SECTION 5.2
Biological Resources

5.2 BIOLOGICAL RESOURCES

This section describes the biological character of the project site in terms of vegetation, wildlife, and wildlife habitats, and analyzes the biological significance of the project area in consideration of Federal, State, and local laws and policies. The analysis presented in this section is based on the conclusions and recommendations contained in the *Biological Constraints and Focused Survey Results* report prepared by Impact Sciences, Inc. (February 2007, revised September 2008). The *Biological Constraints and Focused Survey Results* report, included in its entirety in Appendix D1, provides information on biological resources that may pose constraints to development of the project site, and also summarizes the findings of several focused biological surveys conducted on the project site in 2005, 2006, and 2008. In addition, the *Biological Resources Update* report, also prepared by Impact Sciences, Inc. (June 2011), has been incorporated into this section to provide updated results and analysis since preparation of the 2008 *Biological Constraints and Focused Survey Results*. The *Biological Resources Update* is provided as Appendix D2 of the EIR.

Information within this section is also based upon the project-specific *Oak Tree Survey Report and Tree Appraisal* prepared by Impact Sciences, Inc. (September 2006, revised September 2010, April 2011 July 2011, and September 2011), which identifies potential project impacts to oak trees. The *Oak Tree Survey Report and Tree Appraisal* (September 2011) is provided in its entirety as Appendix E of the EIR.

5.2.1 REGULATORY SETTING

FEDERAL

FEDERAL ENDANGERED SPECIES ACT

The *Federal Endangered Species Act* of 1973 (*FESA*) defines an endangered species as "any species which is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the *FESA* it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of *FESA*: ". . . harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the United States Fish and Wildlife Service (USFWS), through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification as forms of "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a Federal agency for an action that could affect a Federally-listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the *FESA* addresses the protections afforded to listed plants.

For purposes of this assessment the following acronyms are used for Federal status species:

- FE - Federally listed as Endangered
- FT - Federally listed as Threatened

- FPE - Federally proposed for listing as Endangered
- FPT - Federally proposed for listing as Threatened
- FPD - Federally proposed for delisting
- FC - Federal candidate species

FEDERAL CLEAN WATER ACT

Section 404 of the *Federal Clean Water Act* (*CWA*) establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Activities in waters of the United States regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g. certain farming and forestry activities).

The basic premise of the program is that no discharge of dredged or fill material may be permitted if: (1) a practicable alternative exists that is less damaging to the aquatic environment or (2) the nation's waters would be significantly degraded. In other words, when you apply for a permit, you must show that you have, to the extent practicable:

- Taken steps to avoid wetland impacts;
- Minimized potential impacts on wetlands; and
- Provided compensation for any remaining unavoidable impacts.

Proposed activities are regulated through a permit review process. An *individual permit* is required for potentially significant impacts. Individual permits are reviewed by the U.S. Army Corps of Engineers (ACOE), which evaluates applications under a public interest review, as well as the environmental criteria set forth in the *CWA* Section 404(b)(1) Guidelines. However, for most discharges that will have only minimal adverse effects, a general permit may be suitable. General permits are issued on a nationwide, regional, or State basis for particular categories of activities. The general permit process eliminates individual review and allows certain activities to proceed with little or no delay, provided that the general or specific conditions for the general permit are met. For example, minor road activities, utility line backfill, and bedding are activities that can be considered for a general permit. States also have a role in Section 404 decisions, through State program general permits, water quality certification, or program assumption.

STATE

CALIFORNIA ENDANGERED SPECIES ACT

The California Department of Fish and Game (CDFG) is the State agency responsible for the protection of biological resources under the *California Endangered Species Act* (*CESA*). *CESA* defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." The State defines a threatened

species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species." Candidate species are defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission (i.e., CDFG) has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the CDFG. Unlike *FESA*, *CESA* does not include listing provisions for invertebrate species.

Article 3, Sections 2080 through 2085, of the *CESA* addresses the taking of threatened or endangered species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under *CESA*, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow, "take" require permits or memoranda of understanding and can be authorized for "endangered species, threatened species, or candidate species for scientific, educational, or management purposes." Sections 1901 and 1913 of the *California Fish and Game Code* provide that notification is required prior to disturbance.

Additionally, some sensitive mammals and birds are protected by the State as Fully Protected Mammals or Fully Protected Birds, as described in the *California Fish and Game Code*, Sections 4700 and 3511, respectively. California Species of Special Concern are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFG's California Natural Diversity Database (CNDDB) project. Informally listed taxa are not protected per se, but warrant consideration in the preparation of biotic assessments. For some species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites.

For the purposes of this assessment, the following acronyms are used for State status species:

- SE - State listed as Endangered
- ST - State listed as Threatened
- SR - State listed as Rare
- SCE - State candidate for listing as Endangered
- SCT - State candidate for listing as Threatened
- SFP - State Fully Protected
- CSC - California Species of Special Concern

CALIFORNIA NATIVE PLANT SOCIETY

The California Native Plant Society (CNPS) is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of rare, threatened, or endangered plant species of California (CNPS 2001). The list serves as the candidate list for listing as threatened and endangered by CDFG. The CNPS has developed five categories of rarity:

- List 1A - Presumed extinct in California
- List 1B - Rare or Endangered in California and elsewhere
- List 2 - Rare or Endangered in California, more common elsewhere
- List 3 - Plants for which we need more information – Review list
- List 4 - Plants of limited distribution – Watch list

Sensitive species that occur or potentially could occur within the study area are based on one or more of the following: 1) the direct observation of the species within the study area during one of the biological surveys; 2) a record reported in the California Natural Diversity Database (CNDDB), as described below; and/or 3) the study area is within known distribution of a species and contains appropriate habitat.

CALIFORNIA NATURAL DIVERSITY DATABASE

The CNDDB is a repository of rare plant information maintained by the Habitat Conservation Division of the CDFG. The primary function of CNDDB is to gather and disseminate data on the status and locations of rare and endangered plants, animals, and vegetation types. The goal of the program is to help conserve California's biological diversity by providing government agencies, the private sector, and conservation groups with information to promote better-informed land-use decisions and improved resource management. The CNPS is a substantial contributor to the database. The CNPS' collaboration with CDFG helps to keep the database current so its data can be used to inform policy decisions that may impact native plant habitat.

LOCAL

CITY OF SANTA CLARITA OAK TREE PRESERVATION ORDINANCE

The City of Santa Clarita Oak Tree Preservation Ordinance (Ordinance No. 89-10, and subsequent updates) was originally adopted by the Santa Clarita City Council on April 25, 1989. As a result of the Ordinance, it is the official policy of the City to require the preservation of all healthy oak trees unless compelling reasons justify the removal of such trees. This policy applies to the removal, pruning, cutting, and/or encroachment into the protected zone of oak trees. The Director of Community Development or a designated representative, in conjunction with an oak tree preservation consultant as necessary, has primary and overall responsibility to administer, evaluate, and monitor the oak tree policy to assure strict compliance.

Any person who owns, controls, has custody or possession of any real property within the City must make a reasonable effort to maintain all oak trees located on the property in a state of good health. Failure to do so would constitute a violation of the Ordinance. No person may cut, prune, remove, relocate, endanger, damage, or encroach into the protected zone of any oak tree on any public or private property within the City except in accordance with the conditions of a valid oak tree permit issued by the City or as directed by the Director of Community Development or designated City representative. Project applicants are required to furnish all necessary information as determined by the designated City representative together with the appropriate fee, as established by City Council resolution. Application materials must include, but are not limited to, an oak tree report conforming to the City representative's specifications, a survey of the tree(s), driplines, protected zone locations, illustrations and justifications of the proposal, and tree tagging unless waived by the Director of Community Development or designated City representative.

According to the Ordinance, only oak trees with a diameter at breast height (DBH) of 1.91 inches or greater are protected. The Director of Community Development or designated City representative may approve, deny, or conditionally approve a request for the removal of three or fewer oak trees on a single parcel, except for Heritage Oak Trees, for all applications to develop a residential parcel. Heritage Oak Trees are oak trees measuring 108 inches or more in circumference, or in the case of multiple-trunk oak trees, two or more trunks measuring 72 inches each or greater in circumference, measured 4.5 feet above the natural grade surrounding the tree. The Planning Commission and/or City Council may also classify any oak tree, regardless of size, as a Heritage Oak Tree if it is determined by a majority vote that the tree has exceptional historic, aesthetic, and/or environmental qualities of major significance or prominence to the community.

The City is responsible for the review of applications for an Oak Tree Permit based on a number of findings, including the size, number, condition, and location of affected trees. As part of the Oak Tree Permit, a number of conditions may be placed upon the applicant, including placement of new trees, replacement of existing trees, relocation of existing trees, maintenance requirements, and a fee payment or donation of trees to be planted elsewhere in the City.

SANTA CLARA RIVER SIGNIFICANT ECOLOGICAL AREA (SEA)

The County of Los Angeles and City of Santa Clarita identify a range of Significant Ecological Areas (SEA) of biological value within the City and unincorporated County. The SEA designation generally identifies lands having important biological resources. The intent of the City is to preserve and enhance SEAs, to the extent possible. The City recognizes that measures necessary to preserve and enhance the biological resources within SEAs will vary depending upon the nature of resource values present and the degree of threat implied by potentially incompatible development. Development is permitted within SEAs; however, any development should be designed in a manner that minimizes impacts to the biological resources in the SEA and assures its ongoing viability. Based on Figure 6.2, Significant Ecological Areas and Coastal Resource Areas of the *County of Los Angeles General Plan*, the project site is situated adjacent to, but outside of, the Santa Clara River SEA. Refer to *Exhibit 5.7.2*, *Existing Floodplain Map*, for the Santa Clara River SEA boundary within the project area, which matches the Santa Clara River floodplain boundary. An approximate boundary of the Santa Clara River SEA boundary has also been included on *Exhibit 5.2-1*, *Vegetation Map*.

5.2.2 ENVIRONMENTAL SETTING

BIOLOGICAL RESOURCES SURVEY METHODOLOGY

Analysis of the project's potential impacts upon biological resources is based primarily upon the *Biological Resources Report* (February 2007, revised September 2008) and *Biological Resources Update* (June 2011) prepared by Impact Sciences, Inc., included as Appendix D1 and D2 of this EIR, respectively. The methodology and findings of the report are discussed below.

DATABASE SEARCH

Queries of the California Natural Diversity Database (CNDDB) and the California Native Plant Society database (CNPS,) were performed in 2006, 2008, and 2011 prior to visiting the site to identify special-status plant species previously recorded in the area. The CNDDB lists historical and recently recorded occurrences of both special-status plant and animal species, and the CNPS database lists historical and recent occurrences of special-status plant species. The database search included the areas within the U.S. Geological Survey (USGS) 7.5-minute Mint Canyon Quadrangle and the surrounding eight USGS Quadrangles: Agua Dulce, Green Valley, Newhall, Oat Mountain, San Fernando, Sleepy Valley, Sunland, and Warm Springs Mountain.

The potential for special-status plant and animal species to occur on the project site was based on the proximity of the site to previously recorded occurrences, on-site vegetation and habitat characteristics, topography, elevation, soils, surrounding land uses, known habitat preferences, and geographic ranges.

PRESENCE/ABSENCE PLANT SURVEYS

Focused plant surveys were conducted during the appropriate blooming periods to determine if any special-status plants are located on the project site. The methodology used for performing the focused plant surveys followed the CDFG *2000 Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Plant Communities*, and the CNPS *2001 Botanical Survey Guidelines*. These guidelines outline methods for performing plant surveys and for considering the environmental impacts that may result from new development. They also provide guidance for developing mitigation for potential project-related impacts to potentially occurring special-status plants.

Impact Sciences conducted focused presence/absence botanical surveys on the following dates: July 22, July 27, and August 1, 2005; May 4, May 17, June 2 and June 6, 2006; August 13, 2008; and June 7, 2011. To determine the blooming periods for the slender mariposa lily, Plummer's mariposa lily, and the San Fernando spineflower, biologists visited known populations of similar habits growing in the project region. Two qualified botanists walked parallel transects at approximately 20 feet apart in suitable on-site habitats and all suitable habitats within 200 feet of proposed grading limits, to achieve 100 percent visual coverage. During these surveys, on-site plant communities were characterized and mapped (see the discussion under *Plant Communities*, below). All plant species observed during site visits conducted by Impact Sciences in 2005, 2006, 2008, and 2011 are described in detail in Appendix D1, *Biological Resources Report*, and Appendix D2, *Biological Resources Update*, of the EIR.

Legend:

- Coast Live Oak
- Tucker's Oak
- California Black Walnut
- Project Boundary
- Big Sagebrush Scrub - 1
- Buckwheat Scrub - 2
- Buckwheat - Cane Cholla Scrub - 3
- Chamise Chaparral Scrub - 4
- Cane Cholla Scrub - 5
- Coast Live Oak Woodland - 6
- Disturbed - 7
- Four-wing Saltbush - Big Sagebrush Scrub - 8
- Holly-leaf Cherry Scrub - 9
- Buckwheat - Chaparral Yucca Scrub - 10
- Blue Elderberry Scrub - 11
- Non-native Grassland -12
- River Wash - 13
- Skunkbush Scrub - 14
- Southern Riparian Scrub -15
- Tucker's Oak Scrub -16
- Yerba Santa Scrub - 17
- Approximate Boundary for Santa Clara River SEA *(refer to Exhibit 5.7-2 for exact boundary)*

Source: Impact Sciences, 2008 and 2011.

NOT TO SCALE

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12/11 • JN 10-104854

MANCARA RESIDENTIAL PROJECT
ENVIRONMENTAL IMPACT REPORT

Vegetation Map

Exhibit 5.2-1

PLANT COMMUNITIES

Vegetation nomenclature used to describe plant communities is based on the CDFG's *List of California Terrestrial Natural Communities* (CDFG 2003); however, in circumstances where CDFG's List did not provide descriptions, plant communities were characterized based on the most dominant plant species within the vegetation type. Common plant names are taken from J.C. Hickman (1993) and P.A. Munz (1974).

There are 16 plant communities on the project site: Big Sagebrush Scrub, Four-wing Saltbush-Big Sagebrush Scrub, Chamise Chaparral Scrub, Coast Live Oak Woodland, Holly-leaf Cherry Scrub, Non-native Grassland, Southern Riparian Scrub, Tucker's Oak Scrub, River Wash, Buckwheat Scrub, Buckwheat-Cane Cholla Scrub, Buckhorn Cholla, Buckwheat-Chaparral Yucca Scrub, Skunkbush Scrub, Blue Elderberry Scrub, and Yerba Santa Scrub.

The dominant plant species that occur within each of the plant communities are described in detail below. A complete list of all plant species observed during the focused botanical surveys is provided within Appendix D1, Biological Resources Report, of this EIR. A depiction of the locations of various plant communities on-site is provided in *Exhibit 5.2-1*, *Vegetation Map*.

Areas that are void of vegetation or covered with river wash also occur on the site. Although such areas are not considered plant communities, these areas are discussed in this section, and the acreages that these areas cover are provided.

Big Sagebrush Scrub (34.85 acres)

This community is dominated by big sagebrush (*Artemesia tridentata*), but includes shrubs such as scalebroom (*Lepidospartum squamatum*), skunkbush (*Rhus trilobata*), and saltbush (*Atriplex polycarpa*). The understory within this community is predominantly comprised of non-native grasses and herbaceous annuals including red brome (*Bromus madritensis ssp. rubens*), wild oats (*Avena fatua*), black mustard (*Brassica nigra*), prickly lettuce (*Lactuca seriola*), and wire lettuce (*Stephanomeria virgata*).

Four-wing Saltbush-Big Sagebrush Scrub (1.03 acres)

This community is co-dominated by four-wing saltbush (*Atriplex canescens*) and big sagebrush. Similar as to the Big Sagebrush Scrub plant community, associated shrubs present within the community include scalebroom (*Lepidospartum squamatum*), skunkbush (*Rhus trilobata*), and saltbush (*Atriplex polycarpa*); while non-native grasses and herbaceous annuals primarily include red brome (*Bromus madritensis ssp. rubens*), wild oats (*Avena fatua*), black mustard (*Brassica nigra*), prickly lettuce (*Lactuca seriola*), and wire lettuce (*Stephanomeria virgata*).

Chamise Chaparral Scrub (25.53 acres)

Dense stands of Chamise Chaparral Scrub dominated by chamise (*Adenostoma fasciculatum*) occur within the northern, eastern, and western portions of the site. Associated plants observed in this community include hoaryleaf ceanothus (*Ceanothus crassifolius*), California buckwheat (*Eriogonum fasciculatum*), Yerba Santa (*Eriodictyon crassifolium*), and California sagebrush (*Artemesia californica*). Grasses and herbaceous annuals occur within the understory of this community. Two native grass species were observed, desert needlegrass (*Acnatherum*

speciosum) and one-sided bluegrass (*Poa secunda*), and several exotic species also occur, which include, cheat grass (*Bromus tectorum*), red brome, and wild oats. Other species observed in this community include chaparral yucca (*Yucca whipplei*), beavertail cactus (*Opuntia basilaris var. basilaris*), Splendid Mariposa lily (*Calochortus splendens*), and common phacelia (*Phacelia distans*).

Coast Live Oak Woodland (5.39 acres)

There are mature stands of coast live oak woodland located on the site, primarily in the northwest portion of the property that is located near the existing LACMTC Metrolink railroad alignment. This community is dominated by coast live oak trees, some of which are up to 60 feet in height. The understory is composed primarily of herbaceous species, such as ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), and common phacelia. Hoaryleaf ceanothus and skunkbush were also observed within this community.

Holly-Leaf Cherry Scrub (13.50 acres)

Holly-leaf cherry scrub occurs within the southern portion of the site. This community is dominated by holly-leaf cherry shrubs and trees (*Prunus illicifolia*), ranging between 10 feet and 20 feet in height. The understory is composed primarily of herbaceous species, such as ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), and common phacelia. Associated shrubs observed within this community include skunkbush and hoaryleaf ceanothus.

This plant community area is not considered "woodland." The "Holly-Leaf Cherry Woodland" is considered a sensitive natural community by the CDFG. Woodland is defined as a plant community containing trees with a canopy cover over 30 percent or greater, which does not occur within this community on the project site.

Non-Native Grassland (67.40 acres)

Non-Native Grassland dominates 67.40 acres of the project site. This community is comprised mostly of exotic weed species; however, some scattered native species were observed. Dominant plants observed include red brome, wild oats, black mustard and wire lettuce. Native herbaceous species observed include devil's lettuce (*Amsinckia tessellata*), Turkish rugging (*Chorizanthe staticoides*), and turkey mullein (*Eremocarpus setigerus*).

Southern Riparian Scrub (14.69 acres)

The northern portion of the project site incorporates part of the Santa Clara River bed, which contains sparse vegetation that can be typified as Southern Riparian Scrub. Much of this area contains rocks, cobblestones, and river sand, and has relatively sparse vegetation cover. Plant species observed within this community include mulefat (*Baccharis salicifolia*), arroyo willow (*Salix lasiolepis*), Fremont cottonwood (*Populus fremontii*), and stinging nettle (*Urtica dioica*).

Tucker's Oak Scrub (4.17 acres)

Tucker's Oak Scrub is predominantly located on a north-facing slope in the northwest portion of the project site facing the Santa Clara River. The Tucker's oak is the dominant plant within this community, averaging between 10 to 15 feet in height. There are few understory plants in this

community, due to the thick Tucker's oak canopy. The few understory plants observed are similar to those observed in the chaparral and other oak communities within the project site.

River Wash (5.00 acres)

The Oak Spring Canyon Wash is characterized as a River Wash. Vegetation is sparse within this community, probably because of seasonal flows, which scour the vegetation. Species observed within this on-site community include scalebroom, big sagebrush, cholla (*Opuntia parryi*), and Yerba Santa.

Buckwheat Scrub (1.10 acres)

The Buckwheat Scrub found on the project site occurs along the margins of the berm that traverses in a westerly to easterly direction near the center of the project site. Buckwheat Scrub dominates this plant community with few other perennial species present. The few herbaceous plant species observed within this community include common phacelia and ripgut brome.

Buckwheat-Cane Cholla Scrub (0.10 acre)

Two small clusters of Buckwheat-Cane Cholla Scrub occur within the southeastern quadrant of the project site. This plant community is dominated with buckwheat and cane cholla (*Cylindropuntia imbricata*) with an understory composed of herbaceous species, such as ripgut brome, soft chess, and common phacelia.

Cane Cholla Scrub (0.20 acre)

An almost monotypic cluster of buckhorn cholla occurs within the southeast quadrant of the project site. Common phacelia and non-native grasses occur within this community, while no other perennial shrubs are present (within the plant community).

Buckwheat-Chaparral Yucca Scrub (0.30 acre)

This plant community dominates the south-facing slopes located in the northern portion of the project site, south of the railroad tracks. As its name suggests, this plant community is dominated with buckwheat and chaparral yucca. Associated plants observed in this community include, Yerba Santa (*Eriodictyon crassifolium*), California sagebrush (*Artemesia californica*), desert needlegrass (*Acnatherum speciosum*) and one-sided bluegrass (*Poa secunda*); and several non-native herbaceous species, which include, cheat grass (*Bromus tectorum*), red brome, wild oats, and common phacelia (*Phacelia distans*).

Skunkbush Scrub (0.10 acre)

The Skunkbush Scrub located on the project site is an almost monotypic plant community, comprised of skunkbush (*Rhus trilobata*) with no other perennial species present. Scattered ripgut brome and common phacelia may be found within this plant community as well.

Blue Elderberry Scrub (0.70 acre)

Blue elderberry (*Sambucus mexicana*) is the only shrub species found within this plant community. Other plants that occur within this community include non-native herbaceous grasses and forbs, such as ripgut brome, red brome, black mustard, and common phacelia.

Yerba Santa Scrub (1.40 acres)

Yerba Santa Scrub occurs within the northern portion of the project site. This monotypic plant is comprised of Yerba Santa (*Eriodictyon californicum*) with no other perennial shrubs species present. Red brome and common phacelia dominate the herbaceous understory of this plant community.

Disturbed (11.55 acres)

This incorporates areas that are void of vegetation due to human-associated activities, such as dirt roads and water-monitoring sites.

OAK TREES

In compliance with the *City of Santa Clarita Oak Tree Preservation Ordinance*, Impact Sciences conducted an oak tree survey in December 2005 and April 2006, and prepared the *Oak Tree Survey Report and Tree Appraisal* report in 2006 (revised September 2010, April 2011, July 2011, and September 2011) per the City's requirements and guidelines. Each oak tree with a minimum DBH of 1.91 inches was surveyed for varying characteristics (trunk diameter, height, crown radius, balance/symmetry, and qualification as a Heritage Oak Tree). Each tree was also evaluated for physical condition (e.g., identification of damage from lightning, pests, or human activity, vigor based on new growth, color, bark, and/or wood, etc.). Based on the oak tree field survey, a total of 347 jurisdictional oak trees occur within the boundaries of the project site; refer to Appendix E, *Oak Tree Report*, for a depiction of the locations of existing on-site oak trees. A detailed description of methodology employed during the oak tree survey is also provided as part of Appendix E.

PRESENCE/ABSENCE ANIMAL SURVEYS

An initial habitat assessment was conducted by Impact Sciences to identify whether the project site contains suitable habitat for supporting special-status animal species. All common animal species observed during site visits conducted by Impact Sciences in 2005, 2006, and 2011 are provided in Appendix D1, Biological Resources Report, and Appendix D2, *Biological Resources Update* of the EIR, and are not discussed in detail within this section.

Based on the initial habitat assessment, the following surveys were conducted:

- Western spadefoot toad (*Spea hammondii*);
- Red-legged frog (*Rana aurora draytonii*);
- Arroyo chub (*Gila orcutti*);

- Unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*); and
- Santa Ana sucker (*Catostomus santaanae*).

On March 30, 2006, a site assessment was conducted to assess the potential for these species to occur on the project site. Additional site reconnaissance was performed in June 2011 to confirm on-site conditions. Based on the site assessment, it was determined there is no suitable habitat on the project site, or in adjacent areas, for supporting red-legged frogs. Likewise, there is no aquatic habitat located on-site capable of supporting the arroyo chub, unarmored threespine stickleback, and Santa Ana sucker. However, the site assessment concluded that there is suitable habitat for the western spadefoot toad; therefore, a focused survey was conducted.

Western spadefoot toad (*Spea hammondii*). Surveys for the western spadefoot toad were conducted on April 3, 2006, between 8:30 PM and 10:00 PM, following measurable rainfall earlier in the day. Surveys were conducted as silently as possible, as talking or other human-generated noises may cause the toads to stop calling or to leave the area. Strong flashlights were used to visually locate and identify toads and other amphibians. Temporary shallow pools created by the recent rains were inspected. Water in the pools was generally murky, approximately four to eight inches deep and water temperatures ranged from 45 to 50 degrees Fahrenheit. Surveys were ceased following the observation of a western spadefoot toad.

Coast horned lizards (*Phrynosoma coronatum*), silvery legless lizards (*Anniella pulchra pulchra*), and San Diego desert woodrats (*Neotoma lepida*). Focused surveys for coast horned lizards, silvery legless lizards, and San Diego desert woodrats were conducted on June 16 and July 12, 2006. To achieve 100 percent visual coverage, parallel transects at approximately 20 feet apart were walked in on-site habitat suitable for coast horned lizards and woodrats. Hand raking was performed to determine the presence of silvery legless lizards. Raking surveys for silvery legless lizards were conducted in areas of sandy, loose and moist soils, typically under the sparse vegetation of scrub, chaparral, and within the duff of the on-site oak woodlands.

Least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (E*mpidonax traillii extimus*), coastal California gnatcatcher (*Polioptila californica californica*), and cactus wren (*Campylorhynchus brunneicapillus*). Protocol surveys of Least Bell's vireo and southwestern willow flycatcher were conducted during the course of nine site visits in the spring and summer of 2006. A detailed discussion of the methods employed during these protocol surveys are provided in Appendix D1, Biological Resources Report, of the EIR

Two separate USFWS protocol-level surveys were conducted for the coastal California gnatcatcher and cactus wren 2005 and 2006. Subsequent reports were prepared for both the 2005 and 2006 protocol surveys. Additional site reconnaissance was performed in June 2011 to confirm on-site conditions. The methods employed during the surveys are provided within Appendix D1, Biological Resources Report, of the EIR.

JURISDICTIONAL DELINEATION

As part of the *Biological Constraints and Focused Survey Results* report, Impact Sciences performed a jurisdictional delineation of waters and streambeds located on the project site. The delineation of jurisdictional waters was conducted by Impact Sciences with a mapping-grade Trimble Global Positioning System (GPS) in December 2005. This process involved a site

inspection to determine the potential for project-related impacts to "waters of the United States", as defined under Section 404 of the CWA. In addition, the site was also inspected to determine potential impacts to streambeds falling under the jurisdiction of the CDFG under Sections 1600 through 1605 of the California Fish and Game Code. Upon completion of the site inspection, it was determined that a Section 404 Permit would be required from the ACOE, a Section 401 Water Quality Certification would be required from the Regional Water Quality Control Board (RWQCB), and a Section 1602 Streambed Alteration Agreement would be required from the CDFG. Additional site reconnaissance was performed in June 2011 to verify and confirm the results of the 2005 delineation. A detailed description of project impacts to jurisdictional waters and streambeds is provided below in Section 5.2.4, Project Impacts and Mitigation Measures.

5.2.3 SIGNIFICANCE THRESHOLD CRITERIA

The *City of Santa Clarita Local CEQA Guidelines* (Resolution 05-38) adopted on April 26, 2005 and the Initial Study Environmental Checklist form in *CEQA Guidelines* Appendix G serve as the thresholds for determining the significance of impacts relating to biological resources. As such, a project would be considered to have a significant environmental impact if it would result in the following:

- The project has a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Game and Wildlife Service.

- The project has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Game and Wildlife Service.

- The project has a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

- The project interferes substantial with the movement of any native or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- The project conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

- The project conflicts 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), *Mandatory Findings of Significance*, of the *CEQA Guidelines* states that a project may have a significant effect on the environment if ". . . the project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare or threatened species . . . ."

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

CEQA Guidelines Section 15380 indicates that a lead agency can consider a non-listed species to be Rare or Endangered for the purposes of *CEQA* if the species can be shown to meet the criteria in the definition of Rare or Endangered. For the purposes of this discussion, the current scientific knowledge on the population size and distribution for each special status species was considered according to the definitions for Rare and Endangered listed in *CEQA Guidelines* Section 15380.

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.2.4 PROJECT IMPACTS AND MITIGATION MEASURES

SPECIAL-STATUS PLANT SPECIES

- ***DEVELOPMENT OF THE PROPOSED PROJECT COULD RESULT IN ADVERSE IMPACTS TO SPECIAL-STATUS PLANT SPECIES EXISTING ON THE PROJECT SITE.***

Level of Significance Before Analysis and Mitigation: Potentially Significant Impact.

Impact Analysis: Those special-status plant species known to occur in the vicinity of the project site, as reported in the CNDDB and CNPS databases, and based upon habitat suitability (i.e., topography, elevation, soils, range, etc.) are listed below in *Table 5.2-1*, *Special-Status Plant Species Potentially Occurring or Observed On-Site*. Those species that appear in the CNDDB and/or CNPS database searches but are not expected to occur on the site due to poor habitat suitability are excluded from this table.

The 2005, 2006, 2008, and 2011 presence/absence plant surveys were performed during the appropriate blooming period for all of the potentially occurring special-status plant species. All suitable habitats for supporting special-status plant species were surveyed. Suitable habitat occurs on the project site for supporting the species listed above in *Table 5.2-1*. Although the "known" range for Greata's aster is between 2,000 and 4,000 feet above MSL, Impact Sciences reported that this species has the potential to occur on the site, even though the peak elevation of the site is 1,600 feet above MSL.

Of the special-status plant species listed in *Table 5.2-1*, only the Southern California black walnut (*Juglans californica*) was observed during the focused plant surveys. A total of three Southern California black walnut trees occur within the southwestern portion of the site. A

Southern California black walnut was also observed to the north of the existing LACMTC Metrolink railroad alignment, just outside of project boundary. No development is proposed in these areas, and no impacts to Southern California black walnut trees would occur.

Table 5.2-1
Special-Status Plant Species Potentially Occurring or Observed On-Site

Common Name and *Scientific Name*	Status			Habitat Requirements
	Federal	State	CNPS	
Greata's aster *Symphotrichum greatae*	--	--	1B.3	Moist/dry places in canyons, associated with chaparral, oak woodland; 2,000 to 4,000 feet above mean sea level (MSL).
Nevin's barberry *Berberis nevinii*	FE	SE	1B.1	Steep, north-facing slopes or low-grade sandy washes in chaparral, cismontane woodland, coastal sage scrub, or riparian scrub; between approximately 950 to 5,170 feet above MSL.
Slender mariposa lily *Calochortus clavatus* var. *gracilis*	--	--	1B.2	Shaded foothill canyons below 2,500 feet above MSL, often in association with chaparral, coastal sage scrub, and grassy slopes in between habitats.
Plummer's mariposa lily *Calochortus plummerae*	--	--	1B.2	Rocky and sandy sites, usually of granitic or alluvial material, within coastal sage scrub, chaparral, valley and foothill grassland, and forests and woodlands; between approximately 295 to 5,280 feet above MSL.
Slender-horned spineflower *Dodecahema leptoceras*	FE	SE	1B.1	Coastal sage scrub vegetation; sandy, flood deposited rivers and washes.
Palmer's grapplinghook *Harpagonella palmeri*	--	--	4.2	Chaparral, coastal scrub, valley and foothill grassland; between 20-955 above MSL
California black walnut *Juglans californica* var. *californica*	--	--	4.2	Chaparral, cismontane woodland and coastal scrub communities between 50-900 feet above MSL.
Davidson's bush mallow *Malacothamnus davidsonii*	--	--	1B.2	Sandy washes within coastal scrub, riparian woodland, and chaparral; between approximately 590–2,805 feet above MSL.
Peirson's morning-glory *Calystegia peirsonii*	--	--	4.2	Chaparral, chenopod scrub, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland communities between 30 and 1,500 feet above MSL.
Mason's neststraw *Stylocline masonii*	--	--	1B.1	Sandy habitats within chenopod scrub and pinyon juniper woodland communities between 100 and 1,200 feet above MSL.

STATUS KEY:
Federal
FE = Federally Endangered
State
SE = State Endangered

Source: *Biological Constraints and Focused Survey Results*, Impact Sciences, Inc., February 2007 (revised September 2008) and *Biological Resources Update*, Impact Sciences, Inc., June 2011.

No other sensitive plant species were observed during the focused surveys in 2005, 2006, and 2008; however three previously undetected special status species were observed in 2011. The three additional special status species are Mason's nestraw (*Stylocline masonii*), Palmer's grapplinghook (*Harpagonella palmeri*), and Peirson's morning-glory (*Calystegia peirsonni*). The Mason's nestraw population was observed within the southwestern corner of the project site, within an area that would not be developed. The Palmer's grapplinghook was observed within the southeastern portion of the project site within Lots 14 and 15. Although the Palmer's grapplinghook would not be affected by residential development, a proposed recreational trail may affect the existing population within the southeastern portion of Lots 14 and 15. The Peirson's morning-glory population was observed in the northeastern portion of the site within Lots 1 and 2. These species are not considered special status under Federal or State criteria but are listed by the CNPS.

To minimize impacts to special-status plant species on the project site, Mitigation Measures BIO-1 and BIO-2 have been included. These mitigation measures would either require preservation of the on-site populations (i.e., Mason's neststraw), preservation and seed collection/propagation, or relocation to other portions of the site (i.e., Pierson's morning-glory). Upon implementation of these mitigation measures, impacts would be less than significant.

In addition, through the analysis and mitigation measures to be implemented as part of the project, the development is considered consistent with the requirements of the Santa Clara River SEA.

Mitigation Measures:

BIO-1 In order to protect the remaining Palmer's grapplinghook population subsequent to project development, a deed restriction shall be placed on ungraded portions of Lots 14 and 15 (i.e. areas unaffected by building lots and the proposed recreational trail). No ground alteration or soil disturbance shall be allowed within the deed-restricted portion of these lots. If fuel-reduction for fire protection is required in these lots, it shall be implemented by hand-held tools such as weed-whips and chainsaws, so as to minimize impacts to soils and herbaceous vegetation. The deed restriction shall occur prior to issuance of building permit for these lots. In addition, prior to construction of the proposed recreational trail affecting Lots 14 and 15, a qualified biologist shall collect seeds from the Palmer's grapplinghook that would be affected by the trail and propagate within areas covered by the deed restriction.

BIO-2 Prior to the issuance of a grading permit, Pierson's morning-glory plants shall be salvaged from Lots 1 and 2 during the dormant season (from late summer to early winter) and transplanted to appropriate habitat areas not proposed for development. The salvage and transplantation effort shall be documented and submitted to the City of Santa Clarita.

Level of Significance After Analysis and Mitigation: Less Than Significant Impact.

SPECIAL-STATUS ANIMAL SPECIES

- ***DEVELOPMENT OF THE PROPOSED PROJECT COULD RESULT IN IMPACTS TO SPECIAL-STATUS ANIMAL SPECIES KNOWN TO OCCUR WITHIN THE PROJECT SITE VICINITY.***

Level of Significance Before Analysis and Mitigation: Potentially Significant Impact.

Impact Analysis: Special-status animal species known to occur in the vicinity of the project site, as reported in the CNDDB database, and based upon habitat suitability (i.e., topography, elevation, soils, range, etc.) are listed below in *Table 5.2-2*, *Special-Status Animal Species with the Potential to Occur On or Adjacent to the Site*.

A total of eight Federally- or State-designated special-status animal species have the potential to occur on the project site or were observed during site surveys:

- Western spadefoot (*Spea hammondii*)
- Coastal whiptail (*Aspidoscelis tigris stejnegeri*)
- Coast horned lizard (*Phrynosoma blainvilli*)
- Oak titmouse (*Baelophus inornatus*)
- Costa's hummingbird (*Calypte costae*)
- White-tailed kite (*Elanus leucurus*)
- Nuttall's woodpecker (*Picoides nuttallii*)
- San Diego black-tailed jackrabbit (*Lepus californicus bennetti*)

In addition, a total of 14 species considered sensitive by the CDFG were either observed on-site or determined to have the potential to occur on-site. These species are the silvery legless lizard (*Anniella pulchra pulchra*), rosy boa (*Charina trivirgata*), Cooper's hawk (*Accipiter cooperii*), Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), grasshopper sparrow (*Ammodramus savannarum*), Bell's sage sparrow (*Amphispiza belli belli*), burrowing owl (*Athene cunicularia*), California horned lark (*Eremophila alpestris actia*), Lawrence's goldfinch (*Spinus lawrencei*), pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis californicus*), hoary bat (*Lasiurus cinereus*), San Diego desert woodrat (*Neotoma lepida interm*edia), and southern grasshopper mouse (*Onychomys torridus ramona*).

Refer to *Table 5.2-2*, *Special-Status Animal Species Potentially Occurring or Observed On-Site* for a detailed description of these species and their associated special-status or sensitive designations.

It should be noted that a total of four species considered sensitive by the CDFG that are dependent on aquatic or riparian habitats (i.e., the Santa Clara River) were identified within database results for the project area. These species consist of: Santa Ana sucker (*Catostomus santaanae*), unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), arroyo chub (*Gila orcuttii*), and two-striped garter snake (*Thamnophis hammondii*). Since the proposed project would not result in direct impacts to the Santa Clara River, no impacts to these four species are anticipated to occur.

Below is a discussion of the results from the focused surveys conducted on the site, and an explanation of the potential for a special-status species to occur on the site based on habitat suitability.

Table 5.2-2
Special-Status Animal Species Potentially Occurring or Observed On-Site

Species	Federal	State	Other Lists	Habitat
Amphibians				
Western spadefoot *Spea hammondii*	BLMS	SSC	—	Vernal pools and other areas of seasonally ponded water, primarily in grasslands habitats, but can be found in valley-foothill hardwood woodlands.
Reptiles				
Silvery legless lizard *Anniella pulchra pulchra*	FSS	SSC	--	Leaf litter associates with sandy or loose loamy soil of high moisture content under sparse vegetation.
Coastal whiptail *Aspidoscelis tigris stejnegeri*	--	--	CDFG Special Animals List	Various habitats in firm, sandy or rocky soils within sparse vegetation, open areas, woodlands and riparian communities of deserts and semi-arid areas.
Rosy boa *Charina trivirgata*	BLMS, FSS	--	--	Habitats with a mix of brushy cover and rocky soil such as coastal canyons and hillsides, desert canyons, washes and mountains in desert and chaparral from the coast to the Mojave and Colorado Deserts.
Coast horned lizard *Phrynosoma blainvillii*	BLMS, FSS	SSC	--	Occurs in relatively open areas of coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest habitat on sandy soils, often in association with harvester ants.
Birds				
Cooper's hawk (nesting) *Accipiter cooperi*	--	CDFG Watch List	--	Nests in open forests, groves, or trees along rivers, or low scrub of treeless areas. The wooded area is often near the edge of a field or water opening.
Southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	--	CDFG Watch List	--	Frequents relatively steep, often rocky hillsides with grass and forb patches. Resident in Southern California coastal sage scrub and mixed chaparral.
Grasshopper sparrow *Ammodramus savannarum*	--	--	CDFG Special Animals List	Occurs in dry, dense grasslands, especially those with a variety of grasses and tall forbs and scattered shrubs for singing perches. Apparently, a thick cover of grasses and forbs is essential for concealment.
Bell's sage sparrow *Amphispiza belli Belli*	BCC	CDFG Watch List	--	Nests on the ground beneath shrubs or in shrubs 6 to 18 inches above the ground within chaparral communities dominated by fairly dense stands of chamise or in coastal scrub in southern part of the range.
Burrowing owl (burrow sites) *Athene cunicularia*	BCC, BLMS	SSC	--	Open, dry grassland and desert habitats throughout California, or scrublands characterized by lowgrowing, widely spaced vegetation. Dependent upon burrowing mammals, especially California ground squirrel.

Table 5.2-2 (continued)
Special-Status Animal Species Potentially Occurring or Observed On-Site

Species	Federal	State	Other Lists	Habitat
Oak titmouse (nesting) *Baeolophus inornatus*	--	--	ABC, AWL, USBC	Primarily associated with oaks. Occurs in montane hardwood-conifer, montane hardwood, blue, valley, and coastal oak woodlands, and montane and valley foothill riparian habitats in cismontane California, from the Mexican border to Humboldt County.
Costa s hummingbird (nesting) *Calypte costae*	--	--	USBC, AWL, ABC	Occurs primarily in arid scrub and chaparral habitats and in riparian edge. Various herbaceous and woody plants provide flower nectar; also takes small insects and spiders. In winter, exotic shrubs such as bottlebrush important. Nest sometimes located close to water source, but more often well away from water.
White-tailed kite (nesting) *Elanus leucurus*	--	CDFG Fully Protected	--	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows or marshes for foraging close to close to isolated, dense-topped trees for nesting and perching.
California horned lark *Eremophila alpestris actia*	--	CDFG Watch List	LAA (full species, coastal slope)	Inhabits coastal regions from Sonoma County to San Diego County. Also known from the main part of the San Joaquin valley east to the foothills. Inhabitant of short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats. Requires open areas with short vegetation, sparse brush, and a preponderance of bare ground. Populations in the southeastern portions of Los Angeles County appear to belong to the coastal subspecies actia, whereas the few birds breeding in the San Fernando Valley may belong to the widespread Mojave Desert subspecies ammophila.
Nuttall's woodpecker *Picoides nuttallii*	BCC	--	ABC	Tree cavities and foliage provide cover. Excavates nesting cavity from 0.6 to 18 m (2 – 60 feet) aboveground. Nest located mostly in riparian habitat in dead (occasionally live) trunk or limb of willow, sycamore, cottonwood, or alder; rarely in oaks.
Lawrence's goldfinch (nesting) *Spinus lawrencei*	BCC	--	USBC, AWL, ABC	Closely associated with oaks. Nests in open oak or other arid woodland and chaparral near water. Nearby herbaceous habitats used for feeding.
Mammals				
Pallid bat *Antrozous pallidus*	FSS, BLMS	SSC	WBWG High	Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Night roosts may be in more open sites, such as porches and open buildings.

Table 5.2-2 (continued)
Special-Status Animal Species Potentially Occurring or Observed On-Site

Species	Federal	State	Other Lists	Habitat
Western mastiff bat *Eumops perotis californicus*	BLMS	SSC	WBWG High	Roosts in crevices in cliff faces, high buildings, trees and tunnels within many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc.
Hoary bat *Lasiurus cinereus*	--	--	WBWG Medium	Habitats suitable for bearing young include all woodlands and forests with medium to large-size trees and dense foliage. Generally roosts in dense foliage of medium to large trees.
San Diego blacktailed jackrabbit *Lepus californicus bennettii*	--	SSC	--	Shrub habitats and intermediate canopy stages of shrub habitats and open shrub/herbaceous and tree/herbaceous edges.
San Diego desert woodrat *Neotoma lepida intermedia*	--	SSC	--	Moderate to dense canopies in coastal scrub of southern California from San Diego County to San Luis Obispo County. Particularly abundant in rock outcrops, rocky cliffs and slopes.
Southern grasshopper mouse *Onychomys torridus ramona*	--	SSC	--	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropod prey, especially scorpions and orthopterans.

Federal
BLMS = Bureau of Land Management Sensitive Species
FSS = USDA Forest Service Sensitive Species
BCC = Fish and Wildlife Service Birds of Conservation Concern

State
SSC = CDFG Species of Special Concern

Other Lists
ABC = American Bird Conservancy Green List
AWL = Audubon Watch List
USBC = United States Bird Conservation Watch List
LAA = Los Angeles Audubon List of Los Angeles County's Sensitive Bird Species
WBWG = Western Bat Working Group: High/Medium Priority

Source: *Biological Constraints and Focused Survey Results*, Impact Sciences, Inc., February 2007 (revised September 2008) and *Biological Resources Update*, Impact Sciences, Inc., June 2011.

Amphibians

Two western spadefoot toads were observed during focused surveys performed for the project site. They were observed in ephemeral vernal pools, created by tire ruts on dirt roads traversing the property. The sightings were adjacent to slopes covered with chamise on silty-sandy soils. Both sightings occurred within the central portion of the project site (one just north of the existing LACMTC Metrolink railroad alignment, and the other near the Southern California Gas Company transmission line easement). However, upon implementation of pre-construction

surveys and provision of replacement habitat within other areas of the project site for the western spadefoot toad (in consultation with the CDFG), impacts in this regard would be less than significant (refer to Mitigation Measure BIO-3). In addition, Mitigation Measure BIO-4 would require measures to encourage the escape of animals (including amphibians) during construction to natural areas.

Reptiles

Two coast horned lizards were observed in the southwestern portion of the site, in Chamise Chaparral habitat containing friable, sandy soils. A coastal whiptail was also observed in a similar habitat in open, sandy patches between the chaparral canopy. A second coastal whiptail was observed in the southern portion of the Oak Spring Canyon Wash, as it traverses through the project site. In addition, based on CNDDB records results for the project area, the silvery legless lizard and rosy boa were also determined to have the potential to occur on-site since suitable habitat exists.

Upon implementation of Mitigation Measure BIO-5, impacts to coast horned lizards, coastal whiptail, silvery legless lizard, and rosy boa would be less than significant. Mitigation Measure BIO-5 would include pre-construction surveys to detect the presence of these species, in addition to relocation to suitable undeveloped areas of the site, in consultation with CDFG. Impacts in this regard would be less than significant.

Birds

Focused surveys for the willow flycatcher and Least Bell's vireo were conducted in 2006, and none were detected or observed. Furthermore, focused surveys conducted in 2005 and 2006 for the California gnatcatcher found that none were detected on-site. Based on site reconnaissance performed in 2006 and 2011, the oak titmouse, Costa's hummingbird, white-tailed kite, and Nuttall's woodpecker were observed on-site. In addition, based on CNDDB records results for the project area, the Cooper's hawk, Southern California rufous-crowned sparrow, grasshopper sparrow, Bell's sage sparrow, burrowing owl, California horned lark, and Lawrence's goldfinch were also determined to have the potential to occur on-site since nesting habitat is present on-site.

Although impacts to these bird species could occur as a result of the proposed project, Mitigation Measures BIO-6 and BIO-7 have been incorporated in order to reduce impacts to a less than significant level. Mitigation Measure BIO-6 would ensure consistency with the Migratory Bird Treaty Act and require pre-construction surveys and the protection of active bird nests. Mitigation Measure BIO-7 would require pre-construction surveys for the burrowing owl, and protection of active bird nests. Upon implementation of recommended mitigation, impacts related to birds would be less than significant.

Mammals

During site reconnaissance performed in 2006 and 2011, the San Diego black-tailed jackrabbit was observed on-site. In addition, although no San Diego desert woodrats were observed on-site, several of their nests were present primarily in the northwestern portion of the subject site. Thus, the San Diego desert woodrat is presumed to be present on-site.

In addition, based on CNDDB records results for the project area, the pallid bat, western mastiff bat, Hoary bat, and southern grasshopper mouse were also determined to have the potential to occur on-site since suitable habitat exists.

Although impacts to these mammal species may occur as a result of the proposed project, Mitigation Measures BIO-8 through BIO-10 would minimize impacts to less than significant levels. Mitigation Measure BIO-8 would require pre-construction surveys for San Diego black-tailed jackrabbit, San Diego desert woodrat, and southern grasshopper mouse. This mitigation measure would require the protection of reproductive females, if determined to be present. Mitigation Measures BIO-9 and BIO-10 would require pre-construction surveys for the pallid bat, western mastiff bat, and Hoary bat. The detection of maternity roosts would require protection of these areas. Alternative roost sites may also be required in the event adequate roosting habitat is not present on-site, as determined by the CDFG.

Mitigation Measures:

BIO-3 Prior to the issuance of a grading permit for ground disturbance, construction, or site preparation activities, the project applicant shall retain the services of a qualified biologist to conduct pre-construction surveys for western spadefoot 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 is identified on the project site, the following measures shall be implemented:

Under the direct supervision of a qualified biologist, western spadefoot habitat shall be created within suitable natural sites on the project site outside of the proposed development envelope. The amount of occupied breeding habitat to be impacted by the project shall be replaced at a 2:1 ratio. The actual relocation site design and location shall be approved by CDFG. The location shall be in a suitable habitat as far away as feasible from any of the homes and roads to be built. The relocation ponds shall be designed such that they only support standing water for several weeks following seasonal rains in order that aquatic predators (e.g., fish, bullfrogs, and crayfish) cannot become established. Terrestrial habitat surrounding the proposed relocation site shall be as similar in type, aspect, and density to the location of the existing ponds as feasible. No site preparation or construction activities shall be permitted in the vicinity of the currently occupied ponds until the design and construction of the pool habitat in preserved areas of the site has been completed and all western spadefoot adult, tadpoles, and egg masses detected are moved to the created pool habitat.

Based on appropriate rainfall and temperatures, generally between the months of February and April, a qualified biologist shall conduct pre-construction surveys in all appropriate vegetation communities within the development envelope. Surveys shall include evaluation of all previously documented occupied areas and a reconnaissance-level survey of the remaining natural areas of the site. All western spadefoot adults, tadpoles, and egg masses encountered shall be collected and released in identified/created relocation ponds described above.

A qualified biologist shall monitor the relocation site for five years, involving annual monitoring during and immediately following peak breeding season such that surveys shall be conducted for adults as well as for egg masses and larval and post-larval toads. Further, survey data shall be provided to CDFG by the monitoring biologist following each monitoring period and a written report summarizing the monitoring results shall 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.

BIO-4 In order to reduce impacts to biological resources from grading and construction activities, all related activities shall be conducted to facilitate the escape of animals to natural areas. Construction and grading activities shall begin in disturbed areas in order to avoid stranding animals in isolated patches of vegetation. Trenches shall be covered at night to prevent animals from falling into and being trapped in trenches.

BIO-5 Prior to issuance of a grading permit, the project applicant shall develop, in consultation with the CDFG, a relocation plan for silvery legless lizard, coastal whiptail, coast horned lizard, and rosy boa. The Plan shall include, but not be limited to, the timing and location of the surveys that shall be conducted for each species; identify the locations where more intensive efforts shall be conducted; identify the habitat and conditions in the proposed relocation site(s); the methods that shall 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 the City of Santa Clarita and 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 shall 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 silvery legless lizard, coastal whiptail, coast horned lizard, and rosy boa 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. A qualified biologist shall 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, especially along the interface between open space and construction areas.

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

BIO-6 Within 30 days of ground-disturbing activities associated with construction or grading that occurs 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 project 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 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 three days prior to initiation of disturbance work. If ground-disturbing activities are delayed, then additional pre-disturbance surveys shall be conducted such that no more than three 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. 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. A qualified biologist shall serve as a construction monitor during those periods when construction activities will occur near active nest areas to ensure that no inadvertent impacts to these nests occur. Results of the surveys shall be provided to the City of Santa Clarita and CDFG.

BIO-7 Thirty days prior to construction activities, a qualified biologist shall conduct CDFG protocol surveys to determine whether burrowing owl is present at the site at the time of construction. The surveys shall consist of three site visits and shall be conducted in areas dominated by disturbed habitat, grasslands, and along waterway 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 either that 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, shall be maintained between project activities and nesting burrowing owls during the nesting season. This protected area shall 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 the City of Santa Clarita and CDFG in the annual mitigation status report.

BIO-8 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, San Diego desert woodrat, and southern grasshopper mouse.

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 project applicant shall document all San Diego black-tailed jackrabbit identified, avoided, or moved and provide a written report to the City of Santa Clarita and CDFG within 72 hours. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

San Diego desert woodrat and southern grasshopper mouse shall be surveyed for using live traps, and if pregnant or lactating females are discovered, a fence shall be erected around the trap site adequate to provide the woodrat or grasshopper mouse sufficient foraging habitat at the discretion of the qualified biologist in consultation with CDFG. Clearing and construction within the fenced area shall be postponed or halted until young have left the natal site. A qualified biologist shall serve as a construction monitor during those periods when disturbance activities shall occur near natal areas to ensure that no inadvertent impacts to these species will occur. All woodrat/grasshopper mouse relocation shall be conducted by a qualified biologist in possession of a valid scientific collecting permit.

BIO-9 No earlier than 30 days prior to the commencement of construction activities, a pre-construction survey shall be conducted by a qualified biologist to determine if active roosts of special-status bats are present on or within 300 feet of the project disturbance boundaries. Should an active maternity roost be identified (in California, the breeding season of native bat species is generally from April 1 through August 31), the roost shall not be disturbed and construction within 300 feet shall be postponed or halted, until the roost is vacated and juveniles have fledged. Surveys shall include rocky outcrops 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 shall 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 shall 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 shall 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 should 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 shall 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 shall 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.

BIO-10 Any special-status species bat day roost sites found by a qualified biologist during pre-construction surveys conducted per Mitigation Measure BIO-9, to be directly (within project disturbance footprint) or indirectly (within 300 feet of project disturbance footprint) impacted shall 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.

Level of Significance After Analysis and Mitigation: Less Than Significant Impact.

OAK TREE RESOURCES

- ***IMPACTS TO OAK TREES EXISTING WITHIN THE LIMITS OF THE PROJECT SITE COULD BE ADVERSELY AFFECTED BY DEVELOPMENT OF THE PROPOSED PROJECT.***

Level of Significance Before Analysis and Mitigation: Potentially Significant Impact.

Impact Analysis: Based on the results of the *Oak Tree Report and Tree Appraisal* prepared for the proposed project, a total of 347 oak trees subject to the *City of Santa Clarita Oak Tree Preservation Ordinance* exist within the project site, which includes all areas within 200 feet of the proposed project's grading limits. Of the 347 oak trees within the survey area, a total of 8 oak trees (2.3 percent of all trees surveyed) are planned for permanent removal. Of the oak trees planned for removal, seven are coast live oaks and one is a Tucker's oak. None of the oak trees planned for removal are considered Heritage Trees under the City's *Tree Preservation Ordinance*.

A total of 88 oak trees (25.4 percent of all trees surveyed) may be encroached upon during construction of the proposed project. Of these 88 trees, 68 are coast live oaks and 20 are Tucker's oaks. 43 of the 88 encroachments are considered Heritage Trees.

A total of 251 oak trees (72.3 percent of all trees surveyed) occur within 200 feet of the grading limits of the project and would not be removed or encroached upon by the proposed project.[1]

As described within Section 3.0, Project Description, off-site roadway improvements would include a proposed roundabout at the intersection of Sand Canyon Road and Lost Canyon Road. The roundabout would involve the relocation of the intersection to the north and west to adhere to northbound "line of sight" requirements and would necessitate ROW acquisition on the northwest, southwest, and southeast corners. Based on the *Oak Tree Report and Tree Appraisal* for the proposed project, two heritage-size coast live oak trees occur near the intersection. One tree is located within a private residential property located to the southwest of the Sand Canyon and Lost Canyon intersection, while the second tree is also located on private property located to the southeast of the intersection. The existing tree to the southwest of the intersection is clearly outside of the project impact area and would not be affected by the roundabout project. The tree to the southeast of the intersection has also been determined to be outside of the project impact area; however, based on any minor deviations that may occur during refinement of roadway plans for the intersection, an encroachment of this tree could occur. Thus, implementation of the proposed Sand Canyon Road and Lost Canyon Road intersection improvements would result in the encroachment of one heritage-size coast live oak tree.

In addition, the City of Santa Clarita recently planted seven small coast live oak trees with an approximate DBH of two inches at the intersection of Sand Canyon Road and Lost Canyon Road (two trees at the northwest corner, one tree at the northeast corner, and four trees at the southeast corner), all of which would not be impacted by the proposed project.

[1] A detailed map depicting oak tree locations, removals, and encroachments can be reviewed at the City of Santa Clarita Planning Division, 23920 Valencia Boulevard, Santa Clarita, California, 91355.

Thus, a total of 96 oak trees that would either be removed or encroached upon would require permits from the City of Santa Clarita under the *Tree Preservation Ordinance*. Any oak tree protected under the City's *Tree Preservation Ordinance* that is removed or damaged by project activities would require replacement with the same species at a ratio determined by the City's Urban Forestry Division. Replacement trees would be required to be at least 24-inch box specimens. All replacement trees would be planted at Robinson Ranch Golf Club located immediately south of the project site.[2] Refer to *Exhibit 5.2-2*, *Oak Tree Map*. In addition, the project applicant would be required to secure a bond for the ISA (International Society of Arboriculture) for $108,850.00, which represents the dollar value of all eight oak trees proposed for removal. Also, the project applicant would be required to implement numerous measures designed to protect the health of oak trees encroached upon by project construction activities, along with measures intended to ensure the continued health of oak trees during long-term operation of the proposed project (refer to Mitigation Measures BIO-11 through BIO-47).

Mitigation Measures:[3]

BIO-11 The project applicant and construction contractor(s) shall be in compliance with the City of Santa Clarita Oak Tree Ordinance, Preservation and Protection Guidelines and Conditions of Approval at all times throughout the entire project. Failure to comply shall result in the City of Santa Clarita's issuance of a "Stop All Work" notice until all non-compliant items have been properly addressed.

BIO-12 The project applicant and construction contractor(s) shall adhere to all recommendations of the project arborist that have been issued in the submitted oak tree report, all supplemental reports and those recommendations issued on-site during any and all required monitoring. Failure to comply shall result in the City of Santa Clarita's issuance of a "Stop All Work" notice until all non-compliant items have been properly addressed.

BIO-13 The project applicant and construction contractor(s) shall maintain a copy of the Oak Tree Permit and Conditions of Approval on-site at all times. These documents shall be immediately available upon request from any City of Santa Clarita official.

BIO-14 Prior to the issuance of grading permits, the project applicant shall secure a bond with the City of Santa Clarita Urban Forestry Division for the International Society of Arboriculture (ISA) dollar value of all eight oak trees that are proposed for removal. The dollar amount has been set at $108,850.00.

BIO-15 The project applicant shall renew the bond annually and submit all required documentation to the City of Santa Clarita Urban Forestry Division as mandated by the City of Santa Clarita Oak Tree Ordinance. Upon the successful completion of required mitigation, the bond money shall be exonerated and returned to the project applicant pursuant to City of Santa Clarita guidelines.

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2 Figure 2, Proposed Oak Tree Mitigation Areas, of the Oak Tree Report and Tree Appraisal (Impact Sciences, September 2011) provided as Appendix E of this EIR depicts oak tree mitigation areas within the boundaries of the project site. This figure is no longer applicable to the project, since all oak tree mitigation would occur on Robinson Ranch Golf Club to the south of the project site.

3 These mitigation measures have been provided by the City of Santa Clarita Urban Forestry Division. It should be noted that these measures are considered equally and/or more effective than the oak tree mitigation measures included within the *Oak Tree Survey Report and Tree Appraisal* (September 2011) prepared for the proposed project.

BIO-16 Prior to the issuance of grading permits or as mandated by the City of Santa Clarita Planning Division, the project applicant shall be required to submit a final landscape plan to the Urban Forestry Division for approval. The final landscape plan shall include all required mitigation oak trees, all required parkway trees and all landscape proposed near the protected zone of any oak tree (both existing and newly planted trees required for mitigation). The final landscape plan shall also include all irrigation proposed in or around the protected zone of an oak tree.

BIO-17 Mitigation oak trees shall be a combination of 24", 36", 48" 60" and 72" inch box trees. The project applicant shall prepare a mitigation plan subject to approval by the City of Santa Clarita Oak Tree Specialist.

BIO-18 At no time shall any form of plant material be permitted within 15 feet of any existing oak trees or newly planted mitigation trees or within 20 feet of any heritage oak trees. All landscaping that is proposed and approved within the protected zone of an oak tree shall consist of native drought-tolerant plant material that is compatible with California native species of oak.

BIO-19 At no time shall any form of overhead irrigation be permitted to come in contact with any oak tree on-site. This shall include all newly planted mitigation oak trees and all existing oak trees. Irrigation approved within the protected zone of an oak tree shall consist of drip or bubbler type systems only.

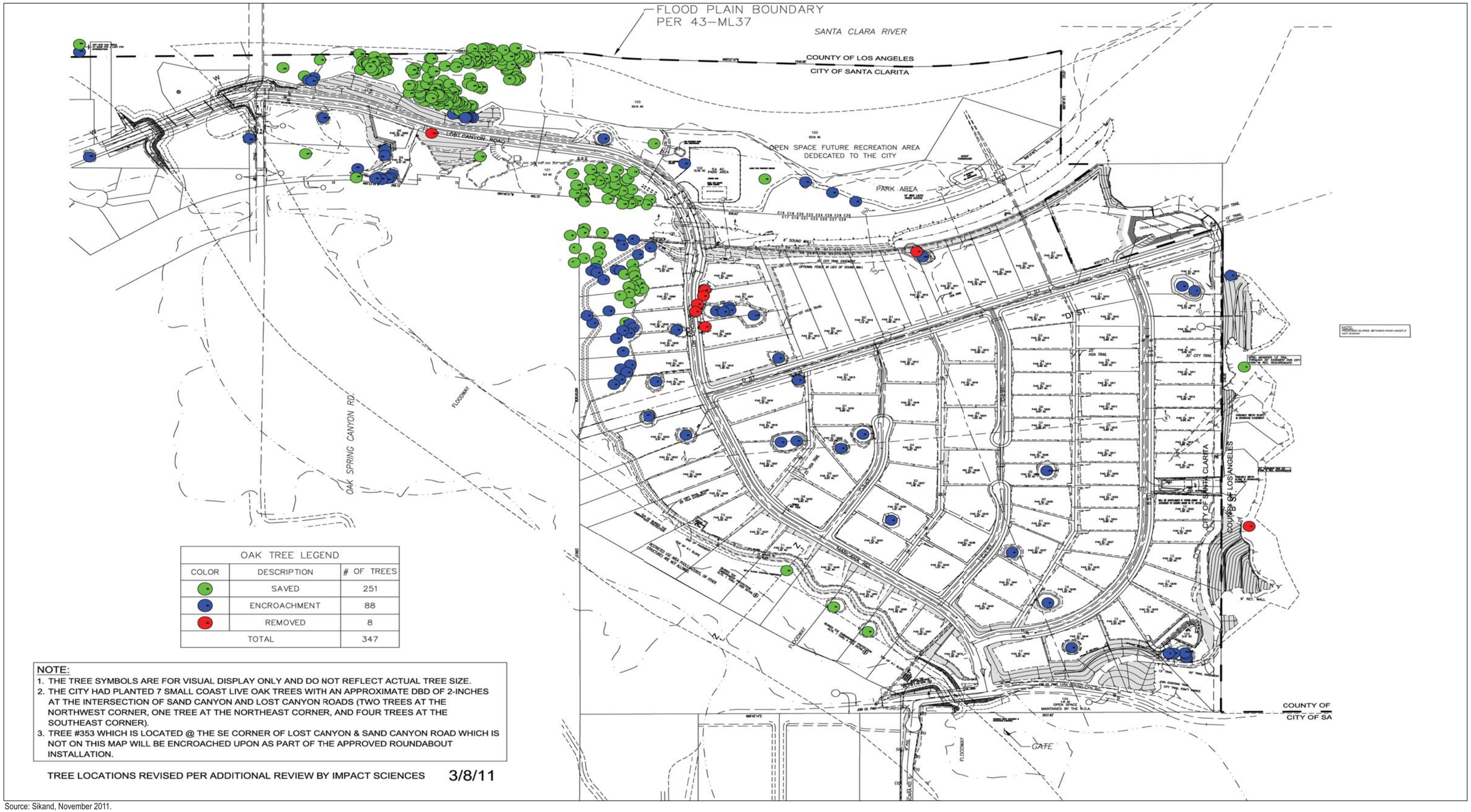
BIO-20 At no time shall any form of run-off water or nuisance water caused from irrigation or drainage be permitted to enter the protected zone of an oak tree. All run-off water shall be directed away from the trunk to the outer edge of the canopy.

BIO-21 A detailed legend that breaks down the species, quantity, size and cost of all oak trees shall be included on the final landscape plan. The legend shall be consistent with the required ISA mitigation dollar amount.

BIO-22 Prior to the issuance of grading permits, the project applicant shall have all protective fencing installed and in place at the protected zone for any oak tree that is not approved for encroachment and at a location that will allow for the necessary impacts for all trees approved for encroachment.

BIO-23 Protective fencing shall consist of chain link material five feet high and supported with a steel post every eight feet on center. Each post shall be driven directly into the ground without the use of concrete (unless waived by the City Oak Tree Specialist). Fence posts shall be installed even with the top of the fence.

BIO-24 A minimum of one sign that reads; "THIS FENCE IS FOR THE PROTECTION & PRESERVATION OF THESE OAK TREES AND SHALL NOT BE REMOVED OR RELOCATED WITHOUT WRITTEN AUTHORIZATION FROM THE CITY OAK TREE SPECIALIST. FOR INFORMATION CALL (661) 294-2548" shall be placed on the protective fence at 50-foot intervals or as approved by the City Oak Tree Specialist.



OAK TREE LEGEND		
COLOR	DESCRIPTION	# OF TREES
	SAVED	251
	ENCROACHMENT	88
	REMOVED	8
TOTAL		347

NOTE:
1. THE TREE SYMBOLS ARE FOR VISUAL DISPLAY ONLY AND DO NOT REFLECT ACTUAL TREE SIZE.
2. THE CITY HAD PLANTED 7 SMALL COAST LIVE OAK TREES WITH AN APPROXIMATE DBD OF 2-INCHES AT THE INTERSECTION OF SAND CANYON AND LOST CANYON ROADS (TWO TREES AT THE NORTHWEST CORNER, ONE TREE AT THE NORTHEAST CORNER, AND FOUR TREES AT THE SOUTHEAST CORNER).
3. TREE #353 WHICH IS LOCATED @ THE SE CORNER OF LOST CANYON & SAND CANYON ROAD WHICH IS NOT ON THIS MAP WILL BE ENCROACHED UPON AS PART OF THE APPROVED ROUNDABOUT INSTALLATION.

TREE LOCATIONS REVISED PER ADDITIONAL REVIEW BY IMPACT SCIENCES 3/8/11

Source: Sikand, November 2011.

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Oak Tree Map

Exhibit 5.2-2

BIO-25 A three-foot wide non-gated opening shall be left in each section of protective fencing that is installed around an oak tree. The opening shall be for the monitoring of oak trees during construction and shall be placed at the opposite end of where the construction is taking place. For oak trees that are in small chaparrals, and where fencing is around more than one oak tree, the opening shall be placed at 100-foot intervals.

BIO-26 In areas where grading is proposed uphill from an oak tree, the project applicant shall be required to install three-foot tall silt fence material at the base of the protective chain link fence.

BIO-27 Protective fencing shall remain in place throughout the project and shall not be removed and/or relocated without written authorization from the City Oak Tree Specialist for any period of time.

BIO-28 All work that takes place within the protected zone of an oak tree shall be completed by hand only unless waived (in writing) by the City of Santa Clarita Oak Tree Specialist.

BIO-29 All construction work that takes place within the protected zone of an oak tree shall be monitored by the project applicant's arborist. Monitoring shall include daily documentation and color photos of all work that take place within the protected zone. Daily monitoring reports shall be submitted to the City Oak Tree Specialist within 24 hours and may be sent via electronic mail (e-mail).

BIO-30 Any oak tree root that is encountered during construction/excavation that measures two inches in diameter or larger shall be preserved at all times. Roots that are exposed for a period longer than two hours shall be immediately wrapped in moistened layers of burlap and protected until backfilled.

BIO-31 Any root that is approved for removal shall be cut clean in the presence of the project arborist with an appropriate pruning device. Ripping the root or splintering the root with an axe or similar tool shall not be permitted.

BIO-32 Any oak tree requiring trimming to allow for approved encroachments shall be completed by an approved ISA certified tree trimming contractor or completed in the presence of an ISA certified arborist. Oak trees that require trimming to allow for street improvements shall first be approved by the City Oak Tree Specialist.

BIO-33 The project applicant shall prune oak trees permanently located on a single lot or common area. Pruning shall consist of deadwood removal and necessary clearance, weight and canopy reduction. Scrub oaks and those oaks located in small chaparrals shall be excluded from this condition.

BIO-34 All oak tree trimming shall be compliant with the latest edition of the American National Standards Institute (ANSI) A300 guidelines, the ISA companion publication Best Management Practices "Tree Pruning" and the ISA pruning standards. At no time shall any trimming of an oak tree exceed 20 percent of the overall canopy.

BIO-35 All woodchips generated from the trimming of oak trees or the removal of any oak tree shall be mulched and spread evenly below the canopy of on-site oak trees to a depth of four inches thick.

BIO-36 Grade changes that alter the natural flow of water to existing native oak trees shall be kept a minimum distance of 50 feet away from the oak tree protected zone. All grade changes in excess of two feet or as stated in the City of Santa Clarita Oak Tree Ordinance shall be approved by the City Oak Tree Specialist.

BIO-37 An approved storm water plan shall be implemented during and after all grading to eliminate runoff water, silt, and erosion from entering the protected zone of any oak tree located on-site or within 200 feet of the project.

BIO-38 At no time shall the project applicant or their construction contractor(s) be permitted to park or store any form of construction material, equipment or vehicles within the protected zone of an oak tree.

BIO-39 At no time shall the storage of any form of hazardous material including but not limited to diesel fuel, gasoline, hydraulic oils (fluids), grease, concrete, mortar, lime or any other form of liquid or powdered contaminate be permitted to enter the protected zone of an oak tree.

BIO-40 The project applicant shall be required to have a designated concrete rinse out station and refueling station on-site. The concrete rinse out station and refueling station shall be located a minimum distance of 100 feet from the protected zone of any oak tree.

BIO-41 When installing landscape walls, retaining walls and/or perimeter walls within the protected zone of an oak tree, the project applicant shall use “Keystone” type block material that minimizes the required footing and use of concrete.

BIO-42 The project applicant shall be required to install a permanent landscape wall or an approved vinyl or wrought iron type fence around oak trees located on the individual residential lots. This type of fencing shall be used to restrict the future encroachment and impacts to oak trees that are being preserved as part of the development.

BIO-43 Perimeter walls that are proposed within the protected zone of an oak shall be designed to accommodate the oak tree(s) for future growth. In some cases the wall may require a two-foot high block section with wrought iron fencing on top to reduce impacts to the root system caused by footings. These improvements shall be shown on the final landscape plan for approval by the City of Santa Clarita Urban Forestry Division.

BIO-44 The project applicant shall locate all public utilities outside the protected zone of any oak tree. In areas where trenching and excavation for utilities cannot be avoided, the project applicant shall be required to perform the excavation by hand in the presence of the project arborist.

BIO-45 Driveways and drive approaches that are proposed within the protected zone of an oak tree shall consist of permeable concrete or pavers. The installation of aeration tubes shall be required for all driveways, walkways and roadways when located within the protected zone of an oak tree.

BIO-46 The project applicant shall be required to complete a mandatory two-year post construction monitoring period. Post construction monitoring shall include reports of the current status of all oak trees that were approved for impacts and all required mitigation oak trees.

BIO-47 Monitoring reports shall be submitted at the rate of one report every three months for a total of eight reports. Post construction monitoring shall begin after the final construction walk-through and approval.

Level of Significance After Analysis and Mitigation: Less Than Significant Impact.

JURISDICTIONAL WATERS

- ***JURISDICTIONAL WATERS OF THE U.S. ARMY CORPS OF ENGINEERS, REGIONAL WATER QUALITY CONTROL BOARD, AND CALIFORNIA DEPARTMENT OF FISH AND GAME COULD BE ADVERSELY AFFECTED BY THE PROPOSED PROJECT.***

Level of Significance Before Analysis and Mitigation: Potentially Significant Impact.

Impact Analysis: The jurisdictional delineation prepared as part of the *Biological Constraints and Focused Survey Results* report and confirmed in the *Biological Resources Update* concluded that a total of 0.63 acres of the Oak Spring Canyon Wash and 5.29 acres of the Santa Clara River occurring within the project boundary are within ACOE and RWQCB jurisdiction. In addition, a total of 0.01 acre of wetland located immediately adjacent to the Santa Clara River occurs within the project boundary, which is also within ACOE and RWQCB jurisdiction.

On-site CDFG jurisdiction includes 3.82 acres of the Oak Spring Canyon Wash and 14.97 acres of the Santa Clara River, totaling 18.79 acres. The 3.82 acres of Oak Spring Canyon Wash includes the proposed Lost Canyon Road and Oak Spring Canyon Road bridge crossings and portions of the approximately 15-acre "Not a Part" area within the southwestern corner of the site. The delineated jurisdictional areas located on the project site are presented below in *Exhibit 5.2-3*, *Jurisdictional Waters of the Project Site*.

Project implementation would cause disturbance (fill, vegetation removal, bridging, etc.) to these ACOE and CDFG jurisdictions. Thus, permits from the ACOE, RWQCB, and CDFG would be required.

The ACOE and CDFG have a "no net loss" policy requiring that all jurisdictional areas impacted be created, enhanced, or restored elsewhere. The loss of jurisdictional drainages on-site is considered potentially significant.

Mitigation is required by CEQA for significant impacts, and the regulatory agencies (ACOE, CDFG, and RWQCB) will require the project applicant to obtain regulatory permits for impacts to jurisdictional features. Permits will include conditions to ensure that any loss in the functions and values of the drainages and associated habitat are restored. Upon implementation of mitigation measures and adherence to regulatory agency requirements, impacts to jurisdictional features would be less than significant.

Mitigation Measures:

BIO-48 The proposed impacts shall be subject to the regulations set forth by regulatory agencies as part of the jurisdictional permitting process. The Army Corps of Engineers and California Department of Fish and Game shall require the project proponent to explore alternatives to avoid or reduce impacts and shall also require mitigation for all unavoidable impacts. The Army Corps of Engineers has a "no net loss" policy that requires that any unavoidable impacts to stream values and functions be replaced. In addition, the Regional Water Quality Control Board shall add restrictions to control runoff from the site, require on the site treatment of runoff to improve water quality, and impose Best Management Practices on the construction. All of the features of the project that shall address water quality issues shall be mitigated within the Water Quality Management Plan and Stormwater Pollution Prevention Plan.

BIO-49 The majority of the mitigation shall be accomplished off-site since habitat within the impact area exists in a relatively undisturbed state. There may be some opportunities for non-native species removal within a few of the more accessible drainages. The following measures, if implemented, would reduce impacts to Army Corps of Engineers and California Department of Fish and Game jurisdictional areas.

- On- or off-site creation, restoration, or enhancement of Army Corps of Engineers jurisdictional waters of the U.S. and/or wetlands at a minimum ratio of 1:1 in accordance with the resource agencies;
- On- or off-site creation, restoration, or enhancement of California Department of Fish and Game jurisdictional areas at a minimum ratio of 1:1 in accordance with the resource agencies; and/or
- Incorporation of design features into the proposed project that shall avoid or minimize impacts to drainages on-site.

Level of Significance After Analysis and Mitigation: Less Than Significant Impact.

Source: Impact Sciences, 2008 and 2011.
Note: RWQCB Jurisdictional Waters are identical to ACOE Jurisdictional Waters.

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Jurisdictional Waters of the Project Site

Exhibit 5.2-3

5.2.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS COULD RESULT IN ADVERSE IMPACTS RELATED TO BIOLOGICAL RESOURCES.***

Level of Significance Before Analysis and Mitigation: Potentially Significant Impact.

Impact Analysis: According to *CEQA Guidelines* Section 15130, cumulative impacts refer to the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects. Implementation of the proposed project would result in significant direct impacts to oak trees and oak woodlands. However, potential impacts from the proposed project and other related projects would be site-specific, and evaluations of potential impacts would be conducted on a project-by-project basis, and mitigation would be included to address any impacts. This would be especially true of those developments located in areas that contain sensitive species and habitats. Mitigation measures within this section would provide detailed requirements for the protection, replacement, and/or relocation of sensitive plant and animal species. Each incremental development would be required to comply with all applicable Federal, State, and City regulations concerning the preservation of biological resources. In consideration of these regulations and the mitigation measures incorporated within this EIR, potential cumulative impacts upon biological resources would be considered less than significant.

Mitigation Measures: Refer to Mitigation Measures BIO-1 through BIO-49. No additional mitigation measures are required.

Level of Significance After Analysis and Mitigation: Less Than Significant Impact.

5.2.6 SIGNIFICANT UNAVOIDABLE IMPACTS

All impacts to biological resources, including impacts to habitats, special-status plant and wildlife species, oak tree impacts, and impacts to jurisdictional waters, can be reduced to less than significant with implementation of applicable mitigation measures. As such, no significant unavoidable biological resources impacts would result from implementation of the proposed project.

5.2.7 SOURCES CITED

Biological Constraints and Focused Survey Results, Impact Sciences, Inc., February 2007 (revised September 2008).

Biological Resources Update, Mancara-Robinson Ranch (TTM 063022), Impact Sciences, Inc., June 2011.

Oak Tree Survey Report and Appraisal: Oak Springs Project, Tentative Tract Map 063022, Impact Sciences, Inc., September 2006 (Revised December 2008, September 2010, April 2011 July 2011, and September 2011).

Results of Protocol Surveys for the Least Bell's Vireo and Southwestern Willow Flycatcher, Oak Springs Project Site, Ecological Sciences, Inc., September 5, 2006.

2006 California Gnatcatcher Survey Report, Robinson Ranch Residential Project, Langdon Biological Consulting, July 15, 2006.

City of Santa Clarita *Unified Development Code*, updated through May 10, 2011.

City of Santa Clarita General Plan, adopted June 26, 1991 and subsequent updates.

Santa Clarita General Plan, Draft September 2010.

Draft Program Environmental Impact Report for the City of Santa Clarita's Proposed One Valley One Vision General Plan, Impact Sciences, Inc., September 2010.

*Final Program Environmental Impact Report for the City of Santa Clarita's Proposed One Valley One Vision General Pla*n, Impact Sciences, Inc., May 2011.