Biological Technical Report for the Shinohara II Restoration Project, Chula Vista, California

Prepared for

City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 91910
Contact: Steve Power

Prepared by

RECON Environmental, Inc.
1927 Fifth Avenue
San Diego, CA 92101-2358
P 619.308.9333 F 619.308.9334
RECON Number 7014
October 29, 2015

Wendy Loeffler, Senior Biologist

Alex Fromer, Biologist

This page is intentionally blank.

TABLE OF CONTENTS

1.0 Summary of Findings 1

2.0 Project Description 1

3.0 Survey Methods 3

3.1 Field Reconnaissance 3

3.1.1 Vegetation Mapping 4
3.1.2 Flora 4
3.1.3 Fauna 4
3.1.4 Sensitive Species 4

3.2 California Gnatcatcher Surveys 5

3.3 Wetland Resources Survey 5

4.0 Existing Conditions 6

4.1 Topography and Soils 6

4.2 Vegetation Communities/Land Cover Types 6

4.2.1 Diegan Coastal Sage Scrub 7
4.2.2 Southern Willow Scrub 7
4.2.3 Non-Native Grassland 7
4.2.4 Coast and Valley Freshwater Marsh 8
4.2.5 Ornamental/Landscaped 8
4.2.6 Disturbed Habitat 8
4.2.7 Disturbed Wetland 8
4.2.8 Open Water 8
4.2.9 Developed 8

4.3 Zoology 9

4.3.1 Butterflies 9
4.3.2 Amphibians 9
4.3.3 Reptiles 9
4.3.4 Birds 10
4.3.5 Mammals 10

4.4 Sensitive Biological Resources 10

4.4.1 Multiple Species Conservation Program 11
4.4.2 Sensitive Vegetation Communities 12
4.4.3 Sensitive Plants 12
4.4.4 Sensitive Wildlife Species 14
4.4.5 Wildlife Movement Corridors and MSCP Subarea Plan 16

TABLE OF CONTENTS (cont.)

4.5 Jurisdictional Areas 16

4.5.1 ACOE Jurisdictional Waters of the U.S. 17
4.5.2 CDFW Jurisdictional Waters of the State 17
4.5.3 RWQCB Jurisdictional Waters of the State 17

5.0 Project Impacts 18

5.1 Vegetation Community/Land Cover Type Impacts 18

5.2 Wildlife Impacts 20

5.3 Sensitive Vegetation Community Impacts 20

5.4 Sensitive Plant Species Impacts 20

5.5 Sensitive Wildlife Species Impacts 21

5.6 Wildlife Movement Corridors Impacts 22

5.7 Jurisdictional Areas Impacts 22

5.8 MSCP Subarea Plan Preserve Adjacency Guidelines 22

5.8.1 Drainage 23
5.8.2 Toxic Substances 23
5.8.3 Lighting 23
5.8.4 Noise 23
5.8.5 Invasives 24
5.8.6 Buffers 24

5.9 Cumulative Impacts 24

6.0 MSCP Compliance 24

7.0 References Cited 25

TABLE OF CONTENTS (cont.)

TABLES

1: Protocol Survey Dates, Personnel, Times, and Conditions 8
2: Existing Vegetation Communities in the Shinohara II Survey Area 9
3: Existing Jurisdictional Waters 20
4: Native Vegetation Communities to be Restored 25

ATTACHMENTS

1: Biological Resources Figures
- 1: Regional Location
- 2: Project Location on USGS Map
- 3: Project Location on Aerial Photograph
- 4: Existing Vegetation Communities and Project Impacts
- 5: Sensitive Species, Preserve Areas and Project Impacts
- 6: Existing Jurisdictional Resources and Project Impacts

2: Plant Species Observed in the Survey Area
3: Wildlife Species Observed
4: Habitat Loss and Incidental Take (HLIT) Ordinance Findings
5: Sensitive Plant Species Observed or with the Potential to Occur
6: Sensitive Wildlife Species Known or with the Potential to Occur

This page is intentionally blank.

1.0 Summary of Findings

The Shinohara II Restoration Project (project) encompasses an approximately 5.57-acre project area/limit of work in the city of Chula Vista and the county of San Diego. The proposed project addresses restoration of the site for reuse as part of the Otay River Valley Park and includes the remediation of a historical burn dump deposit site. No significant biological impacts will occur given that this is a restoration project and that project features, such as revegetation and avoidance of work during the breeding season of sensitive bird species, are incorporated into the project design.

This report provides biological data and background information required for environmental analysis by the City of Chula Vista (City) in accordance with the City's Multiple Species Conservation Program (MSCP) Subarea Plan and the California Environmental Quality Act (CEQA).

2.0 Project Description

The Shinohara II Restoration Project is located in the city of Chula Vista (Attachment 1: Figure 1), in Section 19 of Township 18 South, Range 1 West, of the U.S. Geographical Survey (USGS) 7.5-minute topographic map Imperial Beach quadrangle (Attachment 1: Figure 2).

The project lies on the south bank of the Otay River in Chula Vista, California, and is part of a larger property made up of two parcels. The City is undertaking restoration work at the site to facilitate the reuse as part of the Otay Valley Regional Park. Eventually, it is envisioned that the entire 13-mile stretch of park will be developed with trails, and that the site will be redeveloped with trails as part of that effort.

The City owns approximately 1 acre of the site, and the remainder is owned by the Shinohara Family Trust. The site is known to have historically received waste from a burn dump, is recorded as a known burn site, and has an active case (Solid Waste Information System number 37-CR-0075) with the County of San Diego Solid Waste Local Enforcement Agency. Based on regulatory records review, the site was never operated as a burn dump; however, burn ash was brought to the site as fill material in the late 1970s, when the owner of the Shinohara parcel reportedly allowed fill to be imported from various sources to create a level surface. It was reported that fill materials imported to the site included burn ash from the former South Bay Burn Site (formerly located approximately 0.25 mile southwest of the site at Interstate 805 and Palm Avenue) during the construction of Interstate 805. The Local Enforcement Agency issued an Official Notice on March 1, 2007, which directed the City to address the following issues to be completed by the stated dates: (1) site security and signage by

May 1, 2007; (2) cover installation (a minimum three-foot cap of clean soil) by July 1, 2007; and (3) drainage and erosion control measures by August 1, 2007.

This project includes the remediation of burn ash as well as the restoration of the riparian habitat on the slopes and the adjacent disturbed uplands to high-quality native habitat. The following will be the recommended components of the remediation:

1. Consolidation of a portion of the waste in areas where it is economically feasible, such as river banks and portions of the burn dump that encroach property lines.

2. Provide a minimum cover of 24 inches of clean, compacted soil over the existing refuse fill. Areas to receive cover placement will be stripped of all existing vegetation.

3. Grade the compacted soil cover such that a minimum grade of 3 percent occurs.

4. Provide engineered storm water runoff collection and conveyance facilities to prevent future ponding of storm water over the burn dump.

5. Provide improved drainage channel walls or slope armoring and scour protection along the natural drainage courses to prevent washout of the landfill from a 100-year, 24-hour storm event.

6. Provide erosion control and seeding to prevent future erosion of the final cover.

7. Provide final cover planting to sustain natural erosion protection compatible with the surrounding biota and consistent with the proposed end use of the properties as specified by the City's General Plan.

8. Provide a maintenance and inspection plan for the site during the post-closure period (typically 10 to 30 years, as determined by the regulatory authority).

A biological resources survey was conducted in support of the proposed restoration. The 15.84-acre survey area was surveyed, which comprises the approximately 5.57-acre project area/limit of work and a buffer surrounding the project area/limit of work.

The federally listed threatened coastal California gnatcatcher (*Polioptila californica californica*), federally listed endangered least Bell's vireo (*Vireo bellii pusillus*), and California Watch List species Cooper's hawk (*Accipiter cooperii*), which are all MSCP Subarea Plan covered species, were observed, are known to occur within the vicinity of the project, and have potential to use habitat within the project boundary. No significant impacts will occur to sensitive biological resources as implementation of project features 9 through 12 will ensure compliance with the City MSCP Subarea Plan Preserve, California Fish and Game Code Section 3503.5, and the federal Migratory Bird Treaty Act (MBTA).

9. Restoration of the site will result in 4.60 acres of Diegan coastal sage scrub and 0.97 acre of riparian/wetland habitat (southern willow scrub and freshwater marsh) all within the City's MSCP Subarea Plan Preserve. This restoration includes the conversion of 0.29 acre of disturbed Diegan coastal sage scrub, 3.49 acres of non-native grassland, and 0.91 acre of disturbed habitat to high-quality native habitat. A conceptual restoration plan for the project (RECON 2015) has been prepared and will be implemented under the oversight of the project biologist.

10. To avoid impacts to coastal California gnatcatcher and least Bell's vireo, removal of suitable habitat for these species on the proposed project area/limit of work will occur outside the breeding season (February 15 – August 31 for California gnatcatcher, and March 15 – September 15 for least Bell's vireo).

11. To avoid any direct impacts to nesting raptors, such as Cooper's hawk, and/or any migratory birds, removal of habitat that supports active nests on the proposed project area/limit of work should occur outside the breeding season for these species (January 15 to August 31).

12. A biological monitor approved by the City of Chula Vista will be present during all vegetation clearing activities.

3.0 Survey Methods

3.1 Field Reconnaissance

Fieldwork focused on the following objectives: (1) vegetation mapping, (2) sensitive plant and wildlife species assessment, (3) wetland resources survey and assessment, and (4) coastal California gnatcatcher focused surveys.

These assessments and surveys were conducted within a 15.84-acre survey area that was originally developed based on a 100-foot buffer surrounding an earlier proposed limit of work. This buffer was included in the survey to capture adjacent natural resources to the project area/limit of work that may be affected by the remediation activities. While the project area/limit of work changed throughout the course of the project design, the survey area was kept the same.

3.1.1 Vegetation Mapping

Vegetation communities in the survey area were mapped on June 26, 2013 by RECON biologists Wendy Loeffler and Alex Fromer on a one-inch-equals-80-feet aerial photograph flown in March 2013. Vegetation community classifications follow Oberbauer et al. (2008) and the City's MSCP Subarea Plan (2003). A follow-up site visit was conducted on October 21, 2013, to include additional land identified within an updated survey area.

3.1.2 Flora

All plant species observed within the survey area were noted, and plants that could not be identified in the field were identified later using taxonomic keys. The survey included a directed search for sensitive plants that would have been apparent at the time of the survey. Limitations to the compilation of a comprehensive floral checklist were imposed by seasonal factors, such as blooming period and emergence of some late spring annual species. Floral nomenclature for common plants follows Jepson Flora Project (2011) and Rebman and Simpson (2006), and for sensitive plants follows California Native Plant Society (CNPS; 2001).

3.1.3 Fauna

Animal species observed directly or detected from calls, tracks, scat, nests, or other signs were noted. The wildlife surveys were limited by seasonal and temporal factors. Surveys were performed during the day. For this reason, nocturnal animals were identified by sign that was apparent at the time of the surveys. Zoological nomenclature is in accordance with the American Ornithologists' Union (1998) for birds; Baker et al. (2003) for mammals; Crother (2008) for amphibians and reptiles; and Opler and Wright (1999) and Mattoni (1990) for butterflies.

3.1.4 Sensitive Species

Determination of the potential occurrence for listed, sensitive, or noteworthy species is based upon known ranges and habitat preferences for the species (Zeiner et al. 1988, 1990a, 1990b; State of California 2013a, 2013b, 2013c, 2013d; CNPS 2001), species occurrence records from the California Natural Diversity Database (CNDDB; State of California 2013e), and species occurrence records from other sites in the vicinity of the survey area.

Habitat assessments were conducted during the general surveys to determine the potential for the survey area to be occupied by MSCP-covered species and narrow endemics. The site was surveyed and determinations were made as to the suitability of the habitats on the property to support MSCP covered species.

3.2 California Gnatcatcher Surveys

Surveys for the coastal California gnatcatcher were conducted by RECON biologists Wendy Loeffler and Beth Procsal under U.S. Fish and Wildlife Service (USFWS) Permit TE-797665. Surveys were conducted according to USFWS protocol (USFWS 1997) by walking slowly through suitable habitat and periodically playing a recorded vocalization of the species. Survey dates, personnel, times, and weather conditions are in Table 1.

TABLE 1
PROTOCOL SURVEY DATES, PERSONNEL, TIMES, AND CONDITIONS

Date	Surveyor	Beginning Conditions	Ending Conditions
06/18/2013	Wendy Loeffler	9:20 A.M.; 67° F; winds 3–7 mph; 0% cloud cover	10:20 A.M.; 67° F; winds 3-7 mph; 0% cloud cover
06/25/2013	Beth Procsal	7:00 A.M.; 68° F; winds 0–1 mph; 95% cloud cover	08:20 A.M.; 73° F; winds 0-2 mph; 40% cloud cover
07/16/2013	Wendy Loeffler	8:45 A.M.; 70° F; winds 1-3 mph; 50% cloud cover	10:15 A.M.; 73° F; winds 3-7 mph; 20% cloud cover

° F = degrees Fahrenheit, mph = miles per hour, % = percent

3.3 Wetland Resources Survey

RECON biologist Italia Gray performed a jurisdictional wetland and water delineation within the project area/limit of work on June 6, 2013, and a supplemental delineation on May 8, 2014, according to the guidelines set forth by the U.S. Army Corp of Engineers (ACOE; 1987, 2008). A wetland delineation is used to identify and map the extent of the wetlands and waters of the U.S. and provide information regarding jurisdictional issues. Prior to conducting the delineation, an aerial photograph and the USGS Imperial Beach quadrangle 7.5-minute topographic map were examined to aid in the determination of potential waters of the U.S. on-site. Once on-site, the survey area was examined to determine the presence of any indicators of wetlands, including wetland vegetation, hydric soils, and hydrology. Soil test pits were located (1) within potential wetland areas, and (2) in or adjacent to the spot where the boundary between wetland and upland was inferred based on changes in the topography, hydrology, and composition of the vegetation. The survey area was also examined for potential ACOE non-wetland waters of the U.S., California Department of Fish and Wildlife (CDFW) jurisdictional waters, and Regional Water Quality Control Board (RWQCB) waters of the State. In areas where signs of ponding were evident, special attention was paid to potential occurrence of ACOE vernal pool indicator species (ACOE 1997).

4.0 Existing Conditions

4.1 Topography and Soils

An aerial photograph of the site is presented in Attachment 1: Figure 3. Elevation within the proposed project area/limit of work ranges from approximately 100 feet to 120 feet above mean sea level. The survey area is found within an elevated terrace adjacent to the Otay River within the Otay River Valley. The northern portions of the survey area and project area/limit of work contain flowing and ponded portions of the Otay River itself. A manufactured slope that was created as a part of a residential development is found within the southern portion of the survey area. Residential and commercial development bounds the Otay River Valley to the north and south.

Three soil types are mapped within the survey area: Salinas clay loam, riverwash, and gravel pits (U.S. Department of Agriculture 1973). However, the site historically received fill material, and thus the current soils, especially on the upland terrace, are not the same as originally mapped.

4.2 Vegetation Communities/Land Cover Types

The following vegetation communities/land cover types were mapped within the survey area: Diegan coastal sage scrub (includes disturbed and revegetated), southern willow scrub, non-native grassland, coast and valley freshwater marsh, ornamental/landscaped vegetation, disturbed habitat, and disturbed wetland. Open water and urban/developed land are also present within the survey area. Vegetation communities/land cover types are summarized in Table 2 and illustrated on Attachment 1: Figure 4. A list of plant species observed is in Attachment 2.

TABLE 2
EXISTING VEGETATION COMMUNITIES IN THE SHINOHARA II SURVEY AREA

Vegetation Community/ Land Cover Type	Survey Area (acres)	Project Area/Limit of Work (acres)
Diegan Coastal Sage Scrub	1.11	--
Disturbed Diegan Coastal Sage Scrub	0.94	0.29
Revegetated Diegan Coastal Sage Scrub	0.51	--
Southern Willow Scrub	2.91	0.82
Non-native Grassland	3.50	3.49
Coast and Valley Freshwater Marsh	1.90	0.06
Ornamental/Landscaped	0.90	--
Disturbed Habitat	1.97	0.91
Disturbed Wetland	0.16	--
Open Water	0.95	--
Urban/Developed	0.97	--
TOTAL	15.84	5.57

4.2.1 Diegan Coastal Sage Scrub

Diegan coastal sage scrub occurs within the southern portion of the survey area. The Diegan coastal sage scrub found along the north side of the dirt access road is moderately dense and dominated by coyote bush (*Baccharis pilularis*) and black sage (*Salvia mellifera*). A manufactured, north-facing slope in the southwestern portion of the survey area also contains Diegan coastal sage scrub, which appears to be have been revegetated and is not naturally occurring. However, due to an apparently successful restoration effort within the lower portion of the slope, much of the slope contains high-quality Diegan coastal sage scrub. The upper half of the manufactured slope appears to have been less successful, and native shrub cover in this area is significantly lower than on the bottom portions of the slope and has been identified as revegetated Diegan coastal sage scrub.

Within the stands of Diegan coastal sage scrub found in the survey area, the northern portions are dominated by non-native herbaceous vegetation species intermixed with native shrubs. As the native shrub species are characteristic of Diegan coastal sage scrub, this area has been mapped as disturbed Diegan coastal sage scrub. A small patch of disturbed Diegan coastal sage scrub also exists within the non-native grassland near the center of the site.

4.2.2 Southern Willow Scrub

Southern willow scrub is found along the outer edge of the survey area within the Otay River along the northern, eastern, and western boundaries. Arroyo willow (*Salix lasiolepis*) and black willow (*Salix gooddingii*) form the canopy and the dense understory, along with some mule fat (*Baccharis salicifolia*). Some tamarisk (*Tamarix ramossisima*) can also be found interspersed throughout the southern willow scrub vegetation. This vegetation community intermixes with an understory of coast and valley freshwater marsh in several locations.

4.2.3 Non-Native Grassland

The majority of the survey area consists of non-native grassland, which is found within a large, continuous stand in the central portion of the site. This vegetation type consists primarily of non-native grass species such as rye grass (*Festuca perenis*) and red brome (*Bromus madritensis* ssp. *rubens*) with large patches of crystalline ice plant (*Mesembryanthemum crystallinum*) throughout. Very few native shrub species exist within the non-native grassland.

4.2.4 Coast and Valley Freshwater Marsh

Coast and valley freshwater marsh is primarily located within the Otay River channel on the northern and eastern edges of the survey area. This vegetation is primarily composed of dense bulrush (*Typha latifolia*) with some soft rush (*Juncus effusus*) interspersed throughout.

4.2.5 Ornamental/Landscaped

This vegetation type can be found on the eastern portion of the manufactured slope located in the southern portion of the study area. While many of the plant species within this area are native, the varieties and composition do not reproduce that of naturally occurring habitats. Native plant species found within the ornamental/landscaped vegetation include coyote bush, toyon (*Heteromeles arbutifolia*), and slender wheat grass (*Elymus trachycaulus*).

4.2.6 Disturbed Habitat

Two large patches of disturbed habitat are found within the survey area. One patch is located within the eastern portion of the site, and another is located in the southwestern portion of the survey area. This vegetation type is dominated primarily by non-native herb and shrub species, such as red brome, rip-gut brome (*Bromus diandrus*), crystalline ice plant, filaree (*Erodium* sp.), and crown daisy (*Glebionis coronaria*). A large stand of giant reed (*Arundo donax*) is found within the southwestern patch of disturbed habitat.

4.2.7 Disturbed Wetland

A small strip of disturbed wetland habitat is found near the western boundary of the survey area. The vegetation within this land type is similar to that of the surrounding disturbed habitat (as described previously); however, a jurisdictional drainage is located within this habitat.

4.2.8 Open Water

Open water contains no vegetation cover and exists near the northern borders of the survey area as portions of the Otay River.

4.2.9 Developed

The developed areas include and existing dirt access road and a residential development currently under construction on Golden Sky Way in the southern portion of the survey area. These areas are typically not vegetated and contain bare ground or residential construction.

4.3 Zoology

The wildlife observed is typical of the Otay River Valley. Overall, the survey area and vicinity provide moderate- to high-value habitat for both terrestrial and aquatic wildlife species. A complete list of the wildlife species detected during surveys is provided in Attachment 3. The potential for sensitive species to occur within the survey area is discussed in Section 4.4, Sensitive Biological Resources.

4.3.1 Butterflies

The distribution of butterflies is generally defined by the distribution of their larval food plants. Species common to scrub, riparian, and grassland communities are expected to be the most common butterfly species on-site. One species, western tiger swallowtail (*Papilio rutulus*), was observed.

4.3.2 Amphibians

Amphibians require moisture for at least a portion of their lifecycle, with many requiring a permanent water source for habitat and reproduction. Terrestrial amphibians have adapted to more arid conditions and are not completely dependent on a perennial or standing source of water. These species avoid desiccation by burrowing beneath the soil or leaf litter during the day and during the dry season.

No amphibians were observed during the surveys. The Otay River has flowing and ponded water sufficient to support breeding amphibians such as Baja California tree frog (*Pseudacris hypocondriaca*) and bullfrog (*Rana cadespiana*).

4.3.3 Reptiles

The diversity and abundance of reptile species varies with habitat type. Many reptiles are restricted to certain vegetation communities and soil types, although some of these species will also forage in adjacent communities. Other species are ubiquitous, using a variety of vegetation types for foraging and shelter.

While no reptiles were observed during the surveys, several reptile species have the potential to occur within the survey area. Species commonly found within the vegetation communities that exist within the survey area that are expected to occur include western fence lizard (*Sceloporus occidentalis*), San Diego alligator lizard (*Elgaria multicarinata webbii*), and San Diego gopher snake (*Pituophis catenifer annectens*).

4.3.4 Birds

The diversity of bird species varies with respect to the character, quality, and diversity of vegetation communities present on a site. The survey area varies from open, low–growing, disturbed habitat to dense southern willow scrub.

Commonly observed species within survey area included California towhee (*Pipilo crissalis*), wrentit (*Chamaea fasciata*), black phoebe (*Sayornis nigricans*), house finch (*Carpodacus mexicanus*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), and common yellowthroat (*Geothlypis trichas*).

4.3.5 Mammals

Mammal species observed are those that are typically found near residential development in western San Diego County. California ground squirrel (*Spermophilus beecheyi*) and cottontail rabbit (*Sylvilagus audubonii*) were observed in the survey area.

4.4 Sensitive Biological Resources

Local, state, and federal agencies regulate sensitive species and require an assessment of their presence or potential presence to be conducted on-site prior to the approval of any proposed development on a property. All species listed by state or federal agencies as rare, threatened, endangered, or proposed for listing are considered to be sensitive biological resources. The habitat that supports a listed species is also a sensitive biological resource.

For purposes of this report, species are considered sensitive if they are (1) listed or proposed for listing by state or federal agencies as threatened or endangered; (2) on Rare Plant Rank 1B (considered rare, threatened, or endangered throughout its range) or Rank 2B (considered rare, threatened, of endangered in California but more common elsewhere) of the CNPS *Inventory of Rare and Endangered Plants of California* (2001); (3) included on the City's MSCP Subarea Plan list of species evaluated for coverage or list of narrow endemic plant species (City of Chula Vista 2003); or (4) considered rare, endangered, or threatened by the CNDDB (State of California 2013e) or other local conservation organizations or specialists.

Sensitive habitat types are those identified by the MSCP Subarea Plan (City of Chula Vista 2003), CNDDB (State of California 2013e), Holland (1986), or considered sensitive by other resource agencies. Under the MSCP Subarea Plan, upland vegetation communities have been divided into four tiers of sensitivity. Upland vegetation communities classified as Tier I, Tier II, or Tier III are considered sensitive by the City. Tier IV vegetation communities are not considered sensitive. Wetland vegetation communities are not assigned to tiers of sensitivity, but are listed in the MSCP Subarea

Plan (City of Chula Vista 2003) and regulated by the City's Wetlands Protection Program.

Assessments for the potential occurrence of sensitive or noteworthy species are based upon known ranges and habitat preferences for the species (CNPS 2001; Reiser 2001), and species occurrence records from the CNDDB (State of California 2013e).

4.4.1 Multiple Species Conservation Program

The MSCP Subregional Plan is designed to identify lands that would conserve habitat for federal and state endangered, threatened, or sensitive species, including the coastal California gnatcatcher and least Bell's vireo. The MSCP Subregional Plan is a plan and a process for the local issuance of permits under the federal and state Endangered Species Acts for impacts to threatened and endangered species. Also included in the MSCP Subregional Plan are implementation strategies, preserve design, and management guidelines. The City has prepared a subarea plan to guide implementation of the MSCP Subregional Plan within its corporate boundaries. The City's MSCP Subarea Plan has been adopted by the City, and an implementing agreement has been issued by the USFWS and CDFW.

The MSCP Subarea Plan designates a natural habitat preserve system and provides a regulatory framework for determining impacts and designating mitigation associated with proposed projects. The MSCP Subarea Plan document identifies a series of focused planning areas within which some lands will be dedicated for preservation of native habitats. The proposed project is located within the City's MSCP Preserve Area (see Attachment 1: Figure 5).

Nineteen sensitive plant and wildlife species are MSCP Subarea Plan covered species. These species are considered to be adequately protected within the MSCP Subarea Plan Preserve lands. Sixty-seven plant and wildlife species have Incidental Take Authorization in the city; however, coverage for these species is reliant upon the continued implementation of the City of San Diego and County of San Diego MSCP Subarea Plans.

There are 19 plants that are considered to be "narrow endemic species" based on their limited distributions in the region. These narrow endemics are sensitive biological resources. Four of these narrow endemic plants are also City MSCP Subarea Plan covered species, and some are state or federally listed as threatened or endangered species. MSCP Subarea Plan coverage for the remaining 15 narrow endemic plant species is reliant upon the continued implementation of the City of San Diego and County of San Diego MSCP Subarea Plans.

The City's MSCP Subarea Plan categorizes areas for land use. The majority of the proposed project is located within a 100 percent Conservation Preserve Area (City of

Chula Vista 2003). If a project proposes more than 5 percent encroachment of a narrow endemic species population within a 100 percent Conservation Preserve Area or 20 percent within a 75–100 percent Conservation Preserve Area, a determination of biologically superior preservation must be made by the City and sent to the Wildlife Agencies.

Following adoption of the MSCP Subarea Plan and issuance of take authorization by the wildlife agencies, the City developed the Habitat Loss and Incidental Take (HLIT) Ordinance in order to implement the protective measures identified in the MSCP Subarea Plan. The proposed project does not require an HLIT permit, as there are no significant impacts; however, HLIT findings have been prepared to demonstrate that the project is consistent with the City's MSCP Subarea Plan (Attachment 4).

4.4.2 Sensitive Vegetation Communities

Attachment 1: Figure 4 illustrates the location of sensitive vegetation communities on-site. Coastal sage scrub, a Tier II uncommon upland community, and non-native grassland, a Tier III common upland community, are considered sensitive vegetation communities by the City based on rarity and ecological importance. Freshwater marsh, southern willow scrub, disturbed wetland, and open water are considered sensitive wetland habitats by the City.

4.4.3 Sensitive Plants

Attachment 5 summarizes the status, habitats, and likelihood of occurrence for sensitive plant species and narrow endemics that have the potential to occur on-site. A number of these species, such as shrubs or large cactus species, would have been easily observed during surveys for sensitive plants. Some species are considered to have a low potential for occurrence because the project survey area lacks the appropriate substrate, such as clay soils.

4.4.3.1 Species Observed

One sensitive plant, desert fragrance (*Ambrosia* [=*Hymenoclea*] *monogyra*), was observed on-site. The locations of these plants are shown on Figure 5.

Desert fragrance (*Ambrosia* [=*Hymenoclea*] *monogyra*) is not state or federally listed; however, it is considered a CNPS Rare Plant Ranked 2B.2 (fairly endangered in California). This shrub in the sunflower family (Asteraceae) has slender stems, narrow leaves, and large inflorescences that bloom from August to November (Munz 1974). Desert fragrance is found in the southwestern United States from California to Texas as well as within northern Mexico (Hickman 1993). This species occurs in washes and dry riverbeds (Hickman 1993).

This species was found in few small patches along the fence along the limit of work boundary within disturbed habitat.

4.4.3.2 Species Not Observed

Several other sensitive species were not observed, but are known to occur in the vicinity of the project site and are considered as potentially occurring on-site based on plant communities identified. Table 4 summarizes the status, habitats, and results of the botanical survey for each of these potentially occurring species. Some of these species, such as shrubs or large cactus, would have been easily observed on the site during the sensitive plant survey and are considered to be not present.

Otay tarplant (*Deinandra* [=*Hemizonia*] *conjugens*) is listed as a California endangered species (State of California 2005) and a federal threatened species (State of California 2013c). It is on CNPS List 1B.1, and is a covered species under the MCSP. This small, aromatic, annual herb in the sunflower family (Asteraceae) produces mostly solitary yellow flowerheads in May and June (Munz 1974; State of California 2005). It ranges from southwestern San Diego County into Baja California, in open coastal sage scrub and grassland habitats below 1,000 feet (CNPS 2001). It typically occurs in herbaceous plant communities on slopes and mesas with expansive clay soils, and may occur in non-native grasslands and fallow agricultural fields where clay soils are present (Reiser 2001).

No Otay tarplant was observed on-site during general surveys. While focused surveys for this species were not conducted within the survey area, several survey visits were conducted within the blooming period, and any individuals present would have been apparent at the time of the surveys. It has a low potential to occur within the non-native grassland and disturbed habitat found throughout the survey area due to the lack of suitable clay substrate and presence of fill material on-site.

San Diego ambrosia (*Ambrosia pumila*) is listed as a California endangered species (State of California 2005). It is a CNPS Rare Plant Rank 1B.1 and is a covered species under the MSCP, as well as being a narrow endemic species. This perennial herb in the sunflower family (Asteraceae) emerges from rhizomes in spring and flowers from June to September. It is found at elevations below 500 feet in western Riverside and San Diego counties, and in northern Baja California. It may occur in disturbed areas in chaparral, coastal scrub, grassland, or vernal pool communities (CNPS 2001). Potential habitat in San Diego County is along creek beds, seasonally dry drainages, and floodplains along the edge of willow woodland, in riverwash or sandy alluvial soils (Reiser 2001), from the San Luis Rey River south to the Sweetwater River.

No San Diego ambrosia was observed on-site during general surveys. While focused surveys for this species were not conducted within the survey area, being a perennial species, any individuals present would have been apparent at the time of the surveys. It

has a low potential to occur within the non-native grassland and disturbed habitat found throughout the survey area due to the composition of soils within the survey area and the substantial fill material placed on native soils likely creating unsuitable soils for the species.

4.4.4 Sensitive Wildlife Species

Three sensitive wildlife species, coastal California gnatcatcher, least Bell's vireo, and Cooper's hawk, were detected within or adjacent to the survey area during surveys. Suitable habitat is present on-site for other wildlife species considered sensitive by resource agencies. A list of sensitive wildlife species potentially occurring on-site is provided in Attachment 6.

4.4.4.1 Coastal California Gnatcatcher

The coastal California gnatcatcher is federally listed as threatened, a California species of special concern, and an MSCP covered species. The coastal California gnatcatcher is a non-migratory, resident species found on the coastal slopes of southern California, ranging from Ventura County southward through Los Angeles, Orange, Riverside, and San Diego counties, and into Baja California, Mexico (Atwood and Bontrager 2001). Coastal California gnatcatchers typically occur in or near coastal sage scrub habitat, although chaparral, grassland, and riparian woodland habitats are used where they occur adjacent to coastal sage scrub. Breeding occurs from February through August, and nests are constructed most often in California sagebrush. The coastal California gnatcatcher diet consists mainly of sessile small arthropods, such as leafhoppers, spiders, beetles, and true bugs (Atwood and Bontrager 2001). The primary cause of decline of the coastal California gnatcatcher is due to habitat loss and degradation.

The coastal California gnatcatcher is known to occur within the project vicinity and was observed within the survey area during protocol surveys (State of California 2013e). Two individual family groups as well as a pair were detected within the survey area. Suitable nesting habitat is present primarily off-site within the coastal sage scrub in the southern portion of the survey area. The locations of the birds are shown on Attachment 1: Figure 5.

4.4.4.2 Least Bell's Vireo

The least Bell's vireo is federally and state listed as endangered and is an MSCP-covered species. The least Bell's vireo is a migratory songbird found within riparian habitat ranging from coastal Santa Barbara County south into Baja California. Breeding season generally ranges from March through July, and nests are typically constructed within riparian areas containing dense shrub cover and a well-developed understory. Decline of the least Bell's vireo has been caused by degradation of riparian habitat due

to invasion by exotic plants, grazing practices, and other causes, decreasing the amount of available habitat for least Bell's vireo.

The least Bell's vireo is known to occur within the project vicinity, and two individuals were observed near the survey area during surveys (see Figure 5). Suitable nesting habitat is present within the southern willow scrub in the northern portion of the survey area. Focused surveys were not conducted given the species' detection during other surveys. The locations of the birds are shown on Attachment 1: Figure 5.

4.4.4.3 Cooper's Hawk

The Cooper's hawk is a California Watch List Species and an MSCP Subarea Plan conditionally covered species. Cooper's hawk nesting areas are considered sensitive by CDFW. The Cooper's hawk ranges year-round throughout most of the United States; its wintering range extends south to Central America, and its breeding range extends north to southern Canada (Rosenfeld and Bielefeldt 1993). This hawk mainly breeds in oak and willow riparian woodlands, and will also use eucalyptus (*Eucalyptus* sp.) trees. Breeding occurs from March to July. This hawk forages primarily on medium-sized birds, but is also known to eat small mammals such as chipmunks and other rodents (Rosenfeld and Bielefeldt 1993). Urbanization and loss of habitat have caused the decline of this species.

A Cooper's hawk was observed perched on a gate within the survey area. Tall trees within the southern willow scrub are potential nest sites for this raptor.

4.4.4.4 Burrowing Owl

The burrowing owl (*Athene cunicularia hypugaea*) is a CDFW species of special concern and an MSCP covered species (State of California 2013e; City of Chula Vista 2003). Burrowing owl is primarily restricted to the western United States and Mexico. A year-round resident in San Diego County, breeding burrowing owls remain in only five primary areas in San Diego County, including Otay Mesa, Imperial Beach, North Island Naval Air Station, Warner Valley, and Borrego Valley (Unitt 2004). Habitat for the burrowing owl includes dry, open, short-grass areas with level to gentle topography and well-drained soils (CDFW 2012). These areas are also often associated with burrowing mammals (Haug et al. 1993). Nesting occurs from March through August. Burrowing owls form a pair–bond for more than one year and exhibit high site fidelity, reusing the same burrow year after year (Haug et al. 1993).

No burrowing owls were observed during any of the surveys. Suitable flat, open grasslands exist within the project area/limit of work, as do suitable burrow sites. However, the site was visited on multiple occasions at various times of year, and no

burrowing owls were observed. No active burrows or other sign of burrowing owl was detected.

4.4.5 Wildlife Movement Corridors and MSCP Subarea Plan

Wildlife movement corridors are defined as areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features such as canyon drainages, ridgelines, or areas with vegetation cover provide corridors for wildlife travel. Wildlife movement corridors are important because they provide access to mates, food, and water; allow the dispersal of individuals away from high population density areas; and facilitate the exchange of genetic traits between populations. Wildlife movement corridors are considered sensitive by the City and resource and conservation agencies.

The project area/limit of work is located within the Otay River Valley in the Chula Vista Preserve, and the site functions as a wildlife movement corridor, allowing for wildlife movement in a highly fragmented environment.

The entire project area/limit of work is within a habitat preserve area as well as within the Otay Valley Regional Park (see Attachment 1: Figure 4).

4.5 Jurisdictional Areas

Table 3 summarizes the acreage of jurisdictional waters delineated according to ACOE, CDFW, and RWQCB jurisdiction. These jurisdictional waters are shown on Attachment 1: Figure 6. Any proposed impacts outside of the survey area would require an additional wetland delineation.

The wetland delineation conducted for this project will be verified during the permit review process by ACOE, CDFW, and the RWQCB to make a final jurisdictional determination with respect to Section 404 of the Clean Water Act, Section 1600 of the Fish and Game Code, and the California Porter–Cologne Water Quality Control Act.

TABLE 3
EXISTING JURISDICTIONAL WATERS

Jurisdictional Waters	Project Area/Limit of Work (acres)	Survey Area (acres)
ACOE		
Wetlands	0.09	4.65
Non-wetland waters of the U.S.	0.00	1.02
Total ACOE	**0.09**	**5.67**
CDFW		
Wetland	0.88	5.92
Total CDFW	**0.88**	**5.92**
RWQCB		
Waters	0.88	5.92
Total RWQCB	**0.88**	**5.92**
City of Chula Vista		
Wetlands	0.88	5.92
Total City of Chula Vista	**0.88**	**5.92**

4.5.1 ACOE Jurisdictional Waters of the U.S.

The ACOE jurisdiction area within the survey area is 5.67 acres and includes southern willow scrub, freshwater marsh, open water, disturbed wetland, and a small tributary drainage along the western edge of the survey area. Within the project area/limit of work, ACOE jurisdiction is restricted to 0.09 acre of ACOE wetlands, comprising freshwater marsh and small area of southern willow scrub.

4.5.2 CDFW Jurisdictional Waters of the State

CDFW wetland includes all riparian and wetland habitat within the survey area, and totals 5.92 acres. A total of 0.88 acre of CDFW jurisdictional waters occur within the project area/limits of work.

4.5.3 RWQCB Jurisdictional Waters of the State

The RWQCB takes jurisdiction over all waters of the state and all waters of the U.S. as mandated by both the federal Clean Water Act and the California Porter-Cologne Water Quality Control Act. A total of 0.88 acre of the project area/limits of work falls within the RWQCB jurisdiction. Impacts to jurisdictional resources would require consultation with the RWQCB.

5.0 Project Impacts

No significant impacts will occur to sensitive biological resources. As this project is a restoration project, implementation of both remediation of the contamination and the restoration plan will result in a higher quality habitat suitable for several sensitive species. The project will implement project features into the project description and design, including the implementation of the restoration plan (RECON 2015) and the avoidance of work during the breeding seasons of sensitive birds, to avoid significant impacts.

Attachment 1: Figure 3 shows the project plan on a current aerial photo. The City proposes to remediate an historical Shinohara II burn site where waste from a burn dump had been deposited. This land is then planned to be used as a part of the Otay Valley Regional Park including public trails.

5.1 Vegetation Community/Land Cover Type Impacts

Attachment 1: Figure 4 shows the proposed project area/limit of work. Table 4 details the proposed restoration. As stated above, no significant impacts will occur to sensitive biological resources, as the restoration of the site is intended to convert lower quality habitat to high-quality sensitive vegetation communities. The restoration of these areas will occur pursuant the project's conceptual restoration plan (RECON 2015), which is subject to the oversight and approval of the City's Development Services Director (or their designee). As shown in Table 4, a total of 4.60 acres of the site will be restored to Diegan coastal sage scrub and 0.97 acre will be restored to riparian habitat.

TABLE 4
NATIVE VEGETATION COMMUNITIES TO BE RESTORED

Vegetation Community	Existing Conditions (acres)	Restoration Goal	Proposed Restoration (acres)
Disturbed Diegan coastal sage scrub	0.29	Diegan coastal sage scrub	4.60
Non-native grassland	3.49		
Disturbed habitat	0.91		
Southern willow scrub	0.82	Southern willow scrub and freshwater marsh	0.97
Coast and valley freshwater marsh	0.06		
TOTAL	**5.57**		**5.57**

Restoration for the project includes remediation of any contaminated soil within the area/limit of work. The remediation includes installation of a minimum of three-foot-thick

final cover and initiating a site maintenance and monitoring program. The goal is to contain and cap the contaminated soil. Any exposed material found along the slopes adjacent to river will be removed using the bucket of an excavator placed at the edge of the terrace. All contaminated material will be stockpiled within the upland above the slope terrace and covered with a minimum three-foot cap of imported soil. The slopes adjacent to the river will be recontoured to an approximately 3:1 ratio, and the terrace will be contoured to assure appropriate drainage post-remediation. Native trees along the slopes will be avoided to the extent possible. Wetted areas along the mapped edge of the project area/limit of work are also expected to be avoided or will only be temporarily impacted. Erosion control fencing will be placed at the toe of slope to ensure that remediation efforts will not result in contaminated soil or imported cap soil entering the Otay River.

Additional project features include:

- Prior to initiating any remediation-related activities, including clearing, grubbing, and grading, a qualified City-approved biological monitor shall be retained and shall be on-site during clearing, grubbing, and/or grading activities. The biological monitor shall attend all pre-construction meetings and be present during the removal of any vegetation to ensure that the approved limits of disturbance are not exceeded and provide periodic monitoring of the impact area including, but not limited to, trenches, stockpiles, storage areas, and protective fencing. The biological monitor shall be authorized to halt all associated project activities that may be in violation of the City's MSCP Subarea Plan and/or permits issued by any other agencies having jurisdictional authority over the project.

- Before restoration activities occur in areas containing sensitive biological resources, all workers shall be educated by a City-approved biologist to recognize and avoid those areas that have been marked as sensitive biological resources.

- Prior to initiating any remediation-related activities, including clearing, grubbing, and grading, biological fencing (i.e., Type ESA) shall be installed in accordance with Chula Vista Municipal Code 17.35.030. Prominently colored, well-installed fencing shall be in place wherever the limits of grading are adjacent to sensitive vegetation communities or other biological resources, as identified by the qualified monitoring biologist. Fencing shall remain in place at the limits of work along the toe of the slope. Fencing shall remain in place during all remediation activities.

5.2 Wildlife Impacts

A few animals such as small mammals, amphibians, and reptiles with low mobility may be inadvertently killed during grading of the project area/limit of work. Impacts to general wildlife are considered adverse, but less than significant.

Raptors such as American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), and Cooper's hawk have the potential to nest in the southern willow scrub that runs along the Otay River within and adjacent to the survey area. Active raptor nests are protected under California Fish and Game Code Section 3503.5. In addition, there is a potential for birds covered by the federal MBTA to nest within the vegetation in the project area/limit of work.

Direct impacts to sensitive wildlife would be avoided by incorporating project features into the design regarding timing of work. Specifically, removal of habitat that supports active nests on the proposed area of disturbance should occur outside the general bird breeding season of January 15 to September 15.

5.3 Sensitive Vegetation Community Impacts

As this is a restoration project, the end result will be an increase in the amount of sensitive vegetation communities through conversion of disturbed habitat and non-native grassland to high-quality Diegan coastal sage scrub. Remediation of the contaminated soil will include some removal of southern willow scrub; however, remediation methods will avoid as many of the native trees as possible, and restoration of the final capped slopes will comprise riparian species.

5.4 Sensitive Plant Species Impacts

The project would impact approximately 0.02 acre of disturbed habitat that is occupied by desert fragrance, a CNPS Rare Plant Rank 2B.2 plant species, within the city of Chula Vista. This would impact a small number of plants and would not be considered significant, as loss of these individuals would not substantially affect the ability of this species to persist throughout its range.

Otay tarplant was not detected within the project boundary during general surveys. Work conducted this season would not result in any impacts to this species if constructed before spring 2015. However, as an annual herbaceous plant, there is a low potential that this species could develop on-site in subsequent years. Impacts to this species, if present, would be considered significant. While recent drought conditions may affect the emergence and detectability of this species, the historic use of this site as a fill deposit

area has likely made the soil incompatible for Otay tarplant. This species has a low potential to occur within the project area/limit of work and, if present, would be significantly impacted by project activities. As a narrow endemic, impacts are limited to less than 5 percent of the population, and the City must be able to make Findings of Equivalency for take of this species. Impacts to more than 5 percent would only be allowed if the City is able to make a determination of biologically superior preservation to the Wildlife Agencies.

San Diego ambrosia was also not found during surveys. This plant is a perennial species and would have been apparent at the time of the surveys. While the recent drought conditions may affect emergence and the detectability of this species, the historic use of this site as a fill deposit area has likely made the soil incompatible for San Diego ambrosia. This species has a low potential to occur within the project area/limit of work and, if present, would be significantly impacted by project activities. As a narrow endemic, impacts are limited to less than 5 percent of the population, and the City must be able to make Findings of Equivalency for take of this species. Impacts to more than 5 percent would only be allowed if the City is able to make a determination of biologically superior preservation to the Wildlife Agencies.

To ensure that no impacts occur to these sensitive plant species, project features have been incorporated into the project so that a qualified biologist shall conduct an additional survey for Otay tarplant and San Diego ambrosia if work is expected to occur during the spring of 2015 or later. If these species are detected, the biologist will assess the extent of the local populations and submit the survey results to the City for review. If work is conducted before spring 2015, no impacts to Otay tarplant or San Diego ambrosia will be anticipated.

5.5 Sensitive Wildlife Species Impacts

Coastal California gnatcatchers and least Bell's vireo were detected within or near the project survey area during both focused and general surveys, and the site supports suitable nesting habitat within the coastal sage scrub and southern willow scrub present within the project boundary. While these are a covered species, direct impacts associated with grading and vegetation clearing, and indirect impacts associated with construction noise, would be considered significant during the breeding season.

Cooper's hawk has the potential to nest within the tall trees in the southern willow scrub habitat. This is also a covered species; however, direct impacts to an active nest of this species would be considered significant.

Burrowing owl has the potential to nest within the project area/limit of work and the surrounding adjacent habitat. However, this species was not detected during surveys,

and has a low potential to occur. If the species was to inhabit the area prior to project activities, impacts to an active nest would be considered significant.

To avoid direct impacts to coastal California gnatcatchers, least Bell's vireos, Cooper's hawks and other raptors, and burrowing owl, project features have been incorporated into the project so that all clearing and grubbing will occur outside breeding season for the species. The general bird breeding season (January 15 to September 15) will be avoided to ensure that no significant impacts occur to these sensitive bird species.

5.6 Wildlife Movement Corridors Impacts

The project may temporarily disrupt some wildlife while work is being performed; however, the project should not disrupt use of and movement of wildlife within the river valley system, as sufficient natural habitat to the north of the project area/limit of work exists to convey wildlife through the area during project activities. Remediation activities are not expected to result in a significant impact to wildlife movement corridors.

5.7 Jurisdictional Areas Impacts

No significant impacts will occur to jurisdictional waters as project features, including restoration of these areas, will occur pursuant the project's conceptual restoration plan (RECON 2015). As shown in Table 4, a total of 0.97 acre of riparian habitat will be restored on-site. In addition, remediation will be conducted in such a way as to allow as many native trees to remain in place as possible, while still meeting the remediation goals.

Restoration of ACOE, CDFW, and RWQCB jurisdictional waters would require a Section 404 permit authorization from the ACOE, a 1600 Streambed Alteration Agreement from the CDFW, and a 401 State Water Quality Certification from the RWQCB.

5.8 MSCP Subarea Plan Preserve Adjacency Guidelines

The MSCP Subarea Plan identifies several issues that need to be addressed during the planning of a project in order to avoid negative impacts of development on adjacent open space preserve areas (City of Chula Vista 2003). The areas include drainage, toxic substances, lighting, noise, invasives, and buffers. As described below, the proposed project has incorporated design features that would ensure that impacts to adjacent sensitive areas are less than significant, and the project is in compliance with the County of San Diego's MSCP Subarea Plan.

5.8.1 Drainage

As this project will be using fill material and will be revegetated, no developed or paved areas would be created, and thus there is no expectation of urban run-off that will require containment as a result of the project implementation. Thus, measures such as detention basins or biofiltration features will not be necessary as part of the project design. Additionally, as a part of the proposed project, engineered storm water runoff and conveyance collection facilities as well as improved drainage channels will be implemented to aid in proper site drainage.

All construction activities would employ best management practices (BMPs) including, but not limited to, the installation of silt fencing around the work areas and the use of fiber rolls, or other standard best management practices as listed in the *Standard Best Management Practices for Potable Water Discharges per Order No. R9-2010-0003* (California Regional Water Quality Control Board 2010).

Once construction has been completed, all temporarily impacted areas will be revegetated in accordance with a City-approved revegetation plan. Only native plant material will be used, and appropriate best management practices will be installed during the restoration to ensure no erosion occurs on or adjacent to the disturbed work areas. Post-construction and upon achievement of the revegetation success criteria, the site will function as it did in regards to drainage pre-project implementation.

Implementation of these measures will ensure that no indirect impacts to the preserve would result from project-related run-off.

5.8.2 Toxic Substances

The project does not propose the use or release of toxic substances that could potentially harm sensitive biological resources. The purpose of the remediation is to contain and cap the contaminated soil in order to prevent any release of toxic materials.

5.8.3 Lighting

Work should be conducted during daylight hours, and thus night-lighting will not be required. There will also be no permanent lighting installed. Therefore, the project would not result in impacts to the preserve from the use of construction or permanent lighting.

5.8.4 Noise

The project site is considered to be occupied by the coastal California gnatcatcher and least Bell’s vireo, and there is a potential for raptor species to nest near the work area.

No impacts are anticipated to occur to these species, as all work will be conducted outside the applicable breeding seasons.

5.8.5 Invasives

The project would not directly result in the introduction of invasive non-native plant species. The work area would be restored to a native vegetation community post-remediation. The revegetation plan is required to obtain approval from the City, and the plant palette would comply with the MSCP Subarea Plan to ensure that no invasive or otherwise inappropriate plant species are used. However, as a large area will be covered by new fill material, the likelihood of non-native invasive plant species to naturally recruit into the area is high. Weed control measures and long-term maintenance will be required to ensure the success of the restoration effort associated with the project.

5.8.6 Buffers

No buffers are required, as the remediation is a temporary construction effort. This guideline does not apply, and there will be no impact to the preserve as a result of buffer issues.

5.9 Cumulative Impacts

This project would conform to the MSCP Subarea Plan; therefore, no cumulative impacts are associated with the proposed project.

6.0 MSCP Compliance

This project is within the City's jurisdiction and comprises native vegetation within an MSCP Subarea Plan 100 percent Preserve Area (City of Chula Vista 2003). The MSCP Subarea Plan considers preserve management, scientific, and biological activities within the Preserve to be conditionally compatible with the Preserve. This project complies with the MSCP Subarea Plan as it is a project involved with preserve management as described in Section 6.2.2 of the MSCP Subarea Plan. Additionally, Section 6.2.2 references the management goals and objectives outlined in Section 7.1, and the proposed restoration and remediation is compatible with the following management objectives: "to ensure the long-term viability and sustainability of native ecosystem function and natural processes throughout the preserve" and "to enhance and restore, where feasible, appropriate native plant associations and wildlife connections to adjoining habitat in order to provide viable wildlife and sensitive species habitat".

While not specifically required, written findings pursuant to Section 17.35.080 of the City's HLIT Ordinance are included to demonstrate that the project is in compliance with the Subarea Plan. These findings are provided in Attachment 4.

7.0 References Cited

American Ornithologists' Union
1998 *Check-list of North American Birds.* 7th ed. Washington, D.C.

Atwood, J. L., and D. R. Bontrager
2001 California Gnatcatcher (*Polioptila californica*). *In* The Birds of North America, No. 574 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Baker, R. J., L. C. Bradley, R. D. Bradley, J.W. Dragoo, M. D. Engstrom, R. S. Hoffmann, C. Jones, C. A. Jones, F. Reid, and D. W. Rice
2003 Revised Checklist of North American Mammals North of Mexico. *Occasional Papers, Museum of Texas Tech University* No. 229. December.

California Native Plant Society (CNPS)
2001 *Inventory of Rare and Endangered Plants of California*. 6th edition. Rare Plant Scientific Advisory Committee, David P. Tibor, Convening Editor. Sacramento.

California, State of
2005 The Status of Rare, Threatened, and Endangered Plants and Animals in the State of California 2000-2004.
2013a State and Federally Listed Endangered and Threatened Animals of California. Natural Diversity Database. Department of Fish and Game. January.

2013b Special Animals. Natural Diversity Database. Department of Fish and Game. January.

2013c State and Federally Listed Endangered, Threatened, and Rare Plants of California. Natural Diversity Database. Department of Fish and Game. April.

2013d Special Vascular Plants, Bryophytes, and Lichens List. Natural Diversity Database. Department of Fish and Game. April.

2013e California Natural Diversity Database: Electronic Database with Annual Updates. Wildlife & Habitat Data Analysis Branch, Department of Fish and Game.

California Regional Water Quality Control Board
2010 General Waste Discharge Requirements for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems Within the San Diego Region.

Chula Vista, City of
2003 City of Chula Vista MSCP Subarea Plan. February.

Crother, B. I.
2008 Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in Our Understanding. 6th edition.

Haug, E.A., B. A. Millsap, and M. S. Martell
1993 Burrowing Owl (*Speotyto cunicularia*). In *The Birds of North America,* no. 61, edited by A. Poole and F. Gill. The Birds of North America, Inc., Philadelphia.

Hickman, J. C. (editor)
1993 *The Jepson Manual: Higher Plants of California.* University of California Press, Berkeley and Los Angeles.

Holland, R. F.
1986 Preliminary Descriptions of the Terrestrial Natural Communities of California. Nongame Heritage Program, California Department of Fish and Game. October.

Jepson Flora Project
2011 Jepson Online Interchange. http://ucjeps.berkeley.edu/interchange/about_interchange.html.

Mattoni, R.
1990 Butterflies of Greater Los Angeles. The Center for the Conservation of Biodiversity/Lepidoptera Research Foundation, Inc. Beverly Hills, CA.

Munz, P. A.
1974 *A Flora of Southern California.* University of California Press, Berkeley.

Oberbauer, T., M. Kelly, and J. Buegge
2008 Draft Vegetation Communities of San Diego. Based on "Preliminary Descriptions of the Terrestrial Natural Communities of California," Robert F. Holland, Ph.D., October 1986

Opler, P. A., and A. B. Wright
1999 *A Field Guide to Western Butterflies.* Peterson Field Guide Series. Houghton Mifflin, Boston.

Rebman, J.P., and M.G. Simpson
2006 *Checklist of the Vascular Plants of San Diego County*. San Diego natural History Museum. San Diego.

RECON Environmental, Inc. (RECON)
2015 Conceptual Restoration Plan for the Shinohara II Restoration Project, Chula Vista, California. Prepared July 9, 2015; revised October 7, 2015.

Reiser, C. H.
2001 *Rare Plants of San Diego County.* Aquifir Press, Imperial Beach, CA.

Rosenfeld, R. N., and J. Bielefeldt
1993 Cooper's Hawk (*Accipiter cooperii*). In *The Birds of North America,* no. 75, edited by A. Poole and F. Gill. The Birds of North America, Inc., Philadelphia.

Unitt, P. A.
2004 San Diego County Bird Atlas. No. 39San Diego Society of Natural History. October 31.

U.S. Army Corps of Engineers (ACOE)
1987 Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, Department of the Army. January.

1997 *Regional General Conditions to the Nationwide Permits.* Los Angeles District South Pacific Division. November.

2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region.

U.S. Department of Agriculture (USDA)
1973 Soil Survey, San Diego Area, California. Soil Conservation Service and Forest Service. Roy H. Bowman, ed. San Diego. December.

U.S. Geological Survey (USGS)
1975 National City 7.5-minute topographic map.

U.S. Fish and Wildlife Service (USFWS)
1997 Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/ Absence Survey Guidelines.

Zeiner, D. C., W. F. Laudenslayer, Jr., K. E. Mayer, and M. White, eds.

1988 *Amphibians and Reptiles.* California's Wildlife, vol. 1. State of California, The Resources Agency, Department of Fish and Game, Sacramento.

1990a *Birds.* California's Wildlife, vol. 2. State of California, The Resources Agency, Department of Fish and Game, Sacramento.

1990b *Mammals.* California's Wildlife, vol. 3. State of California, The Resources Agency, Department of Fish and Game, Sacramento.

ATTACHMENTS

This page is intentionally blank.

ATTACHMENT 1

Biological Resources Figures

This page is intentionally blank.

Project Location

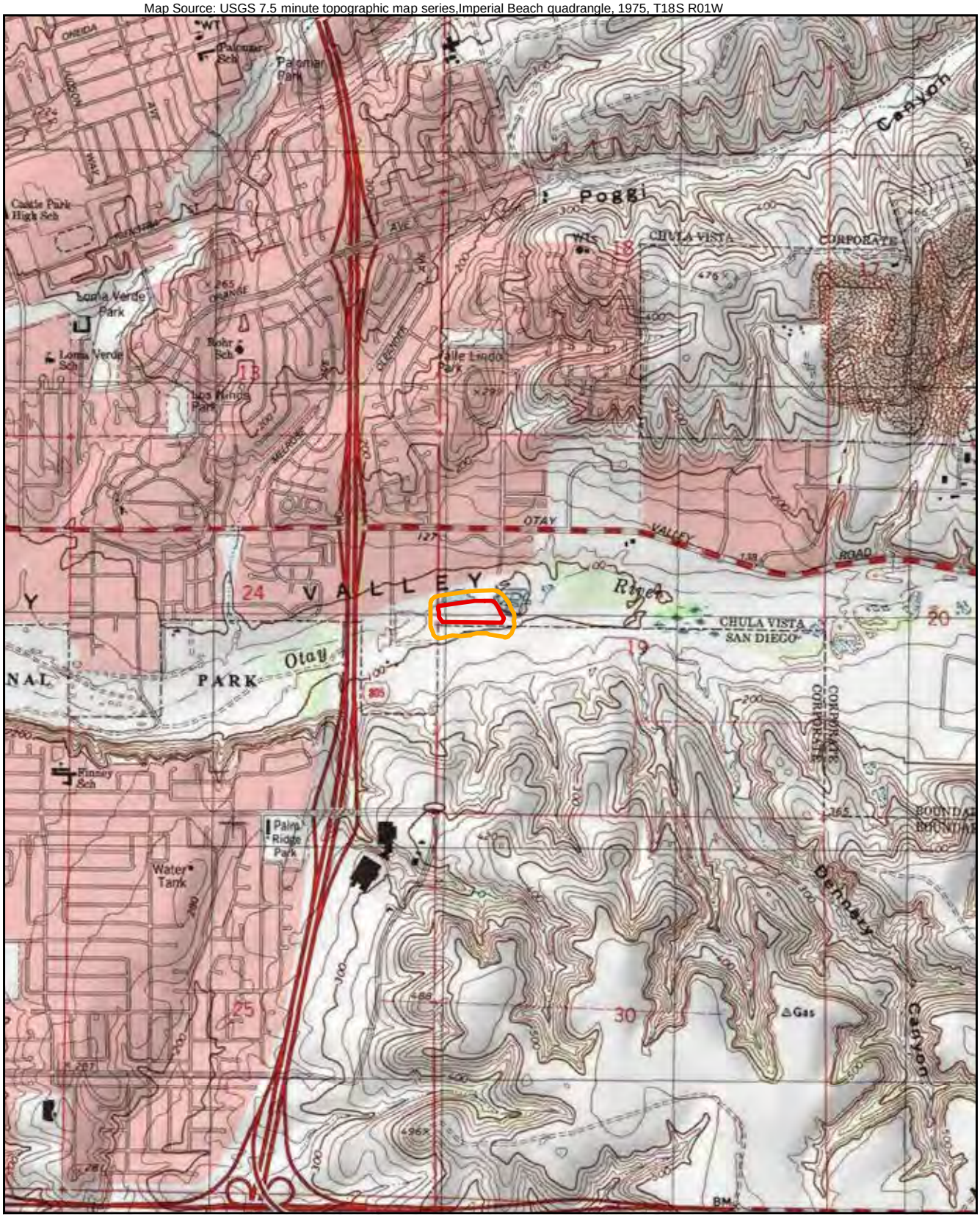
FIGURE 1

Regional Location

RECON

M:\JOBS4\7014\common_gis\fig1.mxd 5/30/2013 sab

Map Source: USGS 7.5 minute topographic map series,Imperial Beach quadrangle, 1975, T18S R01W



0 Feet 2,000

Project Area/Limit of Work

Survey Area

RECON

\\serverfs01\gis\JOBS4\7014\common_gis\fig2_bioC.mxd 5/22/2015 fmm

FIGURE 2

Project Location on USGS Map

Image Source: SanGIS (flown May 2012)

0 Feet 200

Project Area/Limit of Work

Survey Area

Municipal Boundary

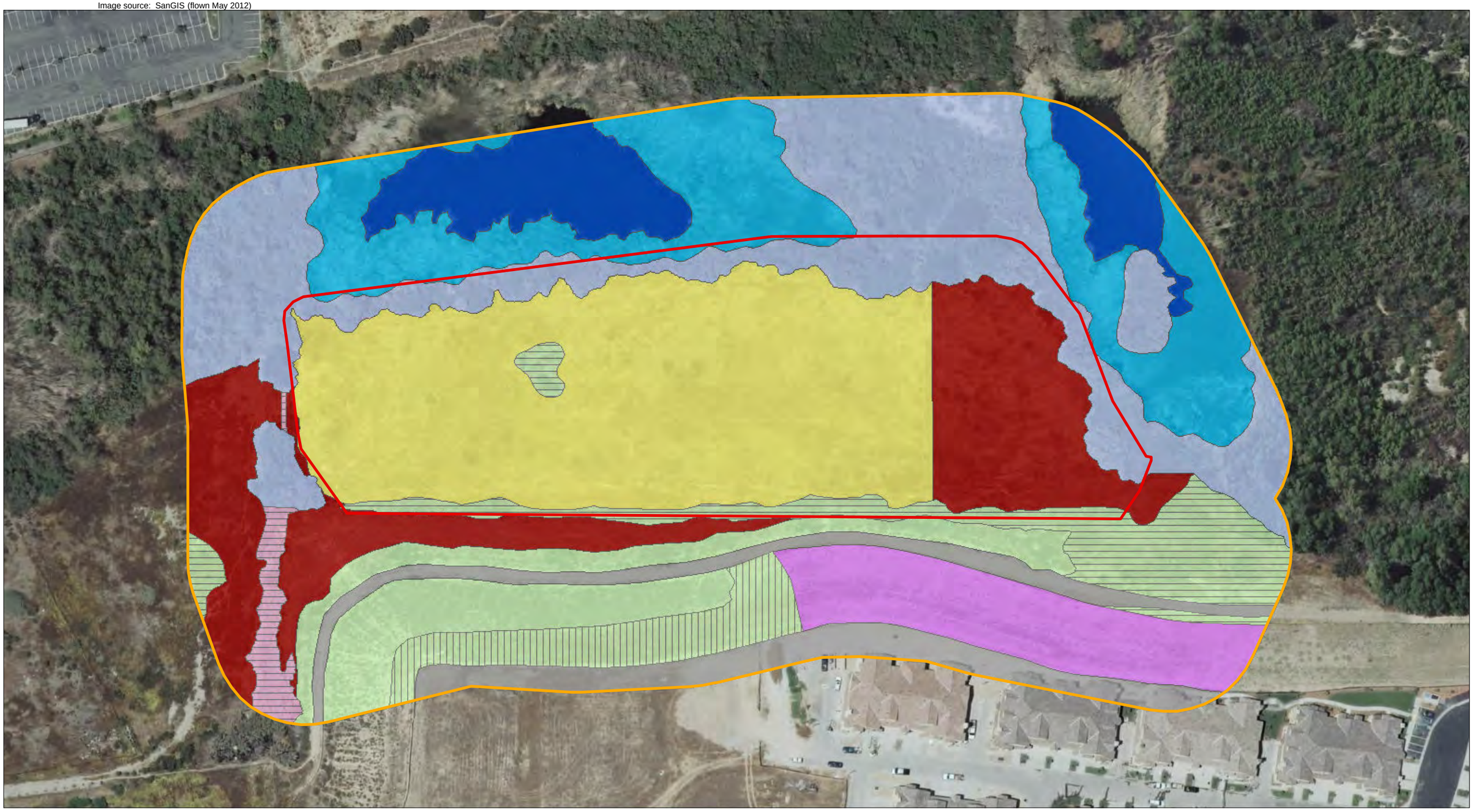
FIGURE 3

Project Location on Aerial Photograph

RECON

\\serverfs01\gis\JOBS4\7014\common_gis\fig3_bioC.mxd 5/22/2015 fmm

Image source: SanGIS (flown May 2012)



Project Area/Limit of Work

Survey Area

Vegetation and Landcover Types

- Diegan Coastal Sage Scrub
- Revegetated Diegan Coastal Sage Scrub
- Disturbed Diegan Coastal Sage Scrub
- Non-native Grassland
- Coast and Valley Freshwater Marsh
- Southern Willow Scrub
- Disturbed Wetland
- Open Water
- Ornamental / Landscaped
- Disturbed Habitat
- Urban / Developed

0 Feet 100

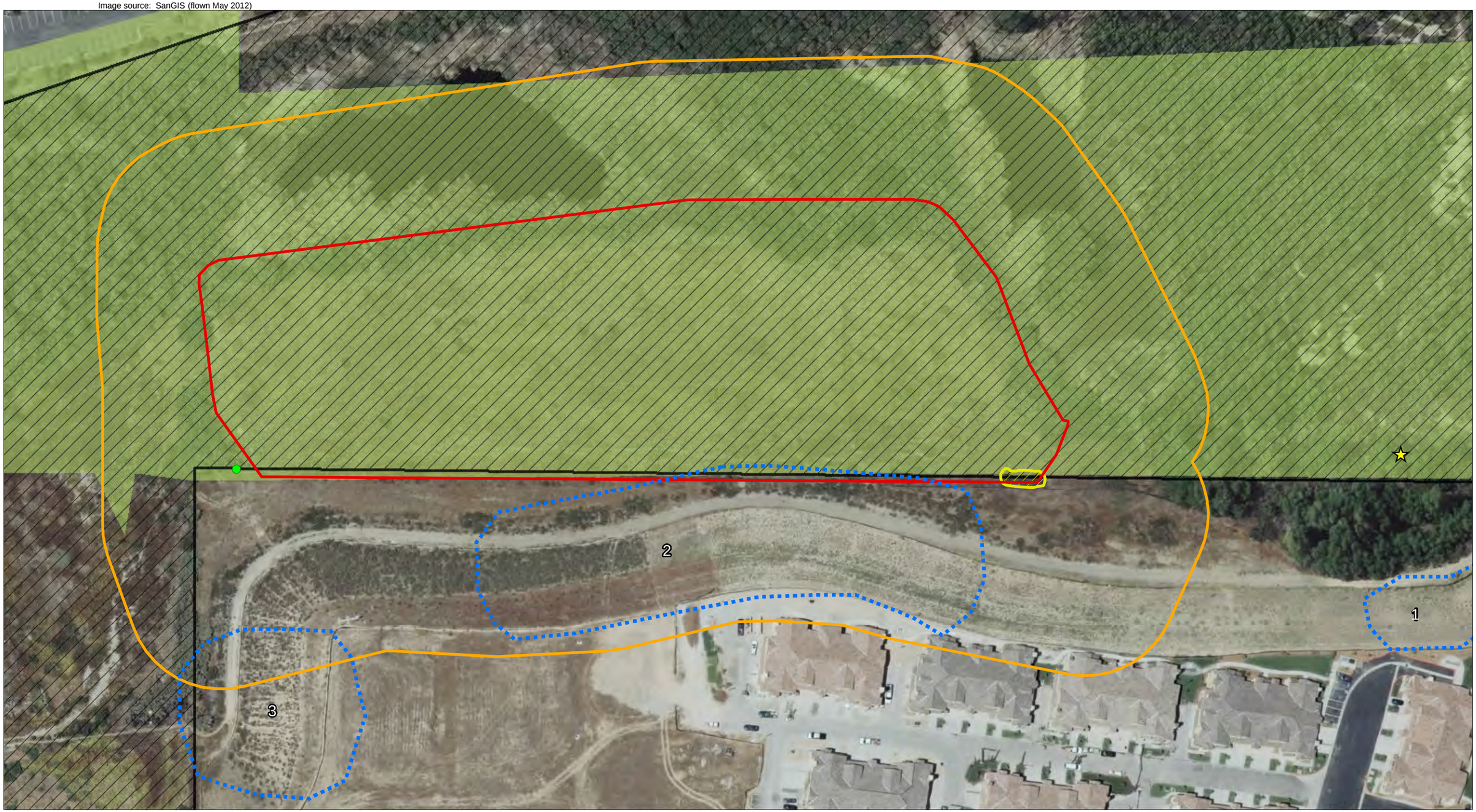
FIGURE 4

Existing Vegetation Communities and Project Impacts

RECON

\\serverfs01\gis\JOBS4\7014\common_gis\fig4_bioC.mxd 5/22/2015 fmm

Image source: SanGIS (flown May 2012)



Project Area/Limit of Work
Survey Area
Chula Vista Habitat Preserve
Otay Valley Regional Park

Sensitive Species

Least Bell's Vireo (***Vireo bellii pusillus***)
Cooper's Hawk (***Accipiter cooperii***)
Coastal California Gnatcatcher (***Polioptila Californica Californica***)
Desert Fragrance (***Ambrosia monogyra***)

0 Feet 100

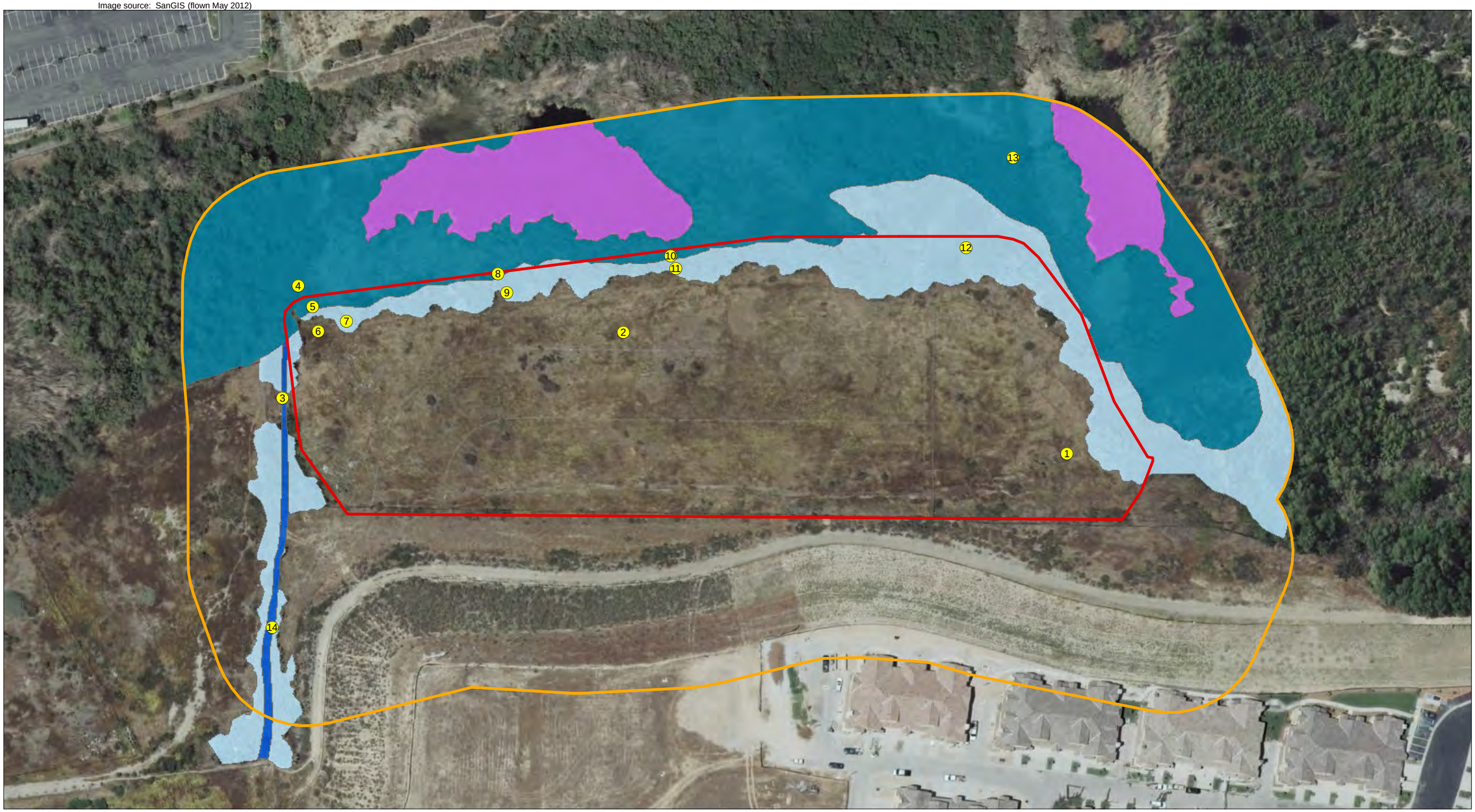
RECON

\\serverfs01\gis\JOBS4\7014\common_gis\fig5_bioC.mxd 5/22/2015 fmm

FIGURE 5

Sensitive Species, Preserve Areas and Project Impacts

Image source: SanGIS (flown May 2012)



Project Area/Limit of Work

Survey Area

Soil Test Pit

Jurisdictional Waters

USACE Non-wetland Water, CDFW Wetland, RWQCB Waters of the State

USACE Wetland, CDFW Wetland, RWQCB Waters of the State

CDFW Wetland, RWQCB Waters of the State

Open Water - USACE Non-wetland Water, CDFW Wetland, RWQCB Waters of the State

0 Feet 100

RECON

\\serverfs01\gis\JOBS4\7014\common_gis\fig6_bioC.mxd 5/22/2015 fmm

FIGURE 6

Existing Jurisdictional Resources and Project Impacts

ATTACHMENT 2

Plant Species Observed in the Survey Area

This page is intentionally blank.

ATTACHMENT 2
PLANT SPECIES OBSERVED IN THE SURVEY AREA

Scientific Name	Common Name	Habitat	Origin
	ANGIOSPERMS: DICOTS		
AIZOACEAE	**ICEPLANT FAMILY**		
Carpobrotus edulis	Hottentot fig	DEV, CSS	I
ANACARDIACEAE	**SUMAC OR CASHEW FAMILY**		
Rhus integrilfolia	Lemonadeberry	CSS	N
Schinus molle	Peruvian pepper tree	DEV	I
APIACEAE	**CARROT FAMILY**		
Apium graveolens	Celery	FWM	N
Foeniculum vulgare	Fennel	CSS, FWM	I
ASTERACEAE	**SUNFLOWER FAMILY**		
Artemisia californica Less.	California sagebrush	CSS	N
Baccharis pilularis	Coyote brush	CSS	N
Baccharis sarothroides	Broom baccharis	CSS	N
Bahiopsis [=*Viguiera*] *laciniata* (A. Gray) E.E. Schilling & Panero	San Diego County viguiera	CSS	N
Carduus pycnocephalus	Italian thistle	CSS	I
Centaurea melitensis	Tocolote, star-thistle	CSS	I
Corethrogyne filaginifolia [= all previously known *Lessingia filaginifolia* varieties in California] (Hook. & Arn.) Nutt.	California-aster	CSS	N
Deinandra fasciculata	Golden tarweed	CSS	N
Encelia californica Nutt.	Common encelia	CSS	N
Eriophyllum confertiflorum	Golden-yarrow	CSS	N
Glebionis coronara	Crown daisy	CSS, NNG	I
Hazardia squarrosa	Saw-toothed goldenbush	CSS	N
Hedypnois creticus	Crete weed	CSS	I

ATTACHMENT 2
PLANT SPECIES OBSERVED IN THE SURVEY AREA
(continued)

Scientific Name	Common Name	Habitat	Origin
Helminthotheca (=Picris) echioides	Bristly ox-tongue	CSS, FWM	I
Isocoma menziesii	San Diego goldenbush	CSS	N
Silybum marianum	Milk thistle	CSS	I
Stylocline gnaphaloides	Everlasting nest straw	CSS	I
Stephanomeria sp.	Wreath-plant	CSS	N
BIGNONIAECEAE	**TRUMPET CREEPER FAMILY**		
Tecoma capensis	Cape honeysuckle	DEV	I
BRASSICACEAE	**MUSTARD FAMILY**		
Brassica nigra	Black mustard	CSS, NNG, DIS	I
Hirschfeldia incana (L.) Lagr.-Fossat	Short-pod mustard	CSS, DEV	I
Lepidium sp.	Peppergrass	CSS	N
Nasturtium officianale (=Rorippa nasturtium-aquaticum)	Watercress	FWM	N
Sisymbrium irio L.	London rocket	DEV	I
CACTACEAE	**CACTUS FAMILY**		
Cylindropuntia prolifera	Coastal cholla	CSS	N
CHENOPODACEAE	**AMARANTH FAMILY**		
Salsola tragus L.	Russian thistle, tumbleweed	DEV, CSS	I
CLEOMACEAE	**SPIDERFLOWER FAMILY**		
Isomeris arborea	Bladderpod	DEV	N
CONVOLVULACEAE	**MORNING-GLORY FAMILY**		
Calystegia macrostegia	Morning-glory	CSS	N
CUCURBITACEAE	**GOURD FAMILY**		
Marah macrocarpus	Wild cucumber	CSS	N
EUPHORBIACEAE	**SPURGE FAMILY**		
Euphorbia peplus	Petty spurge	CSS	I

ATTACHMENT 2
PLANT SPECIES OBSERVED IN THE SURVEY AREA
(continued)

Scientific Name	Common Name	Habitat	Origin
FABACEAE (LEGUMINOSAE)	**LEGUME FAMILY**		
Acacia redolens	Desert carpet, acacia	DEV, CSS	I
Astragalus pomonensis	Pomona locoweed	CSS	N
Melilotus sp.	Sweetclover	CSS, NNG, DIS	I
LAMIACEAE	**MINT FAMILY**		
Marrubium vulgare	Horehound	CSS	I
Stachys sp.	Hedgenettle	FWM	N
MYRTACEAE	**MYRTLE FAMILY**		
Eucalyptus sp.	Eucalyptus, gum tree	DEV	I
PINACEAE	**PINE FAMILY**		
Pinus sp.	Pine	DEV	I
PLANTAGINACEAE	**PLANTAIN FAMILY**		
Collinsia heterophylla	Chinese houses	CSS	N
Plantago erecta	Dot-seed plantain	CSS	N
POLEMONIACEAE	**PHLOX FAMILY**		
Navarretia atractyloides	Holly-leaf skunkweed	CSS	N
POLYGONACEAE	**BUCKWHEAT FAMILY**		
Chorizanthe procumbens	Prostrate spineflower	CSS	N
Eriogonum fasciculatum Benth.	California buckwheat	CSS	N
	LYCOPODS		
SELAGINACEAE	**SPIKE-MOSS FAMILY**		
Selaginella cinerascens	Ashy spike-moss	CSS	N
	ANGIOSPERMS: MONOCOTS		
CYPERACEAE	**SEDGE FAMILY**		

ATTACHMENT 2
PLANT SPECIES OBSERVED IN THE SURVEY AREA
(continued)

Scientific Name	Common Name	Habitat	Origin
Schoenoplectus (=Scirpus) sp.	Bulrush	FWM	N
IRIDACEAE	**IRIS FAMILY**		
Sisyrhinchium bellum	Blue-eyed-grass	CSS	N
POACEAE (GRAMINEAE)	**GRASS FAMILY**		
Avena sp. Link	Wild oats	CSS, NNG, DIS	I
Bromus diandrus Roth.	Ripgut grass	CSS, NNG, DIS	I
Bromus hordeaceus	Soft chess	CSS, NNG, DIST	I
Bromus madritensis ssp. *rubens*	Red brome	CSS, NNG, DIS	I
Festuca perennis	Rye grass	CSS, NNG, DIS	I
Nassella pulchra (Hitchc.) Barkworth	Purple needlegrass	CSS	N
Piptatherum miliaceum	Smilo grass	CSS, FWM	I
Schismus barbatus	Mediterranean schismus	CSS	I
THEMIDACEAE	**BRODIAEA FAMILY**		
Bloomeria crocea	Common goldenstar	CSS	N
TYPHACEAE	**CATTAIL FAMILY**		
Typha sp.	Cattail	FWM	N

HABITATS

CSS = Diegan coastal sage scrub
DEV = Developed
MFS = Mule fat scrub
NNG = Non-native grassland
SWS = Southern willow scrub

OTHER TERMS

I = Introduced species from outside locality
N = Native to locality

ATTACHMENT 3

Wildlife Species Observed

This page is intentionally blank.

ATTACHMENT 3
WILDLIFE SPECIES OBSERVED

Scientific Name	Common Name	Occupied Habitat	On-site Abundance/ Seasonality (Birds Only)	Evidence of Occurrence
INVERTEBRATES (Nomenclature from Eriksen and Belk 1999; Milne and Milne 1980; Mattoni 1990; and Opler and Wright 1999)				
PAPILIONIDAE	**PARNASSIANS & SWALLOWTAILS**			
Papilio rutulus	western tiger swallowtail	SWS		O
PIERIDAE	**WHITES & SULPHURS**			
Pontia protodice	common or checkered white	CSS, NNG		O
NYMPHALIDAE	**BRUSH-FOOTED BUTTERFLIES**			
Adelpha bredowii californica	California sister	SWS		O
PHRYNOSOMATIDAE	**SPINY LIZARDS**			
Sceloporus occidentalis	western fence lizard	CSS, NNG		O
PODICIPEDIDAE	**GREBES**			
Podilymbus podiceps podiceps	pied-billed grebe	OW	F/ Y	O
PHALACROCORACIDAE	**CORMORANTS**			
Phalacrocorax auritus albociliatus	double-crested cormorant	OW	F/ W	O
ARDEIDAE	**HERONS & BITTERNS**			
Ardea alba	great egret	OW, FWM	F/ W	O
Ardea herodias	great blue heron	OW, FWM	F/ Y	O
Butorides virescens	green heron	OW, FWM	F/ S	O
ACCIPITRIDAE	**HAWKS, KITES, & EAGLES**			
Accipiter cooperii	Cooper's hawk	SWS	F/ Y	O
Buteo jamaicensis	red-tailed hawk	SWS	C/ Y	O
FALCONIDAE	**FALCONS & CARACARAS**			
Falco sparverius sparverius	American kestrel	SWS	F/ Y	O
COLUMBIDAE	**PIGEONS & DOVES**			
Columba livia	rock dove (I)	U	F/ Y	O
Zenaida macroura marginella	mourning dove	SWS, CSS	C/ Y	O
APODIDAE	**SWIFTS**			
Aeronautes saxatalis	white-throated swift	SWS	C/ Y	O
TROCHILIDAE	**HUMMINGBIRDS**			
Calypte anna	Anna's hummingbird	SWS	C/ Y	O
PICIDAE	**WOODPECKERS & SAPSUCKERS**			
Picoides nuttallii	Nuttall's woodpecker	SWS	C/ Y	V
TYRANNIDAE	**TYRANT FLYCATCHERS**			
Empidonax difficilis	Pacific slope flycatcher	SWS	F/ S	O
Sayornis nigricans semiatra	black phoebe	CSS, NNG	C/ Y	O
Tyrannus verticalis	western kingbird	SWS, CSS, NNG	C/ S	O

ATTACHMENT 3
WILDLIFE SPECIES OBSERVED
(continued)

Scientific Name	Common Name	Occupied Habitat	On-site Abundance/ Seasonality (Birds Only)	Evidence of Occurrence
VIREONIDAE	**VIREOS**			
Vireo bellii pusillus	least Bell's vireo	SWS	F/ S	V
CORVIDAE	**CROWS, JAYS, & MAGPIES**			
Aphelocoma californica	western scrub-jay	SWS	F/ Y	O
Corvus brachyrhynchos hesperis	American crow	SWS, CSS, NNG, U	C/ Y	O
HIRUNDINIDAE	**SWALLOWS**			
Petrochelidon pyrrhonota tachina	cliff swallow	SWS, U	C/ S	O
Stelgidopteryx serripennis	northern rough-winged swallow	SWS, U	C/ S	O
AEGITHALIDAE	**BUSHTIT**			
Psaltriparus minimus minimus	bushtit	SWS, CSS	C/ Y	O
TROGLODYTIDAE	**WRENS**			
Thryomanes bewickii	Bewick's wren	SWS, CSS	C/ Y	O
Troglodytes aedon parkmanii	house wren	SWS, CSS	C/ Y	O
SYLVIIDAE	**GNATCATCHERS**			
Polioptila californica californica	coastal California gnatcatcher	CSS	F/ Y	O
TIMALIIDAE	**BABBLERS**			
Chamaea fasciata henshawi	wrentit	SWS, CSS	C/ Y	V
PARULIDAE	**WOOD WARBLERS**			
Dendroica petechia	yellow warbler	SWS	F/ S	O
Geothlypis trichas	common yellowthroat	SWS	C/ Y	O
Icteria virens auricollis	yellow-breasted chat	SWS	F/ Y	O
EMBERIZIDAE	**EMBERIZIDS**			
Melospiza melodia	song sparrow	SWS, CSS	C/ Y	O
Pipilo crissalis	California towhee	SWS, CSS	C/ Y	O
Pipilo maculatus	spotted towhee	SWS	C/ Y	V
CARDINALIDAE	**CARDINALS & GROSBEAKS**			
Pheucticus melanocephalus maculatus	black-headed grosbeak	SWS	F/ S	V
ICTERIDAE	**BLACKBIRDS & NEW WORLD ORIOLES**			
Agelaius phoeniceus	red-winged blackbird	FWM, SWS	F/ Y	O
Icterus cucullatus nelsoni	hooded oriole	SWS	F/ S	O
Molothrus ater	brown-headed cowbird	SWS	F/ Y	O
FRINGILLIDAE	**FINCHES**			
Carduelis psaltria hesperophilus	lesser goldfinch	SWS, CSS, NNG	C/ Y	O
Carduelis tristis salicamans	American goldfinch	SWS, CSS	F/ Y	O

ATTACHMENT 3
WILDLIFE SPECIES OBSERVED
(continued)

Scientific Name	Common Name	Occupied Habitat	On-site Abundance/ Seasonality (Birds Only)	Evidence of Occurrence
Carpodacus mexicanus frontalis	house finch	SWS, CSS, U	C/ Y	O
MAMMALS (Nomenclature from Baker et al. 2003)				
LEPORIDAE	**RABBITS & HARES**			
Sylvilagus audubonii	desert cottontail	SWS, CSS, NNG		O
SCIURIDAE	**SQUIRRELS & CHIPMUNKS**			
Spermophilus beecheyi	California ground squirrel	CSS, NNG		O
CANIDAE	**CANIDS**			
Canis latrans	coyote	SWS, CSS, NNG		O

(I) = Introduced species

HABITATS
Ag = Agriculture
B = Bays
C = Coastal waters
CD = Coastal strand, coastal dunes
CF = Coniferous forest
CMC = Coastal mixed, mixed, or chamise chaparral
CSS = Coastal sage scrub, inland sage scrub
F = Flying overhead
FM = Freshwater marsh
FW = Foothill woodland
G = Grassland, pasturelands, etc.
ISS = Inland sage scrub
M = Mesic areas and wetlands
Mu = Mud flats
O = Open places, waste places, roadsides, burns, etc.
OW = Open water (reservoirs, ponds, streams, lakes)
P = Pelagic
RW = Riparian woodlands
SDS = Sonoran desert scrub
SM = Saltwater marsh
U = Urban
W = Woodlands

ABUNDANCE (based on Garrett and Dunn 1981)
C = Common to abundant; almost always encountered in proper habitat, usually in moderate to large numbers
F = Fairly common; usually encountered in proper habitat, generally not in large numbers
U = Uncommon; occurs in small numbers or only locally

SEASONALITY (birds only)
A = Accidental; species not known to occur under normal conditions; may be an off-course migrant
M = Migrant; uses site for brief periods of time, primarily during spring and fall months
S = Spring/summer resident; probable breeder on-site or in vicinity
T = Transient; uses site regularly but unlikely to breed on-site
V = Rare vagrant
W = Winter visitor; does not breed locally
Y = Year-round resident; probable breeder on-site or in vicinity

EVIDENCE OF OCCURRENCE
B = Burrow
C = Carcass/remains
D = Den site
O = Observed
S = Scat
T = Track
V = Vocalization

This page is intentionally blank.

ATTACHMENT 4

Habitat Loss and Incidental Take (HLIT) Ordinance Findings

This page is intentionally blank.

ATTACHMENT 4
HABITAT LOSS AND INCIDENTAL TAKE (HLIT) ORDINANCE FINDINGS

These findings have been prepared to demonstrate that the proposed project is consistent with the City of Chula Vista's Habitat Loss and Incidental Take (HLIT) Ordinance (Ordinance No. 3004). The detail provided below is a supplement to the information provided in the attached biological technical report prepared by RECON.

17.35.080 Required Findings for Issuance of an HLIT Permit

A.1. The proposed development in the Project Area and associated mitigation is consistent with the Chula Vista MSCP Subarea Plan…, the MSCP Implementation Guidelines, and the development standards set forth in Section 17.35.100 of this Chapter.

As detailed in the attached biological technical report, this project is consistent with the City of Chula Vista's MSCP Subarea Plan.

A.2. The Project Area is physically suitable for the design and siting of the proposed development and the development results in minimum disturbance to Sensitive Biological Resources, except impacts to Natural Vegetation in mapped Development Areas.

The Shinohara II Restoration Project lies on the south bank of the Otay River in Chula Vista, California, and is part of a larger property made up of two parcels. The City owns approximately 1 acre of the site, and the remainder is owned by the Shinohara Family Trust. The site is known to have historically received waste from a burn dump and is recorded as a known burn site, and has an active case (Solid Waste Information System number 37-CR-0075) with the County of San Diego Solid Waste Local Enforcement Agency. Based on regulatory records review, the site was never operated as a burn dump; however, burn ash was brought to the site as fill material in the late 1970s, when the owner of the Shinohara parcel reportedly allowed fill to be imported from various sources to create a level surface. It was reported that fill materials imported to the site included burn ash from the former South Bay Burn Site (formerly located approximately 0.25 mile southwest of the site at Interstate 805 and Palm) during the construction of Interstate 805.

The Local Enforcement Agency issued an Official Notice on March 1, 2007, which directed the City to address the following issues to be completed by the stated dates: (1) site security and signage by May 1, 2007; (2) cover installation

(a minimum three-foot cap of clean soil) by July 1, 2007; and (3) drainage and erosion control measures by August 1, 2007.

This project consists of installing a minimum three-foot-thick final cover and initiating a site maintenance and monitoring program. The following will be the recommended components of the restoration and remediation:

1. Consolidation of a portion of the waste in areas where it is economically feasible, such as river banks and portions of the burn dump which encroach property lines.

2. Provide a minimum cover of 24 inches of clean, compacted soil over the existing refuse fill. Areas to receive cover placement will be stripped of all existing vegetation.

3. Grade the compacted soil cover such that a minimum grade of 3 percent occurs.

4. Provide engineered storm water runoff collection and conveyance facilities to prevent future ponding of storm water over the burn dump.

5. Provide improved drainage channel walls or slope armoring, and scour protection along the natural drainage courses to prevent wash out of the landfill from a 100-year, 24-hour storm event.

6. Provide erosion control and seeding to prevent future erosion of the final cover.

7. Provide final cover planting to sustain natural erosion protection compatible with the surrounding biota and consistent with the proposed end use of the properties as specified by the City's General Plan.

8. Provide a maintenance and inspection plan for the site during the post-closure period (typically 10 to 30 years, as determined by the regulatory authority).

9. Restoration of the site will result in 4.76 acres of Diegan coastal sage scrub and 0.81 acre of riparian habitat (southern willow scrub and freshwater marsh) all within the City's MSCP Subarea Plan Preserve. This restoration includes the conversion of 0.29 acre of disturbed Diegan coastal sage scrub, 3.49 acres of non-native grassland, and 0.91 acre of disturbed habitat to high-quality native habitat. A conceptual restoration plan for the project (RECON 2015) has been prepared and will be implemented as a project feature with the oversight of the project biologist.

10. To avoid impacts to the federally listed threatened coastal California gnatcatcher (*Polioptila californica californica*), federally listed endangered least Bell's vireo (*Vireo bellii pusillus*), and California Watch List species Cooper's hawk (*Accipiter*

cooperii), removal of habitat that supports active nests on the proposed project area/limit of work should occur outside of the breeding season (February 15 – August 31 for California gnatcatcher, and March 15 – September 15 for least Bell's vireo).

11. To avoid any direct impacts to nesting raptors, such as Cooper's hawk, and/or any migratory birds, removal of habitat that supports active nests on the proposed project area/limit of work should occur outside of the breeding season for these species (January 15 to August 31).

12. A biological monitor approved by the City of Chula Vista will be present during all vegetation clearing activities. Given that the nature of the project is to restore high-quality native habitat and contain the soil contamination on-site for ultimate use recreationally, the project is suited for the designed project and with project features 9 through 12 no significant impacts to sensitive biological resources will occur.

A.3. The nature and extent of mitigation required as a condition of the permit is reasonably related to and calculated to alleviate negative impacts created in the Project Area.

As a component of the restoration of the site, the soil contamination will be contained and remediated. Once that is completed, the site will be revegetated with high-quality native habitat and will support a larger amount of native vegetation than is pre-existing. Work will be conducted outside the breeding season of sensitive bird species, including the coastal California gnatcatcher, least Bell's vireo, and Cooper's hawk, thus there would be no impacts to these covered species. A subsequent survey for the Narrow Endemic Otay tarplant and San Diego ambrosia will be conducted, if construction is delayed to spring of 2015 or later, to ensure that this species does not occur within the project impact footprint.

B.1. Narrow Endemic Species' populations within the Project Area have been avoided or total avoidance is infeasible.

No Narrow Endemics have been detected within the project footprint, based on the general biological and wetland surveys conducted in 2013 and the historic data, and thus there are no anticipated impacts to Narrow Endemics. There is a low potential for the Narrow Endemic Otay tarplant and San Diego ambrosia to be detected in subsequent years, based on variable expression of the plants from year to year, or expansion of populations know from within 2 miles of the site. A subsequent survey for the Narrow Endemic Otay tarplant and San Diego ambrosia will be conducted, if construction is delayed to spring of 2015 or later, to ensure that this species does not occur within the project impact footprint. If

detected, the results of the survey would be submitted to the City for evaluation of impacts and compliance with HLIT ordinance and MSCP Subarea Plan.

B.2. If the impacts to Narrow Endemic Species have not been avoided, one of the following findings shall be made:

a. In cases where impacts to covered narrow Endemic Species' populations within the Project Area have been limited to 5 percent in 100 percent Conservation Areas and 20 percent in 75-100 percent Conservation Areas and Development Areas outside of Covered Projects, the proposed project design, including mitigation, will result in conservation of the species that is functionally equivalent to its status without the project, including species numbers and area, and must ensure adequate Preserve design to protect the species in the long-term: or

b. In cases where the 5 percent or 20 percent Narrow Endemic Species impact threshold has been exceeded, the proposed project design, including mitigation, results in a Preserve design that would occur if the impact had been limited to 5 percent in 100 percent Conservation Areas or 20 percent in 75-100 percent Conservation Areas and Development Areas outside of Covered Projects.

No Narrow Endemics have been detected within the project footprint, based on the general biological and wetland surveys conducted in 2013 and the historic data, and thus there are no anticipated impacts to Narrow Endemics. There is a low potential for the Narrow Endemic Otay tarplant and San Diego ambrosia to be detected in subsequent years, based on variable expression of the plants from year to year, or expansion of populations know from within 2 miles of the site. A subsequent survey for the Narrow Endemic Otay tarplant and San Diego ambrosia will be conducted if construction is delayed to spring of 2015 or later to ensure that this species does not occur within the project impact footprint. If detected, the results of the survey would be submitted to the City for evaluation of impacts and compliance with HLIT ordinance and MSCP Subarea Plan.

C.1. Prior to issuance of a Land Development Permit or Clearing and Grubbing Permit, the project proponent will be required to obtain any applicable state and federal permits, with copies provided to the Director of Planning and Building, or his/her designee.

All applicable permits, such as those for the U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and the Regional Water Quality Control Board, will be obtained prior to the start of project activities.

C.2. Where impacts are proposed to wetlands the following findings shall be made:

a. Impacts to wetlands have been avoided and/or minimized to the maximum extent practicable, consistent with the city of Chula Vista MSCP subarea plan Section 5.2.4.

The California Department of Resources Recycling and Recovery (CalRecycle), in conjunction with the City, has altered the project's original design in order to minimize impacts to wetland vegetation by moving the northern boundary south. In addition, CalRecycle intends to minimize impacts to southern willow scrub and freshwater marsh wherever possible once project activities commence.

A total of 0.81 acre of riparian habitat will be restored following completion of the remediation.

b. Unavoidable impacts to wetlands have been mitigated pursuant to CVMC 17.35.110. (Ord. 3004 § 1, 2005).

A total of 0.81 acre of riparian habitat will be restored following completion of the remediation.

This page is intentionally blank.

ATTACHMENT 5

Sensitive Plant Species Observed or with the Potential to Occur

This page is intentionally blank.

ATTACHMENT 5
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL TO OCCUR

Species	State/Federal Status	CNPS List	City of Chula Vista	Habitat/Blooming Period	Comments
Acanthomintha ilicifolia San Diego thornmint	CE/FT	1B	NE, $MSCP_1$	Annual herb; chaparral, coastal sage scrub, and grasslands on friable or broken clay soils; blooms April–June; elevation less than 3,100 feet.	Not observed on-site and not expected to occur due to lack of suitable soils.
Adolphia californica California adolphia	–/–	2		Deciduous shrub; Diegan coastal sage scrub and chaparral; clay soils; blooms Dec.–May; elevation 100–1,000 feet.	Not observed in survey area. Would have been apparent during surveys.
Ambrosia pumila San Diego ambrosia	–/FE	1B	NE, $MSCP_1$	Perennial herb; washes, ravines, often in disturbed areas; blooms May–Sept.; elevation less than 2,000 feet.	Not observed in survey area during focused plant survey. Would have been apparent during surveys.
Ambrosia mongyra Desert fragrance	–/–	2B		Perennial shrub; coastal bluff scrub, coastal dunes, coastal sage scrub, valley and foothill grassland, alkaline or clay soil; blooms Mar.–Oct; elevation less than 1,050 feet.	Several individuals observed within disturbed habitat.
Cordylanthus orcuttianus Orcutt's bird'sbeak	–/–	2	MSCP	Annual herb; coastal sage scrub; blooms March–Sept.; elevation less than 1,200 feet.	Not expected to occur in the survey area; not known from National City USGS quadrangle (CNPS 2001).
Cylindropuntia californica (=*Opuntia californica* var. *californica*) Snake cholla	–/–	1B	NE, MSCP	Succulent shrub; chaparral, coastal sage scrub; blooms April–May; elevation 100–500 feet.	Not observed in survey area. Would have been apparent during survey.

ATTACHMENT 5
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL TO OCCUR
(continued)

Species	State/Federal Status	CNPS List	City of Chula Vista	Habitat/Blooming Period	Comments
Deinandra conjugens (=*Hemizonia conjugens*) Otay tarplant	CE/FT	1B	NE, MSCP	Annual herb; coastal sage scrub, valley and foothill grassland, clay soils; blooms May–June, elevation less than 1,000 feet.	Not observed in survey area. Low potential to occur based on survey results.
Ericameria palmeri var. *palmeri* Palmer's goldenbush	–/–	2	NE, $MSCP_1$	Evergreen shrub; chaparral coastal sage scrub, typically in mesic areas; blooms July–Nov.; elevation less than 2,000 feet. Known from six occurrences in California.	Not observed on-site; would have been apparent during surveys.
Euphorbia misera Cliff spurge	–/–	2		Shrub; coastal sage scrub, maritime succulent scrub, coastal bluff scrub; blooms Dec.–Aug.; elevation less than 2,000 feet.	Not observed on-site; would have been apparent during surveys.
Ferocactus viridescens San Diego coast barrel cactus	–/–	2	MSCP	Succulent; chaparral, coastal sage scrub, valley and foothill grassland, vernal pools; blooms May–June; elevation less than 1,500 feet.	Not observed, low potential to occur. Would have been apparent during surveys.
Iva hayesiana San Diego marsh-elder	–/–	2		Perennial herb; marshes and swamps, playas, riparian areas; blooms April–Sept.; elevation below 1,700 feet.	Not observed in survey area. Would have been apparent during survey.

ATTACHMENT 5
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL TO OCCUR
(continued)

FEDERAL CANDIDATES AND LISTED PLANTS

FE = Federally listed endangered
FT = Federally listed threatened
FC = Federal candidate for listing as endangered or threatened

STATE LISTED PLANTS

CE = State listed endangered
CR = State listed rare
CT = State listed threatened

CALIFORNIA NATIVE PLANT SOCIETY LISTS

1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
2B = Species rare, threatened, or endangered in California but more common elsewhere. These species are eligible for state listing.

CITY OF CHULA VISTA

NE = Narrow endemic
MSCP = MSCP covered species
$MSCP_1$ = MSCP coverage for these species in the City of Chula Vista is reliant upon the continued implementation of the City and County of San Diego MSCP Subarea Plans

This page is intentionally blank.

ATTACHMENT 6

Sensitive Wildlife Species Known or with the Potential to Occur

This page is intentionally blank.

ATTACHMENT 6
SENSITIVE WILDLIFE SPECIES KNOWN OR WITH THE POTENTIAL TO OCCUR

Species	Status	Habitat/Comments	Occurrence
BUTTERFLIES (Nomenclature from Mattoni 1990 and Opler and Wright 1999)			
Quino checkerspot butterfly *Euphydryas editha quino*	FE, MSCP	Open, dry areas in foothills, mesas, lake margins. Larval host plant *Plantago erecta.* Adult emergence mid-January through April.	Not expected to occur due to development surrounding site, absence of recent sightings in the vicinity, and lack of suitable habitat and host plants. Outside of USFWS and City of Chula Vista survey areas.
REPTILES (Nomenclature from Crother 2001 and Crother et al. 2003)			
Orangethroat whiptail *Aspidoscelis hyperythra*	CSC, MSCP, *	Chaparral, coastal sage scrub with coarse sandy soils and scattered brush.	Low potential to occur due to lack of suitable habitat on-site.
Coast horned lizard *Phrynosoma blainvillii*	CSC, FSS, MSCP, *	Chaparral, coastal sage scrub with fine, loose soil. Partially dependent on harvester ants for forage.	Low potential to occur due to lack of suitable habitat on-site.
BIRDS (Nomenclature from American Ornithologists' Union 1998 and Unitt 1984)			
Cooper's hawk *Accipiter cooperi*	WL, $MSCP_1$	Mature forest, open woodlands, wood edges, river groves. Parks and residential areas. Year-round resident.	Observed on-site. Potential to nest in trees within southern willow scrub habitat.
Southwestern willow flycatcher *Empidonax traillii extimus*	FE, SE, MSCP, *	Nesting restricted to willow thickets. Also occupies other woodlands. Uncommon migrant. Extremely localized breeding in the San Luis Rey, Santa Margarita, and Tijuana Rivers.	Not expected to occur on-site due to lack of suitable habitat.

ATTACHMENT 6
SENSITIVE WILDLIFE SPECIES KNOWN OR WITH THE POTENTIAL TO OCCUR
(continued)

Species	Status	Habitat/Comments	Occurrence
Least Bell's vireo *Vireo bellii pusillus*	FE, SE, MSCP, BCC, *	Willow riparian woodlands. Migrant and summer resident.	Species is known to occur in the project vicinity (State of California 2013c) and was detected within the southern willow scrub habitat adjacent to the project area during biological surveys.
Coastal cactus wren *Campylorhynchus brunneicapillus couesi*	CSC, MSCP, FSS, BCC	Maritime succulent scrub, coastal sage scrub and desert scrub with *Opuntia* thickets. Rare localized resident.	Not observed on-site and not expected to occur due to lack of cactus within the survey area.
Coastal California gnatcatcher *Polioptila californica californica*	FT, CSC, MSCP, *	Coastal sage scrub, maritime succulent scrub. Resident.	Species is known to occur in the project vicinity (State of California 2013c) and was detected within the project area during protocol surveys (Recon 2013). This species has a low potential to nest on-site.
Light-footed clapper rail *Rallus longirostris levipes*	FE, CSC	Freshwater marsh. Resident.	Species is not known to occur in the project vicinity (State of California 2013c). Light-footed clapper rail does have the potential to occur within the freshwater marsh habitat within the northern portions of the project area.
Burrowing owl *Athene cunicularia*	FT, CSC	Open, dry grasslands, deserts, and agricultural fields. Resident.	Species is not known to occur in the project vicinity (State of California 2013c), but has a low potential to occur on-site due to the presence of open, dry grassland and disturbed habitat.

ATTACHMENT 6
SENSITIVE WILDLIFE SPECIES KNOWN OR WITH THE POTENTIAL TO OCCUR
(continued)

Species	Status	Habitat/Comments	Occurrence
Southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	WL, MSCP, *	Coastal sage scrub, chaparral, grassland; favors steep and rocky areas. Localized resident.	Not observed during surveys. Not expected to occur due to limited amounts and level of disturbance of coastal sage scrub on-site.
MAMMALS (Nomenclature from Jones et al. 1997 and Hall 1981)			
Southern mule deer *Odocoileus hemionus fulginata*	MSCP	Mosaic of vegetation with an interspersion of herbaceous openings, dense brush or tree thickets, riparian areas, and abundant edge.	Low potential to occur due to size of habitat area, surrounding development, and but with some of wildlife movement corridor connectivity.

STATUS CODES

Listed/Proposed

FE = Listed as endangered by the federal government
FSS = Federal (BLM and USFS) sensitive species
FT = Listed as threatened by the federal government
SE = Listed as endangered by the state of California

Other

WL = California Department of Fish and Wildlife Watch List
MSCP = MSCP covered species
$MSCP_1$ = MSCP coverage for these species in the City of Chula Vista is reliant upon continued implementation of City and County of San Diego MSCP Subarea Plans
* = Taxa listed with an asterisk fall into one or more of the following categories:
- Taxa considered endangered or rare under Section 15380(d) of CEQA guidelines
- Taxa that are biologically rare, very restricted in distribution, or declining throughout their range
- Population(s) in California that may be peripheral to the major portion of a taxon's range, but which are threatened with extirpation within California
- Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands)

This page is intentionally blank.