

Biological Resources

8.1 Introduction

This chapter evaluates the potential impacts to biological resources related to the Chiquita Canyon Landfill (CCL) Master Plan Revision (Proposed Project), which is located on the north side of State Route 126 (SR-126), west of Interstate 5 (I-5) in the Santa Clarita Valley area of Los Angeles County. A vicinity map showing the location of CCL is shown in Figure 1-1.

8.2 Methodology

8.2.1 Background Literature/Database Review

A review of relevant biological databases for biological resources at CCL was conducted. This included a review of the California Natural Diversity Database (CNDDDB) and Special Animals List managed by the California Department of Fish and Wildlife (CDFW) (CDFW, 2011; CDFW, 2012a); proposed or final critical habitat for species listed as “threatened” or “endangered” designated by the United States Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) under the Federal Endangered Species Act (FESA); Significant Ecological Areas (SEA) and Ecological Transition Areas (ETA) as determined by the County of Los Angeles; Significant Natural Areas (SNA) as determined by CDFW; Special Vascular Plants, Bryophytes, and Lichens List (CDFW, 2012b), and the Calflora Database, hosted by the University of California Berkeley Digital Library Project (Calflora, 2012).

Existing environmental documents, planning or technical reports, government publications, and other published materials with information relevant to biological resources in the region or the site were collected, reviewed, and summarized. A full list of documents that were reviewed for this chapter is provided in Chapter 21.0, References and Bibliography.

8.2.2 Agency Coordination

Contact was initiated with CDFW, the Los Angeles County Regional Planning Department, Los Angeles Regional Water Quality Control Board (RWQCB), and the United States Army Corps of Engineers (USACE) via the Notice of Preparation (NOP) that was distributed on November 21, 2011, and received by the State Clearing House on November 28, 2011 (see Appendix A).

8.2.3 Reconnaissance Surveys

Reconnaissance-level biological surveys were conducted at CCL. Vegetation communities and habitat types at CCL were mapped on aerial photographs and verified with field visits. Vegetation communities were characterized, and wildlife usage of these communities was noted. Site visits were conducted by CH2M HILL biologists between 2002 and 2013. Additionally, vegetation monitoring at CCL was conducted by CH2M HILL biologists between 2004 and 2012. A comprehensive list of survey dates is provided in Appendix E1.

Additional information was mapped at CCL, including (1) general locations of waters of the United States as defined by USACE as containing waters in a 2-year flood frequency; (2) CDFW stream jurisdictional areas determined as having a defined “bed and bank”; (3) special-habitat features important for sensitive species; and (4) identification of potential wildlife movement or migratory corridors. Along with preliminary mapping, site habitat was assessed based on suitability to support special-status species.

8.3 Regulatory Setting

8.3.1 Federal Regulations and Standards

The Proposed Project may be subject to the following federal regulations:

Federal Endangered Species Act (FESA). The FESA, including coordination requirements of Sections 7 and 10 and Habitat Conservation Plan (HCP) requirements of Section 9 (16 *United States Code* [USC] §§1531 et seq.; 50 *Code of Federal Regulations* (CFR) Part 402). Section 9 of the FESA prohibits the “take” of species federally listed as threatened or endangered. “Take” is further defined to include any harm or harassment, including significant habitat modification or degradation that could potentially kill or injure wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Take incidental to otherwise lawful activities can be authorized under Section 7 of the FESA, where a federal nexus or agency is involved. Section 10 of the FESA provides for project proponents of non-federal activities to apply for take incidental to otherwise lawful activities; this generally includes the development of an HCP.

Migratory Bird Treaty Act (MBTA; 16 USC 703-712; 50 CFR 10). The federal MBTA prohibits the “take” of migratory birds, unless permitted. This regulation can constrain construction activities that have the potential to affect nesting birds either through vegetation removal and land clearing, or through other construction- or operation-related disturbance.

Clean Water Act (CWA). Sections 401 and 404 of the CWA (33 USC Section 1344). Activities that have the potential to discharge fill materials into waters of the United States including wetlands are regulated by the United States Environmental Protection Agency (EPA) under Section 404 of the CWA. USACE administers Section 404 of the CWA. Fill activities may be permitted by a Nationwide or Individual Permit. The Nationwide Permit Program involves certain activities that have been preauthorized by USACE. Individual Permit applications are more involved, and generally take up to 6 months for permit issuance. Typically, USACE requires mitigation for temporary and permanent impacts to waters and wetlands. Mitigation is required to be consistent with the revised regulations governing compensatory mitigation for authorized impacts to wetlands, streams, and other waters, per “Compensatory Mitigation for Losses of Aquatic Resources; Final Rule” (USACE, EPA Federal Register, April 10, 2008).

Projects requiring a Section 404 permit also require a CWA Section 401 Water Quality Certification, issued by the appropriate RWQCB.

Under the provisions of the CWA, USACE has jurisdictional authority over waters of the United States, which are defined in CFR as waters having current or historical use for interstate or foreign commerce; all interstate waters including interstate wetlands; all other intrastate waters such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds; tributaries to any of the aforementioned waters; territorial seas; and wetlands adjacent to waters (other than waters that are themselves wetlands) named above (33 CFR 328.3).

Traditionally, USACE has interpreted CWA regulations to define “waters of the United States” within non-tidal waters, in the absence of adjacent wetlands, as defined by the Ordinary High Water Mark (OHWM). In 33 CFR 328.3, the OHWM is defined as the “line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, or the presence of litter and debris.” Generally, USACE has considered the OHWM to be the elevation to which water flows at a 2-year frequency (i.e., 50 years out of 100 years), and has asserted jurisdiction over tributaries to navigable waters demonstrating these characteristics, including ephemeral washes.

USACE has published *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE, 2008a; also see USACE, 2006). This field methodology has been developed by USACE for delineating OHWM in the arid west region of the United States. It presents methodology that recommends the consideration that OHWM indicators could be associated with 5-year

events within the arid west, as opposed to 2-year events in other, more temperate climates. The methodology also puts a greater emphasis on changes in vegetation and sediment size in identifying jurisdictional limits.

Wetlands are defined in Section 404(b)(1) as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration [wetland hydrology] sufficient to support, and that under normal circumstances do support, a prevalence of vegetation [hydrophytic vegetation] typically adapted for life in saturated soil conditions [hydric soils]” (40 CFR 230.3; 33 CFR 328.3). The *Corps of Engineers Wetlands Delineation Manual* (USACE, 1987), supported by the *Final Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE, 2008b), requires an examination for the presence of indicators of three mandatory diagnostic characteristics. These characteristics or wetland parameters include hydrology, hydrophytic vegetation, and hydric soils. Except in limited instances, these documents require that evidence of a minimum of one positive indicator from each of the three mandatory wetland parameters be present for an area to be called a wetland under Section 404 jurisdiction.

Recent court cases have challenged EPA and USACE’s traditional interpretation of the CWA regulations. These decisions have had the overall result of calling into question the jurisdiction of seasonal, ephemeral washes, which may flow into navigable waters, but are not themselves navigable waters. Court decisions that have directly affected the interpretation of federal jurisdiction have included:

Solid Waste Agency of Northern Cook County (SWANCC) v. USACE, 531 U.S. 159 (2001): In this decision, the Supreme Court upheld a decision that USACE could not regulate isolated, intrastate waters that do not bear a “significant nexus” to traditional navigable waters (at least in most cases).

Rapanos v. United States and Carabell v. United States (Rapanos) 547 U.S., 126 S. Ct. 2208 (2006). In 2006, the Supreme Court addressed the jurisdictional scope of Section 404 of the CWA, specifically the term “the waters of the United States,” in *Rapanos v. United States* and in *Carabell v. United States*. The justices agreed that the CWA jurisdiction exists over all traditional navigable waters (TNW) and over all wetland adjacent to TNWs.

On June 5, 2007, EPA issued guidance for the Supreme Court decision in the Rapanos/Carabell court case. This guidance was reissued on December 2, 2008 (USACE, 2008c), with some minor changes, including clarification on how to determine the reach of TNWs, clarification on the concept of relevant reach, and clarification on the term “adjacent wetlands.” In summary, these documents provide guidance on how EPA will assert jurisdiction over (1) TNWs, (2) wetlands adjacent to TNWs, (3) non-navigable tributaries of TNWs that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (typically 3 months), and (4) wetlands that directly abut such tributaries.

Jurisdiction over the following waters will be based on a fact-specific analysis to determine whether they have a significant nexus with a TNW: (1) non-navigable tributaries that are not relatively permanent, (2) wetlands adjacent to non-navigable tributaries that are not relatively permanent, and (3) wetlands that are adjacent to, but do not directly abut, a relatively permanent non-navigable tributary (USACE, 2008c).

USACE indicated that it will generally not assert jurisdiction over the following features: (1) swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow), and (2) ditches (including roadside ditches) excavated wholly in, draining only uplands, and not carrying a relatively permanent flow of water (USACE, 2008c).

USACE issued Regulatory Guidance Letter (RGL) No. 08-02 on June 26, 2008, which provided clarification on conducting jurisdictional determinations (USACE, 2008d). Specific requirements resulting from this guidance include the following: (1) use of the Approved Jurisdictional Determination Form to provide information to USACE to make a significant nexus determination, and (2) use of the Preliminary Jurisdictional Process and Approved Jurisdictional Process to expedite applications where there is clear evidence of jurisdictional waters and/or wetlands (Preliminary Jurisdictional Process) or where there is not clear evidence and the project must go through the significant nexus test (Approved Jurisdictional Process).

EPA issued the *Draft Guidance on Identifying Waters Protected by the Clean Water Act* on June 27, 2011 (EPA, 2011). This document was intended to revise and clarify the earlier guidance documents. The comment

period extended to July 31, 2011. EPA received over one-quarter million comments on this document. To date, the Draft Guidance has not been finalized, and no date for finalization has been provided. This document is somewhat consistent with earlier guidance documents; although some changes are proposed. It does not incorporate the “Approved” or “Preliminary” jurisdictional process; however, this process may continue until RGL 08-02 is rescinded or reissued. To summarize, under the Draft Guidance (EPA, 2011):

1. The following waters would be protected by the CWA:
 - a. Traditional navigable waters;
 - b. Interstate waters;
 - c. Wetlands adjacent to either traditional navigable waters or interstate waters;
 - d. Non-navigable tributaries to traditional navigable waters that are relatively permanent, meaning they contain water at least seasonally; and
 - e. Wetlands that directly abut relatively permanent waters.
2. The following waters would be protected by the CWA if a fact-specific analysis determines they have a “significant nexus” to a traditional navigable water or interstate water:
 - a. Tributaries to traditional navigable waters or interstate waters;
 - b. Wetlands adjacent to jurisdictional tributaries to traditional navigable waters or interstate waters; and
 - c. Waters that fall under the “other waters” category of the regulations. The Draft Guidance divides these waters into two categories, those that are physically proximate to other jurisdictional waters and those that are not, and discusses how each category should be evaluated.
3. Aquatic areas that would generally not be protected by the CWA, among others, would include wet areas that are not tributaries or open waters and are not wetlands; waters that lack a “significant nexus”; artificially irrigated areas that would revert to upland should irrigation cease; artificial lakes or ponds created by excavating and/or diking dry land; water filled depressions created incidental to construction activity; erosional features (gullies and rills) and swales and ditches that are not tributaries or wetlands; and ornamental bodies of water.

In the absence of direct regulatory guidance from USACE on jurisdictional status at CCL, determining CWA jurisdiction at CCL can be conservatively based on whether ephemeral streams on CCL meet the “significant nexus” test. The evaluation should consider the following, relative to the nearest TNW, presumed to be the Santa Clara River:

- Presence and/or proximity of navigable waters to the site, and a significant connection to or relationship with navigable waters, including hydrologic/physical connection, biological/ecological connection, or chemical connection.
- Physical connection should evaluate frequency, volume, regularity of the connection (i.e., is the flow insubstantial, speculative, or minor?); does the water perform a flood control function for the navigable water; would pollutants (including sediment) actually (as opposed to speculatively) reach the navigable water?

Ecological connection should evaluate whether the water ecosystem supports populations that are integral or indistinguishable from the navigable water.

8.3.2 State Regulations and Standards

The Proposed Project may be subject to the following state regulations:

California Endangered Species Act (CESA; California Fish and Wildlife Code §§2050 et seq.). Section 2050 of the California Fish and Wildlife Code prohibits any activities that would jeopardize or take a species listed as threatened or endangered within the state. Projects that have the potential to impact species listed as

threatened or endangered by the state might require an Incidental Take Permit from CDFW under Section 2081 of the California Fish and Wildlife Code.

California Fully Protected Wildlife Species Provisions (California Fish and Wildlife Code §§3511, 4700, 5050, and 5515). These provisions prohibit the taking of fully protected birds, mammals, amphibians, and fish. CDFW might authorize the project, with conditions, after reviewing the project impacts.

Birds of Prey Protection Provision (California Fish and Wildlife Code §3503.5). This provision prohibits the taking of birds of prey, including any birds of the order Falconiformes or Strigiformes, and includes the nests or eggs of such birds.

Migratory Bird Provision (California Fish and Wildlife Code §3513). This provision prohibits any take or possession of birds that are designated by the MBTA as migratory nongame birds except as allowed by federal rules and regulations promulgated pursuant to the MBTA.

Fish and Wildlife Protection and Conservation – Streambed Alteration Agreements (California Fish and Wildlife Code §1600). Section 1600 of the California Fish and Wildlife Code regulates the alteration of the bed, bank, or channel of a stream, river, or lake, including dry washes subject to intermittent flow. Generally, CDFW asserts jurisdiction up to the top of significant bank cuts, or to the outside of any riparian vegetation associated with a water course. Activities that have the potential to affect jurisdictional areas can be authorized through issuance of a Streambed Alteration Agreement (SAA). The SAA specifies conditions and mitigation measures that would minimize impacts to riparian resources from proposed actions.

8.3.3 Local Regulations and Standards

The Proposed Project may be subject to the following ordinance:

County of Los Angeles Oak Tree Ordinance (Los Angeles County Code, Title 22, Section 56, Part 16). The oak tree permit has been established by the County of Los Angeles to recognize oak trees as significant historical, aesthetic, and ecological resources and to create favorable conditions for the preservation and propagation of this unique, threatened plant heritage, particularly those trees which may be classified as heritage oak trees, for the benefit of current and future residents within the county (Los Angeles County Code, 2012). According to this ordinance:

“Section 22.56.2070, a person shall not cut, destroy, remove, relocate, inflict damage or encroach into a protected zone of any tree of the oak genus which is (a) 25 inches or more in circumference (eight inches in diameter) as measured four and one-half feet above mean natural grade; in the case of an oak with more than one trunk, whose combined circumference of any two trunks is at least 38 inches (12 inches in diameter) as measured four and one half feet above mean natural grade, on any lot or parcel of land within the unincorporated area of Los Angeles County, or (b) any tree that has been provided as a replacement tree, pursuant to Section 22.56.2180, on any lot or parcel of land within the unincorporated area of Los Angeles County, unless an oak tree permit is first obtained as provided by this Part 16.”

A heritage oak tree is defined as any oak tree at least 36 inches in diameter measured four and one-half feet above the natural grade. In addition, any oak tree that is culturally or historically significant to the community, even if it is less than 36 inches in diameter, is classified as a heritage oak tree (Los Angeles County Code, Title 22, Section 56, Part 16, 2011).

8.3.4 Special Land Designations

8.3.4.1 Federal Critical Habitat

Section 3(5)(A) of the FESA requires USFWS or NMFS to establish critical habitat for federally listed species. Critical habitat represents areas within the geographical area occupied by the species “on which are found those physical or biological features (i) essential to the conservation of the species and (ii) which may require special management consideration or protection; and (iii) specific areas outside the geographical area occupied by the species at the time it is listed ...upon a determination ...that such areas are essential for the

conservation of the species.” Federal projects (or projects with a significant federal nexus) must be evaluated for significant effects on designated critical habitat. Generally private projects or landholdings are exempt from the requirements of critical habitat.

CCL is not located within any critical habitat boundary. The species for which critical habitat has been designated in the general project area, along the Santa Clara River, include (see Figure 8-1):

- Arroyo toad (*Anaxyrus californicus*, *Bufo californicus*): Along the upper reach of the Santa Clara River adjacent to CCL (USFWS, 2011a)
- Least Bell’s vireo (*Vireo pusillus pusillus*): Along the upper reach of the Santa Clara River adjacent to CCL (USFWS, 1994)
- Southern steelhead (*Oncorhynchus mykiss irideus*): Along the lower reaches of the Santa Clara River upstream as far as Piru Creek, including Piru Creek (National Oceanic and Atmospheric Administration, 2005)

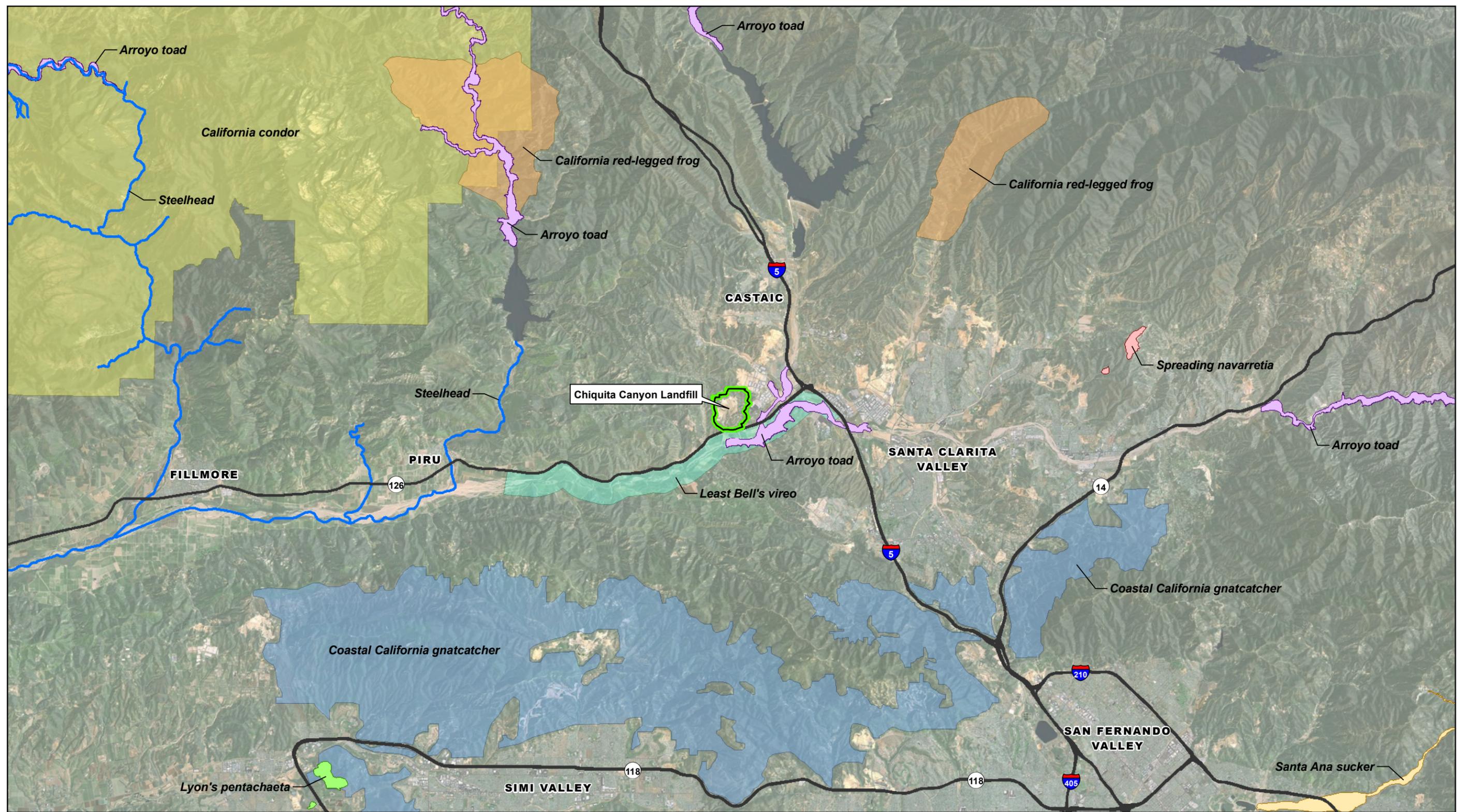
Unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*) critical habitat was draft designated in 1980 by USFWS in the area; however, the draft designation was never finalized (USFWS, 1980). Other critical habitat designations for wildlife species within the region (Figure 8-1) include California condor (*Gymnogyps californianus*), California red-legged frog (*Rana draytonii*), coastal California gnatcatcher (*Polioptila californica californicus*), and Santa Ana sucker (*Catostomus santaanae*) as well as plant species including Lyon’s pentachaeta (*Pentachaeta lyonii*) and spreading navarretia (*Navarretia fossalis*). However, these critical habitat designations are not in the immediate vicinity of CCL.

8.3.4.2 Significant Ecological Areas

In 1970, Los Angeles County prepared an Environmental Development Guide, which contains an Open Space Conceptual Plan map. The Open Space Conceptual Plan depicts areas of conservation and safety significance, and these areas closely resemble the proposed SEA and ETA map (Los Angeles County Department of Regional Planning [LADRP], 2009); ETAs are a subset of SEAs. SEAs were established in 1976 by Los Angeles County to designate areas with sensitive environmental conditions and/or resources (LADRP, 2009). In 2002, the proposed SEA map was released for public review as part of an Amendment to the County’s General Plan (LADRP, 2009). The SEAs in the vicinity of CCL were adopted with the Santa Clarita Valley Plan in Oct 2012. Uses normally allowed in the corresponding land use classification would continue to be permitted unless a finding is made that the Proposed Project would have an adverse effect on the SEA (LADRP, 1990). Boundaries for the SEAs are general in nature and broadly outline the biotic resources of concern. The Santa Clara River SEA is closest to CCL; however, CCL is not located within the Santa Clara River SEA boundaries (Figure 8-2). Therefore, no review by the SEATAC is required.

8.3.4.3 Santa Clara River Enhancement and Management Plan

The Santa Clara River Enhancement and Management Plan (SCREMP) was developed by the Ventura County Watershed Protection District (VCWPD) and the Los Angeles County Department of Public Works (LACDPW). It identifies a number of riverwide and reach-specific recommendations within the 500-year floodplain. Reach 11 of the Santa Clara River, which includes Newhall Land and Farming Company (NLF) project areas is south of the CCL site and across SR-126 (see Figure 2.1-1 in the SCREMP; VCWPD and LACDPW, 2005). Reach 11 recommendations identify that the activities within this reach shall comply with the CWA Section 404 permit and Section 1603 SAA pursuant to the Natural River Management Plan (NRMP) developed for NLF projects. This NRMP addresses cumulative impacts to Santa Clara River and San Francisquito Creek drainage for the next 20 years and identifies standard mitigation measures for all work that could occur within these drainages.



LEGEND

- Major Road
- Limit of Disturbance
- ▭ Project Boundary
- Steelhead
- ▭ Arroyo toad
- ▭ California condor
- ▭ California red-legged frog
- ▭ Coastal California gnatcatcher
- ▭ Least Bell's vireo
- ▭ Lyon's pentachaeta
- ▭ Santa Ana sucker
- ▭ Spreading navarretia

Sources: ESRI (2010); Final Critical Habitat boundaries obtained from U.S. Fish and Wildlife Service for the following species: Arroyo toad (2011), California condor (1977), California red-legged frog (2010), Coastal California gnatcatcher (2007), Least Bell's vireo (1994), Lyon's pentachaeta (2006), Santa Ana sucker (2010), Spreading navarretia (2010), and Steelhead (2005).
Aerial Imagery Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community (2010)

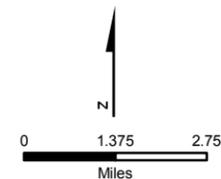
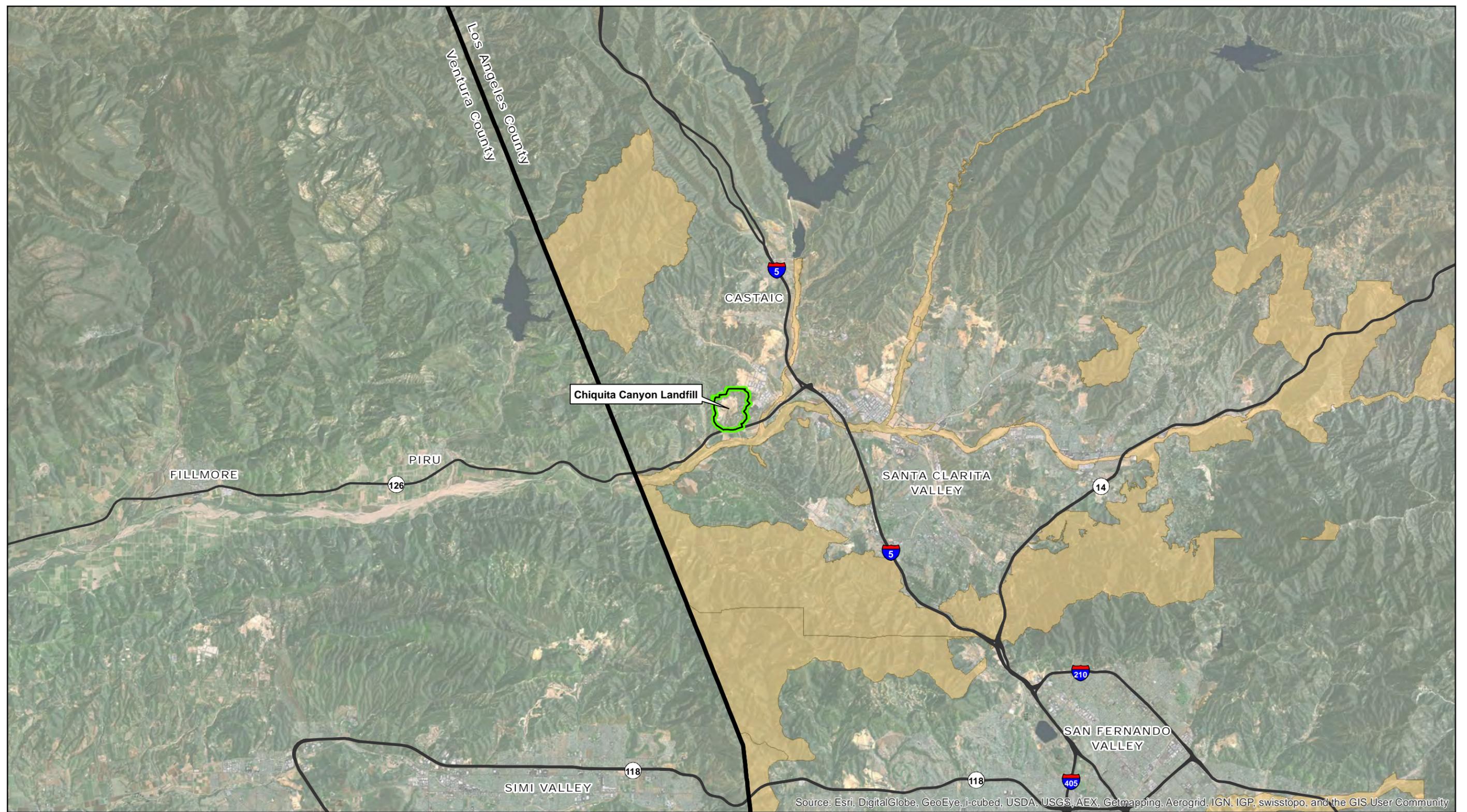


FIGURE 8-1
Critical Habitat
 Chiquita Canyon Landfill
 Master Plan Revision



LEGEND

-  Major Road
-  Limit of Disturbance
-  Project Boundary
-  Significant Ecological Area (SEA)

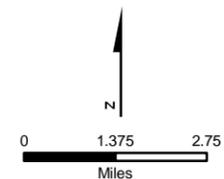


FIGURE 8-2
Los Angeles County Significant Ecological Areas
Chiquita Canyon Landfill
Master Plan Revision

Sources: Los Angeles County Department of Regional Planning, ESRI

8.4 Regional Setting

CCL is located in the Santa Clarita Valley, which is generally flat with gently rolling to steep hills that have an average elevation of 1,200 feet to 1,400 feet above mean sea level (msl). CCL is located in the Transverse Ranges, within the western section of the San Gabriel Mountains that forms the northern border of the Santa Clara River Valley (referred to locally as the Santa Clarita River Valley) in the project area. South across the Santa Clara River are the Santa Susana Mountains. To the east are the communities of Valencia and Santa Clarita located in the Santa Clarita River Valley. To the west in Ventura County are the Piru Mountains of the Coast Ranges and the Los Padres National Forest. To the north beyond private holdings in the mountains is the Angeles National Forest.

Topographically, the project site is characterized by steep-sided slopes (approaching 1:1 horizontal:vertical) along two principal canyons. Chiquita Canyon, the main canyon, is generally oriented northeast-southwest, and the eastern canyon, where expansion is proposed, is oriented northwest-southeast. Both canyons open into the Santa Clara River Valley. SR-126 is immediately south of current and proposed new entry to CCL.

The Santa Clarita Valley floor is crossed by several watercourses, the largest being the Santa Clara River, located about a mile south of CCL. The watercourses in this area are usually dry, maintaining surface flow only during the rainy months. However, the Santa Clara River maintains surface flows year-round. Castaic Creek is a major tributary of the Santa Clara River; the confluence of these two drainage courses is located approximately 0.3 mile to the southeast of CCL. . Castaic Creek generally only flows seasonally or in response to large storm events. Within CCL, the major drainages carry surface water towards the Santa Clara River (from the western portion of the landfill) or Castaic Creek (from the eastern portion of the landfill) across the lands of NLF. In the immediate vicinity of CCL, some surface drainage flows to catch basins, where it is channelized into underground culverts. These culverts discharge water into surface drainages that discharge to the NLF lands closest to the Santa Clara River.

Land use patterns in the region reflect a mixture of open space, urban, and rural uses, including commercial and industrial land, agricultural fields, and vacant areas consisting of undeveloped commercial/industrial lots, undeveloped hillsides, or floodplains. Within the immediate vicinity of CCL there are undeveloped hillsides, agricultural land, and commercial/industrial lots. A mail distribution facility, operated by the United States Postal Service, is located adjacent to the eastern edge of the landfill property boundary.

8.5 Project Setting

8.5.1 Land Cover Types, Vegetation Communities, and Associated Wildlife

CCL consists of five major vegetation communities, which include Riversidean sage scrub, southern mixed chaparral, non-native grassland, dry wash, and riparian woodland (Holland, 1986; Sawyer and Keeler-Wolf, 1995). There are three vegetation communities/ecotones derived from these including, non-native grassland with scattered shrubs, dry wash mule fat dominant, and mixed Riversidean sage scrub/non-native grassland. Additional land cover types within the Proposed Project boundary include ruderal revegetated, active landfill, and roads and infrastructure. Land cover types and vegetation communities at CCL are shown in Figure 8-3. Existing land cover types, vegetation communities, and wildlife species observed or commonly associated with these communities at CCL are described below.

8.5.1.1 Active Landfill

Active landfill occurs in four locations within the Proposed Project boundary and does not support wildlife habitat. Some species, including American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), various gulls (*Larus* spp.), and some passerines such as brown-headed cowbird (*Molothrus ater*), Brewer's blackbird (*Euphagus cyanocephalus*), and common starling (*Sturnus vulgaris*), may scavenge in the active landfill, although various control methods used by CCL prevent scavenging.

8.5.1.2 Disturbed

Disturbed habitat represents areas that have been cleared of natural vegetation (e.g., graded). The disturbed areas at CCL are dominated by bare ground with scattered non-native weedy species including various mustards (*Brassica* spp. and *Hirschfeldia* sp.), bromes (*Bromus* spp.), and Russian thistle (*Salsola tragus*).

8.5.1.3 Dry Wash and Dry Wash Mule Fat Dominant

The drainages within the site generally flow in a south-southeast direction; they are fed by numerous small tributaries upstream. The natural flow of the major drainages has been permanently interrupted at the perimeter of CCL by concrete weirs and associated catch basins constructed to control and channelize diverted surface flows. Scattered riparian vegetation including Fremont cottonwood (*Populus fremontii*) and mule fat (*Baccharis salicifolia*) has established in catch basins and in channel locations upstream of the basins. Portions of the main drainages further upstream are dominated by scattered riparian vegetation including mule fat and black elderberry (*Sambucus nigra*), with upland vegetation found along the outer edges, including coyote bush (*Baccharis pilularis*), California buckwheat (*Eriogonum fasciculatum*), and Russian thistle.

Common wildlife species associated with this community at CCL include Costa's hummingbird (*Calypte costae*), Anna's hummingbird (*Calypte anna*), lesser goldfinch (*Carduelis psaltria*), and phainopepla (*Phainopepla nitens*).

8.5.1.4 Non-Native Grassland and Non-Native Grassland with Scattered Shrubs

Non-native grassland is present throughout CCL, on disturbed slopes affected by landfill activities and previous disturbance. The non-native grassland community at CCL contains dominant species of slender wild oat (*Avena barbata*), barley (*Hordeum* spp.), foxtail chess (*Bromus madritensis* ssp. *rubens*), soft chess (*Bromus hordeaceus*), tocalote (*Centaurea melitensis*), and tree tobacco (*Nicotiana glauca*). Additional areas on CCL contain areas of non-native grassland with scattered shrubs, a variant of the non-native grassland community. This modified vegetation community is generally characterized by 30 to 40 percent coverage of California sagebrush (*Artemisia californica*) and California buckwheat and 60 to 70 percent low herbaceous growth, dominated by various bromes.

Common wildlife species associated with this community at CCL include: Red-tailed hawk (*Buteo jamaicensis*), western kingbird (*Tyrannus verticalis*), and gopher snake (*Pituophis melanoleucus*).

8.5.1.5 Revegetated

Due to ongoing landfill activities at CCL, many graded areas have been revegetated within and immediately adjacent to the landfill. These areas have been graded and revegetated with scrub habitat, grassland habitat, and riparian habitat. Representative species in the revegetated scrub habitat include brittlebush (*Encelia farinosa*), California sagebrush, California buckwheat, and deerweed (*Acmispon glaber*). The grassland habitat is dominated by non-native species. Representative grasses in the revegetated grassland habitat include various mustards, various bromes, tocalote, and common Mediterranean grass (*Schismus barbatus*). Representative species in the riparian habitat include mule fat. Successful establishment of some of the revegetation areas has occurred (see Table 8-1 later in this chapter). Ongoing revegetation success monitoring is still being conducted and mitigation for the Proposed Project includes development of a Revegetation Plan in consultation with LADRP (as discussed in Section 8.6.3.1).



LEGEND

- | | |
|--|---|
| Limit of Disturbance | Non-native Grassland and Scattered Shrubs |
| Project Boundary | Revegetated |
| Land Cover Types and Vegetation Communities | |
| Active Landfill | Riparian Woodland |
| Disturbed | Riversidean Sage Scrub |
| Dry Wash | Riversidean Sage Scrub/Non-native |
| Dry Wash Mulefat Dominant | Roads and Infrastructure |
| Non-native Grassland | Ruderal |
| | Southern Mixed Chaparral |

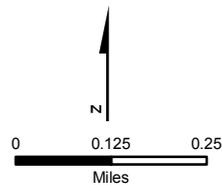


FIGURE 8-3
Land Cover Types and
Vegetation Communities
Chiquita Canyon Landfill
Master Plan Revision

8.5.1.6 Riparian Woodland

This community is dominated by Fremont's cottonwood (*Populus fremontii*), Goodding's black willow (*Salix gooddingii*), blue elderberry (*Sambucus nigra* ssp. *caerulea*), mule fat (*Baccharis salicifolia*), and summer mustard (*Hirschfeldia incana*). A surface water source, seasonal, intermittent, or perennial, is required for this community type. It is only found in scattered locations at CCL; mulefat, cottonwoods, and other riparian vegetation occur adjacent to the southern basin with the *Tamarix ramosissima*. There are mulefat and cottonwoods associated with the eastern detention basin.

Common wildlife species associated with this community at CCL include Costa's hummingbird, Anna's hummingbird, northern oriole (*Icterus galbula*), and lesser goldfinch.

8.5.1.7 Riversidean Sage Scrub

This community is present throughout CCL on slopes with intermediate dryness. Typical species composition for this community includes California sagebrush, California buckwheat, brittlebush, deerweed, California encelia (*Encelia californica*), and several species of sage (*Salvia* spp.) (Holland, 1986). Where this community occurs on westerly, southerly, and easterly slopes, it is dominated by California buckwheat with interspersed California sagebrush, and scattered yucca (*Yucca* sp.). Northerly slopes are primarily dominated by California sagebrush, interspersed with California buckwheat and scattered toyon (*Heteromeles arbutifolia*).

Common wildlife species associated with this community at CCL include American bushtit (*Psaltriparus minimus*), California quail (*Callipepla californica*), Bewick's wren (*Thryomanes bewickii*), California towhee (*Pipilo crissalis*), desert cottontail (*Sylvilagus audubonii*), deer mouse (*Peromyscus maniculatus*), coyote (*Canis latrans*), western fence lizard (*Sceloporus occidentalis*), and side-blotched lizard (*Uta stansburiana*). Several bobcats (*Lynx rufus*) were also observed within this community.

8.5.1.8 Mixed Riversidean Sage Scrub and Non-Native Grassland

This community is present throughout CCL on slopes with intermediate dryness and on potentially disturbed slopes affected by landfill activities and previous cattle grazing. Typical species composition for this community includes California buckwheat, scattered California sagebrush, and slender wild oat, barley, foxtail chess, soft chess, tocalote, and tree tobacco.

Common wildlife species associated with this community at CCL include bushtit, California quail, Bewick's wren, California towhee, red-tailed hawk, western kingbird, desert cottontail, deer mouse, coyote, western fence lizard, side-blotched lizard, and gopher snake.

8.5.1.9 Roads and Infrastructure

Roads and infrastructure occur throughout the Proposed Project area, and roads are modified to accommodate landfill operations. Vegetation associated with this land cover type includes various landscaping plants and non-native weedy species that can be observed along roadsides.

8.5.1.10 Ruderal

Ruderal areas represent disturbed lands along roadsides or in vacant areas that are dominated by non-native weedy species including various mustards, wild radish (*Raphanus sativus*), Russian thistle, tree tobacco, or non-native grasses including wild oat, red brome, or soft chess.

8.5.1.11 Southern Mixed Chaparral

This community is present predominantly on northerly slopes at CCL, although occasionally in situations with other aspects. The community is composed of dense woody vegetation, ranging from 4 to 12 feet in height with little or no understory. Dominant species include scrub oak (*Quercus berberidifolia*), squaw bush (*Rhus aromatica*), toyon, and mountain mahogany (*Cercocarpus betuloides*). The majority of southern mixed-chaparral slopes within the site have equal distributions of squaw bush and toyon with scattered scrub oak and an occasional occurrence of mountain mahogany. Common wildlife species associated with this community at CCL include wrentit (*Chamaea fasciata*), California quail, bushtit, Bewick's wren, western scrub

jay (*Aphelocoma californica*), California thrasher (*Toxostoma redivivum*), spotted towhee (*Pipilo maculatus*), desert cottontail, dusky-footed woodrat (*Neotoma fuscipes*), coyote, western fence lizard, coachwhip (*Masticophis flagellum*), gopher snake, and western rattlesnake (*Crotalus viridis*).

Table 8-1 identifies the plant communities discussed above and their corresponding acreage within the property boundary that may be disturbed as a result of the Proposed Project.

TABLE 8-1

Vegetation Communities, Land Cover Types, and Corresponding Acreage Within the Limit of Disturbance

Vegetation Community/ Land Cover Types	Total Acreage at CCL by Vegetation Community/ Land Cover Type	Acreage within Limit of Disturbance	Percent of Disturbance
Active Landfill	170.0	170.0	100
Disturbed	13.5	12.6	93
Dry Wash	2.1	2.1	100
Dry Wash (Mule Fat Dominant)	7.1	7.1	100
Mixed Riversidean Sage Scrub/ Non-Native Grassland	35.2	34.9	99
Non-Native Grassland	47.9	47.6	99
Non-Native Grassland with Scattered Shrubs	43.3	42.8	99
Revegetated	117.7	117.2	100
Riparian Woodland*	0.6	0.6	100
Riversidean Sage Scrub*	128.0	117.5	92
Roads and Infrastructure	48.9	48.4	99
Ruderal	10.7	10.7	100
Southern Mixed Chaparral*	14.4	13.6	94
TOTAL	639.4	625.1	97.8

*Vegetation communities that are ranked on the *Natural Communities List* sensitive with G or S rating at 3 or lower are considered to be sensitive.

Ranking system is based on Faber-Langendoen et al. 2009: G1/S1 - critically impaired, G2/S2 - imperiled, G3/S3 - vulnerable, G4/S4 - apparently secure, and G5/S5 - secure.

Sources:

California Department of Fish and Wildlife (CDFW), Vegetation Classification and Mapping Program. 2010b. *List of Vegetation Alliances and Associations: Hierarchical List of Natural Communities with Holland Types*. September.

Faber-Langendoen, D., L. Master, J. Nichols, K. Snow, A. Tomaino, R. Bittman, G. Hammerson, B. Heidel, L. Ramsay, and B. Young. 2009. NatureServe Conservation Status Assessments: Methodology for Assigning Ranks. NatureServe, Arlington, VA.

8.5.2 Special Habitat Features

Special habitat features can provide substantial benefit to wildlife populations and are an important component of wildlife habitat, often determining the presence of some species. Special habitat features that were identified at CCL include rocky outcrops, cliffs, crevices and small caverns, sandstone banks/bluffs, and utility towers. Rocky outcrops provide important habitat for species such as the coastal whiptail (*Aspidoscelis tigris stejnegeri*) and San Diego desert woodrat (*Neotoma lepida intermedia*). Higher rocky outcrops and low cliffs are present on the site and may provide nesting sites for raptorial species of birds, including red-tailed hawk, prairie falcon (*Falco mexicanus*), raven (*Corvus corax*), and others. Prairie falcons were observed within the southern portions of the site, utilizing the cliff and grassland habitats. Utility towers may also provide nesting sites and perching locations. The majority of utility towers are located near the landfill entrance; red-tailed hawks were observed perching in these locations, and raven nests have been observed in these utility towers.

Outcrops at CCL also contain crevices and small cavernous openings that provide suitable roosting habitat for many species of bats. These features are found throughout the higher elevations of the site on hill slopes and ridges. Larger cliff systems with many cavernous openings are found in the northern/eastern portions of the landfill; exit surveys conducted at one cliff location indicated that bat roosts are likely present.

8.5.3 Potential Jurisdictional Waters

No wetland evidence supporting positive wetland indicators for soils, hydrology, or vegetation exists at CCL as determined by guidelines provided by USACE (USACE, 1987; USACE, 2008b). Riparian vegetation and distinct bed shelving were observed along the major dry wash drainages, indicating intermittent or ephemeral channel flow. Based on this, there is a potential for waters of the United States jurisdictional drainages. Potential CDFW jurisdictional areas may also be present at CCL based on streambed and bank. Drainages within the CCL site typically flow into leveed detention basins for settling prior to discharge. This provides a level of isolation and sedimentation control for ordinary flows from downstream TNWs.

Riparian habitat including mule fat, cottonwood, and Mexican elderberry along major drainages at CCL would be used to estimate the extent of CDFW jurisdiction, if any, while the OHWM along the major drainages would be used to estimate the extent of USACE jurisdiction, if any.

The Approved/Preliminary Jurisdictional Process provided by USACE (USACE, 2008d) could be used to presume jurisdiction to exclude features from federal jurisdiction based on Rapanos or SWANCC (see discussion above). USACE would make any final determination on federal jurisdiction. CDFW would determine the need for an SAA for impacts to streambed and bank, if any were identified.

Drainages at CCL and the immediate vicinity are shown in Figure 8-4. Added drainage indicator features on Figure 8-4 are colored only to identify the potential drainage areas and are not to scale and do not reflect stream flow. Jurisdiction of these features has not been determined.

8.5.4 Special-Status Natural Communities

The following section addresses special-status natural communities that have been documented in the regional vicinity of CCL. Special-status natural communities are of limited distribution statewide or within a county or region that are vulnerable to environmental effects of projects, which may or may not contain special-status species or their habitat (CDFW, 2009). CDFW's Natural Communities List, Hierarchical List of Natural Communities with Holland Types (2010) ranks rarity and global and state ranks according to NatureServe's methodology (detailed description of this methodology is located in Faber-Langendoen et al., 2009). According to NatureServe, global (G) conservation status ranks include the following: GX - presumed extinct (species) or extinct (ecological communities and systems); GH - possibly extinct; G1 - critically imperiled; G2 - imperiled; G3 - vulnerable; G4 - apparently secure; and G5 - secure. State (S) ranks include SX - presumed extirpated; SH - possibly extirpated, S1 - critically imperiled; S2 - imperiled; S3 - vulnerable; S4 - apparently secure; and S5 - secure (Faber-Langendoen et al., 2009).

8.5.4.1 California Walnut Woodland

California walnut woodland is dominated by southern California walnut (*Juglans californica*) and is ranked as vulnerable (G3 S3) (CDFW, 2010a). This natural community occurs on relatively moist, fine-texture substrates of valleys slopes and bottoms or can be found surrounding rocky outcrops (Holland, 1986). Holland also records this community's distribution occurring on the south side of San Gabriel Mountains to the Santa Ana Mountains and is primarily found at elevations ranging from 500 to 3,000 feet. The nearest documented occurrence for this natural community is approximately 6.8 miles southeast of CCL (CDFW, 2012a). This natural community was not documented within CCL.

8.5.4.2 Mainland Cherry Forest

This natural community consists of holly leaf cherry (*Prunus ilicifolia*) and is ranked as vulnerable (G3 S3), but some associations are of high priority for inventory (CDFW, 2010a). Holly leaf cherry stands occur on steep, dry slopes that are north-facing and in sandstone-derived, rocky soils (Holland, 1986). Historical records from

1935 were documented approximately 3.4 miles northeast of CCL, but these populations are expected to be extirpated according to 1978 aerial photographs (CDFW, 2012a). This natural community was not documented within CCL.

8.5.4.3 Riversidean Alluvial Fan Sage Scrub

Riversidean alluvial fan sage scrub is within the California buckwheat scrub alliance. Although the California buckwheat scrub alliance is ranked as secure (G5 S5), this particular community is associated with scalebroom (*Lepidospartum squamatum*) and is a higher priority (CDFW, 2010a). Historical records for this community were documented approximately 2.25 miles northeast of CCL, but are thought to be extirpated by a housing development (CDFW, 2012a). This natural community was not documented within CCL.

8.5.4.4 Southern Coast Live Oak Riparian Forest

This natural community is within the coast live oak woodland alliance, which is dominated by coast live oak (*Quercus agrifolia*), and is ranked as secure and apparently secure (G5 S4) (CDFW, 2010a). Southern coast live oak riparian forests are often associated with canyon bottoms and floodplains, and occur between cottonwood- or willow-dominated streams and more xeric chaparral habitat types (Holland, 1986). The closest occurrence for this natural community is approximately 6.7 miles northeast of CCL and there are multiple occurrences within the regional vicinity of CCL (CDFW, 2012a). This natural community was not documented within CCL. While this woodland alliance is not present on CCL, some scattered coast live oaks are present in other plant communities. SB Horticulture performed an oak tree survey in accordance with the County of Los Angeles Oak Tree Ordinance in 2012 (SB Horticulture, 2014). The Oak Tree Report is included in Appendix E2, and results of the survey are summarized in Section 8.5.6.

8.5.4.5 Southern Cottonwood Willow Riparian Forest

Southern cottonwood willow riparian forest occurs within the Fremont cottonwood forest alliance and is ranked as apparently secure and vulnerable (G4 S3) (CDFW, 2010a). This natural community type is distributed along perennial stream reaches of the Transverse and Peninsular ranges, from Santa Barbara County to Baja California Norte and the edge of the deserts (Holland, 1986). Occurrence records for this community have been documented within 1 mile of CCL along the Santa Clara River and Castaic Creek (CDFW, 2012a). This natural community was not documented within CCL.

8.5.4.6 Southern Mixed Riparian Forest

The southern mixed riparian forest can consist of a closed or open canopy forest within large drainages or floodplains, which are supported by perennial flow (Holland, 1986). Occurrence records for this community have been documented approximately 6.8 miles south of CCL and were mapped as coast live oak, California sycamore (*Platanus racemosa*), and Fremont's cottonwood (CDFW, 2012a). California sycamore woodlands are ranked as vulnerable (G3 S3), but some associations are of high priority for inventory (CDFW, 2010a). This natural community was not documented within CCL.

8.5.4.7 Southern Riparian Scrub

Southern riparian scrub is a streamside thicket that consists scrubby, multiple willow species on relatively fine-grained sand and gravel bars (Holland, 1986). This natural community was documented approximately 3.4 miles southeast of CCL, and the majority of the regional records are historical (CDFW, 2012a). This natural community was not documented within CCL.



LEGEND

-  Limit of Disturbance
-  Project Boundary
-  Surface Water Feature
-  Drainage Basin

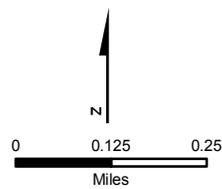


FIGURE 8-4
Surface Water Features
Chiquita Canyon Landfill
Master Plan Revision

8.5.4.8 Southern Sycamore Alder Riparian Woodland

This natural community consists of tall, open, broadleaf woodland dominated by California sycamore and white alder (*Alnus rhombifolia*) (Holland, 1986). Holland also notes that this community occurs on rocky streambeds with seasonally high-intensity flooding; and that white alder abundance increases on perennial streams. White alder grove alliances are ranked as apparently secure (G4 S4), but some associations are of high priority for inventory (CDFW, 2010a). The nearest documented occurrence for this community is 6 miles north of CCL, but records indicate that some of the locations need to be field verified (CDFW, 2012a). This natural community was not documented within CCL.

8.5.4.9 Southern Willow Scrub

Southern willow scrub consists of dense, winter-deciduous willow thickets with scattered Fremont's cottonwood and California sycamore (Holland, 1986). Holland also notes that this community requires flooding to prevent succession of southern cottonwood sycamore riparian forest and once had an extensive range along Southern California rivers. The nearest occurrence of this natural community is approximately 6 miles east southeast of CCL (CDFW, 2012a). This natural community was not documented within CCL.

8.5.4.10 Valley Oak Woodland

This natural community is dominated by valley oak (*Quercus lobata*) and is within the valley oak woodland alliance that is ranked as vulnerable (G3 S3), but some associations are of high priority for inventory (CDFW, 2010a). The nearest documented occurrence for this community is approximately 3.8 miles southeast of CCL, including some historical records (CDFW, 2012a). This natural community was not documented within CCL. While this woodland alliance is not present on CCL, valley oak trees are present in other plant communities. SB Horticulture performed an oak tree survey in accordance with the County of Los Angeles Oak Tree Ordinance in 2012 (SB Horticulture, 2014). The Oak Tree Report is included in Appendix D2, and results of the survey are summarized in Section 8.5.6.

8.5.5 Special-Status Plant and Wildlife Species

The following sections address special-status species observed, reported, or having the potential to occur at CCL or its immediate vicinity. Special-status species include those (1) listed or proposed for listing by state or federal agencies as rare, threatened, or endangered; (2) state Species of Special Concern; (3) species listed by the California Native Plant Society (CNPS) with a designation of Category 2 (indicating species that are rare or endangered in California but more common elsewhere) or 1B (indicating species that are rare or endangered in California and elsewhere); (4) bats identified by the Western Bat Working Group (WBWG) as low, moderate, or high priority species; or (4) species identified by biologists with regional knowledge as being of conservation concern or local interest.

8.5.5.1 Special-Status Plants

Table 8-2 identifies the special-status plant species that have the potential to occur in the general vicinity of CCL, including status, habitat requirements, and range of occurrence in the vicinity of CCL. Species descriptions and occurrence information, unless otherwise indicated, were derived from the CNDDDB (CDFW, 2002a, 2005, 2010a, 2012a, and 2012b), CDFW species descriptions (CDFW, 2002b), CDFW SNA Program Information (CDFW, 2002c), Calflora database (Calflora, 2010 and 2012), technical reports (CH2M HILL, 2000a, 2000b, 2000c, and 2000d) and botanical literature (Hickman, 1993).

TABLE 8-2
Potential Special-Status Plant Species, Chiquita Canyon Landfill

Species	Status ^a (Federal/ State/CNPS)	Potential for Occurrence in Area of Potential Effects/ Nearest Identified Occurrence ^{b,c}	Habitat Requirements
Braunton's Milk-Vetch <i>Astragalus brauntonii</i>	FE/---/1B.1	This species is recorded south of CCL near Simi Valley; a population was recently discovered in Thousand Oaks. It has historically occurred in Orange, Los Angeles, and Ventura counties. There is low probability of occurrence at CCL.	Chaparral, coastal sage scrub, grasslands; often associated with recent burns or disturbed areas.
California Orcutt Grass <i>Orcuttia californica</i>	FE/SE/1B.1	Known from 28 occurrences in Ventura, Los Angeles, Riverside, and San Diego counties. Few historical occurrences in northern Baja California (USFWS, 2011b). Observed in the general vicinity of Newhall within 1 mile of the Proposed Project area (CDFW, 2012a). There is low probability of occurrence at CCL.	Vernal pools at elevations 50 to 2,165 feet.
Chaparral Ragwort <i>Senecio aphanactis</i>	---/---/2.2	Historical record for this occurrence was collected in 1901 in the general vicinity of Saugus (CDFW, 2012a). Unlikely to occur in the Proposed Project area.	Cismontane woodland, coastal scrub.
Club-haired Mariposa Lily <i>Calochortus clavatus</i> var. <i>clavatus</i>	---/---/4.3	The nearest record to CCL is an occurrence of a single plant on a hillside east of the I-5/ SR-126 interchange and southeast of Stanford Avenue. Potential for occurrence in the Proposed Project area.	Chaparral, cismontane woodland, valley and foothill grassland.
Davidson's Bush Mallow <i>Malacothamnus davidsonii</i>	---/---/1B.2	This species was recorded in 2003 in Potrero Canyon south of Potrero Creek in Newhall Ranch, near transmission lines 0.2 miles south of Pico Canyon Road, about 1 mile southeast from Santa Clara River (CDFW, 2012a). Potential for occurrence in the Proposed Project area.	Coastal scrub, riparian woodland, chaparral in sandy washes.
Greata's Aster <i>Symphyotrichum greatae</i>	---/---/1B.3	Historical record for this occurrence was collected in 1930 in Hopper Canyon (CDFW, 2012a). Unlikely to occur in the Proposed Project area.	Chaparral, cismontane woodland.
Late-Flowered Mariposa Lily <i>Calochortus fimbriatus</i>	---/---/1B.2	Multiple occurrences for this species have been documented within 10 miles of the Proposed Project area, primarily in the Santa Susana Mountains (CDFW, 2012a). Unlikely to occur in the Proposed Project area.	Chaparral, cismontane woodland.
Los Angeles Sunflower <i>Helianthus nuttallii</i> ssp. <i>parishii</i>	---/---/1A	Was last seen in 1937 until 5 to 10 individuals were observed in 2002 in the Newhall Ranch area on the southern edge of the Santa Clara floodplain. There is low probability of occurrence in the Proposed Project area.	Marshes and swamps (coastal, salt, and freshwater) at elevations of 32 to 1,640 feet.
Lyon's Pentachaeta <i>Pentachaeta lyonii</i>	FE/SE/1B.1	The nearest occurrence record is 16 miles away southwest of CCL, in the vicinity of Simi Valley, east of Highway 23, where two populations were recorded in 1991 and 1995 (CDFW, 2012b). Not anticipated in the Proposed Project area.	Chaparral, clearings in chaparral, grasslands, firebreaks.

TABLE 8-2
Potential Special-Status Plant Species, Chiquita Canyon Landfill

Species	Status ^a (Federal/ State/CNPS)	Potential for Occurrence in Area of Potential Effects/ Nearest Identified Occurrence ^{b,c}	Habitat Requirements
Nevin's Barberry <i>Berberis nevinii</i>	FE/SE/1B.1	Known to occur in San Francisquito Canyon near the confluence with the Santa Clara River (CDFW, 2012a). Limited potential to occur (chaparral habitat, north-facing slopes).	Chaparral, cismontane woodland, coastal scrub, riparian scrub.
Newhall Sunflower <i>Helianthus inexpectatus</i>	---/---/1B.1	This species has been documented within 10 miles of the Proposed Project area in Newhall Ranch in the Castaic Spring area (CDFW, 2012a). Not anticipated in the Proposed Project area.	Marshes and swamps, riparian woodland, seeps.
Ojai Navarretia <i>Navarretia ojaiensis</i>	---/---/1B.1	Multiple occurrences for this species have been documented within 10 miles of CCL, primarily in Newhall Ranch on the west side of Salt Canyon watershed (CDFW, 2012a). There is low probability of occurrence in the Proposed Project area.	Chaparral, coastal scrub, valley and foothill grassland.
Palmer's Grapplinghook <i>Harpagonella palmeri</i>	---/---/4.2	This species has been documented within 10 miles of the Proposed Project area, near Newhall (CDFW, 2012a). Potential for occurrence in the Proposed Project area.	Grassland, sage scrub, and chaparral.
Peirson's Morning-Glory <i>Calystegia peirsonii</i>	---/---/4.2	Multiple occurrences for this species have been documented within 10 miles of CCL (CDFW, 2012a). Potential for occurrence in the Proposed Project area.	Chaparral, coastal scrub, chenopod scrub, cismontane woodland, lower montane coniferous forest.
Plummer's Mariposa Lily <i>Calochortus plummerae</i>	---/---/1B.2	Multiple occurrences for this species have been documented within 10 miles of the Proposed Project area (CDFW, 2012a). Limited potential for occurrence in study area.	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest.
Rayless Ragwort <i>Senecio aphanactis</i>	---/---/2.2	No known recent collections. Historical collection from 1901 in the general location of Saugus (CDFW, 2012a). Unlikely to occur in the Proposed Project area.	Cismontane woodland, coastal scrub.
Round-Leaved Filaree <i>California macrophylla</i>	---/---/1.B1	Documented within 10 miles of the Proposed Project area. This species was observed on the Castaic Mesa, east of the Castaic Lagoon and on the slopes east of Grasshopper Canyon (CDFW, 2012a). Unlikely to occur in the Proposed Project area.	Cismontane woodland, valley and foothill grassland.
San Fernando Valley Spineflower <i>Chorizanthe parryi</i> var. <i>fernandina</i>	FC/SE/1B.1	Multiple occurrences for this species have been documented within 10 miles of the Proposed Project area (CDFW, 2012a). Recent observations in the Newhall Ranch area, Valencia Commerce Center, and near the Magic Mountain site, south of the Santa Clara River (CDFW, 2012a). Potential for occurrence in the Proposed Project area.	Found in coastal scrub in sandy soils at elevations of 150 to 1,220 meters.

TABLE 8-2
Potential Special-Status Plant Species, Chiquita Canyon Landfill

Species	Status ^a (Federal/ State/CNPS)	Potential for Occurrence in Area of Potential Effects/ Nearest Identified Occurrence ^{b,c}	Habitat Requirements
San Gabriel Bedstraw <i>Galium grande</i>	---/---/1.B2	This species was documented south of Elizabeth Lake and northeast of Castaic, last seen in 1979 (CDFW, 2012a). Not anticipated in the Proposed Project area.	Cismontane woodland, chaparral, broadleaf upland forest, lower montane coniferous forest.
Santa Susana Tarplant <i>Deinandra minthornii</i>	---/---/1.B2	Multiple occurrences for this species have been documented within 10 miles of CCL, primary found within the Santa Susana Mountains (CDFW, 2012a). Low probability of occurrence within the Proposed Project area.	Chaparral, coastal sage scrub on sandstone outcrops and crevices.
Short-Joint Beavertail <i>Opuntia basilaris</i> var. <i>brachyclada</i>	---/---/1.B2	Multiple occurrences for this species have been documented within 10 miles of CCL (CDFW, 2012a). This variety is thought to be restricted to the northeastern portion of the San Gabriel Mountains. Unlikely to occur in the Proposed Project area.	Chaparral, Joshua tree woodland, Mohavean desert scrub, pinyon juniper woodland, riparian woodland.
Slender-Horned Spineflower <i>Dodecahema leptoceras</i>	FE/SE/1B.1	Historically from Los Angeles, Riverside, and San Bernardino counties, but has been extirpated from much of range. Restricted to eight watersheds in Los Angeles, Riverside, and San Bernardino counties. A historical record for this species was last documented in 1893 (CDFW, 2012a). Possibly extirpated from the area and there is low probability of occurrence in the Proposed Project area.	Chaparral, coastal scrub (alluvial fan sage scrub).
Slender Mariposa Lily <i>Calochortus clavatus</i> var. <i>gracilis</i>	---/---/1B.2	Multiple occurrences for this species have been documented within 1 mile of the Proposed Project area (CDFW, 2012a). Potential for occurrence in study area.	Chaparral, coastal scrub. Endemic to Los Angeles County.

^a Key to Status Designations:

Federal Designations:

(FE) Federally Endangered, (FT) Federally Threatened, (FPE) Federally Proposed Endangered, (FPT) Federally Proposed Threatened, (FSC) Species of Concern, (FC) Candidate

State Designations:

(SE) State Endangered, (ST) State Threatened, (SR) State Rare, (CSC) Species of Special Concern, (CFP) Fully Protected Species

California Native Plant Society (CNPS) Designations:

(1A) Presumed extinct in California; (1B) Rare, threatened, or endangered in California and elsewhere; (2) Rare, threatened, or endangered in California, but more common elsewhere; (3) More information is needed; (4) Limited distribution; (.1) Seriously endangered in California; (.2) Fairly endangered in California; (.3) Not very endangered in California.

^b Potential for occurrence in order of lowest to highest – not anticipated, unlikely, low probability/limited potential, potential

^c See text for sources.

Braunton's Milk-Vetch (*Astragalus brauntonii*). Braunton's milk-vetch is federally endangered and is a CNPS List Category 1B.1 species. It typically occurs in chaparral, valley grassland, coastal sage scrub, and closed-cone pine forest (Calfora, 2012). This species is limited to carbonate soils in limestone outcrops and is a short-lived (2 to 3 years) perennial forb that grows to approximately 5 feet in height (Sclafani, 2006). Within the CNDDb, there are 35 record counts for this species in Los Angeles County (Calfora, 2012). There is low probability of occurrence of the species at CCL.

California Orcutt Grass (*Orcuttia californica*). California Orcutt grass is federally and state endangered and is a CNPS List Category 1B.1 species (CDFW, 2012b). This species is an annual herb native to California and Baja California that occurs in valley grasslands and freshwater wetlands (Calfora, 2012). California Orcutt grass is associated with deep ephemeral vernal pools that are underlain by clay soils (USFWS, 2011b). Plants have leaf and root anatomy and physiology adapted to conditions in the wettest, longest lasting portion of vernal pools (USFWS, 2011b). There is low probability of occurrence of the species in the Proposed Project area due to the lack of suitable habitat at CCL.

Chaparral Ragwort (*Senecio aphanactis*). Chaparral ragwort is a CNPS List Category 2.2 species (CDFW, 2012b). This species is an annual herb that is native to California and Baja California that is associated with foothill woodland, northern coastal scrub, and coastal sage scrub (Calflora, 2012). There is a historical record for this species that was collected in 1901 in the general vicinity of Saugus (CDFW, 2012a); however, it is unlikely to occur in the Proposed Project area.

Club-Haired Mariposa Lily (*Calochortus clavatus* var. *clavatus*). The club-haired mariposa lily is a CNPS List Category 4.3 species (CDFW, 2012b). It typically occurs on chaparral, cismontane woodland, and valley and foothill grassland on serpentine clay and rocky soils at elevations between 246 to 4,265 feet. This species is a long-stemmed, perennial bulb found from San Luis Obispo into Ventura and northwest Los Angeles counties. In the Liebre Mountains, this subspecies has been recorded in Mint Canyon, Bouquet Canyon, Texas Canyon, Osito Canyon, Red Mountain, Warm Springs Mountain, Castaic Canyon, Agua Dulce Canyon, Bee Canyon (adjacent to Soledad Canyon), Elizabeth Lake Canyon, and Newhall (CH2M HILL, 2000c). The nearest record to the landfill is an occurrence of a single plant on a hillside 1,000 feet east of the I-5/SR-126 interchange and 250 feet southeast of Stanford Avenue. It was observed in openings in mixed sage scrub (CH2M HILL, 2000c). There is potential for occurrence at CCL.

Davidson's Bush Mallow (*Malacothamnus davidsonii*). Davidson's bush mallow is listed as a CNPS List Category 1B.2 species (CDFW, 2012b). It is a perennial shrub that is endemic to California and is generally found in coastal scrub, riparian woodlands, and chaparral in sandy washes (Calflora, 2012). According to Calfora, although this species usually occurs in non-wetlands, occasionally it has been found in wetlands. In 2003, samples were collected 0.2 miles south of Pico Canyon Road, about 1 mile southeast from the Santa Clara River (CDFW, 2012a). There is potential for this species to occur in the Proposed Project area.

Greata's Aster (*Symphotrichum greatae*). Greata's aster is listed as a CNPS List Category 1B.3 species (CDFW, 2012b). It is a rhizomatous perennial herb that is endemic to California and occurs in chaparral habitats (Calflora, 2012). Although this species has been documented within 10 miles of CCL, the occurrence record was obtained from a 1930 collection in Hopper Canyon (CDFW, 2012a). This species is not expected to occur within the Proposed Project area.

Late-Flowered Mariposa Lily (*Calochortus fimbriatus*). Late-flowered mariposa lily is listed as a CNPS List Category 1B.2 species (CDFW, 2012b). It is a perennial herb that is native to California and is found between 902 and 6,250 feet (Calflora, 2012). Multiple occurrences for this species have been documented in the Santa Susana Mountains in chaparral and cismontane woodland habitats on serpentine soils (CDFW, 2012a). This species is unlikely to occur in the Proposed Project area.

Los Angeles Sunflower (*Helianthus nuttallii* ssp. *parishii*). Los Angeles sunflower is listed as a CNPS List Category 1A species, meaning it has been presumed extinct in California (CDFW, 2012b). It is a perennial herb that blooms from August to October (Calflora, 2012). The Los Angeles sunflower was historically found in marshes and swamps at elevations of 32 to 1,640 feet in Los Angeles, Orange, and San Bernardino counties. In 2002, 5 to 10 individuals were observed in the Newhall Ranch area, on the southern edge of the Santa Clara River floodplain (Fausset and Chambers, 2002). This species is not anticipated to occur at CCL because of its extreme rarity and because it typically requires wetland conditions, although it has been found in non-wetlands (Calflora, 2012).

Lyon's Pentachaeta (*Pentachaeta lyonii*). Lyon's pentachaeta is listed as federally and state endangered and is listed as a CNPS List Category 1B.1 species (CDFW, 2012b). It is an annual herb that blooms from March

through August and is generally found in chaparral and valley and foothill grasslands (Calflora, 2012). This species occurs in a patchy distribution on rocky clay soils of volcanic origin, with a high percentage of bare ground and low percentage of vegetation cover (USFWS, 2008). There are no occurrence records for this species in the immediate vicinity of CCL. The closest observations were more than 16 miles away, in the vicinity of Simi Valley, East of Highway 23 and southwest of the landfill, where two populations were recorded in 1991 and 1995 (CDFW, 2002a). The chaparral vegetation provides potential habitat at CCL for Lyon's pentachaeta, although this species is not anticipated to occur in the Proposed Project area.

Nevin's Barberr (*Berberis nevinii*). Nevin's barberry is federally and state endangered, and a CNPS List Category 1B.1 species (CDFW, 2012b). This evergreen shrub blooms from March through June (Calflora, 2012) and occurs in coarse soils and rocky slopes in chaparral and gravelly wash margins in alluvial scrub (USFWS, 2009). This species is known to occur in Los Angeles, Riverside, San Bernardino counties and potentially in San Diego County below 900 and 2,000 feet in elevation (USFWS, 2009). This species occurs in San Francisquito Canyon several miles east of the landfill (CDFW, 2012a). A local specimen was mapped on steep north-facing slopes in low grade sandy washes in San Francisquito Canyon near the confluence with the Santa Clara River in 1965 (CDFW, 2005). During a field visit in 1987, the area had been developed with a plant nursery and with agricultural crops in the floodplains. In addition, this is a popular off-highway vehicle area that is heavily disturbed (CDFW, 2012a). This species has limited potential to occur at CCL.

Newhall Sunflower (*Helianthus inexpectatus*). The Newhall sunflower is listed as a CNPS List Category 1B.1 species (CDFW, 2012b). This species occurs in marshes, swamps, riparian woodlands, and seeps (Calflora, 2012). It has been documented in Newhall Ranch in the Castaic Spring area; however, further investigation has resulted in the observed plant as a new species (CDFW, 2012a). This species is not expected to occur within the Proposed Project area.

Ojai Navarretia (*Navarretia ojaiensis*). The Ojai navarretia is listed as a CNPS List Category 1B.1 species (CDFW, 2012b). It occurs in chaparral, coastal scrub, and valley and foothill grassland habitats at elevations ranging from 902 to 2,034 feet (Calflora, 2012). This species has been documented within Newhall Ranch on the western side of the Salt Canyon watershed (CDFW, 2012a). There is low probability of occurrence for this species within the Proposed Project area.

Palmer's Grapplinghook (*Harpagonella palmeri*). Palmer's grapplinghook is a CNPS List Category 4.2 species (CDFW, 2012b). This small and inconspicuous annual grows on dry slopes and mesas in grassland, sage scrub, and chaparral habitats below 1,500 feet. It typically blooms between March and April and historically occurred from Los Angeles County to Baja California and on the Channel Islands. This species is known to occur in native grassland adjacent to sage scrub in Bouquet Canyon in the general CCL vicinity. Other occurrences in Los Angeles County have been documented at the San Mateo Wilderness Area in the Cleveland National Forest, Santa Catalina Island, and Newhall (Calflora, 2012). There is potential for occurrence at within the Proposed Project area.

Peirson's Morning-Glory (*Calystegia peirsonii*). Peirson's morning-glory is a CNPS List Category 4.2 species (CDFW, 2012b). This species is a perennial herb that grows as a vine on the ground or on other plants in Los Angeles County. It is found in openings in coastal sage scrub and chaparral habitats typically in disturbed or grassy open areas in elevations between 3,280 and 4,921 feet. This species occurs in coastal sage scrub throughout the Newhall-Mint Canyon region (Calflora, 2012). There is potential for occurrence within the Proposed Project area.

Plummer's Mariposa Lily (*Calochortus plummerae*). The Plummer's mariposa lily is a CNPS List Category 1B.2 species (CDFW, 2012b). This late blooming (May through July) mariposa lily is found in dry, rocky areas of alluvial fan sage scrub, chaparral, coastal sage scrub, and lower coniferous forest habitats at elevations less than 5,577 feet. This species is known to occur in Los Angeles, Ventura, Orange, Riverside, and San Bernardino counties (Calflora, 2012). Multiple occurrences for this species have been documented within 10 miles of CCL (CDFW, 2012a). There is limited potential for occurrence within the Proposed Project area.

Rayless Ragwort (*Senecio aphanactis*). The rayless ragwort is a CNPS List Category 2.2 species (CDFW, 2012b) that typically blooms between January and April. This annual herb grows in alkaline soils in cismontane woodland and coastal sage scrub in drying alkaline flats at elevations of 66 to 1,887 feet. Rayless ragwort is known from Southern California in several counties including Los Angeles County. This species is known historically to occur (1901) in drying alkaline flats in Saugus within 5 miles from the study area (CDFW, 2012a). This species is not anticipated to occur in the Proposed Project area due to lack of habitat.

Round-Leaved Filaree (*California macrophylla*). Round-leaved filaree is a CNPS List Category 1B.1 species (CDFW, 2012b). This species is associated with cismontane woodland and valley and foothill grassland habitats in clay soils and has been documented on Castaic Mesa (CDFW, 2012a). There are 23 occurrence records for this species in Los Angeles County (Calflora, 2012). Round-leaved filaree is not expected to occur in the Proposed Project area.

San Fernando Valley Spineflower (*Chorizanthe parryi* var. *fernandina*). San Fernando Valley spineflower is a federal candidate, state endangered, and a CNPS List Category 1B.1 species (CDFW, 2012b). This annual herb grows in sandy soils in coastal sage scrub habitats historically from Los Angeles, Orange, and San Diego counties. A number of occurrences have been documented within 1 mile of CCL, and since 2000, numerous occurrences of this species were observed at Newhall Ranch in multiple locations (CDFW, 2012a). There is limited potential for occurrence in the Proposed Project area.

San Gabriel Bedstraw (*Galium grande*). San Gabriel bedstraw is a CNPS List Category 1B.2 species (CDFW, 2012b). This species is associated with cismontane woodland, chaparral, broadleafed upland forest, and lower montane coniferous forest habitats between 1,394 and 3,937 feet (CDFW, 2012b). A historical record for this species was obtained from a 1979 collection south of the Elizabeth Lake guard station, northeast of Castaic (CDFW, 2012a). This species is not anticipated to occur within the Proposed Project area.

Santa Susana Tarplant (*Deinandra minthornii*). Santa Susana tarplant is listed a state rare species and is a CNPS List Category 1B.2 species (CDFW, 2012b). This species is associated with chaparral and coastal scrub habitats on sandstone outcrops and crevices (CDFW, 2012a). It has been documented within the Santa Susana Mountains near Hialeah Springs and between Fern Ann Falls and Devil Canyon (CDFW, 2012a). This species is not expected to occur within the Proposed Project area.

Short-Joint Beavertail (*Opuntia basilaris* var. *brachyclada*). Short-joint beavertail is a federal Species of Concern and is listed as a CNPS List Category 1B.2 species (CDFW, 2012b). This subspecies of beavertail cactus is found in chaparral, Joshua tree woodlands, desert scrub, and pinyon juniper woodland in the San Gabriel and San Bernardino mountain ranges. It typically occurs at elevations less than 3,936 to 5,905 feet and blooms between April and June. This species is documented to occur in Los Angeles and San Bernardino counties, and has been recorded in Newhall (Calflora, 2012). There is limited potential for this species to occur within the Proposed Project area.

Slender-Horned Spineflower (*Dodecahema leptoceras*). Slender-horned spineflower is listed as federally and state endangered as well as a CNPS List Category 1B.1 species (CDFW, 2012b). The spineflower is a small annual rosette of leaves with spreading stems that is generally restricted to silty, flood-deposited, older alluvial surfaces. The slender-horned spineflower is restricted to eight watersheds in Los Angeles, Riverside, and San Bernardino counties between 656 to 2,296 feet in elevation. These include the Santa Clara River, Big Tujunga Wash, Lytle Creek, Santa Ana River, San Jacinto River, Bautista Creek, Temescal Canyon, and Vail Lake (CDFW, 2002c). A historical occurrence was recorded in the Newhall area in 1893 (CDFW, 2012a). The species has also been recorded east of CCL in Bee Canyon, Santa Clarita (Calflora, 2010). There is some potential for occurrence within the Proposed Project area.

Slender Mariposa Lily (*Calochortus clavatus* var. *gracilis*). The slender mariposa lily is a CNPS List Category 1B.2 species (CDFW, 2012b). It is a perennial species that is found in shaded foothill canyons, often in grassy slopes within elevations of 1,378 to 2,500 feet. Multiple occurrences for this species have been documented within 1 mile off the Proposed Project area (CDFW, 2012a). Two collections of this species were documented within 5 miles of CCL, in 1930 and 1941 (CDFW, 2005). These have occurred at the mouth of Pico Canyon near

Newhall in grassy slopes under oaks in chaparral on south facing slopes. In 2000, approximately 300 plants were observed north of Cooper Hill Drive and on the western side of San Francisquito Canyon, and multiple occurrences for this species have been documented within 1 mile of the Proposed Project area (CDFW, 2012a). Because of the occurrence approximately a mile from the site, there is some potential for occurrence at CCL.

8.5.5.2 Special-Status Wildlife

Table 8-3 identifies the special-status wildlife species that have the potential to occur in the general vicinity of the landfill, and includes status, habitat types, potential for occurrence, and records of occurrence in the vicinity of CCL. This section provides species descriptions and additional information about occurrences at CCL.

TABLE 8-3

Potential Special-Status Wildlife Species, Chiquita Canyon Landfill

Species	Status ^a (Federal/State/ Other ^b)	Potential for Occurrence in Area of Potential Effects ^c	Nearest Identified Occurrence ^d	Habitat Requirements
Birds				
Bell's Sage Sparrow <i>Amphispiza belli</i>	---/CSC/---	Low	Southeast of Castaic Lake	Nests in chaparral dominated by dense chamise (<i>Adenostoma fasciculatum</i>) stands and coastal sage scrub (CDFW, 2012a).
Burrowing Owl <i>Athene cunicularia</i>	---/CSC/LACo-PII	Low	Hasley Canyon (CNDDDB), 2007	Open grasslands and agricultural fields with burrowing mammal populations.
California Condor <i>Gymnogyps californianus</i>	FE/SE/LACo-PII	Low	Los Padres National Forest	Forages in open country; nests on isolated cliff faces.
California Horned Lark <i>Eremophila alpestris actia</i>	---/CSC/LACo-PI	High, Observed (nest, forage)	Potentially onsite, subspecies not confirmed	Open grasslands, agricultural fields, disturbed and barren areas.
Coastal Cactus Wren <i>Campylorhynchus brunneicapillus couesi</i>	---/CSC/LACo-PII	Unlikely	---	Obligate, coastal sage scrub with extensive stands of <i>Opuntia</i> sp.
Coastal California Gnatcatcher <i>Polioptila californica</i>	FT/CSC/LACo-PII	Unlikely	Critical habitat 7.5 miles east of CCL; Placerita Canyon, 2001	Obligate, permanent resident of coastal sage scrub or chaparral in vicinity of coastal sage scrub.
Cooper's Hawk <i>Accipiter cooperii</i>	---/CSC/---	High, Observed (forage)	Santa Clara River (CNDDDB); onsite	Riparian woodland and forest, including willows, cottonwoods, and sycamores.
Golden Eagle <i>Aquila chrysaetos</i>	BCC/CFP/LACo- PII	High (forage)	---	Open country, rolling foothills, mountain areas and desert; breeds on overhanging ledges, high cliff sites, and large trees.
Grasshopper Sparrow <i>Ammodramus savannarum</i>	---/CSC/LACo-PII	Low	Tapia Canyon, north of Newhall	Dense grasslands on rolling hills, lowland plains in valleys and on lower mountain slopes (CDFW, 2012a).
Least Bell's Vireo <i>Vireo bellii pusillus</i>	FE/SE/LACo-PII	Present downstream	Critical habitat on Santa Clara River; documented on river in 1996	Dense riparian scrub, with some overstory canopy with high structural diversity; includes willows, mule fat, and cottonwoods.

TABLE 8-3
Potential Special-Status Wildlife Species, Chiquita Canyon Landfill

Species	Status ^a (Federal/State/ Other ^b)	Potential for Occurrence in Area of Potential Effects ^c	Nearest Identified Occurrence ^d	Habitat Requirements
Loggerhead Shrike <i>Lanius ludovicianus</i>	BCC/CSC/LACo- PII	Moderate to High, Observed	Castaic Creek; onsite	Grasslands, sage scrub, chaparral, riparian, alluvial, and characterized by open scattered trees and shrubs.
Northern Harrier <i>Circus cyaneus</i>	---/CSC/LACo-PII	Moderate	---	Breeds in open country such as grasslands and agricultural fields near wetlands; prefers extensive grasslands.
Prairie Falcon <i>Falco mexicanus</i>	BCC/CSC/LACo-PI	High, Observed (forage)	Los Padres National Forest; onsite	Forages in open, arid country; breeds on cliff sites.
Short-Eared Owl <i>Asio flammeus</i>	---/CSC/LACo-PI	Moderate, Observed	Onsite	Areas with few trees such as grasslands, coastal estuaries, and wetlands.
Southern California Rufous- Crowned Sparrow <i>Aimophila ruficeps</i> <i>canescens</i>	---/CSC/---	Moderate	White Oak Park and Bouquet Canyon	Coastal sage scrub and sparse mixed chaparral (CDFW, 2012a).
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i>	FE/SE/LACo-PII	Present downstream	---	Dense early seral stage willow and mule fat scrub with some riparian overstory trees.
Tricolored Blackbird <i>Agelaius tricolor</i>	---/CSC/LACo-PII	High, Observed	Onsite	Robust emergent marsh for breeding, or open areas for foraging.
Western Yellow-Billed Cuckoo <i>Coccyzus americanus</i> <i>occidentalis</i>	FC; BCC/SE/LACo-PII	Extirpated	Santa Clara River, 1979	Dense, wide riparian woodlands with well-developed understories adjacent to slow-moving watercourses, backwaters, or seeps.
White-Tailed Kite <i>Elanus leucurus</i>	---/CFP/LACo-PII	High (forage)	Confluence of Santa Clara River and Castaic Creek, 1999	Open country with trees such as oak, willow, and sycamore.
Yellow-Breasted Chat <i>Icteria virens</i>	---/CSC/LACo-PII	Low; Present downstream	Santa Clara River	Dense scrub and early seral stage riparian habitat including willow and mule fat thickets.
Yellow Warbler <i>Dendroica petechia</i> <i>brewsteri</i>	BCC/CSC/LACo- PII	Moderate (transient); downstream	Santa Clara River (CNDDb)	Dense riparian woodland and scrub, including willows, cottonwoods, sycamores, and mule fat.
Amphibians				
Arroyo Toad <i>Bufo californicus</i>	FE/CSC/---	Present downstream and upstream in critical habitat	San Francisquito Creek	Perennial or intermittent streams with shallow gravelly pools lasting a minimum of 60 to 90 days; sandy streamside terraces.
California Red-Legged Frog <i>Rana aurora draytonii</i>	FT/CSC/---	Low potential downstream	Critical habitat high on the watershed on Castaic Creek	Aquatic habitats consisting of streams or wetland areas with limited emergent vegetation, dense riparian vegetation, and an absence of bullfrogs.

TABLE 8-3
Potential Special-Status Wildlife Species, Chiquita Canyon Landfill

Species	Status ^a (Federal/State/ Other ^b)	Potential for Occurrence in Area of Potential Effects ^c	Nearest Identified Occurrence ^d	Habitat Requirements
Coast Range Newt <i>Taricha torosa</i>	---/CSC/---	Moderate potential downstream	---	Coastal drainages in Southern California; slow moving streams and ponds with adjacent intact terrestrial vegetation.
Foothill Yellow-Legged Frog <i>Rana boylei</i>	---/CSC/---	Unlikely	North of Lake Piru, 1949	Partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats (CDFW, 2012a).
Western Spadefoot <i>Spea hammondi</i>	---/CSC/---	Moderate	San Francisquito Creek, 2001	Seasonal pools lacking fish, bullfrogs, and crayfish for breeding; adjacent grasslands for foraging.
Reptiles				
Belding's Orange-Throated Whiptail <i>Aspidoscelis hyperythra belding</i>	---/CSC/---	Unlikely	---	Low elevation Riversidean sage scrub, chaparral, and valley-foothill hardwood habitats, and washes with outcrops.
Coastal Western Whiptail <i>Aspidoscelis tigris stejnegeri</i>	---/CSC/---	Moderate	---	Open, arid rocky areas with sparse vegetation.
San Diego Horned Lizard/Coast Horned Lizard <i>Phrynosoma blainvillei</i>	---/CSC/---	Moderate to High	Soledad Canyon, Saugus	Open grassland, scrub, and chaparral with harvester ant mounds.
Silvery Legless Lizard <i>Anniella pulchra</i>	---/CSC/---	Moderate	---	Sandy and loose loamy soils under sparse vegetation of beaches, chaparral, pine-oak woodland, or sycamores, cottonwoods, or oaks that grow on stream terraces.
Two-Striped Garter Snake <i>Thamnophis hammondi</i>	---/CSC/---	Present downstream	Santa Clara River, 2002	Aquatic stream channels with large sandy or rocky streambeds with dense adjacent riparian canopy.
Western Pond Turtle <i>Emys marmorata</i>	---/CSC/---	Present downstream	Santa Clara River, 2000	Perennial watercourses with pools up to 2 feet deep and basking sites.
Mammals				
Big Free-Tailed Bat <i>Nyctinomops macrotis</i>	---/CSC/WBWG: MH	Low	Burbank, 1997	Open or urban areas; rugged, rocky terrain.
California Leaf-Nosed Bat <i>Macrotus californicus</i>	---/CSC/WBWG: H	High	Bell Canyon; another site 11 miles southwest	Desert riparian, succulent scrub, desert scrub, and other arid habitats; roosts in mines, caves far from human habitation.
Cave Myotis <i>Myotis velifer</i>	---/CSC/WBWG: M	Low	Valencia, 1994	Desert scrub, desert succulent scrub, and desert riparian; cave dwelling, may also roost in rock crevices, old buildings, carports, and abandoned cliff swallow nests.
Long-Eared Myotis <i>Myotis evotis</i>	---/---/WBWG: M	Moderate to High	Pasadena	Scrub, chaparral, open areas; uses small caves and crevices for roosting.

TABLE 8-3
Potential Special-Status Wildlife Species, Chiquita Canyon Landfill

Species	Status ^a (Federal/State/ Other ^b)	Potential for Occurrence in Area of Potential Effects ^c	Nearest Identified Occurrence ^d	Habitat Requirements
Long-Legged Myotis <i>Myotis volans</i>	---/---/WBWG: H	Moderate to High	Pasadena	Coastal scrub, chaparral, woodlands; roosts in rock crevices, buildings, and under tree bark.
Mexican Long-Tongued Bat <i>Choeronycteris mexicana</i>	---/CSC/ WBWG: H	Low	Ventura County	Forages on nectar, pollen, and occasionally fruit; roosts in dimly lit buildings or caves.
Pallid Bat <i>Antrozous pallidus</i>	---/CSC/ WBWG: H	Moderate	Castaic (CNDDDB), 1938	Forages close to ground in open areas; roosts in caves, rock crevices, mines, buildings, and hollow trees.
Pocketed Free-Tailed Bat <i>Nyctinomops femorasaccus</i>	---/CSC/ WBWG: M	Low	Inglewood, 1994	Forages over ponds, streams, or open habitat; roosts in rock crevices in cliff sites.
San Diego Black-Tailed Jackrabbit <i>Lepus californicus bennettii</i>	---/CSC/---	Moderate	---	Coastal sage brush, and scrub and grasslands.
San Diego Desert Woodrat <i>Neotoma lepida intermedia</i>	---/CSC/---	Moderate	---	Moderate to dense canopy chaparral, Riversidean sage scrub, woodlands; rocky outcrops and rocky slopes.
Spotted Bat <i>Euderma maculatum</i>	---/CSC/WBWG: H	Low	Castaic Creek, 1890	Forages on medium-sized moths, beetles, and caddis flies in desert scrubland open forest areas; roosts in rock crevices on cliff faces.
Townsend's Western Big-Eared Bat <i>Corynorhinus townsendii</i>	---/CSC/WBWG: H	Low	Santa Cruz Island	Variety of open habitats; day and maternity roosts in caves, mines, tunnels, buildings.
Western Mastiff Bat <i>Eumops perotis californicus</i>	---/CSC/WBWG: H	High	North of Lake Piru, 1992	Roost in rock crevices on high cliff faces, high buildings, trees, and tunnels; forages over a variety of habitats including coastal scrub, and urban areas.
Yuma Myotis <i>Myotis yumanensis</i>	---/---/WBWG: LM	Moderate to High	---	Widespread in California; forages over water; roosts in buildings, mines, and crevices.
<u>Fish</u>				
Arroyo Chub <i>Gila orcutti</i>	---/CSC/---	Present downstream and upstream	Santa Clara River, 2005	Cool perennial streams with riffles and pools, with sand and mud substrates, and dense riparian canopy.
Santa Ana Sucker <i>Castostomus santaanae</i>	FT/CSC/---	Present downstream and upstream	Santa Clara River, 2007	Cool, clear water streams; prefer sand, boulder, or cobble bottoms with presence of filamentous algae.
Southern Steelhead Trout <i>Oncorhynchus mykiss irideus</i>	FE/CSC/---	Present downstream	Fillmore Quadrant (CNDDDB, 2010)	Dependent on life stage; tributary streams with gravel substrates.

TABLE 8-3
Potential Special-Status Wildlife Species, Chiquita Canyon Landfill

Species	Status ^a (Federal/State/ Other ^b)	Potential for Occurrence in Area of Potential Effects ^c	Nearest Identified Occurrence ^d	Habitat Requirements
Unarmored Threespine Stickleback <i>Gasterosteus aculeatus williamsoni</i>	FE/SE; CFP/---	Present downstream and upstream	Castaic Creek, 2005	Weedy pools and backwaters in small, slow, clear streams and rivers.
<u>Invertebrates</u>				
San Emigdio Blue Butterfly <i>Plebulina emigdionis</i>	---/---/ (local conservation concern)	Low	Northern Los Angeles County; Bouquet/Mint Canyons	Larval hostplant is <i>Atriplex canescens</i> ; in shadscale scrub in desert canyons and washes.

^a Key to status designations-

Federal Designations:

(FE) Federally Endangered, (FT) Federally Threatened, (FPE) Federally Proposed Endangered, (FPT) Federally Proposed Threatened, (FC) Candidate, (BCC) Birds of Conservation Concern

State Designations:

(SE) State Endangered, (ST) State Threatened, (SR) State Rare, (CSC) Species of Special Concern, (CFP) Fully Protected Species

Other Designations:

(WBWG) Western Bat Working Group: low, moderate, and high priority

Los Angeles County Sensitive Bird Species List:

(LACo-PI) County Sensitive Bird Species, (LACo-P11) County Sensitive Bird Species listed by other agencies

Source: Los Angeles Audubon. 2009. Los Angeles County's Sensitive Bird Species. *Western Tanager* 75(3):E1-E24.

^c Potential rankings in order of lowest to highest – Extirpated, Unlikely, Low, Moderate, High, Observed/Present

^d See text for sources.

Birds

Bell's Sage Sparrow (Amphispiza belli belli). Bell's sage sparrow is a California Species of Special Concern (CDFW, 2011). This species nests in chaparral habitat dominated with dense stands of chamise and within the southern portion of its range, Bell's sage sparrow is found in coastal sage scrub (CDFW, 2012a). Multiple occurrences for this species have been documented within 10 miles of the Proposed Project area, including southeast of Castaic Lake and in Bouquet Canyon (CDFW, 2012a). Suitable habitat is not present at CCL; therefore, this species has low potential to occur at CCL.

Burrowing Owl (Athene cunicularia). The burrowing owl is a California Species of Special Concern (CDFW, 2011). This species is widespread throughout the western United States, but has declined in this and many other areas due to habitat modification, poisoning of its prey, and introduction of nest predators. This species is diurnal, usually nonmigratory in this portion of its range. It excavates nests in the ground, often enlarging burrows of ground squirrels. It is found in low densities in desert habitats, but can occur in much higher densities near agricultural lands, where rodent and insect prey is more abundant. In 2005, a burrowing owl was observed along the bank of the Santa Clara River, southeast of the Soledad Road crossing (CDFW, 2012a). In 2007, one occurrence from the CNDDDB was recorded in Hasley Canyon, about 0.60 miles northwest of Castaic Junction (CDFW, 2012a). Limited suitable habitat is present at CCL; however, neither individuals nor burrows were observed, in spite of ground surveys in open habitats. The species has low potential to occur at CCL.

California Condor (Gymnogyps californianus). The California condor is listed as federal endangered species under the FESA and state endangered under the CESA (CDFW, 2011). This species occurs in the nearby Los Padres National Forest and forages widely. The California condor is a permanent resident of the semiarid,

rugged mountain ranges surrounding the southern San Joaquin Valley, including the Coast Ranges from Santa Clara County south to Los Angeles County, the Transverse Ranges, Tehachapi Mountains, and southern Sierra Nevada (CDFW, 2002b). This species is a strict scavenger of carrion and forages over wide areas of open range. The California condor occurs most commonly between sea level and 9,000 feet and nests at elevations from 2,000 to 6,500 feet (CDFW, 2002b). This species breeds annually and lays one egg between February to May. Nesting generally occurs in caves and sheltered rocky outcrops on the face of steep cliffs, where both parents alternate in incubating and feeding duties.

Captive breeding of the California condor has been in effect for over two decades. Since 1992, California condors have been released into the wild (Los Angeles Zoo, 2002a). The Sespe Condor Sanctuary in the Los Padres National Forest appears to be the closest nesting habitat used by California condors (Los Angeles Zoo, 2002b). The California condor may occasionally forage at the landfill (none have been documented), but given its wide-ranging habits, is anticipated to have a low potential of occurring at CCL.

California Horned Lark (*Eremophila alpestris actia*). This species is commonly found on bare ground, disturbed areas, grassland, and open agricultural fields. The California horned lark is recognized as a California Species of Special Concern by CDFW (CDFW, 2011). This species is found along the coast of Northern California, in the San Joaquin Valley, in the coast ranges south of San Francisco Bay, and in Southern California west of the deserts. In Southern California, this subspecies is a fairly common breeding resident in grasslands and other dry, open habitats. During the winter season, other subspecies occur in Southern California, and the horned lark (including its subspecies) can be locally common in the region. This species is known to occur in plowed fields and grassland habitat in the vicinity of CCL (Guthrie, 1999). Horned larks of unknown race were detected at the landfill during surveys on open, revegetated landfill in April 2002; the subspecies may breed at CCL.

Coastal Cactus Wren (*Campylorhynchus brunneicapillus couesi*). This species is recognized as a California Species of Special Concern by CDFW (CDFW, 2011). The coastal cactus wren is an obligate, nonmigratory resident of the coastal sage scrub plant community (Westman, 1983). It is closely associated with three species of cacti and occurs almost exclusively in thickets of cholla (*Opuntia prolifera*) and prickly pear (*Opuntia littoralis* and *Opuntia oricola*) dominated by stands of coastal sage scrub. This species is found at elevations below 1,476 feet on mesas and lower slopes of the coastal ranges (University of California, Riverside, 2001). No CNDDDB records occur for this species in the vicinity of CCL, and none were observed during the course of field surveys. Because of the lack of stands of *Opuntia* cactus at the landfill, there is no suitable habitat, and the species is not anticipated to occur.

Coastal California Gnatcatcher (*Polioptila californica californica*). The coastal California gnatcatcher is listed as a federally threatened species under the FESA and as a California Species of Special Concern by CDFW (CDFW, 2011). This species is localized and occurs in arid and coastal regions of Los Angeles, Orange, Riverside, and San Diego counties. The California gnatcatcher occurs in or near sage scrub habitat with characteristic species of California sagebrush, various species of sage, California buckwheat, lemonade berry (*Rhus integrifolia*), and prickly pear (*Opuntia* spp.). Gnatcatchers generally tend to prefer open stands of sage scrub, occurring in higher numbers in scrub habitat with an open canopy, and in low numbers or absent in dense, tall scrub with a closed overstory canopy. However, gnatcatchers have also been detected utilizing non-sage scrub habitats for foraging during drought. The nesting season is late February to August.

Sage scrub habitat occurs onsite, exhibiting vegetation densities ranging from open to moderate cover; however, the habitat is not optimal, and the landfill is at the northern limit of the species' range. Records for California gnatcatcher occur in Placerita Canyon north of Highway 14, about 15 miles east of the site (Harris, pers. comm., 2002).

Cooper's Hawk (*Accipiter cooperii*). The Cooper's hawk is recognized as a California Species of Special Concern by CDFW (CDFW, 2011). This species commonly breeds in riparian areas and oak woodlands. The Cooper's hawk is also found where wooded areas occur in patches and groves and often uses patchy woodlands and edges with snags for perching. This species primarily feeds on avian prey caught in the air, on the ground, and in vegetation. Within their range in California, it most frequently uses dense stands of oak, riparian deciduous, or other forest habitats near water (Zeiner et al., 1990a). Historical records from the CNDDDB indicate that

one occurrence was documented in 1997 along the Santa Clara River, approximately 3 to 4 miles east of Piru in Ventura County. Although no breeding habitat is present at CCL, Cooper's hawks have been observed foraging over the area during the field surveys in chaparral and riparian edge habitats.

Golden Eagle (*Aquila chrysaetos*). The golden eagle is recognized as a California Species of Special Concern and is Fully Protected by CDFW (CDFW, 2011). Habitat for this species is typically rolling foothills, mountain areas, and desert. Golden eagles need open terrain for hunting and prefer grasslands, deserts, savannah, and early successional stages of forest and shrub habitats. This species prefers to nest in rugged, open habitats with canyons and escarpments, with overhanging ledges and cliffs and large trees used as cover. No CNDDDB records occur for this species in the vicinity of CCL. No golden eagles were observed during field surveys or have been reported as observed, but there is a potential for golden eagles to forage in open habitats similar to those at CCL, including grasslands and revegetated landfill.

Grasshopper Sparrow (*Ammodramus savannarum*). The grasshopper sparrow is recognized as a California Species of Special Concern (CDFW, 2011). Its general habitat associations include dense grasslands on rolling hills, lowland plains, valleys, and hillsides on lower mountain slopes. For nesting, this species prefers native grasslands with a mix of grasses, forbs, and scattered shrubs and is loosely colonial (CDFW, 2012a). Multiple occurrences for this species have been documented within 10 miles of the Proposed Project area, including Tapia Canyon, San Francisquito Canyon, Wayside Canyon southeast of Castaic Lake, Bouquet Canyon, and near Piru Creek and Aqua Blanca Creek (CDFW, 2012a). CCL provides very limited foraging or breeding habitat; therefore, this species has a low potential occur within the Proposed Project area.

Least Bell's Vireo (*Vireo bellii pusillus*). The least Bell's vireo is federally and state-listed endangered species (CDFW, 2011). The least Bell's vireo nests and forages almost exclusively in lowland riparian woodland habitats (Garrett and Dunn, 1981; Franzreb, 1989). It is typically associated with willow, cottonwood, mule fat, or other riparian plant species, and often in areas with high structural diversity, including overstory trees and understory saplings and shrubs. Because willow (*Salix* spp.) and mule fat are typically the most abundant species in vireo habitat, these species appear to be most commonly selected for nesting (Franzreb, 1989). The nesting season for least Bell's vireo is generally between April 10 to July 31, and the entire breeding season lasts up to August 31 (USFWS, 1986 and 1992). The vireo is now a rare and local summer resident of Southern California's lowland riparian woodlands.

Individual least Bell's vireo have been observed over the years in the Santa Clara River, between I-5 and its confluence with Castaic Creek (CDFW and USACE, 1999), and nesting has been documented in dense riparian areas along the Santa Clara River (Guthrie, 1996). USFWS has designated critical habitat for this species, which lies approximately 0.6 miles south of the landfill, along the Santa Clara River.

There is no suitable habitat for this species at CCL. Riparian areas at the landfill consist of scattered to moderately dense mule fat in fairly limited stands, with no adjacent riparian canopy. They are generally open to adjacent upland areas. Cottonwood trees on the site are small and generally scattered, and do not form a continuous canopy. There is suitable habitat downstream along the Santa Clara River, within the area of potential water quality impacts.

Loggerhead Shrike (*Lanius ludovicianus*). The loggerhead shrike is recognized as a California Species of Special Concern by CDFW (CDFW, 2011). Loggerhead shrikes are common residents and winter visitors of California foothills and lowlands. This species can be found within open habitat types including sage scrub, non-native grasslands, chaparral, riparian, croplands, and areas characterized by open scattered trees and shrubs; fences, posts, or other potential perches are typically present. The loggerhead shrike forages for large insects over open ground within areas of short vegetation, usually impaling prey on thorns, wire barbs, or sharp twigs to cache for later feeding. A loggerhead shrike was detected in the vicinity of Castaic Creek in 1999, approximately 1 mile northeast of the landfill by a BonTerra Consulting staff biologist (BonTerra Consulting, 1999), breeding birds were detected on Chiquita Canyon Landfill during surveys in 1995, and individuals were observed by CH2M HILL biologists in 2007. Suitable habitat is present throughout the landfill, and the species has a moderate to high potential of breeding within the shrubby areas at CCL.

Northern Harrier (*Circus cyaneus*). This species is recognized as a California Species of Special Concern (CDFW, 2011). The Northern Harrier is frequently found in meadows, grasslands, open rangelands, desert sinks, and fresh and saltwater emergent wetlands. This species prefers to nest in emergent marsh vegetation along rivers and lakes, but may also nest in grassland and agricultural fields. The northern harrier is a regular winter migrant, but only occasionally breeds in Los Angeles County; populations have been greatly reduced due to loss of habitat. No CNDDDB records occur for this species in the vicinity of CCL (CDFW, 2012a), and northern harrier was not observed during the course of field surveys. In general, it prefers more extensive grasslands than can be found at the landfill; and no wetlands are present. CCL provides very limited foraging or breeding habitat, making the species unlikely to occur.

Prairie Falcon (*Falco mexicanus*). The prairie falcon is recognized as a California Species of Special Concern (CDFW, 2011). This species forages in open country, including deserts, prairies, agricultural lands, and open playa. Nest sites are generally located in arid regions, usually in a scrape on a sheltered ledge, and in open terrain with canyons, cliffs, escarpments, and rocky outcrops. Preferred nest sites are on higher cliffs and escarpments. No CNDDDB records occur for this species at CCL, and prairie falcons were not observed during the course of field surveys; however, they occur commonly in the Los Padres National Forest. Nonetheless, this species has some potential of breeding in the vicinity of CCL due to the occurrence of hardened sandstone escarpments, which may be used for nesting. Suitable forage habitat is present at the landfill on open grasslands or revegetated landfill. There is suitable cliff habitat located in the southern portion, north canyon, and northwestern corner of the property. Prairie falcons were observed in the southern portions of CCL.

Short-Eared Owl (*Asio flammeus*). The short-eared owl is recognized as a California Species of Special Concern (CDFW, 2011). This species commonly occurs in areas with few trees, such as agricultural fields, grasslands, and coastal estuaries. Within Southern California, where it is considered a non-breeding bird, it is seen in saltwater marshes, freshwater marshes, tall grass meadows, and agricultural lands at almost any time of year, but most commonly late August through mid-April (Terres, 1980). Although no CNDDDB records occur for this species in the vicinity of CCL, one short-eared owl was observed during the course of field surveys in 2007.

Southern California Rufous-Crowned Sparrow (*Aimophila ruficeps canescens*). The southern California rufous-crowned sparrow is a Species of Special Concern (CDFW, 2011). This species is a resident in southern California coastal sage scrub and sparse mixed chaparral habitats and frequents relatively steep, rocky hillsides with grass and forb patches (CDFW, 2012a). This species has been documented within 10 miles of CCL and has been observed in White Oak Park and west of Bouquet Canyon (CDFW, 2012a). CCL provides very limited foraging or breeding habitat; therefore, this species has a low potential to occur within the Proposed Project area.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*). The southwestern willow flycatcher is listed as a federally and state endangered species (CDFW, 2011). This species breeds in dense willow and other riparian thickets. The species generally requires extensive stands of willow scrub, with some riparian overstory present. This species arrives on breeding grounds in May and June and departs in August to mid-September. It historically bred in lowland riparian habitat throughout Southern California, but it has been extirpated from most regions. It still breeds in isolated locations, including riparian woodlands in Kern, Santa Barbara, and San Diego counties, and in locations along the Colorado River where native riparian vegetation is still intact (City of San Jacinto, 2001).

Review of CNDDDB records and other documents has indicated that the southwestern willow flycatcher has not been detected within the vicinity of CCL (CDFW, 2012a), and no suitable habitat exists at the landfill. There is suitable habitat downstream along the Santa Clara River and potential for this species exists; however, there are no recent records of occurrence in this location.

Tricolored Blackbird (*Agelaius tricolor*). The tricolored blackbird is recognized as a California Species of Special Concern (CDFW, 2011). This species is nomadic, wandering during the non-breeding season and occupying colony sites intermittently (Unitt, 1984). During the breeding season, it is gregarious and a colonial nester that requires freshwater marshes and ponds for nesting and grasslands and agricultural fields for foraging. Tricolored blackbirds frequent the active landfill areas at CCL, foraging in mixed flocks with other

blackbirds. They were detected during field surveys in April 2002. No breeding habitat is present at the landfill; foraging habitat is limited, and the species has a high potential of foraging directly at CCL.

Western Yellow-Billed Cuckoo (*Coccyzus americanus occidentalis*). The western yellow-billed cuckoo is recognized as a federal Candidate for Listing by USFWS and is listed as a California Endangered Species by CDFW (CDFW, 2011). In California, the western yellow-billed cuckoo requires dense, wide riparian woodlands with well-developed understories for breeding (Garrett and Dunn, 1981). It is restricted when breeding to river bottoms and other mesic habitats where humidity is high and the dense understory abuts slow-moving watercourses, backwaters, or seeps (Zeiner et al., 1990a). Historical records from the CNDDDB indicate that one occurrence was documented in 1979 along the Santa Clara River; however, there are no recent records for this species in the region, and the species is presumed extirpated.

White-Tailed Kite (*Elanus leucurus*). The white-tailed kite is recognized as a California Fully Protected Species by CDFW (CDFW, 2011). This species nests in stands of oaks, willows, sycamores, and other trees, and forages in low elevation, open grasslands, agricultural areas, and wetlands. This species preys primarily on voles and other small, diurnal mammals, taking small mammal prey approximately 95 percent of the time (Dunk, 1995); as such, its preferred forage habitat is open grasslands. No CNDDDB records occur for this species in the vicinity of CCL; however, in 1999, a pair of white-tailed kites successfully nested near the confluence of the Santa Clara River and Castaic Creek (Guthrie, 1999), approximately 1.25 miles east of the landfill. CCL does not have suitable nesting sites; however, there is good forage habitat on open grasslands at CCL.

Yellow-Breasted Chat (*Icteria virens*). This species is recognized as a California Species of Special Concern by CDFW (CDFW, 2011). The yellow-breasted chat is a fairly common summer resident; nesting in low, dense riparian willow thickets with an understory of blackberry and wild grape along the stream banks. CNDDDB records indicate that one occurrence was documented in 1979 along the Santa Clara River. This observation occurred within the thick riparian vegetation along the south bank, approximately 3 to 4 miles east of Piru, in Ventura County. CCL does not support suitable habitat for yellow-breasted chat; however, there is potential habitat for breeding along the Santa Clara River downstream of the landfill.

Yellow Warbler (*Dendroica petechia brewsteri*). This species is recognized as a California Species of Special Concern by CDFW (CDFW, 2011). It breeds in riparian woodlands from coastal and desert lowlands up to 8,000 feet in the Sierra Nevada mountain range. This species commonly utilizes mature riparian woodlands dominated by willow, cottonwood, sycamore, and alder for nesting and foraging. Historical records from the CNDDDB indicate that one occurrence was documented in 1979 along the Santa Clara River. This observation occurred within the thick riparian vegetation along the south bank, approximately 3 to 4 miles east of Piru, in Ventura County. No breeding habitat is present at the landfill for this species; however, transient birds may utilize southern mixed chaparral communities at CCL during migration. In addition, suitable breeding habitat occurs along the Santa Clara River downstream.

Amphibians

Arroyo Toad (*Bufo californicus*). The arroyo toad is listed as endangered under the FESA and as a Species of Special Concern by CDFW (CDFW, 2011). This species was once found throughout coastal rivers and streams in Southern and Central California, from San Luis Obispo to San Diego counties, as well as in Baja California. It breeds almost exclusively in temporary pools and inhabits seasonally wet drainages with shallow, gravelly pools adjacent to sandy terraces. Arroyo toad adults and subadults are dependent on sandy stream terraces with cottonwood, willow, and sycamore (*Platanus racemosa*) canopy coverage for foraging and burrowing. Upland habitats are also used by arroyo toads during the non-breeding season. These habitats include alluvial scrub, coastal sage scrub, chaparral, grassland, and oak woodland (USFWS, 2000b).

No evidence of seasonal pooling of water was present within washes at CCL, which would be required to support a breeding population. Breeding populations from Castaic Creek may have historically utilized washes on the eastern portion of the landfill, but with the construction of the United States Postal Service facility southeast of the site, these washes are interrupted and separated by 1,500 to 2,000 feet of underground

culvert. This culvert is anticipated to be a movement barrier to arroyo toad, and the species is most likely absent from the vicinity of CCL.

Although occurrence at CCL is unlikely, there is potential for occurrence of the species downstream on Castaic Creek and the Santa Clara River, within the area of potential effects from CCL.

California Red-Legged Frog (*Rana aurora draytonii*). The California red-legged frog is listed as threatened under the FESA and as a California Species of Special Concern by CDFW (CDFW, 2011). This species requires riparian areas with slow-moving water or deep pools that support dense stands of emergent vegetation, such as cattails, at the edge of banks (Jennings, 1988). It inhabits quiet pools of streams, marshes, and sometimes ponds, with dense shoreline riparian or wetland vegetation. It may range in uplands, or aestivate in dense vegetation, leaf litter, or burrows when not in breeding watercourses. It is adversely affected by bullfrogs.

This species was documented in 2005 in the San Francisquito Creek (CDFW, 2012a). There is no documented occurrence of the California red-legged frog on the CCL site. It is likely that creek developments, including underground culverts, have effectively barred movement of this species at CCL. However, there is limited potential for habitat along reaches of the Santa Clara River downstream of the landfill property.

Coast Range Newt (*Taricha torosa torosa*). The coast range newt is recognized as a California Species of Special Concern by CDFW in areas south of Monterey (CDFW, 2011). This species breeds in slow moving streams and ponds with adjacent, intact terrestrial vegetation, along the western coast of California from Humboldt County to the Mexican border. The coast range newt typically feed on earthworms, insects, snails, and other small invertebrates (Stebbins, 1972). No CNDDDB records occur for this species within 10 miles of CCL (CDFW, 2012a). Coast range newt is unlikely to occur at CCL due to lack of suitable habitat, but may occur downstream along the Santa Clara River.

Foothill Yellow-Legged Frog (*Rana boylei*). The foothill yellow-legged frog is recognized as a California Species of Special Concern by CDFW (CDFW, 2011). This species is associated with partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats (CDFW, 2012a). A historical record for this species was obtained from 1949 in an area north of Lake Piru (CDFW, 2012a). There is a lack of suitable habitat for this species within the Proposed Project area; therefore, it is unlikely that it will occur at CCL.

Western Spadefoot (*Spea hammondi*). The western spadefoot is recognized as a California Species of Special Concern by CDFW (CDFW, 2011). This species occurs primarily in vernal pools for breeding and in grassland habitats in underground burrows. It can also occur in valley-foothill hardwood woodlands, coastal sage scrub, and chaparral. Rain pools must lack fish, bullfrogs, and crayfish in order for western spadefoot to successfully reproduce and metamorphose (Jennings and Hayes, 1994). Historical records from the CNDDDB indicate that multiple occurrences have been documented in the vicinity of CCL between 2001 and 2004. In 2004, over 200 western spadefoot tadpoles were observed approximately 1 mile west of the Castaic Junction, and over 100 juveniles were recorded in the San Francisquito Creek area. The habitat utilized by the spadefoot consisted of rainfall-filled depressions and/or vernal pools. The east canyon and detention basin at CCL may hold water long enough to support breeding amphibians. Due to the presence of potential habitat, this species has a moderate potential to occur at CCL.

Reptiles

Belding's Orange-Throated Whiptail (*Aspidoscelis hyperythra belding*). The Belding's orange-throated whiptail is recognized as a California Species of Special Concern by CDFW (CDFW, 2011). This species historically occupied low-elevation (Riversidean) coastal sage scrub, chaparral, and valley-foothill hardwood habitats. This species is presumably tied to perennial vegetation because its major food source, termites, requires perennial plants as a food base (Bostic, 1966). California buckwheat is an important indicator of favorable habitat for orange-throated whiptail (McGurty, 1981). No historical CNDDDB records for this species occur within the vicinity of CCL, and no orange-throated whiptail were detected at CCL and the surrounding areas during field surveys. Although suitable habitat is present, this species does not occur in the CCL area.

California Legless Lizard (*Anniella pulchra pulchra*). The California legless lizard (also known as the silvery legless lizard) is recognized as a California Species of Special Concern by CDFW (CDFW, 2011). This species commonly occurs in moist, sandy, and loose loamy soils under sparse vegetation of beaches, chaparral, pine-oak woodland, sycamores, cottonwoods, or oaks that grow on stream terraces, including dry washes (Zeiner et al., 1990b). They are known to prey upon insect larvae, termites, small adult insects, beetles, spiders, and other invertebrates (University of California, Riverside, 2001). This species has been documented within Plum Creek Canyon, but that site has been extirpated and individuals were relocated (CDFW, 2012a). Some habitat for this species occurs at CCL, and it is considered to have a moderate potential to occur.

Coastal Western Whiptail (*Aspidoscelis tigris stejnegeri*). The coastal western whiptail is recognized as a California Species of Special Concern by CDFW (CDFW, 2011). This species occurs in coastal Southern California from Ventura County and south into Baja California. It is commonly found utilizing open rocky areas in a variety of habitat types such as coastal sage scrub and grasslands. Prey items of the western whiptail include termites, scorpions, solfugids, cockroaches, ant lion larvae, and various insect eggs, larvae, and pupae (Anderson, 1993). In general, foraging individuals are usually on the move, foraging in discrete patches and capturing sedentary, hidden prey, usually under perennials (University of California, Riverside, 2001). No historical CNDDDB records for this species occur within the vicinity of CCL, and no coastal western whiptails were detected at CCL during field surveys. Rocky habitat and Riversidean sage scrub habitats occur within the vicinity of CCL, and it is anticipated that this species has a moderate potential of occurring.

San Diego Horned Lizard/Coast Horned Lizard (*Phrynosoma blainvillei*). The San Diego horned lizard is a California Species of Special Concern (CDFW, 2011). This species is restricted to southwest California and northwest Baja California, where it occupies coastal sage scrub and chaparral and other open habitats, including sandy washes. The San Diego horned lizard can be found in a variety of habitats from sage scrub to coniferous and broadleaf woodlands; however, it prefers areas with friable, rocky, or shallow sandy soils with open scrub for sunning and burrowing. Its preferred food is harvester ants. Historical records from the CNDDDB indicate that one occurrence was documented within 5 miles of CCL in 1934, and recent records of this species have been documented in the Santa Susana Mountains and Tapia Canyon (CDFW, 2012a). This detection occurred south of Soledad Canyon in Saugus. Focused surveys were conducted in suitable habitat for San Diego horned lizards. No individuals or signs were observed; however, suitable habitat occurs at the landfill, including sandy wash areas with populations of harvester ants. Therefore, it is anticipated that the San Diego horned lizard has a moderate to high potential of occurring at CCL.

Two-Striped Garter Snake (*Thamnophis hammondi*). The two-striped garter snake is recognized as a California Species of Special Concern and protected by CDFW (CDFW, 2011). This species is highly aquatic, found in or near permanent and ephemeral fresh water, often in streams with rocky beds and dense riparian vegetation. It is sensitive to the presence of exotic species, including bullfrogs. CNDDDB records indicate that one occurrence was documented within 5 miles of CCL in 2000. This detection occurred within the open channel of the Santa Clara River, between Salt Creek and Summer Four Crossings in nearby Ventura County. No two-striped garter snakes were detected during the course of field surveys. This species would not occur at CCL due to lack of aquatic habitat, but does occur within the area of potential impact downstream.

Western Pond Turtle (*Emys marmorata*). The southwestern pond turtle is recognized as a California Species of Special Concern by CDFW (CDFW, 2011). This species breeds and forages in perennial watercourses with ample pool habitats and basking sites. It generally prefers watercourses with pools 2 or more feet deep. It lays eggs in upland areas adjacent to watercourses and spends summer aestivation periods in dense vegetation, shallow pits, or leaf litter in upland areas. Historical records from the CNDDDB indicate that three occurrences were documented in 2000 within the open channel of the Santa Clara River (CDFW, 2012a). The most recent observation occurred in the vicinity of Las Brisas Bridge in Ventura County (CDFW, 2012a). This species would not occur at CCL due to lack of aquatic habitat, but does occur downstream.

Mammals

Big Free-Tailed Bat (*Nyctinomops macrotis*). The big free-tailed bat is recognized as a California Species of Special Concern by CDFW and a WBWG species of moderate to high priority (CDFW, 2011). This species is rare in Southern California, with previous records restricted to urban areas in San Diego County. The big free-tailed bat is found in open and urban habitats, preferring rugged, rocky terrain. It forages in the air over water sources for large moths and other flying insects. This species roosts in rocky crevices high on cliff faces. Young are born into small nursery colonies in June and July and capable of flight in August to mid-September. Recent records identify a range extension into Los Angeles and Orange counties, with numerous records in the lower Los Angeles Basin (Constantine, 1998). The nearest detection is in Burbank in 1987, approximately 25 miles south-southwest of the landfill (Constantine, 1998). Potential for occurrence for this species on the site is possible but unlikely; there is a lack of records as far north as CCL.

California Leaf-Nosed Bat (*Macrotus californicus*). The California leaf-nosed bat is recognized as a California Species of Special Concern by CDFW and a WBWG species of high priority (CDFW, 2011). This species ranges from Riverside, Imperial, San Diego, and San Bernardino counties south to the Mexican border, in desert riparian, desert wash, desert scrub, desert succulent scrub, alkali desert scrub, and other arid habitats. This species commonly roosts in mines and caves, generally far from human habitation. Historical records for this species occur for Bell Canyon, approximately 15 miles south of the landfill (Howell, 1920; Constantine, 1998), and in a small cave approximately 11 miles south-southwest of the landfill (Constantine, 1998). No records for this species are present in CNDDDB for Los Angeles County; however, bat records in CNDDDB are notoriously incomplete. Given the presence of this species in the region historically, it has potential to occur at CCL in suitable habitat, which may include small cave roost sites associated with outcrops in the area.

Cave Myotis (*Myotis velifer*). The cave myotis is recognized as a California Species of Special Concern by CDFW and a WBWG species of moderate priority (CDFW, 2011). This species is restricted in California, generally to lowlands of Colorado River and adjacent mountain ranges, in San Bernardino, Riverside, and Imperial counties. It is found in desert scrub, desert succulent shrub, desert wash, and desert riparian. This species is a colonial, cave-dwelling bat, but may also roost in rock crevices or old buildings, under bridges, and in abandoned cliff swallow nests. Three detections of this species were reported for Los Angeles County between 1992 and 1997, one of which was located within the general vicinity of CCL in Valencia in 1994 (Constantine, 1998). Potential for occurrence for this species on the site is unlikely but possible. However, no records for this species are present in CNDDDB in the vicinity of CCL and this species exhibits spotty occurrence patterns west of Riverside County.

Long-Eared Myotis (*Myotis evotis*). The long-eared myotis is recognized as a WBWG species of moderate priority (CDFW, 2011). This species is a yearlong resident throughout California, absent only from the Central Valley and Mojave Deserts; it seems to prefer higher elevation coniferous forests. It preys on flying insects and forages on the ground or in vegetation. The species roosts in trees, rock crevices, buildings, and caves, as well as under tree bark. Nursery colonies may number 12 to 30 individuals. Young are born in May to July, with a peak in June. Young are flying by early August. Museum records for this species have been documented for Los Angeles County in the Pasadena area, approximately 30 miles southwest of the landfill (Garrett, 1993). CNDDDB records for this species are limited to a handful of records in Central and Northern California. CCL appears to provide moderate roosting habitat for the species, which may utilize crevices or small caves in rocky outcrops and cliffs, and the potential for occurrence within the site is moderate to high.

Long-Legged Myotis (*Myotis volans*). The long-legged myotis is recognized as a WBWG species of high priority (CDFW, 2011). It is a yearlong resident throughout California, absent only from the Central Valley and Mojave Deserts. It is most common in forested areas above 4,000 feet, but also found in coastal scrub, chaparral, and woodlands. It roosts in rock crevices, buildings, and under tree bark. It preys on flying insects, and may forage over water, scrub, or woodland habitats. Young are born in June and July, may begin flying in mid-July, and are weaned by September. Museum records for this species have been documented for the Pasadena area, approximately 35 miles southeast of the landfill (Garrett, 1993). There are no CNDDDB records in the general vicinity of CCL for this species. CCL appears to provide moderate roosting habitat for the species, which may

utilize crevices or small caves in rocky outcrops and cliffs, and the potential for this species to occur within the site is moderate to high.

Mexican Long-Tongued Bat (*Choeronycteris mexicana*). The Mexican long-tongued bat is recognized as a California Species of Special Concern by CDFW and a WBWG species of high priority. The Mexican long-tongued bat was formerly known only from San Diego County, but more recent records occur from Los Angeles and Ventura counties (Constantine, 1998). This species roosts in caves, mines, and buildings; and prefers dimly lit sites. The Mexican long-tongued bat primarily feeds on nectar, pollen, and occasionally fruit while hovering. Pregnant females have been found from February through September. Most births occur in June and early July; and this species is wary and very sensitive to roost sites disturbances. Low potential for occurrence for this species on the site is possible. However, no records for this species are present in CNDDDB in the vicinity of CCL and it has spotty occurrence potential north of San Diego County.

Pallid Bat (*Antrozous pallidus*). The pallid bat is recognized as a California Species of Special Concern by CDFW and a WBWG species of high priority (CDFW, 2011). This species is a yearlong resident throughout lower elevations of California, utilizing open, dry habitats from grasslands, open scrub, shrublands, woodlands, and forests. It typically forages close to the ground and may take prey on the ground. Day roosts are typically in caves, crevices, mines, buildings, and hollow trees. The species is social, often roosting in groups of 20 or more, ranging to well over 100, in many cases with other species; however, it may also be found individually (Zeiner et al., 1990c). Maternity colonies form in early April, and may contain from 12 to 100 individuals. Young are weaned in 7 weeks, and are observed flying in July and August. There is one record for this species in CNDDDB from 1938, within 1 mile of CCL; and given the wide range of this species, and preference for open, dry habitats, there is moderate potential for this species to occur within the site.

Pocketed Free-Tailed Bat (*Nyctinomops femorasaccus*). The pocketed free-tailed bat is designated a California Species of Special Concern by CDFW and a WBWG species of moderate priority (CDFW, 2011). It is a common resident of arid regions of Southern California, occurring in desert scrub, riparian, and other habitats. It was formerly considered limited to Imperial and San Diego counties. Pocketed free-tailed bats roost in small groups in rock crevices on cliff faces. It catches prey in flight, foraging over ponds, streams, or open habitat. Young are born in June and July, and weaned by late August for this species. Constantine (1998) reports numerous records of this species in Los Angeles County, taken from data collected from 1954 to the late 1990s. The closest observation of this species by Constantine occurred in 1994, approximately 36 miles south-southwest of CCL within the city of Inglewood; this represents a known range extension, and is among the farthest north records of the species. Potential for occurrence for this species on the site is possible but very unlikely.

San Diego Black-Tailed Jackrabbit (*Lepus californicus bennettii*). The San Diego black-tailed jackrabbit is recognized as a California Species of Special Concern by CDFW (CDFW, 2011). This species ranges from coastal Southern California, from Santa Barbara County into northwest Baja California. It is commonly found in coastal sage brush and Riversidean sage scrub habitats with intermediate canopy stages, open spaces, and herbaceous edges. No CNDDDB records occur for this species within 5 miles of CCL. The San Diego black-tailed jackrabbit was not observed at CCL during field surveys; however, suitable habitat does exist, and there is potential for occurrence within the site.

San Diego Desert Woodrat (*Neotoma lepida intermedia*). The San Diego desert woodrat is recognized as a California Species of Special Concern by CDFW (CDFW, 2011). This species occurs within arid regions up to 8,500 feet above msl from San Luis Obispo to northwest Baja California. The San Diego desert woodrat occupies moderate to dense canopy chaparral, Riversidean sage scrub, woodlands, rocky outcrops, and rocky slopes. Desert woodrats are primarily herbivorous, and their diet may include leaves, seeds, berries, parts of flowers, and yucca shoots (Cameron and Rainey, 1972). No CNDDDB records occur for this species within 5 miles of CCL. Woodrat nests were identified at CCL during field surveys; however, it could not be determined if they belonged to this subspecies or to the close relative, the dusky-footed woodrat (*N. fuscipes*). Potential exists for the species' occurrence at CCL in chaparral habitat, particularly where rocky outcrops are present.

Spotted Bat (*Euderma maculatum*). The spotted bat is recognized as a California Species of Special Concern by CDFW and a WBWG species of high priority (CDFW, 2011). The spotted bat is rare, ranging through Central and Southern California desert, scrub, and woodland habitats. It roosts in high cliff faces and rock crevices. It feeds almost exclusively on medium-sized moths, beetles, and caddis flies. Historical records from the CNDDDB indicate that one deceased individual was found in 1890 within 5 miles of CCL. Potential for occurrence for this species on the site is possible, but unlikely, and there is a lack of preferred roosts (high cliff faces).

Townsend's Western Big-Eared Bat (*Corynorhinus townsendii townsendii*). The Townsend's western big-eared bat is recognized as a California Species of Special Concern by CDFW and a WBWG species of high priority (CDFW, 2011). This species is a yearlong resident throughout California, but is generally quite rare, with numbers having declined steeply. It utilizes open, mesic habitats, foraging for moths, beetles, and other insects by echo-location or gleaning from foliage. It roosts in caves, mines, tunnels, and dark building caverns, generally preferring larger enclosures. Maternity colonies are typically fewer than 100 bats and are sensitive to disturbance. Maternity colonies form in April, with births in May or June; colonies may begin to break up by August. Limited records of this species are present in CNDDDB for California, consisting of a handful of records in Central and Northern California, although it is commonly reported as occurring throughout California. Recent records occur from Santa Cruz Island (Constantine, 1998). CCL may be within range of the species and occurrence potential is possible, but unlikely. This species has a strong preference for larger roosts in caves, mines, or abandoned buildings, which are lacking within CCL.

Western Mastiff Bat (*Eumops perotis californicus*). The western mastiff bat is recognized as a California Species of Special Concern by CDFW and a WBWG species of high priority (CDFW, 2011). This species is an uncommon resident of interior and coastal regions of Central and Southern California, occurring in a variety of open, arid habitats. The species roosts in cliff faces, high buildings, tees, and tunnels; nursery roosts are described as tight rock crevices at least 3 feet deep and 2 inches wide. It catches prey in flight, foraging over various habitats. Parturition dates vary more for this species than other species, and may occur from April through August or September. Constantine (1998) reports numerous records of this species from Los Angeles County, including records from the general vicinity of CCL. Garrett (1993) also reports museum records from Los Angeles County. Given the broad habitat usage of this species and frequency of occurrence records in the region, there is a high likelihood of occurrence at CCL.

Yuma Myotis (*Myotis yumanensis*). The Yuma myotis is designated a WBWG species of low to moderate priority (CDFW, 2011). This species is a yearlong resident and generally common throughout California. It roosts in trees, rock crevices, buildings, caves, mines, and abandoned swallow nests under bridges, as well as under tree bark and under bridges. It preys on flying insects, generally foraging over water sources. Nursery colonies may number several thousand individuals. Young are born in May to mid-June, with a peak in early June. Limited records of this species are present in CNDDDB for California, consisting of a handful of records in Central and Northern California. CCL appears to provide moderate roosting habitat for the species, which may utilize crevices or small caves in rocky outcrops and cliffs, and the potential for occurrence within the site is moderate.

Fish

Arroyo Chub (*Gila orcutti*). The arroyo chub is recognized as a California Species of Special Concern by CDFW (CDFW, 2011). It prefers slow-moving or backwater sections of warm to cool streams with substrates of sand or mud with a typical stream depth of greater than 40 centimeters (Moyle, 1976). This species is common at various locations throughout Southern California (University of California, Riverside, 2001; Swift et al., 1993). CNDDDB records indicate that multiple occurrences were documented between 1993 and 2005 in the Santa Clara River, approximately 3 miles east of Piru, from the Las Brisas Bridge to Old Road Bridge with the majority of the fish observed in the lower one-third of the area (CDFW, 2010a). This species would not occur at CCL due to lack of aquatic habitat, but apparently occurs downstream.

Santa Ana Sucker (*Catostomus santaanae*). The Santa Ana sucker is listed as a federally threatened species under the FESA and a California Species of Special Concern by CDFW (CDFW, 2011). The historical range of the Santa Ana sucker includes the Los Angeles, San Gabriel, and Santa Ana River drainage systems in Southern

California (Smith, 1966). An introduced population also occurs in the Santa Clara River drainage system (Moyle, 1976). The Santa Ana sucker generally occurs in shallow streams less than 20 feet in width with preferred substrates characterized by sand-rubble-boulder with cool, clear water and a presence of filamentous algae. It appears to be most abundant where the water is cool, clean, and clear, although the species can tolerate seasonally turbid water (University of California Riverside, 2001).

CNDDDB records indicate that multiple occurrences were documented on the Santa Clara River in the vicinity of CCL between 1975 and 2004. In 2004, an individual was observed within the Santa Clara River drainage from San Francisquito Canyon to the vicinity of Santa Paula. In 2007, Santa Ana suckers were common observations in the Santa Clara River, from Santa Paula to Valencia, and 39 dead individuals were observed in October 2007. No critical habitat has been designated for the Santa Ana sucker. This species would not occur at CCL due to lack of aquatic habitat, but does occur downstream.

Southern Steelhead Trout (Oncorhynchus mykiss irideus). The southern steelhead trout is listed as a federally endangered species under the FESA and a California Species of Special Concern by CDFW (CDFW, 2011). The historical range of this species in North America includes Pacific Coast streams from Alaska, south to northern Baja California (Bernstein and Montgomery, 2008). In 2005, the Santa Clara Calleguas Hydrological Unit was designated as critical habitat, as far east as Piru Creek (78 *Federal Register* 2725). The southern steelhead trout has been documented within the Fillmore quadrant (CDFW, 2010a). This species would not occur at CCL due to lack of aquatic habitat, but does occur downstream in the Santa Clara River.

Unarmored Threespine Stickleback (Gasterosteus aculeatus williamsoni). The unarmored threespine stickleback is listed federally and state endangered and is Fully Protected by CDFW (CDFW, 2011). This species once occurred throughout the Los Angeles, San Gabriel, and Santa Ana River systems (Culver and Hubbs, 1917). By 1985, the only known population was restricted to a small portion of the upper Santa Clara River drainage in Los Angeles County and the San Antonio Creek drainage in Santa Barbara County (Center for Biological Diversity, 2002). The unarmored threespine stickleback is a small, scaleless, freshwater fish that requires slow-moving and clean, clear waters of streams and rivers. This species forages on small aquatic organisms, primarily insects, crustaceans, and algae. Breeding occurs in late spring and early summer with the male building a nest with grass and sticks on the bottom of the creek, concealed in holes or debris.

CNDDDB records indicate that multiple occurrences were documented between 1994 and 2000 in the Santa Clara River, approximately 3 miles east of Piru, upstream to the McBean Bridge crossing in Valencia. In 2000, a total of 42 individuals were recorded in the Santa Clara River. The most recent occurrence was in 2005, when one individual was observed in Castaic Creek, 0.80 miles north of the junction of SR-126 and I-5. The unarmored threespine stickleback is known to be a year-round resident of the Santa Clara River from the confluence of the Santa Clara River and Castaic Creek to I-5 (San Marino Environmental Associates, 1995). SEA #23 has been developed along the Santa Clara River by the County of Los Angeles to protect unarmored threespine stickleback. The Santa Clara River is also designated as “unarmored threespine stickleback stream” by CNDDDB. This species would not occur at CCL due to lack of aquatic habitat, but does occur downstream.

Invertebrates

San Emigdio Blue Butterfly (Plebulina [Plebeius] emigdionis). This butterfly is of local conservation concern. Its range extends throughout Southern California from Inyo County to northern Los Angeles County, generally occurring in shadscale scrub in desert canyons and washes. The larval hostplant is shadscale (*Atriplex canescens*). There are no known records in the vicinity of CCL; nearby records occur in Bouquet and Mint Canyons (United States Geological Survey, 2002). Shadscale scrub has been observed at CCL, although it is generally outside its desert canyon range; therefore the species is not anticipated to occur.

8.5.6 Oak Trees

A field study evaluation of Los Angeles County ordinance-sized oak trees was conducted by SB Horticulture in early April 2012 to ascertain baseline data in regard to native oak tree resources in the Proposed Project area

(SB Horticulture, 2014). The Oak Tree Report is included in Appendix D2, and results of the survey are summarized here:

- Two oaks, one valley oak and one coast live oak, are native trees growing adjacent to an abandoned field previously used for agriculture purposes.
- Two coast live oaks are landscape trees growing within landscaped areas of the existing landfill facility.
- All four trees subject to the Los Angeles County Oak Tree Ordinance will be removed for the Proposed Project.

8.5.7 Wildlife Corridors

Wildlife movement corridors maintain habitat connectivity across natural community boundaries. Corridors may support daily movement from one foraging habitat to another, to watering holes, denning or roosting sites, or seasonal movements including large-scale migrations. Wildlife corridors may be represented by linear habitats such as aquatic streams or rivers, riparian woodlands along stream courses, or continuous or interconnected patches of natural habitat surrounded by other types of habitat (such as woodland habitat on hillsides surrounded by lowland grasslands) or natural habitat surrounded by developed land (such as chaparral surrounded by urban or agricultural land). Movement corridors may also be represented by ridgelines, valleys, or other less tangible features where wildlife congregate during daily or seasonal movements. Active wildlife corridors or major seasonal movement corridors were not observed at CCL, but no long-term quantitative study of wildlife movement has been done. Generally, such studies are intensive and may require many years of observations. However, evidence of consistent wildlife movement along the ridgeline north of the active landfill area was observed during June 2010 field surveys. Evidence included wildlife trails and regular observations of scat (e.g., coyote, gray fox).

The South Coast Wildlands Missing Linkage Project (South Coast Wildlands, 2008) defined the Santa Monica - Sierra Madre Connection, a north-south linkage from Santa Monica Mountains along the coast to the Santa Susana Mountains and the Sierra Madre Ranges of Los Padres National Forest. It is one of the few coastal to inland connections remaining in the South Coast Ecoregion. The border of this linkage is about 2 miles to the west of CCL near the Ventura County line. Within this linkage, U.S. Route 101 and State Routes (SR) 23, 118, and 126 are the most obvious barriers between core reserves in the Santa Monica and Sierra Madre mountains, while Interstate 5 (I-5) and SR-14 impede movement to the San Gabriel Mountains to the east. Although movement through the CCL could contribute or be a part of this corridor, it is unlikely that it would be significant given the existing barriers and proximity to existing development.

8.6 Potential Impacts

8.6.1 Impacts Definition

Direct impacts occur when biological resources are altered, disturbed, destroyed, or removed during the course of construction, grading, and filling of habitats. Direct impacts can include the loss of individuals or populations from habitat clearing or construction-related mortality; loss of foraging, nesting or burrowing habitat for wildlife species; or alteration of substrates, which prevents reestablishment of native vegetation.

Indirect impacts occur when project-related activities affect biological resources in a less overt manner. Such impacts include elevated noise and light levels, erosion of hillsides and/or sedimentation and siltation of aquatic habitats, and production of fugitive dust emissions.

Both direct and indirect impacts can be classified as either temporary or permanent, depending on the duration of the impacts. Temporary impacts are impacts considered to have reversible effects on biological resources. Examples of temporary impacts include noise and light generated from construction activities, production of fugitive dust emissions during construction, and construction traffic. Permanent impacts are those impacts resulting in the irreversible removal, disturbance, or destruction of biological resources.

The Proposed Project would result in both direct and indirect impacts to biological resources that might be either permanent or temporary in nature.

In determining if these impacts are significant to plant and wildlife species, the actual and potential occurrence of the species at CCL is correlated with the significance criteria defined below.

8.6.2 Criteria for Determining Significance/Standards of Significance

The following summarizes thresholds of significance for impacts to biological resources, based on Appendix G (Environmental Checklist Form) of the CEQA Guidelines Section 15000 et seq.; these thresholds are used to determine the level of significance for this study and analysis. Levels of significance or effect include the following: (1) no impact or effect; (2) adverse impact but less than significant; (3) beneficial impact; (4) significant adverse impact but with mitigation reduced to less than significant; (5) unavoidable significant adverse impact; and (6) cumulative impact. A significant adverse impact is defined as one or more of the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by CDFW or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by CDFW or USFWS.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pools, and coastal areas) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP.

8.6.3 Proposed Project Construction Impacts

Potential impacts to biological resources as a result of the Proposed Project are described below.

8.6.3.1 Potential Impacts to Vegetation Communities

Potential Impacts

The Proposed Project would result in approximately 276 acres of permanent vegetation impacts throughout the life of the landfill. The acreage of impacts by vegetation community type includes Dry Wash (2.2 acres), Dry Wash Mule Fat Dominant (7.1 acres), Mixed Riversidean Sage Scrub/Non-Native Grassland (34.9 acres), Non-Native Grassland (47.6 acres), Non-Native Grassland with Scattered Shrubs (42.8 acres), Ruderal (10.7 acres), Riversidean Sage Scrub (117.5 acres), and Southern Mixed Chaparral (13.6 acres).

Ground-disturbing activities may also promote the establishment of invasive plant species and noxious weeds and potentially degrade surrounding communities. To minimize potential for introduction of invasive plant species during construction, the Proposed Project will include contract requirements to ensure vehicles are clean and free of soil or invasive weed seeds and other plant parts prior to entering the site. Construction contractors hired by CCL will have to certify in writing that their equipment meets these requirements.

Invasive species may include any species on Los Angeles County's invasive plant list (http://planning.lacounty.gov/assets/upl/project/green_invasives2011.pdf) or any species listed as moderate or high on the California Invasive Plant Council (Cal-IPC) list (<http://www.cal-ipc.org/ip/inventory/>).

Additionally, within 1 year of Project approval invasive tamarisk (*Tamarix* spp.) located onsite will be identified and removed completely and the area will be re-planted with appropriate riparian vegetation.

Native vegetation communities such as Riversidean coastal sage scrub and southern mixed chaparral have a relatively high biological value, and along with non-native habitats on the site, provide nesting, foraging, roosting, and denning opportunities for many species of wildlife. However, extensive areas of these communities are present in the region. The impact of loss or degradation of these habitats, even though deemed as adverse, is anticipated to be less than significant, given the small acreage of impacts and availability of alternate large areas of similar habitat, both locally in the Santa Clarita Valley area and regionally in Los Angeles County. In addition, landfill areas would be revegetated with native vegetation when retired from use, offering some compensation from habitats lost from the Proposed Project, and further reducing impacts. With mitigation, potential impacts to vegetation communities would be less than significant.

Mitigation Measures

- BR-1** A Revegetation Plan for the Project will be developed in consultation with LADRP. In order to replicate and potentially expand the available amount of Southern Mixed Chaparral vegetation community at the site, the Revegetation Plan will include a final soil cover of approximately 5 feet, or alternatively a depth approved by regulatory agencies and suitable to allow for proper root growth. If the cover is deemed infeasible by capacity constraints or other conditions, offsite mitigation land will be purchased to offset the loss of approximately 14.4 acres of Southern Mixed Chaparral vegetation community. The acreage acquired will, if feasible, be generally local to the site or the general site area, ideally situated adjacent to or in the general proximity of the Santa Clara River, Hasley Canyon, or Angeles National Forest, and will connect with other protected open space.
- BR-2** Preconstruction surveys by qualified biologists shall be conducted for special-status species in impact areas prior to ground-disturbing activities, and if necessary and feasible, resource relocation or exclusion shall be implemented. Resource relocation shall be conducted by qualified biologists in coordination with CDFW or USFWS. Exclusion zones shall be implemented with fencing and/or signage that restricts access.
- For rare plants, this shall include focused surveys by a qualified botanist conducted during the appropriate season for detection (generally during flowering period) the first season prior to ground-disturbing activities over the entire disturbance area proposed for the Project, and then again over the entire area remaining to be disturbed for each phase (cell) of landfill development. If suitable transplant areas for rare plants exist at CCL, surveys will also include potential areas for relocation onsite in order to provide background data for determining transplant success. If no suitable relocation areas exist at CCL, potential mitigation areas in conserved areas within the local watersheds will be identified and surveyed at the same time in order to have background data. Surveys shall follow standard survey protocol for rare plants outlined in Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants (USFWS, 2000a).
 - If special-status plants are found at CCL, they shall be avoided, when feasible. To avoid impacts to special-status plants, protective measures, such as the installation of an orange plastic fencing surrounding plant or plant population and the restriction of construction activity within these protected areas shall be implemented.
 - If a sensitive plant (including species of CNPS RPR 1-4) is detected during rare plant surveys in an area identified for disturbance, consultation with CDFW will be initiated and will result in preparation of a rare plant report for review by CDFW and LADRP. Mitigation by transplantation will take place before any clearing or grading of the sensitive plant occurs. CDFW will approve the transplantation program, including methods, monitoring, reporting, success criteria, adaptive management, and contingencies.

- BR-3** Construction and construction monitoring for animals will occur at discrete time periods. Construction monitoring shall be conducted in areas containing native vegetation at the time of construction activity within the limit of active construction disturbance. Within areas containing native vegetation, ground-disturbing activities shall be prohibited until the area is cleared by a qualified biological monitor during a preconstruction survey up to seven days prior to the beginning of cell construction activities. Biological monitors shall also monitor construction activities within 100 feet of avoided CDFW and USACE jurisdictional drainages.
- BR-4** The construction area boundaries shall be delineated clearly. No construction activities, vehicular access, equipment storage, stockpiling, or significant human intrusion shall occur outside of the designated construction area. In addition, CCL ingress and egress routes shall be marked, and vehicle traffic outside these routes shall be prohibited. Vehicular traffic shall adhere to a speed limit of 15 miles per hour on non-public access roads during construction to ensure avoidance of impacts to sensitive biological resources.
- BR-5** Soil or invasive plant seed transfer from clothing, shoes, or equipment shall be minimized through cleaning and monitoring of personnel or equipment transfers between sites, or prior to initial entry at CCL. Contract requirements to ensure vehicles are pressure washed and/or clean and free of soil or invasive weed seeds and other plant parts prior to entering the site will be implemented. Contracts will specify that pressure-washing of construction vehicles is to take place immediately before bringing the vehicle to CCL. The contractor will provide written documentation that the vehicles have been pressure washed or otherwise free of plant material that is checked by both CCL management and the biological monitor, who will jointly assure that this mitigation is implemented. The biological monitoring report will include a record of compliance with this measure.
- Within 1 year of Project approval invasive tamarisk (*Tamarix* spp.) located onsite will be identified and removed completely. Removed tamarisk will be disposed of in a landfill.
- BR-6** Only vehicles that meet fire safety requirements shall be allowed on the construction sites. Camping, trash-burning fires, and warming fires shall be prohibited in the construction area.
- BR-7** A mitigation monitoring plan that outlines how mitigation measures specified herein shall be implemented and monitored shall be prepared and approved by LADRP prior to award of any grading permit. The Plan will address mitigation for special-status plants, including management of salvaged topsoil, relocation of offsite property that could serve as permanent open space areas or a conservation easement. The Plan shall include methods, monitoring, reporting, success criteria, adaptive management, and contingencies.

8.6.3.2 Potential Impacts to CDFW and USACE Jurisdictional Areas

Potential Impacts

USACE and CDFW jurisdictional areas could potentially be permanently impacted from grading and filling activities. Prior to initiation of permitting, a delineation report would be prepared to identify the presence of jurisdictional areas. In the event that any jurisdictional areas are confirmed at CCL, potential losses would include riparian vegetation associated with seasonal washes, including mule fat scrub, Mexican elderberry, and potentially scattered Fremont cottonwood. The permanent loss of CDFW and USACE jurisdictional areas would be considered a significant impact. Impacts would be quantified during the permitting process and mitigation for potential impacts would be required as a part of the permitting process.

Additional impacts may potentially occur in waterways from construction or operational changes to water quality. Multiple BMPs address stormwater management and sediment capture to reduce impacts to water quality, as provided below as mitigation measures. Permanent sediment basins are present along all drainages at CCL prior to discharging offsite. These basins capture and retain water quality contaminants with sediments. CCL provides periodic clearing and cleaning of sediment basins. Contaminants captured within these basins are

carried away and disposed of within portions of the landfill during maintenance. The operation and maintenance of these basins provides additional mitigation for water quality impacts.

With mitigation, potential impacts are anticipated to be less than significant.

Mitigation Measures

BR-3 shall be implemented.

- BR-8** For potential impacts to jurisdictional waters, permits shall be obtained for the Proposed Project from USACE (Section 404, CWA) and CDFW (SAA, Section 1603); conditions of these permits would be complied with for the Proposed Project. The terms and conditions of these permits are anticipated to require mitigation consistent with “Compensatory Mitigation for Losses of Aquatic Resources; Final Rule” (USACE, EPA, Federal Register, April 10, 2008), and with CDFW requirements for SAAs. A mitigation plan may be required prior to permit issuance.
- BR-9** Stationary equipment such as motors, pumps, generators, and welders shall be located a minimum of 50 feet outside CDFW and USACE jurisdictional drainages where impacts have not been permitted. Construction staging areas, stockpiling, and equipment storage shall be located a minimum of 50 feet outside non-permitted CDFW and USACE jurisdictional drainages.
- BR-10** Construction vehicles and equipment shall be checked periodically to ensure they are in proper working condition and that there shall be no potential for leaks. Refueling or lubrication of vehicles and cleaning of equipment, or other activities that involve open use of fuels, lubricants, or solvents, shall occur at least 100 feet away from CDFW and USACE jurisdictional drainages where impacts have not been permitted, and at least 50 feet from other flagged, sensitive biological resources.
- BR-11** Best management practices will be implemented during construction to prevent sediment from entering into non-permitted jurisdictional drainages. Existing sedimentation basins prevent sediment-laden water from draining offsite.
- BR-12** Only agency-approved pesticides, herbicides, fertilizers, dust suppressants, or other potentially harmful materials shall be applied at CCL, in accordance with relevant state and federal regulations. Rodenticides will not be used. Instead, methods that do not persist and infiltrate the natural food chain will be used for pest elimination such as trapping, gassing, etc. Sediment basins are present along all drainages at CCL, which capture runoff prior to discharging offsite. Sediment basins will continue to be regularly maintained.

8.6.3.3 Potential Impacts from Nuisance Wildlife

Landfill operation may result in the introduction and success of nuisance wildlife, including gulls, ravens, brown-headed cowbirds, common starlings, and rats (*Rattus* spp.). These species can displace native wildlife. Negative impacts from vectors and nuisance wildlife in general would be reduced through the implementation of the mitigation measure described below. Implementation of the measure would ensure that potential impacts from nuisance wildlife are less than significant.

Mitigation Measures

- BR-13** Construction sites and landfill operation shall be kept free of trash and litter. Food-related trash and litter shall be placed in closed containers and disposed of daily. Nuisance wildlife breeding will be discouraged at CCL by excluding cavities in buildings and/or equipment or facilities left idle for more than 6 months.

8.6.3.4 Potential Impacts to Special-Status Plant Species

Potential Impacts

Federal- and state-listed plant species that could occur in the vicinity of CCL include Braunton’s milk-vetch, California orcutt grass, San Fernando Valley spineflower, and slender-horned spineflower. Database analyses

indicate limited distribution of these species in the vicinity of CCL. However, there is a limited potential for occurrence of some of the special-status plants at CCL, based on the presence of suitable habitat including Riversidean coastal sage scrub and southern mixed chaparral. If individual federal- and state-listed plant species are present at CCL, they may be lost as a result of the Proposed Project, including construction-related impacts from grading and filling activities. This would represent a significant impact.

CNPS List Category 1A and 1B plant species include Los Angeles sunflower, Plummer's mariposa lily, short-tailed beavertail, and slender mariposa lily. Database analyses indicate limited distribution of these species in the vicinity of CCL. However, due to the presence of southern mixed chaparral and Riversidean coastal sage scrub habitat at the landfill, these species could occur. If sizable populations of Category 1B plants are found at the landfill, loss from the Proposed Project would be considered a significant impact.

Rayless ragwort is a Category 2 plant species with potential for occurrence in the vicinity of CCL. Due to the absence of alkaline soils at the landfill, it is unlikely this species occurs. Database analysis reveals very limited distribution in the vicinity of CCL. Because of the low probability of occurrence, no impacts to this species are anticipated from the Proposed Project, and no mitigation measures are required.

Preconstruction rare plant surveys would be conducted under Mitigation Measure BR-1; if rare plants are identified, the area would be avoided as feasible. However, some rare plants may be identified in areas that cannot be effectively avoided. Where this occurs, loss from the Proposed Project would be a significant impact. BR-113 below is specifically provided to address this contingency. Since it is unknown what plants, if any, would be found prior to surveys, consultation with appropriate regulatory agencies and specialists in conservation of the identified species will identify potential for appropriate salvage and relocation of soil or seeds, or purchase of mitigation credits or offsite property.

With the implementation of specific mitigation measures, the impacts to special-status plants would be reduced to below the level of significance.

Mitigation Measures

BR-1, BR-2, BR-3, BR-4, BR-5, and BR-7 will be implemented.

BR-14 Mitigation to reduce unavoidable impacts to special-status plants identified during the preconstruction surveys shall be coordinated with and approved by USFWS and CDFW and could include one or more of the following:

- Salvaging of topsoil to store the seedbank for later spreading of the soil at a suitable location offsite or onsite
- Relocation of the plant(s) to a suitable location offsite by a qualified botanist
- Purchase of mitigation credits or offsite property with known populations of the affected species for inclusion in permanent open space areas or a conservation easement

8.6.3.5 Potential Impacts to Special-Status Wildlife Species

The Proposed Project would result in the loss of habitat for several special-status wildlife species expected to occur at CCL. For those species not observed but expected to occur at CCL, potential impacts were evaluated based on the habitat for which the species is expected to occupy.

For aquatic species (fish and amphibians), downstream effects to the aquatic habitats, primarily through potential impairment of water quality in Castaic Creek and Santa Clara River, are evaluated.

A number of species that may occur in the general vicinity of CCL are unlikely to occur within the area of potential effects for the landfill, either on or near CCL or along areas of potential downstream effects. These species are listed in Table 8-3 as unlikely to occur within the area of potential effects. No impact is anticipated to these species from the Proposed Project, and they are not addressed further.

8.6.3.6 Potential Impacts to Downstream Water Quality

Potential Impacts

The Santa Clara River downstream of the Proposed Project has, as stated, Beneficial Uses, warm freshwater habitat (WARM), wildlife habitat (WILD), rare/threatened/endangered species (RARE), and wetland habitat (WET). Special-status fish species that occur downstream of CCL include arroyo chub, Santa Ana sucker, southern steelhead trout, and unarmored threespine stickleback; all are known to occur in portions of the Santa Clara River or Castaic Creek. Additional special-status amphibians may occur downstream including California red-legged frog, coast range newt, southwestern arroyo toad, and western spadefoot. Aquatic reptiles are also documented to occur downstream, including southwestern pond turtle and two-striped garter snake.

Erosion and Sedimentation. Chapter 6.0 addressed surface water impacts for the Proposed Project. As described in Chapter 6.0, the precipitation drainage and control system for the Proposed Project will be designed and constructed to carry the peak discharge resulting from the 100-year 24-hour storm event as required by Title 27, and the stormwater runoff volume resulting from the Capital Flood event (50-year, 24-hour storm) as required by LACDPW. Because CCL has stormwater retention/detention basins to control sedimentation and runoff, the Proposed Project would not result in direct impacts to riparian habitats or streambanks of downstream watercourses.

Urban Runoff. Permanent indirect impacts from increased urban runoff into the drainage system occur when there is an increase in impervious surface as a result of landfill buildout (infrastructure areas), including contribution of pollutants, which may include petroleum and chemical products from equipment or vehicles, and other hazardous substances. The stormwater retention/detention basins at CCL serve to prevent runoff from the site except during extreme weather events. Current runoff from the landfill and surrounding areas into the onsite stormwater retention/detention basins is primarily limited to sediment and oil and grease from equipment or vehicles. Common urban runoff constituents such as pesticides, herbicides, dust suppressants, and fertilizers are not typically used at CCL.

Chapter 6.0 addressed surface water impacts for the Proposed Project. As described in Chapter 6.0, the precipitation drainage and control system for the Proposed Project will be designed and constructed to carry the peak discharge resulting from the 100-year 24-hour storm event as required by Title 27, and the stormwater runoff volume resulting from the Capital Flood event (50-year, 24-hour storm) as required by LADPW.

Chapter 7.0 addressed Water Quality impacts for the Proposed Project, including impacts to downstream receiving waters. Chapter 7.0 concluded that implementation of all required water quality monitoring and response programs at CCL would ensure that the Proposed Project would not result in significant impacts to downstream water quality, including those associated with urban runoff.

Mitigation Measures

Although no offsite impacts associated with erosion and sedimentation or urban runoff anticipated, previously proposed mitigation measures **BR-7, BR-9, BR-10, BR-11, and BR-12** shall be implemented.

8.6.3.7 Potential Impacts to Special-Status Amphibians

Potential Impacts

California Red-Legged Frog. CCL does not support suitable breeding habitat for the California red-legged frog, which requires riparian areas with ponds or slow-moving waters with dense emergent vegetation. In addition, underground culverts that separate the landfill from the nearest adjacent habitat at Castaic Creek would generally preclude movement or dispersal of red-legged frogs onto the site. Therefore, no direct impacts from the Proposed Project to the red-legged frog are anticipated. Critical habitat is designated to the northeast of the landfill, but the Proposed Project would not impact the critical habitat. Potential for downstream changes in water quality that could affect red-legged frog are addressed in Chapters 6.0 and 7.0 of this Draft Environmental Impact Report (DEIR).

Arroyo Toad. CCL does not support seasonally ponded waters sufficient to last a minimum of 60 to 90 days, which would be required to support breeding populations of arroyo toad. The nearest breeding habitat for the arroyo toad is along Castaic Creek and the Santa Clara River downstream of CCL. Surface flows were channelized into underground culverts during the construction of the United States Postal Service facility southeast of the landfill. This channelization poses a daunting physical constraint for any movement onto CCL. In addition, there are no records of occurrence for arroyo toad within Castaic Creek adjacent to CCL. Records do occur farther upstream on Castaic Creek, or nearby on the Santa Clara River. Given these conditions, the species is presumed absent from CCL, and no direct impacts to arroyo toad are anticipated.

Designated critical habitat for this species occurs along Castaic Creek down to its confluence with Santa Clara River. However, the Proposed Project would not impact critical habitat. Potential for downstream changes in water quality that could affect arroyo toad are addressed in Chapters 6.0 and 7.0 of this DEIR.

Coast Range Newt. No aquatic habitat or seasonal pools are present at CCL that would support coast range newt; as such, there would be no impact to this species from the Proposed Project. The east canyon and detention basin at CCL may hold water long enough to support breeding amphibians; however, the east canyon and detention basin at CCL are not considered suitable for coast range newt due to the lack of vegetation. Therefore this species has a low probability to occur at CCL, but may occur downstream along the Santa Clara River.

Potential for downstream changes in water quality that could affect this species are addressed in Chapters 6.0 and 7.0 of this DEIR. Chapter 6.0 concluded that the drainage and control system at CCL will prevent substantial erosion of surface runoff and offsite drainages will not be altered. Chapter 7.0 concluded that implementation of all required water quality monitoring and response programs at CCL would ensure that the Proposed Project would not result in significant impacts to downstream water quality.

Western Spadefoot. Potential aquatic habitat/seasonal pools are present at CCL that could support western spadefoot. The east canyon and detention basin at CCL may hold water long enough to support breeding amphibians. Therefore this species has a moderate potential to occur at CCL.

Potential for downstream changes in water quality that could affect these species are addressed in Chapters 6.0 and 7.0 of this DEIR. Chapter 6 concluded that the drainage and control system at CCL will prevent substantial erosion of surface runoff and offsite drainages will not be altered. Chapter 7.0 concluded that implementation of all required water quality monitoring and response programs at CCL would ensure that the Proposed Project would not result in significant impacts to downstream water quality.

Mitigation Measures

BR-7, BR-8, BR-9, BR-10, BR-11, and BR-12 shall be implemented.

8.6.3.8 Potential Impacts to Special-Status Reptile Species

Potential Impacts

The following special-status reptiles have the potential to occur in the vicinity of CCL: coastal western whiptail, San Diego horned lizard, California legless lizard, southwestern pond turtle, and two-striped garter snake.

Southwestern Pond Turtle, Two-Striped Garter Snake. The southwestern pond turtle and two-striped garter snake have no suitable aquatic habitat onsite; therefore, no impacts to these species would occur and no mitigation measures are necessary. Potential for downstream changes in water quality that could affect these species are addressed in Chapters 6.0 and 7.0 of this DEIR.

Coastal Western Whiptail, California Legless Lizard. At CCL, special-status lizard species likely to be associated with the grassland, coastal scrub, and chaparral habitats include coastal western whiptail and California legless lizard. Direct, permanent loss of this habitat would occur from grading and filling activities. Heavy vehicle traffic and other associated construction impacts could also result in direct mortality or injury of the species. These impacts are considered to be adverse but less than significant, because these populations occur in other areas of their geographic range, and impacts from the Proposed Project are not likely to substantially lower the

regional populations of these species below a viable level. In addition, given the relatively small acreage of impacts and availability of alternate large areas of such habitat, locally and regionally, potential impacts to these habitats are also considered less than significant.

San Diego Horned Lizard. This species may be associated with dry wash, coastal scrub, or chaparral habitats at CCL, although focused surveys did not identify individuals or sign of this species. However, extensive harvester ant mounds are present that provide good forage for this species. Direct, permanent loss of habitat for this species would occur from grading and filling activities. Heavy vehicle traffic and other associated construction impacts could also result in direct mortality or injury of the species. These impacts are considered to be adverse but less than significant, because these populations occur in other areas of their geographic range, and impacts from the Proposed Project are not likely to substantially lower the regional populations of this species below a viable level. In addition, given the relatively small acreage of impacts and availability of alternate large areas of such habitat, locally and regionally, potential impacts to these habitats are considered less than significant.

Mitigation Measures

BR-1, BR-2, BR-3, BR-4, and **BR-7** shall be implemented.

8.6.3.9 Potential Impacts to Federal- and State-Listed Bird Species

Potential Impacts

California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, and California condor are all federal- and state-listed species with potential to occur in the general vicinity of CCL.

Coastal California Gnatcatcher. Marginal, potential nesting habitat for this species occurs in the form of Riversidean coastal sage scrub, and where adjacent to sage scrub, southern mixed chaparral habitat. There are no known records of observance documented within 5 miles of CCL. If gnatcatcher are present at CCL, the loss of occupied habitat, individuals, or nests of this species would represent a significant adverse impact. Designated critical habitat for gnatcatcher occurs over 5 miles south and southeast of CCL; however, no impacts to designated critical habitat would occur from the Proposed Project.

Least Bell's Vireo, Southwestern Willow Flycatcher. CCL does not support lowland riparian habitats that are suitable nesting and breeding habitat for these species. Individual least Bell's vireo sightings have been documented in the Santa Clara River between I-5 and its confluence with Castaic Creek near CCL. Critical habitat for this species exists less than a mile southeast of CCL. Southwestern willow flycatcher was also detected along the Santa Clara River in 1995. However, no physical impacts to downstream riparian habitat would occur from the Proposed Project. Indirect impacts from changes in water quality could adversely affect the habitat and forage of these birds. Chapter 6.0 concluded that the drainage and control system at CCL will prevent substantial erosion of surface runoff. Chapter 7.0 concluded that implementation of all required water quality monitoring and response programs at CCL would ensure that the Proposed Project would not result in significant impacts to downstream water quality. Additionally, previously proposed mitigation measures for biological resources will reduce the potential for downstream water quality changes. With implementation of required water quality monitoring and response programs and biological resources mitigation measures, the impacts to downstream water quality are anticipated to be less than significant. This would include less-than-significant impacts on Beneficial Uses, including the fish, wildlife, and wetland habitat uses. With mitigation, no impacts to least Bell's vireo or southwestern willow flycatcher are anticipated.

California Condor. CCL does not support nesting habitat but does support potential forage habitat for this wide-ranging species. The Proposed Project may render the site unsuitable for condor foraging due to construction and/or operation activities; in general, condors are expected to avoid the area due to current operational activities. Given the large extent of foraging habitat in the region and the wide-ranging nature of the species, the loss of this area as potential forage would not represent a significant impact.

Mitigation Measures

BR-1, BR-2, BR-3, BR-4, BR-7, and BR-12 shall be implemented.

Mitigation for potential impacts to the federally listed California gnatcatcher includes the following:

BR-15 USFWS protocol-level surveys shall be conducted for all California gnatcatcher habitat well in advance of any ground-disturbing activities. If surveys are negative, the species shall be presumed absent, and no further impacts shall be anticipated or mitigation measures required.

BR-16 If the surveys are positive (i.e., California gnatcatcher is present), then discussions shall be initiated with USFWS on appropriate measures to avoid, minimize, or mitigate take of this species. These are likely to include:

- Construction activities in the vicinity of active gnatcatcher nests shall be prohibited within a specified distance of nests (usually 500 feet) until after the young have fledged and the nesting is complete.
- Clearing of occupied habitat shall be avoided if possible or practicable. If it is not practicable, clearing shall be prohibited during the nesting season (February to August).

8.6.3.10 Potential Impacts to Nesting Bird Species of Special Concern

Potential Impacts

Yellow-breasted chat, California yellow warbler, loggerhead shrike, tricolored blackbird, California horned lark, golden eagle, white-tailed kite, prairie falcon, Cooper's hawk, northern harrier, burrowing owl, and short-eared owl are federal Species of Concern or state Species of Special Concern known to breed in the vicinity of CCL. Of these, only loggerhead shrike, California horned lark, short-eared owl, and burrowing owl have the potential to nest directly on the landfill, and only yellow-breasted chat, tricolor blackbird and California yellow warbler might nest in downstream riparian habitats.

Yellow-Breasted Chat, California Yellow Warbler, Tricolored Blackbird. Suitable breeding habitat for yellow-breasted chat, which requires dense riparian thickets of willows and other brushy tangles near watercourses, and California yellow warbler, which prefers similar riparian areas, is present a considerable distance downstream of CCL along the Santa Clara River. Suitable habitat for tricolored blackbird, which includes emergent wetlands, is also present further downstream of CCL along the Santa Clara River. No physical impacts to downstream riparian habitat would occur from the Proposed Project. Indirect impacts from changes in water quality have been evaluated to determine if there is a potential for an adverse effect on the habitat and forage of these birds. Chapter 6.0 concluded that the drainage and control system at CCL will prevent substantial erosion of surface runoff. Chapter 7.0 concluded that implementation of all required water quality monitoring and response programs at CCL would ensure that the Proposed Project would not result in significant impacts to downstream water quality. Additionally, previously proposed mitigation measures for biological resources will reduce the potential for downstream water quality changes. With implementation of required water quality monitoring and response programs and biological resources mitigation measures, the impacts to downstream water quality are anticipated to be less than significant. This would include less-than-significant impacts on Beneficial Uses, including the fish, wildlife, and wetland habitat uses. With mitigation, no impacts to yellow-breasted chat, California yellow warbler, or tricolored blackbird are anticipated. Lighting impacts to nearby riparian areas from night lighting at CCL would be avoided through the use of directional shading, as specified in mitigation measures described in this section.

California Horned Lark, Loggerhead Shrike, Short-eared Owl. The dry, open grassland areas at CCL provide a suitable foraging and breeding habitat for the California horned lark, short-eared owl, and loggerhead shrike. These species may occur throughout their range in Southern California. Potential for these species to occur and breed at CCL is moderate to high. Construction activities involving grading and filling of the annual grasslands and the mixed grassland/shrub habitats would result in direct permanent loss of nesting and foraging habitat. Although extensive habitat for these species is present in the region, California horned lark

and loggerhead shrike are much diminished in their coastal populations and short-eared owl has become rare everywhere. Any removal of inhabited area could affect these species adversely. Therefore, the impacts from loss of habitat for these species are considered to be significant, and mitigation is required. Direct loss of nesting individuals of these species may also occur during construction activities. Mitigation measures to avoid impacts to nesting birds would be implemented, as described in this section.

Burrowing Owl. Grassland habitat at CCL provides limited potential breeding and foraging habitat for this species. The burrowing owl is known from the Sterling Gateway property just north of the Project site, and mitigation land sufficient for the owls observed there, both natural and fuel modified, was provided for the species by Sterling Gateway. The species was not observed during field surveys on the Project site. If the species is present, the Proposed Project would result in loss of burrowing owl habitat. This impact, although adverse, would not be significant, because the landfill represents marginal habitat and higher quality habitat is present elsewhere in the area. To avoid direct impacts to nesting birds, avoidance and mitigation measures described in this section would be implemented. With these measures, no significant impacts to burrowing owl would be anticipated.

Mitigation Measures

BR1, BR-2, BR-3, BR-4, BR-7, and BR-12 shall be implemented.

- BR-17** Although no nighttime construction is anticipated, lighting for construction activities conducted during early morning or early evening hours shall be minimized to the extent possible through the use of directional shading to minimize impacts to nocturnal or crepuscular wildlife.
- BR-18** In habitats where nesting birds might occur, vegetation removal shall be avoided when feasible during the nesting season (December through August); winter months are included because this area has potential for owls and hummingbirds, which may breed during this period. Where this is not feasible, preconstruction surveys for nesting pairs, nests, and eggs shall occur in areas proposed for vegetation removal, and active nesting areas flagged. The biological monitor shall assign a buffer around active nesting areas (typically 300 feet for songbirds, 500 feet for raptors). Construction activities shall be prohibited within the buffer until the nesting pair and young have vacated the nests, unless it can be demonstrated through biological monitoring that the construction activity is not hindering the nesting effort. Alternatively, if unused nests are identified in the disturbance area during preconstruction surveys, nests may be destroyed or excluded prior to active nesting.
- BR-19** Finished/closed landfill areas at CCL shall be revegetated to offset permanent impacts to grassland foraging and breeding habitat. Native grass species and native forbs shall be used under the direction of specialists in restoration plantings, in accordance with the Preliminary Closure and Postclosure Maintenance Plan for Chiquita Canyon Landfill. This Plan will be updated to specify that revegetation plan development and implementation will be conducted by an ecological restoration specialist familiar with restoration of native Southern California plant communities, that revegetation will be done with locally native plants, and that revegetation will not include plant species on the County's list of invasive species nor invasive species on the lists of the California Invasive Plant Council (CalIPC) nor invasive species listed by California Native Plant Society. The Revegetation Plan identified in MM BR-1 may replace this plan at the discretion of LADRP.

8.6.3.11 Potential Impacts to Foraging or Transient Bird Species of Special Concern (Passerines)

Potential Impacts

Tricolored Blackbird. This species was detected in the immediate vicinity of CCL during the 2002 field surveys. However, there is no suitable nesting habitat that consists of dense marsh vegetation with bulrush and cattails onsite; therefore, there is no potential for this species to nest onsite. Annual grasslands provide limited foraging habitat for this species; although in general, it prefers agricultural areas or landfills. The loss of marginal forage habitat for this species is not expected to represent a significant impact; however, the impact is generally not known because the local population size is unknown.

California Yellow Warbler. Breeding habitat is not present on CCL for this species. Transient birds may occur in chaparral or mule fat habitats onsite. The loss of this habitat for migrating individuals of this species would not represent a significant impact as other mulefat habitat exists in the region.

Mitigation Measures

BR-1, BR-2, BR-3, BR-4, BR-7, and BR-12 shall be implemented.

8.6.3.12 Potential Impacts to Foraging or Transient Bird Species of Special Concern (Raptors)

Potential Impacts

Golden Eagle, White-Tailed Kite, Prairie Falcon. Golden eagle, white-tailed kite, and prairie falcon occur in the region and have the potential to forage over grasslands and open country at CCL. Loss of grassland forage sites for these species has been occurring throughout Los Angeles County (Harris, pers. comm., 2002), and the species may be regionally declining for this reason. With the Proposed Project, an additional approximately 125 acres of grassland habitat would be lost. The acreage of impacts by vegetation community type includes Mixed Riversidean Sage Scrub/Non-Native Grassland (34.9 acres), Non-Native Grassland (47.6 acres), and Non-Native Grassland with Scattered Shrubs (42.8 acres).

The loss of this additional grassland raptor foraging habitat would represent a significant adverse impact to these species. Mitigation is described below. With mitigation, the impact would be less than significant.

Cooper's Hawk. This species was observed foraging onsite in chaparral habitats during field surveys in 2002. The species' preferred forage habitat is open woodlands, riparian woodlands, and occasionally chaparral. Since there are abundant riparian and chaparral habitats in the region, the loss of this foraging habitat would not represent a significant adverse impact.

Mitigation Measures

BR-1, BR-2, BR-3, BR-4, BR-7, BR-12, and BR-19 shall be implemented.

8.6.3.13 Potential Impact to Special-Status Mammals (Excluding Bats)

Potential Impacts

San Diego Black-Tailed Jackrabbit. This species has a high potential for occurrence in upland areas at CCL. Grading and filling activities from the Proposed Project would result in direct, permanent loss of habitat. Some direct mortality of these species may also occur during construction. Despite substantial acreage of appropriate habitat, the jackrabbit is very diminished as a coastal population. The subspecies could drop below self-sustaining levels. Implementation of mitigation to include landfill revegetation would reduce potential adverse effects to less than significant.

San Diego Desert Woodrat. CCL provides a moderate potential for occurrence of this species in chaparral and other scrub habitats. Grading and filling activities from the Proposed Project would result in direct, permanent loss of habitat. Some direct mortality of these species also might occur during construction. The loss of these communities would represent adverse but less-than-significant impacts to the species, given that substantial

acreage of such habitats occur regionally. The impacts would not be expected to reduce local populations below self-sustaining numbers.

Mitigation Measures

BR-1, BR-2, BR-3, BR-4, BR-7, BR-12, and BR-19 shall be implemented.

8.6.3.14 Potential Impact to Special-Status Mammals (Bats)

Potential Impacts

Long-Eared Myotis, Long-Legged Myotis, Yuma Myotis. These federal Species of Concern forage over scrub, chaparral, water, and other open habitats, and may roost in crevices or small caves on rocky cliffs or outcrops. As such, suitable habitat is present at CCL for both roosting and foraging, and the species are likely to occur. Roost sites near the Santa Clara River would potentially be preferred by females and their young because of the proximity to the foraging areas surrounding the river. Proximity to a foraging area like Santa Clara River conserves energy needed for transit and for foraging and can contribute to the probability of a good reproductive outcome and migration outcome. Many bats are migratory and are present in the area seasonally. A number of them only occur in areas with open water resources. The crevice habitat at CCL is potentially suitable for bat roosting, and the impact of filling these roost sites may not be clear, because no quantitative bat studies or surveys to species have been performed. The Proposed Project would result in the loss of potential forage habitat and may cause direct or indirect impacts to roost sites. Direct impacts would result from destruction or filling of roost sites, while indirect impacts may result from roost disturbance or abandonment from construction or operation activities. The loss of foraging habitat would not be considered a significant impact because abundant similar forage habitat occurs in the region. In addition, because abundant sandstone outcrops occur in the mountains and ridges of this region, roost sites for bats that use small crevices and caves would not be considered limiting. As such, the loss or abandonment of roost locations is not anticipated to represent a significant impact.

California Leaf-Nosed Bat, Pallid Bat, Western Mastiff Bat, Big Free-Tailed Bat, Cave Myotis, Mexican Long-Tongued Bat, Pocketed Free-Tailed Bat, Spotted Bat, Townsend's Western Big-Eared Bat. These California Species of Special Concern forage over desert, scrub, chaparral, and other open habitats, and may roost in caves, crevices on low to high cliffs, buildings, or in rocky outcrops. As such, habitat is present at CCL for both roosting and foraging, and the species are likely to occur. Roost sites near the Santa Clara River would potentially be preferred by females and their young because of the proximity to the foraging areas surrounding the river. Proximity to a foraging area like Santa Clara River conserves energy needed for transit and for foraging and can contribute to the probability of a good reproductive outcome and migration outcome. Many bats are migratory and are present in the area seasonally. A number of them only occur in areas with open water resources. The crevice habitat at CCL is potentially suitable for bat roosting, and the impact of filling these roost sites may not be clear. The Proposed Project would result in the loss of forage habitat and may cause direct or indirect impacts to roost sites. Direct impacts would result from destruction or filling of roost sites, while indirect impacts may result from roost disturbance or abandonment from construction or operation activities. The loss of foraging habitat would not be considered a significant impact, because abundant similar forage habitat occurs in the region. In addition, because abundant sandstone outcrops occur in the mountains and ridges of this region, roost sites for bats that utilize small crevices and caves would not be considered limiting. As such, the loss or abandonment of small cave or crevice roost locations would not represent a significant impact. These species may also utilize larger roost sites, which are less common but do occur in the region. However, no larger cave roosts were observed at CCL.

Mitigation Measures

BR-2, BR-3, BR-4, BR-7, BR-12, and BR-18 shall be implemented.

BR-20 In habitats where roosting bats may occur, ground disturbance and roost destruction shall be avoided during the parturition period (generally March through August). Where this is not feasible, exit surveys and/or roost surveys of potential roost sites shall occur to identify active roosts. Construction activity

within 300 feet of active roosts shall be prohibited until the completion of parturition (end of August); unless it can be demonstrated through biological monitoring that the construction activity is not affecting the active roost. Alternatively, if potential roosts are identified prior to onset of parturition, with concurrence from CDFW, roosts may be excluded during the evening forage period (within 4 hours after dark) or fitted with one-way exit doors to effectively eliminate and exclude roost.

8.6.3.15 Potential Impact to Special-Status Fish

Potential Impacts

Arroyo Chub, Santa Ana Sucker. No aquatic habitat is present on CCL that would support the arroyo chub or Santa Ana sucker; as such, there would be no physical impact to these species from the Proposed Project. Potential for downstream changes in water quality that could affect these species are addressed in Chapters 6.0 and 7.0 of this DEIR.

Southern Steelhead Trout. No aquatic habitat is present on CCL that would support the southern steelhead trout; as such, there would be no impact to this species from the Proposed Project. Critical habitat is designated to the west of the landfill, but the Proposed Project would not impact the critical habitat. Potential for downstream changes in water quality that could affect these species are addressed in Chapters 6.0 and 7.0 of this DEIR.

Unarmored Threespine Stickleback. No aquatic habitat is present on CCL that would support the unarmored threespine stickleback; as such, there would be no physical impact to this species from the Proposed Project. The unarmored threespine stickleback is known to be a year-round resident of the Santa Clara River from the confluence of the Santa Clara River and Castaic Creek to I-5. It occurs in the area downstream of the Castaic confluence as far as the Ventura Border during the rainy season and was encountered broadly in the area during surveys for the Newhall Ranch development in the adjacent parts of the River. This area is a part of its essential habitat. The original SEA #23 was developed along the Santa Clara River by the County of Los Angeles in part to protect unarmored threespine sticklebacks. Potential for downstream changes in water quality that could affect these species are addressed in Chapters 6.0 and 7.0 of this DEIR. Chapter 6.0 concluded that the drainage and control system at CCL will prevent substantial erosion from surface runoff. Chapter 7.0 concluded that implementation of all required water quality monitoring and response programs at CCL would ensure that the Proposed Project would not result in significant impacts to downstream water quality. Additionally, previously proposed mitigation measures for biological resources will reduce the potential for downstream water quality changes. With implementation of required water quality monitoring and response programs and biological resources mitigation measures, the impacts to downstream water quality are anticipated to be less than significant.

Mitigation Measures

BR-7, BR-9, BR-10, BR-11, and BR-12 shall be implemented.

8.6.3.16 Potential Impact to Wildlife Movement Corridors

Potential Impacts

Some local wildlife movement may occur along ridgelines or valleys within the general vicinity of CCL. Two major wildlife corridors are known in the general vicinity of CCL, the Santa Clara River and the Santa Monica-Sierra Madre Connection as identified in the Missing Linkages Report (South Coast Wildlands, 2008), and CCL could contribute slightly to movement along both these pathways. Impacts to the Santa Clara River corridor, which may include water quality effects, would be reduced to less than significant impacts through implementation of all required water quality monitoring and response programs and proposed mitigation measures. Because CCL does not lie directly within the identified Santa Monica-Sierra Madre Connection, but is to the east of this linkage, it is unknown how much the site contributes to wildlife movement within this corridor. Many of the steeper ridgelines will be generally left undisturbed by the Proposed Project, and the existing landfill may currently constrain wildlife movement through the heart of the CCL site. Alternatively, some wildlife may move through the site at night. To address the potential for impacts to wildlife corridors,

mitigation measures associated with water quality, night lighting, and site revegetation would be implemented. Native wildlife nursery sites were addressed under Section 8.6.3.9 for California horned lark and loggerhead shrike and Section 8.6.3.13 for bats.

Mitigation Measures

Although impacts to wildlife movement corridors are not anticipated, previously proposed mitigation measures **BR-1, BR-7, BR-8, BR-9, BR-10, BR-11, BR-17, and BR-19** shall be implemented.

8.6.3.17 Potential Impacts Under Local Policies or Ordinances

Potential Impacts to SEAs

Local policies or ordinances protecting biological resources will be complied with including SEAs designated by the County of Los Angeles. The nearest SEA in the vicinity is along the Santa Clara River, approximately 0.3 mile south of CCL. Potential impacts to biological resources or water quality in the Santa Clara River ecosystem have been addressed above, and are anticipated to be less than significant with mitigation measures.

Mitigation Measures

BR-3, BR-8, BR-9, BR-10, BR-11, and BR-12 shall be implemented.

Potential Impacts to Protected Oak Trees

The Oak Tree Report (SB Horticulture, 2014) identified a total of three coast live oaks and one valley oak that qualify for protection under the Los Angeles County Oak Tree Ordinance (see Figure 8-5). One former heritage coast live oak was identified as deceased. The Project has generally avoided impacts to protected trees, but would require the removal of four protected oak trees because of their location in the landfill development area. An oak tree permit would be acquired for removal of the qualifying oaks and all permit terms and conditions would be complied with.

Mitigation Measures

BR-21 For unavoidable impacts to qualifying oak trees, an oak tree permit application would be submitted to the LADRP. All permit terms and conditions would be complied with from the final permit issuance. A mitigation area and plan for oak mitigation will be submitted to LADRP and approved before award of any grading permit for the Project. The site will be assessed for oak woodlands according to the County Oak Woodland Conservation and Management Plan, and a mitigation plan for oak woodland impacts will be submitted for review and approval by LADRP. As appropriate, potential impacts to oak woodlands will be mitigated by planting understory plants in the same area identified onsite for mitigation oaks pursuant to the Oak Tree Permit for the Project.

8.6.3.18 Potential Impacts Through Conflicts with Habitat Conservation Plans or Other Conservation Plans

Potential Impacts

No federal HCPs or state Natural Community Conservation Plans would be affected by the Proposed Project. Other approved local, regional, or state HCPs in the vicinity of CCL were identified in the SCREMP, which addresses management of the Santa Clara River. The Santa Clara River is approximately 0.3 mile south of CCL. Potential impacts to biological resources or water quality in the Santa Clara River ecosystem have been addressed above, and are anticipated to be less than significant with mitigation measures.

Mitigation Measures

BR-3, BR-8, BR-9, BR-10, and BR-11 shall be implemented.

8.7 Mitigation Measures

The mitigation measures described below are the same as those described above for specific potential impacts; they are provided here for ease of reviewing.

- BR-1** A Revegetation Plan for the Project will be developed in consultation with LADRP. In order to replicate and potentially expand the available amount of Southern Mixed Chaparral vegetation community at the site, the Revegetation Plan will include a final soil cover of approximately 5 feet, or alternatively a depth approved by regulatory agencies and suitable to allow for proper root growth. If the cover is deemed infeasible by capacity constraints or other conditions, offsite mitigation land will be purchased to offset the loss of approximately 14.4 acres of Southern Mixed Chaparral vegetation community. The acreage acquired will, if feasible, be generally local to the site or the general site area, ideally situated adjacent to or in the general proximity of the Santa Clara River, Hasley Canyon, or Angeles National Forest, and will connect with other protected open space.
- BR-2** Preconstruction surveys by qualified biologists shall be conducted for special-status species in impact areas prior to ground-disturbing activities, and if necessary and feasible, resource relocation or exclusion shall be implemented. Resource relocation shall be conducted by qualified biologists in coordination with CDFW or USFWS. Exclusion zones shall be implemented with fencing and/or signage that restricts access.
- For rare plants, this shall include focused surveys by a qualified botanist conducted during the appropriate season for detection (generally during flowering period) the first season prior to ground-disturbing activities over the entire disturbance area proposed for the Project, and then again over the entire area remaining to be disturbed for each phase (cell) of landfill development. If suitable transplant areas for rare plants exist at CCL, surveys will also include potential areas for relocation onsite in order to provide background data for determining transplant success. If no suitable relocation areas exist at CCL, potential mitigation areas in conserved areas within the local watersheds will be identified and surveyed at the same time in order to have background data. Surveys shall follow standard survey protocol for rare plants outlined in Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants (USFWS, 2000a).
 - If special-status plants are found at CCL, they shall be avoided, when feasible. To avoid impacts to special-status plants, protective measures, such as the installation of an orange plastic fencing surrounding plant or plant population and the restriction of construction activity within these protected areas shall be implemented.
 - If a sensitive plant (including species of CNPS RPR 1-4) is detected during rare plant surveys in an area identified for disturbance, consultation with CDFW will be initiated and will result in preparation of a rare plant report for review by CDFW and LADRP. Mitigation by transplantation will take place before any clearing or grading of the sensitive plant occurs. CDFW will approve the transplantation program, including methods, monitoring, reporting, success criteria, adaptive management, and contingencies.
- BR-3** Construction and construction monitoring for animals will occur at discrete time periods. Construction monitoring shall be conducted in areas containing native vegetation at the time of construction activity within the limit of active construction disturbance. Within areas containing native vegetation, ground-disturbing activities shall be prohibited until the area is cleared by a qualified biological monitor during a preconstruction survey up to seven days prior to the beginning of cell construction activities. Biological monitors shall also monitor construction activities within 100 feet of avoided CDFW and USACE jurisdictional drainages.



LEGEND

Limit of Disturbance

Project Boundary

Qualifying Oak Tree Location

● Coast Live Oak (*Quercus agrifolia*)*

● Valley Oak (*Quercus lobata*)*

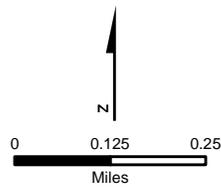


FIGURE 8-5
Qualifying Oak Trees
*Chiquita Canyon Landfill
Master Plan Revision*

* Tree trunk circumference is 25 inches or greater

- BR-4** The construction area boundaries shall be delineated clearly. No construction activities, vehicular access, equipment storage, stockpiling, or significant human intrusion shall occur outside of the designated construction area. In addition, CCL ingress and egress routes shall be marked, and vehicle traffic outside these routes shall be prohibited. Vehicular traffic shall adhere to a speed limit of 15 miles per hour on non-public access roads during construction to ensure avoidance of impacts to sensitive biological resources.
- BR-5** Soil or invasive plant seed transfer from clothing, shoes, or equipment shall be minimized through cleaning and monitoring of personnel or equipment transfers between sites, or prior to initial entry at CCL. Contract requirements to ensure vehicles are pressure washed and/or clean and free of soil or invasive weed seeds and other plant parts prior to entering the site will be implemented. Contracts will specify that pressure-washing of construction vehicles is to take place immediately before bringing the vehicle to CCL. The contractor will provide written documentation that the vehicles have been pressure washed or otherwise free of plant material that is checked by both CCL management and the biological monitor, who will jointly assure that this mitigation is implemented. The biological monitoring report will include a record of compliance with this measure.
- Within 1 year of Project approval, invasive tamarisk (*Tamarix* spp.) located onsite will be identified and removed completely. Removed tamarisk will be disposed of in a landfill.
- BR-6** Only vehicles that meet fire safety requirements shall be allowed on the construction sites. Camping, trash-burning fires, and warming fires shall be prohibited in the construction area.
- BR-7** A mitigation monitoring plan that outlines how mitigation measures specified herein shall be implemented and monitored shall be prepared and approved by LADRP prior to award of any grading permit. The Plan will address mitigation for special-status plants, including management of salvaged topsoil, relocation of offsite property that could serve as permanent open space areas or a conservation easement. The Plan shall include methods, monitoring, reporting, success criteria, adaptive management, and contingencies.
- BR-8** For potential impacts to jurisdictional waters, permits shall be obtained for the Proposed Project from USACE (Section 404, CWA) and CDFW (SAA, Section 1603); conditions of these permits would be complied with for the Proposed Project. The terms and conditions of these permits are anticipated to require mitigation consistent with “Compensatory Mitigation for Losses of Aquatic Resources; Final Rule” (USACE, EPA, Federal Register, April 10, 2008), and with CDFW requirements for SAAs. A mitigation plan may be required prior to permit issuance.
- BR-9** Stationary equipment such as motors, pumps, generators, and welders shall be located a minimum of 50 feet outside CDFW and USACE jurisdictional drainages where impacts have not been permitted. Construction staging areas, stockpiling, and equipment storage shall be located a minimum of 50 feet outside non-permitted CDFW and USACE jurisdictional drainages.
- BR-10** Construction vehicles and equipment shall be checked periodically to ensure they are in proper working condition and that there shall be no potential for leaks. Refueling or lubrication of vehicles and cleaning of equipment, or other activities that involve open use of fuels, lubricants, or solvents, shall occur at least 100 feet away from CDFW and USACE jurisdictional drainages where impacts have not been permitted, and at least 50 feet from other flagged, sensitive biological resources.
- BR-11** Best management practices will be implemented during construction to prevent sediment from entering into non-permitted jurisdictional drainages. Existing sedimentation basins prevent sediment-laden water from draining offsite.
- BR-12** Only agency-approved pesticides, herbicides, fertilizers, dust suppressants, or other potentially harmful materials shall be applied at CCL, in accordance with relevant state and federal regulations. Rodenticides will not be used. Instead, methods that do not persist and infiltrate the natural food chain will be used for pest elimination such as trapping, gassing, etc. Sediment basins are present along all

drainages at CCL, which capture runoff prior to discharging offsite. Sediment basins will continue to be regularly maintained.

- BR-13** Construction sites and landfill operation shall be kept free of trash and litter. Food-related trash and litter shall be placed in closed containers and disposed of daily. Nuisance wildlife breeding will be discouraged at CCL by excluding cavities in buildings and/or equipment or facilities left idle for more than 6 months.
- BR-14** Mitigation to reduce unavoidable impacts to special-status plants identified during the preconstruction surveys shall be coordinated with and approved by USFWS and CDFW and could include one or more of the following:
- Salvaging of topsoil to store the seedbank for later spreading of the soil at a suitable location offsite or onsite
 - Relocation of the plant(s) to a suitable location offsite by a qualified botanist
 - Purchase of mitigation credits or offsite property with known populations of the affected species for inclusion in permanent open space areas or a conservation easement
- BR-15** USFWS protocol-level surveys shall be conducted for all California gnatcatcher habitat well in advance of any ground-disturbing activities. If surveys are negative, the species shall be presumed absent, and no further impacts shall be anticipated or mitigation measures required.
- BR-16** If the surveys are positive (i.e., California gnatcatcher is present), then discussions shall be initiated with USFWS on appropriate measures to avoid, minimize, or mitigate take of this species. These are likely to include:
- Construction activities in the vicinity of active gnatcatcher nests shall be prohibited within a specified distance of nests (usually 500 feet) until after the young have fledged and the nesting is complete.
 - Clearing of occupied habitat shall be avoided if possible or practicable. If it is not practicable, clearing shall be prohibited during the nesting season (February to August).
- BR-17** Although no nighttime construction is anticipated, lighting for construction activities conducted during early morning or early evening hours shall be minimized to the extent possible through the use of directional shading to minimize impacts to nocturnal or crepuscular wildlife.
- BR-18** In habitats where nesting birds might occur, vegetation removal shall be avoided when feasible during the nesting season (December through to August); winter months are included because this area has potential for owls and hummingbirds which may breed during this period. Where this is not feasible, preconstruction surveys for nesting pairs, nests, and eggs shall occur in areas proposed for vegetation removal, and active nesting areas flagged. The biological monitor shall assign a buffer around active nesting areas (typically 300 feet for songbirds, 500 feet for raptors). Construction activities shall be prohibited within the buffer until the nesting pair and young have vacated the nests, unless it can be demonstrated through biological monitoring that the construction activity is not hindering the nesting effort. Alternatively, if unused nests are identified in the disturbance area during preconstruction surveys, nests may be destroyed or excluded prior to active nesting.
- BR-19** Finished/closed landfill areas at CCL shall be revegetated to offset permanent impacts to grassland foraging and breeding habitat. Native grass species and native forbs shall be used under the direction of specialists in restoration plantings, in accordance with the Preliminary Closure and Postclosure Maintenance Plan for Chiquita Canyon Landfill. This Plan will be updated to specify that revegetation plan development and implementation will be conducted by an ecological restoration specialist familiar with restoration of native Southern California plant communities, that revegetation will be done with locally native plants, and that revegetation will not include plant species on the County's list of invasive species nor invasive species on the lists of the Cal-IPC nor invasive species listed by California Native

Plant Society. The Revegetation Plan identified in MM BR-1 may replace this plan at the discretion of LADRP.

- BR-20** In habitats where roosting bats may occur, ground disturbance and roost destruction shall be avoided during the parturition period (generally March through August). Where this is not feasible, exit surveys and/or roost surveys of potential roost sites shall occur to identify active roosts. Construction activity within 300 feet of active roosts shall be prohibited until the completion of parturition (end of August), unless it can be demonstrated through biological monitoring that the construction activity is not affecting the active roost. Alternatively, if potential roosts are identified prior to onset of parturition, with concurrence from CDFW, roosts may be excluded during the evening forage period (within 4 hours after dark) or fitted with one-way exit doors to effectively eliminate and exclude roost.
- BR-21** For unavoidable impacts to qualifying oak trees, an oak tree permit application would be submitted to the LADRP. All permit terms and conditions would be complied with from the final permit issuance. A mitigation area and plan for oak mitigation will be submitted to LADRP and approved before award of any grading permit for the Project. The site will be assessed for oak woodlands according to the County Oak Woodland Conservation and Management Plan, and a mitigation plan for oak woodland impacts will be submitted for review and approval by LADRP. As appropriate, potential impacts to oak woodlands will be mitigated by planting understory plants in the same area identified onsite for mitigation oaks pursuant to the Oak Tree Permit for the Project.

8.8 Significance After Mitigation

With mitigation, the Proposed Project would result in less than significant impacts to biological resources.

8.9 Cumulative Impacts

8.9.1 Potential Cumulative Impacts

The Proposed Project is located in a subregion of Los Angeles County containing natural open spaces that continue to be rapidly developed for industrial, commercial, and residential land uses. The majority of the development is located in the valleys along major drainages. Castaic Creek, San Francisquito Creek, the Hasley drainages, and Santa Clara River Valley all have planned or approved development. The loss of the most abundant habitats (grassland, ruderal, and coastal sage scrub) would potentially reduce the regional subpopulation numbers of sensitive species, which forage and breed in these open habitats. Although the Proposed Project will reduce the extent of some intact open habitats, mitigation measures have been proposed, which reduce the impacts to sensitive species that may use those habitats to levels below significant.

Open habitats also provide important foraging grounds for raptors. The development of the majority of the open habitats in the area could eventually reduce the raptor populations in the region; however, with mitigation for loss of grassland raptor habitat consisting of habitat set asides, this loss would be reduced. The Proposed Project would contribute to the incremental loss of these habitats, although the limited biological resources onsite would make its contribution minimal.

Cumulative projects in the region could eventually sever wildlife habitat connectivity. Streamside development along the majority of the drainages in the region could limit wildlife access to water sources, and development along the sections of the Santa Clara River could eventually block north-south movement between the Santa Susana Mountains south of the river and the Castaic Lake region to the north. Major movement corridors are known in the vicinity of CCL, the Santa Clara River and the Santa Monica-Sierra Madre Connection. Wildlife movement was not studied at CCL; the contribution of the CCL land to these corridor movement and linkage areas is unknown but could eventually be substantial following completion of the Proposed Project when the site is revegetated. Mitigation measures proposed for the Project would ensure that the Project's potential contribution to impacts associated with corridor movement and linkage areas are less than significant.

8.9.2 Mitigation Measures Required for Cumulative Impacts

Project-specific biological mitigation measures would reduce cumulative impacts. No additional mitigation measures to address potential cumulative impacts are required or proposed.