. However, for the purpose of this cumulative analysis, it is assumed that there is some potential for the species to use the RMDP/SCP project area for dispersal and breeding.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 25,000 acres of riparian habitat in the SCRW. However, not all 24,000 acres support California red-legged frogs or could be reasonably expected to support them. As noted above, the documented distribution of the California red-legged frog in the SCRW is very scattered and confined to a few locations.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of 1,030 acres of 25,000 acres of riparian habitat. Without accounting for past, present, or reasonably foreseeable mitigation, or the RMDP/SCP project's individual contribution to mitigation for loss of riparian habitat, the loss of riparian habitat in the SCRW could result in a potential significant impact on potential habitat for the California red-legged frog. However, as described above, the permanent loss of riparian habitat from present and reasonably foreseeable projects would be reduced by CDFG and Corps mitigation requirements consistent with their policies for no net loss of wetlands (although net functions and values/services of wetland habitats may be reduced (Ambrose *et al.* 2006)). The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 230 acres, which, if occupied, could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, could also result in potential long-term secondary effects, including increased human activity; habitat degradation and collection; lighting invasive species, including Argentine ant and invasive plants such as giant reed; pet, stray, and cats and feral dogs; vehicle collisions; and use of pesticides. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

Both the Newhall Ranch Specific Plan Program EIR and this EIR recommend extensive mitigation measures that protect riparian habitat and establish a large, managed open space system (**Subsection 4.4.10, Project Mitigation Measures**). These measures would reduce impacts to the California red-legged frog, if it were to colonize the RMDP/SCP project area in the future. These mitigation measures include preservation, restoration, and enhancement of riparian and wetland habitat. Large areas of suitable habitat for this species would be protected in the River Corridor SMA/SEA 23. The Floodplain Hydraulics Impacts Assessment (PACE 2008, Recirculated Draft EIR, **Appendix 4.4**) found

that there would be no significant impacts in water flows, velocities, depth, sedimentation, or floodplain and channel conditions downstream of the proposed RMDP/SCP project area over the long term as a result of the proposed RMDP/SCP project improvements (although, as noted above, existing hydrologic conditions probably are not conducive to breeding by this species).

The River Corridor SMA/SEA 23 would provide a large, protected open space area that would help also offset long-term secondary impacts. Several specific mitigation measures would also be implemented to control human activities in the River Corridor SMA/SEA 23, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. All lighting along the open space-urban interface would be downcast. Pesticides would be controlled through an integrated pest management (IPM) plan. Argentine ant invasions of upland habitats in the open space system would be monitored and controlled to the extent feasible. Implementation of these measures would allow this species to persist on site after development in the River Corridor SMA/SEA 23 if it were to colonize the site in the future.

In addition to these measures, which would reduce RMDP/SCP project-related impacts to this species, California red-legged frog has not been documented within the RMDP/SCP project area and the nearest known occurrences are five and seven miles away, respectively.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Golden Eagle (CFP). The golden eagle has been occasionally observed during the annual bird surveys conducted from 1988 through 2008 along the Santa Clara River within the riparian scrub and woodland habitat. Off site, they were also observed along the Santa Clara River east and west of the proposed RMDP/SCP project site. No nesting has been observed in the proposed RMDP/SCP project area. In winter 2008, one juvenile and one pair was seen in upper Potrero Canyon and it is believed that this is likely a resident pair, but no nest site has been identified to date (Bloom Biological 2008). In addition, in March 2008 a helicopter survey was conducted over Newhall Land property to search for raptor nests on cliffs and in steep canyons, with the focus on upland areas of the ranch. One active golden eagle nest was located off Newhall Land property on a north-facing cliff at the top of Dewitt Canyon, which is a drainage off Pico Canyon. In fall 2008 two golden eagles were observed resting on a rugged outcrop in the upper portion of the Salt Creek area in Ventura County (Bedford 2009). The CNDDDB contains three records for past nest sites for the golden eagle in Los Angeles County and two records for Ventura County, but none of the occurrences are in the SCRW—four of the five are in the Santa Monica Mountains

and one is in the Tehachapi Mountains. The SCRW supports a large amount of potential nesting and foraging habitat in the SCRW, especially in the Los Padres National Forest, and in the RMDP/SCP project site, within the preserved areas of the High Country SMA/SEA 20 and Salt Creek area.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), within the SCRW there are approximately 257,000 acres of suitable nesting and foraging habitat (California annual grassland, agriculture, disturbed land, coastal scrub, and oak woodland) for the golden eagle, although it cannot be assumed that golden eagles actually use all 257,000 acres. Foraging territories are related to nest locations, prey density and availability, and the openness of terrain. Even though home ranges, which probably reflect an individual's total foraging territory, can be large, individuals focus their activity in a smaller core area that provide these resources (Marzluff *et al.* 1997). Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 24,000 acres of 257,000 acres of suitable nesting and foraging habitat. It is assumed for this analysis that some of this habitat could occur in core activity areas, the loss of which could alter the individual's use of its territory and potentially cause nest abandonment. Without accounting for past, present or reasonably foreseeable mitigation (particularly for upland habitats), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of habitat in the SCRW potentially would result in a potential significant cumulative impact on suitable habitat for the golden eagle. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 4,905 acres, which could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including an increased potential for collisions with phone towers, power lines, and utility poles, resulting in physical injury or death as a result of the collision or from electrocution. Reproductive success also could be affected by increased noise; lighting; pesticides that may cause secondary poisoning and loss of prey; human disturbances of nest sites; and pet, stray, and feral cats and dogs. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The mitigation required by both the Newhall Ranch Specific Plan Program EIR and this EIR (**Subsection 4.4.10, Project Mitigation Measures**) would result in a large, managed open space system comprised of the High Country SMA/SEA 20, Salt Creek area, and River Corridor SMA/SEA 23 that provides approximately 4,070 acres of suitable foraging and nesting habitat for the golden eagle. This open space system would also help protect the golden eagle from long-term secondary impacts, such as collisions with phone towers, power lines, and utility poles, and "edge effects" caused by human activity. Several

specific mitigation measures for long-term secondary effects would also be implemented. Lighting restrictions along the perimeter of natural areas would help reduce impacts to potential nest sites. Limited recreational usage and access restrictions within the High Country SMA/SEA 20, control of pet, stray, and feral cats and dogs in or near open space areas, trail signage, and homeowner education regarding special-status resources in preserved natural habitat areas would help protect golden eagles during foraging activities and potential nest sites. Controls on pesticides (including rodenticides) would reduce the chance of accidental poisoning and potential loss of prey. Installation of new or relocation of existing phone and cell towers, power lines, and utility poles in the High Country SMA/SEA 20 and Salt Creek area would be coordinated with CDFG and structures would be designed in accordance with Avian Power Line Interaction Committee (APLIC 2006) guidelines and operated with anti-perching devices to help reduce collisions and electrocutions of golden eagles.

In addition to these measures, which would reduce RMDP/SCP project-related impacts to this species, golden eagle is known to occur within much of the watershed, including National Forest system lands. While this species has not been documented to nest within the RMDP/SCP project area, the proposed RMDP/SCP project would not impede use of the High Country SMA/SEA 20 and Salt Creek area or other open space within the watershed for foraging or nesting.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Least Bell's Vireo (FE, CE). The least Bell vireo's breeding distribution extends to eight California counties: Imperial, Kern, Los Angeles, Riverside, Santa Barbara, San Bernardino, San Diego and Ventura (CDFG 2005). About half of the least Bell vireo in California occur at Camp Pendleton in San Diego County (CDFG 2005). The least Bell's vireo nests in moderate numbers in the SCRW. The USFWS (2006) conducted a five-year status review of the least Bell's vireo that compiled comprehensive survey data for five-year increments from 1977 to 2005, and from which the USFWS estimated least Bell's vireo territories.²⁶ An estimated 173 territories occurred in Los Angeles and Ventura counties as of 2006, which accounted for about 6 percent of the estimated total of 2,968 territories in California (USFWS 2006; **Table 4.4-26**). Of the 173 territories in Los Angeles and Ventura counties, 119 (69 percent) occur in the Santa Clara River population unit identified in the Draft Recovery Plan (USFWS 1998). Annual survey

²⁶ It should be noted that these data represent a minimum estimate of least Bell's vireo territories because they are a composite of multiple surveys covering different reaches and may exclude large stretches of suitable habitat that were not surveyed (USFWS 2006); in other words, these data do not represent a single snapshot of the entire occupied vireo range.

data have been collected for the least Bell's vireo in the proposed RMDP/SCP project vicinity between 1988 and 2007, including the Specific Plan and VCC planning areas and a portion of the Entrada planning area, as well as adjacent areas of Newhall Land property from the Las Brisas Bridge crossing on the west in Ventura County to I-5 on the east. Least Bell's vireo, including breeding pairs, territorial males, and/or nests, have been observed almost every year along the Santa Clara River within the Specific Plan area, and over multiple years within the VCC planning area and adjacent to the proposed RMDP/SCP project site in Castaic Junction in riparian scrub habitat (**Figure 4.4-26**), but with yearly fluctuations in level of occupancy and breeding activity.

Table 4.4-26
Estimate of Least Bell's Vireo Territories by County¹

Estimate of Least Bell's Vireo Territories (and Percentage of the Total Population) for a Given Range of Years²					
County	1977–1985³	1986–1990	1991–1995	1996–2000	2001–2005
San Diego ⁴	223 (77%)	401 (76%)	1,118 (78%)	1,899 (76%)	1,609 (54%)
Riverside ⁵	29 (10%)	50 (9%)	223 (16%)	395 (16%)	898 (30%)
Orange	1 (<1%)	3 (1%)	16 (1%)	68 (3%)	177 (6%)
San Bernardino	0 (0%)	2 (<1%)	5 (<1%)	20 (1%)	87 (3%)
Los Angeles	6 (2%)	1 (<1%)	4 (<1%)	13 (1%)	56 (2%)
Ventura ⁶	5 (2%)	8 (2%)	35 (2%)	86 (3%)	117 (4%)
Santa Barbara ⁷	26 (9%)	57 (11%)	32 (2%)	12 (<1%)	12 (<1%)
Inyo	0 (0%)	4 (1%)	5 (<1%)	0 (0%)	11 (<1%)
Kern	0 (0%)	0 (0%)	1 (<1%)	0 (0%)	0 (0%)
Monterey	0 (0%)	3 (1%)	0 (0%)	0 (0%)	0 (0%)
San Benito	1 (<1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Stanislaus	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (<1%)
<i>Total</i>	<i>291</i>	<i>529</i>	<i>1,439</i>	<i>2,493</i>	<i>2,968</i>
<i>Percent Increase from Previous Period</i>	<i>—</i>	<i>82%</i>	<i>172%</i>	<i>73%</i>	<i>20%</i>
<i>Percent Increase since Listing</i>	<i>—</i>	<i>82%</i>	<i>394%</i>	<i>753%</i>	<i>920%</i>

¹ Reproduced from USFWS (2006).

² Estimates based on composite of surveys across the specified range of years.

³ From the original listing (51 FR 16474).

⁴ Approximately 50% or greater from Camp Pendleton.

⁵ Approximately 90% or greater from the Santa Ana River and its tributaries.

⁶ Approximately 90% or greater from the Santa Clara River.

⁷ Approximately 90% or greater from the Santa Ynez River.

The USFWS made a final critical habitat designation for the least Bell's vireo on February 2, 1994 (59 FR 4845). The USFWS vireo critical habitat designation covers approximately 38,000 acres at 10 different

locations in six counties in southern California: Santa Barbara, Ventura, Los Angeles, San Bernardino, Riverside, and San Diego. The proposed RMDP/SCP project site includes a portion of the Santa Clara River critical habitat unit located in Ventura and Los Angeles counties (**Figure 4.4-26, Least Bell's Vireo Critical Habitat in Santa Clara River Critical Habitat Unit**). The Santa Clara River unit includes all land within a 3,500-foot-wide zone along the Santa Clara River south of State Route 126 (SR-126) from a point approximately 2.3 miles east of the intersection of Main Street and SR-126 in Piru on the west to the intersection of SR-126 and The Old Road and eastward and southward along The Old Road to its intersection with Rye Canyon Road. The Santa Clara River critical habitat unit comprises approximately 4,410 acres (approximately 12 percent) of the total 38,000 acres of least Bell's vireo critical habitat. Of this, least Bell's vireo critical habitat within the proposed RMDP/SCP project area totals 2,252 acres (**Figure 4.4-26**). However, 405 acres of the 2,252-acre least Bell's vireo critical habitat designation within the proposed RMDP/SCP project area consists of primary constituent elements of vireo critical habitat.

A Draft Recovery Plan for the Least Bell's Vireo (*Vireo bellii pusillus*) was published by the USFWS in 1998 (USFWS 1998). The recovery strategy focuses on two major causes of decline of the species: (1) habitat loss and degradation, and (2) brown-headed cowbird parasitism. The Draft Recovery Plan identified 14 vireo "population/metapopulation units," including the Santa Clara River population unit. The Draft Recovery Plan does not identify the geographic limits of the Santa Clara population unit, simply stating that "habitat for the [vireo] occurs in patches along much of the river, with location and quality varying from year to year as conditions in the river change following winter storm events" (USFWS 1998, p. 58).

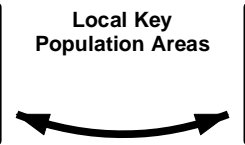
Fourteen federal biological opinions were issued for the least Bell's vireo between 1993 and 2006 in the SCRW (**Table 4.4-20**). CDFG has recently issued four take authorizations for least Bell's vireo in the general regional vicinity of the proposed RMDP/SCP project (**Table 4.4-21**).

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 25,000 acres of riparian habitat in the SCRW. However, not all 25,000 acres support least Bell's vireos or could be reasonably expected to support them. Because the vireo primarily is limited to the Santa Clara River within the watershed, it is likely that a relatively large proportion of riparian habitat in the SCRW is not occupied because it does not support the primary constituent elements of vireo habitat. As described above, the reach of the Santa Clara River within the RMDP/SCP project area consistently has supported a breeding population since surveys began in 1988 and is designated critical habitat for this species.



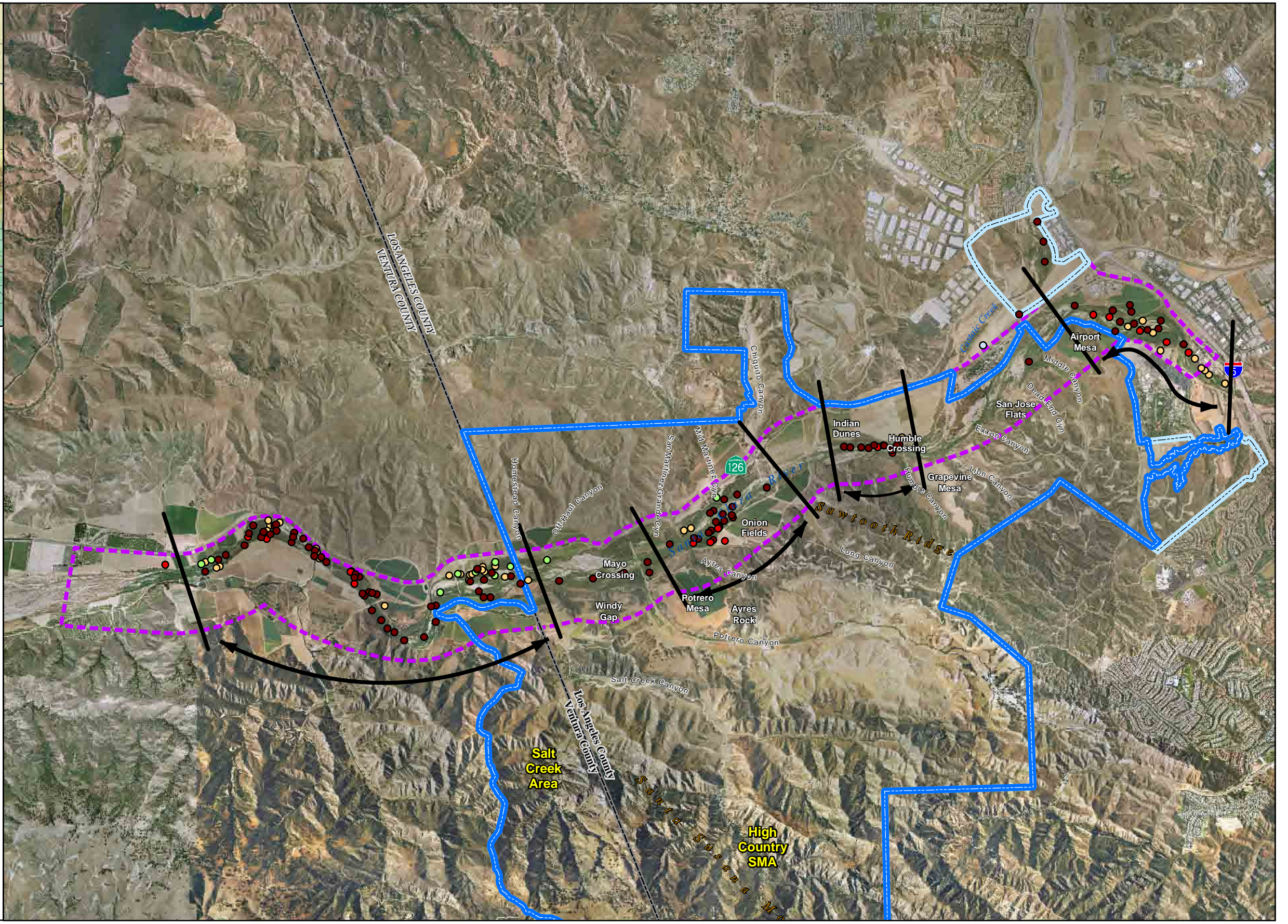
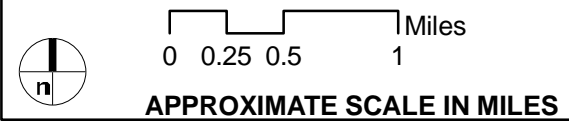
Legend

- RMDP Boundary
- SCP Boundary
- County Boundary
- Least Bell's Vireo Critical Habitat in Santa Clara River Critical Habitat Unit - USFWS



Least Bell's Vireo Locations

- 1980 - 1989
- 1990 - 1995
- 1996 - 1999
- 2000 - 2003
- 2004 - 2007



AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.4-26

Landmark Village EIR



Least Bell's Vireo Critical Habitat in Santa Clara River Critical Habitat Unit

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of 1,030 acres of the 25,000 acres of riparian habitat within the watershed; however, the proportion of occupied least Bell's vireo habitat that could be impacted by development is probably substantially higher because most occupied habitat is probably in the Santa Clara River and the larger tributaries where development pressure is higher. Smaller and more remote drainages that support riparian habitat, but which is less likely to be occupied by the vireo, probably are under less development pressure. Without accounting for past, present or reasonably foreseeable mitigation, or the RMDP/SCP project's individual contribution to mitigation for loss of riparian habitat, the loss of 1,030 acres of riparian habitat in the SCRW could be a potential significant cumulative impact on potential habitat for the least Bell's vireo. However, as described above, the permanent loss of riparian habitat from past, present, and reasonably foreseeable cumulative development would be reduced by CDFG and Corps mitigation requirements consistent with their policies for no net loss of wetlands (although net functions and values/services of wetland habitats may be reduced (Ambrose *et al.* 2006)). The contribution of the proposed RMDP/SCP, the Landmark Village project, to this potential significant cumulative impact is 230 acres, which could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including nest parasitism by cowbirds; traffic noise; nighttime illumination; increased human activity; pesticide use resulting in loss of prey and/or secondary poisoning; harassment and predation by pet, stray, and feral cats and dogs; and increased predation by mesopredators. Habitat quality for the least Bell's vireo could be reduced by diminished water quality and invasion by exotic plant species. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The mitigation measures required by both the Newhall Ranch Specific Plan Program EIR and this EIR (**Subsection 4.4.10, Project Mitigation Measures**) would protect riparian habitat and establish a large, managed open space system, all of which would reduce impacts to the least Bell's vireo. This mitigation would result in the preservation and management of at least 332 acres of suitable habitat, primarily in the River Corridor SMA/SEA 23, that would be available for future breeding populations of least Bell's vireo. These mitigation measures also include restoration and enhancement of riparian and wetland habitat. Specific measures to reduce secondary impacts include controls on public access; invasive species controls; conformance with permits from federal and state agencies for impacts to wetlands and water quality (*i.e.*, NPDES and section 401 Permits); lighting controls; pesticides controls; and cowbird trapping.

In addition to site-specific mitigation measures, and mitigation anticipated for other present and reasonably foreseeable project impacts to achieve the no net loss of riparian acreage, recent population estimates for the vireo indicate that the breeding populations are expanding both in range and size as a result of restoration and enhancement of riparian habitat and management of brown-headed cowbirds (USFWS 2006). Within the watershed breeding vireo occur both upstream and downstream of the proposed RMDP/SCP project in areas that would not be subject to disturbance of present and reasonably foreseeable projects.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Ringtail Cat (CFP). The ringtail cat was not observed in the proposed RMDP/SCP project area during track/scent station monitoring for mammals or during numerous wildlife surveys conducted in the Specific Plan area. The nearest recent documented occurrence of ringtail cat is a 2007 observation in Elderberry Canyon approximately 0.5 mile above Castaic Dam in a narrow, rocky canyon (Huntley 2009). There are also two recorded occurrences of ringtail cat in Los Angeles County: in the Santa Monica Mountains and on the southern flank of the San Gabriel Mountains (Belluomini 1980). If this species occurs in the SCRW, it is most likely to occur in canyons and ravines associated with water sources and riparian and woodland habitats, including lower elevation oak woodlands, higher elevation coniferous forests, and juniper and pinyon woodlands. For this reason, habitat was modeled using riparian vegetation communities.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), habitat within the SCRW considered suitable for ringtail cats consists of approximately 25,000 acres of riparian habitat. However, habitat used by ringtail cats is strongly associated with microhabitats that include perennial water sources, rocky outcrops in canyons, tree cavities, *etc.* Although there have been few observations of ringtail cats in the region, this species could occur within suitable habitat within the watershed. It is likely that most of this suitable habitat is not occupied, probably due to a lack of habitat elements necessary for occupation, such as permanent water sources.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of 1,030 acres of 25,000 riparian habitat. Without accounting for past, present or reasonably foreseeable mitigation, or the RMDP/SCP project's individual contribution to mitigation for loss of riparian habitat, the loss of 1,030 acres of riparian habitat in the SCRW could be a potential significant cumulative impact on potential habitat for the ringtail cat. The contribution of the proposed

RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 230 acres, which, if the species were present within the RMDP/SCP project area, could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects including increased human activity; habitat fragmentation; increased vehicle collisions; nighttime lighting; increased predation; and pesticides. If the ringtail were present, at the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The mitigation measures required by both the Newhall Ranch Specific Plan Program EIR and this EIR (**Subsection 4.4.10, Project Mitigation Measures**) would reduce these impacts to a less-than-significant level. Specifically, approximately 1,170 acres of suitable habitat for this species would be preserved and managed in a large open space system composed of the River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek area. Several specific mitigation measures also would be implemented to reduce potential long-term secondary effects, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. Pesticides, including rodenticides, would be controlled through an integrated pest management (IPM) plan.

In addition to these measures, which reduce RMDP/SCP project-related impacts, this species has not been identified in the RMDP/SCP project area and is not expected to occur. Ringtail cat is expected to occur within the SCRW, but only in association with its required microhabitats. Where this species has been observed within the SCRW, it occurs within National Forest system lands.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Southern Steelhead (FE). The range of the southern steelhead is from the Santa Maria River along the San Luis Obispo-Santa Barbara County line in the north to the Tijuana River just north of the U.S.–Mexico border in the south. Their historic range within many of these coastal streams was limited by natural barriers, above which no known southern California populations of native rainbow trout or steelhead previously existed. Definitive records of southern steelhead are not available for many of the small coastal streams within the Southern ESU; however, it is believed that most of the streams were inhabited

by southern steelhead. The distribution of southern steelhead within the ocean is not well known, but some evidence indicates that they remain relatively close to the coast and even near the mouths of their natal streams which contrasts with other Pacific salmonid species that range widely in the ocean (NMFS 2007).

The southern steelhead has been recorded within the last decade in Ventura County in the Santa Clara River and the Ventura River. Within the Santa Clara River drainage, southern steelhead historically inhabited Piru Creek, Sespe Creek, Santa Paula Creek, Hopper Creek, and possible Pole Creek (Titus *et al.* n.d.). Presently, southern steelhead occur in the Santa Clara River watershed in Piru Creek between the confluence with the Santa Clara River and Santa Felicia Dam, in Sespe Creek, in Santa Paula Creek, and possibly Hopper and Pole Creeks (Stoeker and Kelly 2005). There is no historic record of steelhead use of the Santa Clara River or tributaries upstream of Piru Creek and the Dry Gap approximately five miles downstream of the RMDP/SCP project area.

The southern steelhead was listed as federally endangered in 1997 in the Southern Evolutionarily Significant Unit (ESU) that extends from the Santa Maria River in the north southward to Malibu Creek without Critical Habitat (62 FR 43937-43954). In 2002 the range of the Southern California ESU was extended south to the United States-Mexico Border (67 FR 21586-21598). In 2005, the Final Critical Habitat Designation for the Southern California Coast ESU was determined (70 FR 37159-37204). In 2006 the endangered status of the southern steelhead was re-affirmed for 10 Distinct Population Segment (DPS) of West Coast Steelhead (71 FR 834).

In the Santa Clara River watershed, designated critical habitat includes the Santa Clara River and its tributaries from Piru Creek (below Santa Felicia Dam) to the Santa Clara River confluence and downstream to the Pacific Ocean. The upstream extent of designated critical habitat is approximately five miles downstream of the RMDP/SCP project area in Ventura County, California.

A Recovery Plan for southern steelhead, as required by the FESA, has not been published to date. However, a Southern California ESU recovery team has been formed and is currently working on a draft Recovery Plan for southern steelhead within the Santa Clara River and the Southern California ESU. In September 2007, a Federal Recovery Outline for the DPS of southern steelhead was released (NMFS 2007).

The project-level impacts analysis includes a characterization of existing conditions along the Santa Clara River within the RMDP/SCP project area with respect to habitat suitability for the southern steelhead. ENTRIX (2009) conducted quantitative fish habitat surveys of the Santa Clara River and concluded that the RMDP/SCP project reach channel is very low gradient runs and riffles and is dominated by sandy substrate with little or no riparian canopy along the flowing stream. It is not expected that southern steelhead could successfully spawn in this reach due to inadequate substrate material (*e.g.*, lack of gravel for redd development) and sub-optimum water quality conditions related to wastewater outflows from

upstream of the RMDP/SCP project reach. The River habitat for southern steelhead also lacks requisite channel structure and pool habitat necessary to support rearing. If the southern steelhead could migrate into the RMDP/SCP project reach, requiring passage through the Dry Gap area (an area downstream of the Los Angeles County/Ventura County line where surface flows in the river are lost to the Piru groundwater basin), it would face significant challenges in successfully completing its life history cycle due to unsuitable River and tributary spawning and rearing habitat. For these reasons, the project-level analysis was conducted under the assumption that southern steelhead and its habitat for spawning and rearing are not present in the RMDP/SCP project area, and thus concluded that impacts to southern steelhead spawning and rearing habitat would be less than significant for the RMDP project. It was also concluded that no impacts to habitat would occur as a result of buildout of the Specific Plan, VCC, and Entrada areas. For these reasons, the proposed RMDP/SCP project is not expected to contribute to a potential significant cumulative impact on habitat for steelhead in the SCRW that may occur as a result of downstream projects.

With respect to potential impacts on individuals, the project-level analysis assumed that vagrant southern steelhead could be found during surveys or fish exclusion activities prior to construction, although this event is considered to be very unlikely over the approximately 20-year duration of the RMDP/SCP project due to the lack of historical records for this species upstream of Piru and the Dry Gap. As noted above, these individuals would not be expected to spawn in the RMDP/SCP project area. The impact to southern steelhead individuals resulting from the proposed RMDP/SCP project, therefore, was determined to be less than significant. For these reasons, the proposed RMDP/SCP project is not expected to contribute to a potential significant cumulative impact to individual steelhead that may occur as a result of downstream projects.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, could result in potential long-term secondary effects such as hydrologic, geomorphic, and water quality impacts. It was determined that the proposed RMDP/SCP project has the potential to affect southern steelhead individuals and habitat downstream of the RMDP/SCP project area through short- or long-term hydrologic, geomorphic, or water quality alterations of the River. These potential impacts include long-term effects associated with operation of RMDP facilities and buildout of the RMDP/SCP project area such as physical changes in the River and increased discharges. Specific impacts include alterations in base flows, timing and duration of flood flows, biochemical changes, condition and composition of the substrate, aquatic and riparian vegetation (including exotic species), and water temperatures, as well as increased pollutants from irrigation runoff and increased runoff from roadways. Additional secondary impacts associated with increased human presence include incidental litter and trash from recreation activity; impacts such as fecal material from pet, stray, and feral cats and dogs entering the aquatic system; and increased

predation by exotic predators, such as bullfrogs and non-native fish. However, due to the approximately five-mile distance from documented occurrences of southern steelhead at Piru Creek and the intervening Dry Gap, these potential secondary effects would be substantially attenuated before they could affect any downstream habitat and individuals. Therefore, the proposed RMDP/SCP, including the Landmark Village project, is not expected have a considerably cumulatively contribution to potential significant secondary cumulative impacts in the SCRW.

Although the RMDP/SCP project would not contribute to potential significant secondary impacts to the steelhead in the SCRW, and, therefore, no mitigation for secondary cumulative impacts is required, the combined mitigation required by the Newhall Ranch Specific Plan Program EIR and this EIR (**Subsection 4.4.10, Project Mitigation Measures**) would additionally reduce the potential for secondary impacts to southern steelhead and its habitat downstream of the RMDP/SCP project site. Impacts such as increased chemical pollutants, sedimentation, and increased human activity would be mitigated by measures such as the protection and management of the River Corridor SMA/SEA 23, creation of buffer areas between the River Corridor SMA/SEA 23 and development, water quality requirements, and restrictions on public access. PACE (2008, Recirculated Draft EIR, **Appendix 4.4**) found that there would be no significant impacts to water flows, velocities, depth, sedimentation, or floodplain and channel conditions downstream of the RMDP/SCP project area over the long term as a result of the proposed RMDP/SCP project improvements. Furthermore, the Newhall Ranch Wastewater Reclamation Plant (WRP) would be a near-zero discharge facility, and only limited discharge from the WRP to the Santa Clara River would occur during the winter months. Based on an analysis of post-development conditions within the Dry Gap (GSI Water Solutions 2008, Recirculated Draft EIR, **Appendix 4.3**), it was determined that the future WRP discharge would not affect the seasonality (*i.e.*, ephemeral nature) of flows through the Dry Gap.

Impacts to southern steelhead habitat and vagrant individuals and downstream secondary effects would be less than significant. Potential impacts would be further reduced by a set of mitigation measures for other special-status fish that occur in the RMDP/SCP project area (arroyo chub, Santa Ana sucker, unarmored threespine stickleback) required by the Newhall Ranch Specific Plan Program EIR and recommended by this EIR (**Subsection 4.4.10, Project Mitigation Measures**). Therefore, the proposed RMDP/SCP project would not contribute to potential significant cumulative impacts to southern steelhead in the SCRW.

Southwestern Willow Flycatcher/Willow Flycatcher (FE, CE). Breeding populations of the willow flycatcher exist in isolated meadows of the Sierra Nevada and along the Kern, Santa Margarita, San Luis Rey and Santa Ynez Rivers in southern California (CDFG 2005). Breeding populations of the southwestern willow flycatcher exist in Kern, Santa Barbara and San Diego counties and several other locations in southern California (CDFG 2005). Outside of California, breeding populations of the

southwestern willow flycatcher exist in Arizona, Colorado, Nevada, New Mexico and Utah (CDFG 2005). The willow flycatcher has a sporadic breeding distribution throughout California, where three of the subspecies occur, including little willow flycatcher (*E. t. brewsteri*), *E. t. adastus* (which has no common name other than "willow flycatcher"), and southwestern willow flycatcher (*E. t. extimus*) (Craig and Williams 1998; Sedgwick 2000). The different subspecies of willow flycatcher each occupy distinct breeding ranges and have subtle differences in color and morphology (Sogge *et al.* 1997). The southwestern willow flycatcher was formerly a common summer resident throughout California, but has been extirpated from most of its historical breeding range in the state. The smallest of the breeding populations consists of approximately five pairs and the largest is approximately 50 pairs. The number of southwestern willow flycatchers in California has been estimated at approximately 200, recorded at 22 locations within 13 drainages (Finch *et al.* 2000).

The full species willow flycatcher has been detected almost every year within the River corridor in the proposed RMDP/SCP project area during the focused bird surveys conducted from 1988 to 2007, but no nesting southwestern willow flycatchers have been confirmed on site. All of the observations of willow flycatchers within the region were determined to be migrants because they were only detected once and/or early in the breeding season and June-July period when the southwestern willow flycatcher would be expected if nesting on site. The most recent nearby documented breeding locations for the southwestern willow flycatcher are from the Santa Clara River near Fillmore, downstream of the RMDP/SCP project area. Two breeding pairs were observed in 2006 by J. Gallo, with one nest producing two successful fledglings and the other nest failing (Root 2008). Currently, the proposed RMDP/SCP project area appears to be a migratory stop for one or more of the subspecies of willow flycatcher, but breeding populations of the southwestern willow flycatcher could expand to the proposed RMDP/SCP project area in the future.

On October 19, 2005, critical habitat was designated for the southwestern willow flycatcher (70 FR 60886-61009). Critical habitat in California is designated in Kern, Santa Barbara, San Bernardino, and San Diego counties, but there is no designated critical habitat in the SCRW. The Final Recovery Plan for the Southwestern Willow Flycatcher was published by the USFWS on August 30, 2002 (USFWS 2002C). The proposed RMDP/SCP project area is located within the Coastal California Recovery Unit of the Final Recovery Plan, and establishment of new territories is part of the recovery criteria for the subspecies. Within the Santa Clara River, the reach from Bouquet Canyon Road to the Pacific Ocean, which crosses through the proposed RMDP/SCP project area, has been identified as a Management Unit where recovery actions should be focused (USFWS 2002C).

Six federal biological opinions were issued for the southwestern willow flycatcher between 1993 and 2006 in the SCRW (**Table 4.4-20**). The CDFG has recently issued four take authorizations for southwestern willow flycatchers in the general regional vicinity of the proposed RMDP/SCP project (**Table 4.4-21**).

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 25,000 acres of riparian habitat in the SCRW that provide potential habitat for migrating and nesting willow flycatchers. However, not all 25,000 acres support willow flycatchers or southwestern willow flycatchers or could be reasonably expected to support them. Based on the few documented nesting locations in the SCRW, only a small proportion of this habitat would be expected to support nesting, probably due to a lack of constituent habitat elements necessary for this species. As noted above, within the vicinity of the RMDP/SCP project area, breeding has only been documented in the Fillmore area, located approximately 13 miles to the west of the RMDP/SCP project area. A larger proportion of this habitat is expected to support temporarily migrating birds based on the regular observation of migrating individuals in the RMDP/SCP project area.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of 1,030 acres of 25,000 acres of riparian habitat within the watershed; however, the proportion of habitat potentially used for migration and nesting that could be impacted by development is probably substantially higher because most of this potential habitat is probably in the Santa Clara River and the larger tributaries where development pressure is higher. Smaller and more remote drainages that support riparian habitat, but which is less likely to be used by the southwestern willow flycatcher/willow flycatcher, probably are under less development pressure. Without accounting for past, present or reasonably foreseeable mitigation, or the RMDP/SCP project's individual contribution to mitigation for loss of riparian habitat, the loss of 1,030 acres of riparian habitat in the SCRW could be a potential significant impact on potential habitat for the southwestern willow flycatcher/willow flycatcher. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant impact is 230 acres, which could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP, also could result in potential long-term secondary effects, include nest parasitism by cowbirds; traffic noise (southwestern willow flycatcher is unlikely to nest in close proximity to bridge crossing of the Santa Clara River due to traffic noise); nighttime illumination; increased human activity; pesticide use resulting in loss of prey and/or secondary poisoning; harassment and predation by pet, stray, and feral cats and dogs; and increased predation by mesopredators. Habitat quality for the southwestern willow flycatcher/willow flycatcher could be reduced by diminished water quality and invasion by exotic plant species. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The Newhall Ranch Specific Plan Program EIR and this EIR recommend extensive mitigation measures that would protect riparian habitat and establish a large, managed open space system, all of which would

reduce impacts to the southwestern willow flycatcher/willow flycatcher (**Subsection 4.4.10, Project Mitigation Measures**). This mitigation would result in the preservation and management of at least 332 acres of suitable habitat, primarily in the River Corridor SMA/SEA 23, that would be available for migrating individuals and a breeding population of the southwestern willow flycatcher. These mitigation measures also include restoration, and enhancement of riparian and wetland habitat. Species measures to reduce potential long-term secondary impacts include controls on public access, invasive species controls, conformance with permits from federal and state agencies for impacts to wetlands and water quality (*i.e.*, NPDES and section 401 permits), lighting controls, pesticides controls, and cowbird trapping.

In addition to the measures described above, which reduce RMDP/SCP project-related impacts, this species has not been observed to breed in the RMDP/SCP project area but is known to use the RMDP/SCP project area as a migratory stop-over. Most of the recorded breeding populations of this species occur well outside of the watershed. While typical nesting habitat (structure of riparian canopy, separation from disturbance, *etc.*) associated with this species does not occur within the RMDP/SCP project area, the documented occurrence of the breeding population downstream in the Fillmore area suggests that expansion of the breeding population into the RMDP/SCP project area could occur. Because of the extensive proposed riparian habitat mitigation, the proposed RMDP/SCP project would not preclude the expansion of the breeding population onto the RMDP/SCP project area.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Unarmored Threespine Stickleback (FE, CE, CFP). Unarmored threespine stickleback populations exist in five California counties: Los Angeles, San Bernardino, San Diego, San Luis Obispo, and Ventura (CDFG 2005). Surveys for the unarmored threespine stickleback over several years have documented the species within the Santa Clara River portion of the RMDP/SCP project area. The unarmored threespine stickleback is confined to perennial aquatic habitat in the Santa Clara River, which comprises a small portion of the wetland/riparian habitat in the River and has high temporal variability. The proposed RMDP/SCP project area is within the Del Valle Zone of the designated essential habitat for this species (**Figure 4.4-27, Habitat in RMDP/SCP for Unarmored Threespine Stickleback**) (USFWS 1985).²⁷ The species is known in two other areas of the SCRW that are also designated as essential habitat: San Francisquito Creek and Soledad Canyon.

²⁷ "Essential habitat" is a term that appears in the USFWS' 1985 Unarmored Threespine Stickleback Recovery Plan (Revised). It coincides with the area proposed in 1980 as unarmored threespine stickleback critical habitat. (USFWS 1985, p. 7.) In 2002, USFWS determined that the 1980 proposed designation of unarmored threespine stickleback critical habitat should not be made final. (67 FR 58580) As a result, the term "essential habitat" lacks any regulatory significance.

On November 17, 1980, the USFWS proposed designating approximately 51 kilometers (31.7 miles) of streams in Los Angeles and Santa Barbara counties as critical habitat for the unarmored threespine stickleback (45 FR 76012). However, on September 17, 2002, the USFWS determined that a designation of critical habitat for unarmored threespine stickleback should not be made (67 FR 58850-58582), a determination that was upheld by the Ninth Circuit Court of Appeals in 2006 (*Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv.* (9th Cir. 2006) 450 F.3d 930).

The Unarmored Threespine Stickleback Recovery Plan (Revised) was published by the USFWS on December 26, 1985 (USFWS 1985). The Recovery Plan designated three areas as very important for the survival and recovery of the species: (1) two disjunct reaches of the Santa Clara River in Los Angeles County; (2) a short reach of San Francisquito Canyon; and (3) and the lowermost 8.4 miles in San Antonio Creek in Santa Barbara County. One of the reaches in the Santa Clara River is the area from San Martinez Grande Canyon upstream to the I-5 bridge, which runs through the proposed RMDP/SCP project site and is the same area proposed but later rejected as critical habitat (45 FR 76012, 67 FR 58850-58582).







Thirteen federal biological opinions were issued for the unarmored threespine stickleback between 1993 and 2006 in the SCRW (**Table 4.4-20**). The CDFG has recently issued three take authorizations for other species in the general regional vicinity of the proposed RMDP/SCP project, which authorizations also discussed, but did not authorize take of, unarmored threespine stickleback (**Table 4.4-21**).

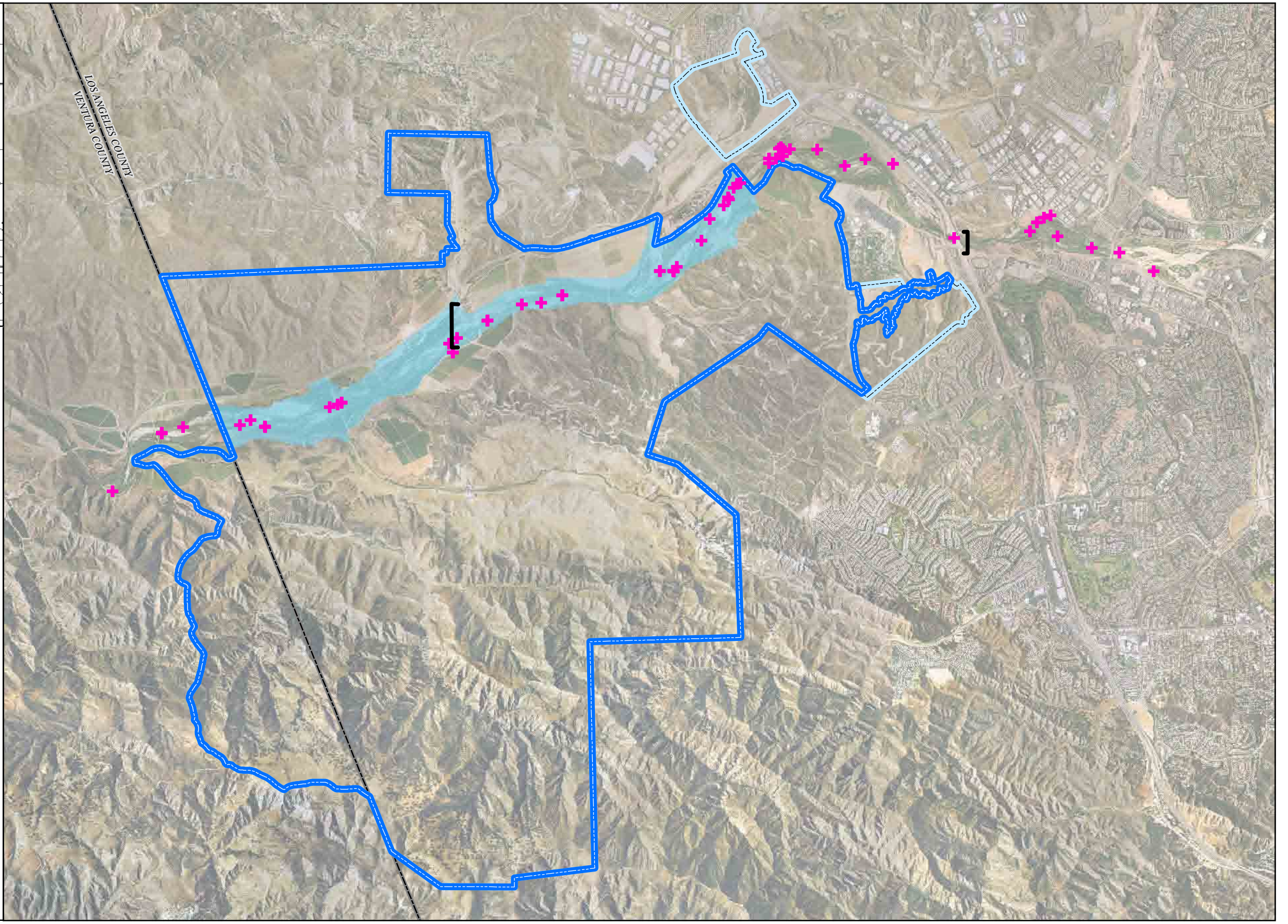
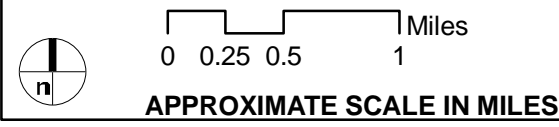
Because the unarmored threespine stickleback is confined to perennial aquatic habitat in the Santa Clara River that is subject to high temporal variability, suitable aquatic habitat was not quantified for the purpose of the impact analysis in this EIR. ENTRIX (2009) concluded that no long-term, permanent significant effects on unarmored threespine stickleback habitat would occur as a result of implementation of the RMDP and buildout of the Specific Plan, VCC, and Entrada planning areas, because the general morphology of the Santa Clara River, adjacent rearing habitat, and high-flow riparian refugia would not be substantially altered. Further, there would be no impacts to unarmored threespine stickleback habitat resulting from impacts to tributaries to the Santa Clara River, due to the absence of unarmored threespine stickleback, perennial flows, and poor aquatic habitat quality. None of the tributaries have surface water connectivity with the Santa Clara River, except for Middle and Potrero canyons, which have substantial blockages (bedrock headcuts or cascades) that are impassable to fish (ENTRIX 2009).

Some temporary impacts to habitat would occur when construction occurs directly in aquatic habitat, such as the active stream channel. Bridge construction in particular could directly affect aquatic habitat occupied by unarmored threespine stickleback through direct impacts to the flowing stream, stream diversion, and dewatering when construction is occurring within the River corridor. However, such temporary impacts would not contribute to a potential significant cumulative effect of projects in the SCRW.



Legend

-  RMDP Boundary
-  SCP Boundary
-  County Boundary
-  River Corridor SMA
-  Unarmored Threespine Stickleback Locations
-  Current USFWS Del Valle Stickleback Essential Habitat From Draft Recovery Plan



AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.4-27

Landmark Village EIR

Construction-related impacts on individuals (including adults and juveniles), if not mitigated, could result in a cumulatively considerable contribution to a potential significant cumulative impact in the SCRW because of the local nature and vulnerability of this species in the Santa Clara River. However, the Newhall Ranch Specific Plan Program EIR mitigation measures, as well as the mitigation measures recommended in this EIR (**Subsection 4.4.10, Project Mitigation Measures**), would reduce such impacts to less than significant. These measures include pre-construction surveys for any construction activity within 300 feet of river habitat to assure that stickleback are avoided or excluded, particularly during the sensitive periods such as spawning or when juvenile fish (fry) are present. These measures also specify the methods to be used for excluded stickleback, as well as how temporary diversion channels would be constructed to assure that adequate rearing habitat is present for stickleback during construction. These measures also employ provisions for constructing permanent and temporary stream crossings in the Santa Clara River in a manner that would allow for unimpeded movement upstream and downstream. Numerous water quality measures, such as construction stormwater BMPs (*e.g.*, silt fencing, erosion control materials, sediment basins) and the installation of water quality treatment facilities are also included to minimize impacts from pollutants related to storm runoff during storm events.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including potential physical changes in the River; altered base and flood flows; biochemical, substrate, and temperature alterations; vegetative changes (*e.g.*, invasive plant species); increased human activity; impacts from pet, stray, and feral animals; and increased predation by exotic predators. Mitigation measures implemented to reduce these potential secondary impacts include protection and management of the River Corridor SMA/SEA 23; creation of buffer areas between the River Corridor SMA/SEA 23 and development, water quality requirements; restrictions on public access; controls on pet, stray and feral animals; and control on invasive predators such as bullfrog and African clawed frog. Mitigation measures related to hydrology and water quality will also ensure that potential impacts to any downstream populations of the unarmored threespine stickleback are not significant.

No long-term, permanent significant effects on unarmored threespine stickleback habitat would occur as a result of implementation of the RMDP and buildout of the Specific Plan, VCC, and Entrada planning areas, because the general morphology of the Santa Clara River, adjacent rearing habitat, and high-flow riparian refugia would not be substantially altered. No loss of unarmored threespine stickleback individuals would occur. Potential long-term secondary impacts would be mitigated to a less-than-significant level on site.

For the reasons set forth above, contribution of the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a

potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Western Yellow-Billed Cuckoo (CE). The western yellow-billed cuckoo has occasionally been documented within the Santa Clara River corridor during surveys conducted from 1988 to 2007, although the locations of these observations were not mapped. This species has been observed historically in 1979, 1981, and 1992 (Labinger *et al.* 1997); however, no observations of nesting, paired, or territorial western yellow-billed cuckoos have been documented within the proposed RMDP/SCP project area. Currently, the proposed RMDP/SCP project area appears to be a migratory stop for individual western yellow-billed cuckoos but may also be used for post-migratory movements. For breeding, this species primarily uses large blocks of riparian habitat, particularly cottonwood-willow riparian woodlands (66 FR 38611-38626). Large blocks of riparian habitat suitable for western yellow-billed cuckoo generally are absent from the Santa Clara River within the RMDP/SCP project area, and likely elsewhere along the River corridor.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 25,000 acres of riparian habitat in the SCRW. However, not all 25,000 acres support western yellow-billed cuckoos or could be reasonably expected to support them. This species appears to be rare in the SCRW, based on the lack of documented nesting, although it probably migrates through the area on occasion. Also, as noted above, this species typically nests in large blocks of riparian habitat that are probably uncommon in the watershed.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 1,030 acres of 25,000 acres of riparian habitat within the watershed; however, the proportion of potential western yellow-billed cuckoo habitat that could be impacted by development is probably substantially higher because most potential habitat is probably in the Santa Clara River and the larger tributaries where development pressure is higher. Smaller and more remote drainages that support riparian habitat, but which is less likely to be occupied by the vireo, probably are under less development pressure. Without accounting for past, present or reasonably foreseeable mitigation, or the RMDP/SCP project's individual contribution to mitigation for loss of riparian habitat, the loss of 1,030 acres of riparian habitat in the SCRW could be potential significant cumulative impact on potential habitat for the western yellow-billed cuckoo. The contribution of the proposed RMDP/SCP, including Landmark Village project, to this potential significant cumulative impact is 230 acres, which could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including nest parasitism by cowbirds; traffic noise; nighttime illumination; increased human activity; pesticide use resulting in loss of prey and/or secondary poisoning; harassment and

predation by pet, stray, and feral cats and dogs; and increased predation by mesopredators. Habitat quality for the western yellow-billed cuckoo could be reduced by diminished water quality and invasion by exotic plant species. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The Newhall Ranch Specific Plan Program EIR and this EIR recommend extensive mitigation measures that would protect riparian habitat and establish a large, managed open space system, all of which would reduce impacts to the western yellow-billed cuckoo (**Subsection 4.4.10, Project Mitigation Measures**). This mitigation would result in the preservation and management of at least 332 acres of suitable habitat, primarily in the River Corridor SMA/SEA 23, that would be available for migrating individuals and a breeding population of the western yellow-billed cuckoo. These mitigation measures also include restoration, and enhancement of riparian and wetland habitat. Specific measures to reduce potential secondary impacts include controls on public access, invasive species controls, conformance with permits from federal and state agencies for impacts to wetlands and water quality (*i.e.*, NPDES and section 401 permits), lighting controls, pesticides controls, and cowbird trapping.

In addition to the measures described above, which reduce RMDP/SCP project-related impacts, this species has not been observed to breed in the RMDP/SCP project area but is known to use the RMDP/SCP project area as a migratory stop-over. Most of the recorded breeding populations of this species occur well outside of the watershed. Typical nesting habitat (structure of riparian canopy, proximity to disturbance, *etc.*) associated with this species does not occur within the RMDP/SCP project area.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

White-Tailed Kite (CFP). Bird surveys have been conducted in the riparian areas of the Santa Clara River and Castaic Creek from 1988 through 2007. During these surveys, the white-tailed kite has been observed primarily along the Santa Clara River, where it nests in associated riparian woodlands and forages in adjacent grasslands, open sage scrub, and agricultural fields (**Figure 4.4-28, RMDP/SCP White-Tailed Kite Occurrences**). It is assumed for this cumulative analysis that the white-tailed kite could occur throughout the Santa Clara River corridor, as well as other areas in the SCRW in riparian and woodland habitats associated with upland foraging areas, including agriculture, California annual grassland, and coastal scrub, and other scrub habitats.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 282,000 acres of suitable nesting and foraging habitat for the white-tailed kite (riparian, oak woodland, California annual grassland, agriculture, disturbed land, and coastal scrub habitats), although it would be incorrect to conclude that white-tailed kites actually use all 282,000 acres. White-tailed kites tend to forage in areas that are in proximity to nesting and roosting habitat (riparian and woodland habitat). For example, within the RMDP/SCP project area, most of the observations of foraging white-tailed kites are along the Santa Clara River Corridor (**Figure 4.4-28, RMDP/SCP White-tailed Kite Occurrences**). Based on observations within the RMDP/SCP project area, the kite is most likely to nest and forage along the Santa Clara River and adjacent uplands.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 25,400 acres of 282,000 acres of suitable nesting and foraging habitat for the white-tailed kite. Without accounting for past, present or reasonably foreseeable mitigation (particularly for upland habitats), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of habitat in the SCRW could be a potential significant impact on suitable nesting and foraging habitat for the white-tailed kite. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 5,130 acres, which would be cumulatively considerably, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including nest predation; nighttime illumination; increased human activity; pesticide use resulting in loss of prey and/or secondary poisoning; harassment and predation by pet, stray, and feral cats and dogs; and increased predation by mesopredators. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The mitigation required by both the Newhall Ranch Specific Plan Program EIR and this EIR (**Subsection 4.4.10, Project Mitigation Measures**) would establish a large, managed open space system that would protect white-tailed kite habitat and reduce the effects of long-term secondary impacts. Approximately 4,421 acres of suitable habitat for this species, including 1,546 acres of nesting habitat and 2,875 acres of foraging habitat (*i.e.*, foraging habitat within 0.5 mile of suitable nesting habitat) would be conserved in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area.



FIGURE 4.4-28

Landmark Village EIR

RMDP/SCP White-Tailed Kite Occurrences

Long-term secondary impacts would be avoided and reduced through a variety of mitigation measures. Lighting restrictions along the perimeter of natural areas would help reduce predation of nest sites by predators and reduce behavioral disturbances and physiological stress. Limited recreational usage and access restrictions within the High Country SMA/SEA 20; control of pet, stray, and feral cats and dogs in or near open space areas; trail signage; and homeowner education regarding special-status resources in preserved natural habitat areas would help protect white-tailed kites by allowing them to nest and forage without disturbance. Controls on pesticides would reduce the chance of direct and secondary poisoning, and loss of prey. Provision of a large, relatively undisturbed open space system providing nesting and foraging habitat away from development areas also would help mitigate for increased collisions with vehicles and man-made structures.

In addition to the measures described above, which would reduce the RMDP/SCP project-related impacts, the proposed RMDP/SCP project would not preclude the continued foraging and nesting by white-tailed kite along the Santa Clara River and within the preserved High Country SMA/SEA 20 and Salt Creek area within the RMDP/SCP project area, as well as along the Santa Clara River corridor upstream and downstream of the RMDP/SCP project area.

For the reasons set forth above, the proposed RMDP/SCP, Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

(b) California Species of Special Concern (CSC)

This section addresses cumulative impacts to the CSC species as organized by the different wildlife guilds.

Mollusk. The mollusk guild includes one species: the undescribed species of snail. This species is not currently a CSC, but is assumed to meet the criteria for the designation for the purpose of this analysis. This undescribed species is known to occur only in the Middle Canyon Spring in the RMDP/SCP project area and is not documented to occur elsewhere in the SCRW. Therefore, there would be no other known impacts to this species by other projects in Los Angeles and Ventura counties and, therefore, there would be no cumulative impacts.

Reptile – Low Mobility. This guild includes coast horned lizard, coast patch-nosed snake, and silvery legless lizard. In addition to the RMDP/SCP project area, occurrences of the coast horned lizard in the SCWR include along the Santa Clara River in Oxnard to Soledad Canyon in the east, Saugus, Fillmore, Castaic Lake area and near Sespe Creek. Outside of the RMDP/SCP project area, there are a few

documented occurrences of the silvery legless lizard at the eastern edge of SCRW in the Leona Valley area near Lancaster and Palmdale. These two species are expected to occur throughout the watershed in suitable habitat. There are no CNDDDB occurrences reported in Los Angeles or Ventura counties for the coast patch-nosed snake, but this species is expected to occur uncommonly in suitable habitat in the SCRW.

As a group, these species use a broad variety of shrubland (scrub and chaparral), grassland, riparian, and woodland habitats, although each species is expected to primarily use a smaller subset of habitats. For example, coast horned lizard is primarily a grassland and shrubland species, the coast patch-nosed snake a shrubland species, and the silvery legless lizard a riparian and woodland species, but each could potentially occur in any of these habitat types. Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 777,000 acres of suitable habitat for the coast horned lizard, coast patch-nosed snake, and silvery legless as a combined group. However, it is not expected that all 777,000 acres are occupied by these species. For example, silvery legless lizards typically are only found in loose soils, coast horned lizard occur in association with native ant colonies that are its primary prey, and coast patch-nosed snakes appear to uncommon and sparsely distributed.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 35,000 acres of 800,000 acres of suitable habitat for the coast horned lizard, coast patch-nosed snake, and silvery legless lizard. With the estimated permanent loss of more than 35,000 acres of habitat and without accounting for past, present or reasonably foreseeable mitigation (particularly for upland habitats used by this guild), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of habitat in the SCRW could be a potential significant impact on the habitat for these species. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 3,380 acres, which could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects to these species, including habitat fragmentation and isolation of some local populations, making the species more vulnerable to extirpation from smaller habitat patches. In addition, the close proximity of urban development to suitable habitat for these species could result in disruption of essential behavioral activities (*e.g.*, foraging, reproduction) and greater vulnerability to several potential secondary impacts, including human-caused habitat degradation (*e.g.*, trampling of vegetation and introduction of invasive species, such as Argentine ants (primarily affecting coast horned lizard), or off-road vehicles); harassment and collection; predation by pet, stray, and feral cats and dogs; increased roadkill; and use of pesticides, which may reduce its prey or cause secondary poisoning.

The required Newhall Ranch Specific Plan Program EIR mitigation measures and additional mitigation measures recommended by this EIR (**Subsection 4.4.10, Project Mitigation Measures**) would result in a large, permanent open space system that would provide substantial suitable habitat to support these species (approximately 5,687 acres for coast horned lizard, 3,724 acres for coast patch-nosed snake, and 6,058 acres for silvery legless lizard) in the RMDP/SCP project vicinity. Implementation of these mitigation measures would result in protection, restoration and enhancement, and management of suitable habitat in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area (**Figure 4.4-29**). Restoration and enhancement of habitat used by the coast horned lizard, coast patch-nosed snake, and silvery legless lizard in these areas would improve habitat quality for these species.

Several specific mitigation measures also would be implemented to reduce long-term secondary effects due to human activities in open space areas, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. Pesticides would be controlled through an integrated pest management (IPM) plan. Argentine ant invasions of upland habitats be monitored and controlled to the extent feasible. Implementation of these measures would allow these species to persist on site in the large amount of permanent open space that would be protected and managed.

In addition to these measures reducing impacts to these species at the project level, these species have broad geographic ranges, are likely to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Reptile and Amphibian – Semi-Aquatic. This guild includes south coast garter snake, southwestern pond turtle, two-striped garter snake, and western spadefoot toad. No south coast garter snakes have been documented in the RMDP/SCP project area, but there are documented occurrences of south coast garter snake within the Santa Clara River downstream of the RMDP/SCP project area. In addition to the RMDP/SCP project area, southwestern pond turtle has been documented in various locations throughout the SCRW (specific locations are suppressed in the CNDDDB database in order to protect populations), including the Los Padres and Angeles National Forests, and it is expected to occur wherever habitat conditions are suitable. The two-striped garter snake has been documented throughout the SCRW

outside the RMDP/SCP project area, including Maple Creek north of Fillmore, south of Fillmore, Sespe Creek, Tar Creek upstream of Sespe Creek, Castaic Creek and Fish Canyon, the Santa Clara River between Salt Creek and Summer Four Crossings, Oak Spring Canyon east of Santa Clarita, and Soledad Canyon. This species is expected to occur wherever habitat conditions are suitable. The western spadefoot toad has been documented in several locations in the SCRW, including Cruzan Mesa north of the City of Santa Clarita, west of Sand Canyon south of Santa Clarita, San Francisquito Creek, Soledad Canyon, Plum Canyon Creek, Grasshopper Canyon northwest of Castaic Lake, just east of Oak Spring Canyon south of the Santa Clara River, and north of Tapia Canyon.

The cumulative impacts analysis for habitat impacts presented above for the California red-legged frog presented above generally is applicable to the south coast garter snake, southwestern pond turtle, two-striped garter snake, and western spadefoot toad. Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 25,000 acres of riparian habitat in the SCRW, but not all of this habitat is expected to be occupied due to a lack of all necessary habitat elements. Upland habitats adjacent to occupied riparian habitat are expected to be used for important aspects of these species' life histories, including aestivation, hibernation, and nesting, but the acreage of these areas cannot be accurately estimated at the watershed scale.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of 1,030 acres of the 25,000 acres of riparian habitat. Without accounting for past, present or reasonably foreseeable mitigation, or the RMDP/SCP project's individual contribution to mitigation for loss of riparian habitat, the loss of 1,030 acres of riparian habitat in the SCRW potentially could be a potential significant cumulative impact on potential habitat for south coast garter snake, southwestern pond turtle, two-striped garter snake, and western spadefoot toad. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 230 acres, which could be cumulatively considerable, absent mitigation. The proposed RMDP/SCP project, including Landmark Village also would cause permanent loss of adjacent terrestrial habitat, such as agriculture along the Santa Clara River, that is probably used by these species for aspects of their life cycles, as well as refuge from severe flood events. It is assumed that other present and reasonably foreseeable projects affecting suitable riparian habitat would also impact adjacent upland habitat, resulting in a potential significant cumulative impact, without accounting for mitigation. The contribution of the proposed RMDP/SCP, including Landmark Village project, to this potential significant cumulative impact to terrestrial habitat could be cumulatively considerable, absent mitigation.

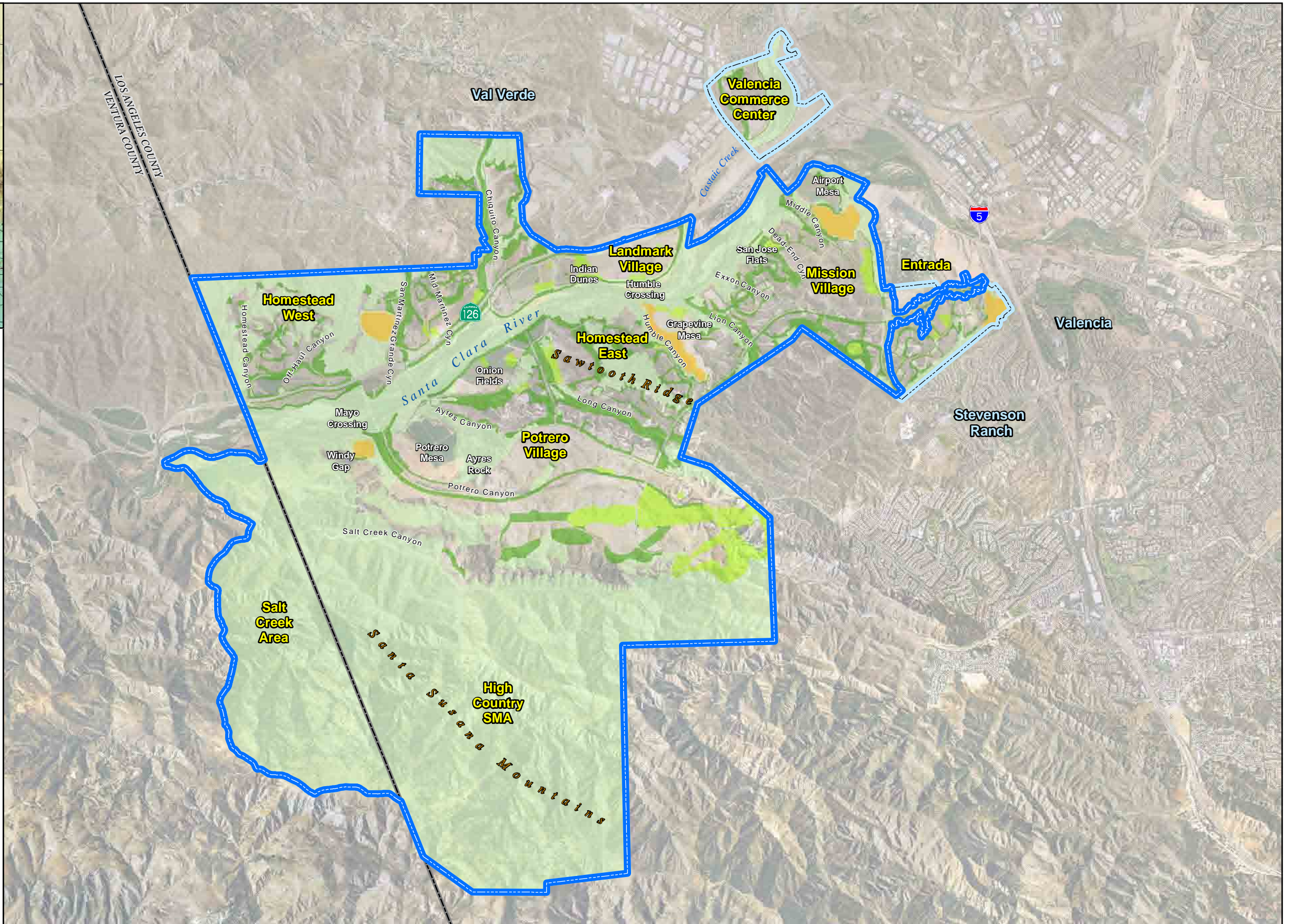
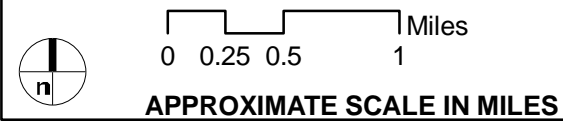


Legend

- RMDP Boundary
- SCP Boundary
- County Boundary

Open Space

- Open Space Man-Made
- Open Space Natural
- Open Space Recreation
- Open Space Restoration
- Spineflower Preserves



AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.4-29
 Landmark Village EIR
 RMDP Study Area

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project and Landmark Village, also could result in potential long-term secondary effects to these species, including disruption of nocturnal activities and greater vulnerability to predation by nocturnal predators (such as owls and coyotes) as a result of nighttime lighting; greater vulnerability to predation by pet, stray, and feral cats and dogs as well as other mesopredators (see Crooks and Soulé 1999); collecting by children; degradation of habitat from increased human use (*e.g.*, trampling, trash, and off-road vehicles) and altered fire regimes (likely too frequent fire); invasion by exotic plant (*e.g.*, giant reed, tamarisk, and pampas grass) and wildlife species (*e.g.*, Argentine ants, bullfrogs, African clawed frogs, exotic fish, and crayfish); use of pesticides; and increased risk of roadkill on roads adjacent to occupied areas. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative secondary impact could be cumulatively considerable, absent mitigation.

As discussed previously for the California red-legged frog, the Newhall Ranch Specific Plan Program EIR and this EIR (**Subsection 4.4.10, Project Mitigation Measures**) include extensive mitigation measures that would protect riparian habitat and establish a large, managed open space system which would reduce impacts to these species. Also, the Santa Clara River corridor hydrology and habitat conditions on site or downstream would not be significantly affected by the proposed RMDP/SCP project (PACE 2008, Recirculated Draft EIR, **Appendix 4.4**). Upland refugia would be available along the Santa Clara River, although under the proposed RMDP/SCP project, construction of Potrero Bridge under Alternative 2 at the mouth of Potrero Canyon would block access to Potrero Canyon by southwestern pond turtle. This was considered a significant unavoidable impact under the RMDP/SCP Alternative 2 at the project level because this area may be an important refuge and nesting area; however, the Landmark Village project does not contribute to this condition.

The River Corridor SMA/SEA 23 would provide a large, protected open space area that would help offset long-term secondary impacts. Several specific mitigation measures also would be implemented to control human activities in the River Corridor SMA/SEA 23, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. All lighting along the open space-urban interface would be downcast. Pesticides would be controlled through an integrated pest management (IPM) plan. Argentine ant invasions of upland habitats in the open space system would be monitored and controlled to the extent feasible. Implementation of these measures would allow these species to persist on site after development.

In addition to these measures reducing impacts to these species at the project level, these species have broad geographic ranges, are likely to occur in suitable habitat within the watershed (with the exception

of the south coast garter snake), and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Fish. This guild includes arroyo chub and Santa Ana sucker, which primarily occur in the Santa Clara River some of its main tributaries within the SCRW. The cumulative analysis presented above for the unarmored threespine stickleback is, therefore, applied to these species.

Both species are considered be introduced to the Santa Clara River and associated tributaries. In addition to populations in the RMDP/SCP project area, introduced populations of arroyo chub are present in the Santa Clara River at Agua Dulce Creek and west of Chambersburg Road south of Fillmore, and in Soledad Canyon, Santa Paula Creek, and Sespe Creek along SR-33 and at the Stone Corral Creek confluence. In addition to populations in the RMDP/SCP project area, introduced populations of the Santa Ana sucker are present in the Santa Clara River ranging from Arrastre Canyon approximately 2.5 miles east of SR-14 to Santa Paula Creek, and Piru Creek, Sespe Creek, and San Francisquito Creek (Swift *et al.* 1993; Stephenson and Calcarone 1999; NEA 2004; NatureServe 2007).

ENTRIX (2009) concluded that no long-term, permanent significant effects on arroyo chub and Santa Ana sucker habitat would occur as a result of implementation of the RMDP and buildout of the Specific Plan, VCC, and Entrada planning areas, because the general morphology of the Santa Clara River, adjacent rearing habitat, and high-flow riparian refugia would not be substantially altered. Further, there would be no impacts to habitat for these species resulting from impacts to tributaries to the Santa Clara River, due to the absence of perennial flows, and poor aquatic habitat quality. For these reasons, the proposed RMDP/SCP, including the Landmark Village project, would not contribute to potential significant cumulative impacts to such habitat.

Some temporary impacts to habitat for these species would occur when construction occurs directly in aquatic habitat. Impacts to the active stream channel during bridge construction could affect stream flows, and cause stream diversions and dewatering when construction is occurring within the River Corridor/SMA 23. However, such temporary impacts would not contribute to a potential significant cumulative effect of projects in the SCRW.

Construction-related impacts on individuals, if not mitigated, could result in a cumulatively considerable contribution to a potential significant cumulative impact in the SCRW because of the local nature and potential vulnerability of these species in the Santa Clara River. However, the Newhall Ranch Specific

Plan Program EIR mitigation measures, as well as the mitigation measures recommended in this EIR (**Subsection 4.4.10, Project Mitigation Measures**), would reduce such impacts to less than significant. These measures include facilities design requirements, pre-development surveys, consultation with USFWS, biological monitoring during construction, excluding fish from disturbance areas through coordination with and approval from the Corps and CDFG, and conformance with state and federal permits related to wetlands and water quality.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including potential physical changes in the River; altered base and flood flows; biochemical, substrate, and temperature alterations; vegetative changes (*e.g.*, invasive plant species); increased human activity; impacts from pet, stray, and feral animals; and increased predation by exotic predators. Mitigation measures implemented to reduce these potential secondary impacts include protection and management of the River Corridor SMA/SEA 23; creation of buffer areas between the River Corridor SMA/SEA 23 and development, water quality requirements; restrictions on public access; controls on pet, stray and feral animals; and control on invasive predators such as bullfrog and African clawed frog. Mitigation measures related to hydrology and water quality also would ensure that potential impacts to any downstream populations of arroyo chub and Santa Ana sucker are not significant.

No long-term, permanent significant effects on arroyo chub and Santa Ana sucker habitat would occur as a result of implementation of the RMDP and buildout of the Specific Plan, VCC, and Entrada planning areas, because the general morphology of the Santa Clara River, adjacent rearing habitat, and high-flow riparian refugia would not be substantially altered. Potential short-term and long-term secondary impacts would be mitigated to a less-than-significant level.

For the reasons set forth above, the contribution of the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Bird – Raptor. This guild includes long-eared owl, northern harrier, short-eared owl, and western burrowing owl. There are no CNDDDB documented occurrences for long-eared owl, northern harrier, or the short-eared owl in the SCRW, but based on data for the proposed RMDP/SCP project these species are expected to occur in suitable habitat in the watershed. The long-eared owl was observed in the RMDP/SCP project area on one occasion (Dudek and Associates 2006) and, therefore, is considered to be at least a regular migrant and/or a winter visitor to the region, with some potential to breed in the

riparian and woodland habitats watershed. The northern harrier has been observed in or near the RMDP/SCP project area infrequently during the 20 years of surveys. Most of the observations of this species were probably of wintering and migrating individuals, and these surveys are considered adequate to establish that this species is at least an occasional winter migrant in the SCRW. The short-eared owl was observed twice near the RMDP/SCP project area (Dudek and Associates 2006; Olson 2007) two observations and it is assumed for the purpose of this analysis that the short-eared owl at least occurs in the SCRW as an occasional migrant and uses watershed for foraging. In addition to two observations of the burrowing owl in the RMDP/SCP project area (Babcock 2007; Miller 2007), there are two other documented occurrences of western burrowing owl in the CNDDDB. The majority of documented occurrences of burrowing owl in Los Angeles County are from the Antelope Valley in the Lancaster and Palmdale areas. It is assumed for the cumulative analysis that the burrowing owl occasionally uses SCRW for wintering or during migration, but also has potential to breed in the watershed.

These species overlap in their use of foraging habitats, with grasslands, agriculture, and disturbed lands as the most common foraging habitats used by all of the species, and which are the basis for this analysis at the guild level. Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 78,000 acres of suitable foraging habitat these species, although based on the few observations of these species in the watershed, not all of this habitat is expected to be used for foraging. Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of 3,790 acres of 78,000 acres of foraging habitat for these species. Without accounting for past, present or reasonably foreseeable mitigation (there are no standard mitigation requirements for loss of grassland, agriculture, or disturbed lands), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of 3,790 acres of habitat in the SCRW could be a potential significant impact on suitable foraging habitat for these species. The contribution of the proposed RMDP/SCP project, including the Landmark Village project, to this potential significant cumulative impact is 3,290 acres, which could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including increased human activity; pesticide use resulting in loss of prey and/or secondary poisoning; harassment and predation by pet, stray, and feral cats and dogs; and increased predation by mesopredators. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The mitigation required by the Newhall Ranch Specific Plan Program EIR and this EIR (**Subsection**

4.4.10, Project Mitigation Measures) would establish a large, managed open space system that includes approximately 995 acres of suitable foraging habitat for these species and which would reduce secondary effects. Implementation of these mitigation measures would result in protection, restoration and enhancement, and management of suitable habitat in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area (**Figure 4.4-29**). Several specific mitigation measures also would be implemented to reduce long-term secondary effects due to human activities in open space areas, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. Pesticides would be controlled through an integrated pest management (IPM) plan.

In addition to these measures reducing impacts to these species at the project level, these species have broad geographic ranges, are likely to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Bird – Riparian. This guild includes summer tanager, tricolored blackbird, vermilion flycatcher, yellow-breasted chat, yellow-headed blackbird, and yellow warbler. Documented occurrence data for these species in the SCRW outside of the RMDP/SCP project area are very sparse. There are no documented occurrences in the CNDDDB for the SCRW for summer tanager, vermilion flycatcher, tricolored blackbird, or yellow-headed blackbird. No summer tanagers have been observed during spring surveys on site, one vermilion flycatcher has been observed, and occasional yellow-headed blackbirds have been observed. No nesting vermilion flycatchers or yellow-headed blackbirds have been observed in the RMDP/SCP project area. Tricolored blackbird has been observed on site periodically, but were documented nesting on site only in 1994. There is one occurrence each in the CNDDDB for yellow-breasted chat and yellow warbler for the watershed approximately three miles east of Fillmore, but these two species have been commonly observed in the Santa Clara River within the RMDP/SCP project area during spring surveys and are assumed to breed on site and elsewhere in the SCRW where there is suitable riparian habitat.

Because these species use habitats similar to those analyzed for the least Bell's vireo and southwestern willow flycatcher/willow flycatcher and would be subject to the same types of secondary impacts, the cumulative impact analysis for the two listed species is applied to the summer tanager, tricolored blackbird, vermilion flycatcher, yellow-breasted chat, yellow-headed blackbird, and yellow warbler.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are

approximately 25,000 acres of riparian habitat in the SCRW. However, not all 25,000 acres support these species or could be reasonably expected to support them. Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of 1,030 acres of 25,000 acres of riparian habitat; however, as noted above for least Bell's vireo, these species probably are concentrated along the Santa Clara River and immediately adjacent tributaries, so the proportionate loss of occupied habitat is probably substantially higher. Without accounting for past, present or reasonably foreseeable mitigation, or the RMDP/SCP project's individual contribution to mitigation for loss of riparian habitat, the loss of 1,030 acres of riparian habitat in the SCRW could be a potential significant impact on potential habitat for the species in this guild, including potential migration habitat for the summer tanager, vermilion flycatcher, and yellow-headed blackbird, and nesting habitat for the yellow-breasted chat, yellow warbler, and tricolored blackbird. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 230 acres, which could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including nest parasitism by cowbirds on yellow-breasted chat and yellow warbler; nighttime illumination; increased human activity; pesticide use resulting in loss of prey and/or secondary poisoning; harassment and predation by pet, stray, and feral cats and dogs; and increased predation by mesopredators. Habitat quality for these species could be reduced by diminished water quality and invasion by exotic plant species. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The Newhall Ranch Specific Plan Program EIR and this EIR recommend extensive mitigation measures (**Subsection 4.4.10, Project Mitigation Measures**) that protect riparian habitat and establish a large, managed open space system, all of which would reduce impacts to these species. This mitigation would result in the preservation and management of at least 332 acres of riparian habitat, primarily in the River Corridor SMA/SEA 23, that would be available for future breeding populations of yellow-breasted chat and yellow warbler, and potentially tricolored blackbird. These mitigation measures include preservation, restoration, and enhancement of riparian and wetland habitat. Species measures to reduce potential long-term secondary impacts include controls on public access, invasive species controls, conformance with permits from federal and state agencies for impacts to wetlands and water quality (*i.e.*, NPDES and section 401 permits), and lighting controls.

In addition to these measures reducing impacts to these species at the project level, these species generally have broad geographic ranges. The yellow-breasted chat and yellow warbler are expected to

breed along most of the Santa Clara River and associated tributaries wherever there is suitable habitat. The summer tanager, vermilion flycatcher, and yellow-headed blackbird are expected to use suitable habitat within the SCRW on an occasional basis or during migration. The tricolored blackbird is expected to breed occasionally in suitable habitat in the SCRW, but its breeding status in the watershed is unknown and likely to be variable due to its itinerant breeding pattern.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Bird – Upland Grassland. The only CSC species in this guild is the grasshopper sparrow. This species has not been observed in the RMDP/SCP project area, but because the site is at the edge of its summer breeding range, there is some, albeit low, potential for the species to occur. The CNDDDB has one occurrence in SCRW in Tapia Canyon north of Santa Clarita.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 22,000 acres of suitable grassland habitat for the grasshopper sparrow. However, it is not expected that all 22,000 acres are occupied by this species because there is only one documented occurrence in the SCRW and it has not been observed in the RMDP/SCP project area during numerous avian surveys.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of 1,120 acres of 22,000 acres of suitable habitat for the grasshopper sparrow. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this impact is 1,070 acres. Because the grasshopper sparrow has a low potential to winter or nest on site, based on negative surveys findings, at the project level this impact was determined to be adverse but not significant. Since the proposed RMDP/SCP project accounts for the majority of the impact of present and reasonably foreseeable projects, the cumulative effect of the present and reasonably foreseeable projects, including proposed RMDP/SCP project, would not be significant at the watershed level.

Although the species has a low potential to occur in the RMDP/SCP project area and on other present and reasonably foreseeable projects, without accounting for past, present, or reasonably foreseeable mitigation, these projects, including the proposed RMDP/SCP project, could result in potential long-term secondary effects, including habitat fragmentation; abandonment of nests from human activity; greater vulnerability to nocturnal predators as a result of nighttime lighting; noise from roadways; nest parasitism by cowbirds; greater vulnerability to predation by pet, stray, and feral cats and dogs and other mesopredators; and loss of prey or secondary poisoning due to the use of pesticides. Although these

long-term secondary effects could occur, because the grasshopper sparrow is unlikely to nest or winter in the watershed in large numbers, these effects would not have a significant cumulative impact.

Even though significant cumulative impacts to the grasshopper sparrow and its habitat would not occur and mitigation measures are not required, several mitigation measures for other project-level impacts to biological resources would be implemented that would further reduce any potential impacts (**Subsection 4.4.10, Project Mitigation Measures**). These mitigation measures include habitat preservation, restoration, enhancement, and management of the High Country SMA/SEA 20 and Salt Creek area—areas that would form a large, contiguous open space system that includes approximately 660 acres of California annual grassland. Specific measures would also be implemented to reduce potential long-term secondary effects, including controls on human activity, pet, stray, and feral cats and dogs, lighting, and pesticides.

Bird – Upland Scrub and Chaparral. The only CSC species in this guild is the loggerhead shrike. This species is commonly observed in the RMDP/SCP project area and has been documented to nest on site. This species also is likely to be relatively common in scrub and chaparral habitat throughout the SCRW. Although there are no records for this species for the watershed in the CNDDDB, this species has been regularly observed by biologists in the watershed.

The loggerhead shrike is considered to be primarily a scrub and chaparral species, but it also frequently forages in grassland, agriculture, and disturbed lands. Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 803,000 acres of suitable habitat for the loggerhead shrike. It is not expected that all 803,000 acres are occupied by this species because, although common, shrikes occur in low densities.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 36,700 acres of 803,000 acres of suitable habitat for the loggerhead shrike. Without accounting for past, present or reasonably foreseeable mitigation (particularly for upland scrub and chaparral), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of 36,700 acres of habitat in the SCRW could be a potential significant impact on the habitat for this species. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 5,270 acres, which could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including habitat fragmentation and reduced nest success due to nighttime lighting; noise disturbance; and harassment/disturbance by humans, especially if such disturbances occur during the nesting season; and predation by pet, stray, and feral cats and dogs as well as other mesopredators.

The use of pesticides to control invertebrates and small mammals within and adjacent to open foraging areas could result in secondary poisoning and loss of prey for the species. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The required Newhall Ranch Specific Plan Program EIR mitigation measures and additional mitigation measures recommended by this EIR (**Subsection 4.4.10, Project Mitigation Measures**) would result in a large, permanent open space system that would provide suitable habitat to support the loggerhead shrike in the RMDP/SCP project vicinity. Implementation of these mitigation measures would result in protection, restoration and enhancement, and management of approximately 6,100 acres of suitable habitat in three main interconnected areas: the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area (**Figure 4.4-29**). This set-aside also would offset long-term secondary impacts, especially habitat fragmentation and vehicle collisions. Several specific mitigation measures also would be implemented to control human activities in open space areas, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. Pesticides would be controlled through an integrated pest management (IPM) plan. Implementation of these measures would allow this species to persist on site after development in the large amount of permanent open space that would be protected and managed.

In addition to these measures reducing impacts to loggerhead shrike at the project level, this species remains relatively common and widespread within suitable habitat within the watershed and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Bats. This guild includes pallid bat, pocketed free-tailed bat, Townsend's big-eared bat, western mastiff bat, and western red bat. RMDP/SCP project area surveys using the Anabat II Bat Detector documented the presence of pallid bat (including a maternity roost and a night roost in Potrero Canyon), the pocketed free-tailed bat, and western red bat. The western mastiff bat was audibly detected (its signals are directly detectable by humans). Townsend's big-eared bat was not detected during surveys, but has moderate potential to occur on site due to the large amount of suitable habitat. Documented occurrences in the CNDDDB elsewhere in the SCRW for these species are variable and some are decades old. The pallid bat has been documented in Soledad Canyon, Castaic, Fillmore, and Santa Paula. The western mastiff bat has

been documented in Piru Creek north of the lake and at the lake, and southwest of Newhall. There are no records in the CNDDDB for the pocketed free-tailed bat, Townsend's big-eared bat, or western red bat. However, because comprehensive surveys for bats have not been conducted throughout the SCRW, and because these species are foraging generalists and use a variety of habitats, it is assumed that these species could occur throughout the SCRW. The main limitation for the occurrence of the species probably is a lack of day roosts sites, such as a caves, crevices, rock outcrops, tunnels, *etc.*

This cumulative analysis addresses the loss of foraging habitat for these species. As foraging generalists, they use a variety of habitats, but probably concentrate most of their foraging activity in wetland and riparian habitats. Suitable foraging habitat for bats includes coastal scrub, chaparral, grassland, riparian, oak woodland, agriculture, and disturbed land. Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 836,000 acres of suitable foraging habitat for bats in the SCRW. It is not expected that all 836,000 acres are used by bats for foraging because this habitat must be within typical flight distances of day roosts. For example, the pallid bat is capable of flying more than 18 miles, but most foraging occurs within about two miles of the day roost (Hermanson and O'Shea 1983).

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 38,000 acres of 836,000 acres of suitable foraging habitat for these bats. Without accounting for past, present or reasonably foreseeable mitigation (particularly upland habitats), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of 38,000 acres of habitat in the SCRW could be a potential significant impact on the habitat for these species. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 5,590 acres, which could be cumulatively considerable, absent mitigation.

In addition to loss of foraging habitat, day roosts, including maternal roosts, may be present in the SCRW and subject to potential impacts as a result of present and reasonably foreseeable projects. One documented maternal day roost and one night roost for pallid bat would be lost as a result of the proposed RMDP/SCP project, but there is a potential for other roosts sites in the SCRW to be impacted. Without accounting for past, present or reasonably foreseeable mitigation (particularly upland habitats), or the RMDP/SCP project's individual contribution to mitigation for loss of day roosts, the loss of roost sites could result in a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects resulting from increased human activity, noise, and lighting. Use of pesticides for

agriculture or in landscaped areas may result in secondary poisoning and reduction of prey. Pallid bats taking prey on the ground are vulnerable to collection by humans and to predation by pet, stray, and feral cats and dogs. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The cumulative loss of foraging habitat and day roost sites, and long-term secondary impacts to these bats species would be reduced through several mitigation measures included in the Newhall Ranch Specific Plan EIR and recommended in this EIR (**Subsection 4.4.10, Project Mitigation Measures**). These measures include habitat preservation, restoration, enhancement, and management of approximately 6,300 acres in the River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek area—areas that would form a large, contiguous open space system providing foraging and potential roosting habitat for bats. It is expected that the species in this guild would continue to forage in these areas after buildout of the RMDP/SCP project area. Alternative roost sites would be created to mitigate for any day roost sites disturbed during construction, including creation of roosts under bridges and in culverts, where practicable, in consultation with CDFG. Species measures to reduce potential long-term secondary impacts include controls on public access, pet, stray, and feral cat dogs, pesticides, and lighting.

In addition to these measures reducing impacts to these species at the project level, these species have broad geographic ranges, are likely to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Mammal – Low Mobility. This guild includes the San Diego desert woodrat and southern grasshopper mouse. Within the RMDP/SCP project area, the San Diego desert woodrat is common in coastal scrub and chaparral in the RMDP/SCP project area. The only other documented occurrence in close proximity to the SCRW is in Weldon Canyon just west of the SR-14/I-5 junction. However, this lack of data is probably more a result of few small mammal trapping programs conducted in the watershed and/or under-reporting of the species to the CNDDDB. Based on its relatively frequent capture during the Newhall Ranch trapping study (Impact Sciences 2005), this species is expected to be common throughout the watershed in suitable habitat (*i.e.*, more xeric expressions of the coastal scrub and chaparral). The southern grasshopper mouse was not documented on site during the small mammal trapping studies or

pitfall trapping conducted for reptile and amphibians in the RMDP/SCP project area and is only known from Mint Canyon. This record dates back to 1930 and is located approximately 15 miles east of the RMDP/SCP project area. The documented geographic range of the grasshopper mouse is east of the RMDP/SCP project area (Zeiner *et al.* 1990B). The habitat use of these two species overlaps, where both may occur in drier, more open coastal scrub and chaparral, but the San Diego woodrat also occurs in more densely vegetated shrublands that would be unsuitable for the grasshopper mouse and the grasshopper mouse also occurs in grassland that is not used by the woodrat.

The combined habitat for these two species for the purpose of this cumulative analysis is defined as grassland, coastal scrub, and chaparral. Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 747,000 acres of potential habitat in the SCRW, of which approximately 725,000 acres are coastal scrub and chaparral and approximately 22,000 acres are non-native grassland. Even though the San Diego desert woodrat is relatively common, it is not expected to occur in all 725,000 acres of coastal scrub and chaparral in the SCRW because it uses more xeric forms of these habitats, whereas the dusky-footed woodrat tends to occur in more mesic forms. The southern grasshopper mouse, if present in the SCRW, is expected to be even more sparsely distributed in xeric forms of coastal scrub and chaparral and grasslands.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 34,100 acres of 747,000 acres of potential habitat, including approximately 33,000 acres of coastal scrub and chaparral and approximately 1,100 acres of grassland. Without accounting for past, present or reasonably foreseeable mitigation for these upland habitats, or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of 34,100 acres of habitat in the SCRW could be a potential significant impact on the habitat for both species. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 3,050 acres of the combined habitats, including 1,980 acres of coastal scrub and chaparral and 1,070 acres of grassland. The loss of these habitats on site could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including habitat fragmentation and potential isolation of local populations of the San Diego desert woodrat and southern grasshopper mouse, making the species, if present, more vulnerable to local extirpation. In addition, over the long term, the close proximity of urban development to suitable habitat could result in abandonment of dens and burrows; disruption of nocturnal activities; greater vulnerability to predation by nocturnal predators (*e.g.*, owls and coyotes) as a result of nighttime lighting; greater vulnerability to predation by pet, stray, and feral cats and dogs as well as other mesopredators such as raccoons, foxes, skunks, and opossums (Crooks and Soulé 1999); and vulnerability to pesticides,

which may reduce insect prey and cause secondary poisoning and rodenticides that may be used to control pest rodents. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The required Newhall Ranch Specific Plan Program EIR mitigation measures and additional mitigation measures recommended by this EIR (**Subsection 4.4.10, Project Mitigation Measures**) would result in a large, permanent open space system that would provide suitable habitat to support the San Diego desert woodrat and southern grasshopper mouse, if present in the RMDP/SCP project vicinity. Implementation of these mitigation measures would result in protection and management of approximately 3,488 acres of suitable habitat for the San Diego desert woodrat and approximately 2,657 acres for the southern grasshopper mouse. This open space would be conserved in three main interconnected areas: the River Corridor SMA, the High Country SMA, and the Salt Creek area (**Figure 4.4-29**). This set-aside also would help mitigate long-term secondary effects by providing adequate protected open space away from the edge of development. Several specific mitigation measures also would be implemented to control human activities in open space areas, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. All lighting would be downcast away from open space areas. Rodenticides would be controlled through an integrated pest management (IPM) plan. Implementation of these measures would allow these species to persist on site after development in the large amount of permanent open space that would be protected and managed.

In addition to these measures reducing impacts to these species at the project level, the San Diego desert woodrat has a broad geographic range and is still common in suitable habitat. It is expected to occur relatively commonly in suitable habitat on National Forest system lands and other public lands on the SCRW. The southern grasshopper mouse, if still present in the SCRW, likely occurs in low population densities in very scattered distributions. The probability of a present or reasonably foreseeable project, including the proposed RMDP/SCP project, impacting this species is considered to be low.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Mammal – Moderate Mobility. This guild includes American badger and San Diego black-tailed jackrabbit. Both species are present, but uncommon within the RMDP/SCP project area. The American

badger has been documented three times in the RMDP/SCP project area through systematic surveys and anecdotal observations of dens and tracks (Impact Sciences 2005; Behrends 2006; Dudek and Associates 2006). There is only one documented occurrence for the American badger outside the RMDP/SCP project area in the CNDDDB; a location between Bear Creek and Hopper Mountain northeast of Fillmore. However, while this species generally occurs at low abundances, observations of badgers in suitable habitat in southern California by biologists are not uncommon. It is expected to occur throughout the SCRW in suitable habitat. However, on the Angeles National Forest and other Forest System lands the distribution of American badger is not well documented (Stephenson and Calcarone 1999). This species is known to occur on portions of the Los Padres National Forest but has not been observed on many portions of the Angeles National Forest in several years (Welch 2009). The San Diego black-tailed jackrabbit was only observed in the RMDP/SCP project area during focused mammal surveys by Impact Sciences (2005). Negative findings for this species during many other wildlife surveys suggest that it is uncommon on site. There is only one documented occurrence for the San Diego black-tailed jackrabbit outside the RMDP/SCP project area in the CNDDDB: a location between Castaic Lake and San Francisquito Canyon. While this species appears to be uncommon in the western portion of the watershed, it is expected to be more common in the eastern portion of the watershed because several CNDDDB occurrences are from the Palmdale/Lancaster desert region just east of SCRWR. The lack of occurrence records for both the American badger and San Diego black-tailed jackrabbit probably are due to both their relatively uncommon occurrence (at least in the central and western portions of the watershed) and under-reporting to the CNDDDB.

For the purpose of this cumulative analysis, suitable habitat for these two species includes agriculture, disturbed land, grassland, and coastal scrub. Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 252,000 acres of potential habitat in the SCRW. Because both species are uncommon in the SCRW, not all 252,000 acres are expected to be occupied.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 24,300 acres of 251,000 acres of potential habitat for the American badger and San Diego black-tailed jackrabbit. Also, past, present, and reasonably foreseeable future projects within the SCRW have tended to be concentrated in the valleys and relatively gentle foothill slopes where these species are known to occur. These patterns apply both to the land use changes addressed here a cumulative effects (*i.e.*, since the 1999 UCSB GAP project) and extensive land conversions to agricultural uses prior to 1999. These cumulative effects cause a disproportionately high loss of individuals and habitat for badgers and black-tailed jackrabbits whose habitats and distributions are primarily on gentle topography, lower foothills and canyons, or valley bottoms. Without accounting for past, present or reasonably foreseeable mitigation for these upland habitats, or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of 24,300 acres of habitat in the

SCRW could be a potential significant impact on the habitat for both species. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 4,800 acres of the habitats, which could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects including habitat fragmentation; increased risk of vehicle collisions as a result of new roads and increased traffic volumes on existing roads (*e.g.*, SR-126); nighttime illumination; increased human activity and potential harassment by humans and pet, stray, and feral cats (primarily San Diego black-tailed jackrabbit) and dogs; and the use of rodenticides that could result in accidental poisoning of both species and reduction of the rodent prey base for the American badger. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The required Newhall Ranch Specific Plan Program EIR mitigation measures and additional mitigation measures recommended by this EIR (**Subsection 4.4.10, Project Mitigation Measures**) would result in a large, permanent open space system that would provide suitable habitat to support the American badger and San Diego black-tailed jackrabbit in the RMDP/SCP project vicinity. Implementation of these mitigation measures would result in protection and management of approximately 3,540 acres of suitable habitat for the American badger and San Diego black-tailed jackrabbit. This open space would be conserved in three main interconnected areas: the River Corridor SMA, the High Country SMA, and the Salt Creek area (**Figure 4.4-29**). This set-aside also would help mitigate long-term secondary effects by providing adequate protected open space away from the edge of development. Several specific mitigation measures also would be implemented to control human activities in open space areas, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. All lighting would be downcast away from open space areas. Rodenticides would be controlled through an integrated pest management (IPM) plan. Implementation of these measures would allow these species to persist on site after development in the large amount of permanent open space that would be protected and managed.

In addition to these measures reducing impacts to these species at the project level, these species occur in low densities on site, but have broad geographic ranges (*e.g.*, badger occurs virtually throughout the state), are likely to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands, although these species are likely to occur in low densities on Forest Service lands.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

(c) California Special Animals, Watch List Species, Specially Protected Mammal, and CDFG Trust Resource Species

This section addresses cumulative impacts to California Special Animals, Watch List Species, Specially Protected Mammal, and CDFG Trust Resource Species as organized by the different wildlife guilds.

Insect. This guild includes monarch butterfly and San Emigdio blue butterfly. Individual monarch butterflies have been regularly observed during focused butterfly surveys as well as during various other wildlife and plant surveys, but no wintering sites have been observed or documented in the SCRW. Due to the site's distance from the coast, it is unlikely that the RMDP/SCP project area would be used by large numbers of overwintering adult monarch butterflies (Compliance Biology 2004). Monarch butterflies themselves have no special conservation status, but their overwintering sites are considered a sensitive resource (CDFG 2008B). Because winter sites do not occur in the RMDP/SCP project area, including Landmark Village, there would be no impacts resulting from the proposed RMDP/SCP project and no cumulative effects of the proposed RMDP/SCP project, including Landmark Village, on Monarch butterflies' overwintering habitat.

One San Emigdio blue butterfly was also observed in the High Country SMA at the northwestern edge of Salt Creek Canyon during the 2005 surveys. The CNDDDB reports no known locations within the SCRW but Stephenson and Calcarone (1999) cite two occurrences within the SCRW, at Mint Canyon and Bouquet Canyon near Castaic. The primary location for this species is along the Mojave River near Victorville, with scattered locations in canyons along the north side of the San Gabriel Mountains near the desert's edge, and in arid areas south of Mount Abel near San Emigdio Mesa (Emmel and Emmel 1973; Murphy 1990).

Although the San Emigdio blue butterfly's geographic range is relatively large and its larval host plants (quail brush and four-winged saltbush) are common, it is a "habitat specialist," meaning that its distribution is much more localized than its host plants. It is known from only a few scattered locations range-wide. Quail brush and four-winged saltbush have wide elevational ranges, but the mixed saltbush scrub vegetation where San Emigdio blue butterfly is found generally occurs on bajadas, flats, lower slopes, playas, and valley floors (Sawyer and Keeler-Wolf 1995), where development and other land use conversions tend to be concentrated. The best-known location is outside the SCRW, along the Mojave

River at the Interstate 15 crossing, near Victorville. That occurrence has declined due to surrounding urbanization (Stephenson and Calcarone 1999).

Details of the San Emigdio blue butterfly's population status at SCRW occurrences at Bouquet and Mint canyons are unknown. Due to its occurrence in small, widely scattered locations; its susceptibility to habitat loss; and the lack of known occurrences within the SCRW, ongoing development in the watershed could be a potential significant cumulative impact to the San Emigdio blue butterfly.

Vegetation clearing associated with construction of RMDP facilities and fence construction around the Potrero Preserve Area in accordance with the SCP would result in the removal of quail brush plants associated with the colony that occurs outside the Potrero Preserve Area. The construction of Potrero Canyon Road under Alternative 2 would fragment the only known colony on site. Even with replacement, preservation, and management of habitat for this species, as proposed, this impact would be significant and unavoidable, absent further mitigation for Alternative 2. Due to the species' rarity within the SCRW and throughout its known range, and the other conservation issues described above, a significant impact to even a single occurrence would result in a cumulatively considerable contribution to the species in the watershed. Therefore, the RMDP/SCP project-specific impacts of Alternative 2 would be a significant and unavoidable cumulative impact to San Emigdio blue butterfly. However, the Landmark Village project site does not include any populations of San Emigdio blue butterfly, or a concentration of its host plant. Therefore, the Landmark Village project would not considerably contribute to cumulative secondary impacts to this species.

Alternatives 3 through 7 of the RMDP/SCP would largely avoid impacts to occupied habitat and unavoidable residual impacts would be reduced to a level less than significant through avoidance measures. Similarly, these alternatives also would not contribute considerably to a potential significant watershed-wide cumulative impact in the SCRW.

Reptile – Low Mobility. This guild includes coastal western whiptail, rosy boa, and San Bernardino ringneck snake.

The coastal western whiptail was observed on site in the High Country SMA (Dudek and Associates 2006) and off site in Castaic Mesa (Compliance Biology 2006), but was not observed in pitfall trapping (Impact Sciences 2006). There is only one other documented occurrence for the SCRW in the CNDDB south of Soledad Canyon Road. However, this species has only been tracked in the CNDDB in recent years, with the oldest occurrence in Ventura and Los Angeles counties dating back to 1993. This species is commonly observed by biologists in suitable habitat in southern California and it is expected to be relatively common in suitable habitat in the SCRW.

The San Bernardino ringneck snake and rosy boa have not been observed in the RMDP/SCP project area and there are no documented occurrences in the CNDDB for these species. While not commonly observed

by biologists because of their low detectability during typical walkover surveys, both species are still relatively widespread and common in suitable habitat (Zeiner *et al.* 1988). There is substantial suitable habitat for these species in the RMDP/SCP project area and elsewhere in the SCRW and both are expected to occur throughout the SCRW.

These three species overlap in their habitat use, but also may occur in habitats that are not typically used by the other species. For example, rosy boa primarily uses coastal scrub and chaparral, while the coastal western whiptail lizard and San Bernardino ringneck snake both use annual grassland and oak woodlands. Unlike the other two species, the ringneck snake also uses riparian habitats. For the purposes of this cumulative analysis for these species, the collective habitat types include riparian, grassland, coastal scrub, chaparral, and oak woodland. Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 777,000 acres of potential habitat in the SCRW. Because all three species probably are patchily distributed in the SCRW in association with suitable microhabitats within these broader habitat areas, not all 777,000 acres are expected to be occupied.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 35,000 acres of 777,000 acres of potential habitat for the coastal western whiptail, rosy boa, and San Bernardino ringneck snake. Without accounting for past, present or reasonably foreseeable mitigation for these habitats (particularly grassland, coastal sage scrub, and chaparral), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of 35,000 acres of habitat in the SCRW could be a potential significant impact on the habitat for these species. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 3,380 acres of the habitats, which could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including habitat fragmentation and isolation of some local populations of these species, making them more vulnerable to extirpation. In addition, over the long term, the close proximity of urban development to suitable habitat could result in disruption of essential behavioral activities (*e.g.*, foraging, reproduction) and greater vulnerability to several potential secondary impacts, including human-caused habitat degradation (*e.g.*, trampling of vegetation, introduction of invasive species, such as Argentine ants and off-road vehicles); harassment and collection; predation by pet, stray, and feral cats and dogs; increased incidence of roadkill; and use of pesticides, which may reduce their prey or cause secondary poisoning. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The required Newhall Ranch Specific Plan Program EIR mitigation measures and additional mitigation measures recommended by this EIR (**Subsection 4.4.10, Project Mitigation Measures**) would result in a large, permanent open space system that would provide suitable habitat to support coastal western whiptail, rosy boa, and San Bernardino ringneck snake in the RMDP/SCP project vicinity. Implementation of these mitigation measures would result in protection and management of substantial suitable habitat for these species (approximately 5,687 acres for coastal western whiptail, 3,724 acres for rosy boa, and 6,047 acres for San Bernardino ringneck snake) in three main interconnected areas: the River Corridor SMA, the High Country SMA, and the Salt Creek area (**Figure 4.4-29**). This set-aside would also help mitigate long-term secondary effects by providing adequate protected open space away from the edge of development. Several specific mitigation measures would also be implemented to control human activities in open space areas, including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. All lighting would be downcast away from open space areas. Rodenticides would be controlled through an integrated pest management (IPM) plan. Implementation of these measures would allow these species to persist on site after development in the large amount of permanent open space that would be protected and managed.

In addition to these measures reducing impacts to these species at the project level, these species have broad geographic ranges and are relatively common, are likely to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Bird – Raptor. This guild includes Cooper's hawk, ferruginous hawk, merlin, prairie falcon, sharp-shinned hawk, and turkey vulture. The Cooper's hawk is the only species in this guild that has been documented to nest on site. The others forage on site only during the winter or during migration (ferruginous hawk, merlin, and sharp-shinned hawk) or otherwise are likely to nest off site and use the site only for foraging (prairie falcon and turkey vulture). These species are expected for nest (Cooper's hawk, prairie falcon, and turkey vulture) and/or forage throughout suitable habitat in the watershed.

As a group these species may forage in virtually all the habitats on site, including agriculture, disturbed land, grassland, coastal scrub, chaparral, riparian, and woodland. However, each of the species typically uses some subset of these habitats. For example, ferruginous hawk typically forages over open lands,

such as grassland and agriculture, while Cooper's hawk primarily forages in riparian and woodland habitat and adjacent coastal scrub. Wintering or migrant sharp-shinned hawks may forage in all of the habitats listed above. For the purpose of this analysis, therefore, all of these habitats are considered to be suitable for the Bird – Raptor guild.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 836,000 acres of suitable foraging habitat for these species in the SCRW. It is not expected that all 836,000 acres are used by all members of this guild because of the different foraging habitat preferences of the different species.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 38,000 acres of 836,000 acres of suitable foraging habitat for species in the Bird – Raptor guild. Without accounting for past, present or reasonably foreseeable mitigation for these habitats (particularly upland habitats), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of 38,000 acres of habitat in the SCRW could be a potential significant impact on the habitat for these species. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 5,590 acres, which could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including increased human activity; pesticide use resulting in loss of prey and/or secondary poisoning; harassment and predation by pet, stray, and feral cats and dogs; and increased predation by mesopredators. The larger species such as turkey vulture would have increased potential for entanglement with power lines poles, resulting in physical injury or death from electrocution. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR (**Subsection 4.4.10, Project Mitigation Measures**) would establish a large, managed open space system that includes substantial foraging habitat for these species, including 1,609 acres for Cooper's hawk (includes potential breeding habitat), 2,996 acres for ferruginous hawk, 3,086 acres for merlin, 1,409 acres for prairie falcon, 6,574 acres for sharp-shinned hawk, and 4,267 acres for turkey vulture. This habitat would be set aside in three main interconnected areas: the River Corridor SMA, the High Country SMA, and the Salt Creek area (**Figure 4.4-29**). This set-aside would also help mitigate long-term secondary effects by providing adequate protected open space away from the edge of development. Several specific mitigation measures would also be implemented to control human activities in open space areas,

including restrictions on recreational activities and homeowner education. Pet, stray, and feral cats and dogs would be leashed or otherwise controlled in or adjacent to open space areas. All lighting would be downcast away from open space areas. Rodenticides would be controlled through an integrated pest management (IPM) plan. Installation of new or relocation of existing power lines in the High Country SMA and Salt Creek area would be coordinated with CDFG and structures would be designed in accordance with Avian Power Line Interaction Committee (APLIC 2006) guidelines and operated with anti-perching devices to help reduce collisions and electrocutions.

In addition to these measures reducing impacts to these species at the project level, these species have broad geographic ranges, are likely to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Bird – Riparian. This guild includes black-crowned night-heron and Nuttall's woodpecker.

The designated sensitive resource for the black-crowned night-heron is roosts or rookery sites, none of which have been documented in the RMDP/SCP project area during the numerous avian surveys conducted in riparian habitats. Because roosts or rookery sites do not occur in the RMDP/SCP project area, there would be no impacts resulting from the proposed RMDP/SCP project and no cumulative effects of the proposed RMDP/SCP project on roosts or rookery sites for this species. Therefore, this species is not addressed further in this analysis.

Nuttall's woodpecker was observed nearly every year in the RMDP/SCP project area during riparian bird spring surveys and is considered to be common in riparian and woodland habitats on site. It is also commonly observed in riparian and woodland habitats elsewhere in southern California during biological surveys. For the purpose of this analysis, Nuttall's woodpecker is considered to be common in suitable habitat throughout the watershed.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 30,000 acres of suitable habitat for Nuttall's woodpecker in the SCRW. It is not expected that all 30,000 acres are used by this species, but because it is relatively common species in suitable habitat, it is likely to have a broad distribution in the watershed.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 1,100 acres of 30,000 acres of suitable habitat for Nuttall's

woodpecker, including the proposed RMDP/SCP project's contribution of 320 acres. Because this species is common and has a widespread distribution within its range, this cumulative impact would be adverse, but not significant.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects including noise; lighting; invasive species, such as giant reed, tamarisk, and Argentine ants; increased human activity; increased predation; and use of pesticides which could reduce prey and cause secondary poisoning. These secondary impacts would not be cumulatively significant because of this species' common occurrence in suitable habitat and widespread distribution.

Although impacts to habitat and secondary effects on Nuttall's woodpecker would not be cumulatively significant, the mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR for other special-status riparian birds (**Subsection 4.4.10, Project Mitigation Measures**) would protect riparian habitat and establish a large, managed open space system, all of which would reduce impacts to this species. This mitigation would result in the preservation and management of approximately 1,629 acres of suitable habitat for Nuttall's woodpecker. This set-aside of lands would also reduce long-term secondary effects. In addition, lighting restrictions along the perimeter of natural areas would help avoid predation of nest sites by nocturnal predators and avoid physiological stress. Limited recreational usage and access restrictions within the River Corridor SMA/SEA 23 and High Country SMA/SEA 20; control of pet, stray, and feral cats and dogs in or near open space areas; trail signage; and homeowner education regarding special-status resources in preserved natural habitat areas would help protect this species by allowing it to nest and forage without disturbance. Controls on pesticides would reduce the chance of secondary poisoning and loss of prey. Controls on Argentine ants would help reduce impacts on young in nests.

Bird – Upland Scrub and Chaparral. This guild includes Allen's hummingbird, Bell's sage sparrow, black-chinned sparrow, Costa's hummingbird, rufous hummingbird, and southern California rufous-crowned sparrow. The rufous-crowned sparrow is a relatively common breeding resident in the RMDP/SCP project area. The Bell's sage sparrow has not been observed in the RMDP/SCP project area, but two individuals were observed on the adjacent Legacy project site and the species has the potential to nest in small numbers in the RMDP/SCP project area. The Allen's and Costa's hummingbirds are regularly observed in the RMDP/SCP project area and have high potential to nest on site. The rufous hummingbird is regularly observed in the early spring in the RMDP/SCP project area and is assumed to use the site during migration and to not be a breeding resident. The black-chinned sparrow has not been observed in the RMDP/SCP project area and is considered to have a low potential to nest on site. There are no occurrence records in the CNDDDB for the SCRW for any of these species, but because most are still relatively common and are often observed by biologists where they occur, the lack of occurrences is

probably due to under-reporting. It is assumed for this analysis that their occurrence in the larger watershed is comparable to their occurrence in the RMDP/SCP project area.

As a group these species forage and nest (if a breeding resident) coastal scrub and/or chaparral throughout their ranges. However, on site, and possibly in the region, the Bell's sage sparrow is expected to occur only in chaparral (Garrett and Dunn 1981). In addition, the Allen's hummingbird, Costa's hummingbird, and rufous hummingbird also commonly forage, and Allen's hummingbird may nest, in riparian and woodland habitats. Therefore, for these three species the riparian and woodland habitats are included in this analysis.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 725,000 acres of suitable coastal scrub and chaparral habitat for black-chinned sparrow and Bell's sage sparrow and 755,000 acres of suitable coastal scrub, chaparral, riparian, and woodland habitat for Allen's hummingbird, Costa's hummingbird, and rufous hummingbird in the SCRW. It is not expected that all of these acreages are used by all of these species. Based on the RMDP/SCP project area occurrences, the southern California rufous-crowned sparrow and the hummingbirds may be fairly common elsewhere in the SCRW, but the black-chinned sparrow and Bell's sage sparrow probably are much less common.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 33,000 acres of 725,000 acres of coastal scrub and chaparral for black-chinned sparrow and Bell's sage sparrow and approximately 34,000 acres of 755,000 acres of coastal scrub, chaparral, riparian, and woodland habitat Allen's hummingbird, Costa's hummingbird, and rufous hummingbird. Without accounting for past, present or reasonably foreseeable mitigation (particularly for upland scrub and chaparral), or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of this habitat in the SCRW could be a potential significant impact on the habitat for these species. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to the impact on coastal scrub and chaparral is 1,980 acres. The proposed RMDP/SCP project's contribution to the impact on coastal scrub, chaparral, riparian, and woodland habitat is 2,300 acres. These contributions to the overall potential significant cumulative impact in the SCRW could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects including noise; lighting; invasive plant species and Argentine ants (increasing mortality of young of breeding residents); increased human activity; increased predation; and use of pesticides which could reduce prey and cause secondary poisoning. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed

RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR (**Subsection 4.4.10, Project Mitigation Measures**) would protect suitable habitat for these species and establish a large, managed open space system. The open space system would include approximately 3,487 acres of coastal scrub and chaparral for the black-chinned sparrow, 1,488 acres of chaparral for Bell's sage sparrow, and approximately 3,860 acres of coastal scrub, chaparral, riparian, and woodland habitat for the hummingbirds. This set-aside of lands would also reduce long-term secondary effects. In addition, for breeding residents lighting restrictions along the perimeter of natural areas would help to reduce predation of nest sites by nocturnal predators and reduce physiological stress. Limited recreational usage and access restrictions within the River Corridor SMA/SEA 23 and High Country SMA/SEA 20; control of pet, stray, and feral cats and dogs in or near open space areas; trail signage; and homeowner education regarding special-status resources in preserved natural habitat areas would help protect these species by allowing them to nest and forage without disturbance. Controls on pesticides would reduce the chance of secondary poisoning and loss of prey. Controls on Argentine ants would help reduce impacts on young in nests.

In addition to these measures reducing impacts to these species at the project level, these species have broad geographic ranges, are likely to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Bird – Upland Grassland. This guild includes only California horned lark. This species is commonly observed on site within the Santa Clara River and adjacent agricultural fields. Although this species has not been documented to nest on site, due the presence of suitable nesting habitat, it is assumed that California horned lark could nest on site. Based in frequent observations of this species in the RMDP/SCP project area and because it is commonly observed by biologists elsewhere in southern California, it is assumed that the California horned lark commonly occurs in suitable habitat in the SCRW, including annual and native grassland, agriculture, and disturbed land.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 78,000 acres of suitable in the SCRW for California horned lark. It is not expected that all 78,000 acres are used by this species, but it is common enough and has broad enough habitat preferences,

that it could occur almost anywhere in these habitats where there is available insect prey, such as freshly disced fields.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 3,790 acres of 78,000 acres of suitable habitat for the California horned lark, of which the contribution of the proposed RMDP/SCP, including the Landmark Village project, is 3,290 acres. This is considered an adverse but not significant cumulative impact to this species because it is still common and widespread within its range and uses a variety of habitats.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, could result in potential long-term secondary effects, including habitat fragmentation; abandonment of nests from human activity; greater vulnerability to nocturnal predators as a result of nighttime lighting; noise from roadways; nest parasitism by cowbirds; greater vulnerability to predation by pet, stray, and feral cats and dogs and other mesopredators; and loss of prey or secondary poisoning due to the use of pesticides. Although these effects could occur, substantial relatively undisturbed winter foraging habitat would remain in the SCRW, which would allow the California horned lark to avoid many of these effects. Secondary effects to wintering birds would be adverse but not significant. Also, this species has not been documented to nest in the RMDP/SCP project area, and if it did, the nesting population probably would be small. Therefore, cumulative secondary impacts to nesting birds, such as cowbird parasitism, would be adverse but not significant.

Even though impacts to the California horned lark and its habitat would not be cumulatively significant and mitigation measures are not required, the mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR (**Subsection 4.4.10, Project Mitigation Measures**) for other project-level impacts to biological resources would be implemented that would further reduce any potential impacts. These mitigation measures also include habitat preservation, restoration, enhancement, and management of the High Country SMA and Salt Creek area—areas that would form a large, contiguous open space system that includes 995 acres of California annual grassland, agriculture, and disturbed land. This set-aside of lands would also reduce potential long-term secondary effects. In addition, for breeding residents lighting restrictions along the perimeter of natural areas would help to reduce predation of nest sites by nocturnal predators and reduce physiological stress. Limited recreational usage and access restrictions within the River Corridor SMA/SEA 23 and High Country SMA/SEA 20; control of pet, stray, and feral cats and dogs in or near open space areas; trail signage; and homeowner education regarding special-status resources in preserved natural habitat areas would help protect this species by allowing it to nest and forage without disturbance.

Bird – Upland Woodland. This guild includes chipping sparrow, Lawrence's goldfinch, hermit warbler, and oak titmouse. All of these species have been observed in the RMDP/SCP project area and the chipping sparrow, Lawrence's goldfinch, and oak titmouse are considered to be breeding residents. The hermit warbler is considered to be a winter migrant. All of these species are fairly common to abundant in suitable habitat and are commonly observed by biologists during surveys in southern California. Although the primary habitat for these species is upland woodland, they also forage and nest in riparian habitats. Therefore, for the purpose of the cumulative analysis suitable habitat for these species is defined as woodland and riparian.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 30,000 acres of suitable woodland and riparian habitat in the SCRW for these species. It is not expected that all 30,000 acres are used by these species, but because they are still common to abundant within their ranges, and based regular observations of these species in the RMDP/SCP project area, these species area assumed to be fairly common in suitable habitat in the SCRW.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 1,100 acres of 30,000 acres of suitable habitat for these, including the proposed RMDP/SCP project's contribution of 320 acres. Because these species are common and have widespread distributions within their range, and given the presence of substantial riparian and oak woodland vegetation communities within the proposed RMDP/SCP project area, National Forest system lands and other designated open space within the watershed, the cumulative impact would be adverse but not significant.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including habitat fragmentation; abandonment of nests from human activity; greater vulnerability to nocturnal predators as a result of nighttime lighting; noise from roadways; nest parasitism by cowbirds; greater vulnerability to predation by pet, stray, and feral cats and dogs and other mesopredators; and loss of prey or secondary poisoning due to the use of pesticides. Although these effects could occur, substantial undisturbed habitat would remain in the SCRW, which would allow these species to avoid many of these effects. Therefore, cumulative secondary impacts to migrant (hermit warbler) and nesting birds would be adverse but not significant.

Even though impacts to these species and their habitat would not be cumulatively significant and mitigation measures are not required, the mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR (**Subsection 4.4.10, Project Mitigation Measures**) for other project-level impacts to biological resources would be implemented and would further reduce any potential impacts. These mitigation measures include habitat preservation, restoration, enhancement, and

management of the High Country SMA and Salt Creek area—areas that would form a large, contiguous open space system that includes 1,560 acres of riparian and woodland habitat. This set-aside of lands would also reduce potential long-term secondary effects. In addition, for breeding residents lighting restrictions along the perimeter of natural areas would help to reduce predation of nest sites by nocturnal predators and reduce physiological stress. Limited recreational usage and access restrictions within the River Corridor SMA/SEA 23 and High Country SMA/SEA 20; control of pet, stray, and feral cats and dogs in or near open space areas; trail signage; and homeowner education regarding special-status resources in preserved natural habitat areas would help protect these species by allowing them to nest and forage without disturbance.

Bats. This guild includes fringed myotis, long-legged myotis, western small-footed myotis, and Yuma myotis. The presence of the fringed myotis and Yuma myotis were confirmed in the RMDP/SCP project area through acoustic detection (fringed myotis) and capture (Yuma myotis). The presence of long-legged myotis and western small-footed myotis was not confirmed, but bats with acoustic signatures in the 40 kHz range, which is the range for these two species, were detected on site in 2004 and 2006. Therefore, long-legged myotis and western small-footed myotis potentially occur in the RMDP/SCP project area. There are no CNDDDB records of these species elsewhere in the SCRW. However, comprehensive surveys for these species have not been conducted throughout the SCRW. Because species are foraging generalists and use a variety of habitats (although the Yuma myotis primarily uses riparian and wetland habitats), it is assumed that these species could occur throughout the SCRW at least in low numbers. The main limitation for the occurrence of these species probably is a lack of day roosts sites, such as a caves, crevices, rock outcrops, tunnels, *etc.*

This cumulative analysis addresses the loss of foraging habitat for these species. As foraging generalists, they use a variety of habitats, but probably concentrate most of their foraging activity in wetland and riparian habitats. Suitable foraging habitat for bats includes coastal scrub, chaparral, grassland, riparian, oak woodland, agriculture, and disturbed land. Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 836,000 acres of suitable foraging habitat for bats in the SCRW. It is not expected that all 836,000 acres are used by these bats for foraging because this habitat must be within typical flight distances of day roosts.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 38,000 acres of 836,000 acres of suitable foraging habitat for these bats. Without accounting for past, present or reasonably foreseeable mitigation, or the RMDP/SCP project's individual contribution to mitigation for loss of habitat, the loss of this habitat in the SCRW could be a potential significant impact on the habitat for these species. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this impact is 5,590 acres, which could be cumulatively considerable, absent mitigation.

In addition to loss of foraging habitat, day roosts, including maternal roosts, may be present in the SCRW and subject to potential impacts as a result of present and reasonably foreseeable projects. Although no day roosts for these species were detected in the RMDP/SCP project area, there is a potential for day roost sites to be established in the RMDP/SCP project area and to occur elsewhere in the SCRW. Without accounting for past, present or reasonably foreseeable mitigation (particularly upland habitats), or the RMDP/SCP project's individual contribution to mitigation for loss of day roosts, the loss of roost sites could result in a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact, if a day roost were impacted by construction activities, could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects resulting from increased human activity, noise, and lighting. Use of pesticides for agriculture or in landscaped areas may result in secondary poisoning and reduction of prey. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

The cumulative loss of foraging habitat and day roost sites, and long-term secondary impacts to these bats species would be reduced through several mitigation measures required by the Newhall Ranch Specific Plan EIR and recommended in this EIR (**Subsection 4.4.10, Project Mitigation Measures**). These measures include habitat preservation, restoration, enhancement, and management of approximately 6,300 acres in the River Corridor SMA, High Country SMA, and Salt Creek area—areas that would form a large, contiguous open space system providing foraging and potential roosting habitat for bats. It is expected that the species in this guild would continue to forage in these areas after buildout of the RMDP/SCP project area. Alternative roost sites would be created to mitigate for any day roost sites disturbed during construction, including creation of roosts under bridges and in culverts, where practicable, in consultation with CDFG. Species measures to reduce potential long-term secondary impacts include controls on public access and lighting.

In addition to these measures reducing impacts to these species at the project level, these species have broad geographic ranges, are likely to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; or (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Mammal – High Mobility. This guild includes American black bear, mountain lion, and mule deer. The mountain lion and mule deer are both present in the RMDP/SCP project area. The RMDP/SCP project area supports about 14,300 acres (22 square miles), which is probably not large enough to encompass the entire home range of a mountain lion individual (*e.g.*, mountain home ranges in the Santa Ana Mountains range from about 32 to 86 square miles, with a mean of 43 square miles (Padley 1989, 1996)), but assuming some range overlap of individuals, the RMDP/SCP project area could be included in the home ranges of two or three individuals. Female home ranges are generally much smaller than male ranges and have been documented to range from 20 to 60 square miles (Stephenson and Calcarone 1999). It is also important to note that the size of an individual's home range can vary from season to season and year to year, and is probably dependent on prey density and available stalking cover (Currier 1983). In areas where habitat is limited, population densities can reach 10 adults per 100 square miles (Stephenson and Calcarone 1999). Also, the RMDP/SCP project area supports habitat for mountain lions dispersing through the region. Mule deer are common on site and currently use much of the site. American black bear has been documented to use the High Country SMA and there may be some suitable denning habitat in the High Country SMA and Salt Creek area. This species also may use the site when moving between the Santa Susana Mountains and Santa Monica Mountains to the south and the Los Padres National Forest and Angeles National Forest in the Sierra Madre Mountains to the north. All three species are considered to be relatively common to common in suitable habitat in the SCRW, but primarily use the more remote areas of the watershed north and south of the RMDP/SCP project area.

These species use a variety of habitats, and probably are only limited in their habitat use by the amount of vegetation cover available. Of the habitats in the SCRW, they are only expected to be absent from large areas of annual grassland, agriculture, and disturbed lands that lack cover, although mule deer often forage in grassland at the edges of shrubland, riparian, and woodland habitats. For the purpose of this analysis, suitable habitat for these species is defined as coastal scrub, chaparral, riparian, and oak woodland.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 755,000 acres of suitable habitat for these species the SCRW. It is not expected that all 755,000 acres are used by all of these species. Based on the RMDP/SCP project area occurrences, the mule deer may be relatively common in these habitats, but the mountain lion and black bear are expected to be much less common.

Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 34,000 acres 755,000 acres of these habitats. This loss of habitat could be a potential significant impact on these species in the watershed. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact on coastal scrub, chaparral, riparian, and woodland habitat is 2,300 acres, which could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including nighttime illumination of areas adjacent to open space, which could disrupt foraging and movement behavior; increased vehicle collisions at new and expanded roadways; increased encounters with humans and pet, stray, and feral dogs; and the use of rodenticides to control small mammals (*e.g.*, ground squirrels and rabbits, which are prey for mountain lion), which may reduce prey populations and possibly cause secondary poisoning of predators. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation.

Several mitigation measures would be implemented to reduce cumulative impacts to habitat and long-term secondary effects associated with development. The mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR (**Subsection 4.4.10, Project Mitigation Measures**) include habitat preservation, restoration, enhancement, and management of upland and riparian habitat areas in the River Corridor SMA, High Country SMA, and Salt Creek area that would form a large, contiguous open space system of about 6,300 acres that supports these species. It is expected that these species would continue to use these areas as resident and movement habitat after buildout of the RMDP/SCP project area. The set-aside of lands also would reduce long-term secondary effects, such as increased noise, lighting, and increased human activity because individuals would have access to substantial habitat in undisturbed open space that would support their life history needs, including foraging, reproduction, movement, and dispersal. Long-term secondary effects, such as increased human activity; pet, stray, and feral dogs; lighting; and rodenticides would also be mitigated through a variety of measures associated with management of open space.

As discussed in detail in **Subsection 4.5.5.2.4.2, Impacts to Wildlife Landscape Habitat Linkages**, the proposed RMDP/SCP project may affect regional habitat connectivity and movement by these species. The combined High Country SMA and Salt Creek area provide the most direct connections between the River corridor habitat and large upland habitat areas south of the River, and are those identified by Penrod *et al.* (2006, Recirculated Draft EIR, **Appendix 4.4**) as important components of regional habitat connectivity. The River Corridor SMA also is an important east-west habitat linkage and intersects the north-south linkage provided by the High Country SMA and Salt Creek area. These habitat linkages would remain intact and functional after implementation of the RMDP and SCP and buildout of the Specific Plan, VCC, and Entrada planning areas. The impact of the proposed RMDP/SCP project on regional habitat connectivity, therefore, was determined to be adverse but not significant. Other present and reasonably foreseeable projects considered in this analysis would not affect these regional habitat linkages.

In addition to these measures reducing impacts to these species at the project level, these species have broad geographic ranges, are known to occur in suitable habitat within the watershed, and much of the watershed consists of National Forest system lands and other designated public ownership lands that provide primary habitat for these species in the SCRW.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of these species; (2) a cumulatively considerable contribution to a potential significant cumulative impact due to loss of suitable habitat; (3) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects; or (4) a cumulatively considerable contribution to a potential significant impacts to regional wildlife habitat linkages.

(d) Listed Plant Species

San Fernando Valley Spineflower (CE). The San Fernando Valley spineflower occurs at two known locations: on Newhall Land property in Los Angeles County and on the Upper Las Virgenes Canyon Open Space Preserve (formerly Ahmanson Ranch) in Ventura County. The Upper Las Virgenes Canyon Open Space Preserve occurrence lies outside the SCRW boundary; however, it is included in this cumulative impacts analysis as it is the only other known occurrence of this species. The total cumulative area occupied by San Fernando Valley spineflower, including the RMDP/SCP project site and the Ventura County site, is 30.84 acres. Of that total, 20.24 acres are on Newhall Land property and 10.60 acres are at Upper Las Virgenes Canyon Open Space Preserve. The Preserve land is owned by the State of California and is managed by the Mountains Recreation and Conservation Authority, and is preserved in perpetuity.

Due to San Fernando Valley spineflower's very limited known distribution, occurring on only 30.84 acres of known occupied habitat, it is susceptible to almost any habitat loss. Thus, any significant adverse impact to San Fernando Valley spineflower could be a potential significant cumulative impact.

Under Alternative 2 of the RMDP/SCP, a total of 6.35 acres of San Fernando Valley spineflower occupied area would be lost. The remainder of known occupied habitat on the RMDP/SCP project site would be preserved and managed, as described in the Spineflower Conservation Plan (SCP). The preserved areas would be susceptible to secondary impacts, which would be minimized or avoided through implementation of the SCP. It should be noted that the Landmark Village project would not result in any direct loss of San Fernando Valley spineflower, and would not contribute to the cumulative loss of this species.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term

secondary effects, including hydrologic alterations and water quality impacts; accidental clearing, trampling, and grading; runoff, sedimentation, erosion and chemical and toxic compound pollution; exposure to fugitive dust; the introduction of non-native, invasive plant and animal species; increased human activity and trampling and soil compaction; and increased risk of fire. At the watershed level these secondary effects could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP project to this potential cumulative secondary impact could be cumulatively considerable, absent mitigation. However, the Landmark Village project does not include any populations of San Fernando Valley spineflower within the project site's disturbance boundaries. One population occurs at a location surrounded by the Adobe Canyon borrow site. (To avoid impacts to this population, grading in this location would be redesigned to be a minimum of 300-feet away from known spineflower plants).²⁸ Other spineflower populations occur to the west and the south of the borrow site's disturbance boundary, but a minimum of 300 feet also would be provided from known spineflower locations. Given that grading and/or clearing areas would be over 300 feet from known spineflower populations, and with incorporation of avoidance mitigation measures, the Landmark Village project would not considerably contribute to cumulative secondary impacts to this species.

See **Subsection 4.4.10** for mitigation measures required by the Newhall Ranch Specific Plan Program EIR and mitigation measures recommended by this EIR to mitigate impacts to the San Fernando Valley spineflower. The loss of 6.35 acres of San Fernando Valley spineflower occupied area within the RMDP/SCP project area was determined to be a significant unavoidable impact under Alternative 2, because this species is only known in two locations rangewide. It was determined that the preservation and management of 13.89 occupied acres and associated spineflower preserves (totaling 167.6 acres) would not mitigate project-related impacts to San Fernando Valley spineflower to less than significant.

Due to the species' rarity throughout its known range and the other conservation issues described above, even with the mitigation measures required by the Newhall Ranch Specific Plan EIR and mitigation measures recommended by this EIR, a significant impact to even a single occurrence would also result in a cumulatively considerable contribution to a potential significant cumulative impact. Therefore, the RMDP/SCP project-specific impacts of Alternative 2 to San Fernando Valley spineflower would be a significant and unavoidable cumulative impact.

Under RMDP/SCP Alternatives 3 through 7, on-site loss of San Fernando Valley spineflower would be decreased so that proposed preservation, habitat enhancement, and management under the SCP would mitigate this loss to below the level of significance. On-site preservation and management prescribed in the SCP in combination with the ongoing long-term preservation of the Laskey Mesa at the Upper Las

²⁸ According to the Conservation Biology Institute, spineflower buffer areas need to be at least 80 to 100 feet to be moderately effective (CBI 2000).

Virgenes Canyon Open Space Preserve, would reduce overall cumulative impacts to San Fernando Valley spineflower. As a result, under RMDP/SCP Alternatives 3 through 7, the proposed RMDP/SCP, including the Landmark Village project, would not have a cumulatively considerable contribution to any potentially significant cumulative impacts to San Fernando Valley spineflower.

(e) **California Native Plant Society (CNPS) and Locally Regulated Plant Species**

Undescribed everlasting.²⁹ This undescribed species does not have a CNPS listing status, but is assumed to meet the criteria for designation to CNPS List 1B for purposes of this analysis. The undescribed everlasting was observed on sandy, alluvial benches along the Santa Clara River and within Hasley Canyon. This undescribed everlasting occurs from San Luis Obispo south to San Diego counties, west of the Peninsular and Transverse Ranges. Because this species is associated with sandy alluvial benches along river floodplains, it was not possible to model suitable habitat within the RMDP/SCP project area, nor within the SCRW, based on the California GAP vegetation database (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), which was compiled at a broad scale and necessarily lower precision. Therefore, cumulative impacts to this species are analyzed based on the loss of individuals of this species.

The proposed RMDP/SCP project would result in the loss of 357 individuals of the undescribed everlasting. This species' distribution is expected to be limited to the floodplain of the Santa Clara River and the lower portions of major tributaries. It is anticipated that other present and reasonably foreseeable proposed development within the SCRW would impact occurrences of this species, although it is likely that there would be some level of avoidance of these riparian areas. This could be a potential significant cumulative impact for this species within the watershed. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to the loss of individuals could be a potential significant cumulative impact, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased human activity, trampling, and soil compaction; and hydrologic alterations and water quality impacts. This could be a potential significant cumulative impact for this species within the watershed. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to these secondary impacts could be cumulatively considerable, absent mitigation.

The mitigation required by the Newhall Ranch Specific Plan Program EIR and recommend in this EIR includes avoidance and minimization measures, including salvage of seeds and/or transplantation (see

²⁹ Some experts identify this species as white-headed cudweed (*Gnaphalium leucocephalum*), which is a CNPS List 2.2 species (S3.2).

Subsection 4.4.10, Project Mitigation Measures). As required by BIO-75 and BIO-76, focused surveys to be conducted prior to the commencement of grading/construction activities within suitable habitat for the undescribed everlasting would ensure that individual plants are detected. Avoidance measures, and, if necessary, the salvage of seeds and/or transplantation of individuals identified within the disturbance area to an appropriate receptor site within the River Corridor SMA/SEA 23 where long-term preservation is provided, shall be implemented as outlined within the undescribed everlasting mitigation and monitoring plan. In addition, mitigation measures designed to provide for the long-term maintenance of the River Corridor SMA/SEA 23 in a natural state by restricting access and prohibiting grazing, agriculture, and recreation within the River Corridor SMA/SEA 23, as well as providing for the restoration and enhancement of habitat within the River Corridor SMA/SEA 23, would mitigate the loss of undescribed everlasting.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; or (2) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Undescribed sunflower. This undescribed species does not have a CNPS listing status, but is assumed to meet the criteria for designation to CNPS List 1B for purposes of this analysis. This species is only known to occur in the Middle Canyon drainage in the RMDP/SCP project area. Therefore, there would be no other known impacts to this species by other projects in Los Angeles and Ventura counties and, therefore, there would be no cumulative impacts.

Island mountain-mahogany. This CNPS List 4.3 species is known to occur on site within chaparral within the Specific Plan and Entrada planning areas of the RMDP/SCP project area. Island mountain-mahogany was observed nearly every year in the RMDP/SCP project area and is considered to be common in chaparral vegetation communities on site. This species has been documented in chaparral throughout Los Angeles and Ventura counties, including the Channel Islands (except San Clemente Island) (CNPS 2007; Hickman 1993). Island mountain-mahogany is fairly common in suitable habitat throughout the watershed.

As described in **Table 4.4-27**, Summary of Cumulative Impacts to CNPS and Locally-Regulated Plant Species in the Santa Clara River Watershed, based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 550,000 acres of chaparral in the SCRW, although island mountain mahogany are not expected to occur in all 550,000 acres. For example, within the RMDP/SCP project area, island mountain-mahogany was found primarily in chaparral at the base of north-facing slopes. Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 12,500 acres of 550,000 acres of chaparral. This

could be a potential significant cumulative impact for this species within the watershed. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 460 acres. This loss of habitat would not be a cumulatively considerable contribution to a potential significant cumulative impact because of this species' widespread distribution within its range.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased human activity, trampling, and soil compaction; and increased risk of fire. These secondary impacts would not be a significant cumulative impact because of this species' widespread distribution within its range, and the configuration of large tracts of chaparral within the SCRW results in a relatively low ratio of edge to core habitat and, therefore, reduces the chance of edge-related secondary impacts.

Late-flowered mariposa lily. Within the RMDP/SCP project area, this CNPS List 1B.2 species is only known to occur in the High Country SMA. Implementation of the RMDP and SCP and buildout of the Specific Plan, VCC, and Entrada planning areas would not result in any direct or indirect impacts to late-flowered mariposa lily. Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, could, however, result in potential long-term secondary effects, including the introduction of non-native, invasive plant species and increased human activity, trampling, and plant collecting. This could be a potential significant cumulative impact for this species within the watershed. RMDP/SCP project implementation could result in such secondary impacts by recreational visitors in the High Country SMA, but these secondary impacts would be minimal because even if flowers were picked or a plant trampled, the underground bulb would remain. The proposed RMDP/SCP project would not considerably contribute to a potential significant cumulative secondary impact in the watershed.

Mainland cherry. This species does not have a CNPS listing status but is designated as special-status by the County of Los Angeles. Mainland cherry (*Prunus ilicifolia* ssp. *ilicifolia*, a subspecies of holly-leaf cherry) was observed nearly every survey year (2002 through 2007) within chaparral and big sagebrush scrub within the Specific Plan, VCC, and Entrada planning areas within the RMDP/SCP project area. Mainland cherry is an occasional component of chaparral and big sagebrush scrub vegetation communities on site. This species ranges throughout the central and southern Coast Ranges and from Napa County southward to Baja California (Hickman 1993; McMurray 1990). Mainland cherry is an occasional component in suitable habitat throughout the watershed.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 556,000 acres of chaparral and big sagebrush scrub in the SCRW, although mainland cherry is not expected to occupy all 556,000 acres (see **Table 4.4-27**). For example, within the RMDP/SCP project area, mainland cherry was found primarily in chaparral and big sagebrush scrub in association with ephemeral and/or intermittent stream channels (river wash). Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 12,000 acres of 556,000 acres of chaparral and big sagebrush scrub. This could be a potential significant cumulative impact for this species within the watershed. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 460 acres. This contribution would not be cumulatively considerable because this species is relatively common and widespread throughout the SCRW.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased human activity, trampling, and soil compaction; and increased risk of fire. This would not be a significant cumulative impact for this species within the watershed because this species is relatively common and widespread throughout the SCRW. In addition, the configuration of large tracts of preserved chaparral and big sagebrush scrub within the SCRW results in a relatively low ratio of edge to core habitat and, therefore, reduces the chance of edge-related secondary impacts.

Oak Trees. Oak trees are designated as special-status by the County of Los Angeles. Oak trees were observed every year within the Specific Plan, VCC, and Entrada planning areas within the RMDP/SCP project area. Oak trees are the dominant species in oak woodland and oak/grass vegetation communities on site, as well as occasional components of other vegetation communities on site. The oak species observed on site (coast live oak, Valley oak, scrub oak, Alvord oak, and interior live oak) have been documented throughout much of California and (for coast live oak) southward to Baja California (Hickman 1993; McMurray 1990).

The combined direct and indirect permanent loss of individual oak trees resulting from implementation of the RMDP and the SCP and buildout of the Specific Plan, VCC, and Entrada planning areas would total 1,370 individuals (5.9 percent of the oak trees in the RMDP/SCP project area). It is anticipated that present and reasonably foreseeable projects in the SCRW would impact other occurrences of these species. Although oak woodlands were not mapped for any of the projects listed as past, present, or reasonably foreseeable in the California GAP database (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**) due to the coarse scale of mapping, the fact that oaks occur in the proposed RMDP/SCP project area (despite not occurring in the GAP data) suggests that oaks probably occur at least in small numbers on other project sites. This could be a potential significant cumulative impact for these species

within the watershed. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to the cumulative loss of individual oak trees could be cumulatively considerable, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; hydrologic alterations and water quality impacts; increased human activity that may result in littering, vandalism, and increased susceptibility to diseases, and trampling and soil compaction; and an increased risk of fire. The RMDP/SCP project's contribution to these impacts in the watershed would not be a significant cumulative impact because the configuration of large tracts of oak woodland vegetation communities within the SCRW results in a relatively low ratio of edge to core habitat and, therefore, reduces the chance of edge-related secondary impacts.

The mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR includes avoidance and minimization measures (see **Subsection 4.4.10, Project Mitigation Measures**). The applicant would implement several mitigation measures to avoid, minimize, and mitigate impacts to individual oak trees and their associated habitat. The proposed mitigation encompasses a three-part strategy that incorporates (1) planting replacement trees, per the requirements of CLAOTO and previously incorporated measure SP-4.6-48; (2) additional replacement ratios recommended in this EIR for impacts to oak trees and oak woodlands where they occur within stream channels falling under CDFG and Corps jurisdiction, per 1600 and 404 (BIO-2); and (3) additional measures recommended in this EIR for tree replacement or woodland restoration/enhancement to mitigate for oak trees and woodland occurring in uplands outside CDFG and Corps jurisdiction (BIO-22). General procedures to avoid and minimize impacts to oak trees during construction would be implemented and a qualified biologist would be present during construction in order to avoid inadvertent impacts to biological resources outside of the grading area, further reducing impacts to the species.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; or (2) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Oak-leaved nemophila. This CNPS List 4.3 species was known to occur from Tuolumne County south through Kern County (CNPS 2007). Occurrences on the RMDP/SCP project site are the southernmost recorded occurrences of the species. Oak-leaved nemophila was found in several locations within oak woodland within the Specific Plan area. Oak-leaved nemophila is assumed to occur as an occasional component of oak woodlands within the Specific Plan area. For the purpose of this analysis, oak-leaved

nemophila is considered to be an occasional component of oak woodlands throughout the watershed. It is anticipated that present and reasonably foreseeable projects in the SCRW would impact occasional occurrences of this species.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 5,170 acres of oak woodland vegetation communities in the SCRW (see **Table 4.4-27**). Based on the project-level mapping, 95 acres (out of 1,168 acres) of oak woodland vegetation communities on site would be impacted by the proposed RMDP/SCP project. Given the presence of oak woodland vegetation communities within the proposed RMDP/SCP project area, National Forest system lands and other designated open space within the watershed (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), the impact to occasional individuals would not be a significant cumulative impact.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased human activity, trampling, and soil compaction; and increased risk of fire. These secondary effects would not be a significant cumulative impact because the configuration of large tracts of oak woodland vegetation communities conserved within the SCRW results in a relatively low ratio of edge to core habitat and, therefore, reduces the chance of edge-related secondary impacts.

Ojai navarretia. Within the RMDP/SCP project area, this CNPS List 1B.1 species is only known to occur in the Salt Creek area. Implementation of the RMDP and SCP and buildout of the Specific Plan, VCC, and Entrada planning areas would not result in any direct or indirect impacts to Ojai navarretia. Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, could, however, result in potential long-term secondary effects, including the introduction of non-native, invasive plant species and increased human activity, and trampling. This could be a potential significant cumulative impact for this species within the watershed. RMDP/SCP project implementation could result in such secondary impacts by recreational visitors in the Salt Creek area, but these secondary impacts would be minimal. The proposed RMDP/SCP project would not considerably contribute to a potential significant cumulative secondary impact in the watershed.

Parish's sagebrush. This species does not have a CNPS listing status but is designated as special-status by the County of Los Angeles. Parish's sagebrush occurs within big sagebrush scrub within the Specific Plan and Entrada planning areas of the RMDP/SCP project area. Parish's sagebrush occurs along coastal ranges in Baja California and southern California, extending inland to regions south of the Great Basin (Shultz 2006A, 2006B). It is considered regionally rare by local botanists (Meyer 2007). When observed in the RMDP/SCP project area, Parish's sagebrush was found primarily intermixed with common big

sagebrush within big sagebrush scrub. For the purpose of this analysis, Parish's sagebrush is considered to be a minor component of big sagebrush scrub throughout the watershed.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 5,000 acres of big sagebrush scrub in the SCRW (see **Table 4.4-27**). Based on the GAP data, present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 19 acres of 5,000 acres of big sagebrush scrub (this is likely a significant underestimate, however, due to the coarse mapping scale of the GAP data). Although the California GAP database does not include big sagebrush scrub within the proposed RMDP/SCP project area, the project-level mapping indicates that 91.3 acres of big sagebrush scrub are present on site. The proposed RMDP/SCP project would impact 70 acres of the big sagebrush scrub on site. It is anticipated that occasional individuals of this species would be impacted by other present and reasonably foreseeable projects. Given the presence of big sagebrush scrub within the National Forest system lands and other designated open space within the watershed, the impact to occasional individuals of Parish's sagebrush would not be a significant cumulative impact.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased human activity, trampling, and soil compaction; and increased risk of fire. Cumulative impacts due to secondary effects would not be significant because of the limited amount of big sagebrush scrub within the SCRW.

Peirson's morning-glory. This CNPS List 4.2 species is known to occur on site within chaparral, coastal scrub, and grassland vegetation communities within the Specific Plan, VCC, and Entrada planning areas of the RMDP/SCP project area. Peirson's morning-glory was observed nearly every year in the RMDP/SCP project area and is common in chaparral, coastal scrub, and grassland vegetation communities on site. This species has been documented in Los Angeles County in the northern San Gabriel Mountains and adjacent Mojave Desert (Antelope Valley) (CNPS 2007; Hickman 1993). In the Liebre Mountains northeast of the RMDP/SCP project Area and largely within the SCRW, it is "widespread and locally common" in grasslands, open shrublands, and woodlands (Boyd 1999).

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 747,000 acres of chaparral, coastal scrub, and grassland vegetation communities in the SCRW (see **Table 4.4-27**). Present and reasonably foreseeable projects in the SCRW, including the proposed RMDP/SCP project, would cause the loss of approximately 34,000 acres of 747,000 acres of chaparral, coastal scrub, and grassland. This could be a potential significant cumulative impact. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 3,050 acres. This contribution would not be a significant cumulative

impact because of this species' widespread distribution within its range.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased human activity, trampling, and soil compaction; and increased risk of fire. Cumulative impacts due to secondary impacts would not be significant because of this species' widespread distribution within its range. In addition, the configuration of large tracts of chaparral, coastal scrub, and grassland vegetation communities within the SCRW results in a relatively low ratio of edge to core habitat and, therefore, reduces the chance of edge-related secondary impacts.

Plummer's mariposa lily. Within the RMDP/SCP project area, this CNPS List 1B.2 species is only known to occur in the High Country SMA. Therefore, implementation of the RMDP and SCP and buildout of the Specific Plan, VCC, and Entrada planning areas would not result in any direct or indirect impacts to Plummer's mariposa lily and would not contribute to any cumulative impacts in the watershed. Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, could, however, result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased human activity, trampling, and plant collecting; and wildfire. This could be a potential significant cumulative impact for this species within the watershed. At the project level, because this species only occurs in the High Country SMA and away from trails, human-related effects such as trampling and collecting are unlikely to occur. RMDP/SCP project implementation could cause secondary impacts to the species from a more frequent fire regime, but these impacts likely would be limited because this species also has a positive response to wildfire (*e.g.*, bulbs tend to flower in higher numbers following wildfire, which introduces large quantities of mineral nutrients (as ash) into the soil). The proposed RMDP/SCP project, therefore, would not considerably contribute to potential significant cumulative secondary impacts in the watershed.

Table 4.4-27
Summary of Cumulative Impacts to CNPS and Locally Regulated Plant Species in the Santa Clara River Watershed¹

Species	Habitat Relationships ²	Total Acres of Habitat in Watershed	Permanent Direct and Indirect Impact Acres of Proposed RMDP/SCP project	Total Impact Acres in Watershed From Present and Reasonably Foreseeable Projects (Not Including Proposed RMDP/SCP project)	Estimated Cumulative Impact Acres in Watershed after Accounting for Proposed RMDP/SCP project Plus Present and Reasonably Foreseeable Projects
island mountain-mahogany	Chaparral	550,300	460 (<0.1%)	12,000 (2.1%)	12,460 (2.3%)
mainland cherry	Big sagebrush scrub Chaparral	556,000	460 (<0.1%)	12,000 (2.1%)	12,460 (2.3%)
oaks	Oak woodland	5,170	95 (1.8%)	0 (0.0%)	95 (1.8%)
oak-leaved nemophila	Oak woodland	5,170	95 (1.8%)	0 (0.0%)	95 (1.8%)
Parish's sagebrush	Big sagebrush scrub	5,000	0 (0.0%)	19 (0.4%)	19 (0.4%)
Peirson's morning-glory	Coastal scrub Chaparral Non-native grassland	747,000	3,050 (0.4%)	31,000 (4.1%)	34,050 (4.5%)
southern California black walnut	California walnut woodland	3,627	0 (0.0%)	0 (0.0%)	0 (0.0%)
southwestern spiny rush	Permanently flooded lacustrine habitat	5,000	0 (0.0%)	0 (0.0%)	0 (0.0%)

Notes:

¹ Acreages were not quantified for the undescribed sunflower because impacts are site-specific. Acreages were not quantified for undescribed everlasting, late-flowered mariposa lily, Ojai navarretia, Plummer's mariposa lily, and slender mariposa lily because the project-level analysis was based on impacts to individuals rather than habitat.

² Acreages based on California GAP Vegetation Communities (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**) and project-level mapping within RMDP/SCP project boundaries.

Slender mariposa lily. This CNPS List 1B.2 species is known to occur on site within grassland and coastal scrub within the Specific Plan and Entrada planning areas of the RMDP and SCP RMDP/SCP project area. Slender mariposa lily was observed nearly every year in the RMDP/SCP project area and is locally abundant in some parts of the RMDP/SCP project area. This species has been documented in the southern San Gabriel Mountains and Liebre Mountains of eastern Los Angeles County and the Santa Susana Mountains in western Los Angeles and Ventura counties (CNPS 2007; Boyd 1999).

The combined direct and indirect permanent loss of slender mariposa lily cumulative occupied area and individuals resulting from implementation of the RMDP and the SCP and buildout of the Specific Plan, VCC, and Entrada planning areas would total 72 acres (35.0 percent of cumulative mapped occupied habitat) and 30,645 individuals (46.4 percent of plants censused on site). It is anticipated that present and reasonably foreseeable projects in the SCRW would impact other occurrences of this species, though these impacts have not been documented or quantified due to a lack of specific information. This could be a potential significant cumulative impact to this species within the watershed. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to this potential significant cumulative impact is 72 acres and 30,645 individuals, which could be a significant cumulative impact, absent mitigation.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased risk of fire; and increased human activity, collecting, trampling, and soil compaction. These secondary impacts could be a significant cumulative impact, absent mitigation.

The mitigation required by the Newhall Ranch Specific Plan Program EIR and recommended in this EIR includes avoidance and minimization measures (see **Subsection 4.4.10, Project Mitigation Measures**). The applicant would implement several mitigation measures to avoid, minimize, and mitigate impacts to individuals. A slender mariposa lily habitat replacement/enhancement program is outlined within the Draft RMDP Slender Mariposa Lily Mitigation and Monitoring Plan (Dudek 2007), which describes how the applicant would successfully restore/enhance slender mariposa lily habitat and re-establish slender mariposa lily locations at appropriate receptor sites within the High Country SMA, Salt Creek area, and San Martinez Grande area where opportunities for long-term preservation are provided. While implementation of the proposed RMDP/SCP project would result in impacts to a maximum of 72 acres of cumulative occupied area are within the development footprint, the mitigation and monitoring program mitigates impacts to slender mariposa lily cumulative occupied area at a ratio of 1:1 through successfully restoring/enhancing slender mariposa lily habitat and re-establishing slender mariposa lily locations in the High Country SMA, Salt Creek area, and other sites as appropriate. A minimum of 133 acres of

slender mariposa lily cumulative occupied area would be conserved in the RMDP/SCP project boundaries. These conserved acres include 73 acres of occupied habitat in the Salt Creek area, 30 acres in the High Country SMA and at least 28 acres in the San Martinez Grade area.

Long-term secondary impacts to slender mariposa lily, such as the introduction of non-native, invasive plant species; hydrologic alterations and water quality impacts; increased human activity, trampling, and soil compaction; and increased risk of fire would be minimized by restricting access to, grazing within, and recreational usage of the High Country SMA; providing for transition areas along the High Country SMA; providing drainage guidelines; requiring conformance with NPDES and RWQCB permit provisions; requiring the implementation of a wildfire fuel modification plan; placing restrictions on domestic animals in proximity to open space areas; by providing trail signage and homeowner education; and placing restrictions on plant palettes proposed for use on landscaped slopes.

For the reasons set forth above, the proposed RMDP/SCP, including the Landmark Village project, would not result in: (1) a cumulatively considerable contribution to a potential significant cumulative impact on individuals of this species; or (2) a cumulatively considerable contribution to a potential significant cumulative impact due to secondary effects.

Southern California black walnut. This CNPS List 4.2 species is known to occur on site as the dominant species of California walnut woodland, which is only known to occur in the High Country SMA and Salt Creek area within the RMDP/SCP project area. Southern California black walnut has also been observed as an uncommon component within other vegetation communities within the RMDP/SCP project area, including oak woodlands, coastal scrub, and chaparral. Implementation of the RMDP/SCP and buildout of the Specific Plan, VCC, and Entrada planning areas would not result in direct or indirect impacts to the 27 acres of California walnut woodland on site. Individual southern California black walnut trees are uncommon in other vegetation communities, but implementation of the RMDP/SCP and buildout of the Specific Plan, VCC, and Entrada planning areas is expected to result in the removal of occasional individual southern California black walnut trees that exist in vegetation communities other than California walnut woodland.

Based on the California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**), there are approximately 3,600 acres of California walnut woodland in the SCRW. Although the California GAP database does not include California walnut woodland within the proposed RMDP/SCP project site, the project-level mapping indicates 27 acres of California walnut woodland are present on site. The proposed RMDP/SCP project would not impact California walnut woodland on site. It is anticipated that present and reasonably foreseeable projects, including the proposed RMDP/SCP project, in the SCRW would result in the removal of occasional individual southern California black walnut trees that exist in

vegetation communities other than California walnut woodland. For example, Boyd observed this species as occasionally occurring in scrub and woodland within lower Bouquet Canyon, and scarcely occurring at other sites in lower elevations to the west and south (Boyd 1999). Given the presence of California walnut woodland within the National Forest system lands and other designated open space within the watershed, the impact to occasional individuals of southern California black walnut would not be a significant cumulative impact.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; increased human activity, trampling, and soil compaction; and increased risk of fire. Cumulative impacts due to secondary effects would not be significant because of this species' widespread distribution within its range. In addition, the configuration of California walnut woodland in the SCRW results in a relatively low ratio of edge to core habitat and, therefore, reduces the chance of edge-related secondary impacts.

Southwestern spiny rush. This CNPS List 4.2 species was observed on site along secondary channels and low terraces along the Santa Clara River within the Specific Plan area of the RMDP/SCP project area. Southwestern spiny rush occurs in San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Orange, and San Diego counties, and southward into Baja California; the distribution of this species possibly extends east into Imperial County and Arizona as well (CNPS 2007). This species is considered locally and regionally rare by local botanists and has been documented from 10 vouchered collections from Los Angeles County, half of which are on Santa Catalina Island (Magney and Hoskinson 2007). This species was observed in 2006 in Violin Canyon adjacent to the Angeles National Forest and Interstate 5 (I-5), south of Templin Highway and Paradise Ranch, eight miles north of Castaic, in Los Angeles County. Southwestern spiny rush was observed in 2007 near the western bank of Castaic Creek above the Castaic power plant. This species was observed in 2005 and 2006 in Piru Creek (below Frenchman's flat) and Oso Creek (Huntley 2009). Southwestern spiny rush was observed along Castaic Creek upstream of the confluence of Castaic Creek and Fish Creek, and this species is locally common in Grasshopper Canyon (Boyd 1999). Based on these observations, southwestern spiny rush is considered to be an occasional component in suitable habitat throughout the watershed.

This species is associated with perennially wet areas (perennial streams, seeps, marshes, *etc.*) within riparian habitat. The California GAP data (UCSB, 1999, Recirculated Draft EIR, **Appendix 4.4**) includes approximately 25,000 acres of mapped riparian habitat but does not identify the very small subset of perennially wet habitat where southwestern spiny rush may occur. It is anticipated that present and reasonably foreseeable projects in the SCRW would result in the removal of occasional individual southwestern spiny rush that exist in perennially wet habitat within the watershed. However, this plant

is known to occur within National Forest system lands that would not be subject to the same level of impact associated with present and reasonably foreseeable projects on private lands in the SCRW. Impacts to this species would not be cumulatively significant because of this species' widespread distribution within the watershed and its range.

Without accounting for past, present, or reasonably foreseeable mitigation, present and reasonably foreseeable projects, including the proposed RMDP/SCP project, also could result in potential long-term secondary effects, including the introduction of non-native, invasive plant species; hydrologic alterations and water quality impacts; and increased human activity, trampling, and soil compaction. Impacts to this species would not be cumulatively significant because of this species' widespread distribution within its watershed and its range.

e. Summary of Cumulative Impacts to Biological Resources

Based on the preceding discussion, the cumulative impact analysis for biological resources resulted in four different cumulative impact determinations:

1. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to a potential cumulative impact in the watershed resulting from present and reasonably foreseeable projects would be cumulatively considerable and unavoidable, even after considering mitigation required by the Newhall Ranch Specific Plan Program EIR and the mitigation measures recommended in this EIR. No feasible additional mitigation measures can be identified that would reduce the considerable contribution to a potential significant impact to a level less than cumulatively considerable under this alternative. Reasons for these significant unavoidable impacts include:
 - (a) extensive loss and fragmentation of the resource within the Santa Clara River watershed; and
 - (b) substantial on site habitat loss and fragmentation of a resource with a very limited distribution on site and/or geographic range.
2. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to a potential cumulative impact in the watershed resulting from present and reasonably foreseeable projects, could be cumulatively considerable, absent mitigation. Implementation of the mitigation measures required by both the Newhall Ranch Specific Plan Program EIR and this EIR would reduce the contribution of the proposed RMDP/SCP, including the Landmark Village project, to cumulative impacts to a level less than cumulatively considerable.
3. The contribution of the proposed RMDP/SCP, including the Landmark Village project, to a potential cumulative impact in the watershed resulting from present and foreseeable projects, would not be cumulatively considerable. This determination was made where the resource affected by the proposed RMDP/SCP project comprises a very small proportion of the resource impacts in the watershed.

4. Past, present, and reasonably foreseeable projects, including the proposed RMDP/SCP project and Landmark Village, do not result in potential significant watershed-level impacts. This determination was made when the resource is still common to abundance in its geographic range and/or substantial habitat for the species would remain in the watershed.

Table 4.4-28 provides a summary of the Landmark Village project's contribution to cumulative impacts determinations for biological resources.

Table 4.4-28
Summary of Cumulative Impact Determinations for Biological Resources

Cumulative Impact Determination	Biological Resource	Project's Contribution Cumulatively Considerable After Mitigation
Contribution of Landmark Village to potential cumulative impact would be cumulatively considerable; significant and unavoidable	Vegetation Communities coastal scrub communities – extensive loss and fragmentation in the Santa Clara River watershed	Yes

There was one significant, cumulatively considerable and unavoidable impact for the Landmark Village project: impacts to coastal scrub communities.

Impacts would be cumulatively considerable, absent mitigation, for a majority of other biological resources, including vegetation communities other than coastal scrub; common wildlife as a whole; most of the federally and state-listed threatened and endangered and all California Fully Protected species; wildlife habitat linkages, corridors, and crossings; most California Species of Special Concern; many California Special Animals, Watch List species, Specially Protected Mammals, and CDFG Trust Resources; and three special-status plants. The mitigation measures required by both the Newhall Ranch Specific Plan Program EIR and this EIR (**Subsection 4.4.10, Project Mitigation Measures**) would reduce impacts to these resources to a level less than cumulatively considerable. To offset loss vegetation communities and habitat for species, these mitigation measures generally include the dedication and maintenance of existing natural lands in the Open Area, River Corridor SMA/SEA 23, High Country SMA/SEA 20, and Salt Creek area, totaling approximately 9,753 acres. For riparian resources, these measures include replacing the functions and services of riparian communities that may be lost through construction. For both wildlife and plant species, mitigation includes measures to control for long-term secondary effects, including controls on public access to dedicated open space areas; controls on pet, stray, and feral cats and dogs; termination of grazing activities (except for the purpose of resource management); controls on invasive plant and animal species (including Argentine ants, brown-headed

cowbirds, bullfrogs, African clawed frogs, and crayfish); controls on pesticides (including rodenticides); controls on hydrological alterations and water quality; and controls on nighttime lighting; fencing and signage; and homeowner education about sensitive resources.

It was determined that the contribution of the proposed RMDP/SCP, including the Landmark Village project, to potential significant cumulative impacts at the watershed level would not be cumulatively considerable for most special-status biological resources, including southern steelhead and several special-status plants. In addition, it was determined that significant cumulative impacts to a majority of wildlife and plant species at the watershed level would not occur. Although the contribution of the proposed RMDP/SCP, including the Landmark Village project, would not be cumulatively considerable in these cases, the mitigation measures described above would reduce on site impacts to these resources.

In summary, although the proposed RMDP/SCP, including the Landmark Village project, would include significant impacts to biological resources absent mitigation, the mitigation measures required by both the Newhall Ranch Specific Plan Program EIR and recommended by this EIR would avoid, substantially lessen, or mitigate these impacts to below a level of significance. However, the proposed Landmark Village project, in combination with other past, present and reasonably foreseeable projects within the SCRW, would result in significant cumulative impacts to one biological resource/coastal scrub. Despite mitigation, the proposed Landmark Village project would result in a cumulatively considerable contribution to significant impacts on the coastal scrub community that cannot be avoided, substantially lessen, or mitigated to below a level of significance.

12. SIGNIFICANT UNAVOIDABLE IMPACTS

a. Project Impacts

The proposed project would not result in significant unavoidable impacts.

b. Cumulative Impacts

The proposed Landmark Village project would contribute toward the cumulative impacts to biological resources. Specifically, in the absence of mitigation, the project's contribution toward the cumulative impacts to coastal scrub would be significant.

Even with implementation of the following mitigation measures, the proposed project's contribution to cumulative impacts to coastal scrub would remain significant:

- Mitigation Measures **SP 4.6-37** through **SP 4.6-42** (which would protect 1,311 acres of coastal scrub in the High Country SMA/SEA 20);

- Mitigation Measure LV 4.4-2 (preservation of 156.5 acres of coastal scrub off site within the High Country SMA/SEA 20, the Salt Creek area, or the River Corridor SMA/SEA 23 within the Specific Plan area to offset impacts associated with Landmark Village); and
- Protection of the Salt Creek Area (which contains 631 acres of this habitat type).

In the case of coastal scrub, no feasible additional mitigation measures applicable to Landmark Village could be identified that would reduce the significant impact to a less than cumulatively considerable level. Reasons for these unavoidable impacts include:

- (a) extensive loss and fragmentation of the resource rangewide; and
- (b) substantial on-site habitat loss and fragmentation of a resource with a very limited distribution on site and/or geographic range.