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4.12 BIOLOGICAL RESOURCES

4.12.1 Introduction

The following section describes the biological resources in and around the proposed Project site, identifies and evaluates potential impacts to biological resources from the proposed Project, and identifies potential mitigation measures to address these impacts. This section addresses potential impacts to biological resources for both the construction and operation of the following Project components described in detail in Section 2.0: 100-MW power plant will be constructed on approximately 11 acres of a 21.6-acre parcel, a 230kV gen tie within a 300-foot wide corridor, a 230kV utility switchyard, a 8-inch natural gas pipeline lateral, and temporary construction laydown and construction parking area, collectively known as the Project site.

Analysis of biological resources was completed by a combination of literature review, desktop studies, and biological surveys conducted in May through July 2011. Biological surveys were carried out on approximately 264 acres, hereafter referred to as the survey area. The survey area was set to encompass all parcels where the proposed plant site, gen tie, switchyard, and natural gas pipeline lateral would be sited, as well as potential mitigation parcels. Setting a broader survey area allowed flexibility for changes to Project-specific components without having to conduct additional surveys.

The proposed Project is generally located north of I-8, south of SR 78, east of I-15, and west of SR 67 in the City of San Diego and San Diego County, California (Figure 4.12-1). The Project is located within Township 15 South, Range 1 West, Section 7, Township 15 South, Range 2 West, Section 12, and unsectioned portions of El Cajon and Mission San Diego Land Grants, within the La Mesa, California, USGS 7.5-minute topographic quadrangle map. The proposed Project site is located north of San Clemente Canyon Freeway (SR 52), east of Medina Drive, and on both sides of Sycamore Landfill Road adjacent to the Sycamore Landfill.

The power plant and associated components are located within the jurisdictional boundaries of San Diego County's MSCP Plan (San Diego County, 1998) and the City of San Diego's MSCP Subarea Plan (City Subarea Plan) (City of San Diego 1997). The City of San Diego's MSCP Subarea Plan boundaries are shown in Figure 4.12-1. These documents serve as the overarching conservation guidance documents relevant to the Project. Portions of the proposed Project occur within the MHPA. Because the plant site parcel is also located within the MHPA identified in the City Subarea Plan, the Project proponent will be proposing an MHPA boundary adjustment to remove the plant site from the MHPA, in accordance with equivalency standards provided in the MSCP and City Subarea Plan, and subject to the approval of the City of San Diego, the U.S. Fish and Wildlife Service (USFWS), and the California Department of Fish and Game (CDFG).

A *Biological Resources Work Plan* was developed and is attached as Appendix H.1 to this AFC. Elements of the work plan were discussed in detail with the CEC, USFWS, CDFG, and City of San Diego prior to this AFC submittal. The work plan provides a list of LORS applicable to the proposed Project, identifies relevant management plans and special management areas applicable to the proposed Project, and discusses methods for identifying biological resources that may be impacted by the proposed Project.

4.12.2 Affected Environment

The following sections discuss biological resources in the region around the proposed Project site, as well as on the proposed Project site itself. A regional overview is provided first, followed by a description of vegetation communities, special status species habitats, general wildlife observed, wetlands and water resources, and other biological resources observed onsite. The biological value of the plant site parcel is also discussed, as it will be extracted from the MHPA through a boundary change process with the approval of the City of San Diego, USFWS, and CDFG.

4.12.2.1 Regional Overview

The proposed Project is located in the eastern portion of the City San Diego, approximately 1 mile west of the San Diego/Santee municipal border. The plant site is located approximately 13 miles east of the Pacific Coast and 20 miles north of the U.S./Mexico border. The proposed Project site is within the San Diego River watershed. The San Diego River runs through the MTRP to the south of the Project. Figure 4.12-1 provides a regional map of the proposed Project location.

Much of the land base within 10 miles of the Project site has been developed or otherwise disturbed. Communities within 10 miles of the Project site include Lakeside, Santee, El Cajon, La Mesa, San Diego, and Poway. Dense urban development associated with the City of San Diego is located within 10 miles southwest of the proposed Project site. Major regional conservation areas within 10 miles include the San Diego National Wildlife Refuge, portions of which are located within 5 miles of the Project to the west, and large regional or county parks such as the Sycamore Canyon County Park, located approximately 5 miles northwest of the Project site, and the MTRP, located across SR 52 south of the proposed Project site.

The proposed Project site is located in a relatively undeveloped area designated as the “East Elliott Area” by the City of San Diego’s General Plan. The proposed Project site is bordered by Sycamore Landfill to the north, SR 52 and Mission Trails Regional Park to the south, and undeveloped open space to the east and west. The Sycamore Landfill is situated between the proposed plant site and the Marine Corps Air Station (MCAS) Miramar (formerly Naval Air Station [NAS] Miramar), which is located approximately 2 miles north of the plant site. MCAS Miramar conducts natural resource planning and management for lands within the base boundaries.

The majority of the proposed Project is located within the jurisdictional boundaries of the San Diego County MSCP Plan, and the “Eastern Area” established by the City Subarea Plan. The overarching goal of the County’s MSCP Plan is to conserve and protect the diversity of vegetation communities, and associated plants and animals in southwestern San Diego County, particularly sensitive resources. By doing so, the MSCP Plan protects habitat for over 1,000 native and nonnative plant species, more than 380 species of fish, amphibians, reptiles, birds, and mammals, and thousands of invertebrate species (San Diego County 1998).

The plant site parcel is also located within the MHPA boundaries established by the MSCP Plan and Subarea Plans. According to the City Subarea Plan, the “Eastern Area” includes the remaining undeveloped lands in the eastern portion of the City of San Diego. The Eastern Area contains a number of important resources, including coastal sage scrub, riparian scrub, and

vernal pools, along with significant populations of several special status plant species. Spring and Oak canyons provide wildlife corridors between the MTRP and MCAS Miramar (City of San Diego 1997).

A list of sensitive biological resources within 10 miles of the proposed Project site was compiled from several sources, including the City of San Diego Subarea Plan document, the CDFG's California Natural Diversity Database (CNDDDB), a sensitive species and plant community database, the California Native Plant Society (CNPS) online inventory database, and Consortium of California Herbaria (Table 4.12-1) (CDFG 2003, 2011a, and 2011b, CDFG 2011c; CNPS 2011, CNDDDB 2011, Consortium of California Herbaria 2008). A query of the CNDDDB records was performed based on a 10-mile radius around the proposed Project site that included the Del Mar, El Cajon, Jamul Mountains, La Jolla, La Mesa, National City, Point Loma, San Vicente Reservoir, and Poway, California USGS 7.5-minute topographic quadrangle maps. The CNDDDB GIS database was also utilized, together with ArcGIS software, to confirm the locations of CNDDDB records. The CNPS online inventory provided additional sensitive species information for many species that have not been reported to the CNDDDB database. The locations of previously documented observations for sensitive plant and wildlife species were identified and plotted onto aerial and topographic maps to determine connectivity of suitable habitat and/or likely dispersing routes between the locations of observations and the Project site. Table 4.12-1 provides a comprehensive list of all sensitive biological resources (including natural communities, plants, and wildlife) reported to occur within a 10-mile radius of the proposed Project site. Figures 4.12.2a through 4.12-2d illustrate the locations of all sensitive biological resources (including natural communities, plants, and wildlife) reported to occur within a 10-mile radius of the proposed Project site.¹

Table 4.12-1 Regional Biological Resources That Occur Within a 10-Mile Radius of the Proposed Project Site

Community/Plants/ Taxonomic Group	Common Name	Scientific Name
Sensitive Plant Communities	San Diego Mesa Hardpan Vernal Pool	N/A
	Southern Coast Live Oak Riparian Forest	N/A
	Southern Cottonwood Willow Riparian Forest	N/A
	Southern Riparian Forest	N/A
	Southern Riparian Scrub	N/A
	Southern Sycamore Alder Riparian Woodland	N/A
	Valley Needlegrass Grassland	N/A
Plants	Aphanisma	<i>Aphanisma blitoides</i>
	Baja California birdbush	<i>Omithostaphylos oppositifolia</i>
	Beach goldenaster	<i>Heterotheca sessiliflora ssp. sessiliflora</i>
	Blochman's dudleya	<i>Dudleya blochmaniae ssp. blochmaniae</i>
	Brand's star phacelia	<i>Phacelia stellaris</i>

¹ The CNDDDB, City of San Diego MSCP Subarea Plan document, CNPS database, and the Consortium of California Herbaria are comprehensive databases commonly used to identify sensitive biological resources within specific geographic areas within the State of California. These databases are assumed to collectively capture most occurrences of state and federal Endangered Species, resources listed in 20 CCR §§ 1702(q) (areas of critical concern) and 1702 (v) (species of special concern), California Fully Protected species, species protected by the Migratory Bird Treaty Act, species identified by agencies or commissions as needing protection, and fish and wildlife species of commercial and/or recreational value. This list was reviewed by qualified biologists, and it is believed to capture all sensitive biological resources relevant to the proposed Project.

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Community/Plants/ Taxonomic Group	Common Name	Scientific Name
	California adolphia	<i>Adolphia californica</i>
	California Orcutt grass	<i>Orcuttia californica</i>
	Chaparral ragwort	<i>Senecio aphanactis</i>
	Cliff spurge	<i>Euphorbia misera</i>
	Coastal dunes milk vetch	<i>Astragalus tener var. titi</i>
	Coast wallflower	<i>Erysimum ammophilum</i>
	Coast woolly-heads	<i>Nemacaulis denudate var. denudata</i>
	Coulter's goldfields	<i>Lasthenia glabrata ssp. coulteri</i>
	Coulter's saltbush	<i>Atriplex coulteri</i>
	Del Mar manzanita	<i>Arctostaphylos glandulosa var. crassifolia</i>
	Del Mar sand aster	<i>Corethrogyne filaginifolia var. linifolia</i>
	Denesa bear-grass	<i>Nolina interrata</i>
	Dense reed grass	<i>Calamagrostis densa</i>
	Dunn's mariposa lily	<i>Calochortus dunnii</i>
	Encinitas coyote brush	<i>Baccharis vanessae</i>
	Estuary sea-blite	<i>Suaeda esteroa</i>
	Felt-leaved monardella	<i>Monardella hypoleuca ssp. lanata</i>
	Gander's butterweed	<i>Senecio ganderi</i>
	Gander's pitcher sage	<i>Lepechinia ganderi</i>
	Golden-spined cereus	<i>Bergerocactus emoryi</i>
	Heart-leaved pitcher sage	<i>Lepechinia cardiophylla</i>
	Lakeside ceanothus	<i>Ceanothus cyaneus</i>
	Laguna Mountains jewel-flower	<i>Streptanthus bemarkinus</i>
	Little mousetail	<i>Myosurus minimus ssp. apus</i>
	Mexican flannelbush	<i>Fremontodendron mexicanum</i>
	Narrow-leaved nightshade	<i>Solanum tenuilobatum</i>
	Nevin's barberry	<i>Berberis nevinii</i>
	Nuttall's lotus	<i>Lotus nuttallianus</i>
	Nuttall's scrub oak	<i>Quercus dumosa</i>
	Orcutt's bird's-beak	<i>Cordylanthus orcuttianus</i>
	Orcutt's brodiaea	<i>Brodiaea orcuttii</i>
	Orcutt's dudleya	<i>Dudleya attenuata ssp. ocuttii</i>
	Orcutt's pincushion	<i>Chaenactis glabriuscula var. orcuttiana</i>
	Otay manzanita	<i>Arctostaphylos otayensis</i>
	Otay Mesa mint	<i>Pogogyne nudiuscula</i>
	Otay tarplant	<i>Deinandra conjugens</i>
	Palmer's ericameria	<i>Ericameria palmeria</i>
	Palmer's frankenia	<i>Frankenia palmeri</i>
	Parry's tetracoccus	<i>Tetracoccus dioicus</i>
	Prostrate navarretia	<i>Navarretia fossalia</i>
	Purple stemodia	<i>Stemodia durantifolia</i>
	Robinson's pepper-grass	<i>Lepidium virginicum var. robinsonii</i>
	Salt marsh bird's-beak	<i>Cordylanthus maritimus ssp. maritimus</i>
	San Diego ambrosia	<i>Ambrosia pumila</i>
	San Diego barrel cactus	<i>Ferocactus viridescens</i>
	San Diego bur-sage	<i>Ambrosia chenopodiifolia</i>
	San Diego button-celery	<i>Eryngium aristulatum spp. parishii</i>
	San Diego goldenaster	<i>Muilla clevelandii</i>

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Community/Plants/ Taxonomic Group	Common Name	Scientific Name
	San Diego marsh-elder	<i>Iva hayesiana</i>
	San Diego mesa mint	<i>Pogogyne abramsii</i>
	San Diego sagewort	<i>Artemisia palmeri</i>
	San Diego sand aster	<i>Corethrogyne filaginifolia</i> var. <i>incana</i>
	San Diego thorn-mint	<i>Acanthomintha ilicifolia</i>
	Santa Catalina Island currant	<i>Ribes viburnifolium</i>
	San Miguel savory	<i>Satureja chandleri</i>
	Sea dahlia	<i>Coreopsis maritima</i>
	Shaw's agave	<i>Agave shawii</i>
	Short-leaved dudleya	<i>Dudleya blochmaniae</i> ssp. <i>brevifolia</i>
	Short-lobed broomrape	<i>Orobanche parishii</i> ssp. <i>brachyloba</i>
	Singlewhorl burrobush	<i>Ambrosia monogyra</i>
	Slender cottonheads	<i>Nemacaulis denudata</i> var. <i>gracilis</i>
	Slender-pod jewelflower	<i>Caulanthus stenocarpus</i>
	Small-leaved rose	<i>Rosa minutifolia</i>
	Snake cholla	<i>Opuntia californica</i> var. <i>californica</i>
	South Coast saltscale	<i>Atriplex pacifica</i>
	Spreading navarretia	<i>Navarretia fossalis</i>
	Sticky dudleya	<i>Dudleya viscida</i>
	Tecate cypress	<i>Cupressus forbesii</i>
	Thread-leaved brodiaea	<i>Brodiaea filifolia</i>
	Torrey pine	<i>Pinus torreyana</i> ssp. <i>torreyana</i>
	Variegated dudleya	<i>Dudleya variegata</i>
Wart-stemmed ceanothus	<i>Ceanothus verrucosus</i>	
Willowy monardella	<i>Monardella linoidea</i> ssp. <i>viminera</i>	
Invertebrates	California brackishwater snail	<i>Tryonia imitator</i>
	Globose dune beetle	<i>Coelus globosus</i>
	Riverside fairy shrimp	<i>Streptocephalus woottonii</i>
	Sandy beach tiger beetle	<i>Cicindela hirticollis gravida</i>
	Saltmarsh skipper	<i>Panoquina errans</i>
	San Diego fairy shrimp	<i>Branchinecta sandiegoensis</i>
	Senile tiger beetle	<i>Cicindela senilis frosti</i>
	Thorne's hairstreak	<i>Mitoura thornei</i>
	Western beach tiger beetle	<i>Cicindela latesignata latesignata</i>
	Western tidal-flat tiger beetle	<i>Cicindela gabbii</i>
Amphibians	Arroyo southwestern toad	<i>Bufo microscaphus</i> ssp. <i>californicus</i>
	California red-legged frog	<i>Rana aurora</i> ssp. <i>pallida</i>
	Western spadefoot	<i>Spea hammondi</i>
Reptiles	Coast (San Diego) horned lizard	<i>Phrynosoma blainvilli</i>
	Coronado skink	<i>Eumeces skiltonianus interparietalis</i>
	Northern red-diamond rattlesnake	<i>Crotalus ruber ruber</i>
	Orange-throated whiptail	<i>Aspidoscelis hyperythra</i>
	Rosy boa	<i>Charina trivirgata</i>
	Silvery legless lizard	<i>Anniella pulchra pulchra</i>
	Southwestern pond turtle	<i>Clemmys marmorata</i> ssp. <i>pallida</i>
	Two-striped garter snake	<i>Thamnophis hammondi</i>
Birds	American peregrine falcon	<i>Falco peregrinus anatum</i>
	Bald eagle	<i>Haliaeetus leucocephalus</i>
	Belding's savannah sparrow	<i>Passerculus sandwichensis beldingi</i>

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Community/Plants/ Taxonomic Group	Common Name	Scientific Name
	Burrowing owl	<i>Athene cunicularia</i>
	California brown pelican	<i>Pelecanus occidentalis ssp. californica</i>
	California least tern	<i>Sterna antillarum browni</i>
	Canada goose	<i>Branta Canadensis ssp. moffitti</i>
	Coastal cactus wren	<i>Campylorhynchus brunneicapillus</i>
	Coastal California gnatcatcher	<i>Polioptila californica californica</i>
	Cooper's hawk	<i>Accipiter cooperi</i>
	Elegant tern	<i>Sterna elegans</i>
	Ferruginous hawk	<i>Buteo regalis</i>
	Golden eagle	<i>Aquila chrysaetos</i>
	Large-billed savannah sparrow	<i>Passerculus sandwichensis ssp. rostratus</i>
	Least Bell's vireo	<i>Vireo bellii pusillus</i>
	Light-footed clapper rail	<i>Rallus longirostris levipes</i>
	Long-billed curlew	<i>Numenius americanus</i>
	Mountain plover	<i>Charadrius montanus</i>
	Northern harrier	<i>Circus cyaneus</i>
	Reddish egret	<i>Egretta rufescens</i>
	Southern California rufous-crowned sparrow	<i>Aimophila ruficeps canescens</i>
	Swainson's hawk	<i>Buteo swainsoni</i>
	Tricolored blackbird	<i>Agelaius tricolor</i>
	Western bluebird	<i>Sialia mexicana</i>
	Western snowy plover	<i>Charadrius alexandrinus nivosus</i>
	White-faced ibis	<i>Plegadis chihi</i>
Mammals	American badger	<i>Taxidea taxus</i>
	Hoary bat	<i>Lasiurus cinereus</i>
	Mexican long-tongued bat	<i>Choeronycteris mexicana</i>
	Mountain lion	<i>Felis concolor</i>
	Northwestern San Diego pocket mouse	<i>Chaetodipus fallax fallax</i>
	Pallid bat	<i>Antrozous pallidus</i>
	Pacific pocket mouse	<i>Perognathus longimembris pacificus</i>
	San Diego black-tailed jackrabbit	<i>Lepus californicus</i>
	San Diego desert woodrat	<i>Neotoma lepida intermedia</i>
	Southern mule deer	<i>Odocoileus hemionus fuliginata</i>
	Western mastiff bat	<i>Eumops perotis californicus</i>

4.12.2.2 Project Vicinity

General habitat assessment surveys were performed on foot by qualified biologists on June 15, 22, 30, and July 7, 2011 for the entire survey area. Parameters assessed included habitat requirements of special status plant and wildlife species known to occur in the vicinity, such as the presence of suitable physical characteristics (slope, aspect, and hydrology), vegetation and plant community compositions, and soil substrates. Additionally, the presence of suitable habitat for nesting, roosting, foraging, basking, dispersing, or other behavioral actions was assessed. A full description of methods used for the general habitat assessment surveys is provided in Appendix H.2, the Biological Resources Survey Report.

The survey area is located within Little Sycamore Canyon and Spring Canyon, which are two north-south trending canyons that range from 400 to 800 feet amsl. These two canyons flow

directly into the San Diego River just south of the survey area. The plant site occurs on a gently sloping west-facing hillside on the east side of Little Sycamore Canyon east of the existing Sycamore Landfill Road. The genetic corridor begins at the plant site within gently rolling hills that increase in elevation to the north. It turns west at the southern portion of the Sycamore Landfill and continues to the utility switchyard. The surrounding land in all directions consists of rolling grassland hills with scattered shrub cover. Shrub cover increases with higher elevations in offsite areas around the survey area. The MTRP is located to the southwest of the survey area.

The proposed Project site contains undeveloped land that was recently disturbed by a brush fire in 2007. Based on historic aerial photographs (1953, 1964, 1968, 1980, 1989, 2003, and 2005), the Project site has been relatively undisturbed (Nationwide Environmental Title Research, LLC 2009). Direct disturbances to the survey area include constant truck traffic associated with the paved access road for the existing landfill and aggregate mine, and access roads and tower sites for the SDG&E 230kV transmission line. Additionally, brush fires within the last 3 years have greatly disturbed vegetation growth within the coastal sage scrub areas, which vary in quality from low to moderate. Indirect disturbances to the area are limited to those pertaining to nighttime lighting and noise because of the activities associated with the adjacent landfill.

Based on the United States Department of Agriculture Soil Survey (USDA 1978), the survey area contains 4 soil mapping units, including Diablo clay, Diablo-Olivenhain complex, Redding cobbly loam, and stony land. Soils are discussed in detail and mapped in Section 4.14 of this AFC.

Figure 4.12-3 provides a detailed overview of the area within 1 mile of the proposed Project site, as well as sensitive biological resources that are known to occur within 1 mile of the proposed Project site according to the CNDDDB, the CNPS inventory, and the Consortium of California Herbaria (CDFG 2011a, CDFG 2011b, CDFG 2011c, CNPS 2011, Consortium of California Herbaria 2008).

4.12.2.3 Vegetation

Plant Species Observed

The survey area is located within a previously burned area that is naturally revegetating. Although there is still evidence of burned vegetation, the vegetation has nearly recovered and vegetative cover is close to pre-burn conditions based on historic aerial photos. The majority of the plant site contains a dense stand of non-native grasslands (California annual grassland series) with three patches of remnant Diegan coastal sage scrub habitat (California buckwheat-white sage series). There are also several ecotones, which are areas with overlapping vegetation communities. The most common species observed is deer weed (*Lotus scoparius*). Isolated individual plants scattered within the patch of deer weed include California buckwheat (*Eriogonum fasciculatum*) and white sage (*Salvia apiana*). A list of all plant species observed on and in the immediate vicinity of the survey area is provided in Table 4.12-2.

Table 4.12-2 Plant Species Observed Within the Survey Area

Family	Description	Scientific Name	Common Name
Adoxaceae	Honeysuckle Family	<i>Sambucus mexicana</i>	blue elderberry
Agavaceae	Agave Family	<i>Chlorogalum parviflorum</i>	small flower soap plant
Anacardiaceae	Sumac or Cashew Family	<i>Malosma laurina</i>	laurel sumac
		<i>Rhus integrifolia</i>	lemonadeberry
		<i>Toxicodendron diversilobum</i>	poison oak
Apiaceae	Carrot Family	<i>Bowlesia incana</i>	bowlesia
		<i>Foeniculum vulgare</i>	fennel
		<i>Lomatium lucidum</i>	shiny lomatium
		<i>Sanicula bipinnatifida</i>	purple sancile
Asteraceae	Sunflower Family	<i>Acourtia microcephala</i>	sacapellote
		<i>Agoseris sp.</i>	unknown dandelion species
		<i>Ambrosia psilostachya</i>	western ragweed
		<i>Artemisia californica</i>	California sagebrush
		<i>Bahiopsis laciniata</i>	San Diego County viguiera
		<i>Brickellia californica</i>	California brickellbush
		<i>Centaurea solstitialis</i>	yellow star-thistle
		<i>Chamomilla suaveolens</i>	pineapple weed
		<i>Corethrogyne filaginifolia</i>	California aster
		<i>Cynara cardunculus</i>	cardoon
		<i>Deinandra fasciculata</i>	clustered tarweed
		<i>Ericameria pinifolia</i>	pinebush
		<i>Gnaphalium bicolor</i>	bicolored cudweed
		<i>Gnaphalium californicum</i>	California everlasting
		<i>Helminthotheca echioides</i>	bristly ox-tongue
		<i>Hypochaeris glabra</i>	smooth cat's-ear
		<i>Lactuca serriola</i>	prickly lettuce
		<i>Lasthenia californica</i>	California goldfields
		<i>Logfia gallica</i>	narrowleaf cottonrose
		<i>Osmadenia tenella</i>	southern rosinweed
		<i>Pseudognaphalium canescens</i>	everlasting cudweed
		<i>Pseudognaphalium stramineum</i>	cotton-batting
		<i>Silybum marianum</i>	milk thistle
<i>Sonchus oleraceus</i>	common sow thistle		
<i>Stephanomeria diegensis</i>	wreathplant		
<i>Symphyotrichum lanceolatum</i>	white panicle aster		
<i>Uropappus lindleyi</i>	Uropappus		
<i>Xanthium strumarium</i>	cocklebur		
Brassicaceae	Mustard Family	<i>Alyssum strigosum</i>	alyssum
		<i>Brassica nigra</i>	black mustard
		<i>Hirschfeldia incana</i>	short-podded mustard
		<i>Lepidium nitidum</i>	shining peppergrass
		<i>Raphanus raphanistrum</i>	wild radish
Cactaceae	Cactus Family	<i>Cylindropuntia californica</i> var. parkeri	cane cholla
		<i>Ferocactus viridescens</i>	San Diego barrel cactus
		<i>Opuntia littoralis</i>	coastal prickly pear
Caryophyllaceae	Pink Family	<i>Silene gallica</i>	small-flower catchfly
		<i>Silene laciniata</i> ssp. californica	California Indian pink
Cistaceae	Rock-Rose Family	<i>Helianthemum scoparium</i>	peak rush-rose

4.12 Biological Resources

Family	Description	Scientific Name	Common Name
Convolvulaceae	Morning-Glory Family	<i>Convolvulus tricolor</i>	bindweed
		<i>Cuscuta californica</i>	California dodder
Crassulaceae	Stonecrop Family	<i>Dudleya edulis</i>	Ladies'-fingers
		<i>Dudleya lanceolata</i>	lance-leaved dudleya
		<i>Dudleya pulverulenta</i>	chalk dudleya
		<i>Dudleya variegata</i>	variegated liveforever
Cucurbitaceae	Gourd Family	<i>Marah macrocarpus</i>	wild cucumber
Cyperaceae	Sedge Family	<i>Cyperus difformis</i>	variable flatsedge
Euphorbiaceae	Spurge Family	<i>Chamaesyce albomarginata</i>	rattlesnake weed
		<i>Croton setigerus</i>	dove weed
Fabaceae	Legume Family	<i>Lotus purshianus</i>	Spanish clover
		<i>Lotus scoparius</i>	common deerweed
		<i>Lotus strigosus</i>	strigose lotus
		<i>Lupinus bicolor</i>	miniature lupine
		<i>Lupinus truncatus</i>	blunt leaved lupine
		<i>Trifolium ciliolatum</i>	foothill clover
Fagaceae	Oak Family	<i>Quercus berberidifolia</i>	scrub oak
Gentianaceae	Gentian Family	<i>Centaurium venustum</i>	charming centauray
Geraniaceae	Geranium Family	<i>Erodium botrys</i>	long beak stork's bill
		<i>Erodium cicutarium</i>	red-stemmed stork's bill
		<i>Erodium moschatum</i>	musky stork's bill
Grossulariaceae	Gooseberry Family	<i>Ribes speciosum</i>	fuchsia-flowered gooseberry
Hydrophyllaceae	Waterleaf Family	<i>Eriodictyon crassifolium</i>	thick-leaved yerba santa
		<i>Phacelia cicutaria</i>	caterpillar phacelia
Iridaceae	Iris Family	<i>Sisyrinchium bellum</i>	western blue-eyed grass
Lamiaceae	Mint Family	<i>Monardella linoides ssp. viminea</i>	willow monardella
		<i>Salvia apiana</i>	white sage
		<i>Salvia columbariae</i>	chia
		<i>Salvia leucophylla</i>	purple sage
		<i>Salvia mellifera</i>	black sage
Liliaceae	Lilly Family	<i>Calochortus concolor</i>	golden bowl mariposa lily
		<i>Calochortus splendens</i>	splendid mariposa lily
Malvaceae	Mallow Family	<i>Malacothamnus fasciculatus</i>	mesa bushmallow
		<i>Malva parviflora</i>	cheeseweed
Myrsinaceae	Myrsine Family	<i>Anagallis arvensis</i>	scarlet pimpernel
Nyctaginaceae	Four O'Clock Family	<i>Mirabilis laevis var. crassifolia</i>	California wishbone bush
Onagraceae	Evening Primrose Family	<i>Clarkia gracilis</i>	slender clarkia
		<i>Clarkia purpurea</i>	wine cup clarkia
		<i>Clarkia unguiculata</i>	elegant clarkia
		<i>Epilobium campestre</i>	willow herb
		<i>Fuchsia paniculata</i>	shrubby fuchsia
Poaceae	Grass Family	<i>Avena barbata</i>	slender oat
		<i>Bouteloua gracilis</i>	blue grama
		<i>Bromus carinatus</i>	California brome
		<i>Bromus diandrus</i>	rippgut brome
		<i>Bromus hordeaceus</i>	soft brome
		<i>Bromus rubens</i>	red brome
		<i>Bromus tectorum</i>	cheat grass
		<i>Elymus glaucus</i>	blue wild rye
		<i>Gastridium phleoides</i>	nit grass

Family	Description	Scientific Name	Common Name
		<i>Hordeum murinum ssp. leporinum</i>	leporinum barley
		<i>Hordeum vulgare</i>	hore barley
		<i>Lolium perenne ssp. multiflorum</i>	Italian rye grass
		<i>Nassella cernua</i>	nodding needle grass
		<i>Nassella pulchra</i>	purple needle grass
		<i>Pennisetum setaceum</i>	crimson fountain grass
		<i>Polypogon imberbis</i>	rabbitsfoot grass
		<i>Schismus barbatus</i>	common Mediterranean grass
Polygonaceae	Buckwheat Family	<i>Chorizanthe staticoides</i>	turkish rugging
		<i>Eriogonum fasciculatum</i>	California buckwheat
		<i>Rumex crispus</i>	curly dock
Pteridaceae	Brake Family	<i>Pellaea andromedifolia</i>	Coffee fern
		<i>Pentagramma triangularis</i>	Goldenback fern
Ranunculaceae	Buttercup Family	<i>Delphinium californicum</i>	California larkspur
Rhamnaceae	Buckthorn Family	<i>Rhamnus crocea</i>	redberry buckthorn
		<i>Rhamnus ilicifolia</i>	holly leaf redberry
Rosaceae	Rose Family	<i>Adenostoma fasciculatum</i>	chamise
		<i>Cercocarpus montanus var. glaber</i>	mountain mahogany
		<i>Heteromeles arbutifolia</i>	toyon
Rubiaceae	Madder Family	<i>Galium angustifolium</i>	narrow-leaved bedstraw
		<i>Galium aparine</i>	goose grass
Scrophulariaceae	Figwort Family	<i>Antirrhinum nuttallianum</i>	Nuttall's snapdragon
		<i>Castilleja exserta</i>	purple owl's-clover
		<i>Castilleja subinclusa</i>	longleaf Indian paintbrush
		<i>Diplacus aurantiacus ssp. aurantiacus</i>	sticky-leaf monkeyflower
		<i>Diplacus clevelandii</i>	Cleveland's bush monkeyflower
		<i>Mimulus cardinalis</i>	scarlet monkeyflower
		<i>Mimulus guttatus</i>	seep monkeyflower
Selaginellaceae	Spike-Moss Family	<i>Selaginella bigelovii</i>	Bigelow's spike-moss
Solanaceae	Nightshade Family	<i>Solanum douglasii</i>	greenspot nightshade
		<i>Solanum xanti</i>	chaparral nightshade
Themidaceae	Brodiaea Family	<i>Bloomeria clevelandii</i>	San Diego golden star
		<i>Dichelostemma capitatum</i>	blue dicks

Vegetation Communities

Primary references used for the definitions of vegetation communities and habitat types include the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986). Secondary references included Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions (Oberbauer 1996) and A Manual of California Vegetation (Sawyer et al 2009). Other references used extensively for the subject analysis include Rare Plants of San Diego County by Craig Rieser, posted for the San Diego Chapter of the Sierra Club's website (Reiser 1994) and San Diego Native Plants (Lightner 2006).

Nine vegetation communities/habitat types occur within the survey area. These vegetation communities/habitat types include: Diegan coastal sage scrub, Diegan coastal sage scrub with non-native grassland, disturbed habitat, granitic chamise chaparral, granitic chamise chaparral with non-native grassland, granitic southern mixed chaparral, non-native grassland, non-vegetated channel, and southern sycamore-alder riparian woodland.

Figure 4.12-4 provides detailed mapping of these communities in relation to the plant site and survey area. The plant site is predominantly non-native grassland with patches of Diegan Coastal Sage Scrub. The gen tie corridor would be located between the plant site and the switchyard, which is proposed to be located on landfill property near the existing SDG&E transmission line. The route would occur along the ridgeline between Little Sycamore Canyon and Spring Canyon. This area contains a dense stand of non-native grasslands (California annual grassland series) with isolated patches of Diegan coastal sage scrub/non-native grassland mix and chamise chaparral (chamise series). Table 4.12-3 lists each community and total acreage within the proposed Project site.

Table 4.12-3 Vegetation Communities Within the Survey Area

Vegetation Community (Holland)	Total Acreage	Tier Habitat According to City Subarea Plan	Sawyer, Keeler-Wolf, Evens (2009) Equivalent
Diegan Coastal Sage Scrub (32500)	13.80	Tier II	California Buckwheat-White Sage Series
Diegan Coastal Sage Scrub with Non-Native Grassland (32500)	11.83	Tier II	No Equivalent ¹
Disturbed Habitat (11300)	10.29	Tier IV	No Equivalent ¹
Granitic Chamise Chaparral (37210)	32.34	Tier IIIa	Chamise Series
Granitic Chamise Chaparral with Non-Native Grassland (37210)	9.77	Tier IIIa	No Equivalent ¹
Granitic Southern Mixed Chaparral with Non-Native Grassland (31721)	1.00	Tier III	No Equivalent ¹
Non-Native Grassland (42200)	183.16	Tier IIIb	California Annual Grassland Series
Non-Vegetated Channel (64200)	1.80	N/A	No Equivalent ¹
Southern Sycamore-Alder Riparian Woodland (62400)	0.57	Tier I	California Sycamore Series
Total	264.56		

Notes:

1 Sawyer Keeler-Wolf Evens (2009) classifications do not address ecotones, or landscape feature such as areas of disturbance, development, or ruderal areas.

A complete description of each community based on Holland and Oberbauer, and the extent to which it occurs on and in the immediate vicinity of the Project site, is provided in sections below. Community descriptions were also cross-referenced with the City of San Diego habitat types (i.e., Tier I, Tier II, Tier IIIa, or Tier IIIb) as provided in the City of San Diego Land Development Code Biology Guidelines, Table 3. The respective Holland codes for each community are provided in parentheses following each community section name. The closest associated Sawyer Keeler-Wolf Evens (2009) vegetation community is included at the end of each description.² Site photographs of representative vegetation communities are included in Appendix H.2.

Diegan Coastal Sage Scrub (32500)

Diegan coastal sage scrub is a coastal sage scrub type that is widespread in coastal southern California from Los Angeles south into Baja California, Mexico. This community typically consists of low-growing, soft woody subshrubs, up to 1 meter in height, that bloom in the winter

² Sawyer Keeler-Wolf Evens (2009) classifications do not address ecotones or landscape feature such as areas of disturbance, development, or ruderal areas.

and early spring. The community commonly occurs on low moisture availability sites characterized by steep xeric slopes or clay rich soils that have high water retention. This community type intergrades with chaparral type habitats in higher elevations, and Riversidean sage scrub in drier inland areas. Typical dominants of this community are facultative drought-deciduous and include species such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), and white sage (*Salvia apiana*). Diegan coastal sage scrub is considered a Tier II Habitat under the City Subarea Plan.

Approximately 13.80-acres of this community occur within the survey area (Figure 4.12-4). Dominant species observed within the coastal sage scrub include deer weed, California buckwheat, black sage (*Salvia mellifera*), and chamise (*Adenostoma fasciculatum*). A few native species comprised the understory such as chia (*Salvia columbariae*) and popcorn flower (*Cryptantha sp.*). This community has a sparse vegetative cover and provides low quality habitat for sensitive plant and wildlife species. The Sawyer Keeler-Wolf Evens equivalent is California buckwheat-white sage series.

The majority of this plant community is located in the southeastern portion of the survey area along the south-facing slopes. Lower quality habitat consisting of sparse vegetative cover dominated by deer weed, occurs within the plant site and habitat quality increases at higher elevations. The low to moderate quality Diegan coastal sage scrub onsite is connected to contiguous habitat that extends offsite. The habitat quality increases at higher elevations in offsite locations to the east. There is a small patch of Diegan coastal sage scrub in the northwestern corner of the survey area, but it is completely isolated from any contiguous habitat.

Diegan Coastal Sage Scrub with Non-Native Grassland (32500)

This vegetation community is an ecotone of Diegan coastal sage scrub habitat with an understory dominated by non-native grassland vegetation. This vegetation community is similar to Diegan coastal sage scrub habitat in height and species composition, with similar dominant species, but contains a higher diversity of non-native grasses such as brome (*Bromus sp.*) and Mediterranean grass (*Schismus sp.*). Generally, this community has been subject to additional disturbances, which have resulted in the introduction of non-native grasses. Diegan coastal sage scrub with non-native grassland is considered a Tier II Habitat under the City Subarea Plan.

Approximately 11.83-acres of this community occur within the survey area (Figure 4.12-4). Dominant species observed within the coastal sage scrub include deer weed, California buckwheat, black sage, and chamise. The understory of this community is dominated by non-native grasses such as wild oats (*Avena barbata*), red brome (*Bromus rubens*), shortpod mustard (*Hirschfeldia incana*), red-stem filaree (*Erodium cicutarium*), and fiddleneck (*Amsinckia intermedia*). This vegetation community provides low quality habitat for sensitive plant and wildlife species. There is no Sawyer Keeler-Wolf Evens equivalent for this community.

This plant community is located in the western and central portion of the survey area along the north facing slopes. This vegetation community appears to have an elevation limited of 600 feet amsl within the survey area. This plant community is replaced by chamise chaparral at higher elevations. This community is considered low to moderate quality habitat and contains an open canopy with a non-native grassland understory. Species diversity noticeably decreases in comparison to Diegan sage scrub communities.

Disturbed Habitat (11300)

Disturbed habitat includes areas in which the vegetative cover comprises less than 10 percent of the surface area (disregarding natural rock outcrops). These areas often contain evidence of soil surface disturbance and compaction from previous legal human activity. In addition, where the vegetative cover is greater than 10 percent, there is often soil surface compaction associated with the disturbed nature of the site. In addition, this also includes the presence of building foundations and debris (e.g., irrigation piping, fencing, old wells, abandoned farming or mining equipment) resulting from legal activities (as opposed to illegal dumping). Vegetation commonly observed within disturbed habitat will have a high predominance of non-native or weedy species that are indicators of soil disturbance. Common species observed include Russian thistle (*Salsola tragus*), telegraph weed (*Heterotheca grandiflora*), horehound (*Marrubium vulgare*), and sow thistle (*Sonchus oleraceus*), and a sub-dominance of non-native grasses. Disturbed habitat is considered an upland Tier IV Habitat under the Subarea Plan.

Approximately 10.29 acres of disturbed habitat occur within the survey area. These areas occur mainly within dirt access roads and associated turnouts. This habitat type is dominated by bare ground and scattered ruderal (weedy) species. The disturbed habitat onsite provides poor quality habitat for plant and wildlife species. There is no Sawyer Keeler-Wolf Evens equivalent for this community.

The majority of the disturbed areas within the survey area are associated with the Sycamore Landfill in the central portion of the survey area as well as numerous access roads located throughout the survey area. The remaining portions of the Project site are relatively undisturbed.

Granitic Chamise Chaparral (37210)

Granitic chamise chaparral is a relatively sparse 1 to 3 meter tall chaparral community strongly dominated by chamise and supported by granitic substrates. Mature chamise chaparral stands are often densely interwoven with very low species compositions and little herbaceous understory or litter. This community is adapted to repeated fires by stump sprouting. Chamise chaparral often occurs on xeric slopes and ridges, with adjacent more mesic sites mantled by upper sonoran mixed chaparrals and northern mixed chaparrals. It is similar to upper sonoran mixed chaparral, but on shallower, drier soils or at somewhat lower elevations. Granitic chamise chaparral commonly occurs throughout mid-elevations in the southern California region. Granitic chamise chaparral is considered a Tier IIIa Habitat under the City Subarea Plan.

Approximately 32.34 acres of granitic chamise chaparral habitat occur within the survey area. This vegetation community exhibits mostly a homogeneous cover of chamise. Other shrub species observed includes a single sugar bush (*Rhus ovata*) and a few low quality California buckwheat shrubs. In general, the habitat quality of the chamise chaparral onsite is considered low to moderate, and provides limited nesting and foraging opportunities for common wildlife species. This community is locally and regionally widespread is generally not associated with any endemic species that are narrowly distributed or rare. The Sawyer Keeler-Wolf Evens equivalent for this community is chamise series.

This plant community is located in the northern portion of the survey area along the north facing slopes. This vegetation community appears to have a lower elevation limited of 600 feet amsl within the survey area. This plant community is replaced by Diegan coastal sage scrub at lower

elevations. This community is considered moderate quality habitat and contains an open canopy with little to no understory. Species diversity noticeably decreases in comparison to Diegan sage scrub communities. This monotype vegetation community is common following a severe brush fire and should naturally diversify over time.

Granitic Chamise Chaparral with Non-Native Grassland (37210)

This vegetation community is an ecotone of granitic chamise chaparral habitat with an understory dominated by non-native grassland vegetation. This vegetation community is similar to granitic chamise chaparral habitat in height and species composition, with similar dominant species, but contains a higher diversity of non-native grasses such as brome and Mediterranean grass. Generally, this community has been subject to additional disturbances, which have resulted in the introduction of non-native grasses. Granitic chamise chaparral with non-native grassland is considered a Tier IIIa Habitat under the City Subarea Plan.

Approximately 9.77 acres of granitic chamise chaparral with non-native grassland habitat occur within the survey area (Figure 4.12-4). Dominant species observed within this community ecotone include chamise with an understory dominated by non-native grasses such as red brome, ripgut brome, wild oats, red-stem filaree, and fiddleneck. This community ecotone provides low quality habitat for sensitive plant and wildlife species. There is no Sawyer Keeler-Wolf Evens equivalent for this community.

This plant community is located in the northern portion of the survey area along the base of the foothills at the canyon floor of Spring Canyon. This vegetation community occurs at lower elevations than chamise chaparral. This community is considered low to moderate quality habitat and contains a more open canopy with a dense stand of non-native grasslands in the understory. Species diversity noticeably increases in comparison to chamise chaparral, but not as diverse as Diegan sage scrub.

Granitic Southern Mixed Chaparral with Non-Native Grassland (31721)

Granitic southern mixed chaparral habitat with non-native grassland is a moderately tall (1.5 to 3 meters) chaparral type prevalent throughout the coastal foothills of San Diego County to northern Baja California (Mexico), consisting of broad-leaved shrubs on soils formed from granitic material. This chaparral type is similar to granitic northern mixed chaparral but typically not as dense, and with an understory dominated by non-native grasses and occasional patches of bare ground. Often this chaparral will occur adjacent to other similar vegetation communities and often will form a mosaic with other coastal sage scrub habitats known to occur throughout Southern California. It is divisible into granitic and mafic subtypes based on substrate, but floristic distinctions between these two subtypes remain unknown. Granitic southern mixed chaparral typically occurs in areas with low precipitation and moderate temperatures. Typical dominant species in this community include chamise, laurel sumac, scrub oak (*Quercus berberidifolia*), manzanita (*Arctostaphylos glandulosa*), sugar bush (*Rhus ovata*), and chaparral yucca (*Hesperoyucca whipplei*). Granitic southern mixed chaparral is considered a Tier III Habitat under the Subarea Plan.

Approximately 1.00 acre of this community occurs within the survey area. The dominant species observed within this community include laurel sumac, lemonade berry bush (*Rhus integrifolia*), toyon (*Heteromeles arbutifolia*), and mountain mahogany (*Cercocarpus betuloides*). Non-native

species observed in the understory of this community include non-native grasses such as red brome, ripgut brome, wild oats, red-stem filaree, and fiddleneck. This vegetation ecotone provides low to moderate quality habitat for sensitive plant and wildlife species. There is no Sawyer Keeler-Wolf Evens equivalent for this community.

This plant community occurs at one location within the central portion of the survey area. The southern mixed chaparral with non-native grasslands is located at the base of a steep north-facing slope. This vegetation community appears to receive more available moisture than surrounding areas. This community is considered moderate quality habitat and contains a nearly closed canopy with a dense stand of non-native grassland understory. Species diversity noticeably increases in comparison to chamise chaparral.

Non-Native Grassland (42200)

Non-native grassland, a prevalent community throughout San Diego County, is generally characterized by a dense to sparse cover of non-native annual grasses often associated with numerous weedy species and native annual forbs (wildflowers), especially in years with plentiful rain. Seed germination occurs with the onset of winter rains. Some plant growth occurs in winter, but most growth and flowering occurs in the spring. Plants then die in the summer, and persist as seeds in the uppermost layers of soil until the next rainy season. Dominant plant genera typically found within non-native grasslands include brome, wild oat, fescue (*Vulpia sp.*), and barley (*Hordeum sp.*). Non-native grassland is considered an upland Tier IIIb Habitat under the Subarea Plan.

Approximately 183.16 acres of this community occurs within the survey area. Non-native grassland occurs primarily along the slopes throughout the Project site and adjacent to disturbed areas. The community is dominated by non-native annual grasses such as soft chess, Italian rye grass (*Lolium multiflorum*), ripgut brome (*Bromus diandrus*), purple needle grass (*Nassella pulchra*), and common goldstar (*Bloomeria crocea*). Additional plants commonly observed in this community include wild oats, red brome, red-stem filaree, and fiddleneck. This vegetation community provides a low to moderate quality habitat for sensitive plant and wildlife species. The Sawyer Keeler-Wolf Evens equivalent for this community is California annual grassland series.

This plant community is located throughout the entire survey area and is the dominant plant community with the Project site. This vegetation community is extremely dense and is likely the result of the recent fire coupled with above average rainfall. Generally, this non-native community is considered low to moderate quality, but varies based on the amount of native forbs. The lower quality habitat occurs in the southern portion of the Project site associated with the Plant site. Higher quality habitat occurs in the northern portion of the survey area. There are portions of this community with native grasses and native shrubs, but not a sufficient amount to be considered a separate plant community.

Non-Vegetated Channel (64200)

Non-vegetated channel is a habitat type that is virtually devoid of vegetation due to continual scouring from a flowing channel. Generally, vegetation occurs along the periphery of this habitat, often transitioning into a riparian associated scrub community. Due to continued

scouring, the sparse vegetation that does occur often consists of short grasses or hydrophytic vegetation adapted to unstable environments.

Non-vegetated channel occurs within the western portion of the survey area and accounts for approximately 1.80 acres of habitat within the survey area. This observed habitat contains mainly cobbles and boulders along the channel bottom and banks. The substrate contains sparse sandy deposits with limited vegetative cover and therefore provides low quality habitat for sensitive plant and wildlife species. There is no Sawyer Keeler-Wolf Evens equivalent for this community.

The non-vegetated channel occurs along the western side of the survey area associated with the Spring Canyon drainage feature. The gen tie does cross a small portion of the drainage feature within Little Sycamore Canyon in the central portion of the survey area.

Southern Sycamore-Alder Riparian Woodland (62400)

Southern sycamore-alder riparian woodland is a tall, open, broad-leafed, winter-deciduous streamside woodland dominated by southern sycamore (*Platanus racemosa*) and often white alder (*Alnus rhombifolia*). These stands seldom form closed canopy forests, and even may appear as trees scattered in a shrubby thicket of sclerophyllous and deciduous species. Lianas include California blackberry (*Rubus ursinus*) and poison oak (*Toxicodendron diversilobum*). Southern sycamore-alder riparian woodland is considered a Tier I Habitat under the Subarea Plan.

Approximately 0.57 acre of southern sycamore-alder riparian woodland habitat occurs within the survey area. This vegetation community is contained to a single drainage feature in the southwestern corner of the survey area. This community is dominated by a dense overstory of southern sycamore willows. Species observed within the understory include sycamore, arroyo willow (*Salix lasiolepis*), sandbar willow (*Salix exigua*), and mule fat (*Baccharis salicifolia*). Southern sycamore-alder riparian woodland provides moderate quality nesting and foraging habitat for bird and raptor species known to occur in the general area. The Sawyer Keeler-Wolf Evens equivalent for this community is California sycamore series.

This plant community is located in the southwestern corner of the survey area along the drainage feature associated with Spring Canyon. This vegetation community appears to have direct hydrologic connectivity to flows within the drainage. The southern sycamore-alder riparian woodland within the Project site is considered low to moderate quality based on the minimal canopy cover associated with the vegetation cover. The canopy cover is approximately one to two trees in width and only 10 to 15 feet in height. This is likely a direct result from the recent fire in 2007. This plant community is naturally revegetating well and provides suitable habitat for nesting birds. This community is considered moderate quality habitat and contains an open canopy with a herbaceous understory. Species diversity noticeably increases in comparison to all other plant communities within the survey area.

4.12.2.4 Wildlife

Table 4.12-4 lists all wildlife species observed or otherwise detected in the survey area. Wildlife species observed or otherwise detected during the survey include common species typically found in grassland, scrub, uplands and disturbed habitats. Invertebrate species commonly

observed within the Project site include mylitta crescent (*Phyciodes mylitta*), cabbage white (*Pieris rapae*), and tarantula hawk (*Pepsis chrysothemis*). Reptile species observed within the Project site include western skink (*Eumeces skiltonianus interparietalis*), western whiptail (*Aspidoscelis tigris*), and western fence lizard (*Sceloporus occidentalis*). Avian species observed or otherwise detected include house finch (*Carpodacus mexicanus*), lesser goldfinch (*Carduelis psaltria*), black phoebe (*Sayornis nigra*), bushtit (*Psaltriparus minimus*), wrenit (*Chamaea fasciata*), Anna’s hummingbird (*Calypte anna*), and California towhee (*Pipilo crissalis*). Mammal, species were observed or otherwise detected during the survey include desert cottontail (*Sylvilagus audubonii*), San Diego black-tailed jackrabbit (*Lepus californicus*), and California ground squirrel (*Spermophilus beecheyi*).

Table 4.12-4 Wildlife Species Observed or Detected in the Survey Area

Taxonomic Group	Subgroup	Subgroup Description	Scientific Name	Common Name
Invertebrates	Apidae	Honey Bees and Bumble Bees	<i>Apis mellifera</i>	Honey bee
	Danaidae	Milkweed Butterflies	<i>Danaus gilippus</i>	Queen
	Hesperiidae	Skippers	<i>Erynnis funeralis</i>	Funereal dusky wing
	Lycaenidae	Blues and Hairstreaks	<i>Icaricia acmon</i>	Acmon blue
			<i>Brephidium exilis</i>	Pygmy blue
	Nymphalidae	Brush-foot butterflies	<i>Phyciodes mylitta</i>	Mylitta crescent
			<i>Precis coenia</i>	Buckeye butterfly
			<i>Vanessa cardui</i>	Painted lady
	Papilionidae	Swallowtail Butterflies	<i>Papilio rutulus</i>	Western tiger swallowtail
	Pieridae	Whites, Sulphurs, and Orangetips	<i>Pieris rapae</i>	Cabbage white
Pompilidae	Spider wasps	<i>Pepsis chrysothemis</i>	Tarantula hawk	
Riodinidae	Metalmarks	<i>Apodemia mormo virgulti</i>	Behr’s metalmark	
		<i>Calephelis wrightii</i>	Wright’s metalmark	
Amphibians	Hylidae	Treefrogs	<i>Pseudacris regilla</i>	Pacific treefrog
Reptiles	Colubridae	Egg-laying snakes	<i>Lampropeltis getula californiae</i>	California kingsnake
	Phrynosomatidae	Lizards	<i>Sceloporus occidentalis</i>	Western fence lizard
			<i>Uta stansburiana</i>	Side-blotched lizard
	Scincidae	Skinks	<i>Plestiodon skiltonianus interparietalis</i>	Coronado skink
Teiidae	Whiptails	<i>Aspidoscelis tigris</i>	Western whiptail	
Birds	Aegithalidae	Bushtits	<i>Psaltriparus minimus</i>	bushtit
	Accipitridae	Hawks	<i>Accipiter cooperii</i>	Cooper’s Hawk
			<i>Buteo jamaicensis</i>	Red-tailed hawk
			<i>Elanus leucurus</i>	White-tailed kite
			<i>Pandion haliaetus</i>	Osprey
	Cardinalidae	Cardinals	<i>Pheucticus melanocephalus</i>	Black-headed grosbeak
			<i>Passerina amoena</i>	Lazuli bunting
Cathartidae	Vultures	<i>Cathartes aura</i>	Turkey vulture	
Columbidae	Pigeons/Doves	<i>Zenaidura macroura</i>	Mourning dove	

4.12 Biological Resources

Taxonomic Group	Subgroup	Subgroup Description	Scientific Name	Common Name
	Corvidae	Jays/Crows	<i>Aphelocoma californica</i>	Western scrub-jay
			<i>Corvus brachyrhynchos</i>	American crow
			<i>Corvus corax</i>	Common raven
	Emberizidae	Warblers, sparrow, etc.	<i>Pipilo maculatus</i>	Spotted towhee
			<i>Pipilo crissalis</i>	California towhee
			<i>Aimophila ruficeps cadescens</i>	Southern California rufous-crowned sparrow
			<i>Chondestes grammacus</i>	Lark sparrow
	Fringillidae	Finches	<i>Carpodacus mexicanus</i>	House finch
			<i>Carduelis psaltria</i>	Lesser goldfinch
	Hirundinidae	Swallows	<i>Stelgidopteryx serripennis</i>	Northern rough-winged swallow
			<i>Hirundo rustica</i>	Barn swallow
	Icteridae	New world blackbirds	<i>Icterus cucullatus</i>	Hooded oriole
	Mimidae	Mockingbirds/ Thrashers	<i>Toxostoma redivivum</i>	California thrasher
	Parulidae	New world warblers	<i>Geothlypis trichas</i>	Common yellowthroat
	Picidae	Woodpeckers	<i>Picoides nuttallii</i>	Nuttall's woodpecker
	Prilognatidae	Silky-flycatchers	<i>Phainopepla nitens</i>	Phainopepla
	Sturnidae	Starlings	<i>Sturnus vulgaris</i>	European starling
	Trochilidae	Hummingbirds	<i>Calypte anna</i>	Anna's hummingbird
Troglodytidae	Wrens	<i>Troglodytes aedon</i>	House wren	
Tyrannidae	Flycatchers	<i>Sayornis nigricans</i>	Black phoebe	
		<i>Myiarchus cinerascens</i>	Ash-throated flycatcher	
		<i>Tyrannus verticalis</i>	Western kingbird	
Mammals	Canidae	Wolves and foxes	<i>Canis familiaris</i>	Domestic dog
			<i>Canis latrans</i>	Coyote
	Leporidae	Hares and Rabbits	<i>Lepus californicus</i>	San Diego black-tailed jackrabbit
			<i>Sylvilagus audubonii</i>	Desert cottontail
Muridae	Mice, Rats, and Voles	<i>Microtus californicus</i>	California vole	
Sciuridae	Squirrels	<i>Spermophilus beecheyi</i>	California ground squirrel	

4.12.2.5 Fish and Wildlife Species of Commercial or Recreational Value

Biological resources of commercial or recreational value include those valued for hunting, fishing, wildlife watching, and other wildlife-centered recreation activities. No biological resources of commercial or recreational value were found within the proposed Project site.

4.12.2.6 Special Status Species in the Project Vicinity

Special status species include all species listed under the state and federal endangered species acts, species that are proposed to be listed under the state and federal endangered species acts, California Species of Special Concern, Fully Protected Species under the California Fish and Game Code, and plant species listed in the CNPS *Inventory of Rare and Endangered Plants of California*.

A list of special status plant and wildlife species and their habitats, known to occur within the vicinity of the Project site was compiled primarily from the CDFG's CNDDDB, a sensitive species and plant community account database. MBA conducted a query of the CNDDDB records based on a 10-mile radius surrounding the Project site that included the Del Mar, El Cajon, Jamul Mountains, La Jolla, La Mesa, National City, Point Loma, Poway, and San Vicente Reservoir, California USGS 7.5-minute topographic quadrangle maps. The CNDDDB GIS database was also used, together with ArcGIS software, to confirm the locations of CNDDDB records. The CNPS online inventory database and Consortium of California Herbaria were also queried for the project site and vicinity. The CNPS online inventory provided additional sensitive species information for many species that have not been reported to the CNDDDB database. The locations of previously documented observations for sensitive plant and wildlife species were identified and plotted onto aerial and topographic maps to determine connectivity of suitable habitat and/or likely dispersing routes between the locations of observations and the Project site (Figure 4.12-2a to Figure 4.12-2d). In addition, the project site was evaluated for sensitive biological resources occurring within a one-mile radius around the plant site. This information is provided in Figure 4.12-3.

Special Status Plant Species

After a review of all special-status plant species that have a potential to occur within the vicinity of the Project and based on the existing conditions onsite, it was determined that the survey area provides suitable habitat to support 15 special-status plant species, listed in Table 4.12-5. A discussion of each species identified as potentially occurring with the survey is included in the table.

A focused survey for all 15 special-status plant species was conducted between May 12 and July 7, 2011. Detailed methods and results of the survey are included in a separate report titled "Focused Survey for Sensitive Plant Species Quail Brush Generation Project" which is included as Appendix H.4. Spring/Summer surveys were sufficient to identify special-status plants because fall-blooming special status plants known in the area are shrubs, and are readily identified in spring/summer out of their typical blooming period.

Four special-status plant species were found within the survey area during the focused surveys: San Diego barrel cactus (*Ferocactus viridescens*) a CRPR List 2.1 species, variegated dudleya (*Dudleya variegata*) a CRPR List 1B.2 species, heart-leaved pitcher sage (*Lepechinia cardiophylla*), a CRPR List 1B.2, and willow monardella (*Monardella viminea*) a federal and state listed endangered species. These four special-status plant species are considered present within the survey area. No other special-status plant species known to occur in the region are present or have a moderate to high potential to occur on the Project site.

Figure 4.12-4 shows the locations of sensitive plants identified within the proposed Project site. San Diego barrel cactus is the only sensitive plant species within the plant site. Variegated dudleya and San Diego barrel cactus are the only sensitive plant species within the gen tie corridor. There are no sensitive plant species associated with the natural gas pipeline lateral. The switchyard and temporary construction areas have not been designed, but will be located in areas to avoid these sensitive plant species.

Table 4.12-5 Special-Status Plant Species Potentially Occurring Within 1.0 Mile of the Project Site or Within 1,000 Feet of Linear Facilities

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CRPR	San Diego County MSCP				
<i>Adolphia californica</i>	San Diego adolphia	None	None	2.1	List B	Occurs in chaparral, coastal scrub, and valley and foothill grassland areas. Known Elevation Limits: 135 to 2,220 feet	Deciduous shrub	Dec. to May	High potential to occur. Recorded within 2.7 miles of the site. Suitable coastal scrub and grassland habitat occurs onsite.
<i>Ambrosia pumila</i>	San Diego ambrosia	FE	None	1B.1	List A	Occurs in chaparral, coastal scrub, and valley and foothill grassland, vernal pools. Often found in disturbed areas and sometimes in alkaline soils. Known Elevation Limits: 60 to 1,260 feet	Rhizomatous herb	May to Oct.	Moderate potential to occur. Recorded within 1 mile of the site. Marginal coastal scrub and grassland habitat occurs onsite. Same alkaline soils onsite.
<i>Artemisia palmeri</i>	San Diego sagewort	None	None	4.2	List D	Occurs in sandy mesic areas within chaparral, coastal scrub, riparian forest, riparian scrub, and riparian woodlands. Known Elevation Limits: 50 to 3,000 feet	Perennial deciduous shrub	Feb. to Sept.	Low potential to occur. No record of the species within 5 miles of the site. No suitable sandy soils occur within the Project site.
<i>Bloomeria clevelandii</i>	San Diego goldenstar	None	None	1B.1	List A	Occurs in chaparral, coastal scrub, valley and foothill grassland, and vernal pool habitats in clay soils. Known Elevation Limits: 150 to 1,380 feet	Bulbiferous Perennial herb	Apr. to May	High potential to occur. Recorded within 1 mile of the site. Suitable coastal scrub and grassland habitat occurs onsite.
<i>Brodiaea orcuttii</i>	Orcutt's brodiaea	None	None	1B.1	List A	Closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools in mesic environments supported by clay and sometimes serpentine soils. Known Elevation Limits: 90 to 5,076 feet	Bulbiferous Perennial herb	May to Jul.	Moderate potential to occur. Record of this species within 2 miles of the site. Marginal quality habitat occurs within the Project site.
<i>Dudleya variegata</i>	Variegated dudleya	None	None	1B.2	List A	Clay habitat within chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pools. Known Elevation Limits: 60 to 1,260 feet	Perennial herb	Apr. to Jun.	Present. This species was observed within the Diegan sage scrub along the ridgeline near the transmission line ROW.

4.12 Biological Resources

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CRPR	San Diego County MSCP				
<i>Ericameria palmeri</i> var. <i>palmeri</i>	Palmer's goldenbush	None	None	1B.1	List A	Occurs in mesic areas associated with chaparral and coastal scrub. Known Elevation Limits: 10 to 1,900 feet	Perennial evergreen shrub	July to Nov.	Moderate potential to occur. No record of this species within 5 miles of the site. Marginal quality habitat occurs within the Project site.
<i>Eryngium aristulatum parishii</i>	San Diego button-celery	FE	SE	1B.1	List A	Occurs in coastal scrub, valley and foothill grassland, and vernal pool habitats in mesic soils. Known Elevation Limits: 60 to 1,860 feet	Annual/perennial herb	Apr. to Jun.	Not likely to occur. No record of the species within 5 miles of the site. Marginal quality habitat occurs within the Project site.
<i>Ferocactus viridescens</i>	San Diego barrel cactus	None	None	2.1	List B	Occurs in chaparral, coastal scrub, valley, and foothill grassland habitats. Known Elevation Limits: 10 to 1,350 feet	Stem succulent	May to Jun.	Present. This species was observed within the Diegan sage scrub within the Project site.
<i>Holocarpa virgata</i> ssp. <i>elongata</i>	Graceful tarplant	None	None	4.2	List D	Occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grasslands. Known Elevation Limits: 200 to 3,610 feet	Annual herb	May to Nov.	Low potential to occur. No record of the species within 5 miles of the site. Marginally suitable habitat occurs onsite.
<i>Isocoma menziesii</i> var. <i>decumbens</i>	Decumbent goldenbush	None	None	1B.2	List A	Occurs in chaparral and coastal scrub, often in disturbed areas with sanding soils. Known Elevation Limits: 30 to 445 feet	Perennial shrub	Apr. to Nov.	Low potential to occur. No record of the species within 5 miles of the site. Marginally suitable habitat occurs onsite.
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	None	None	1B.2	List A	The species occurs in chaparral and coastal scrub habitats on dry soils. Known Elevation Limits: 3 to 2,835 feet	Annual herb	Jan. to July	Low potential to occur. No record of the species within 5 miles of the site. Marginally suitable habitat occurs onsite.
<i>Lepechinia cardiophylla</i>	Heart-leaved pitcher sage	None	None	1B.2	List A	Occurs in closed-cone coniferous forest, openings in chaparral, and cismontane woodland habitats. Metavolcanic soils. Known Elevation Limits: 1,560 to 4,110 feet	Shrub	Apr. to June	Present. The species was observed adjacent to the emergent wetland area in the central portion of the survey area.
<i>Monardella viminea</i>	Willow monardella	FE	SE	1B.1	List A	Occurs in the understory of chaparral. Associated with Acid Igneous rock lands. Known Elevation Limits: 164 to 750 feet	Rhizomatous herb	June to Aug.	Present. The species was observed adjacent to the drainage feature in the northwestern portion of the Project site.

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Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CRPR	San Diego County MSCP				
<i>Stylocline citroleum</i>	Oil nestrav	None	None	1B.1	List A	Occurs in clay soils in chenopod scrub, coastal scrub, and valley and foothill grassland. Known Elevation Limits: 165 to 1,310 feet	Annual herb	Mar. to Apr.	Low potential to occur. No record of the species within 5 miles of the site. Marginally suitable habitat occurs onsite.
U.S. Fish and Wildlife Service FE Federal Endangered FT Federal Threatened PE Proposed Endangered PT Proposed Threatened FC Federal Candidate FSC Species of Concern* *No longer recognized as a federal designation.		California Department of Fish and Game CE California Endangered CT California Threatened CR California Rare		California Native Plant Society California Rare Plant Rank (CRPR) 1A Plants presumed extinct in California. 1B Plants rare, threatened, or endangered in California and elsewhere. 2 Plants rare, threatened, or endangered in California, but more common elsewhere. 3 Plants in need of more information. 4 Plants of limited distribution. *.1-Seriously threatened in California (high degree/immediacy of threat) *.2-Fairly threatened in California (moderate degree/immediacy of threat) *.3-Not very threatened in California (low degree/immediacy of threats or no current threats known)		San Diego County <i>San Diego County Sensitive</i> List A: Plants rare, threatened or endangered in California and elsewhere List B: Plants rare, threatened or endangered in California but more common elsewhere List C: Plants which may be rare, but need more information to determine their true rarity status List D: Plants of limited distribution and are uncommon, but not presently rare or endangered) Not Listed: Species not listed by San Diego County Proposed North County Multiple Species Conservation Plan			
<p>Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity (within 5 miles) of the Project site and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the site.</p> <p>Low Potential to Occur - There is a historical record of the species in the vicinity of the Project site and potentially suitable habitat onsite, but existing conditions, such as density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation, substantially reduce the possibility that the species may occur.</p> <p>Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the Project site, and there is a recorded occurrence of the species within the greater vicinity (within 5 miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.</p> <p>High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the Project site (within 3 miles).</p> <p>Species Present - The species was observed on the Project site at the time of the survey or during a previous biological survey.</p>									

Special Status Wildlife

Based on the existing conditions onsite and record of special-status wildlife species known to occur in the region, 18 special-status wildlife species were determined to have a moderate to high potential to occur on the Project site. These species include: coastal California gnatcatcher, a federally listed threatened (FT) species and California species of concern (CSC); least Bell's vireo, a federally and state listed endangered (FE, SE) species; Quino checkerspot butterfly (*Euphydryas editha quino*), a FE species; Hermes copper butterfly, a federal candidate species; and orange-throated whiptail, northern red-diamond rattlesnake, Coronado Island skink, Cooper's hawk, Bell's sage sparrow, Southern California rufous-crowned sparrow, yellow warbler, California horned lark (*Eremophila alpestris actia*), yellow-breasted chat, least bittern, Dulzura pocket mouse, northwestern San Diego pocket mouse, and San Diego black-tailed jackrabbit are all considered CSC. The white-tailed kite is a California fully-protected species.

All special-status wildlife species determined to have the potential to occur within 1 mile of the Project site are listed in Table 4.12-6.

The following sections provide additional details regarding species that were the subject of focused surveys (generally required for threatened or endangered species that potentially occur within a Project site), special-status species that were observed in or near the survey area, and other species that require additional analysis.

Coastal California Gnatcatcher: A focused protocol survey for coastal California gnatcatcher was conducted within suitable coastal sage scrub habitat throughout the Project area by USFWS permitted biologist Scott Crawford (Permit Number TE-019947-3) between May 25 and June 30, 2011. Approximately 25 acres of suitable habitat was surveyed for coastal California gnatcatcher. No coastal California gnatcatchers were observed onsite during the surveys. Therefore, this species is currently presumed absent from the Project site. The results of the survey are included in a separate report, included as Appendix H.3.

Hermes Copper Butterfly: Although the Hermes copper butterfly is not listed as threatened or endangered, it is a candidate species recently proposed for listing by the USFWS. A focused survey for Hermes copper butterfly was conducted within suitable habitat within survey area by biologist Scott Crawford between May 25 and July 7, 2011. Approximately 20 acres of suitable habitat was surveyed, which consisted of areas with spiny redberry and California buckwheat (Figure 4.12-4). No Hermes copper butterflies were observed onsite during the surveys. Therefore, this species is currently presumed absent from the proposed Project site.

Cooper's Hawk: An active Cooper's hawk nest was observed in the southern sycamore/alder riparian woodland in one parcel of land within the southwestern portion of the survey area. Three Cooper's hawk juveniles successfully fledged from the nest. This parcel is being considered for mitigation, and no facilities are anticipated to be located in that parcel. No suitable habitat for this species occurs within any of the proposed Project-related impact areas. Cooper's hawk is a Covered Species under the City of San Diego Subarea Plan of the MSCP.

Coronado Island Skink: The Coronado Island skink was observed foraging within dense non-native grasslands within the northern portion of the plant site. Coronado Island skink is not a Covered Species under the City of San Diego Subarea Plan of the MSCP.

Table 4.12-6 Special Status Wildlife Species That Have a Potential to Occur on the Proposed Project Site

Species		Status			Required Habitat	Potential to Occur/Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	San Diego County		
Invertebrates						
<i>Euphydryas editha quino</i>	Quino checkerspot butterfly	FE	None	Group 1, NC	Found on grassy openings in vegetation on hills and mesas near the coast with high density of food plants (<i>Plantago erecta</i> , <i>P. insularis</i> , <i>Orthocarpus purpureus</i>).	Moderate potential to occur. Record occurrence within 3 miles of the site. Only a few individual host plants onsite. Marginal quality habitat. Mission Trails population was believed to be eliminated due to 2007 fire.
<i>Lycaena hermes</i>	Hermes copper butterfly	None	None	Group 1, NC	Found in mixed woodlands, chaparral, and coastal sage scrub habitats. Spiny redberry is the known host plant and is closely associated with California buckwheat within 10 feet of the host plant.	Moderate potential to occur. Record occurrence within 3 miles of the site. Only a few individual host plants onsite were observed near buckwheat. Marginal quality habitat. Populations do not recover well from fires.
Reptiles						
<i>Bufo microscaphus californicus</i>	Arroyo toad	Endangered	None	Group 1, MSCP	This species can be found in semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, along rivers with sandy banks, willows, cottonwoods, and sycamores, specifically in loose, gravelly areas of streams in drier parts of its range.	Low potential to occur. Recorded occurrence over 10 miles northeast of the site. No suitable habitat within the Project site. Marginal quality habitat in the survey area.
<i>Scaphiopus hammondi</i>	Western spadefoot toad	None	DFG: SSC	Group 2, NC	Found in coastal sage scrub, chaparral, and grassland habitats, but most common in grasslands with vernal pools or mixed grassland/CSS habitats.	Low potential to occur. There is a recorded occurrence 2 miles north of the site. Moderately suitable habitat occurs within the survey area.
Amphibians						
<i>Plestiodon skiltonianus interparietalis</i>	Coronado Island skink	None	DFG: SSC	Group 1, NC	Occurs in grassland, chaparral, pinon-juniper and juniper sage woodland, pine-oak and pine forest habitats in the coastal ranges of Southern California. The species prefers early successional stages or open areas. Typically found in rocky areas close to streams and on dry hillsides.	Present. Species was observed in the northern portions of the Project site. Suitable habitat occurs within the Project site and survey area.

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Species		Status			Required Habitat	Potential to Occur/Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	San Diego County		
Phrynosoma coronatum blainvillei	San Diego horned lizard	None	DFG: SSC	Group 2, NC	Inhabits coastal sage scrub and chaparral in arid and semi-arid climate conditions and prefers friable, rocky, or shallow sandy soils.	Low potential to occur. There is a recorded occurrence 3 miles south of the site. Moderately suitable habitat occurs within the survey area.
Aspidoscelis hyperythrus	Orange-throated whiptail	None	DFG: SSC	Group 2, NC	Coastal scrub, chaparral, and valley and foothill hardwood habitats. Prefers washes and sandy areas with patches of brush and rocks. Perennial plants required to support its primary prey termites.	Moderate potential to occur. Recorded occurrence within 1 mile south of the Project site. Marginal quality habitat within the Project site.
Diadophis punctatus similis	San Diego ringneck snake	None	None	Group 2, NC	Wet meadows and moist rocky hillsides, gardens, farmlands, grassland, chaparral, mixed coniferous forests, and woodlands.	Low potential to occur. There is a recorded occurrence 8 miles west of the site. Moderately suitable habitat occurs within the wetland portion of the survey area.
Salvadora hexalepis virgultea	Coast patch-nosed snake	None	DFG: SSC	Group 2, NC	Desert habitat, chaparral, washes and sandy flats.	Low potential to occur. There is a recorded occurrence 3 miles south of the site. Moderately suitable habitat occurs within the survey area.
Crotalus ruber ruber	Northern red diamond rattlesnake	None	DFG: SSC	Group 2, NC	Occurs from coastal San Diego County to the eastern slopes of the mountains and in desert habitats. Occurs from sea level to 2,400 feet in chaparral, woodland, and arid desert habitats in rocky areas and dense vegetation.	High potential to occur. Species recorded within 1 mile north of the Project site. No suitable habitat occurs within the project site. Marginally suitable habitat occurs within the survey area.
Charina trivirgata	Rosy boa	None	None	Group 2, NC	This species is known to occur within chaparral and desert habitats from the coast to the Mojave and Colorado deserts. Prefers moderate to dense vegetation and rocky cover. Specifically inhabits a mix of brushy cover and rocky soil, coastal canyons and hillsides, desert canyons, washes and mountains.	Low potential to occur. There is a recorded occurrence of this species 4 miles north of the site. Moderately suitable habitat occurs within the rocky chaparral areas of the Project site.
Thamnophis hammondii	Two-striped garter snake	None	DFG: SSC	Group 1, NC	This species is known to occur in coastal California from the vicinity of Salinas to northwest Baja California (Mexico) from sea level to about 7,000 feet in elevation. It is highly aquatic and found in or near permanent fresh water, often along streams with rocky beds and riparian growth.	Low potential to occur. There is a recorded occurrence 3 miles east of the site. Moderately suitable habitat occurs within the survey area.

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Species		Status			Required Habitat	Potential to Occur/Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	San Diego County		
Birds						
<i>Accipiter cooperi</i>	Cooper's hawk	None	None	Group 1, MSCP	(Nesting) Open, uninterrupted, or marginal type woodlands. Nest sites in riparian growths of deciduous trees, live oaks. Also other various forest habitats that are near water. Dense woodlands and forests are primary foraging habitat for this accipiter.	Present. Species observed nesting within the southwestern portion of the survey area. No suitable nesting habitat within the Project site.
<i>Agelaius tricolor</i>	Tricolored blackbird	None	DFG: SSC	Group 1, MSCP	Open grassland, farmland, lakeshores, or scrub for foraging; requires wetlands with tall emergent vegetation for breeding	Not likely to occur. No record of the species within 5 miles of the site. No suitable habitat within the Project site.
<i>Aimophila ruficeps canescens</i>	Southern California rufous-crowned sparrow	None	DFG: SSC	Group 1, MSCP	Resident in southern California coastal sage scrub and sparse mixed chaparral.	Present. Species observed foraging within the western portion of the survey area. No suitable nesting habitat within the Project site.
<i>Amorous savanna rum perpallidus</i>	Grasshopper sparrow	None	None	Group 1, NC	Coastal lowlands in undisturbed grassland with tall dense grasses	Low potential to occur. There is a recorded occurrence 3 miles east of the site. Moderately suitable habitat occurs within the survey area.
<i>Amphispiza belli belli</i>	Bell's sage sparrow	None	DFG: SSC	Group 1, NC	Vertical structure, habitat patchiness, and vegetation density may be more important in habitat selection by the species than the specific shrub species, but is closely associated with sagebrush. Common, but localized resident breeder in dry chaparral and coastal sage scrub along the coastal lowlands, inland valley, and in the lower foothills of local mountains. The preference for chamise chaparral appears to occur only in the more northern parts of its range.	Moderate potential to occur. Species recorded within 5 miles of the site. Marginally suitable habitat occurs across the site.
<i>Aquila chrysaetos</i>	Golden eagle	Eagle Protection Act	CDFG: FP	Group 1, MSCP	(Nesting and Wintering) Rolling foothills and mountain areas, juniper-sage flats, and deserts. Primarily associated with cliff-walled canyons and large trees in open habitats for nesting. Shrub-steppe and native grassland communities provide important foraging habitat. Also carrion.	Low potential to occur. There is a recorded occurrence 10 miles northeast of the site. No suitable nesting habitat occurs within the survey area.

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Species		Status			Required Habitat	Potential to Occur/Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	San Diego County		
Athene cunicularia	Burrowing owl	None	DFG: SSC	Group 1, MSCP	Open grasslands, desert, and sparse scrublands with low-growing vegetation. Subterranean nester, dependent upon pre-existing burrow, most commonly from ground squirrels.	Low potential to occur. There is a recorded occurrence six miles southwest of the site. Moderately suitable habitat occurs within the survey area, but vegetation is too dense. No suitable burrows were observed within the survey area.
Campylorhynchus brunneicapillus cousei	Coastal cactus wren	None	DFG: SSC	Group 1, MSCP	Occurs in southern California coastal sage scrub vegetation. This wren require tall Opuntia cactus for nesting and roosting.	Low potential to occur. There is a recorded occurrence two miles southeast of the site. A few small patches of cactus occur within the Project site, but not suitable for this species.
Dendroica petechia brewsteri	Yellow warbler	None	DFG: SSC	Group 2, NC	This species is associated with riparian areas, preferring to nest within willows, cottonwoods, aspens, sycamores and alders. Also known to nest in montane shrubs in open conifer forests.	Moderate potential to occur. Species recorded within 2 miles south of the site along the San Diego River. Marginally suitable habitat occurs within the southwestern portion of the survey area.
Elanus leucurus	White-tailed kite	None	CDFG: FP	Group 1, NC	Preferred habitats include open savannah, cultivated highlands, grassy plains, and semi-desert grasslands.	Present. A single white-tailed kite was observed within the southwestern portion of the Project site. No suitable nesting habitat occurs within the Project site. Marginal suitable foraging habitat occurs within the biological survey area.
Eremophila alpestris actia	California horned lark	None	DFG: SSC	Group 2, NC	Prairies, fields, golf courses, shores, airports.	Moderate potential to occur. Species recorded within 2 miles north of the site. Marginally suitable habitat occurs within the survey area.
Falco mexicanus	Prairie falcon	None	DFG: SSC	Group 1, NC	Occurs in dry, open county, and prairies.	Low potential to occur. Species recorded within three mile northeast of the site. Marginally suitable foraging habitat occurs within the survey area.
Icteria virens	Yellow-breasted chat	None	DFG: SSC	Group 1, NC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Specifically nests in low, dense riparian vegetation, consisting of willow, blackberry, wild grape. Forages and nests within 10 feet of ground.	Moderate potential to occur. Species recorded within eight miles east of the site along the San Diego River. Marginally suitable habitat occurs within the southwestern portion of the survey area. .



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Species		Status			Required Habitat	Potential to Occur/Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	San Diego County		
<i>Ixobrychus exilis</i>	Least bittern	None	DFG: SSC	Group 2, NC	A colonial nester in marshlands and borders of ponds and reservoirs, which provide ample cover. Nests are usually constructed in low tules, over water.	Moderate potential to occur. Species recorded within 1 mile northeast of the site. Marginally suitable habitat occurs within the southwestern portion of the survey area.
Mammals						
<i>Lepus californicus</i>	San Diego black-tailed jackrabbit	None	DFG: SSC	Group 2, NC	Open desert scrub with suitable cover and burrowing substrate. Burrows beneath desert shrubs and loose friable soils.	Present. Species detected within the western portion of the survey area. Individuals were not observed within the Project site. This species is not likely to occur within the Project site, but is present in the survey area.
<i>Antrozous pallidus</i>	Pallid bat	None	DFG: SSC	Group 2, NC	Roosts in rock crevices, tree hollows, mines, caves and a variety of anthropogenic structures, including vacant and occupied buildings. Tree roosting has been documented in large conifer snags, inside basal hollows of redwoods and giant sequoias, and bole cavities in oaks. They have also been reported roosting in stone piles.	Low potential to occur. Species observed within 3 miles east of the Project site, no suitable habitat occurs on the Project site.
<i>Myotis ciliolabrum</i>	Small-footed myotis	None	None	Group 2, NC	Wide range of habitat types however primarily within arid wooded and brushy uplands, including open stands in forests and woodlands, adjacent to water. Caves, buildings, mines, and crevices used for refuge.	Low potential to occur. Species observed within 10 miles southeast of the Project site, no suitable habitat occurs on the Project site.
<i>Taxidea taxus</i>	American badger	None	None	Group 2, MSCP	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Low potential to occur. No record of the species within 6 miles east of the site. No suitable habitat within the Project site.
<i>Odocoileus hemionus</i>	Southern mule deer	None	None	Group 2, MSCP	Mule deer occupy a wide range of habitat types within their home range. In San Diego County, this species prefers more arid, open situations.	Low potential to occur. Vegetation on the site is mostly grasslands with several meandering trails. No evidence of the species was observed during the surveys.

4.12 Biological Resources

Species		Status			Required Habitat	Potential to Occur/Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	San Diego County		
<i>Felis concolor</i>	Mountain lion	None	None	Group 2, MSCP	Uses rocky areas, cliffs, and ledges that provide cover within open woodlands and chaparral, as well as riparian areas that provide protective habitat connections for movement between fragmented core habitats. Also, need both vertical and horizontal cover components, such as rocks and downed logs, to feel secure enough to bed. Typically associated with populations of the species primary prey, mule deer.	Low potential to occur. No evidence of deer was observed within the Project site. No evidence of the species was observed during the surveys.
Federal		State			San Diego County	
FE	Federal Endangered	SE	State Endangered	<i>Sensitive Animal Lists</i>		
FT	Federal Threatened	ST	State Threatened	Group 1: High Sensitivity; species listed or has specific local natural history requirements		
FSC	Federal Species of Concern	DFG:SSC	California Species of Concern	Group 2: Species declining, but not in immediate threat of extinction or extirpation		
PFT	Proposed Federal Threatened	CDFG:FP	Fully Protected Species	MSCP: Species Covered Under MSCP (2001)		
C	Candidate for Federal Listing	CDFG: P	Protected Species	NC: Species Not Covered Under MSCP (2001)		
D	Delisted					
<p>Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity (within 5 miles) of the project site and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the site.</p> <p>Low Potential to Occur - There is a historical record of the species in the vicinity of the Project site and potentially suitable habitat onsite, but existing conditions, such as density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation, substantially reduce the possibility that the species may occur.</p> <p>Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the Project site, and there is a recorded occurrence of the species within the greater vicinity (within 5 miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.</p> <p>High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the Project site (within 3 miles).</p> <p>Species Present - The species was observed on the project site at the time of the survey or during a previous biological survey.</p>						

Southern California Rufous-Crowned Sparrow: A single southern California rufous-crowned sparrow was observed foraging within the sparse Diegan Sage Scrub/Non-native Grassland habitat located in the western portion of the survey area. This species was observed flying through the habitat onsite to higher quality habitat at an offsite location and is not likely considered a resident. Southern California rufous-crowned sparrow is a Covered Species under the City of San Diego Subarea Plan of the MSCP.

San Diego Black-Tailed Jackrabbit: The San Diego black-tailed jackrabbit was observed within dense non-native grasslands and Diegan coastal sage scrub/non-native grassland habitat in the western portion of the survey area. This species was not observed within the proposed plant site and is not likely to be directly impacted by project related activities. San Diego black-tailed jackrabbit is not a Covered Species under the City of San Diego Subarea Plan of the MSCP.

Golden Eagle: A golden eagle assessment was conducted based on the *Interim Golden Eagle Inventory and Monitoring protocols and other Recommendations* (USFWS 2010). Based on the most current version of the CNDDDB, the closest known recorded nesting golden eagle is approximately 10 miles to the northeast of the plant site. The nesting area occurs within a steep cliff area surrounded by undisturbed open space and is clearly visible on Google Earth aerial photographs. Based on the requirements within the interim protocol, detailed nesting monitoring is required for project sites that are within 10 miles of a known recorded nest. Based on the assessment, the plant site is not within the 10-mile survey buffer. The survey area does not provide suitable habitat for nesting golden eagles and therefore is not likely to significantly affect any golden eagle nests. In addition, an assessment was also conducted within the 10-mile buffer area to identify other areas that may be suitable for golden eagle nesting. No other suitable nesting areas were identified within 10 miles of the Project site. Additional suitable nesting habitat continues further to the northeast beyond the known recorded occurrence. The Project site may be utilized as foraging habitat since it is contiguous with open space areas surrounding the survey area.

White-Tailed Kite: White-tailed kite is a CDFG designated Fully Protected Species and San Diego County Group 1 (very high level of sensitivity) species. This species is widespread across California in non-desert lowland terrestrial habitats, in particular, riparian woodlands and oak or sycamore groves near grasslands. A single white-tailed kite was observed flying within the southwestern portion of the Project site. However, no suitable nesting habitat occurs within the Project site. Marginal suitable foraging habitat occurs within the biological survey area.

Quino Checkerspot Butterfly: The federally endangered Quino checkerspot butterfly (QCB) was listed by the USFWS in 1997. The decline of this butterfly is not completely understood, although habitat destruction and degradation are two of the primary causes. Currently, QCB is known only from scattered locations in San Diego and western Riverside counties, and northwestern Baja California, Mexico. The proposed Project site is located within 3 miles of the Mission Trails population of QCB. This population was completely lost in the 2007 fire and remains absent from the area (USFWS personal communication 2011).

The QCB is generally associated with sage scrub, open chaparral, grasslands, and vernal pools. Within these communities they are usually observed in open or sparsely vegetated areas (including trails and dirt roads), and on hilltops and ridgelines. The QCB exists in low elevation (sea level to 3,000 feet) open grasslands and sunny openings within shrubland habitats, and is

usually associated with clay soils or deposits of cryptogamic plants. The cryptogamic plants develop a hard crust, which is occupied by low growing herbaceous annuals including the QCB larvae's primary food plant, dwarf plantain (*Plantago erecta*) and the larvae's additional food plant, owl's clover (*Orthocarpus purpurascens*). In addition to these two plants, larvae may also use Chinese houses (*Collinsia heterophylla*), birds beak (*Cordylanthus rigidus*), and woolly plantain (*Plantago ovata*). The QCB is found only in areas where there are dense stands of one or both of the larvae's food plants. Courtship behavior consists of male butterflies hilltopping on open or sparsely vegetated rounded hilltops, ridgelines, and rocky outcrops.

Following an initial habitat assessment, the survey area does not contain the key constituent habitat elements necessary to support a population of QCB. Although the project site does contain some sparse sage scrub and grassland communities, it does not contain a sufficient amount of host plant to support a population of this species. In addition, there were no cryptogamic crusts within areas of sparse Diegan coastal sage scrub and non-native grasslands. A total of six individual dwarf plantain and purple owl's clover were observed on the side of a 10-foot road cut (Figure 4.12-4). Also, the proposed Project site does not contain sparsely vegetated rounded hilltops or rocky outcrops, which are also commonly observed habitat components for this species. Therefore, the survey area is not considered suitable habitat for this species, which is unlikely to occur within the survey area.

The survey area is located within the recommended survey area for QCB (USFWS 2002). According to USFWS protocol, surveys for the QCB should be conducted for projects within the recommended survey area for QCB regardless of host plant presence, absence and/or density, unless the Project site meets one of the following exclusion criteria:

- Orchards, developed areas, or small in-fill parcels (plots smaller than an acre completely surrounded by urban development) largely dominated by non-native vegetation
- Active/in-use agricultural fields without natural or remnant inclusions of native vegetation (i.e., fields completely without any fallow sections, unplowed areas, and/or rocky outcrops)
- Closed-canopy forests or riparian areas, dense chaparral, and small openings (less than an acre) completely enclosed within dense chaparral

Since the proposed Project site does not meet any of the criteria listed above for exclusion from surveys, the survey area should be surveyed for QCB. Based on the existing site conditions, a protocol survey will likely be required within the portion of the survey area associated with the proposed gen tie ROW.

Consultation with USFWS will be required prior to determine the appropriate actions with regard to the QCB.

4.12.2.7 Nesting Birds

The Migratory Bird Treaty Act (MBTA) protects all native wild birds found in the United States. Resident game birds are managed separately by each state. The MBTA makes it unlawful for anyone to kill, capture, collect, possess, buy, sell, trade, ship, import, or export any migratory bird including feathers, parts, nests, or eggs, without a permit.

Section 3503 of the California Fish and Game Code (CFG Code) makes it illegal to destroy any birds' nest or any birds' eggs that are protected under the MBTA without a permit. Section 3503.5 further protects all birds in the orders *Falconiformes* and *Strigiformes*, birds of prey, such as hawks and owls, and their eggs and nests from any form of take.

The survey area and immediate vicinity supports suitable nesting and foraging habitat for a number of resident and migratory bird species, including raptors, protected under the MBTA and CFG Code. All of the bird species observed in the Project area are considered migratory birds protected under the MBTA (see Table 4.12-6).

The coastal sage scrub surrounding the Project site provides marginal nesting and foraging habitat for common resident species such as California towhee, wren, and spotted towhee (*Pipilo maculatus*). The southern sycamore-alder riparian woodland provides suitable nesting habitat for raptors such as Cooper's hawk and common yellowthroat (*Geothlypis trichas*).

4.12.2.8 Wetlands

A preliminary jurisdictional delineation was conducted for the entire survey area to determine the location and extent of waters and/or wetlands that are potentially subject to the jurisdiction of the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and/or the CDFG. The Preliminary Jurisdictional Delineation report provides a full description of methods used and findings of the survey and wetland delineation forms, and is included in Appendix H.5.

Table 4.12-7 provides a summary of potential jurisdictional waters and wetlands identified within the survey area. Three potentially jurisdictional features occur within the survey area and are depicted on Figure 4.12-5 for USACE jurisdictional features, and Figure 4.12-6 for CDFG jurisdictional features. Feature 1 is located within Spring Canyon and is separated into two reaches (A and B) in this report to distinguish areas located upstream (Feature 1A) and downstream (Feature 1B) of Feature 2. Feature 2 is located in the northwestern portion of the survey area and is a tributary to Feature 1. Feature 3 is located to the east within Little Sycamore Canyon.

Table 4.12-7 Summary of Potential Jurisdictional Features Within the Survey Area

Feature	USACE		RWQCB	CDFG		Linear Feet
	Non-Wetland Waters (acres)	Wetland Waters (acres)	State Waters (acres)	Un-vegetated Streambed (acres)	Riparian Streambed (acres)	
Feature 1A	0.17	-	0.17	0.17	-	428
Feature 1B	1.56	0.02	1.58	1.56	0.31	3,415
Feature 2	0.12	-	0.12	0.12	-	1,374
Feature 3	0.01	-	0.01	0.01	-	75
Total	1.86	0.02	1.88	1.86	0.31	5,292

A total of 1.88 acres, of which 0.02 acre is wetland, may be subject to USACE and RWQCB jurisdiction, while a total 2.17 acres of streambed may be subject to CDFG jurisdiction. The main drainage features in the survey area are associated with Spring Canyon and eventually

connect to the San Diego River, relatively permanent water, at an offsite location (approximately 1 mile to the south).

Natural runoff from the adjacent hills to the north is conveyed within drainage Features 1 and 2, which are tributary to the San Diego River, which is considered a Traditional Navigable Water (TNW). Feature 3 conveys flows from the adjacent landfill to the north. The potentially jurisdictional features are blue-line streams as depicted on the La Mesa, California USGS 7.5-minute topographic quadrangle map. The jurisdictional delineation surveys began 2 weeks following a significant rain event, allowing observation of connection between various swales and culvert outlets.

A small portion of Feature 1B meets all three wetland criteria. The wetland feature is located in the southwestern portion of the survey area (Figure 4.12-5). In addition, an adjacent wetland occurs west of Feature 1B along the survey area southern boundary.

4.12.2.9 Wildlife Corridors

Regional linkages/corridors may include land that contains topography that serves to allow for the movement of all sizes of wildlife and is used by wildlife, including large animals on a regional scale, and contains adequate vegetation cover providing visual continuity to encourage the use of the corridor by wildlife. These lands may also be identified as the primary linkage/corridor between the regional populations of wildlife species, most notably in San Diego County, the coastal California gnatcatcher.

The Project site is located within and immediately adjacent to the MHPA as identified by the City Subarea Plan. The MHPA is comprised of linkages and corridors that connect several large areas of habitat within the County of San Diego.

The proposed Project is limited in size, particularly when compared to existing development within 1 mile of the Project site (i.e., Sycamore Landfill, commercial, and residential development). The operational requirements of the proposed Project are minimal as well, particularly because portions of the Project will be contained within existing disturbed areas associated with dirt and paved access roads, low-quality habitat, and existing power lines. The placement of the Project primarily within low quality habitat reduces potential impacts resulting from any aboveground hindrances (such as power lines and landfill facilities), or impacts associated with noise and movement (trucks, landfill operations, movement of landfill personnel), beyond that which already exists, and minimizes potential indirect impacts from noise or lighting. Although the habitat within the survey area demonstrates connectivity with higher quality undeveloped habitat in the vicinity, the Project site itself is located between an existing landfill to the north and major roads, such as SR-52 to the south and Mast boulevard to the east. On a regional scale, the undeveloped habitat located further to the northwest and northeast, within offsite areas, may function to facilitate wildlife movement for wildlife species potentially occupying or moving through the area. No significant impacts will occur to this adjacent habitat, and no developments are proposed that would pose a significant indirect impact to the function of the adjacent areas as a potential linkage or corridor. Furthermore, development of the proposed Project would not conflict with the assemblage and function of any future resource planning pertaining to regional or local corridors or linkages for the area because the project site is not within an active wildlife movement corridor.

4.12.2.10 Urban/Wildlands Interface/MHPA Adjacency Management Issues

An urban/wildlands interface is generally defined as land that presently contains, or will contain, as a result of a proposed action, both elements of an urban setting and raw undeveloped land or protected land. This land is situated as such to present a sharply defined physical contrast between the two, potentially creating an adverse edge effect resulting from direct and/or indirect impacts derived from the urban elements. An urban/wildlands interface may be most recognizable in larger multi-use developments that occur within or immediately adjacent to completely undeveloped and undisturbed land that provides habitat for plant and wildlife species in the area.

No design elements are proposed that would result in any significant indirect impacts to any adjacent land or any wildlife potentially using the project vicinity beyond that which already exists and currently results from the existing development in the area (i.e., Sycamore Landfill and SR-52). The majority of the proposed project area is located within non-native grassland and existing disturbed and developed land, thereby reducing potential impacts resulting from any above ground physical hindrances beyond that which already exist, and minimizing potential indirect impacts from noise or lighting.

4.12.2.11 City of San Diego MSCP Subarea Plan and MHPA Boundary Adjustment

The proposed Project site is within the jurisdictional boundaries of the City Subarea Plan, which is part of the larger San Diego County MSCP Plan. The survey area is located within and immediately adjacent to the MHPA as identified under the Subarea Plan. The parcel that the plant site will be located on is currently within the boundary of the MHPA established by the City Subarea Plan. Because the plant will require development beyond the 25 percent development limit imposed for private land within the MHPA, a boundary adjustment to the MHPA will be required.

Section 5.4.2 of the MSCP Plan provides a process for adjustments to the boundaries of the MHPA. Adjustments to the MHPA boundaries may be made without the need to amend the City Subarea Plan if the adjustment will result in the same or higher biological value of the MHPA. The City of San Diego will determine the biological value of the proposed change with the concurrence of the USFWS and CDFG.

Section 5.4.2 of the MSCP Plan provides six biological factors that will be used to evaluate biological value in a boundary change process. These factors are listed in Table 4.12-8 along with an evaluation of these factors with respect to the plant site parcel that will be extracted from the MHPA. The City of San Diego will use these factors to identify mitigation measures required for the boundary adjustment.

Table 4.12-8 MSCP Boundary Change Biological Evaluation Factors and Plant Site Parcel Evaluation

Factor Listed in MSCP Section 5.4.2	Plant Site Parcel Evaluation
Effects on significantly and sufficiently conserved habitats (i.e., the exchange maintains or improves the conservation, configuration, or status of significantly or sufficiently conserved habitats, as defined in [the MSCP Plan] Section 4.2.4.	The plant site parcel is considered low quality Diegan coastal sage scrub with low to moderate quality non-native grasslands between the Sycamore Landfill to the north and adjacent development to the south. Replacing with higher quality habitat would maintain or improve conservation in the area.
Effects to covered species (i.e., the exchange maintains or increases the conservation of covered species)	The only covered species located on the plant site parcel is the San Diego barrel cactus. The Project site is designated as a “Core Resource Area” in the MSCP Plan. Core resource areas are defined as areas with a high concentration of sensitive biological resource which, if lost, could not be replaced or mitigated elsewhere (San Diego County 1998). Given the limited sensitive biological resources located on the site, replacing this area with an area with a higher concentration of sensitive species should maintain or increase the conservation of covered species.
Effects on habitat linkages and function of preserve areas (i.e., the exchange maintains or improves a habitat linkage or wildlife corridor)	The plant site parcel itself contains low-quality habitat that is not associated with any wildlife corridor. The overall Mission Trails/Santee area is noted as a “habitat linkage” – or, linkage between core resource areas – in the MSCP Plan (San Diego County 1998). Replacing the Project site with an area located in a linkage area would improve conservation in the area.
Effects on preserve configuration and management (i.e., the exchange results in similar or improved management efficiency and/or protection for biological resources)	The plant site parcel is not currently in the preserve, as it is private land with no conservation easement or other preservation mandates. Replacing it with other privately owned land would result in similar management efficiencies.
Effects on ecotones or other conditions affecting species diversity (i.e., the exchange maintains topographic and structural diversity and habitat interfaces of the preserve)	The plant site has little to no ecotone and provides minimal species diversity. Replacing it with land that had similar or more ecotone could help increase species diversity.
Effects to species of concern not on the covered species list (i.e., the exchange does not significantly increase the likelihood that an uncovered species will meet the criteria for listing under either the federal or state endangered species acts)	The plant site provides minimal habitat for San Diego barrel cactus. A potential exchange parcel may provide suitable habitat and foraging opportunities for a number of sensitive wildlife species.

The survey also contains portions of an Environmentally Sensitive Area. The Environmentally Sensitive Area is located along the western side of the survey area and is directly associated with the drainage with Spring Canyon. Based on the current site design, the Environmentally Sensitive Area will be completely avoided during project installation.

4.12.3 Environmental Consequences

4.12.3.1 Significance Criteria

CEQA Guidelines Appendix G, Environmental Checklist Form³ provides the following significance criteria to evaluate whether the project impacts are potentially significant, less than significant with mitigation incorporated, less than significant, or if the project would have no impact:

- Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS?
- Would the project have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFG or USFWS?
- Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

In addition, the City of San Diego provides Significance Determination Thresholds (Guidelines) (January 2011) to determine the significance of direct, indirect, and cumulative impacts of a proposed project. These Guidelines are intended to assist in determining whether a project may have a significant effect on the environment under Section 21082.2 of CEQA, based on substantial evidence, and therefore would require mitigation (City of San Diego 2011).

The following are from the City's Initial Study Checklist and provides guidance to determine potential significance to Biological Resources:

Would the proposal result in:

1. A substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the MSCP or other local or regional plans, policies or regulations, or by the California Department of Fish and Game (CDFG) or U.S. Fish and Wildlife Service (USFWS)?

³ Available at: http://ceres.ca.gov/ceqa/guidelines/pdf/appendix_g-3.pdf.

2. A substantial adverse impact on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the Biology Guidelines of the Land Development manual or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS?
3. A substantial adverse impact on wetlands (including, but not limited to, marsh, vernal pool, riparian, etc.) through direct removal, filling, hydrological interruption, or other means?
4. Interfering substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP Plan, or impede the use of native wildlife nursery sites?
5. A conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan, either within the MSCP plan area or in the surrounding region?
6. Introducing land use within an area adjacent to the MHPA that would result in adverse edge effects?
7. A conflict with any local policies or ordinances protecting biological resources?
8. An introduction of invasive species of plants into a natural open space area?

The CEQA Guidelines further define direct, indirect, and cumulative impacts as the following:

- “A direct impact is a physical change in the environment which is caused by and immediately related to the project. An example of a direct physical change in the environment is the removal of vegetation due to brushing, grubbing, grading, trenching, and excavating.”
- “An indirect impact is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. For example...the construction equipment noise levels could interrupt reproductive behavior within adjacent sensitive avian breeding habitats during the breeding season.”
- “The MSCP was designed to compensate for the regional loss of biological resources throughout the region. Project that conform with the MSCP as specified by the Subarea Plan, and implementing ordinances (i.e. July 2002 Biology Guidelines and ESL regulations) are not expected to result in a significant cumulative impact for those biological resources adequately covered by the MSCP. These resources include the vegetation communities identified as Tier I through IV (see City’s July 2002 Biology Guidelines, and the MSCP covered species list (see Appendix A of the City of San Diego’s MSCP Subarea Plan).”

The following section uses this guidance to describe potential impacts to the biological resources identified in Section 4.12.1.

4.12.3.2 Vegetation Communities

The total existing acres within the survey area and total impact acres resulting from construction and operation of the proposed Project to each habitat type are outlined in Table 4.12-9.

Table 4.12-9 Habitat Types/Vegetation Communities and Impacts

Habitat/Vegetation Community	Tier Habitat According to City Subarea Plan	Existing Acres	Percent (%) of Survey Area	Total Project Related Impacts Acres
Diegan Coastal Sage Scrub (32500)	Tier II	13.80	5	1.53
Diegan Coastal Sage Scrub with Non-Native Grassland (32500)	Tier II	11.83	4	0.17
Disturbed Habitat (11300)	Tier IV	10.29	4	0.82
Granitic Chamise Chaparral (37210)	Tier IIIa	32.34	12	2.36
Granitic Chamise Chaparral with Non-Native Grassland (37210)	Tier IIIa	9.77	4	0.14
Granitic Southern Mixed Chaparral with Non-Native Grassland (31721)	Tier III	1.00	<1	0.00
Non-Native Grassland (42200)	Tier IIIb	183.16	69	27.20
Non-Vegetated Channel (64200)	N/A	1.80	1	0.00
Southern Sycamore-Alder Riparian Woodland (62400)	Tier I	0.57	<1	0.00
Total		264.56	100	32.22

As currently designed, the plant site will permanently impact 11 acres of the 21.6-acre parcel. The total area to be permanently impacted by all project components includes 15.61 acres of non-native grasslands and 1.42 acres of Diegan coastal sage scrub. Grading will permanently remove the vegetation in the impact area, which will be replaced by the plant site and access road.

The natural gas pipeline lateral includes a temporary impact of 0.54 acres of disturbed habitat. Impacts will be temporary and include grading and trenching associated with installation of the pipeline lateral. Because the pipeline lateral would be located underground, no permanent impacts are anticipated.

The gen tie line will include approximately 12 towers and associated access roads, which includes 8.30 acres of total impacts including 0.10 acres of Diegan coastal sage scrub, 0.27 acres of disturbed habitat, 6.20 acres of non-native grasslands, 0.17 acres of Diegan coastal sage scrub/Non-native grassland, and 1.56 acres of granitic chamise chaparral.

The proposed access roads will impact 0.66 acres of granitic chamise chaparral and 0.63 acres of non-native grasslands from grading and construction of the access roadways. All impacts associated with access roads will be permanent.

The switchyard will impact 4.74 acres of non-native grasslands, 0.14 acres of granitic chamise chaparral, and 0.14 acres of granitic chamise chaparral/non-native grassland.

Diegan coastal sage scrub is considered a Tier II Habitat under the City Subarea Plan. Also granitic chamise chaparral and non-native grasslands area considered Tier IIIA and IIIB respectively. Project-related impacts that result in less than 0.10-acre of impacts to sensitive upland Tiers I, II, IIIA, and IIIB are not considered significant and do not require compensatory mitigation. Disturbed habitat, non-native vegetation, and urban/developed land are considered Tier IV Habitats under the City Subarea Plan. No compensatory mitigation is required for project-related impacts to Tier IV Habitat.

Because the proposed Project would directly impact greater than 0.10 acres of upland habitats, this impact is considered to be significant and would require mitigation. Recommendation for project related mitigation measures associated with impacts to native vegetation and habitat is discussed in Mitigation Measure BIO-1. Implementation of the proposed mitigation measures would reduce impacts to vegetative communities to a less than significant level.

4.12.3.3 Special Status Species

It was determined that the proposed Project may result in potential impacts to four special-status plant species (willow monardella, heart-leaved pitcher sage, San Diego barrel cactus and variegated dudleya) and six special-status wildlife species (White-tailed kite, Coronado Island skink, Cooper's hawk, Southern California rufous-crowned sparrow, and San Diego black-tailed jackrabbit) that were observed on the proposed Project site during biological surveys. Quino checkerspot butterfly is not anticipated to occur onsite due to lack of constituent habitat elements; however, USFWS protocol requires that a protocol survey be conducted within areas if suitable plant communities occur within the proposed Project site regardless of other key habitat components.

Special Status Plant Species

Willow Monardella – This species was observed in upland areas immediately adjacent to an active drainage channel in the northwestern corner of the survey area and is located in an area that is not anticipated to be impacted by project related activities. In addition, no suitable habitat for this species occurs within any of the proposed Project related impact areas. Therefore, no impacts to willow monardella are anticipated.

San Diego Barrel Cactus – The plant site is anticipated to directly impact approximately 40 San Diego barrel cacti. The gen tie line is anticipated to avoid all individuals. Project-related impacts to San Diego barrel cactus are considered a significant impact. Mitigation Measure BIO-2 provided below will reduce potential project impacts to San Diego barrel cactus to less than significant.

Heart-leaved Pitcher Sage – This species was observed in upland areas immediately adjacent to an active drainage channel in the northwestern corner of the survey area and is located in an area that is not anticipated to be impacted by Project-related activities (Figure 4.12-4). In addition, no suitable habitat for this species occurs within any of the proposed Project-related impact areas. Therefore, no impacts to heart-leaved pitcher sage are anticipated.

Variegated Dudleya – Construction at the plant site is not anticipated to directly impact any variegated dudleya. The gen tie line is anticipated to potentially directly impact approximately 10 individuals. Project-related impacts to variegated dudleya are considered a significant impact. Mitigation Measure BIO-2 will reduce potential project impacts to variegated dudleya to less than significant levels.

Special Status Wildlife Species

White-Tailed Kite – This species was observe within the southwestern portion of the Project site, but no suitable nesting habitat occurs within the Project site, with only marginal suitable foraging habitat occurring within the biological survey area. The white-tailed kite is a California Fully

Protected species that is not covered by the City MSCP Subarea Plan. Because of its fully-protected status, there is no incidental take authority regarding this species. Therefore, any impact to this species is considered significant. This species is further protected under the Migratory Bird Treaty Act and California Fish and Game Code during its appropriate nesting season. Further recommendations for protection are provided with Mitigation Measure BIO-5. This measure will reduce impacts to the white-tailed kite to a less than significant level.

Quino Checkerspot Butterfly (QCB) – Although this species was not observed within the survey area, the proposed Project site is located within the recommended survey area for this species (USFWS 2002). The proposed Project site does not contain any excluded areas, therefore USFWS protocol are required in areas that are considered suitable for habitat for QCB. Within the survey area, suitable habitat area includes; Diegan coastal sage scrub, Diegan coastal sage scrub/non-native grassland, and open areas within the non-native grassland areas. A few sparse individual host plants were observed within the southwestern portion of the survey area and should be the focus of any protocol surveys.

The proposed Project site is located within 3 miles of a historic occurrence of the Mission Trails population of QCB. This population was completely lost in the 2007 fire and remains absent from the area (USFWS personal communication, 2011). Since protocol surveys were not conducted during the 2011 field survey, proposed Project-related impacts may be considered significant if QCBs are present within the proposed Project site. Based on the existing habitat characteristics within the survey area and the loss of the closest recorded population, it is highly unlikely that this species occurs on the proposed Project site. However, based on the current USFWS protocol, surveys are required regardless of habitat quality.

A potentially significant indirect impact on QCB is nitrogen deposition on occupied habitat. Nitrogen deposition has been linked to habitat degradation for QCB. Air emissions from the proposed project include nitrogen oxides (NO_x), sulfur oxides (SO_x), and particulates (PM₁₀). Nitrogen oxide gases (NO, NO₂) convert to nitrate particulates in a form that is suitable for uptake by most plants. The effect of this nitrogen could be to promote plant growth that could potentially encourage nonnative plant species at the expense of native species. Sensitive habitats that may harbor sensitive plant species susceptible to the effects of nitrogen deposition area located 3 miles southwest of the Project site. The Project site nitrogen deposition rates would be 4.33 kilograms per hectare per year, depending on the location, on the basis of a permit to operate 4,032 hours per year.

A threshold at which harmful effects from nitrogen deposition on plant communities has not been firmly established. However, a value of 5 kilograms per hectare per year (kg/ha/yr) is often used for comparing nitrogen deposition among plant communities. Research conducted in the South San Francisco Bay Area indicates that intensified annual grass invasions can occur in areas with nitrogen deposition levels of 11–20 kg/ha/yr, with limited invasions at levels of 4-5 kg/ha/yr. The levels of nitrogen deposition from the Project in the Mission Trails area are estimated at 4.33, which are below levels necessary to cause adverse effects.

Furthermore, the level of nitrogen deposition from the Project on plant-available nitrogen would actually be less than the calculated amount because the deposition will be distributed in small amounts during the year and not all of the nitrogen added to the soil during each deposition event is available for plant use because of losses associated with soil processes. Therefore, it is

unlikely that there would be significant impacts to biological resources from nitrogen deposition. In addition, indirect impacts associated with offsite nitrogen deposition is unlikely to be significant due to the minimal amount of deposition within offsite areas.

If the air quality analysis identifies significant levels of nitrogen deposition as a part of the proposed Project emissions, then species occupancy must be determined to identify this as a significant impact, or as otherwise specified and agreed-upon by the CEC and USFWS. Recommendations for protection are discussed in Mitigation Measure BIO-5.

Coronado Island Skink – This species was observed foraging within dense non-native grasslands within the northern portion of the plant site. This portion of the plant site will be directly impacted by project development. Coronado Island skink is not a Covered Species under the City of San Diego Subarea Plan of the MSCP. However, impacts to this species are potentially significant if a large population of Coronado Island skink occurs within the proposed Project site and loss of individuals within the proposed Project site will result in the decline of the population to a less than self-sustaining level. At this time, a population study was not conducted and therefore the total number of individuals within the proposed Project site could not be determined. Therefore, impacts to this species may be considered significant. Mitigation Measure BIO-3 provided below will reduce potential Project impacts to the Coronado Island skink to less than significant.

Cooper's Hawk – This species was observed nesting in the southern willow-alder riparian woodland in the southwestern portion of the survey area. This portion of the Project site will not be directly impacted by project development. In addition, no suitable habitat for this species occurs within any of the proposed project related impact areas. Cooper's hawk is a Covered Species under the City of San Diego Subarea Plan of the MSCP. Therefore, this species is considered adequately conserved if conditions are implemented, as described in Appendix A "Species Evaluated For Coverage Under the MSCP" of the Subarea Plan. However, the Cooper's hawk is further protected under the MBTA and CFG Code during its appropriate nesting season, and further recommendation for protection is discussed in Mitigation Measure BIO-4. These measures would reduce impacts to Cooper's hawk to a less than significant level.

Southern California Rufous-Crowned Sparrow – This species was observed foraging in the Diegan coastal sage scrub/non-native grassland area along the western portion of the survey area. This portion of the Project site will not be directly impacted by project development. Southern California rufous-crowned sparrow is a Covered Species under the City of San Diego Subarea Plan of the MSCP. Therefore, this species is considered adequately conserved if conditions are implemented, as described in Appendix A "Species Evaluated For Coverage Under the MSCP" of the Subarea Plan. However, the southern California rufous-crowned sparrow is further protected under the MBTA and CFG Code during its appropriate nesting season, and further recommendation for protection is discussed in Mitigation Measure BIO-4. These measures would reduce impacts to *southern California rufous-crowned sparrow* to a less than significant level.

San Diego Black-Tailed Jackrabbit – This species was observed within dense non-native grasslands and Diegan coastal sage scrub/non-native grassland habitat in the western portion of the survey area. This species was not observed within the proposed Project site and is not likely to be directly impacted by Project-related activities. San Diego black-tailed jackrabbit is not

a Covered Species under the City of San Diego Subarea Plan of the MSCP. Therefore, this species requires a separate analysis to determine significance under the CEQA process. Since no San Diego black-tailed jackrabbits were observed within the Project site and the Project site does not contain the same habitat as the occupied areas within the western portion of the survey area, impacts to this species are less than significant.

4.12.3.4 Nesting Birds

The native shrubs and trees located on and within the immediate vicinity of the survey area provide suitable nesting habitat for resident and migratory bird and raptor species protected under the MBTA and CFG Code. Therefore, construction of the proposed Project may result in significant impacts to nesting birds protected under the MBTA and CFG Code, if construction activities commence during the general breeding season (February through August).

Potential project impacts to species protected under the MBTA and CFG Code are considered significant. Mitigation Measure BIO-3 provided below will reduce potential project impacts to nesting bird species to less than significant.

Bird species, particularly raptors, can be electrocuted by simultaneously contacting energized and/or grounded structures, conductors, hardware, or equipment, or injured or killed by collision with infrastructure. Risk of electrocution is typically higher for distribution lines and lower-voltage (such as 69kV) transmission lines. To minimize risk to avian species, the proposed Project will utilize recommendations of the APLIC (APLIC 2006) in the design of the gen tie as described in Mitigation Measure BIO-3.

4.12.3.5 Wetlands

As shown in Figures 4.12-5 and 4.12-6, all jurisdictional waters (including wetlands) are located in low-lying areas in Sycamore and Spring canyons. No jurisdictional waters or wetland would be directly impacted by construction or operation of the project facilities. All wetlands and jurisdictional waters that are crossed by the gen tie would be spanned.

Jurisdictional waters and wetlands have the potential to be indirectly impacted by stormwater runoff during the construction of Project components. A SWPPP will be developed and implemented to reduce any impacts from stormwater runoff to a level that is less than significant. SWPPP development and potential impacts to water resources are discussed in detail in Section 4.13 of this AFC.

4.12.3.6 Wildlife Corridors

Because the proposed Project will not be located within significant wildlife corridors, and is to be located in an area proximate to existing large-scale disturbances (the landfill, SDG&E 230kV transmission line), it will not directly or indirectly impact wildlife corridors. No developments are proposed that would pose a significant impact to the function of the regional area as a habitat linkage or corridor. Furthermore, development of the proposed Project would not conflict with the assemblage and function of any future resource planning pertaining to regional or local corridors or linkages for the area.

4.12.3.7 Urban/Wildlands Interface/MHPA Adjacency Management Guidelines

Due to the existing developments adjacent to the proposed Project site, design of the proposed Project to stay predominantly within low-quality habitat and location of the proposed Project site within noncontiguous habitat, impacts to an urban/wildlands interface are expected to be less than significant and no mitigation measures are recommended.

However, once the parcel for the plant site is removed from the MHPA boundary, that parcel and other Project features would be located immediately adjacent to the MHPA. The City Subarea Plan provides specific guidelines to reduce project related impacts associated with adjacent habitat. Adjacency Management Guidelines, discussed below, are designed to reduce any potential indirect impacts, relating from the construction and maintenance of the proposed Project, to resources adjacent to the proposed Project to less than significant.

Drainage

Project drainages should be directed onto natural detention basins, grass swales, mechanical trapping devices, or other remedial project elements and away from the MHPA, and should be maintained to ensure proper function. Projects should develop and implement urban runoff and drainage plans to minimize or eliminate potential impacts to adjacent preserve areas. All new development projects will be required to meet NPDES standards and incorporate Best Management Practices (BMPs) as defined by the City's Standard Urban Storm Mitigation Plan (SUSMP).

Pursuant to San Diego RWQCB Municipal Permit, and the City of San Diego Storm Water Management Standards Requirements Manual, which includes SUSMP, all development and redevelopment located within or directly adjacent to or discharging directly to an environmentally sensitive area are required to implement site design, source control, and treatment control BMPs, and shall at minimum, include the BMPs listed in Section 7.5.2 of the Plan. All NPDES-regulated projects shall implement a combination of BMPs as close to potential pollutant sources as feasible.

The Project shall implement physical stabilization and sediment control BMPs in order to prevent or reduce to the maximum extent practicable erosion from exposed slopes directed toward the preserve. Perimeter protection and resource protection methods shall be used during the construction phase of the proposed Project. Sediment ingress and discharge in sheet flows should be prevented to the maximum extent practicable by the establishment of silt fences, fiber rolls, or sand bag barriers in downslope positions directing potential discharge away from the preserve. These BMPs shall be properly installed prior to construction initiation by qualified personnel, and shall remain in place through the duration of construction activities adjacent to the preserve. Sufficient materials needed to install standby erosion and sediment control BMPs necessary to protect exposed portions of the site from potential erosion and to prevent potential sediment discharges into the preserve shall be stored onsite.

Toxic Substances

No project design elements, such as landscaping elements or agricultural uses, are proposed. The proposed Project may have the potential to cause the release of hazardous materials from construction-related activities, such as the release of fuel or other substances from equipment, which may be potentially toxic, or result in adverse impacts to natural resources adjacent to the

site. To reduce potential impacts caused by the application and/or drainage of such materials into the preserve, the Project shall stage and re-fuel all equipment away from the preserve area and use BMPs with regard to equipment use and staging. Methods shall be consistent with requirements of the RWQCB and NPDES standards.

Lighting

Lighting for the Project should be directed away from any preserve areas wherever feasible and consistent with public safety. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the preserve and sensitive species from night lighting. Consideration should be given to the use of low-pressure sodium lighting.

Noise

Uses in or adjacent to the preserve should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to preserve areas and any other use that may introduce noises that could impact or interfere with wildlife utilization of the preserve. Excessive noisy uses or activities adjacent to breeding areas, including temporary grading activities, must incorporate noise reduction measures or be curtailed during the breeding season of sensitive bird species, consistent with Table 3-5 of the MSCP Subregional Plan.

The proposed Project occurs in the vicinity of suitable nesting and/or foraging habitat for the coastal California gnatcatcher and other migratory bird species. The proposed Project includes limited equipment that will be housed within a noise-reducing cabinet located away from nesting habitat, and no noise impacts are expected to result during the operational phase of the proposed Project. However, the proposed project may result in noise impacts during the construction phase. Where noise associated with clearing, grubbing, or grading will negatively impact an occupied coastal California gnatcatcher and/or any other migratory bird nest between February 15 and August 31, clearing, grubbing, or grading activities will be modified if necessary to prevent noise from negatively impacting the breeding success of any coastal California gnatcatcher, nesting raptor, and/or other migratory bird species. Noise reduction techniques shall be implemented into the construction phase of the project if any active coastal California gnatcatcher and/or other migratory bird nests are observed. Further measures to reduce impacts to nesting birds covered under the MBTA and CFG Code are discussed in Mitigation Measure BIO-4.

Barriers

New development adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along the MHPA boundaries to direct public access to appropriate location and reduce domestic animal predation.

Invasives

No invasive non-native plant species will be introduced into areas immediately adjacent to the MHPA.

Brush Management

Proposed project development located adjacent to and topographically above the MHPA must be set back from slope edges to incorporate Zone 1 brush management areas on the development pad and outside of the MHPA. Zones 2 and 3 will be combined into one zone (Zone 2) and may be located in the MHPA upon granting of an easement to the City (or other acceptable agency) except where narrow wildlife corridors require it to be located outside of the MHPA. Zone 2 will be increased by 30 feet, except in areas with a low fire hazard severity rating where no Zone 2 would be required. Brush management zones will not be greater in size that is currently required by the City's regulations. The amount of woody vegetation clearing shall not exceed 50 percent of the vegetation existing when the initial clearing is done. Vegetation clearing shall be done consistent with City standards and shall avoid/minimize impacts to covered species to the maximum extent possible. For all new development, regardless of the ownership, the brush management in the Zone 2 will be the responsibility of the landowner or other private property.

Grading/Land Development

Manufactured slopes associated with the site development shall be included within the development footprint for projects within or adjacent to the MHPA.

4.12.3.8 City of San Diego MSCP Subarea Plan and MHPA Boundary Adjustment

Encroachment into the MHPA in excess of the allowable encroachment is considered a significant impact. A boundary adjustment requires a habitat equivalency assessment to ensure proposed mitigation meets the standard of resulting in an improved or equivalent value of the MHPA. The mitigation agreed to by the City of San Diego, USFWS, and CDFG will reduce the significance of the MHPA boundary adjustment process to a level that is less than significant.

The process for determining mitigation is described in BIO-07. It is anticipated that mitigation will include protection of the same types of biological values identified on the plant site parcel, as described in Table 4.12-8, including a limited amount of low-quality Diegan coastal sage scrub, low to moderate quality non-native grasslands, and habitat for the San Diego barrel cactus. Although the overall Mission Trails/Santee area is considered a habitat linkage area in the San Diego County MSCP Plan, the Project site itself is not considered to be part of any wildlife corridor.

4.12.3.9 Cumulative Impacts

The following sections discuss the potential for cumulative impacts to sensitive biological resources due to project implementation. According to CEQA, a cumulative impact "consists of an impact which is created as a result of the combination of the [proposed Project] together with other projects causing related impacts" (CCR Title 14 § 15130 [a][1]). The proposed Sycamore Landfill expansion is the only major development project proposed for the East Elliot Community Plan Area. As part of the ongoing CEQA process for the expansion of the Sycamore Landfill, the landfill is working with the City of San Diego to mitigate for biological impacts associated with the expansion in conformance with the City of San Diego biological guidelines and the MSCP Plan. Because all significant direct and indirect biological impacts associated with the landfill would be fully mitigated and consistent with the City Subarea Plan, there would be no significant cumulative biological impacts.

The MSCP Plan and City Subarea Plan were designed to protect biological resources at the regional level. Projects that conform to the MSCP, Subarea Plan, and implementing ordinances (including the City of San Diego's Biology Guidelines and Environmentally Sensitive Lands Regulations) are not anticipated to result in a significant cumulative impact for biological resources adequately covered by the MSCP (City of San Diego 2011). These resources include vegetation communities identified as Tier I through IV, and species covered by the City Subarea Plan for the "Eastern Area" which covers the proposed Project. By this standard, any impacts to the vegetation communities listed in Table 4.12-9, and covered species which include Cooper's hawk, Southern California rufous-crowned sparrow, San Diego barrel cactus, and Variegated dudleya, would not be cumulatively significant.

Impacts to state- or federally-listed species not covered by the MSCP may be considered cumulatively significant. This would include potential cumulative impacts to the white-tailed kite (California fully protected species), Quino checkerspot butterfly (federal endangered species), Coronado Island skink (California Species of Special Concern), and the San Diego black-tailed jackrabbit (California Species of Special Concern).

Cumulative impacts to the Coronado Island skink, white-tailed kite, and San Diego black-tailed jackrabbit are not anticipated because all impacts associated with the proposed Project will be reduced to a level less than significant through implementation of mitigation measures.

Cumulative impacts to the QCB from the proposed Project in combination with the landfill expansion are highly unlikely. The EIR for the Sycamore Landfill Master Plan (2008) states that updated protocol surveys taken during the 2005 flight season failed to identify any QCB in the landfill expansion project area. The EIR also states that QCB have a low potential to occur within the landfill expansion project area. Therefore, there will be no cumulative impact to QCB.

Based on the results of air quality modeling as presented in Section 4.7, Air Quality, cumulative impacts associated to vegetation and associated special status species from nitrogen deposition are expected to be less than significant.

4.12.4 Mitigation Measures

In general, the Project has been designed to limit impacts to biological resources to a level that is less than significant by implementing the following design features and characteristics:

- Biological resources located on the Project site are not of pristine quality and are impacted by permanent landscape features in the vicinity. The plant site is on private land located between a highway and an active landfill, located along a landfill access road with consistent noise from truck traffic travelling to and from the landfill. There are no wetland or riparian features on any of the Project features.
- The pipeline lateral alignment is located mostly under a disturbed roadside.
- The preferred gen tie corridor and utility switchyard site were selected in part because they are proposed to be located on landfill property, where existing roads are adequate for access during construction and operations, and because their locations minimize length required for the proposed gen tie.
- The transmission line will comply with APLIC standards to prevent electrocution to raptors and other avian species.

- Operational lighting at the project facilities will be directed towards the facility to minimize effects to wildlife in the Project vicinity.
- Noise levels during construction and operation will comply with relevant ordinances and guidance, and therefore will not impact wildlife in the Project vicinity.
- During operations, the plant site will include emission control measures to comply with applicable air quality regulations, thereby protecting biological resources from air quality impacts such as nitrogen deposition.

The following is a list of recommended mitigation measures that will reduce potential Project-related impacts to biological resources to less than significant.

4.12.4.1 Loss of Vegetation Communities and Wildlife Habitat

The following Applicant-proposed mitigation measures will reduce potential Project-related impacts to vegetation and habitat on the Project site to less than significant:

BIO-1: Based on the City of San Diego Municipal Code, Tier II and Tier III habitats require mitigation replacement ratio of 1:1 for impacts to habitat within the MHPA that will be replaced by habitat preserved within the MHPA. Therefore, Project-related impacts will be mitigated by the conservation of 1.53 acres of Diegan coastal sage scrub, 2.36 acres of granitic chamise chaparral, and 27.2 acres of non-native grasslands.

BIO-2: All temporary construction disturbance areas such as disturbed graded slopes and temporary work areas will be restored with native vegetation. Revegetation of temporary impact areas may be considered as part of the overall mitigation if a restoration plan is prepared to ensure proper restoration and meets design requirements as approved by the City of San Diego. A weed management plan will be prepared to prevent the spread of noxious weeds in the Project site.

4.12.4.2 Sensitive Plant Species

The following will reduce potential project-related impacts to the four special-status plant species known to occur on the Project site to less than significant:

BIO-3: To minimize the impacts to San Diego barrel cactus, a Sensitive Plant Relocation Plan will be prepared similar to the existing plan currently approved for the adjacent Sycamore Landfill. The sensitive plants will be relocated to the existing Sycamore Landfill relocation site or to the proposed exchange parcel or other suitable habitat area as deemed appropriate by the City of San Diego. If any variegated dudleya are impacted by construction of the gen tie, a species-specific Sensitive Plant Relocation Plan will be prepared and appropriate mitigation approved by the City of San Diego.

4.12.4.3 Sensitive Wildlife Species

The following will reduce potential project-related impacts to wildlife species known to occur on the Project site to less than significant.

BIO-4: To avoid any direct or indirect impacts to sensitive wildlife species a wildlife biologist will be required to monitor construction activities specifically associated with initial vegetation removal. A wildlife biologist will be required during all vegetation removal activities. Biological monitoring can be minimized following the vegetation removal during grading operations due to the minimal potential for impacts to wildlife species. The monitoring frequency will be based on the biological monitor's recommendation.

Quino checkerspot butterfly surveys will be conducted prior to development of the proposed Project to determine if the species is present or absent. If Project construction must commence prior to completing focused surveys, the species should be considered present within suitable habitat areas. If species occupancy is assumed, an incidental take permit under Section 10 of the federal Environmentally Sensitive Area would be required, unless a federal nexus is established.

Protocol surveys for this species can be completed prior to grading activities to determine presence/absence. The typical survey window for this species is from late February to the end of May, depending on weather conditions and rainfall amount.

Construction activities can be scheduled to avoid the Quino checkerspot butterfly flight season. Since only a few sparse individual host plants for this species occur in the survey area, avoidance of the flight season for project grading will reduce the potential for individual take of this species.

If the flight season cannot be avoided, an incidental take permit could take up to a year to process. Diegan coastal sage scrub habitat will likely be impacted during project construction, which would require mitigation. Mitigation for impacts to this natural community is already required under the MSCP for impacts to the natural communities and is covered under BIO-1.

Air quality mitigation measures may also be required to reduce emissions that may potentially affect native vegetation communities within the survey area. These mitigation measures will be addressed in Section 4.7, Air Quality.

4.12.4.4 Nesting Birds

The following will reduce potential project impacts to nesting birds protected under CFG Code and the MBTA to less than significant:

BIO-5: To avoid any direct and indirect impacts to raptors and/or any migratory birds, removal of habitat that may support active nests should occur outside of the combined breeding season of mid-February to the end of August for these species. In addition, construction activities adjacent to nesting habitat should also occur outside of the breeding season for these species. If the removal of habitat and/or construction activities adjacent to nesting habitat must occur during the breeding season, the Applicant shall retain a City-approved biologist to conduct a pre-construction survey to determine the presence or absence of nesting birds on

and within 300 feet of the construction area and nesting raptors within 500 feet of the construction area. The pre-construction survey must be conducted within 10 calendar days prior to the start of construction, the results of which must be submitted to the City for review and approval prior to initiating any construction activities. If nesting birds are detected by the City-approved biologist, a biological monitor should be present onsite during construction to minimize construction impacts and ensure that no nest is removed or disturbed until all young have fledged.

The Applicant will use APLIC guidelines in the design of the gen tie to prevent impacts to bird species from electrocutions or collision during operation of the gen tie.

4.12.4.5 Adjacency Management Guidelines

Pursuant to Section 1.4.3 of the City of San Diego MSCP Subarea Plan, the Project will be required to adhere to the Adjacency Guidelines, which are intended to address indirect effects associated with locating new development in proximity to the MHPA or an environmentally sensitive area. The Adjacency Guidelines are discussed below as Mitigation Measure BIO-5 and will be incorporated into the Project to ensure that potential indirect Project-related impacts involving drainage, toxics, lighting, noise, barriers, invasive plant introductions, brush management, and grading/land development, are avoided or minimized.

BIO-6: The proposed Project will comply with all guidelines and requirements of the San Diego County MSCP Plan and the City of San Diego MSCP Subarea Plan, including adjacency guidelines for lands in proximity to the MHPA. Compliance with the MSCP plans adequately protect covered species.

4.12.4.6 MHPA Boundary Adjustment

Mitigation will be required for the proposed MHPA boundary adjustment that would remove the plant site parcel from the MHPA boundary. This mitigation measure describes the process the applicant plans to employ to identify appropriate mitigation lands.

BIO-7: In accordance with the MSCP Subarea Plan Section 5.4.2, the Applicant will work with the City of San Diego to propose the boundary adjustment according to the permitting process (Community Plan Amendment or rezoning process) required by the City of San Diego, and to identify appropriate mitigation lands that will meet the equivalency standard provided for in the City MSCP Subarea Plan (1997). The applicant will prepare an MHPA boundary line adjustment package that includes (1) an exhibit clearly showing the proposed removal and additional area with the proposed grading; (2) a table showing, by habitat type, area within the existing MHPA, area to be removed, area to be added, and the proposed net change to the preserve; and (3) a written analysis of how the proposed MHPA adjustment meets the six required functional equivalency criteria provided in Section 5.4.2 of the San Diego County MSCP Plan (San Diego County 1998). Three full sets of the MHPA adjustment materials will be submitted to the City, and an additional set will be entered into the CEC docket. The boundary adjustment proposal will be reviewed by the City of San Diego,

CDFG, and USFWS, and is subject to approval by all three agencies. After the plant site parcel is removed, Adjacency Guidelines described in BIO-6 will be employed to ensure any impacts to surrounding MHPA lands are less than significant.

4.12.4.7 Worker Environmental Awareness Program

The proposed Project will employ a Worker Environmental Awareness Program (WEAP) to enhance protection of biological resources, as described in BIO-7.

BIO-8: Prior to project implementation, all non-biological project personnel will be briefed by a trained biologist on the importance of, and the legal basis for, the protection of significant biological resources. Personnel will be given a training brochure regarding prevention of impacts to biological resource onsite.

4.12.5 Laws, Ordinances, Regulations, and Standards

The proposed Project will conform to all applicable federal, state, and local (LORS) during construction and operation. Table 4.12-10 lists LORS that apply to biological resources that may be impacted by the proposed Project, and describes the project's compliance with each.

4.12.5.1 Federal LORS

Federal Clean Water Act

Pursuant to Section 404 of the CWA (33 USC 1344), an Individual or Nationwide Permit is required when a proposed project will potentially cause discharges of dredged or fill material, and thus the obstruction or alteration of "Waters of the United States" (WUS) and their adjacent wetlands. WUS are defined as interstate or intrastate permanent or ephemeral waters, their tributaries, and adjacent wetlands that are linked to interstate commerce.

WUS are considered to be biologically significant habitat features, hosting a unique assemblage of plants and animals and providing breeding and foraging habitat for a variety of birds, amphibians, and invertebrates. Section 404 of the 1977 CWA (as amended) prohibits the discharge of dredged or fill material into WUS without a permit. The USACE has final jurisdiction over WUS.

Endangered Species Act of 1973

Title 16, USC, Section 1531 et seq., and Title 50, CFR Part 17.1 et seq., designate and provide for the protection of listed threatened and endangered species and critical habitat for those species. Section 9 of the Endangered Species Act (ESA) prohibits the "take" of federally listed species. "Take" includes not only direct mortality but other actions that may result in adverse impacts, such as loss of habitat. Sections 7 and 10 of the ESA permit the "incidental take" of a listed species via a federal or private action, respectively, through formal consultation with the USFWS. Critical Habitats are geographic areas designated by USFWS that contain features that are essential to the conservation of the species and that may need special management or protection.

Table 4.12-10 Applicable LORS for Biological Resources

Permitting Agency	LORS or Permit/Approval/Consultation	Trigger	Comments
Federal			
U.S. Army Corps of Engineers (USACE), South Pacific Division, Los Angeles District	Individual or Nationwide Permit under Section 404 of the Clean Water Act (CWA)	Discharges of dredged or fill material into waters of the United States, including their adjacent wetlands	The USACE may issue a Permit under Section 404 of the CWA, which establishes a program to regulate the discharge of dredge or fill material into waters of the U.S., which may include dry desert washes if they drain to waters of the U.S. Applicants must show compliance with the National Environmental Policy Act and provide mitigation for any permanent loss of wetlands or waters of the U.S. Regulatory information is available online at: http://www.spl.usace.army.mil/regulatory/ .
U.S. Fish and Wildlife Service (USFWS), Region 1, Pacific Region	Endangered Species Act (ESA) (16 USC § 1531 et seq., 50 CFR § 17.1 et seq.)	Potential adverse impacts to federally listed species and/or designated critical habitat	The ESA designates and protects federally threatened and endangered species and their designated critical habitats, and prohibits “take” of listed species without an Incidental Take Permit with a Habitat Conservation Plan (HCP). Critical habitats are areas designated by USFWS as essential to the conservation of a listed species and that may require special management and protection. For federally listed species covered by the MSCP Plant and Subarea Plan, the Project’s compliance with ESA will be demonstrated by compliance with the MSCP Plan and Subarea Plan. For impacts to federally listed species not covered by the MSCP Plan and Subarea Plan (such as the Quino checkerspot butterfly), the Project will require development of an HCP and acquisition of an Incidental Take Permit. Avoidance and mitigation measures will be employed to avoid or reduce impacts to covered species.
USFWS, Region 1, Pacific Region	Migratory Bird Treaty Act (MBTA) (16 USC §703–712; 50 CFR §10 Subchapter B)	Potential impacts on any migratory bird species	This act prohibits the “take” of migratory birds and their active nests containing eggs or young unless permitted. This regulation can constrain construction activities that have the potential to affect nesting birds either through vegetation removal and land clearing, or other construction or operation related disturbance.
USFWS, Region 1, Pacific Region	Bald and Golden Eagle Protection Act (BGEPA) (16 USC §668; 50 CFR §22 et seq.)	Potential impacts to bald or golden eagle	This act protects bald and golden eagles from harm or trade in parts of these species, and regulates take of bald and golden eagles through a permitting process.

Permitting Agency	LORS or Permit/Approval/Consultation	Trigger	Comments
State Jurisdictions			
California Department of Fish and Game (CDFG)	Streambed Alteration Agreement (California Fish and Game Code § 1602)	Temporary or permanent disturbance to bed and bank of any stream, including dry washes, in California	CDFG may take jurisdiction over ephemeral washes and will issue a permit for any grading that impacts the bed and bank of a wash and all its tributaries. The permit will include mitigation requirements that may include compensatory payments.
CDFG	California Endangered Species Act (CESA) (California Fish and Game Code §§2050 et seq.) – Incidental Take Permit	Potential impact to any state-listed threatened or endangered wildlife species	This act prohibits any activities that would jeopardize or take a species listed as threatened or endangered within the State of California. For state-listed species covered by the MSCP Plan and Subarea Plan, compliance with CESA will be demonstrated by compliance with the provisions of the MSCP Plan and Subarea Plan. Projects that have the potential to impact wildlife species listed as threatened or endangered by the state that are not covered by the MSCP Plan and Subarea Plan may require an Incidental Take Permit from the CDFG under California Fish and Game Code Section 2081. The application for this permit requires a project description, analysis of impacts to the species, and an analysis of the probability of the long-term survival of the wildlife species as related to impacts.
CDFG	Title 14, California Code of Regulations (CCR), Sections 670.2 and 670.5	Potential impacts to species identified as California Species of Special Concern (CSC)	CSC is a category conferred by CDFG on those species that are indicators of regional habitat changes or are considered potential future protected species. These species do not have any special legal status, but are intended by CDFG for use as a management tool to take these species into special consideration when decisions are made concerning the future of any land parcel.
CDFG	Fish and Game Code Sections 3511, 4700, 5050, and 5515	Potential impacts to mammals, amphibians and reptiles, and fishes that are identified as “fully protected”	These codes list mammal, amphibian, reptile, and fish species that are fully protected in California.
CDFG	Fish and Game Code Sections 3503, 3503.5, 3513 Permit required for take of fully protected birds. Fish and Game Code Section 3511 - identifies those bird species that are “fully protected”	Potential impacts to all bird species, including migratory species, except where noted otherwise; birds of prey are especially of concern	Fish and Game Code Section 3503 - States that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Fish and Game Code Section 3503.5 - Protects all birds of prey and their eggs and nests. Fish and Game Code Section 3511 - Identifies bird species, primarily raptors that are “fully protected.” Fully protected birds may not be taken or possessed, except under specific permit requirements. Fish and Game Code Section 3513 - Makes it unlawful to take or possess any non-game migratory bird, as designated by the Migratory Bird Treaty Act.

Permitting Agency	LORS or Permit/Approval/Consultation	Trigger	Comments
CDFG	California Endangered Species Act of 1984 (Fish and Game Code Sections 2050-2116) (Listed Plants) CESA Section 2081 Permit	Potential impacts to any state-listed plant species	To align with federal regulations, the CESA created the categories of “threatened” and “endangered” species. It converted all “rare” animals into the Act as threatened species, but did not do so for “rare” plants. There are three listing categories for plants in California: rare, threatened, and endangered. Take of state-listed plants is prohibited under CESA but destruction of state-listed plants is allowed under limited circumstances. The CESA also requires mitigation for impacts to species and their habitat (CNPS 2001). The CDFG requires a CESA Section 2081 (a) permit for take of candidate or listed threatened and endangered plants for scientific, educational, or management purposes, and a CESA Section 2081 (b) permit for incidental take of listed threatened and endangered plants from all activities, except those specifically authorized by the Native Plant Protection Act (NPPA). Because plants designated as rare are not included in the CESA, mitigation measures for impacts to plants designated as rare are specified in a formal agreement between the CDFG and the project proponent.
CDFG	Native Plant Protection Act, Fish and Game Code Sections 1900-1913	Potential impacts to any state-designated endangered or rare plant species	The NPPA directed CDFG to “preserve, protect and enhance rare and endangered plants in the State.” The NPPA gave the California Fish and Game Commission the power to designate native plants as “endangered” or “rare” and protect endangered and rare plants from take.
CEC	California Environmental Quality Act (CEQA); California PRC § 21000 et seq.	Submittal of Application for Certification for thermal power plants 50 MW and larger	The CEC’s permitting process is a certified regulatory program under CEQA, which provides for the protection of the California environment, and requires state and local agencies to identify significant environmental impacts (including those on biological resources) of their actions and to void or mitigate those actions. The Project will comply with the CEC’s requirements for analysis of biological impacts listed in 14 CCR § 15000.
California Environmental Protection Agency (Cal/EPA); San Diego Regional Water Quality Control Board (RWQCB)	Water Quality Certification under Section 401 of the CWA	Any work that may result in a discharge to waters of the U.S.	Section 401 of the CWA requires that any applicant for a federal license or permit who conducts any activity that may result in a discharge to waters of the state must provide the licensing or permitting agency a certification that the activity complies with water quality requirements and standards. If a nationwide or individual 404 permit is required, a 401 certification is also required in California. The Project will not require a Section 404 permit because there will be no impacts to wetlands or waters of the U.S. or discharges to waterways. The Section 401 Water Quality Certification is therefore not required.

Permitting Agency	LORS or Permit/Approval/Consultation	Trigger	Comments
Cal/EPA; San Diego RWQCB, National Pollutant Discharge Elimination System (NPDES) General Permits, Section 402, CWA	General Permit for Stormwater Discharges, Construction	Ground disturbance greater than 1 acre (no permit is needed if less than 1 acre)	Discharges associated with construction activities, including clearing, grading, and excavation, that disturb 1 or more acres of land must obtain an NPDES Storm Water Discharge General permit. This permit is issued under authority of the Federal Water Pollution Control Act and requires a Storm Water Pollution Prevention Plan, Best Management Practices, and a NOI.
San Diego RWQCB	Porter-Cologne Water Quality Control Act	N/A	Pursuant to California's Porter-Cologne Water Quality Control Act, the state RWQCBs regulate the "discharge of waste" to "waters of the state." All parties proposing to discharge waste that could affect waters of the state must file a waste discharge report with the appropriate regional board. The RWQCB will then respond to the report of waste discharge by issuing waste discharge requirements (WDRs) or by waiving WDRs (with or without conditions) for that proposed discharge. Both of the terms "discharge of waste" and "waters of the state" are broadly defined in Porter-Cologne, such that discharges of waste include fill, any material resulting from human activity, or any other "discharge" that may directly or indirectly impact "waters of the state."
Local Jurisdictions			
San Diego County, City of San Diego	San Diego County MSCP, City of San Diego Subarea Plan, and Biological Mitigation Ordinance	Impacts to covered resources within MSCP Plan or Subarea Plan jurisdictional areas	The MSCP Plan, Subarea Plan, and associated documents serve as an HCP under the FESA for covered species, and establish a preserve system to protect San Diego County's sensitive species and habitats. Permits the taking of MSCP Plan/Subarea Plan covered species with compliance with all guidelines. The AFC application will describe how the Project complies with all relevant guidelines of the MSCP Plan and Subarea Plan pertaining to resources potentially impacted by the Project.
City of San Diego	East Elliot Community Plan	Projects within East Elliot planning area must conform with the plan	The East Elliot Community Plan contains provisions specific to the Project area. The City of San Diego will advise the Project proponent if compliance with the plan will be accomplished through a zone change or a community plan amendment.
City of San Diego	Environmentally Sensitive Lands Regulations	Project that impact environmentally sensitive lands or sensitive biological resources as defined by the San Diego Municipal Code	The Project area does contain lands that would be considered environmentally sensitive on the plant site and in the overall Project area. The City of San Diego is currently considering the type of site development permit needed for the Project and how compliance with environmentally sensitive lands regulations will be achieved.

The administering agency for terrestrial and avian species included in the ESA is the USFWS. The Project area is within the boundaries of the San Diego County MSCP, however, which serves as a HCP for certain species including some federally threatened, endangered, candidate or proposed species. If an threatened or endangered species is “covered” by the MSCP Plan and associated documents, compliance with the specific guidelines provided in these documents and associated regulations constitute compliance with the ESA those covered species.

Migratory Bird Treaty Act

Title 16, USC, Sections 703-712, CFR, Section 10 prohibits killing, possessing, or trading in migratory birds, bird parts, or products, except in accordance with regulations prescribed by the Secretary of the Interior. The act also prohibits the “take” of migratory birds and their active nests containing eggs or young. The administering agency is the USFWS. This regulation can constrain construction activities that have the potential to affect nesting birds, either through vegetation removal and land clearing, or other construction or operation-related disturbance.

Bald and Golden Eagle Protection Act

Title 16, USC, Sections 668, CFR, Section 22 et seq. This code (Eagle Act) protects bald or golden eagles from harm or trade in these species. The administering agency is the USFWS. This regulation can constrain construction activities that have the potential to affect nesting eagles, either through vegetation removal and land clearing, or other construction or operation-related disturbance.

The USFWS issued a final rule on permit regulations allowing the take of eagles and eagle nests under the Eagle Act in 2009. The permit process authorizes limited, non-purposeful take of bald eagles and golden eagles, authorizing the disturbance or otherwise taking of eagles in the course of conducting lawful activities, including utilities operations.

4.12.5.2 State LORS

Streambed Alteration Agreement

CDFG Code Section 1602 requires a permit for temporary or permanent disturbance to the bed and bank of any stream, including dry washes (CDFG 2009). Stream protection is regulated through a “streambed alteration agreement,” which requires the project applicant to minimize any adverse effects to potentially affected water bodies.

The CDFG lacks a definitive description for jurisdictional streams, but generally regulates any drainage with a defined channel and connectivity to other waters and/or has riparian or adjacent stream-influenced habitat features. The CDFG may take jurisdiction over ephemeral washes.

California Endangered Species Act of 1984

CDFG Code Sections 2050 et seq. protects California’s rare, threatened, and endangered species, including both plants and animals. The administering agency is the CDFG. The “take” of state-listed plant species is prohibited under CESA. The destruction of state-listed plants is allowed under limited circumstances, but requires mitigation for impacts to species and their

habitat. Title 14, CDFG Code Sections 670.2 and 670.5 designate animals of California as threatened or endangered.

California Species of Special Concern

14 CCR Sections 670.2 and 670.5 enables CDFG to identify California species of special concern. The term “species of special concern” is an informal designation used by CDFG for some declining wildlife species that are not state candidates for listing. This designation does not provide legal protection, but signifies that these species are recognized as sensitive by CDFG.

California Fully Protected Species

CDFG Code Sections 3511, 4700, 5050, and 5515 designate “fully protected” mammals, amphibians, reptiles, and fish species in California. Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collection of species for scientific research, or relocation of bird species for protection of livestock. The administrating agency is the CDFG.

Protection of Nesting Birds

CDFG Code Section 3503 prohibits the taking, possession, or needless destruction of the nest or eggs of any bird. Section 3503.5 specifically protects birds of prey by making it unlawful to take, possess, or destroy any birds of prey or their nests or eggs. The administrating agency is the CDFG.

Protection of Migratory Birds

CDFG Code Section 3513 makes it unlawful to take or possess any migratory bird designated in the federal MBTA. The administrating agency is the CDFG.

Native Plant Protection Act (NPPA) 1977

CDFG Code Sections 1900 et seq. protect designated rare, threatened, and endangered plant species from take. The administrating agency is the CDFG.

California Environmental Quality Act

CEQA requires review of any project that is undertaken, funded, or permitted by a state or local governmental agency. The lead agency has the discretion to consider any non-listed species a defacto listed species by the statement that “a species not included in any listing in subsection (c) shall nevertheless be considered to be rare or endangered if the species can be shown to meet the criteria in subsection (b)” (CEQA Guidelines §15380, Subsection d). If significant project effects were identified, the lead agency would have the option of requiring mitigation for effects through changes in the project, or deciding that overriding considerations make mitigation infeasible (CEQA Sec. 21002).

The Project proponents will be conducting a CEQA-level analysis of potential Project effects as part of the CEC’s certification process. The CEQA process will assess all potential impacts on

biological resources, as well as compliance with all federal, state, and local laws, standards, and regulations pertaining to biological resources.

RWQCB Regulations (Section 401 of the CWA)

Per Section 401 of the CWA, “any applicant for a Federal permit for activities that involve a discharge to waters of the State, shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act.” Therefore, before the USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 water quality certification from the RWQCB.

Under Section 401 of the CWA, the RWQCB regulates all activities that are regulated by the USACE. Additionally, under the Porter-Cologne Water Quality Act, the RWQCB regulates all activities, including dredging, filling, or discharge of materials into waters of the state that are not regulated by the USACE due to a lack of connectivity with a navigable water body and/or lack of an Ordinary High Water Mark (OHWM).

California Environmental Protection Agency/ San Diego Water Quality Control Board (RWQCB) (Section 402 of CWA) National Pollutant Discharge Elimination System (NPDES)

Construction disturbance of more than 1 acre requires a permit for stormwater discharges. Construction-related discharges include clearing, grading, and excavation.

Porter Cologne Water Quality Control Act

Through the San Diego RWQCB, Project proponents are required to file a waste discharge report if project activities may result in a discharge of waste to waters of the state. Both of the terms “discharge of waste” and “waters of the state” are broadly defined in Porter Cologne. Discharges of waste include fill, any material resulting from human activity, or any other discharge.

4.12.5.3 Local LORS

MSCP Plan

The MSCP Plan covers a 900-square mile area in San Diego County with its primary objective being to provide a comprehensive conservation program intended to preserve native vegetation communities within the planning boundaries (San Diego County 1998). Together, the MSCP Plan and its subarea plans serve as a HCP for multiple species under Section 10 of the Endangered Species Act (ESA). The proposed Project site is located within the City of San Diego MSCP Subarea Plan’s (Subarea Plan) “Eastern Area” which covers remaining undeveloped lands in the eastern portion of the City of San Diego, including the “East Elliot Area” (the environs around the Sycamore Landfill north of SR 52) which contains the proposed Project facilities, and the Mission Trails Regional Park south of SR 52 (City of San Diego 1997). The proposed Project site in relation to MSCP and Subarea Plan boundaries is shown in Figure 4.12-3.

The MSCP Plan establishes the MHPA, which is comprised of public and private lands containing core biological resource areas and corridors targeted for conservation. Certain lands within the MHPA are governed by guidelines dictating preservation of natural resources, or by conservation easements, and prohibiting most development are considered the MHPA “preserve.” The proposed Project site, while within the MHPA boundaries, is located on private land containing no conservation easement or preservation requirements, and is therefore not included in the “preserve.”

Because the proposed Project site is within the boundaries of the MSCP Plan (Figure 4.12-3), the Project proponent is not required to prepare a project-specific HCP under Section 10 of the Endangered Species Act as long as the project complies with all guidance associated with the MSCP Plan and City Subarea Plan including take limits on protected species covered by the MSCP Plan and City Subarea Plan, land use guidance, and mitigation requirements.

City of San Diego Subarea Plan

According to the City Subarea Plan, allowable development on private lands within the MHPA are limited to 25 percent of the premises (parcel). Because the Project would require development of over 25 percent of the plant site parcel, Project proponents are proposing a boundary adjustment to the MHPA to exclude the plant site.

Section 1.1.1 of the City Subarea Plan describes the MHPA boundary adjustment process:

Adjustments to the MHPA boundaries may be made without the need to amend either this Subarea Plan or the MSCP plan in cases where the new MHPA boundary results in an area of equivalent or higher biological value. The determination of the biological value of a proposed boundary change will be made by the City in accordance with the MSCP plan, with the concurrence of the wildlife agencies. If the determination is that the adjustment will result in the same or higher biological value of the MHPA, no further action by the jurisdictions or wildlife agencies shall be required.

Any adjustment to the MHPA boundary will be disclosed in the environmental document (project description) prepared for the specific project. An evaluation of the proposed boundary adjustment will be provided in the biological technical report and summarized in the land use section of the environmental document. An adjustment that does not meet the equivalency test shall require an amendment to this Subarea Plan. (City of San Diego 1997).

Section 5.4.2 of the MSCP Plan provides the following standards for determining biological value and equivalent exchange:

- Effects on significantly and sufficiently conserved habitats (i.e., the exchange maintains or improves the conservation, configuration, or status of significantly or sufficiently conserved habitats, as defined in [MSCP Plan] Section 4.2.4);
- Effects to covered species (i.e., the exchange maintains or increases the conservation of covered species);
- Effects on habitat linkages and function of preserve areas (i.e., the exchange maintains or improves a habitat linkage or wildlife corridor);

- Effects on preserve configuration and management (i.e., the exchange results in similar or improved management efficiency and/or protection for biological resources);
- Effects on ecotones or other conditions affecting species diversity (i.e., the exchange maintains topographic and structural diversity and habitat interfaces of the preserve); and/or
- Effects to species of concern not on the covered species list (i.e., the exchange does not significantly increase the likelihood that an uncovered species will meet the criteria for listing under either the federal or state Endangered Species Acts).

The MSCP Plan also states that most adjustment to the boundaries will be in areas immediately adjacent to the MHPA or identified preserve area. The Project site is located adjacent to non-MHPA land to the south. All MHPA boundary adjustments also require approval from the USFWS and CDFG. The boundary adjustment process must be covered in the Project's environmental documentation, and therefore will be discussed as part of this section of this AFC.

After biological studies were conducted, the Project proponent determined through discussion with the City of San Diego that the criteria for a boundary adjustment process could be met through mitigation. Discussions with the City of San Diego, USFWS, and CDFG to determine the final feasibility of the boundary adjustment process are ongoing, but it is assumed that the boundary adjustment process is feasible and will be implemented, effectively removing the Project site from the MHPA boundary. Because the Project site would still be adjacent to the MHPA, the Project will conform to land use guidance provided in the Subarea Plan for lands adjacent to the MHPA (City Subarea Plan Section 1.4.3) and all guidance provided for the East Elliott Area in the City Subarea Plan (City Subarea Plan Sections 1.2.2 and 1.5.6).

East Elliott Community Plan

The Project site is located within the East Elliott Community Plan area, which is part of the City of San Diego General Plan. The majority of the East Elliott planning area is designated for long-term open space use. According to the East Elliott Community Plan, the peaker plant site is currently situated on land designated Open Space (City of San Diego, 2006). Portions of the transmission line may occur on land designated as Sanitary Landfill. The project proponent is currently working with the City of San Diego to determine whether a zone change or a community plan amendment will be the appropriate vehicle for project approval within the city. A community plan amendment would remove the plant site, and possibly associated facilities, from Open Space designations, and the open space guidelines listed in the East Elliott Community Plan would not apply to the proposed project.

City of San Diego Environmentally Sensitive Lands Regulations

The City of San Diego's Environmentally Sensitive Lands (ESL) Regulations were developed to ensure development occurred in a manner that protected natural resources, private property rights, and public health and safety. According to the City of San Diego Municipal Code Chapter 11, Article 3, Division 1 §113.0103, "environmentally sensitive lands" are defined as "land containing steep hillsides, sensitive biological resources, coastal beaches, sensitive coastal bluffs, or Special Flood Hazard Areas."

“Sensitive Biological Resources” are defined as upland and/or wetland areas that meet any of the following criteria:

- (a) Lands that have been included the City of San Diego Multiple Species Conservation Program Preserve;
- (b) Wetlands;
- (c) Lands outside of the MHPA that contain Tier 1 Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats;
- (d) Lands supporting species or subspecies listed as rare, endangered, or threatened under Section 670.2 or 670.5, Title 14, CCR, or the ESA, Title 50, CFR, Section 17.11 or 17.12, or candidate species under CCR; or
- (e) Lands containing habitats with Narrow Endemic Species as listed in the Biology Guidelines in the Land Development Manual.
- (f) Lands containing habitats of covered species as listed in the Biology Guidelines in the Land Development Manual (City of San Diego 2004).

According to this definition, some vegetation communities within the Project area are and on the plant site are considered “environmentally sensitive lands” and are subject to requirements of the ESL regulations. The Project area also supports population of variegated dudleya (*Dudleya variegata*), which is considered a narrow endemic species in the Biology Guidelines of the Land Development Manual (City of San Diego 2004). The variegated dudleya do not occur on the proposed plant site.

Specific regulations for ESL and sensitive biological resources are provided in the San Diego Municipal Code sections 143.0140 (General Development Regulations for all Environmentally Sensitive Lands) and 143.0141 (Development Regulations for Sensitive Biological Resources. Applicable portions of the code are summarized in Table 4.12-11.

Table 4.12-11 City of San Diego Regulations Pertaining to Environmentally Sensitive Lands and Sensitive Biological Resources

San Diego Municipal Code Citation	Regulation
143.0140 (a)	(a) Environmentally sensitive lands that are outside of the allowable development area on a premises shall be left in a natural state and used only for those passive activities allowed as a condition of permit approval. The landowner may elect to offer to dedicate in fee the undeveloped remainder portion of the premises to the City to relieve the land owner of management and liability obligations associated with that portion of the premises. Otherwise, the passive activities allowed on the undeveloped remainder of the premises and any other conditions of the permit shall be incorporated into a covenant of easement that shall be recorded against title to the property, in accordance with procedures set forth in Section 143.0152.
143.0140 (d)	(d) No temporary disturbance or storage of material or equipment is permitted in environmentally sensitive lands, unless the disturbance or storage occurs within an area approved for development by a Site Development Permit or unless it can be demonstrated that the disturbance or storage will not alter the landform or cause permanent habitat loss and the land will be revegetated and restored in accordance with the Biology Guidelines in the Land Development Manual.

4.12 Biological Resources

San Diego Municipal Code Citation	Regulation
143.0141 (a)	(a) State and federal law precludes adverse impacts to wetlands or listed non-covered species habitat. The applicant shall confer with the U.S. Army Corps of Engineers, U.S. Fish & Wildlife Service and/or California Department of Fish and Game before any public hearing for the development proposal. The applicant shall solicit input from the Resource Agencies on impact avoidance, minimization, mitigation and buffer requirements, including the need for upland transitional habitat. The applicant shall, to the maximum extent feasible, incorporate the Resource Agencies' recommendations prior to the first public hearing. Grading or construction permits shall not be issued for any project that impacts wetlands or Listed non-covered species habitat until all necessary federal and state permits have been obtained.
143.0141 (b)	(b) Outside and inside the MHPA, impacts to wetlands, including vernal pools in naturally occurring complexes, shall be avoided. A wetland buffer shall be maintained around all wetlands as appropriate to protect the functions and values of the wetland. In the Coastal Overlay Zone the applicant shall provide a minimum 100-foot buffer, unless a lesser or greater buffer is warranted as determined through the process described in 143.0141(a). Mitigation for impacts associated with a deviation shall achieve the goal of no-net-loss and retain in-kind functions and values.
143.0141 (c)	(c) Inside the MHPA, development shall avoid impacts to narrow endemic species. Outside the MHPA, measures for protection of narrow endemic species shall be required such as management enhancement, restoration and/or transplantation. A list of narrow endemic species is included in the Biology Guidelines in the Land Development Manual.
143.0141 (d)	(d) Inside the MHPA, development is permitted only if necessary to achieve the allowable development area in accordance with the regulations set forth in the OR-1-2 zone, pursuant to Section 131.0250(b), unless exempted from the development area regulations pursuant to Section 143.0111.
143.0141 (e)	(e) Inside and adjacent to the MHPA, all development proposals shall be consistent with the City of San Diego MSCP Subarea Plan.
143.0141 (f)	(f) Inside the MHPA, any change of an agricultural use to a non-agricultural use is subject to the development area regulations of Section 143.0141(d). Existing agricultural operations that exceed the allowable development area may remain as agricultural use only and do not count as part of the allowable development area.
143.0141 (g)	(g) Outside the MHPA, development of lands that are designated as open space in the applicable land use plan and zoned OR-1-1 is permitted only if necessary to achieve the allowable development area, in accordance with Section 131.0250(a).
143.0141 (h)	(h) Outside the MHPA, encroachment into sensitive biological resources is not limited, except as set forth in Section 143.0141(b) and (g).
143.0141 (i)	(i) All development occurring in sensitive biological resources is subject to a site-specific impact analysis conducted by the City Manager, in accordance with the Biology Guidelines in the Land Development Manual. The impact analysis shall evaluate impacts to sensitive biological resources and CEQA sensitive species. The analysis shall determine the corresponding mitigation, where appropriate, and the requirements for protection and management. Mitigation may include any of the following, as appropriate to the nature and extent of the impact. (1) Acquisition or dedication of another site that can serve to mitigate the project impacts, with limited right of entry for habitat management, as necessary, if the site is not dedicated. This site must have long-term viability and the biological values must be equal to or greater than the impacted site. (2) Preservation or dedication of onsite sensitive biological resources, creation of new habitat, or enhancement of existing degraded habitat, with limited right of entry for habitat management, as necessary, if the site is not dedicated. The site must have long-term viability and the biological values must be equal to or greater than the impacted site.

San Diego Municipal Code Citation	Regulation
	(3) In circumstances where the area of impact is small, monetary payment of compensation into a fund in lieu of other forms of mitigation. The City shall use the fund to acquire, maintain and administer habitat areas pursuant to City Council Resolution No. R-275129, adopted February 12, 1990. Where appropriate, the City Manager is authorized to enter into agreements with public agencies or private non-profit conservancies or foundations to administer the funds and acquire or maintain habitat preservation areas.
143.0141 (i)	(j) Grading during wildlife breeding seasons shall be consistent with the requirements of the City of San Diego MSCP Subarea Plan. (k) Sensitive biological resources that are outside of the allowable development area on a premises, or are acquired as offsite mitigation as a condition of permit issuance, are to be left in a natural state and used only for those passive activities allowed as a condition of permit approval. If the land is not dedicated in fee to the City, identification of permissible passive activities and any other conditions of the permit shall be incorporated into a covenant of easement that shall be recorded against title to the property, in accordance with procedures set forth in Section 143.0152. The U.S. Fish and Wildlife Service and the California Department of Fish and Game are to be named as third party beneficiaries to any covenant of easement recorded pursuant to this section.

According to the City of San Diego Municipal Code, a Site Development Permit would be required for all types of development proposals that encroach upon environmentally sensitive lands and do not meet exemption requirements listed in Section 143.0110(c). Section 143.0150 states that the Planning Commission may approve, conditionally approve, or deny a proposed Site Development Permit that deviates from ESL regulations if the decision-maker makes the Findings stated in Section 126.0504(a through c) of the municipal code.

The City of San Diego is currently reviewing the project to identify applicable regulations with respect to permitting, and will issue a determination on the process that will be used to demonstrate compliance with all city regulations. The project applicant will work with the City of San Diego through this process to comply with the City’s ESL regulations.

4.12.6 Agencies and Agency Contacts

Table 4.12-12 lists the agencies and agency contacts that have been involved in the Project thus far with respect to biological resources. Correspondence with agencies is included in Appendix H.6.

Table 4.12-12 Agencies and Agency Contacts for Biological Resources

Agency	Name	Title	Phone	Email	Mailing Address
CDFG	Bryan Duke	Staff Environmental Scientist	858-637-5511	bduke@dfg.ca.gov	1416 9th Street, 12th Floor Sacramento, CA 95814
CDFG	Kelly Fisher	Staff Environmental Scientist	858-467-4207	kfisher@dfg.ca.gov	1416 9th Street, 12th Floor Sacramento, CA 95814
CEC	Eric Solorio	Project Manager	916-651-0966	Esolorio@energy.state.ca.us	1516 Ninth Street, MS 15 Sacramento, CA 95814-5512

4.12 Biological Resources

Agency	Name	Title	Phone	Email	Mailing Address
CEC	Rick York	Senior Biology/ Cultural Resource Staff	916-654-3945	ryork@energy.state.c a.us	1516 Ninth Street, MS 15, Sacramento, CA 95814-5512
CEC	Andrea Martine	Biologist	916-654-4671	Amartine @energy.state.ca.us	1516 Ninth Street, MS 15, Sacramento, CA 95814-5512
City of San Diego	Morris Dye	Project Manager, Development Services	619-446-5201	mdye@sandiego.gov	1222 First Avenue, MS 301 San Diego, CA 92101-4154
City of San Diego	Kristy Forburger	MSCP, Associate Planner	619-235-5200	Kforburger @sandiego.gov	1222 First Avenue, MS 301 San Diego, CA 92101-4154
City of San Diego	Myra Herrmann	Senior Planner, Development Services Department	619-446-5372	Mhermann @sandiego.gov	1222 First Avenue, MS 301 San Diego, CA 92101-4154
U.S. Army Corps of Engineers	Therese O. Bradford	Chief of the South Coast Regulatory Division	760-602-4830	therese.orourke @usace.army.mil	1455 Market Street, 16th Floor San Francisco, CA 94103-1398
USFWS	Patrick Gower	Biologist	760-431-9440 ext. 352	patrick_gower @fws.gov	2800 Cottage Way #W2606, Sacramento, CA 95825-1846

4.12.7 Required Permits and Permitting Schedule

Table 4.12-13 provides a list of applicable permits, including permits that would be required, for CEC's exclusive siting jurisdiction.

Table 4.12-13 Required Permits and Permitting Schedule

Permit/Authorization	Agency	Requirements	Schedule
MHPA Boundary Adjustment Approval	City of San Diego	Three copies of MHPA Boundary Adjustment package	Will be submitted in coordination with the Zone Change and/or Community Plan Amendment
CDFG and USFWS Consistency Determination	CDFG, USFWS	AFC, City of San Diego Zone Change and/or Community Plan Amendment	Will be submitted in coordination with the Zone Change and/or Community Plan Amendment

4.12.8 References

Avian Power Line Interaction Committee (APLIC). 2011. Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006. Online. Available: www.aplic.org. Accessed June 16.

California Department of Fish and Game (CDFG). 2003. List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database. California Department of Fish and Game, Wildlife and Habitat Data Analysis Branch. Sacramento, California. September.

_____. 2011a. Special Animals List. The Resources Agency State of California, Department of Fish and Game, Natural Heritage Division, Natural Diversity Data Base. Sacramento, California. January.

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FIGURES



- Legend**
- Project Site
 - 10-mile Project Site Buffer
 - ▭ Biological Survey Area
 - ▭ Municipal Boundary
 - ▭ MHPA MSCP Subarea Plan Boundary
 - ▭ Military Installation
 - ▭ Local/Regional Park
 - ▭ FWS Wildlife Refuge



QUAIL BRUSH GENERATION PROJECT

**FIGURE 4.12-1
Regional Overview**

0 1.25 2.5 5
Miles

TETRA TECH EC, INC.

Legend

CNDDDB Species Occurrence

Common Name

- | | | |
|--|--|--|
|  American badger |  San Diego sagewort |  silvery legless lizard |
|  Bell's sage sparrow |  San Diego thorn-mint |  singlewhorl burrobush |
|  California Orcutt grass |  San Miguel savory |  smooth tarplant |
|  California adolphia |  Southern Coast Live Oak Riparian Forest |  snake cholla |
|  California horned lark |  Southern Cottonwood Willow Riparian Forest |  southern California rufous-crowned sparrow |
|  Campbell's liverwort |  Southern Maritime Chaparral |  summer holly |
|  Cooper's hawk |  Southern Riparian Forest |  tricolored blackbird |
|  Coronado Island skink |  Southern Riparian Scrub |  two-striped garter snake |
|  Coulter's goldfields |  Southern Sycamore Alder Riparian Woodland |  variegated dudleya |
|  Coulter's saltbush |  Townsend's big-eared bat |  wart-stemmed ceanothus |
|  Dean's milk-vetch |  Valley Needlegrass Grassland |  western mastiff bat |
|  Dehesa nolina |  Yuma myotis |  western red bat |
|  Del Mar Mesa sand aster |  aphanisma |  western small-footed myotis |
|  Del Mar manzanita |  beach goldenaster |  western spadefoot |
|  Dulzura pocket mouse |  big free-tailed bat |  western yellow bat |
|  Encinitas baccharis |  bottle liverwort |  white-tailed kite |
|  Gander's ragwort |  burrowing owl |  willowly monardella |
|  Hermes copper butterfly |  chaparral ragwort |  woven-spored lichen |
|  Lakeside ceanothus |  coast horned lizard |  yellow warbler |
|  Maritime Succulent Scrub |  coast patch-nosed snake |  yellow-breasted chat |
|  Mexican flannelbush |  coastal California gnatcatcher | |
|  Mexican long-tongued bat |  coastal cactus wren | |
|  Mission Canyon bluecup |  coastal triquetrella | |
|  Moran's nosegay |  coastal whiptail | |
|  Munz's sage |  decumbent goldenbush | |
|  Nuttall's scrub oak |  delicate clarkia | |
|  Orcutt's brodiaea |  double-crested cormorant | |
|  Orcutt's spineflower |  felt-leaved monardella | |
|  Otay Mesa mint |  golden eagle | |
|  Otay tarplant |  grasshopper sparrow | |
|  Palmer's goldenbush |  heart-leaved pitcher sage | |
|  Palmer's grapplinghook |  hoary bat | |
|  Parry's tetracoccus |  least Bell's vireo | |
|  Ramona horkelia |  least bittern | |
|  Riverside fairy shrimp |  little mousetail | |
|  Robinson's pepper-grass |  long-eared myotis | |
|  San Diego Mesa Hardpan Vernal Pool |  long-spined spineflower | |
|  San Diego ambrosia |  northwestern San Diego pocket mouse | |
|  San Diego barrel cactus |  oil neststraw | |
|  San Diego black-tailed jackrabbit |  orangethroat whiptail | |
|  San Diego button-celery |  pallid bat | |
|  San Diego desert woodrat |  pocketed free-tailed bat | |
|  San Diego fairy shrimp |  prostrate vernal pool navarretia | |
|  San Diego goldenstar |  purple stemodia | |
|  San Diego marsh-elder |  quino checkerspot butterfly | |
|  San Diego mesa mint |  red-diamond rattlesnake | |
|  San Diego ringneck snake |  rosy boa | |
| |  short-leaved dudleya | |

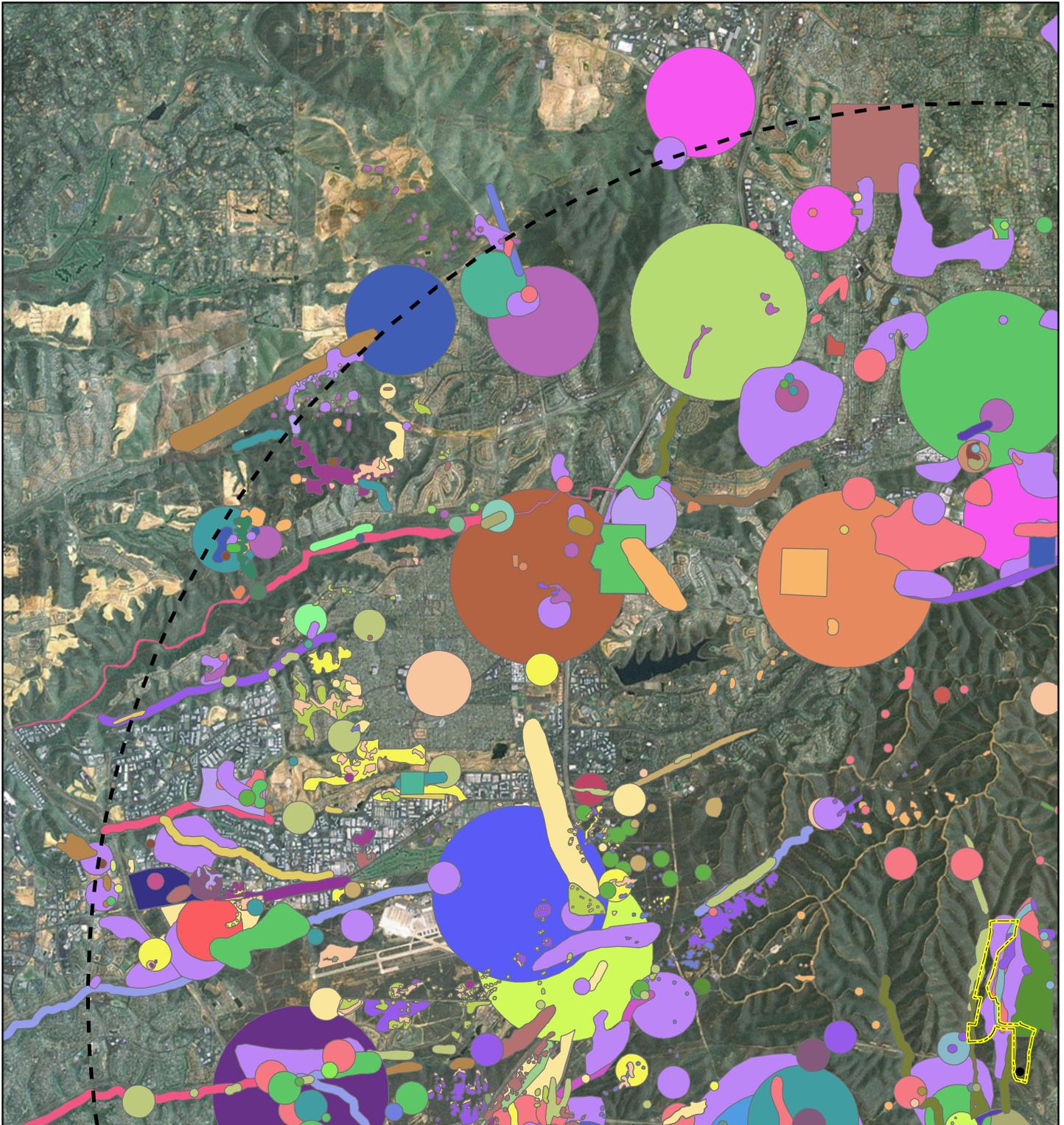
QUAIL BRUSH GENERATION PROJECT

**FIGURE 4.12-2 Legend
 CNDDDB Data within 10 miles
 of Biological Survey Area**



TETRA TECH EC, INC.





Legend

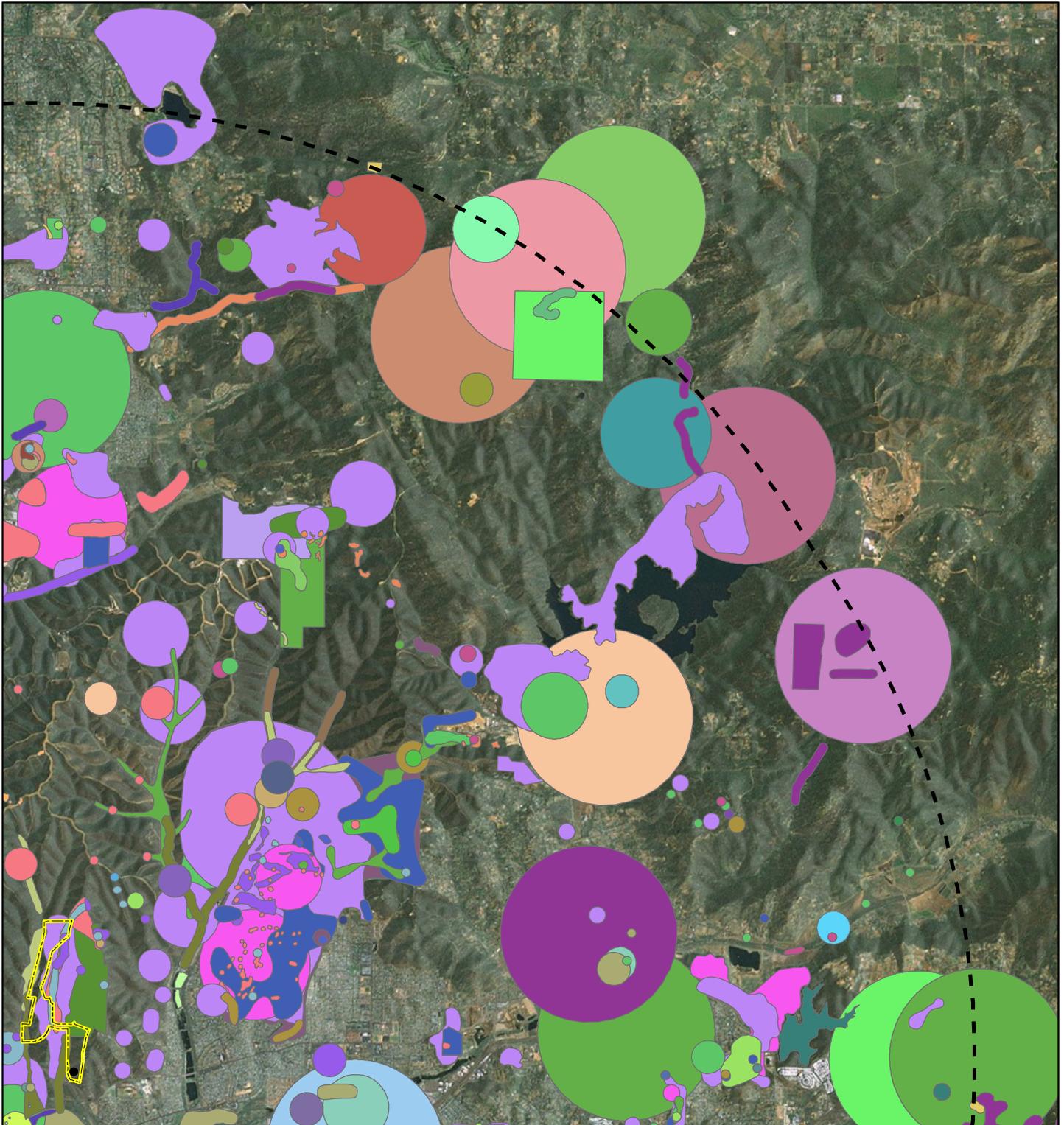
- Project Site
- 10-mile Project Site Buffer
- Biological Survey Area

See legend sheet for CNDDDB species details.

QUAIL BRUSH GENERATION PROJECT

FIGURE 4.12-2a
CNDDDB Data within 10 miles
of Biological Survey Area





Legend

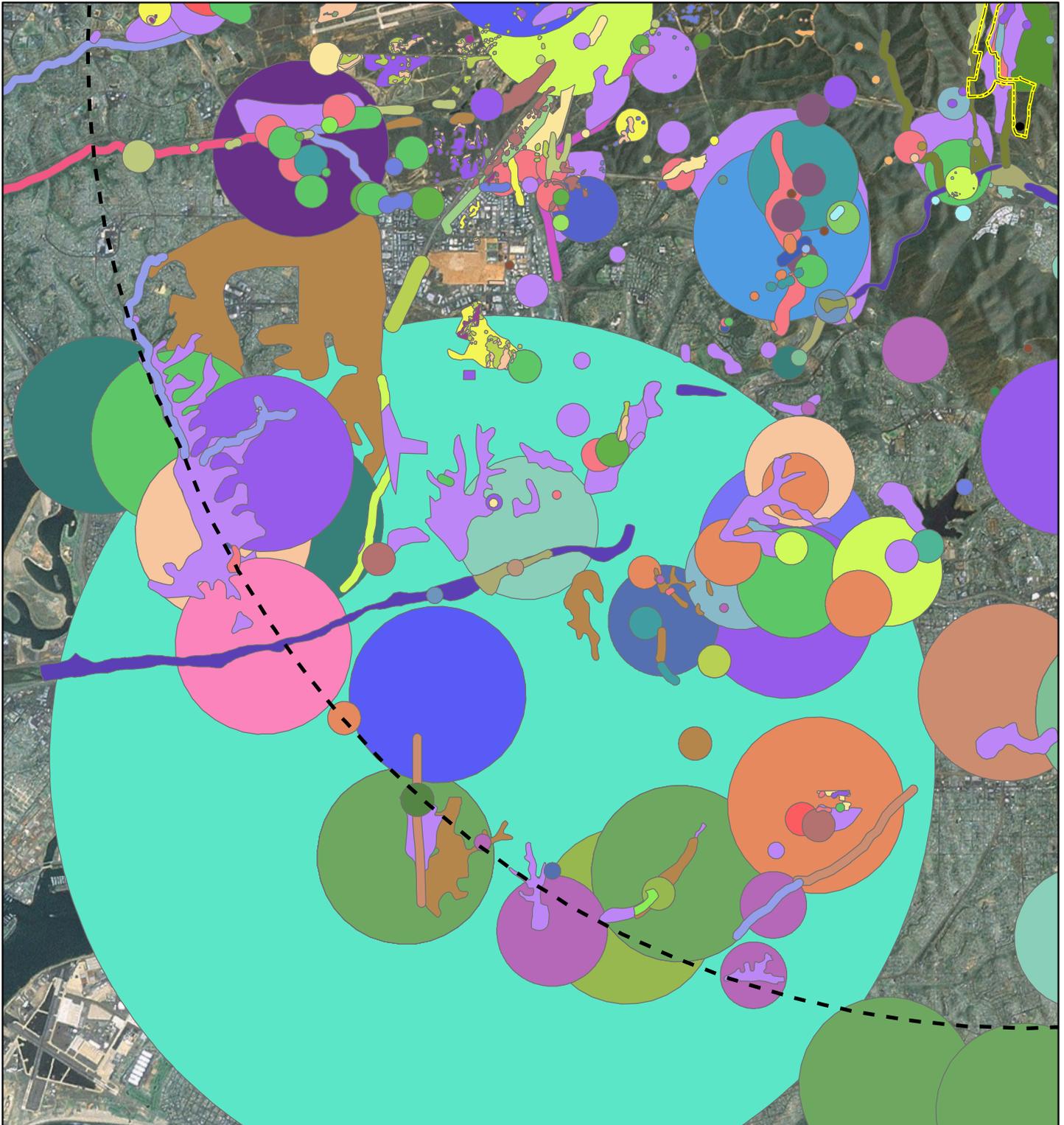
- Project Site
- 10-mile Project Site Buffer
- Biological Survey Area

See legend sheet for CNDDDB species details.

QUAIL BRUSH GENERATION PROJECT

FIGURE 4.12-2b
CNDDDB Data within 10 miles
of Biological Survey Area





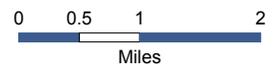
Legend

- Project Site
- 10-mile Project Site Buffer
- Biological Survey Area

See legend sheet for CNDDDB species details.

QUAIL BRUSH GENERATION PROJECT

FIGURE 4.12-2c
CNDDDB Data within 10 miles
of Biological Survey Area





Legend

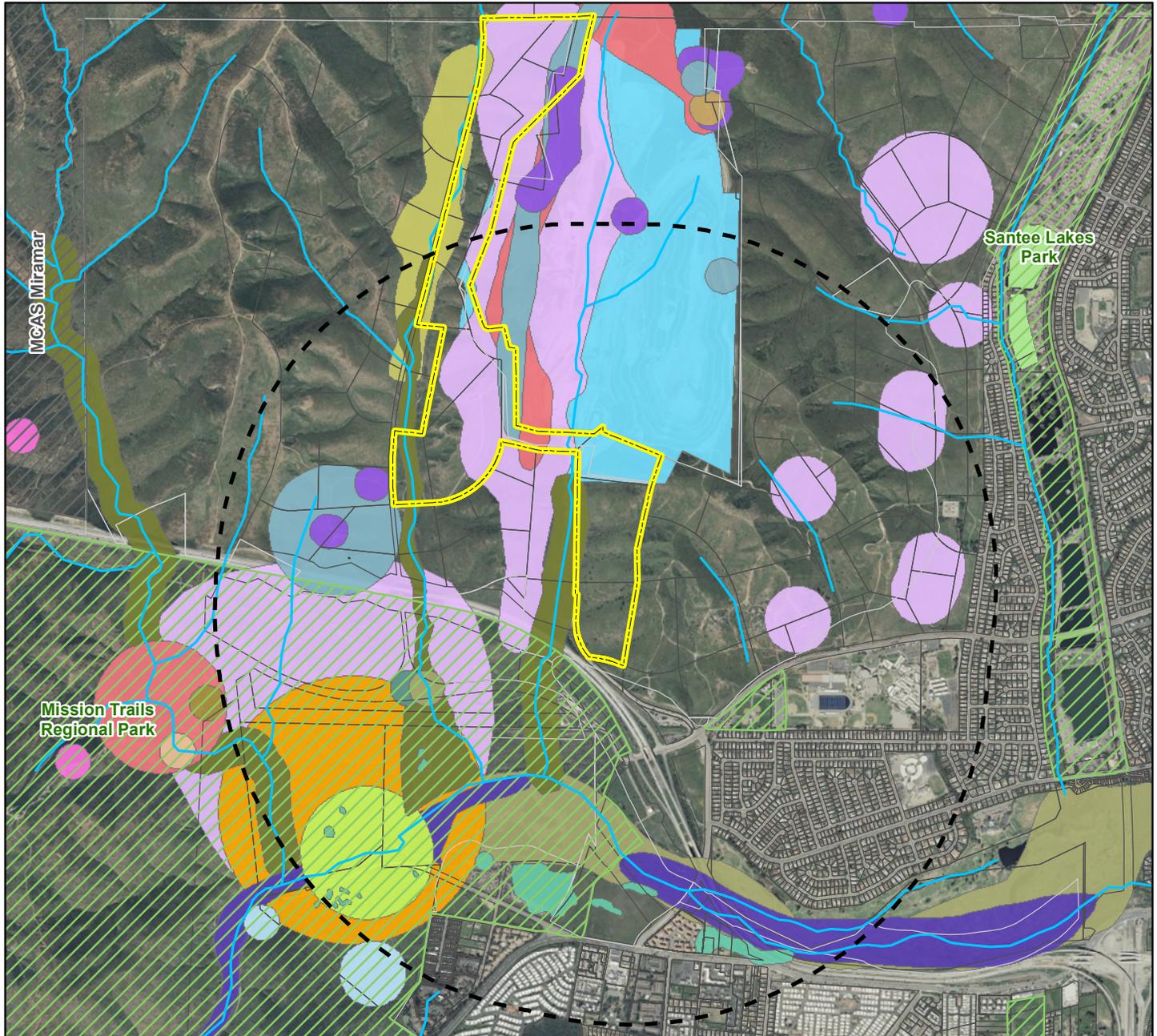
- Project Site
- 10-mile Project Site Buffer
- Biological Survey Area

See legend sheet for CNDDDB species details.

QUAIL BRUSH GENERATION PROJECT

FIGURE 4.12-2d
CNDDDB Data within 10 miles
of Biological Survey Area





CNDDDB Species Occurrence	Common Name	Symbol/Color	Species Name
[Light Green Box]	San Diego ambrosia	[Light Purple Box]	coastal California gnatcatcher
[Red Box]	San Diego barrel cactus	[Light Blue Box]	red-diamond rattlesnake
[Blue Box]	California horned lark	[Light Green Box]	least Bell's vireo
[Light Green Box]	Coronado Island skink	[Light Green Box]	least bittern
[Pink Box]	Del Mar manzanita	[Light Blue Box]	variegated dudleya
[Light Blue Box]	Hermes copper butterfly	[Light Green Box]	western spadefoot
[Orange Box]	Orcutt's brodiaea	[Light Green Box]	willowy monardella
[Light Green Box]	San Diego black-tailed jackrabbit	[Light Green Box]	yellow warbler
[Purple Box]	San Diego goldenstar	[Light Green Box]	purple stemodia
[Dark Green Box]	Southern Cottonwood Willow Riparian Forest	[Light Green Box]	San Diego pocket mouse
[Dark Green Box]	Southern Sycamore Alder Riparian Woodland	[Light Green Box]	orangerhroat whiptail



Legend

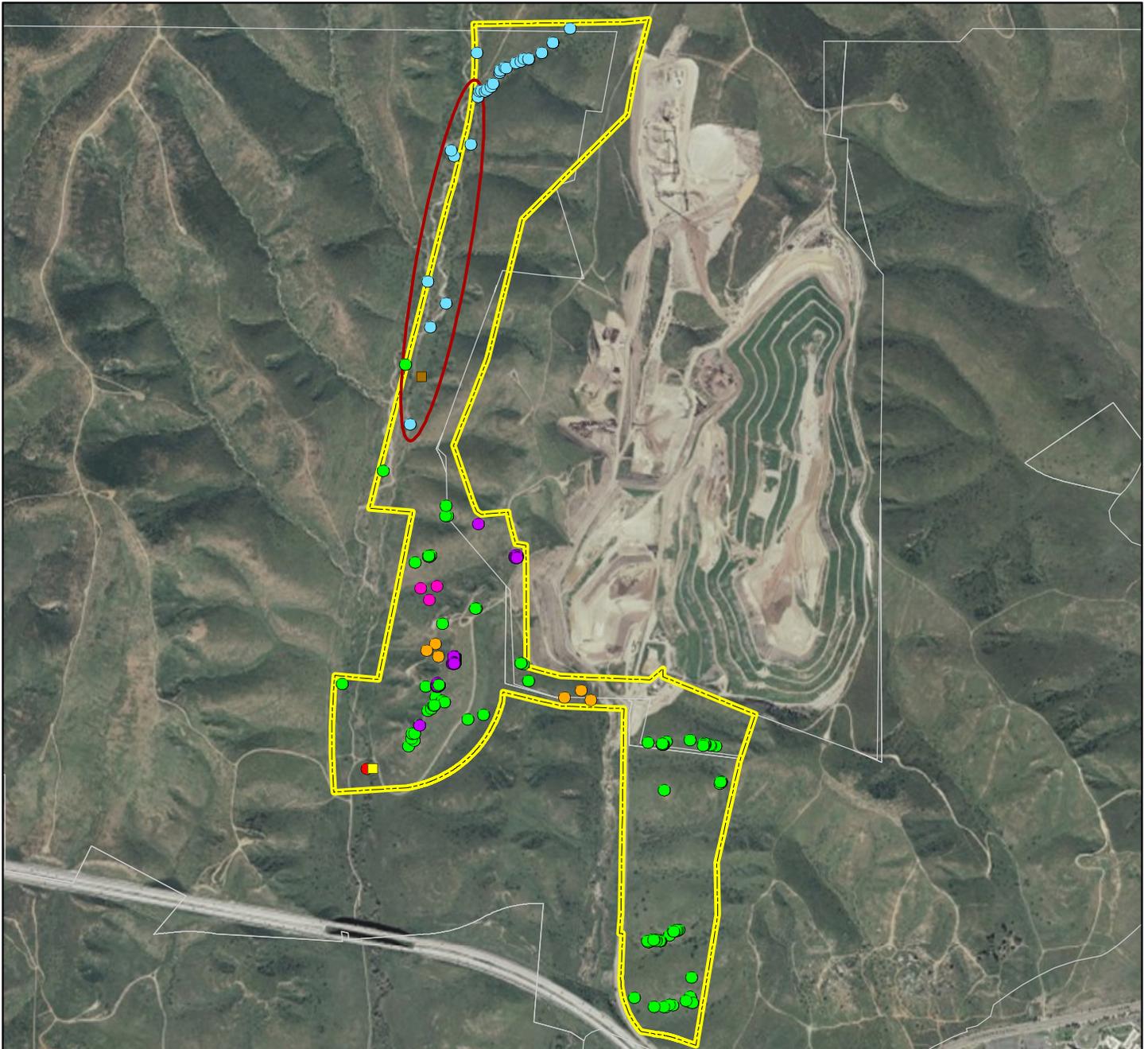
- Overhead Gen Tie (Orange line)
- Underground Gen Tie (Dotted line)
- North Loop Overhead Line (Yellow line)
- South Loop Overhead Line (Brown line)
- Project Boundary (Dashed black line)
- SDGE Switchyard (Pink hatched box)
- Plant Site (Diagonal hatched box)
- Biological Survey Area (Yellow dashed outline)
- MHPA MSCP Subarea Plan Boundary (White box)
- Parcels (Thin black outline)
- Military Installation (Diagonal hatched box)
- Local/Regional Park (Green hatched box)
- Intermittent Streams (Blue line)

QUAIL BRUSH GENERATION PROJECT

FIGURE 4.12-3
CNDDDB Data within 1 mile of Biological Survey Area

0 0.25 0.5
 Miles

Cogentrix **Tetra Tech EC, Inc.**



Sensitive Plants	Quino Host Plants	Hermes Copper Habitat	Plant Communities (Holland Code)
● Barrel Cactus	● Dwarf Plantain	○ Plant Communities (Holland Code)	■ Granitic Chamise Chaparral w/NNG (37210)
● Variegated Dudleya	● Purple Owl's Clover	■ Diegan Coastal Sage Scrub (32500)	■ Granitic Southern Mixed Chaparral w/NNG (31721)
● Willow Monardella	Sensitive Wildlife Species	■ Diegan Coastal Sage Scrub w/NNG (32500)	■ Non-Native Grassland (NNG) (42200)
● Heart-Leaved Pitcher Sage	■ Cooper's Hawk	■ Disturbed Habitat (11300)	■ Non-Vegetated Channel (64200)
	■ Rufous-Crowned Sparrow	■ Granitic Chamise Chaparral (37210)	■ Southern Sycamore-Alder Riparian Woodland (62400)

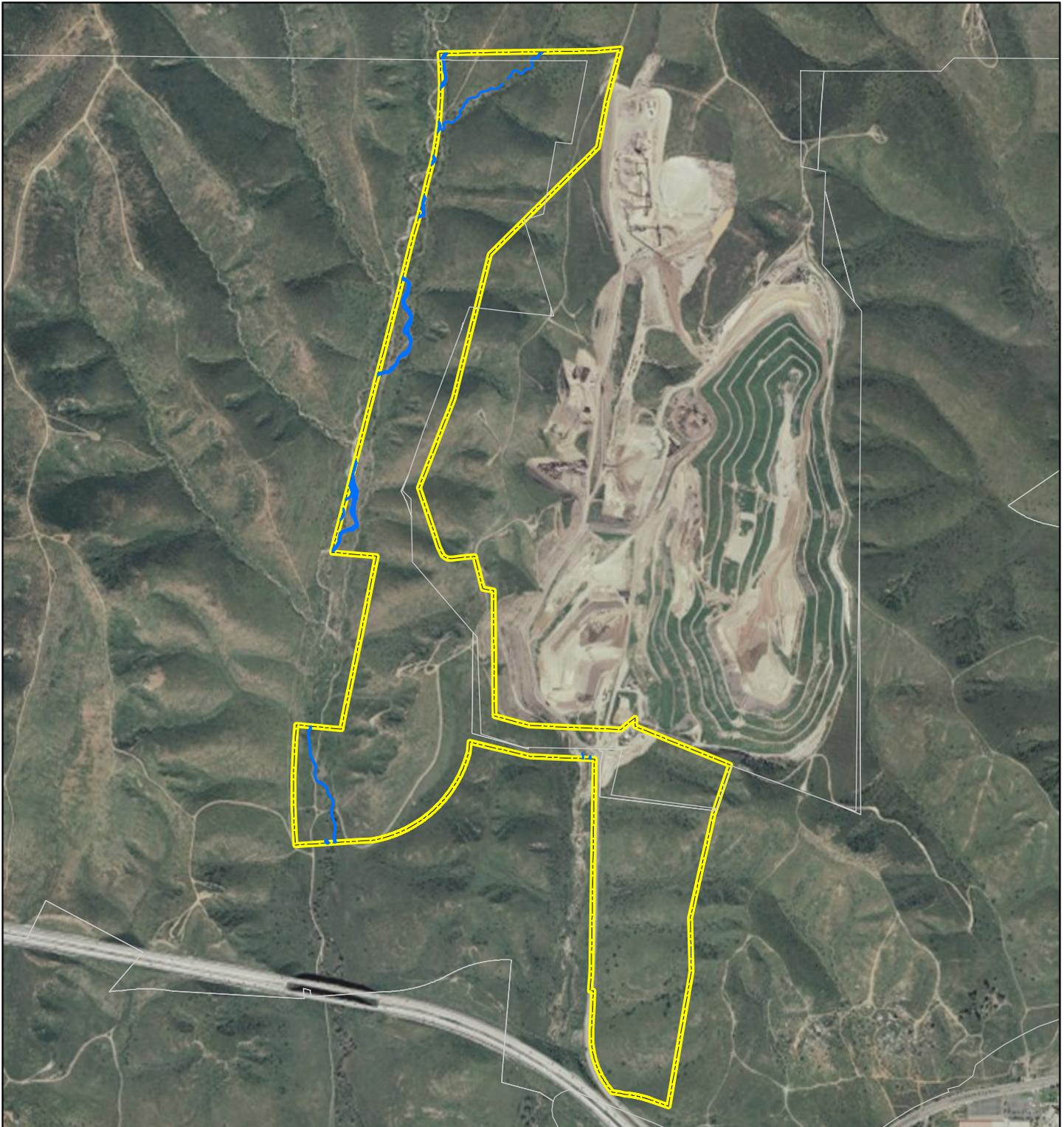


Legend
— Overhead Gen Tie
⋯ Underground Gen Tie
— North Loop Overhead Line
— South Loop Overhead Line
□ Project Boundary
⊠ SDGE Switchyard
▨ Plant Site
▭ Biological Survey Area
□ MHPA MSCP Subarea Plan Boundary

QUAIL BRUSH GENERATION PROJECT

FIGURE 4.12-4
Vegetation Communities and Occurrences of Special-status Species Observed During Field Surveys in and around the Biological Survey Area





Legend

- Overhead Gen Tie
- Underground Gen Tie
- North Loop Overhead Line
- South Loop Overhead Line
- Project Boundary
- SDGE Switchyard
- Plant Site
- Biological Survey Area
- MHPA MSCP Subarea Plan Boundary
- USACE Jurisdiction Area
- Intermittent Streams

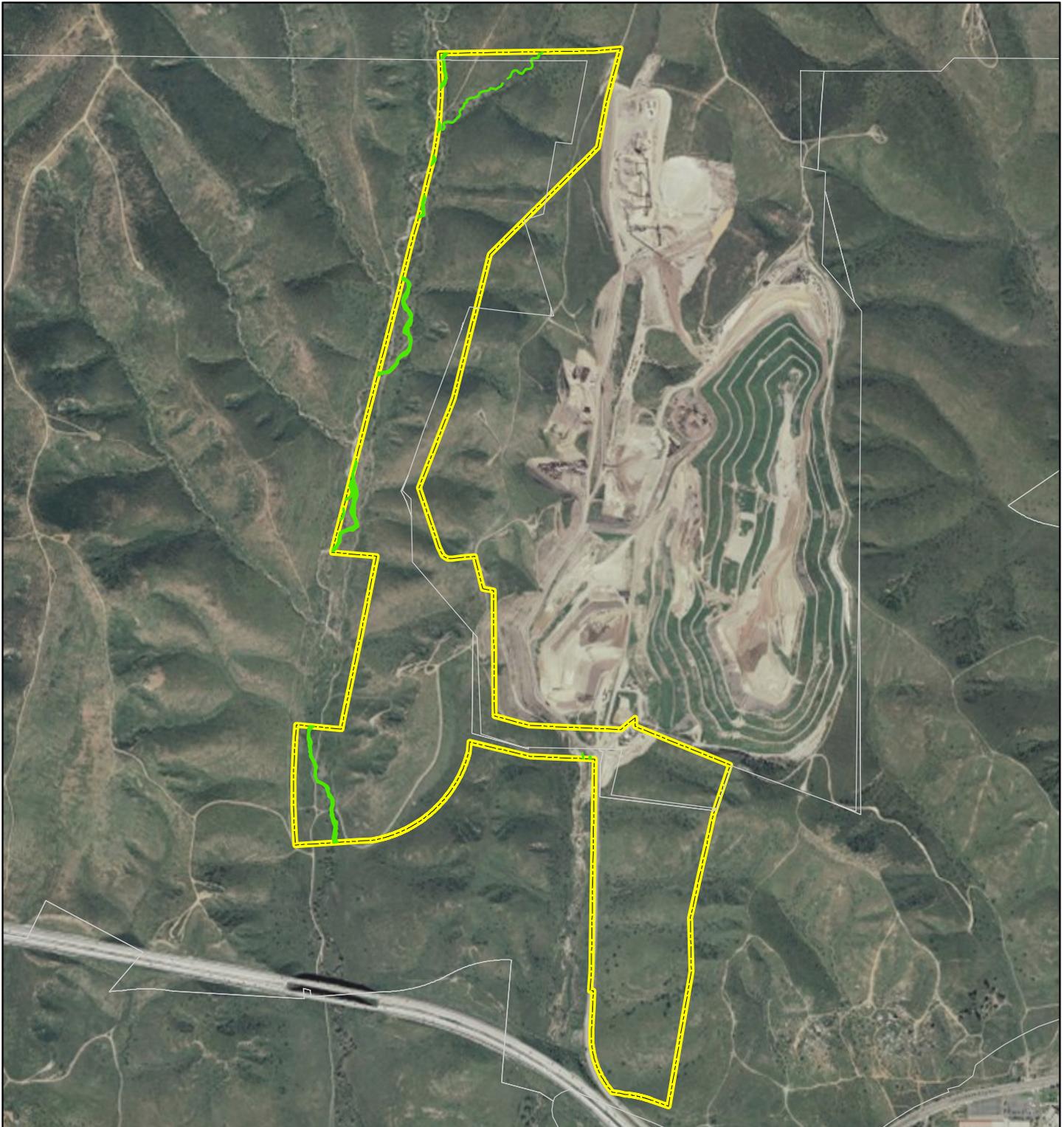
QUAIL BRUSH GENERATION PROJECT

FIGURE 4.12-5
Wetlands and Water Resources
in Biological Survey Area -
USACE Jurisdiction

0 0.2 0.4
 Miles

Cogentrix

TETRA TECH EC, INC.



Legend

- Overhead Gen Tie
- Underground Gen Tie
- North Loop Overhead Line
- South Loop Overhead Line
- Project Boundary
- SDGE Switchyard
- Plant Site
- Biological Survey Area
- MHPA MSCP Subarea Plan Boundary
- CDFG Jurisdiction Area
- Intermittent Streams

QUAIL BRUSH GENERATION PROJECT

FIGURE 4.12-6
Wetlands and Water Resources
in Biological Survey Area -
CDFG Jurisdiction

0 0.2 0.4
 Miles

Cogentrix

TETRA TECH EC, INC.

DATA ADEQUACY WORKSHEETS

Adequacy Issue: Adequate _____ Inadequate _____
 Technical Area: **Biological Resources**
 Project Manager: Eric Solorio

DATA ADEQUACY WORKSHEET

Revision No. 0 Date _____
 Technical Staff: _____
 Technical Senior: _____

Project: _____
 Docket: _____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	4.12.1, 4.12.2, 4.12.3		
Appendix B (g) (13) (A)	A regional overview and discussion of terrestrial and aquatic biological resources, with particular attention to sensitive biological resources within ten (10) miles of the project. Include a map at a scale of 1:100,000 (or other suitable scale) showing sensitive biological resource location(s) in relation to the project site and related facilities and any boundaries of a local Habitat Conservation Plan or similar open space land use plan or designation. Sensitive biological resources include the following:	4.12.1.2 Figures 5.12-2, 5.12-2a, 5.12-2b, 5.12-2c, and 5.12-2c		
Appendix B (g) (13) (A) (i)	species listed under state or federal Endangered Species Acts;	4.12.1.3		
Appendix B (g) (13) (A) (ii)	resources defined in sections 1702(q) and (v) of Title 20 of the California Code of Regulations;	4.12.1.2		
Appendix B (g) (13) (A) (iii)	species identified as state Fully Protected;	4.12.1.3		
Appendix B (g) (13) (A) (iv)	species covered by Migratory Bird Treaty Act;	4.12.1.3		

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (A) (v)	species and habitats identified by local, state, and federal agencies as needing protection, including but not limited to those identified by the California Natural Diversity Database, or where applicable, in Local Coastal Programs or in relevant decisions of the California Coastal Commission; and	4.12.1.3		
Appendix B (g) (13) (A) (vi)	fish and wildlife species that have commercial and/or recreational value.	4.12.1.3		
Appendix B (g) (13) (B)	Include a list of the species actually observed and those with a potential to occur within 1 mile of the project site and 1,000 feet from the outer edge of linear facility corridors. Maps or aerial photographs shall include the following:	4.12.1.3 Table 4.12-4		
Appendix B (g) (13) (B) (i)	Detailed maps at a scale of 1:6,000 or color aerial photographs taken at a recommended scale of 1 inch equals 500 feet (1:6,000) with a 30 percent overlap that show the proposed project site and related facilities, biological resources including, but not limited to, those found during project-related field surveys and in records from the California Natural Diversity Database, and the associated areas where biological surveys were conducted. Label the biological resources and survey areas as well as the project facilities;	Figure 5.12-4		
Appendix B (g) (13) (B) (ii)	A depiction of the extent of the thermal plume at the surface of the water if cooling water is proposed to be discharged to a water source. Provide the location for the intake and discharge structures on an aerial photograph(s) or detailed maps. Water sources include, but are not limited to, waterways, lakes, impoundments, oceans, bays, rivers, and estuaries; and	n/a		

Adequacy Issue: Adequate _____ Inadequate _____
 Technical Area: **Biological Resources**
 Project Manager: Eric Solorio

DATA ADEQUACY WORKSHEET

Revision No. 0 Date _____
 Technical Staff: _____
 Technical Senior: _____

Project: _____
 Docket: _____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (B) (iii)	An aerial photo or wetlands delineation maps at a scale of (1:2,400) showing any potential jurisdictional and non-jurisdictional wetlands delineated out to 250 feet from the edge of disturbance if wetlands occur within 250 feet of the project site and/or related facilities that would be included with the US Army Corps of Engineers Section 404 Permit application. For projects proposed to be located within the coastal zone, also provide aerial photographs or maps as described above that identify wetlands as defined by the Coastal Act.	Figures 5.12-5 and 5.12-6		
Appendix B (g) (13) (C)	A discussion of the biological resources at the proposed project site and related facilities. Related facilities include, but are not limited to, laydown and parking areas, gas and water supply pipelines, transmission lines, and roads. The discussion shall address the distribution of vegetation community types, denning or nesting sites, population concentrations, migration corridors, breeding habitats, and other appropriate biological resources including the following:	4.12.1.3		
Appendix B (g) (13) (C) (i)	A list of all the species actually observed;	4.12.1.3 Table 4.12-2, Table 4.12-4		
Appendix B (g) (13) (C) (ii)	A list of sensitive species and habitats with a potential to occur (as defined in (A) above); and	4.12.1.3 Table 4.12-5, Table 4.12-6		

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (C) (iii)	If cooling water is taken directly from or discharged to a surface water feature source, include a description of the intake structure, screens, water volume, intake velocity hydraulic zone field of influence, and the thermal plume dispersion area as depicted in response to B(ii) above. Describe the thermal plume size and dispersion under high and low tides, and in response to local currents and seasonal changes. Provide a discussion of the aquatic habitats, biological resources, and critical life stages found in these affected waters. For repower projects that anticipate no change in cooling water flow, this information shall be provided in the form of the most recent federal Clean Water Act 316(a) and (b) studies of entrainment and impingement impacts that has been completed within the last five (5) years. For new projects or repower projects proposing to use once-through cooling and anticipating an increase in cooling water flow, provide a complete impingement and entrainment analysis per guidance in (D)(ii), below.	n/a		
Appendix B (g) (13) (D)	A description and results of all field studies and seasonal surveys used to provide biological baseline information about the project site and associated facilities. Include copies of the California Natural Diversity Database records and field survey forms completed by the applicant's biologist(s). Identify the date(s) the surveys were completed, methods used to complete the surveys, and the name(s) and qualifications of the biologists conducting the surveys. Include:	Appendices H.1, H.2, H.3, and H.4		

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (D) (i)	Current biological resources surveys conducted using appropriate field survey protocols during the appropriate season(s). State and federal agencies with jurisdiction shall be consulted for field survey protocol guidance prior to surveys if a protocol exists;	Appendices H.1, H.2, H.3, and H.4		
Appendix B (g) (13) (D) (ii)	If cooling water is proposed to be taken directly from or discharged to a surface water feature source, seasonal aquatic resource studies and surveys shall be conducted. Aquatic resource survey data shall include, but is not limited to, fish trawls, ichthyoplankton and benthic sampling, and related temperature and water quality samples. For new projects or repower projects anticipating a change in cooling water flows, sampling protocols shall be provided to the Energy Commission staff for review and concurrence prior to the start of sampling. For repower projects not anticipating a change in cooling water flows, this information shall be provided in the form of the most recent federal Clean Water Act 316(b) impingement and entrainment impact study completed within five (5) years of the AFC filing date; and	n/a		
Appendix B (g) (13) (D) (iii)	If the project or any related facilities could impact a jurisdictional or non-jurisdictional wetland, provide completed Army Corps of Engineers wetland delineation forms and/or determination of wetland status pursuant to Coastal Act requirements, name(s) and qualifications of biologist(s) completing the delineation, the results of the delineation and a table showing wetland acreage amounts to be impacted.	4.12.2.5 Appendix and H.5		
Appendix B (g) (13) (E)	Impacts discussion of the following:			

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (E) (i)	all impacts (direct, indirect, and cumulative) to biological resources from project site preparation, construction activities, plant operation, maintenance, and closure. Discussion shall also address sensitive species habitat impacts from cooling tower drift and air emissions;	4.12.2		
Appendix B (g) (13) (E) (ii)	facilities that propose to take water directly from, and/or discharge water to surface water features, daytime and nighttime impacts from the intake and discharge of water during operation, water velocity at the intake screen, the intake field of influence, impingement, entrainment, and thermal discharge. Provide a discussion of the extent of the thermal plume, effluent chemicals, oxygen saturation, intake pump operations, and the volume and rate of cooling water flow at the intake and discharge location; and	n/a		
Appendix B (g) (13) (E) (iii)	Methods to control biofouling and chemical concentrations, and temperatures that are currently being discharged or will be discharged to receiving waters.	n/a		
Appendix B (g) (13) (F)	A discussion of all feasible mitigation measures including, but not limited to the following:			
Appendix B (g) (13) (F) (i)	All measures proposed to avoid and/or reduce adverse impacts to biological resources;	4.12.3		
Appendix B (g) (13) (F) (ii)	All off-site habitat mitigation and habitat improvement or compensation, and an identification of contacts for compensation habitat and management;	4.12.3.1		
Appendix B (g) (13) (F) (iii)	Design features to better disperse or eliminate a thermal discharge;	n/a		

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (F) (iv)	All measures proposed to avoid or minimize adverse impacts of cooling water intake. This shall include a Best Technology Available (BTA) discussion. If BTA is not being proposed, the rationale for not selecting BTA must be provided; and	n/a		
Appendix B (g) (13) (F) (v)	Educational programs to enhance employee awareness during construction and operation to protect biological resources.	4.12.3.7		
Appendix B (g) (13) (G)	A discussion of compliance and monitoring programs to ensure the effectiveness of impact avoidance and mitigation measures incorporated into the project.	4.12.3		
Appendix B (g) (13) (H)	Submit copies of any preliminary correspondence between the project applicant and state and federal resource agencies regarding whether federal or state permits from other agencies such as the U. S. Fish and Wildlife Service, the National Marine Fisheries Service, the U.S. Army Corps of Engineers, the California Department of Fish and Game, and the Regional Water Quality Control Board will be required for the proposed project.	Appendix H.6		
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	4.12.4		

Adequacy Issue: Adequate _____ Inadequate _____
 Technical Area: **Biological Resources**
 Project Manager: Eric Solorio

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Revision No. 0 Date _____
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 Technical Senior: _____

Project: _____
 Docket: _____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	4.12.4		
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	4.12.4.4		
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	4.12.4.5		