APPENDIX E

Biological Resources Letter Report

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March 18, 2008 5302-01

Ms. Julia Quinn
County of San Diego
Department of Public Works
5469 Kearny Villa Road, Suite 305
San Diego, California 92123-1152

Subject: Biological Resources Letter Report for the Las Colinas Detention Facility, City of Santee, California

Dear Ms. Quinn:

This biological resource letter report documents the biological resources present on the Las Colinas Detention Facility project site. This letter report includes a description of the proposed project, its location and setting, habitats and vegetation communities on the site, special status species, jurisdictional waters and wetlands, significance of project impacts, proposed mitigation, and cumulative impacts, according to the County of San Diego (County) Report Format and Content Requirements (2006) for letter reports (San Diego 2006a) and the County's Guidelines for Determining Significance for Biological Resources (2006). In addition, a description of research and survey methods used to prepare this report is included.

SUMMARY

The proposed Las Colinas Detention Facility project is located at an approximately 45-acre property within the City of Santee. The project includes the replacement and enlargement of the existing on-site facility with a new and larger facility that would meet the projected needs. Five vegetation communities and other land covers were mapped within the 45-acre project area: 0.6 acre disturbed coastal sage scrub, 1.8 acres disturbed land, 4.3 acres non-native grassland, 14.7 acres agriculture, and 23.6 acres of urban/developed land. Two ephemeral drainages are present onsite totaling 0.04 acre. No special-status plant species were observed on site during the focused rare plant survey at the site. A single special status wildlife species, California Special Concern Species black-tailed jackrabbit (*Lepus californicus*), was observed on site. Focused surveys for the federally-listed threatened California gnatcatcher (*Polioptila californica*) were negative. Special status riparian birds including least Bell's vireo (*Vireo bellii pusillus*) have been documented to occur off site by previous studies. The proposed project would impact the entire site except for 0.003 acre of one of the ephemeral drainages. Potential significant impacts

include loss of: 0.6 acre of disturbed coastal sage scrub, 4.3 acres of non-native grassland, 0.037 acre (0.04 acre when rounded) of an ephemeral drainage, and one coast live oak (*Quercus agrifolia*) tree. Significant impacts also may occur directly to nesting bird species and indirectly to special status bird species off site due to construction noise. Mitigation proposed for the impacts includes: preserve 1.2 acres of coastal sage scrub, 2.2 acres of non-native grassland, and prepare a Habitat Loss Permit for the impacts to coastal sage scrub; provide for no net loss of 0.037 acre ephemeral drainage and obtain appropriate resource agency permits; plant two 5-gallon oak trees within the landscaped areas of the site; conduct a pre-construction nesting bird survey; and conduct surveys for off-site special status birds attenuating noise to less that 60 dB(A) Leq if they are present.

INTRODUCTION

To meet the projected needs for women offenders, the San Diego County Sheriff's Department (SDSD) is proposing to replace the existing Las Colinas Detention Facility (LCDF) on and adjacent to the grounds of the existing LCDF with a new 1,216-bed women's detention facility.

The existing LCDF is deficient in that it is the most crowded of the eight detention facilities operated by the SDSD and has numerous physical problems due to the material condition of the facility as well as operational difficulties due to the piecemeal nature in which the facility was developed.

PROJECT DESCRIPTION

The proposed project would replace the existing LCDF on and adjacent to the grounds of the existing LCDF and portions of the Edgemoor Geriatric Hospital site with a new 1,216-bed women's detention facility. The proposed facility includes seven buildings for housing inmates occupying approximately 260,750 square feet (sq. ft.), buildings for administration/training/ visitation, security administration, food services, programs and employment services, medical services, facility services including an energy plant and general storage warehouse, and parking facilities. The total area of all buildings is approximately 512,547 sq. ft.

LOCATION AND SETTING

The LCDF project site consists of 45 acres of County-owned property located within the City of Santee, in eastern San Diego County (*Figure 1*). The project site is mapped on unsectioned land in Township 15 South, Range 1 West on the El Cajon 7.5 minute U.S. G. S. quadrangle (*Figure 2*). The site is near Magnolia Avenue to the east; Mission Gorge Road is located 400 feet to the

south; developing office/commercial use associated with the City of Santee Town Center Specific Plan is located to the west; and the San Diego River is 600 feet to the north.

The project site is located in the historical floodplain of the San Diego River and has flat topography at an elevation of approximately 350 feet above mean sea level (amsl).

Three soil types are mapped for the project area: Riverwash; Grangeville fine sandy loam, 0 to 2 percent slopes; and Visalia sandy loam, 0 to 2 percent slopes. All three soil types may potentially support hydric inclusions within intermittent streams, alluvial fan, and flood plain landforms (USDA 1992).

Riverwash consists of excessively drained, rapidly permeable soils that develop in intermittent stream channels. Riverwash is mapped in the northwestern corner of the undeveloped land on site (Bowman 1973).

Both Grangeville and Visalia series soils develop in granitic alluvium and occur in alluvial fans and alluvial plains. Grangeville fine sandy loam is mapped over most of the project site including roughly the southern half of the undeveloped land in the northern portion of the site. This soil is somewhat poorly drained and has moderately rapid permeability and very slow runoff. The grayish-brown surface layer is a moderately alkaline (pH 8.0) calcareous fine sandy loam about 11 inches thick (Bowman 1973).

Visalia sandy loam is mapped over roughly half of the northern portion of the open land. It is moderately well drained, has moderately rapid permeability and very slow runoff. The dark grayish brown surface layer is slightly acidic (pH 6.5) and extends about 12 inches (Bowman 1973).

METHODS AND SURVEY LIMITATIONS

Data regarding biological resources present on the project site were obtained through a review of pertinent literature and through field reconnaissance; both are described in detail below.

Literature Review

Sensitive biological resources present or potentially present on site were identified through a literature search of the California Department of Fish and Game (CDFG) Natural Diversity Database (CNDDB) (CDFG 2006, 2007a – d), the California Native Plant Society's (CNPS) on-line *Inventory of Rare and Endangered Vascular Plants* (CNPS 2007), the County of San Diego

Sensitive Plant List (San Diego 2006b), and the County of San Diego Sensitive Animal List (San Diego 2006b).

General information regarding wildlife species present in the region was obtained from Unitt (2004) for birds, Bond (1977) for mammals, Stebbins (2003) for reptiles and amphibians, and Emmel and Emmel (1973) for butterflies.

Field Reconnaissance

Dudek biologists David W. Flietner (DWF), Ryan Henry (RH), Joanna Hsu (JH), Paul M. Lemons (PML), and Travis Smith (TS) conducted biological surveys of the site in July and August 2007. Joanna Hsu and Kathleen Dayton (KD) conducted an additional survey in February 2008. *Table 1* lists the dates, conditions, and survey focus for each of the surveys. The surveys consisted of mapping vegetation communities, preparing inventories of the plant and wildlife species observed, delineating jurisdictional wetlands, and conducting focused surveys for special status plant species and the federally-listed threatened coastal California gnatcatcher (*Polioptila californica californic*a). Focused surveys for spring and summer-blooming sensitive plant species were conducted at the appropriate time of year for detection of the species. The potential for the site to serve as a wildlife corridor also was evaluated.

Table 1
Schedule Of Surveys

DATE	HOURS	STAFF	FOCUS	CONDITIONS
7/6/07	0800 -1300	RH, TS	Wetlands delineation, vegetation mapping	62 –88° F, 0% cloud cover (cc), 2 - 4 mph wind,
7/24/07	1030 - 1215	DWF, JH	Rare plant survey, plant inventory	80- 85° F; 0 - 5% cc; 0 – 2 mph wind
8/1/2007	0720-1030	PML	Gnatcatcher survey	71-87 ° F; 100- 40% cc, 0-3 mph wind
8/8/2007	0740-1000	PML	Gnatcatcher survey	72-83 ° F; 0% cc; 0-4 mph winds
8/16/2007	0730-1000	PML	Gnatcatcher survey	69-86 ° F, 0% cc, 0-1 mph winds
3/4/2008	1030-1230	JH, KD	Rare plant survey	70- 75° F; 0% cc; 0 – 5 mph wind

Resource Mapping

Vegetation communities were mapped in the field directly onto a 200-scale (1"=200') color aerial photograph of the site flown in May 2006. The entire project site was mapped including the 45-acre site and the adjacent 100-foot wide study area. Plant community classifications used in this report follow Holland (1986) and Oberbauer (2005). Jurisdictional waters were mapped in the field using a Global Positioning System (GPS) receiver with sub-meter accuracy. Dudek GIS

technician Koman Diabate digitized the mapped vegetation into a Geographic Information System (GIS) using ArcGIS software.

Flora

Dudek biologists Dave Flietner and Joanna Hsu conducted a floristic inventory of the project area in conjunction with a focused survey for perennial and summer-blooming herbaceous plant species on July 24, 2007. Joanna Hsu and Kathleen Dayton conducted a focused survey for spring-blooming plant species on March 4, 2008. Prior to conducting the spring survey, a reference site was checked in order to verify that the timing of the survey was appropriate. All native and naturalized plant species encountered during the surveys were identified and recorded; ornamental plant species adjacent to buildings are not included in this inventory.

Latin and common names of plants follow *The Jepson Manual* (Hickman 1993) or more recent published taxonomic revisions of genera. Where not listed in Hickman (1993), common names follow Simpson and Rebman (2001) or Roberts (1998). A list of plant species observed on the project site is presented in *Appendix A.*

Fauna

Dudek biologist Paul Lemons (USFWS permit TE-051248) conducted focused surveys to determine the presence or absence of federally-listed threatened coastal California gnatcatcher (see *Table 1*). The surveys consisted of walking a meandering transect throughout the entire site and recording observations around the perimeter of the site. While walking the transect, taped gnatcatcher vocalizations were played approximately every 40 to 50 feet, depending on the level of highway noise and presumed attenuation due to topography, in order to induce gnatcatcher response. Binoculars (8x42) were used to aid in detecting and identifying gnatcatcher and other birds.

Mr. Lemons also recorded wildlife observed during the course of these surveys. Wildlife species detected during the field surveys by sight, calls, tracks, scat, or other signs were recorded. Binoculars were used to aid in the identification of observed animals. In addition to species actually observed, expected use of the site by wildlife, including special status species, was determined by known habitat preference and their relative distribution in the area. A list of wildlife species observed or detected on-site is presented in *Appendix B.*

Latin and common names of animals follow Stebbins (1985) for reptiles and amphibians, American Ornithologists' Union (1998, 2007) for birds, Jones *et al*. (1997) for mammals, and Emmel and Emmel (1973) for butterflies.

Jurisdictional Delineation

Dudek biologists Ryan Henry and Travis Smith performed a formal (routine) wetlands delineation on July 6, 2007 for the project site and the immediately surrounding project area. All areas potentially under the jurisdiction of the U.S. Army Corps of Engineers (ACOE) pursuant to Section 404 of the federal Clean Water Act (CWA) as "waters of the U.S.," including wetlands; the California Department of Fish and Game (CDFG) pursuant to Section 1602 of the California Fish and Game Code; the California Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the federal CWA and the Porter-Cologne Water Quality Act as "waters of the State," were delineated. Because the proposed project site is on County-owned land within the incorporated land of the City of Santee, it is exempt from the County's Resource Protection Ordinance and County jurisdiction was not determined.

The ACOE wetlands delineation was performed in accordance with *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region,* (ACOE 2006) and guidance provided by the ACOE and Environmental Protection Agency (EPA) on the geographic extent of jurisdiction based on the U.S. Supreme Court's interpretation of the CWA. The new ACOE/EPA guidance states that the ACOE will regulate traditional, navigable waters of the U.S., adjacent wetlands, and relatively permanent waters tributary to traditional navigable waters and adjacent wetlands. Non-navigable tributaries that are not relatively permanent and wetlands adjacent to such tributaries will be assessed on a case-by-case basis to determine whether they have a significant nexus to a traditional navigable water of the U.S (ACOE and EPA 2007). The worksheets used to make these determinations are included in *Appendix C.*

Non-wetland waters of the U.S. were delineated based on the limits of an ordinary high water mark (OHWM). During the jurisdictional determination, each drainage feature was examined for evidence of an OHWM, saturation, permanence of surface water, wetland vegetation, and nexus to a traditional navigable water of the U.S. If any of these criteria were met, transects were run to determine the extent of each regulatory agencies' jurisdiction.

The CDFG jurisdiction was defined to the bank of the stream/channels or to the limit of the adjacent riparian vegetation. Areas regulated by the RWQCB are generally coincident with the ACOE, but include features isolated from navigable waters of the U.S. that have evidence of surface water inundation.

Because identification of jurisdictional features was complicated by historic and on-going agricultural operations and excavations in upland areas for flood control purposes, RECON's (2005) previously prepared jurisdictional delineation report was analyzed to aid in the jurisdictional determinations.

Four transects were established across the two on-site drainages, and two transects were established across the off-site drainage. Areas with a predominance of hydrophytic vegetation were observed for indicators of wetland hydrology and soil redoximorphic features. In one off-site location where ACOE jurisdictional wetlands were suspected, data on vegetation, hydrology, and soils were collected; the wetland delineation form is included in *Appendix D*. No soil pits were excavated on site due to the lack of a predominance of hydrophytic vegetation and no data sheets were recorded at these locations.

Drainage features were mapped during the field observation to obtain characteristic parameters and detailed descriptions using standard measurement tools. The location of transects, upstream and downstream extents of each feature, and sample points were collected in the field using a 1:24,000 scale (1 inch = 200 feet) aerial photograph and topographic base. Koman Diabate digitized the mapped jurisdictional resources into a GIS coverage using ArcGIS software.

Survey Limitations

Floristic surveys were conducted in July to coincide with the flowering period of smooth tarplant (*Deinandra conjugens*), a CNPS List 1B species previously observed off site approximately 400 feet southwest of the southwestern corner of the project area, and 0.3 mile south-southwest of the southwesternmost natural vegetation in the project area (RECON 2005). A survey was conducted in March to coincide with the flowering period of spring-blooming plants.

Wildlife surveys were conducted in August and would not have detected some winter and fall migratory bird species that may occur. Wildlife surveys were conducted during the daytime to maximize the detection of bird species reducing the likelihood of observing nocturnally-active wildlife species. Focused trapping for small mammals and reptiles was not performed. Many species of reptiles and amphibians are secretive in their habits and are difficult to observe using standard meandering transects.

HABITATS / VEGETATION COMMUNITIES

A total of 47 species of vascular plants (15 native and 32 non-native), and 24 species of wildlife (3 invertebrates, 1 reptile, 14 birds, and 6 mammals) were observed on site during the surveys. The list of plant species observed is provided in *Appendix A*. The list of wildlife species observed is provided in *Appendix B*.

Five vegetation communities and other land covers were mapped within the 45-acre project site: disturbed coastal sage scrub, disturbed land, agriculture, non-native grassland, and urban/developed. *Figure 3* shows their locations and *Table 2* provides acreages of vegetation on site. The characteristics of the vegetation communities and land covers are discussed below.

Table 2
Vegetation and Land Covers on the Project Site

Vegetation / Land Use	Code[1]	Acreage
Disturbed Coastal Sage Scrub	32510	0.6
Disturbed Land	11300	1.8
Agriculture	18320	14.7
Non-native Grassland	42200	4.3
Urban/Developed	12000	23.6
TOTAL	--	45

[1] from Oberbauer (2005)

Disturbed Coastal Sage Scrub

Diegan coastal sage scrub is a native plant community characterized by soft, low, aromatic, shrubs and subshrubs with many plants being drought-deciduous. This community typically occurs on sites with low moisture availability, such as dry slopes and clay-rich soils that are slow to release stored water. Coastal sagebrush (*Artemisia californica*) and flat-top buckwheat (*Eriogonum fasciculatum*) commonly are the dominant plant species in this community, with other characteristic species including goldenbush (*Isocoma menziesii*) (Holland 1986). Diegan coastal sage scrub in locations below 1,000 feet amsl, such as the project site, is considered a coastal form (Oberbauer 2005).

Disturbed coastal sage scrub contains at least 20 percent vegetative cover of native vegetation but over 50 percent vegetative cover of non-native plants.

The area mapped as disturbed coastal sage scrub primarily contains relatively widely spaced spreading goldenbush (*Isocoma menziesii* ssp. *menziesii*) and a ground layer of non-native grasses, with occasional native herbs such as slender buckwheat *(Eriogonum gracile* var. *gracile),* California sun cup (*Camissonia bistorta*) and weeds, such as tocalote (*Centaurea melitensis*) and horehound (*Marrubium vulgare*). The disturbed coastal sage scrub extends into areas dominated by non-native grasses to include a few broom baccharis (*Baccharis sarothorides*) and the single Mexican elderberry (*Sambucus mexicana*) on the site.

While the area is mapped in this report as disturbed coastal sage scrub to conform to County requirements that the entire project area be mapped according to Holland's (1986) classification, this vegetation could also be described as *Isocoma* scrub, a early successional community. The disturbed coastal sage scrub on site is relatively poor-quality habitat due to the low plant species diversity and sparse cover.

Disturbed Land

Disturbed land contains predominantly non-native and/or weedy species that indicate disturbance and soil compaction, such as Russian thistle (*Salsola tragus*), telegraph weed (*Heterotheca grandiflora*), horehound (*Marrubium vulgare*), and sow-thistle (*Sonchus oleraceus*). In areas with less than 10% vegetative cover, there is evidence of soil surface disturbance and compaction from previously legal activities. In areas with higher vegetative cover, there is soil surface disturbance and compaction, and the presence of building foundations and debris resulting from legal activities (rather than dumping). Recently graded firebreaks, construction pads, construction staging areas, off-road vehicle trails, and old homesites are examples of disturbed land (San Diego 2006a).

Disturbed land in the northeastern and southeastern portions of the site includes off-road vehicle trails and parking areas. The southeastern area consists of a dirt road (devoid of vegetation) that provides vehicular access between Edgemoor Drive and Cottonwood Avenue. The northeastern area consists of two unnamed dirt access roads, one used for vehicular access and overflow parking for the Edgemoor Geriatric Hospital and the other used for equipment access to the adjacent fields. Most of this area is also unvegetated, with Bermuda grass (*Cynodon dactylon*), foxtail chess (*Bromus madritensis* ssp. *rubens*), and tocalote (*Centaurea melitensis*) constituting the plant species that are present.

Agriculture

Ongoing commercial agriculture operations include soil tillage, crop rotation, fallowing, agricultural commodity production, raising livestock, associated farming operations, pastures, and dry land farming. Row crops were tilled, and barley (*Hordeum vulgare)* was planted at the project site in 2007 in areas mapped as agriculture. Due to the low rainfall, the fields did not produce a successful crop as in previous years. During the 2007 survey, the area contained a sparse cover of barley (*Hordeum* vulgare) and occasional Russian thistle (*Salsola tragus*) and other weedy species.

Non-native Grassland

The area of non-native grassland includes annual grasses typically up to two feet tall, with many annual wildflowers present in years with favorable rainfall. This vegetation community typically occurs on fine-textured soils that are moist or wet in the winter and very dry during summer and fall (Holland 1986). Characteristic species in San Diego County include foxtail chess, ripgut grass (*Bromus diandrus*), wild oats (*Avena* spp.), fescues (*Vulpia* spp.), red-stem filaree (*Erodium cicutarium*), mustards (*Brassica* spp.), lupines (*Lupinus* spp.), and goldfields (*Lasthenia* spp.) (San Diego 2006a). To be classified as non-native grassland, 50 to 90% of the vegetative cover must be annual plants, mostly non-native species, including some (typically at least 30%) non-native grasses, with emergent shrubs and trees comprising less than 15% of the vegetative cover (San Diego 2006a).

Non-native grassland occurs in the northwestern and extreme southeastern portions of the project area. This vegetation community on site is dominated by wild oats, foxtail chess, Mediterranean schismus (*Schismus barbatus*) and rat-tail fescue (*Vulpia myuros*) with native herbs such as horseweed (*Conyza canadensis*), western ragweed (*Ambrosia psilostachya*), telegraph weed (*Heterotheca grandiflora*), and California sun cup also present. A drainage just north of the existing LCDF is within the non-native grassland area and contains a variety of more mesic plants, such as Italian ryegrass (*Lolium multiflorum*), dallis grass (*Paspalum dilatatum*), and curly doc (*Rumex crispus*). The vegetation within the drainage increased the species diversity of the site. Although non-native grassland can provide foraging habitat for a number of wildlife species, the small size and overall human disturbance within and around the area has resulted in a habitat that is of relatively low quality compared to available habitat off site within the San Diego River area.

Urban/Developed

Developed land has infrastructure on it or has been covered with a permanent surface or has large amounts of debris (San Diego 2006a). Cottonwood Avenue, the existing Las Colinas Detention Facility, and Edgemoor Geriatric Hospital and associated landscaping, sidewalks and parking lots are mapped as urban/developed.

SOILS

Three soil types are mapped for the project area: Riverwash; Grangeville fine sandy loam, 0 to 2 percent slopes; and Visalia sandy loam, 0 to 2 percent slopes. All three soil types may potentially support hydric inclusions within intermittent streams, alluvial fan, and flood plain landforms, respectively (USDA 1992).

Riverwash consists of excessively drained, rapidly permeable soils that develop in intermittent stream channels. Riverwash is mapped in the northwestern corner of the undeveloped land on site (Bowman 1973).

Both Grangeville and Visalia series soils develop in granitic alluvium and occur in alluvial fans and alluvial plains. Grangeville fine sandy loam is mapped over most of the project site including roughly the southern half of the undeveloped land in the northern portion of the site. This soil is somewhat poorly drained and has moderately rapid permeability and very slow runoff. The grayish-brown surface layer is a moderately alkaline (pH 8.0) calcareous fine sandy loam about 11 inches thick (Bowman 1973).

Visalia sandy loam is mapped over roughly half of the northern portion of the open land. It is moderately well drained, has moderately rapid permeability and very slow runoff. The dark grayish brown surface layer is slightly acidic (pH 6.5) and extends about 12 inches (Bowman 1973).

SPECIAL STATUS SPECIES

Special status species are considered to be those plant and wildlife species that are state or federally listed as endangered, threatened, or rare (CDFG 2007c, 2007d); listed by CDFG as special plants (CDFG 2007b) or special animals (CDFG 2006); designated as sensitive plants by the CNPS (2007), listed by the County of San Diego as sensitive on Lists A through D for plants or in Groups 1 or 2 for animals (San Diego 2006b), or covered species listed in Table 3-5 of the *Final Multiple Species Conservation Program MSCP Plan*, dated August 1998.

Plant Species

No special status plant species were observed on site during the focused rare plant surveys. The following describes the analysis of the potential for special status plant species to occur.

All Multiple Species Conservation Program (MSCP) -covered plants and special status plant species reported within the region of the project area (defined as the 9-topographic quadrangles including and surrounding the project area) are listed in *Appendix E*. Because CDFG and CNPS (2007) do not provide quadrangle-level distribution data for special plants on the CNPS List 3 and 4, those special-status plant species were analyzed based on other documented occurrence information (Reiser 2001). The potential for these species to occur within the project area is analyzed based on the vegetation, soils, species range, and general biological site conditions. Based on the species' known range, habitat and microhabitat requirements, on-site habitat quality, and the results of the focused summer plant survey, three special status plants are considered to have a moderate potential to occur on the project site: CNPS List 1B/County List A Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*), and CNPS List 4/County List D golden-rayed pentachaeta (*Pentachaeta aurea*) and Cooper's rein orchid (*Piperia cooperi*). In addition to the three species determined to have moderate potential to occur on the project site, the federally listed endangered San Diego ambrosia (*Ambrosia pumila*) is also discussed below as it is known to occur in the project vicinity.

The federally listed endangered San Diego ambrosia is an herbaceous perennial in Asteraceae (Sunflower family) with yellow to translucent flowers blooming from April through October. This species occurs in a variety of associations that are dominated by sparse non-native grasslands or ruderal habitat in association with river terraces, vernal pools, and alkali playas (Munz 1974; Reiser 2001). While this species has a moderate potential to occur in the project vicinity, it was not detected during the surveys in July 2007 or March 2008.

Robinson's pepper-grass is an annual herb in the Mustard Family (Brassicaceae) that has divided or lobed leaves along its stem, grows from 4 to 8 inches tall, and flowers between January and April (Munz 1974). Robinson's pepper-grass occurs from Los Angeles County south to Baja California and on Santa Cruz Island. It grows in openings in coastal sage scrub and chaparral vegetation below 1,600 feet. In San Diego County, it is typically found on relatively dry, exposed sites, rather than beneath shrubs or near creeks (Reiser 2001). Robinson's pepper-grass is shorter than two more widespread varieties of this species that grow in its range, *L.v.* var. *virginicum* and *L.v.* var. *pubescens.* These varieties grow in disturbed areas, such as old fields and roadsides, are taller than eight inches when mature, and have the stem leaves that are dissected to entire. To identify this species using a taxonomic key, however, it is necessary to

examine it in fruit (Hickman 1993). Robinson's pepper-grass was confirmed to be flowering and in fruit at a reference site prior to the survey conducted in March 2008 to verify that the timing of the survey was correct.

Golden-rayed pentachaeta is a slender annual herb in the Sunflower Family (Asteraceae) that grows three to twelve inches high and is topped with small flowers with yellow to brownish-orange centers and yellow rays that bloom from April to July (Hickman 1993, Munz 1974). This species is found in open, grassy areas below 6,000 feet in coastal sage scrub, cismontane woodland, and lower montane coniferous forest (Munz 1974, CNPS 2001). Its range is throughout southern California and Baja California, but it is rarer north of San Diego County (Reiser 2001). It was once a common plant on the mesas around the city of San Diego, and now can be found at Miramar Air Station, Torrey Pines State Park, on Del Mar Mesa, and around Cuyamaca Lake and the Laguna Lakes (Reiser 2001). This species was not detected during the spring or summer surveys.

Cooper's rein orchid is a perennial herb in the Orchid Family (Orchidaceae) with basal leaves and greenish flowers blooming from March to June. Cooper's rein orchid is found on Santa Catalina Island and on the mainland from Ventura and San Bernardino Counties south to Baja California and Sonora, Mexico. It occurs in grasslands, shrublands, woodlands and forests below 5,000 feet (Hickman 1993, CNPS 2007). This species was not detected during the spring or summer surveys.

Special Status Wildlife Species

One special status wildlife species, the black-tailed jackrabbit (*Lepus californicus*), California Special Concern Species (CSC)/County Group 2, was observed to the west of the site (see *Figure 3*). Other special status wildlife species that potentially occur on site are discussed in the following paragraphs.

All MSCP-covered animals and special-status wildlife species reported within the region of the project area (defined as the 9-topographic quadrangles including and surrounding the project area) are listed in *Appendix F*. The County status (San Diego 2006b) for these special status wildlife species also is provided in *Appendix F*. The potential for these species to occur within the project area, based on the habitat quality and quantity, site location and surroundings, species' range, and general biological site conditions is discussed. Based on this analysis there is a moderate or high potential for 11 additional special status wildlife species to occur on site.

Focused surveys conducted in August 2007 by Dudek biologist Paul Lemons (USFWS permit TE-051248), did not detect the presence of coastal California gnatcatcher within or near the project area, and this species is considered to have low potential to occur on site due to the small amount of potentially suitable habitat on site (0.6 acre of disturbed coastal sage scrub), the disturbed nature of the habitat, and the low plant species richness and sparse cover of the coastal sage scrub. The letter report detailing survey methods and results is included as *Appendix G*.

California Fully Protected Species/County Group 1 Species white-tailed kite (*Elanus leucurus*), CSC/County Group 1 Cooper's hawk (*Accipiter cooperii*), as well as other raptor species protected under the California Fish and Game Code may nest in ornamental trees near Edgemoor Geriatric Hospital and the existing LCDF and may forage on site. The red-tailed hawk (*Buteo jamaicensis*) and Cooper's hawk were observed during the surveys (RECON 2005).

California Special Concern Species/County Group 2 Species orange-throated whiptail (*Cnemidophorus hyperythrus*), San Diego horned lizard (*Phrynosoma coronatum blainvillei*), coast patch-nosed snake (*Salvadora hexalepis*), California horned lark (*Eremophila alpestris actia*), Dulzura (California) pocket mouse (*Chaetodipus californicus femoralis*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), American badger (*Taxidea taxus*), and CNDDB special animal coastal western whiptail (*Cnemidophorus tigris stejneri*) have a moderate potential to occur in the limited amount of coastal sage scrub and grassland habitat on site.

California Special Concern Species/County Group 2 red-diamond rattlesnake (*Crotalus rubber ruber*) has a high potential to occur in the brush piles adjacent to the agricultural fields in the northeastern part of the site.

In addition, CSC/County Group 1 yellow-breasted chat (*Icteria virens*) was observed in southern willow scrub northwest of the project site but would not be expected to occur on site. California Special Concern Species/County Group 2 yellow warbler (*Dendroica petechia brewsteri*) was also observed within 500 feet of the project site (RECON 2005) and federally-listed endangered/County Group 1 least Bell's vireo (*Vireo bellii pusillus*), as well as the previously mentioned white-tailed kite, Cooper's hawk, and other raptor species may also occur in riparian vegetation north of the project site. Critical habitat for the least Bell's vireo is located approximately 6,500 feet to the west of the project site on the San Diego River.

JURISDICTIONAL WETLANDS AND WATERWAYS

One drainage, referred to as "Drainage A" and two unnamed tributaries, "A1" and "A2", were identified in the project area (*Figure 3*). Drainage A and most of Tributary A1 are located outside of the project boundary. Drainage A is physically connected to an impounded portion of the San Diego River approximately 500 feet north of the project site. Surface water is discharged offsite into Drainage A and Tributary A1 from two culverts, in the southwestern corner of the existing LCDF, and at Cottonwood Avenue. The on-site portion of Tributary A1 is located at the southern end of the project site. Tributary A2 is located on the north end of the project site along the southern boundary of an agricultural field and conveys localized agricultural runoff from on-site fields. The jurisdictional areas on site and their length and area are provided in *Table 3*.

Table 3
Jurisdictional Areas on the Project Site

Drainage	Type	Jurisdiction	On-Site	
			Area (acres)	Length (feet)
A1	Ephemeral	CDFG, RWQCB, ACOE	0.01	161
A2	Ephemeral	CDFG, RWQCB, ACOE	0.03	592
TOTAL	--	--	0.04	753

Tributaries A1 and A2 are physically connected with off-site Drainage A as a result of ongoing flood control activities, but are not hydrologically connected as indicated by the lack of a consistent ordinary high water mark and normal drainage patterns or scour. Tributaries A1 and A2 are not connected to any other above ground water source. However, due to channel morphology, seasonal aquatic nature, and habitat characteristics the channels are considered to be within the jurisdictions of the CDFG and RWQCB and also could be the jurisdiction of the ACOE which will be determined by the ACOE during a confirmation of the delineation.

OTHER UNIQUE FEATURES / RESOURCES

The site lacks unique or potentially significant habitat features such as caves, rock outcrops, cliff faces, extensive foraging habitat, hilltopping opportunities, roosting habitat, or sensitive soils.

Wildlife Corridors and Habitat Linkages

The project site is on the southern periphery of the San Diego River corridor riparian system, one of the major east-west habitat linkages within the City. The San Diego River corridor is located 600 feet to the north of the LCDF and consists of a continuous band of riparian habitat and open

water with a considerable amount of disturbed habitat adjacent to the primary riparian corridor. The corridor links open space in Mission Gorge Regional Park and Miramar Naval Air Station to the west to open space surrounding El Capitan Reservoir and the Cleveland National Forest to the east.

The regional linkage/corridor includes land with flat topography that is used by wildlife, including large animals such as bobcat (*Lynx rufus*) and mule deer (*Odocoileus hemionus*) as well as a variety of migratory birds. The only portion of the site that contributes to this wildlife corridor is the undeveloped land occupied by agricultural fields and disturbed coastal sage scrub, which, although it lacks adequate vegetation to provide cover for use by wildlife, does provide a buffer between riparian and other native habitats along the River and the developed land to the south.

Although the San Diego River corridor consists of generally continuous riparian habitats, it is constrained along its length at several points where urban development, active mining operations, roadway/bridge crossings, and previous habitat disturbance limit the landscape linkage to a narrow band of habitat.

Regional or Local Setting

Regionally, conservation planning efforts currently approved or in progress in San Diego County have the goal of establishing a reserve system that will protect natural lands and their associated biota. The ultimate goal of these plans is to establish a regional system of biological reserve areas in conformance with the State of California Natural Communities Conservation Plan Act. The MSCP Plan in southwestern San Diego County is the first of these preserve systems to be established. Local jurisdictions implement their respective portions of the MSCP Plan through subarea plans. The proposed project is located within the City of Santee. The City is in the process of developing a draft subarea plan that will be consistent with the MSCP and will qualify as a stand alone document to implement the City's portion of the MSCP Preserve. Because the proposed project is located on County land, it is not be subject to the City's subarea plan, however, the City's subarea plan applies as a threshold for purposes of determining if the project would cause a significant impact to biological resources addressed by the regional plan.

Locally, the City of Santee passed an amendment to Chapter 12.24 of the Santee Municipal Code (September 2007) to designate certain trees on County-owned property as "protected". One coast live oak (*Quercus agrifolia*) tree is located on the existing LCDF site west of Cottonwood Avenue. The County would not have to obtain a permit from the City to remove this tree because the proposed County project is exempt from regulation by the City. Nonetheless, the

City's ordinance applies as a threshold for purposes of determining if the project would cause a significant impact to biological resources.

ANTICIPATED PROJECT IMPACTS

This section addresses direct, indirect, and cumulative impacts to biological resources that potentially result from implementation of the project.

Direct Impacts

In general, direct impacts consist of the loss of habitat and the plant and wildlife species that it contains within the area graded for the proposed project, for associated fuel modification zones that extend beyond the limits of grading, and for any additional off-site impacts as a part of the project (San Diego 2006b).

The entire project area, except for the small portion of Tributary A1 located on site, would be directly impacted by project-related grading and construction, resulting in the total loss of 23.6 acres of urban/developed lands, 0.6 acre of disturbed coastal sage scrub, 1.8 acres disturbed land, 4.3 acres of non-native grassland, and 14.7 acres of agriculture (row crops). Tributary A2 within the project site would be impacted either by being filled or place underground, resulting in the loss of 0.03 acre (592 linear feet) of ACOE/CDFG/ RWQCB-jurisdictional ephemeral waters (*Figure 4* and *Table 4*). The eastern portion of Tributary A1 would be impacted either by being filled or placed underground, resulting in the loss of 0.007 acre (104 linear feet) of ACOE/CDFG/ RWQCB-jurisdictional ephemeral waters (*Figure 4* and *Table 4*).

Table 4
Direct Project Impacts to Vegetation Communities and Land Uses

Vegetation / Land Use	Direct Impacts
Disturbed Coastal Sage Scrub	0.6
Disturbed Land	1.8
Agriculture	14.7
Non-native Grassland	4.3
Urban / Developed	23.6
Jurisdictional Waters (ACOE/CDFG/ RWQCB)	0.04[1]
TOTAL	45.0[2]

[1] 696 linear feet
[2] Acreage for jurisdictional water is included in the underlying vegetation. Due to the small size of impacts, acreage is reported to the nearest 0.01 acre. Actual impacts are 0.037 acre which round up to 0.04 acre.

The project would impact one coast live oak.

The project has the potential to directly impact sensitive wildlife species including the orange-throated whiptail, northern red-diamond rattlesnake, San Diego horned lizard, coast patch-nosed snake, Dulzura pocket mouse, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, and American badger, all CSC/County Group 2 species; and special-status/County Group 2 coastal western whiptail.

The project has the potential to directly impact nesting California Fully Protected/County Group 1 white-tailed kite and CSC/County Group 1 Cooper's hawk, nesting CSC/County Group 2 California horned lark, nesting raptor species, or other nesting bird species protected by the Migratory Bird Treaty Act and California Fish and Game Code. The project would also result in the loss of 4.9 acres of functional foraging habitat (disturbed coastal sage scrub, and non-native grassland) on-site.

Indirect Impacts

Indirect impacts primarily result from adverse "edge effects," either short-term indirect impacts related to construction or long-term, chronic indirect impacts associated with the location of development near biological resources in natural open space. Short-term, construction-related dust, erosion, sedimentation, and runoff could indirectly impact growth of adjacent vegetation communities and water quality in off-site jurisdictional waters. Long-term edge effects penetrate the natural habitat wherever the interface of natural habitat and urban areas occur; these include increased depredation by feral and pet cats and dogs, invasion of other nonnative species (e.g., Argentine ants [*Linepithema humile*]), and disruption of natural ecosystem processes (e.g., natural fire and flood patterns).

Noise from construction equipment, including equipment used for demolition, has the potential to impact special status bird species if it exceeds the noise threshold of 60 dB(A) Leq which has been identified for impacts on the least Bell's vireo based on the theory of masking. Masking of song by construction noise is considered to have potential adverse effects on the behavioral activity, including reproduction, of the least Bell's vireo and may similarly impact other special status bird species. The 60 dB(A) Leq construction noise contour line has been calculated to be 500 feet from the project boundary. Special status species identified within or potentially occurring within the riparian vegetation north of the project site are federally-listed endangered/Group 1 least Bell's vireo; Fully Protected/Group 1 white-tailed kite; CSC/Group 1 yellow-breasted chat and Cooper's hawk; CSC/Group 2 yellow warbler; and other raptors (RECON 2005). The nearest large block of sensitive habitat area within which sensitive bird species may be located is located approximately 250 feet to the north of the proposed project

site. Thus, special status species that nest within the habitat up to 500 feet from the site would be potentially impacted by construction noise.

The project would not result in significant, long-term indirect impacts to the riparian habitat adjacent to the Drainage A, located northwest of the project site.

Although the project is sited adjacent to regionally-important open space, the proposed project replaces an existing detention facility, thus no increase in human access or predation and competition from domestic animals, pest or exotic species that would adversely affect sensitive species is anticipated.

Indirect impacts resulting from lighting occurring within the sensitive habitat along the San Diego River shall be minimized by directing lighting away from sensitive habitat, and shielding the lighting to prevent indirect impacts to the habitat, to the satisfaction of County Department of Public Works.

SIGNIFICANCE OF PROJECT IMPACTS

Special Status Species

Focused surveys for special status plant species were conducted during the spring and summer when the plant species with moderate potential to occur would be detected. These moderate potential species include San Diego ambrosia, Robinson's pepper-grass, golden-rayed pentachaeta and Cooper's rein orchid. No special status plant species were detected onsite.

Project grading has the potential to directly impact nesting California Fully Protected/County Group 1 white-tailed kite and CSC/County Group 1 Cooper's hawk. Direct impacts to these species and CSC/County Group 2 California horned lark, raptor species, or other nesting bird species are covered by the Migratory Bird Treaty Act and California Fish and Game Code Sections 3503 – 3513 and 3800 – 3801. Direct impacts to these species would be significant.

Project grading has the potential to directly impact special status wildlife species including the orange-throated whiptail, northern red-diamond rattlesnake, San Diego horned lizard, coast patch-nosed snake, Dulzura pocket mouse, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, and American badger, all CSC/County Group 2 species; and CNDDB special-status/County Group 2 coastal western whiptail. Due to the small area and poor quality of the habitat on site the maximum possible number of individuals of each species that could occur on site is small and loss of all individuals would not affect the species' regional long-term survival. Project impacts to these species, if present, are less than significant.

Indirect impacts to least Bell's vireo, white-tailed kite, yellow-breasted chat, Cooper's hawk, yellow warbler; raptors, and other migratory birds as a result of construction-related noise exceeding 60 dB(A) Leq, which is located within 500 feet of the project, would be significant.

The proposed lighting at the interface between natural habitat and proposed development will be shielded. Due to the project measures proposed to reduce lighting into sensitive habitat, the indirect impacts of lighting are less than significant.

Riparian Habitat or Sensitive Natural Community

Direct impacts, due to project-related grading, construction, and demolition, are shown in *Table 4*. The project would permanently remove 0.6 acre of disturbed coastal sage scrub and 4.3 acres of non-native grassland on the project site, which are considered sensitive natural communities. This is a direct, long-term significant impact.

Because the proposed project is an expansion of an existing detention facility, the project would not increase human access or competition from domestic animals, pests, or exotic species to levels that would adversely affect sensitive habitats. This impact is less than significant.

Jurisdictional Wetlands and Waterways

The project would result in direct impacts to one drainage channel, Tributary A2, within the project site resulting in the loss of 0.037 acre (totaling 0.04 acre when rounded; 696 linear feet) of ACOE/CDFG/RWQCB-jurisdictional ephemeral waters. This impact would be significant. The County DPW will obtain a Streambed Alteration Agreement from CDFG, a Section 401 Water Quality Certification from RWQCB and Section 404 Permit from ACOE for these impacts.

A small segment, 0.003 acre (57 linear feet), of Tributary A1 is located on site as the western corner of the property. Impacts to this tributary would not occur during demolition or construction by employing measures to avoid any impact. Avoidance measures would include pre-demolition and pre-construction staking and fencing (including orange construction fence and silt fence) of the tributary. A biological monitor would be onsite to verify that the staking and fencing are appropriately located and will monitor demolition and grading to document that impacts to the tributary have been avoided. The monitor also will document that BMPs are appropriately placed and maintained to provide protection of Tributary A1. With these avoidance measures in place, impacts would be less than significant.

Wildlife Movement and Nursery Sites

The project would not prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction. It would not substantially interfere with connectivity between blocks or habitat. It would not create artificial wildlife corridors.

The project is located outside of the corridor area. Therefore, the project would not result in significant impacts to wildlife movement through the San Diego River wildlife corridor.

Regional or Local Setting

As stated above, the property is County-owned land located within the City of Santee and thus is within the boundary of the City's draft Subarea Plan of the MSCP. Although the proposed project is not subject to the requirements of the City's Subarea Plan, the project would not impact any plant or wildlife species that would potentially be covered under the Santee Subarea Plan (*i.e.* that are currently covered under the MSCP framework plan). In addition, the proposed project would not conflict with or preclude assembly of the MSCP Preserve. The proposed project would not conflict with the Subarea Plan; therefore, impacts would be less than significant.

As also discussed above, the City of Santee passed an amendment to Chapter 12.24 of the Santee Municipal Code (September 2007) to designate certain trees on County-owned Property as "protected". The LCDF existing site has one protected coast live oak tree located west of Cottonwood Avenue. As explained above, this ordinance does not apply to the proposed County project. Consequently, the County would not have to get a permit from the City to remove the oak tree on the existing LCDF site. However, the ordinance applies for CEQA purposes, and the removal of the one coast live oak tree on the existing LCDF site would be a significant impact.

PROPOSED MITIGATION

This section describes avoidance, minimization, and mitigation measures that would reduce project impacts to a level below significance.

Special Status Species

To avoid direct impacts to white-tailed kite, Cooper's hawk, California horned lark, raptor species, or other nesting birds, removal of habitat that may support active nests shall occur outside of the combined breeding season of January 15 to September 15 for these species. If removal of habitat must occur during the breeding season, a qualified biologist shall conduct a

pre-construction survey to determine the presence or absence of nesting birds within the construction area. The pre-construction survey must be conducted within 10 calendar days of the start of construction and the results submitted to the County and CDFG for review and approval prior to initiating any construction activities. Nests that are detected within the proposed impact areas will be flagged and avoided until nesting is completed. A buffer zone will be established around any identified nests in coordination with the monitoring biologist. The nest will be monitored to ensure that no nest is removed or disturbed until all young have fledged or the nest is no longer active.

To avoid indirect impacts due to construction noise, including demolition activities, to breeding or nesting least Bell's vireo, white-tailed kite, yellow-breasted chat, Cooper's hawk, yellow warbler, and raptors within the noise contour greater than 60 dB(A) Leq, which is the distance up to 500 feet from the project site, grading and other mechanized construction activities that produce excessive noise shall be conducted outside of the combined breeding season of January 15 to September 15 for these species. If construction activities must occur during the breeding season, a qualified biologist shall conduct a pre-construction survey to determine the presence or absence of nesting raptors and special status bird species within areas exposed to noise levels greater than 60 dB(A) Leq. The pre-construction survey must be conducted within 10 calendar days of the start of construction and the results submitted to the County for review and approval prior to initiating any construction activities.

If nesting birds are detected during the pre-construction survey, noise attenuating measures, such as noise walls or berms shall be used to reduce the level of noise within the habitat to less than 60 dBA leq. A qualified acoustician shall monitor noise weekly during site clearing and monthly during active construction when excessive noise may be produced in order to document that the noise levels are kept below that level.

Riparian Habitat or Sensitive Natural Community

Off-site preservation of 1.2 acres (2:1 ratio) of Diegan coastal sage scrub and 2.2 acres (0.5:1 ratio) of non-native grassland (*Table 5*), in accordance to guidelines provided by the County for impacts to habitat outside of approved MSCP plans (San Diego 2006b) shall be implemented by the County and would reduce project impacts to sensitive vegetation to a level below significance. Mitigation is proposed to consist of purchase of credits at the Rancho San Diego Mitigation Bank.

Impacts to coastal sage scrub habitat may be permitted by obtaining a Habitat Loss Permit in accordance with Section 4(d) of the Endangered Species Act. The Section 4(d) Special Rule

allows a loss of five percent of coastal sage scrub habitat in any individual subregion during the preparation of a regional NCCP. The wildlife agencies must concur with the Section 4(d) findings prior to permitting the impacts to coastal sage scrub habitat.

Table 5
Recommended Mitigation for Project Impacts to
Sensitive Vegetation Communities and Jurisdictional Areas

Vegetation / Land Use	Direct Impacts (Acres)	Mitigation	
		Ratio	Acres
Disturbed Coastal Sage Scrub	0.6	2:1	1.2
Non-native Grassland	4.3	0.5:1	2.2
Jurisdictional Waters (ACOE/CDFG/ RWQCB)	0.037	1:1	0.037

Jurisdictional Wetlands and Waterways

Impacts to 0.037 acre (0.04 acre when rounded) wetlands under the jurisdiction of ACOE, CDFG and RWQCB shall be required to obtain the following permits prior to any clearing, grubbing, ground disturbance or grading of any area of the site: ACOE 404 permit, RWQCB 401 permit, and CDFG Code 1600 Streambed Alteration Agreement. Impacts shall be mitigated at a 1:1 ratio (*Table 5*) by creation or purchase of jurisdictional habitat of similar functions and values. A suitable mitigation site shall be selected and approved by the County and resource agencies during the permitting process. The site shall be located within the vicinity of the drainage impact or within the watershed of the San Diego River. A conceptual wetland mitigation plan shall be prepared and approved by the County and resource agencies.

Implementation of the mitigation measures outlined above would reduce significant impacts to a level that is less than significant.

Regional or Local Setting

Impacts to the one coast live oak tree will be mitigated by planting two replacement coast live oak trees. The replacement trees would be at least 5-gallon size since trees that are of this size have been shown to be healthier and to grow more quickly than trees that are larger. The trees would be planted within the landscaped areas of the proposed project where it is suitable to include a relatively large tree.

Cumulative

Cumulative impacts refer to incremental individual environmental effects of the proposed project and other past, present, and reasonably foreseeable future projects when combined together.

Potential impacts to biological resources were examined for 11 cumulative projects in the general region of the San Diego River because this specific cumulative impact area is adjacent to the San Diego River and is known to contain sensitive biological resources and is adjacent to the river similar to the proposed LCDF project. Thus these projects are appropriate for inclusion in the analysis of cumulative impacts. *Table 6* summarizes the biological impacts of cumulative projects that are applicable to the proposed project. From the list of cumulative projects, the mixed use, and retail development associated with the City of Santee's Town Center Specific Plan, the Edgemoor Geriatric Hospital demolition and relocation project, and other projects with biological resource impacts in the region were included as the study area for cumulative biological resource impacts.

Table 6
Biological Cumulative Projects

Project Name	Status	Project-Level Biological Impact
San Diego River Restoration, Edgemoor Property, P-06-02/AEIS06-20	MND approved by Santee City Council on 7/11/07	Impacts to sensitive species and wetland areas. Potential indirect impacts related to construction noise, inadvertent encroachment into wetland/riparian habitat, habitat degradation. Sensitive species include: Least Bell's vireo, Coastal California Gnatcatcher, Yellow warbler, Cooper's hawk, San Diego Black-tailed jack rabbit, American White Pelican. 35.1 acres of vegetation will be impacted (0.402 acres of freshwater marsh, 0.20 acres of Diegan Coastal Sage Scrub, 0.50 acres of Baccharis Scrub, 23.5 acres of non-native grassland, 5.60 acres of agricultural land, 1.60 acres of disturbed habitat, 3.00 acres of tamarisk scrub, and 0.30 acres of southern cottonwood willow riparian forest).
Villages at Fanita, TM05-04/ DR05-06/AEIS05-12	Approved by Santee City Council on 12/5/07	The project would have direct and indirect impacts on candidate, sensitive, or special status plant species. The project would result in direct permanent loss of four sensitive plant species: variegated dudleya (2,427 individuals), San Diego goldenstar (8,756 individuals on 49.1 acres), San Diego barrel cactus (1,948 individuals), and Coulter's saltbush (15 individuals on 0.08 acres). The project would result in direct temporary loss of five individual San Diego barrel cactus plants and 301 individual San Diego goldenstar on 1.8 acres. The project would result in indirect impacts to sensitive vegetation communities both during and after construction as a result of increased human presence, invasive species and fugitive dust. The project would result in indirect impacts to sensitive wildlife species including nesting raptors and other nesting avian species due to increased human presence, invasive plants, exposure to urban pollutants, soil erosion, fire and hydrological change. Direct impacts to suitable habitat for sensitive species, including coastal

Table 6
Biological Cumulative Projects

Project Name	Status	Project-Level Biological Impact
		California gnatcatcher (9 pairs), Bell's sage sparrow (13 point locations), southern California rufous-crowned sparrow (23 point locations), cactus wren (4 locations), grasshopper sparrow (15 locations), western spadefoot toad (19 breeding basins), coast horned lizard, orange-throated whiptail, San Diego black-tailed jackrabbit, San Diego fairy shrimp (36 basins), Quino checkerspot butterfly (991.1 acres), and Hermes copper butterfly (2 locations) would be significant because of their regional status as sensitive biological resources. The project would result in the following direct impacts to habitat: annual grassland (7.6 acres), annual non-native grassland (102.4 acres), coast live oak woodland (2.9 acres), coastal sage scrub (536.5 acres), southern mixed chaparral (263.0 acres), valley needlegrass grassland (84.9 acres), coast live oak riparian forest (0.5 acres), mulefat scrub (0.3 acres), sycamore alluvial woodland (0.2 acres), cismontane alkali marsh (0.1 acres), and ephemeral stream channel (2.4 acres).The project would also interfere with wildlife corridors, conflict with local policies in the MSCP, and contribute to a cumulative regional loss of sensitive plants, animals, and vegetation communities (all mitigated to less than significant, and not cumulatively considerable).
Riverwalk Subdivision	Project under construction	Potential impact to 0.04 acre of open water channel, 1.23 acres of disturbed riparian wetland and 0.18 acres of disturbed freshwater marsh would occur. Potential impacts to least Bell's vireo (1 individual) would occur (all biology impacts mitigated to less than significant).
Sky Ranch Development	Project under construction	Potential impacts to candidate, sensitive, or special status species, sensitive natural communities, and protected wetlands (mitigated to less than significant). Impacts to California gnatcatchers, San Diego County viguiera, southern California rufous-crowned sparrow, San Diego horned lizard, orange-throated whiptail, red-diamond rattlesnake, San Diego black-tailed jack rabbit, Cooper's hawk, northern harrier, other nesting raptors and Diegan coastal sage scrub habitat. Impacts to 130.5 acres of CSS, 0.2 acres of non-native grassland, 0.14 acres of non-wetland Waters of the US.
Hollywood Theatre	Project continued indefinitely	Potential impact to smooth tarplant (7,482 individuals) and burrowing owls (mitigated to less than significant).*
Riverview Residential	Project constructed	Potential impact to smooth tarplant (7,482 individuals) and burrowing owls (mitigated to less than significant).*
Santee Town Center Specific Plan Amendment	Project approved in January 2006	Sensitive habitat impacts would occur to 9.83 acres of Diegan coastal sage scrub, 0.42 acres of southern willow scrub, 25.01 acres of non-native grassland, and 0.14 acres tamarisk scrub. Sensitive species impacts would occur to 700 smooth tarplant individuals. There is a low to moderate potential for the proposed project to impact the following

Table 6
Biological Cumulative Projects

Project Name	Status	Project-Level Biological Impact
		sensitive wildlife species: gnatcatchers, Least Bell's vireo, Western burrowing owls, and nesting raptors. Also, 0.50 acres of impacted USACE jurisdictional areas and 0.97 acres of CDFG jurisdictional areas would be significantly impacted. All biology impacts would be mitigated to less than significant.
Edgemoor Skilled Nursing Facility	Project under construction	Potential direct impact to raptor nests. Potential indirect impacts to two-striped garter snake, turkey vulture, white-tailed kite, Cooper's hawk, southwestern willow flycatcher and least Bell's vireo (not observed onsite) due to construction noise. Inadvertent encroachment into sensitive areas during and after construction, by project lighting and by invasive, non-native species, would also result in significant impacts. Impacts to emergent wetland (0.09 acres), Eucalyptus Woodland (0.86 acres), non-native vegetation (0.61 acres).
Edgemoor Facility Demolition Project	NOP issued 12/4/07; Draft EIR in process	Potential to impact smooth tarplant, Townsend's big-eared bat, pallid bat, raptors, and *yuma myotis* bat (mitigated to less than significant).**
Lakeside Downs	Draft EIR in process	Potential significant impacts.**
Ladera	Final Map approved by City Council 12/12/07	Significant impacts to 2.14 acres of coastal sage scrub (mitigated to less than significant)

* = It should be noted that the City of Santee's CEQA documents for Hollywood Theatre and Riverview Residential project report the exact same biological resource impacts for these two projects even though these projects are located on two distinct sites within the Riverview Corporate Office Park.
** = Specific impacts are not yet known due to preliminary nature of project CEQA documents

The biological impacts anticipated for the cumulative analysis are shown in *Table 7*. Some of the cumulative projects did not have anticipated impacts quantified so these projects could not be included in the total acreage impacted for cumulative analysis. Others only indicated that impacts may occur to certain special status species, thus the actual number of individuals of each species could not be quantified.

Table 7
Cumulative Impact Comparison for Biological Resources

Project	Direct Impacts				Indirect Impacts
	coastal sage scrub (including disturbed coastal sage scrub) (acres)	annual (non-native) grassland (acres)	ACOE/jurisdictional wetlands (acres or linear feet)	Nesting birds/raptors	Nearby birds (noise)
LCDF	0.6	4.3	0.037	√	√
4	0.2	23.5	0.72 acres	√	
5	536.5	102.4	3.5 acres	√	√
7	-	-	1.45 acres	-	-
8	130.5	0.2	0.14 acres	√	-
13	-	-	-	-	-
14	-	-	-	-	-
17	9.83	25.01	1.47	√	-
18a	-	-	0.09	√	-
18b	-	-	-	√	-
19	Not yet determined	Not yet determined	Not yet determined	Not yet determined	Not yet determined
20	2.14 acres	-	-	-	-

As indicated in *Table 8*, the proposed project would impact 4.9 acres of significant biological resources in the form of 0.6 acre of disturbed coastal sage scrub, 4.3 acre of non-native grassland, and 0.037 acre (0.04 acre when rounded) of waters of the U.S., and would therefore contribute to the cumulative loss of biological resources in the study area. However, these impacts constitute 0.09% of the cumulative loss of coastal sage scrub, 3% of the cumulative loss of non-native grassland and 0.4% of the cumulative impacts to waters of the U.S. within the cumulative impact study area. The mitigation measures discussed in the above mitigation section would reduce all project-level impacts to below a level of significance and would provide for no net loss of waters of the U.S. Because of the small cumulative loss to the habitats and the mitigation provided by the project, it is concluded that cumulative impacts to sensitive vegetative communities resulting from the project are less than significant.

As indicated in *Table 8*, nesting raptors and other avian species. Although none were observed onsite, the project would also result in indirect impacts to least Bell's vireo, yellow-breasted chat, yellow warbler white-tailed kite, Cooper's hawk, California horned lark, during and after construction as a result of increased human presence such as a potential increase in noise). The project site and the cumulative projects provide project-specific mitigation to reduce project impacts to less than significant levels on an individual basis, and where applicable, must

contribute to achievement of planning goals for the MSCP including preservation of sensitive resources. The City's MSCP is still in draft form. The MSCP addresses the conservation needs of identified covered species in the context of projected growth within the MSCP planning area. The MSCP and associated environmental documentation address projected cumulative and growth inducing impacts to covered species and their habitats. The proposed project would be consistent with goals in the City's Planning Area, and the proposed project along with the cumulative projects would avoid or mitigate project-level biological impacts to covered species and their habitats. Therefore, cumulative impacts would be less than significant.

Table 8
Cumulative Impacts Analysis for Biological Resources

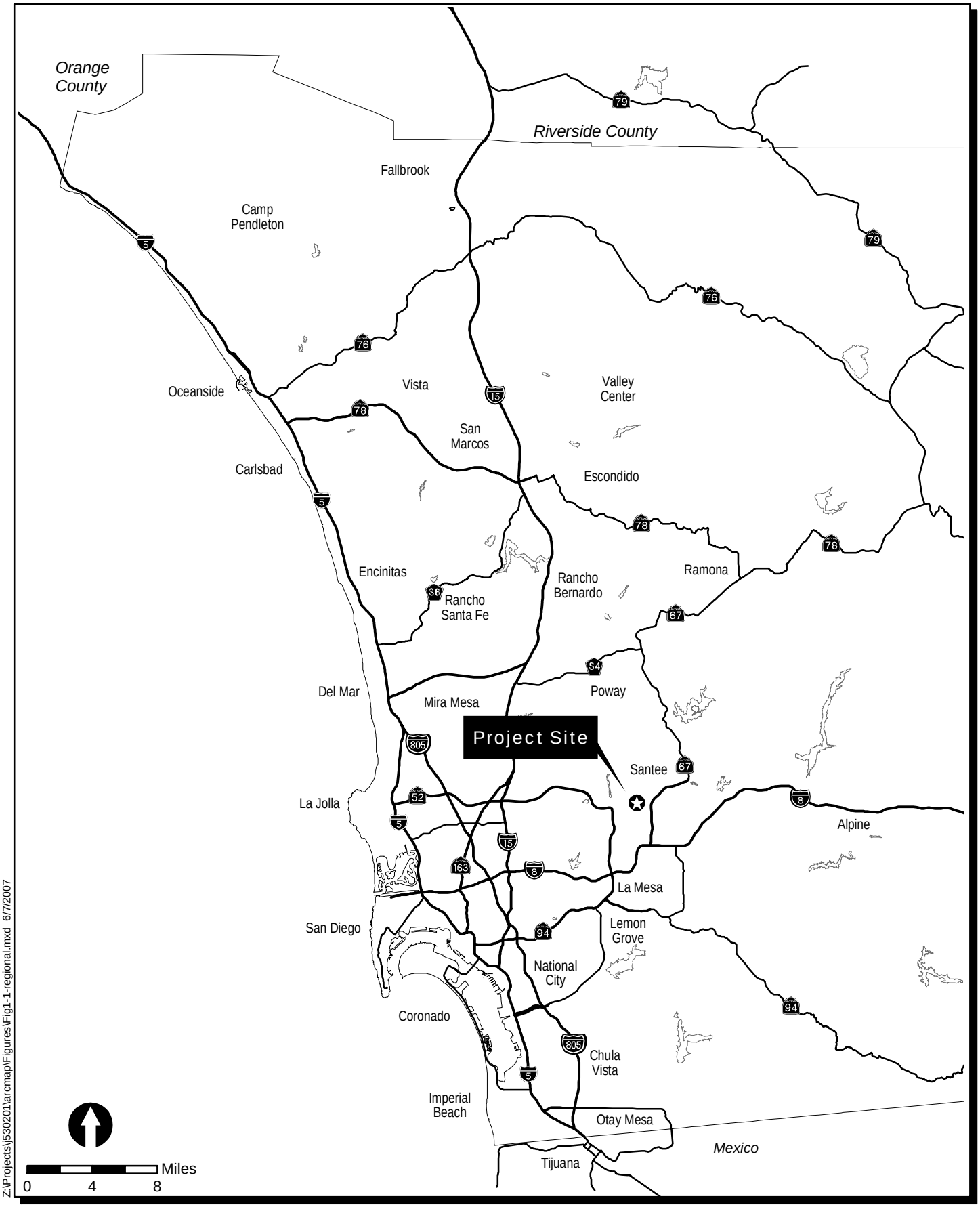
Biological Resource	Cumulative Impact	Proposed LCDF Project Impacts (Acres)	Percentage of Total Cumulative Impact Resulting from Proposed LCDF Project
Vegetation Communities – total acreage impacts resulting from projects within cumulative impact analysis area			
Coastal Sage scrub	679.7 acres	0.6	0.09%
Non-native grassland	155.81 acres	4.3	3%
Waters of the U.S.	7.41 acres	0.037	0.4%
Special Status Species with Significant Impacts – Number of projects within Cumulative Impact analysis area			
Nesting birds/raptors	6 projects	potential	unknown
Indirect impacts to birds from noise	1 project	potential	unknown

If you have any questions regarding this letter, please contact me by telephone at (760) 479- 4239 or by email at ahayworth@dudek.com.

Sincerely,

Anita Hayworth, Ph.D.
Senior Biologist/ Senior Project Manager
San Diego County-Approved Consultant

Att: Figures 1-4
Appendices A-G



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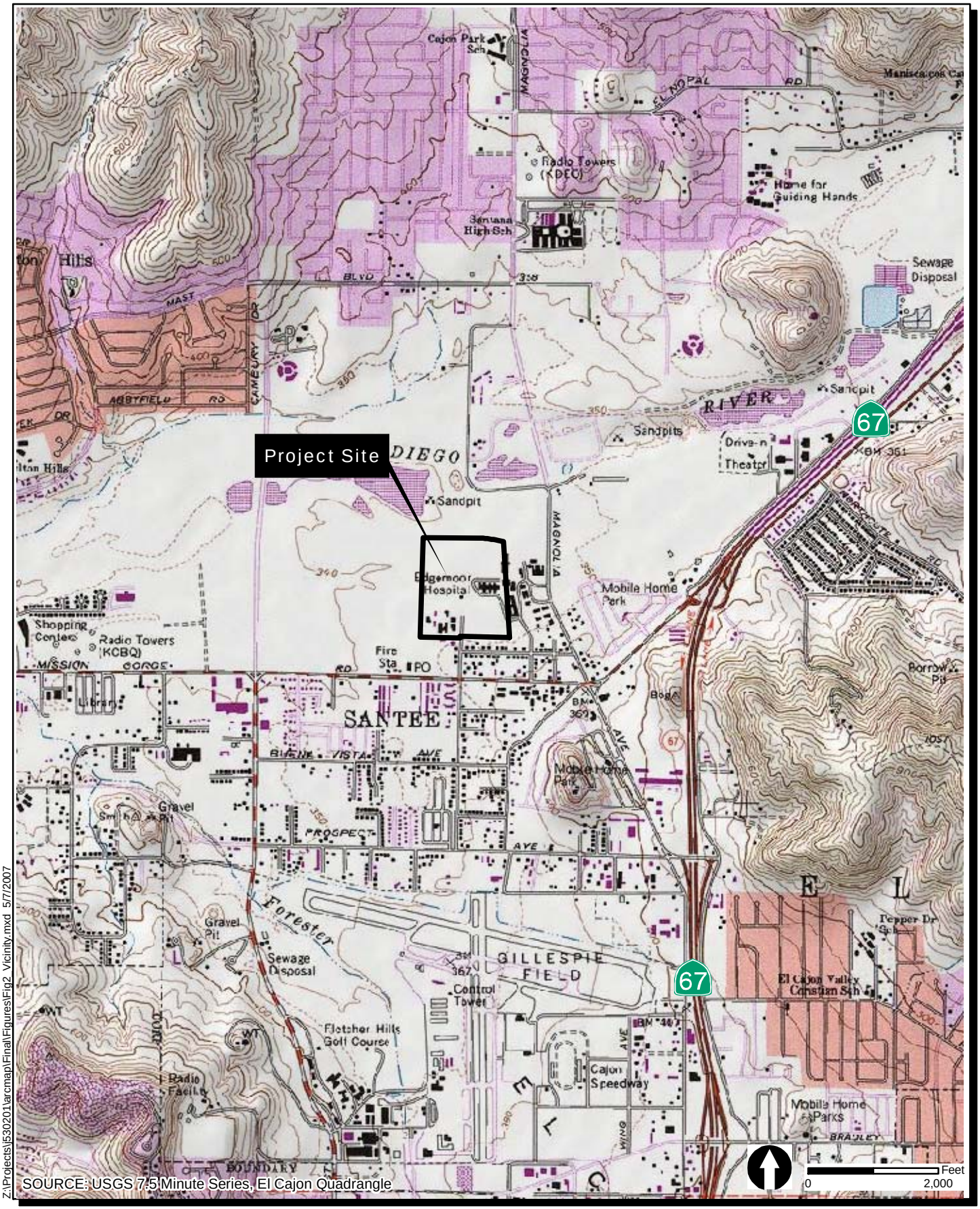
Las Colinas Detention Facility Biological Resources Letter

Regional Map

FIGURE 1



SOURCE: USGS 7.5 Minute Series, El Cajon Quadrangle

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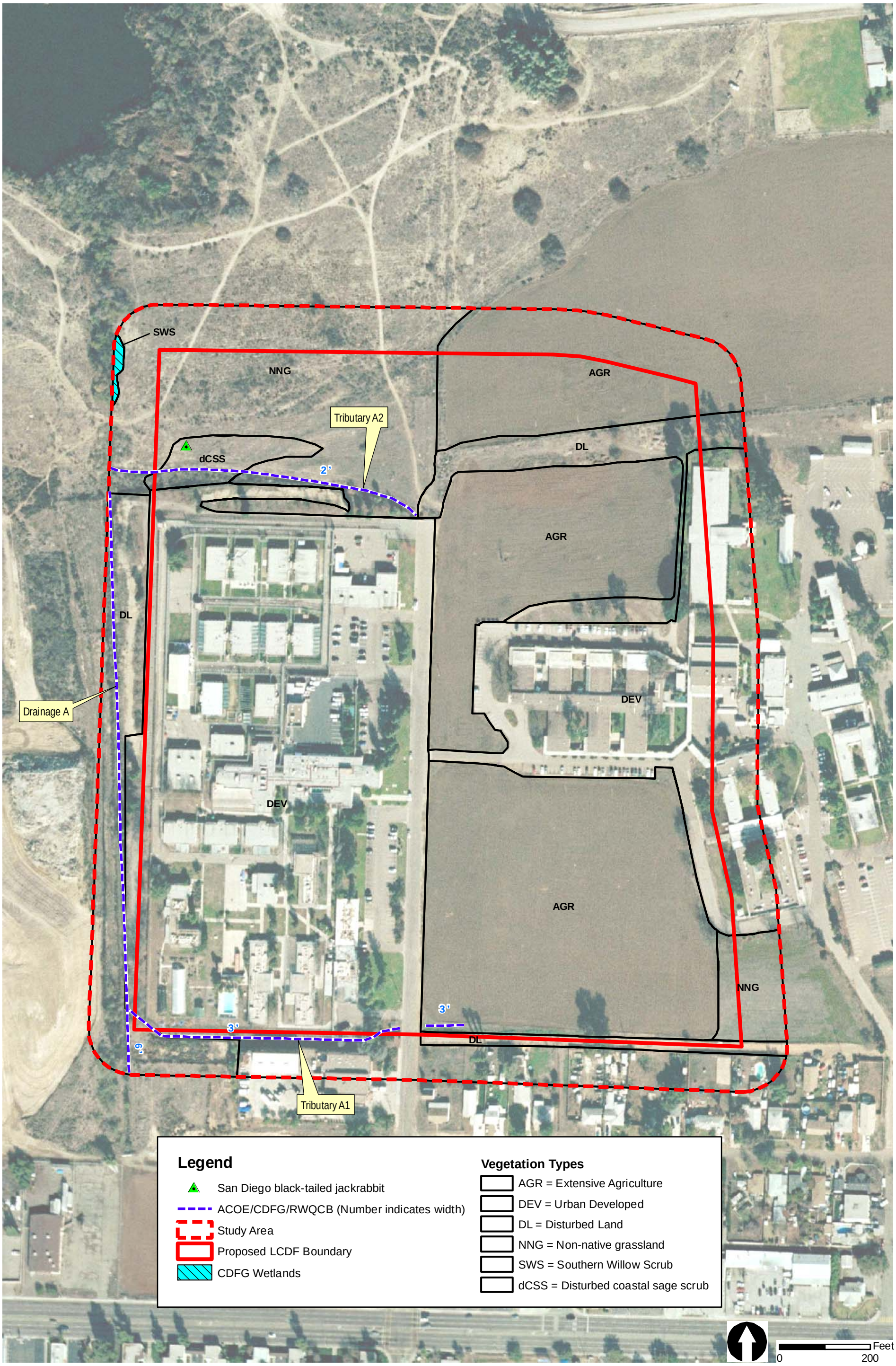
Las Colinas Detention Facility Biological Resources Letter

Vicinity Map

FIGURE
2

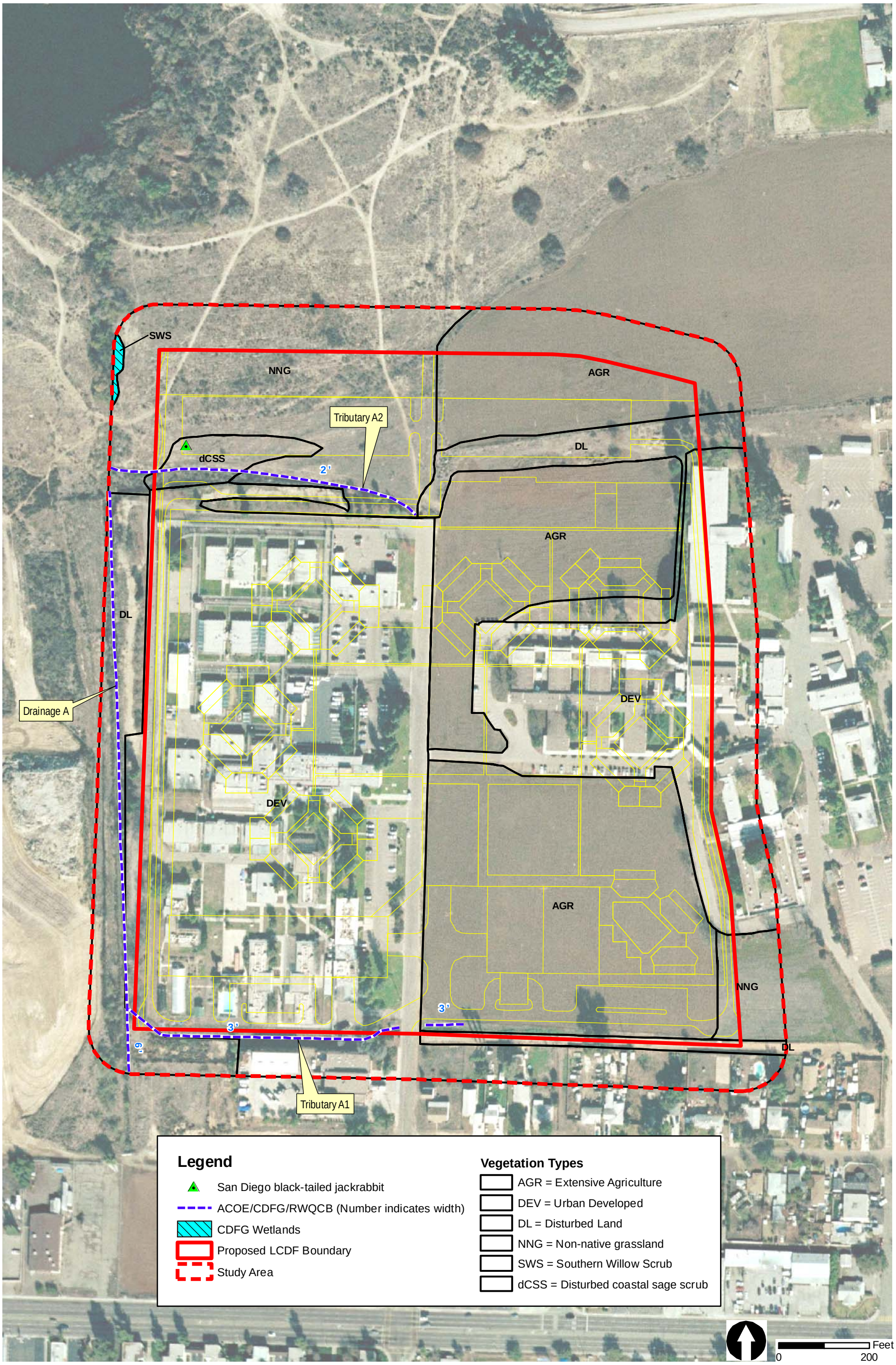


AERIAL SOURCE: AirphotoUSA 2006

Las Colinas Detention Facility Biological Resources Letter

Biological Resources

FIGURE 3



AERIAL SOURCE: AirphotoUSA 2006

Las Colinas Detention Facility Biological Resources Letter

Biological Resources with Site Plan

FIGURE 4

ACKNOWLEDGMENTS

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APPENDIX A

List of Vascular Plant Species
Observed On-site

APPENDIX A

VASCULAR PLANT SPECIES OBSERVED ON THE PROJECT SITE

Plant Family	Scientific Name	Common Name	Sensitivity Status
Pinaceae – Pine Family	**Pinus* sp.	Pine	None
Amaranthaceae - Amaranth Family	**Amaranthus* sp.	pigweed	None
Asteraceae – Sunflower Family	*Ambrosia psilostachya*	western ragweed	None
	Baccharis sarothroides	broom baccharis	None
	**Centaurea melitensis*	star-thistle, tocalote	None
	Conyza canadensis	Horseweed	None
	Heterotheca grandiflora	telegraph weed	None
	Isocoma menziesii ssp. *menziesii*	spreading goldenbush	None
	*Sonchus oleraceus**	common sow thistle	None
Brassicaceae – Mustard Family	**Brassica rapa*	turnip, field mustard	None
	**Descurainia* sp.	tansy mustard	None
	**Hirschfeldia incana*	short-pod mustard	None
	**Sisymbrium irio*	London rocket	None
Caprifoliaceae – Honeysuckle Family	*Sambucus mexicana*	blue elderberry	None
Chenopodiaceae – Goosefoot Family	**Atriplex* sp.	saltbush	None
	**Chenopodium* sp.	goosefoot	None
	**Salsola tragus*	Russian thistle, tumbleweed	None
Cucurbitaceae – Gourd Family	*Cucurbita foetidissima*	calabazilla, stinking gourd	None
Euphorbiaceae – Spurge Family	*Croton californicus*	California croton	None
	Eremocarpus setigerus	dove weed, turkey mullein	None
Geraniaceae – Geranium Family	**Erodium sp.*	filaree, storksbill	None
Hydrophyllaceae - Waterleaf Family	*Phacelia* sp.	phacelia	None
Lamiaceae – Mint Family	**Marrubium vulgare*	horehound	None
Meliaceae – Mahogany Family	**Melia azedarach*	China berry, Persian lilac	None
Moraceae – Mulberry Family	**Ficus* sp.	Fig	None
Myrtaceae – Myrtle Family	**Eucalyptus* sp.	eucalyptus	None
Onagraceae – Evening Primrose Family	*Camissonia bistorta*	California sun cup	None
	Epilobium ciliatum ssp *ciliatum*	willow herb	None
Polygonaceae – Buckwheat Family	*Eriogonum gracile* var. *gracile*	slender buckwheat	None
	Polygonum arenastrum	common knotweed, doorweed	None
	Rumex crispus	curly dock	None
Primulaceae – Primrose Family	**Anagallis arvensis*	scarlet pimpernel	None
Solanaceae – Nightshade Family	*Datura wrightii*	Jimson weed	None
Tamaricaceae – Tamarisk Family	**Tamarix ramosissima*	salt-cedar	None
Zygophyllaceae – Caltrop Family	**Tribulus terrestris*	puncture vine	None
Arecaceae – Palm Family	**Washingtonia robusta*	Mexican fan palm	None
Cyperaceae - Sedge Family	**Cyperus involucratus*	African umbrella plant	None
Poaceae – Grass Family	**Avena* sp.	wild oats	None
	**Bromus hordeaceus*	soft chess	None
	**Bromus madritensis* ssp. *rubens*	foxtail chess	None
	* *Distichlis spicata*	saltgrass	None
	**Hordeum* sp.	barley (cultivated)	None
	**Lolium multiflorum*	Italian ryegrass	None
	**Paspalum dilatatum*	dallis grass	None
	**Polypogon monspeliensis*	annual beard grass	None
	**Schismus barbatus*	Mediterranean schismus	None
	**Vulpia myuros*	rat-tail fescue	None

APPENDIX B

Cumulative List of Wildlife Species Observed On-site

APPENDIX B

WILDLIFE SPECIES –OBSERVED ON THE PROJECT SITE

Wildlife Family	Scientific Name	Common Name	Sensitivity Status
Iguanidae - Iguanid Lizards	*Sceloporus occidentalis*	western fence lizard	None
Accipitridae - Hawks	*Buteo jamaicensis*	red-tailed hawk	None
Columbidae - Pigeons & Doves	**Columba livia*	rock dove	None
	Zenaida macroura	mourning dove	None
Trochilidae - Hummingbirds	*Calypte costae*	Costa's hummingbird	None
	Calypte anna	Anna's hummingbird	None
Tyrannidae - Tyrant Flycatchers	*Sayornis nigricans*	black phoebe	None
	Tyrannus verticalis	western kingbird	None
Hirundinidae - Swallows	*Stelgidopteryx serripennis*	northern rough-winged swallow	None
Corvidae - Jays & Crows	*Corvus brachyrhynchos*	American crow	None
	Corvus corax	common raven	None
Troglodytidae - Wrens	*Thryomanes bewickii*	Bewick's wren	None
Emberizidae - Buntings & Sparrows	*Pipilo crissalis*	California towhee	None
Fringillidae - Finches	*Carpodacus mexicanus*	house finch	None
	Carduelis psaltria	lesser goldfinch	None
Leporidae - Hares & Rabbits	*Lepus californicus*	black-tailed jackrabbit	Calif. Special Concern Species
	Sylvilagus bachmani	brush rabbit	None
Sciuridae - Squirrels	*Spermophilus beecheyi*	California ground squirrel	None
Geomyidae - Pocket Gophers	*Thomomys bottae*	Botta's pocket gopher	None
Canidae - Wolves & Foxes	**Canis familiaris*	domestic dog	None
	Canis latrans	Coyote	None
Papilionidae - Swallowtails	*Papilio rutulus*	tiger swallowtail	None
Pieridae - Whites and Sulfurs	*Pontia protodice*	checkered white	None
Nymphalidae - Brush-Footed Butterflies	*Junonia coenia*	buckeye	None

* signifies introduced (non-native) species

APPENDIX C

Wetland Delineation Worksheets

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: CA County/parish/borough: San Diego City: Santee
Center coordinates of site (lat/long in degree decimal format): Lat. 32.842003° **N**, Long. 116.974653° **W**.
Universal Transverse Mercator: 502487.875, 3633807.568
Name of nearest waterbody: San Diego River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Pacific Ocean
Name of watershed or Hydrologic Unit Code (HUC): San Diego River/Lower San Diego River

- ☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
- ☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- ☒ Office (Desk) Determination. Date: 07/05/07
- ☒ Field Determination. Date(s): 07/06/07

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

- ☐ Waters subject to the ebb and flow of the tide.
- ☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☐ Wetlands adjacent to TNWs
   - ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
   - ☒ Non-RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands: n/a acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Established by OHWM.**
   Elevation of established OHWM (if known): approx. 340 ft above MSL.

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   - ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Excavation in upland, maintained ditch with no OHWM draining surface street and agricultural field**.

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: **n/a**.

Summarize rationale supporting determination: n/a.

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": n/a.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 440 **square miles**
Drainage area: ~6 **acres**
Average annual rainfall: 12.78 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through **2** tributaries before entering TNW.

Project waters are **15-20** river miles from TNW.
Project waters are **1 (or less)** river miles from RPW.
Project waters are **15-20** aerial (straight) miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: n/a.

Identify flow route to TNW[5]: channelized to impounded portion of San Diego River.
Tributary stream order, if known: 2.

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[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is:
- ☐ Natural
- ☒ Artificial (man-made). Explain: excavation; channelized.
- ☒ Manipulated (man-altered). Explain: vegetation maintained.

Tributary properties with respect to top of bank (estimate):
Average width: 5 feet
Average depth: 10 feet
Average side slopes: **2:1.**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☒ Vegetation. Type/% cover: <1	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: highly erodible.
Presence of run/riffle/pool complexes. Explain: n/a.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): <1 %

(c) Flow:
Tributary provides for: **Ephemeral flow**
Estimate average number of flow events in review area/year: **2-5**
Describe flow regime: localized urban runoff transported impounded portion of San Diego River (RPW).
Other information on duration and volume: earthen trapezoidal channel with channel scour at base.

Surface flow is: **Discrete and confined.** Characteristics: no evidence of prolonged ponding.

Subsurface flow: **Unknown**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
- ☒ Bed and banks
- ☒ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☒ scour
☒ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

- ☐ Discontinuous OHWM.[7] Explain:graded channel has swale-like features; highly eroded.

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: no surface water present; urban areas, surface streets, and localized agricultural area drained.
Identify specific pollutants, if known: .

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

☐ Riparian corridor. Characteristics (type, average width): willow woodland present at northern extent continuing outside 100-ft buffer.

☐ Wetland fringe. Characteristics: n/a.

☐ Habitat for:

☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain: .

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

☐ Riparian buffer. Characteristics (type, average width): .

☐ Vegetation type/percent cover. Explain: .

☐ Habitat for:

☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
n/a			

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: n/a.

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: n/a.

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: n/a.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☒ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: **.**

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **.**

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

---

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☒ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: **excavation in upland; earthen swale (2 feet); man-made; County-maintained; limited veg; no bio value.**
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas: 18070304.
☒ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: El Cajon.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: San Diego Area.
☒ National wetlands inventory map(s). Cite name: El Cajon (on-line wetland mapper).
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☐ Aerial (Name & Date): .
or ☒ Other (Name & Date): Dudek 07/06/07.
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: CA County/parish/borough: San Diego City: Santee
Center coordinates of site (lat/long in degree decimal format): Lat. 32.842003° **N**, Long. 116.974653° **W**.
Universal Transverse Mercator: 502487.875, 3633807.568
Name of nearest waterbody: San Diego River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Pacific Ocean
Name of watershed or Hydrologic Unit Code (HUC): San Diego River/Lower San Diego River

- ☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
- ☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- ☒ Office (Desk) Determination. Date: 07/05/07
- ☒ Field Determination. Date(s): 07/06/07

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

- ☐ Waters subject to the ebb and flow of the tide.
- ☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☐ Wetlands adjacent to TNWs
   - ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
   - ☐ Non-RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands: acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Not Applicable.**
   Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   - ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Excavation in upland, maintained ditch with no OHWM draining surface street and agricultural field**.

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: **n/a**.

Summarize rationale supporting determination: n/a.

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": n/a.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 440 **square miles**
Drainage area: ~6 **acres**
Average annual rainfall: 12.78 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through **2** tributaries before entering TNW.

Project waters are **15-20** river miles from TNW.
Project waters are **1 (or less)** river miles from RPW.
Project waters are **15-20** aerial (straight) miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: n/a.

Identify flow route to TNW[5]: channelized to Drainage A, which is channelized to impounded portion of San Diego River.
Tributary stream order, if known: 1.

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[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is:
- ☐ Natural
- ☒ Artificial (man-made). Explain: excavation; channelized.
- ☒ Manipulated (man-altered). Explain: vegetation maintained.

Tributary properties with respect to top of bank (estimate):
Average width: 2 feet
Average depth: 2 feet
Average side slopes: **2:1.**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☒ Vegetation. Type/% cover: 5-15	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: highly erodible.
Presence of run/riffle/pool complexes. Explain: n/a.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): <1 %

(c) Flow:
Tributary provides for: **Ephemeral flow**
Estimate average number of flow events in review area/year: **1**
Describe flow regime: localized agricultural runoff transported underneath and btwn LCDF facilities to non-RPW.
Other information on duration and volume: earthen trapezoidal channel 3-feet in depth with minor channel scour at base.

Surface flow is: **Discrete and confined.** Characteristics: no evidence of prolonged ponding.

Subsurface flow: **Unknown**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
- ☒ Bed and banks
- ☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

- ☒ Discontinuous OHWM.[7] Explain:graded channel has swale-like features; highly eroded.

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: no surface water present; surface street and localized agricultural area drained.
Identify specific pollutants, if known: .

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

☐ Riparian corridor. Characteristics (type, average width): n/a.
☐ Wetland fringe. Characteristics: n/a.
☐ Habitat for:
  ☐ Federally Listed species. Explain findings: .
  ☐ Fish/spawn areas. Explain findings: .
  ☐ Other environmentally-sensitive species. Explain findings: .
  ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size: acres
Wetland type. Explain: .
Wetland quality. Explain: .
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**
Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .
☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:
☐ Directly abutting
☐ Not directly abutting
  ☐ Discrete wetland hydrologic connection. Explain: .
  ☐ Ecological connection. Explain: .
  ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW
Project wetlands are **Pick List** river miles from TNW.
Project waters are **Pick List** aerial (straight) miles from TNW.
Flow is from: **Pick List.**
Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .
Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

☐ Riparian buffer. Characteristics (type, average width): .
☐ Vegetation type/percent cover. Explain: .
☐ Habitat for:
  ☐ Federally Listed species. Explain findings: .
  ☐ Fish/spawn areas. Explain findings: .
  ☐ Other environmentally-sensitive species. Explain findings: .
  ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**
Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
n/a			

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: n/a.

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: n/a.

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: n/a.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: **.**

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **.**

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

---

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☒ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: **excavation in upland; earthen swale (2 feet); man-made; County-maintained; limited veg; no bio value.**
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas: 18070304.
☒ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: El Cajon.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: San Diego Area.
☒ National wetlands inventory map(s). Cite name: El Cajon (on-line wetland mapper).
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☐ Aerial (Name & Date): .
or ☒ Other (Name & Date): Dudek 07/06/07.
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: CA County/parish/borough: San Diego City: Santee
Center coordinates of site (lat/long in degree decimal format): Lat. 32.842003° **N**, Long. 116.974653° **W**.
Universal Transverse Mercator: 502487.875, 3633807.568
Name of nearest waterbody: San Diego River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Pacific Ocean
Name of watershed or Hydrologic Unit Code (HUC): San Diego River/Lower San Diego River

- ☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
- ☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- ☒ Office (Desk) Determination. Date: 07/05/07
- ☒ Field Determination. Date(s): 07/06/07

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

- ☐ Waters subject to the ebb and flow of the tide.
- ☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☐ Wetlands adjacent to TNWs
   - ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
   - ☐ Non-RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands: acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Not Applicable.**
   Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   - ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Excavation in upland, maintained ditch with no OHWM draining surface street and agricultural field**.

---

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: **n/a**.

Summarize rationale supporting determination: n/a.

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": n/a.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 440 **square miles**
Drainage area: ~6 **acres**
Average annual rainfall: 12.78 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through **2** tributaries before entering TNW.

Project waters are **15-20** river miles from TNW.
Project waters are **1 (or less)** river miles from RPW.
Project waters are **15-20** aerial (straight) miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: n/a.

Identify flow route to TNW[5]: channelized to Drainage A, which is channelized to impounded portion of San Diego River.
Tributary stream order, if known: 1.

---

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is:
- ☐ Natural
- ☒ Artificial (man-made). Explain: excavation; channelized.
- ☒ Manipulated (man-altered). Explain: vegetation maintained.

Tributary properties with respect to top of bank (estimate):
Average width: 2 feet
Average depth: 2 feet
Average side slopes: **2:1.**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☒ Vegetation. Type/% cover: 5-15	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: highly erodible.
Presence of run/riffle/pool complexes. Explain: n/a.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): <1 %

(c) Flow:
Tributary provides for: **Ephemeral flow**
Estimate average number of flow events in review area/year: **1**
Describe flow regime: localized agricultural runoff transported underneath and btwn LCDF facilities to non-RPW.
Other information on duration and volume: earthen trapezoidal channel 3-feet in depth with minor channel scour at base.

Surface flow is: **Discrete and confined.** Characteristics: no evidence of prolonged ponding.

Subsurface flow: **Unknown**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
- ☒ Bed and banks
- ☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

- ☒ Discontinuous OHWM.[7] Explain:graded channel has swale-like features; highly eroded.

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: no surface water present; surface street and localized agricultural area drained.
Identify specific pollutants, if known: .

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

☐ Riparian corridor. Characteristics (type, average width): n/a.
☐ Wetland fringe. Characteristics: n/a.
☐ Habitat for:
  ☐ Federally Listed species. Explain findings: .
  ☐ Fish/spawn areas. Explain findings: .
  ☐ Other environmentally-sensitive species. Explain findings: .
  ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size: acres
Wetland type. Explain: .
Wetland quality. Explain: .
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**
Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .
☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:
☐ Directly abutting
☐ Not directly abutting
  ☐ Discrete wetland hydrologic connection. Explain: .
  ☐ Ecological connection. Explain: .
  ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW
Project wetlands are **Pick List** river miles from TNW.
Project waters are **Pick List** aerial (straight) miles from TNW.
Flow is from: **Pick List.**
Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .
Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

☐ Riparian buffer. Characteristics (type, average width): .
☐ Vegetation type/percent cover. Explain: .
☐ Habitat for:
  ☐ Federally Listed species. Explain findings: .
  ☐ Fish/spawn areas. Explain findings: .
  ☐ Other environmentally-sensitive species. Explain findings: .
  ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**
Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
n/a			

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: n/a.

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: n/a.

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: n/a.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: **.**

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **.**

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

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[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☒ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: **excavation in upland; earthen swale (2 feet); man-made; County-maintained; limited veg; no bio value.**
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas: 18070304.
☒ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: El Cajon.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: San Diego Area.
☒ National wetlands inventory map(s). Cite name: El Cajon (on-line wetland mapper).
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☐ Aerial (Name & Date): .
or ☒ Other (Name & Date): Dudek 07/06/07.
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

APPENDIX D

Wetland Determination Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: LAS COLINAS DETENTION FACILITY City/County: SANTEE SAN DIEGO Sampling Date: 07/26/07

Applicant/Owner: COUNTY OF SAN DIEGO State: CA Sampling Point: 1 (At 4)

Investigator(s): R. HENRY, T. SMITH Section, Township, Range: 27, T15S, R1W

Landform (hillslope, terrace, etc.): STREAMBED Local relief (concave, convex, none): CONCAVE Slope (%): 1

Subregion (LRR): C Lat: 32.842003 Long: 116.974653 Datum: NAD 83

Soil Map Unit Name: GRANGEVILLE FINE SANDY LOAM 0-2% NWI classification: PUBHx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.) BELOW NORM PRECIP

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix goodingii	90	✓	OBL
2. Salix laseolepis	20		FACW
3. Tamarix	10		FAC
4.			
Total Cover:	120		
Sapling/Shrub Stratum			
1. Baccharis Salicofolia	5	✓	FACW
2.			
3.			
4.			
5.			
Total Cover:	5		
Herb Stratum			
1. Bromus diandrus	40	✓	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	40		
Woody Vine Stratum			
1.			
2.			
Total Cover:	—		

% Bare Ground in Herb Stratum 60 % Cover of Biotic Crust —

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	25	x 2 =	50
FAC species	10	x 3 =	30
FACU species		x 4 =	
UPL species	40	x 5 =	200
Column Totals:	165 (A)		370 (B)

Prevalence Index = B/A = 2.2

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:
Southern willow scrub veg community; ephemeral wash; open understory

SOIL

Sampling Point: 1 (AE4)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/3	100					Sa	dry
12-20	10YR 3/3	100					SiL	moist

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ___ No ✓

Remarks:
Soil pit excavated w/i OHWM under SWS canopy

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ✓ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ___ No ✓ Depth (inches): >20

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >20

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
USGS stream gauge (11022480) upstream – 25.5 cfs annual mean

Remarks:
Ephemeral reach tributary to impounded portion of San Diego River

APPENDIX E

Special Status Plant Species that Occur or Potentially Occur Onsite

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Scientific Name Common Name	Sensitivity Code & Status (Federal/ State/ MSCP/ CNPS/County List)[1]	Habitat Requirements/ Life Form/Blooming Period	Verified on Site/ Documented off site[2]	Potential to Occur On Site	Factual Basis for Determination
Acanthomintha ilicifolia San Diego thornmint	FT/ SE/ MSCP NE/ 1B.1/List A	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools, clays/ annual herb/ April-June	No/ No	Low	No suitable soils.
Adolphia californica California adolphia	None/ None/ None/ 2.1/ List B	Chaparral, coastal sage scrub, valley and foothill grassland, clays/ shrub/December-April	No/ No	Low	No suitable soils. Shrub would have been observed during survey.
Agave shawii Shaw's agave	None/ None/ MSCP/ 2.1/ List B	Coastal bluff scrub, coastal sage scrub/ shrub/ May-July	No/ No	Low	Outside of known range.
Ambrosia chenopodiifolia San Diego bur-sage	None/ None/ None/ 2.1/ List B	Coastal sage scrub/ shrub/ April-June	No/ No	Low	Moderate potential habitat, but shrub would have been observed.
Ambrosia monogyra Singlewhort burrobrush	None/ None/ None/ 2.2	Chaparral, Sonoran desert scrub; sandy/ shrub/ August - November	No/ No	Low	No suitable habitat.
Ambrosia pumila San Diego ambrosia	FE/ None/ MSCP NE/ 1B.1/ List A	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools, often in disturbed areas, sometimes alkaline / perennial herb/ April – October	No/ No	Low	Moderate potential habitat, but not observed during spring or summer surveys during flowering period.
Aphanisma blitoides Aphanisma	None/ None/ MSCP/ 1B.2/List A	Coastal bluff scrub, coastal sage scrub, sandy soils/ annual herb/ April-May	No/ No	Low	Outside of known (coastal) range.
Arctostaphylos glandulosa ssp. *crassifolia* Del Mar manzanita	FE/ None/ MSCP/ 1B.1/ List A	Southern maritime chaparral, sandy mesas and bluffs/ shrub/ December-April	No/ No	Low	No suitable habitat. Conspicuous shrub would have been observed.
Arctostaphylos otayensis Otay manzanita	None/ None/ MSCP/ 1B.2/ List A	Chaparral, cismontane woodland, volcanic substrates/ shrub/ January-March	No/ No	Low	No suitable habitat or soils.
Artemisia palmeri San Diego sagewort	None/ None/ None /4.2	Chaparral, coastal sage scrub, riparian forest and scrub, sandy soils/ shrub/ July-September	No/ No	Low	Moderate potential habitat, but shrub not observed during early blooming period.

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Astragalus deanei Dean's milk-vetch	None/ None/ None/ 1B.1/ List A	Chaparral, coastal sage scrub, riparian forest / perennial herb/ March-May	No/ No	Low	Microhabitat (open, brushy south-facing slopes in Diegan coastal sage, sometimes on recently burned-over hillsides) not present. Fewer than 15 occurrences, most not verified.
Astragalus oocarpus San Diego milk-vetch	None/ None/ None/ 1B.2/ List A	Chaparral (openings), cismontane woodland/ perennial herb/ May-August	No/ No	Low	No suitable habitat.
Astragalus tener var. *titi* Coastal dunes milk-vetch	FE/ SE/ MSCP/ 1B.1/ List A	Coastal bluff scrub, coastal dunes/ annual herb/ March-May	No/ No	Low	Outside of known (coastal) range.
Atriplex coulteri Coulter's saltbush	None/ None/ None/ 1B.2/ List A	Coastal bluff scrub, coastal dunes, coastal sage scrub, valley and foothill grassland, alkaline or clay soils/ perennial herb/ March-October	No/ No	Low	Moderate potential habitat; but perennial was not observed during flowering period.
Atriplex pacifica South Coast saltscale	None/ None/ None/ 1B.2/ List A	Coastal bluff scrub, coastal sage scrub, playas/ annual herb/ March-October	No/ No	Low	Outside of know (coastal) range.
Baccharis vanessae Encinitas baccharis	FT/ SE/ MSCP NE/ 1B.1/ List A	Chaparral on sandstone/ shrub/ August-November	No/ No	Low	No suitable habitat or soils.
Berberis nevinii Nevin's barberry	FE/ SE/ MSCP NE / 1B.1/ List A	Chaparral, cismontane woodland, coastal sage scrub, riparian scrub, sandy or gravelly soils/ shrub/ March-April	No/ No	Low	Moderate potential habitat, but shrub not observed during survey.
Bergerocactus emoryi Golden-spined cereus	None/ None/ None/ 2.2/ List B	Closed-cone conifer forest, chaparral, coastal sage scrub, sandy soils/ shrub/ May-June	No/ No	Low	Outside of know (coastal) range.
Brodiaea filifolia Thread-leaved brodiaea	FT/ SE/ MSCP NE / 1B.1/ List A	Coastal sage scrub, cismontane woodland, valley and foothill grassland, vernal pools, clays/ perennial herb/ March-June	No/ No	Low	Outside of known range.
Brodiaea orcuttii Orcutt's brodiaea	None/ None/ MSCP/ 1B.1/ List A	Closed-cone conifer forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, vernal pools, clays/ perennial herb/ May-July	No/ No	Low	No suitable soils.

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Calamagrostis densa Dense reed grass	None/ None/ MSCP/ None	Coastal sage scrub, chaparral on gabbro or metavolcanic soils/ perennial herb/ June – July	No/ No	Low	No suitable soils.
California [= *Erodium*] *macrophylla* Round-leaved filaree	None/ None/ None/ 1B.1	Cismontane woodland, valley and foothill grassland; clay/ annual herb / March – May	No/ No	Low	No suitable soils.
Calochortus dunnii Dunn's mariposa lily	None/ SR/ MSCP NE/ 1B.2/ List A	Closed-cone conifer forest, chaparral, gabbroic soils/ perennial herb/ May-June	No/ No	Low	No suitable habitat or soils.
Camissonia lewisii Lewis's evening primrose	None/ None/ None/ 3/ List C	Coastal bluff scrub, cismontane woodland, coastal dunes, coastal sage scrub, valley and foothill grassland, sandy or clay soils/ annual herb/ March-June	No/ No	Low	Reports of inland populations are questionable (Reiser 2001).
Carex obispoensis San Luis Obispo sedge	None/ None/ None/ 1B.2	Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland; often serpentinite seeps, sometimes gabbro/ rhizomatous herb/ April - June	No/ No	Low	Preferred soil substrate lacking.
Caulanthus stenocarpus Slender-pod jewelflower	None/ SR/ MSCP/ None	Chaparral, coastal sage scrub/ annual herb, fire follower/ March-May	No/ No	Not applicable	Invalid taxon (CDFG 2000)
Ceanothus cyaneus Lakeside ceanothus	None/ None/ MSCP NE/ 1B.2/ List A	Closed-cone conifer forest, chaparral/ shrub/ April-June	No/ No	Low	No suitable habitat; out of known range.
Ceanothus otayensis Otay Mountain ceanothus	None/ None/ None/ 1B.2	Chaparral; metavolcanic or gabbroic/ evergreen shrub/ January - April	No/ No	Low	No suitable habitat or soils.
Ceanothus verrucosus Wart-stemmed ceanothus	None/ None/ MSCP/ 2.2/ List B	Chaparral / evergreen shrub / December - May	No/ No	Low	No suitable habitat.

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Centromadia [Hemizonia] pungens ssp. *laevis* Smooth tarplant	None/ None/ None/ 1B.1/ List A	Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland/ annual herb/ April-September	No/ Yes	Low	Moderate quality habitat present, but not observed during focused survey during blooming period. About 700 plants observed 0.3 mile south-southwest of nearest natural habitat on site (RECON 2005).
Chamaebatia australis Southern mountain misery	None/ None/ None/ 4.2/ List D	Chaparral/ shrub/ November-May	No/ No	Low	No suitable habitat.
Convolvulus simulans Small-flowered morning-glory	None/ None/ None/ 4.2/ List D	Coastal sage scrub, valley and foothill grassland, clay, serpentinite seeps/annual herb/ March-June	No/ No	Low	No suitable soils.
Cordylanthus maritimus ssp. *maritimus* Salt marsh bird's-beak	FE/ SE/ MSCP/ 1B.2/ List A	Coastal dunes, coastal saltwater marshes and swamps/ annual herb/ May-October	No/ No	Low	No suitable habitat, outside of known (coastal) range.
Cordylanthus orcuttianus Orcutt's bird's-beak	None/ None/ MSCP/ 2.1/ List B	Coastal sage scrub/ annual herb/ March-July	No/ No	Low	Outside of known range.
Cupressus forbesii Tecate cypress	None/ None/ MSCP/ 1B.1/ List A	Closed-cone conifer forest, chaparral/ tree/NA	No/ No	Low	No suitable habitat, outside of known range.
Deinandra [=*Hemizonia*] *conjugens* Otay tarplant	FT/ SE/ MSCP NE/ 1B.1/ List A	Coastal sage scrub, valley and foothill grassland, clays/ annual herb/ May-June	No/ No	Low	No suitable soil substrate;
Dichondra occidentalis Western dichondra	None/ None/ None/ 4.2/ List D	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland/ perennial herb/ March-May	No/ No	Low	East of known geographic range (Reiser 2001); habitat marginal.

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Dudleya brevifolia Short-leaved dudleya	None/ SE/ MSCP/ 1B.1	Chaparral, coastal sage scrub, Torrey sandstone/ perennial herb/ April	No/ No	Low	No suitable habitat.
Dudleya variegata Variegated dudleya	None/ None/ MSCP NE/ 1B.2/ List A	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland, vernal pools/ perennial herb/ May-June	No/ No	Low	Outside of known (coastal) range.
Dudleya viscida Sticky dudleya	None/ None/ MSCP/ 1B.2/ List A	Coastal bluff scrub, chaparral, coastal sage scrub, rocky areas/ perennial herb/ May-June	No/ No	Low	Outside of known (northern) range.
Ericameria palmeri ssp. *palmeri* Palmer's goldenbush	None/ None/ MSCP NE/ 2.2/ List B	Coastal sage scrub/ shrub/ September-November	No/ No	Low	Moderate potential habitat, but shrub would have been observed.
Eryngium aristulatum var. *parishii* San Diego button-celery	FE/ SE/ MSCP NE/ 1B.1/ List A	Coastal sage scrub, valley and foothill grassland, vernal pools, mesic areas/ annual-perennial herb/ April-June	No/ No	Low	Vernal pool habitat not present.
Erysimum ammophilum Coast wallflower	None/ None/ MSCP/ 1B.2	Coastal dunes/ perennial herb/ February-June	No/ No	Low	Outside of known (coastal) range.
Ferocactus viridescens San Diego barrel cactus	None/ None/ MSCP/2.1/ List B	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools/ shrub/ May-June	No/ No	Low	Moderate potential habitat, but cactus would have been observed.
Frankenia palmeri Palmer's frankenia	None/ None/ None/ 2.1/ List B	Coastal dunes, saltwater marsh and swamps, playas/ perennial herb/ May-July	No/ No	Low	No suitable habitat.
Fremontodendron mexicanum Mexican flannelbush	FE/ SR/ None 1B.1/ List A	Closed-cone conifer forest, chaparral, cismontane woodland, gabbroic or serpentinite soils/ shrub/ March-June	No/ No	Low	No suitable habitat or soils.
Geothallus tuberosus Campbell's liverwort	None/ None/ None/ 1B.1	Coastal scrub (mesic), vernal pools; soil/ ephemeral liverwort/ N/A	No/ No	Low	Site lacks mesic microhabitat.
Githopsis diffusa ssp. *filicaulis* Mission Canyon bluecup	None/ None/ None/ 3.1/ List C	Chaparral (mesic, disturbed areas)/ annual herb/ May	No/ No	Low	No suitable habitat; outside of known elevational range.

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Harpagonella palmeri Palmer's grapplinghook	None/ None/ None/ 4.2/ List D	Chaparral, coastal sage scrub, valley and foothill grassland, clays/ annual herb/ March-April	No/ No	Low	No suitable soils.
Holocarpha virgata ssp. *elongata* Graceful tarplant	None/ None/ None/ 4.2/ List D	Coastal sage scrub, cismontane woodland, chaparral(?), valley and foothill grassland/ annual herb/ August-November	No/ No	Low	Moderate potential habitat, but not observed during summer survey. Plant in vegetative state would have been recognizable at time of survey.
Hordeum intercedens Vernal barley	None/ None/ None/ 3. 2/ List C	Valley and foothill grassland (saline flats and depressions), vernal pools/ annual herb/ March-June	No/ No	Low	Microhabitat not present on site.
Horkelia truncata Ramona horkelia	None/ None/ None/ 1B.3/ List A	Chaparral, cismontane woodland, clays/ perennial herb/ May-June	No/ No	Low	No suitable habitat of soils.
Isocoma menziesii var. *decumbens* Decumbent goldenbush	None/ None/ None/ 1B.2/ List A	Coastal sage scrub (sandy, often disturbed areas)/ shrub/ April-November	No/ No	Low	Moderate potential habitat, but not observed during summer survey. Even if not in flower, plant would have been recognizable.
Iva hayesiana San Diego marsh-elder	None/ None/ None/ 2.2/ List B	Playas, riparian, floodplain-upland ecotone/ perennial herb/ April-September	No/ No	Low	No suitable habitat.
Juncus acutus spp. *leopoldii* Southwestern spiny rush	None/ None/ None/ 4.2/ List D	Coastal dunes, meadows and seeps (alkaline), saltwater marsh/ perennial herb/ May-June	No/ No	Low	No suitable habitat.
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	None/ None/ None/ 1B.1/ List A	Saltwater marsh and swamps, playas, vernal pools/ annual herb/ February-June	No/ No	Low	No suitable habitat.
Lepechinia cardiophylla Heart-leaved pitcher sage	None/ None/ MSCP/ 1B.2/ List A	Closed-cone conifer forest, chaparral, cismontane woodland/ shrub/ April-July	No/ No	Low	No suitable habitat.
Lepechinia ganderi Gander's pitcher sage	None/ None/ MSCP NE/ 1B.3/ List A	Closed-cone conifer forest, chaparral, coastal sage scrub, valley and foothill grassland/ shrub/ June-July	No/ No	Low	Outside of known elevational range.

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Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	None/ None/ None/ 1B.2/ List A	Chaparral, coastal sage scrub/ annual herb/ January-April	No/ No	Moderate potential; surveys were negative	Marginal suitable habitat present, annual plant could have completed life cycle prior to July survey. Survey conducted in March was negative.
Lessingia filaginifolia [=*Corethrogyne filaginifolia* var. *linifolia*] Del Mar Mesa sand aster	None/ None/ MSCP/ 1B.1	Chaparral, coastal sage scrub/ perennial herb/ July-September	No/ No	Low	Outside of known (coastal) range.
Lotus nuttallianus Nuttall's lotus	None/ None/ MSCP/ 1B.1/ List A	Coastal dunes, coastal sage scrub/ annual herb/ March-June	No/ No	Low	Outside of known (coastal) range.
Microseris douglasii var. *platycarpha* Small-flowered microseris	None/ None/ None/ 4.2/ List D	Cismontane woodland, coastal sage scrub, valley and foothill grassland, clays/ annual herb/ March-May	No/ No	Low	No suitable soils.
Monardella hypoleuca ssp. *lanata* Felt-leaved monardella	None/ None/ MSCP NE/ 1B.2/ List A	Chaparral, cismontane woodland/ perennial herb/ May-July	No/ No	Low	No suitable habitat.
Monardella viminea willowy monardella	FE/ SE/ MSCP 1B.1/ List A	Closed-cone conifer forest, chaparral, riparian forest, woodland, and scrub/ perennial herb/ June-August	No/ No	Low	No suitable habitat on site. Not observed during flowering period.
Muilla clevelandii San Diego goldenstar	None/ None/ MSCP/ 1B.1/ List A	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools/ perennial herb/ May	No/ No	Low	Preferred soil substrate (clay, or sandy loam between vernal pools) not present. Low potential.
Myosurus minimus ssp. *apus* Little mousetail	None/ None/ None/ 3.1/ List C	Vernal pools (alkaline)/ annual herb/ March-June	No/ No	Low	No suitable habitat.
Nama stenocarpum mud nama	None/ None/ None/ 2.2/ List B	Marsh and swamps, lake margins and riverbanks/ annual-perennial herb/ January-July	No/ No	Low	No suitable habitat.

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Navarretia fossalis Spreading navarretia	FT/ None/ MSCP/ 1B.1/ List A	Chenopod scrub, shallow freshwater marsh and swamps, vernal pools/ annual herb/ April-June	No/ No	Low	No suitable habitat.
Navarretia prostrata Prostrate navarretia	None/ None/ None/ 1B.1/ List A	Coastal scrub, meadows and seeps, valley and foothill grassland (alkaline), vernal pools; mesic/ annual herb/ April-July	No/ No	Low	Not reported in (9 quad) vicinity. Not observed during late flowering period.
Nemacaulis denudata var. *denudata* Coast woolly-heads	None/ None/ None/ 1B.2/ List A	Coastal dunes / annual herb/ April-September	No/ No	Low	No suitable habitat.
Nolina interrata Dehesa nolina	None/ SE/ MSCP / 1B.1/ List A	Chaparral, gabbroic or serpentinite soils/ perennial herb/ June-July	No/ No	Low	No suitable habitat of soils.
Ophioglossum californicum California adder's-tongue	None/ None/ None/ 4.2/ List D	Chaparral, valley and foothill grassland, vernal pools (margins)/ perennial herb/ December-May	No/ No	Low	Site lacks mesic microhabitat.
Opuntia californica var. *californica* [= *O. parryi* var. *serpentina*] Snake cholla	None/ None/ MSCP NE/ 1B.1/ List A	Chaparral, coastal sage scrub/ shrub/ April-May	No/ No	Low	Conspicuous plant not observed during surveys.
Orcuttia californica California Orcutt grass	FE/ SE/ MSCP NE/ 1B.1/ List A	Vernal pools/ annual herb/ April-June	No/ No	Low	No suitable habitat.
Packera [=*Senecio*] *ganderi* Gander's ragwort	None/ SR/ MSCP/ 1B.2/ List A	Chaparral (burned areas and gabbroic outcrops)/ perennial herb/ April-May	No/ No	Low	No suitable habitat.
Pentachaeta aurea Golden-rayed pentachaeta	None/ None/ None/ 4.2/ List D	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland, valley and foothill grassland / annual herb/ March – July	No/ No	Moderate potential; surveys were negative	Marginally suitable habitat present. Plant may have completed life cycle prior to July survey. Spring survey was negative.
Pinus torreyana spp. *torreyana* Torrey pine	None/ None/ MSCP/ 1B.2/ List A	Closed-cone conifer forest, chaparral, sandstone/ tree/NA	No/ No	Low	Outside of known range.

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Piperia cooperi Cooper's rein orchid	None/ None/ None/ 4.2/ List D	Chaparral, cismontane woodland, valley and foothill grassland/ perennial herb/ March – June	No/ No	Moderate potential; surveys were negative	Marginal suitable habitat present. Perennial herb may not have emerged or might have withered prior to July survey. Spring survey was negative.
Pogogyne abramsii San Diego mesa mint	E/ SE/ MSCP NE/ 1B.1/ List A	Vernal pools/ annual herb/ April-June	No/ No	Low	No suitable habitat.
Pogogyne nudiuscula Otay Mesa mint	E/ SE/ MSCP NE/ 1B.1/ List A	Vernal pools/ annual herb/ May-June	No/ No	Low	No suitable habitat.
Quercus dumosa Nuttall's scrub oak	None/ None/ None/ 1B.1/ List A	Chaparral, coastal sage scrub, sandy and clay loam soils/ shrub/ February-March	No/ No	Low	Moderate potential habitat, but shrub would have been observed.
Quercus engelmannii Engelmann oak	None/ None/ None/ 4.2/ List D	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland/ deciduous tree/ March - June	No/ No	Low	Moderate potential habitat, but tree would have been observed.
Ribes canthariforme Moreno currant	None/ None/ None/ 1B.3/ List A	Chaparral/ deciduous shrub/ February - April	No/ No	Low	No suitable habitat.
Rosa minutifolia Small-leaved rose	None/ SE/ MSCP / 2.1/ List B	Chaparral/ shrub/ January-June	No/ No	Low	No suitable habitat, outside of range.
Salvia munzii Munz's sage	None/ None/ None/ 2.2/ List B	Chaparral, coastal sage scrub/ shrub/ February-April	No/ No	Low	Moderate potential habitat, but shrub would have been observed.
Satureja chandleri San Miguel savory	None/ None/ MSCP/ 1B.2/ List A	Chaparral, cismontane woodland, coastal sage scrub, riparian woodland, valley and foothill grassland; rocky, gabbroic or metavolcanic / perennial herb/ March-July	No/ No	Low	No suitable soils.
Sibaropsis hammittii Hamitt's clay cress	None/ None/ None/ 1B.2/ List A	Chaparral (openings), valley and foothill grassland; clay/ annual herb/ March - April	No/ No	Low	No suitable soils;
Stemodia durantifolia Purple stemodia	None/ None/ None/ 2.1/ List B	Sonoran desert scrub (often mesic, sandy) / perennial herb / January - December	No/ No	Low	No suitable habitat.
Suaeda esteroa estuary seablite	None/ None/ None/ 1B.2/ List A	Saltmarsh/ perennial herb/ July-October	No/ No	Low	No suitable habitat.
Tetracoccus dioicus Parry's tetracoccus	None/ None/ MSCP/ 1B.2/ List A	Chaparral, coastal sage scrub/ shrub/ April-May	No/ No	Low	Outside of known elevational range. Shrub would have been observed.

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Scientific Name Common Name	Sensitivity Code & Status (Federal/ State/ MSCP/ CNPS/County List)[1]	Habitat Requirements/ Life Form/Blooming Period	Verified on Site/ Documented off site[2]	Potential to Occur On Site	Factual Basis for Determination
Texosporioum sancti-jacobi Woven-spored lichen	None/ None/ None/ N/A	Chaparral, coastal scrub, with ashy spike moss, chamise, or buckwheat; on rabbit dung and twigs/ lichen/ N/A	No/ No	Low	No lichens observed on site.
Triquetrella californica coastal triquetrella	None/ None/ None/ 1B.2	Coastal bluff scrub, coastal scrub; soil/ moss/ N/A	No/ No	Low	No suitable habitat.
Viguiera lanciniata San Diego County viguiera	None/ None/ None/ 4.2/ List D	Chaparral, coastal scrub/ shrub/February-June	No/ No	Low	Moderate potential habitat, but shrub would have been observed.

[1]Sensitivity Code & Status Designations:

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

State
- SE State-listed as Endangered
- ST State-listed as Threatened

MSCP:
- MSCP Covered Species under MSCP
- MSCP NE Narrow endemic species covered under MSCP

CNPS LIST
- 1A: Presumed Extinct in California
- 1B: Rare or Endangered in California and Elsewhere
- 2: Rare or Endangered in California, More Common Elsewhere
- 3: Need More Information
- 4: Plants of Limited Distribution

CNPS List Extensions:
- .1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- .2 Fairly endangered in California (20-80% occurrences threatened)
- .3 Not very endangered in California (<20% of occurrences threatened or no current threats known)

County List:

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 quite rare, but need more information to determine their true rarity status
List D	Plants of limited distribution and uncommon, but not presently rare or endangered

[2] Observed on-site in 2007 / Observed adjacent to but off site in 2004 (Recon 2005)

APPENDIX F

Special Status Wildlife Species that Occur or Potentially Occur Onsite

Special Status Wildlife Species Detected or Potentially Occurring in Project Area

SCIENTIFIC NAME COMMON NAME	STATUS (FEDERAL/ STATE/ MSCP/ COUNTY GROUP)[1]	HABITAT PREFERENCES / REQUIREMENTS	VERIFIED ON SITE/ DOCUMENTED OFFSITE[2]	POTENTIAL TO OCCUR ON SITE	FACTUAL BASIS FOR DETERMINATION
AMPHIBIANS					
Bufo californicus Arroyo toad	FE/ CSC/ MSCP/Group 1	Stream channels for breeding(typically 3rd order); adjacent stream terraces and uplands for foraging and wintering	No / No	No potential.	No suitable habitat on site.
Rana aurora draytoni California red-legged frog	FT/ CSC/ MSCP/Group 1	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands	No / No	No potential.	No suitable habitat on site.
REPTILES					
Actinemys [=Emys] marmorata pallida Western pond turtle	None/ CSC/ MSCP/Group 1	Slow-moving permanent or intermittent streams, ponds, small lakes, reservoirs with emergent basking sites; adjacent uplands used during winter	No/ No	No potential.	No suitable habitat on site.
Anniella pulchra pulchra Silvery legless lizard	None/ CSC/ None/ Group 2	Loose soils (sand, loam, humus) in coastal dune, coastal sage scrub, woodlands, and riparian habitats	No / No	Low potential	Although suitable soil is present, the coastal sage scrub onsite is not suitable due to lack of required moisture and shrub cover.
Aspidoscelis hyperythra beldingi Orange-throated whiptail	None/ CSC/ MSCP/ Group 2	Coastal sage scrub, chaparral, grassland, juniper and oak woodland	No / No	Moderate potential	Although suitable habitat is present, the coastal sage scrub and grassland area is small.
Aspidoscelis tigris stejnegeri Coastal western whiptail	None/ None/ None/ Group 2	Coastal sage scrub, chaparral	No / No	Moderate potential	Although suitable habitat is present, the coastal sage scrub area and grassland is small.
Charina trivirgata Coastal rosy boa	None/ None/ None/ Group 2	Rocky chaparral, coastal sage scrub, oak woodlands, desert and semi-desert scrub	No / No	Low potential	Although suitable habitat is present, the coastal sage scrub area is small, very open, and lacking rock outcrops.

Special Status Wildlife Species Detected or Potentially Occurring in Project Area

SCIENTIFIC NAME COMMON NAME	STATUS (FEDERAL/ STATE/ MSCP/ COUNTY GROUP)[1]	HABITAT PREFERENCES / REQUIREMENTS	VERIFIED ON SITE/ DOCUMENTED OFFSITE[2]	POTENTIAL TO OCCUR ON SITE	FACTUAL BASIS FOR DETERMINATION
Crotalus ruber rubber Northern red-diamond rattlesnake	None/ CSC/ None/ Group 2	Variety of shrub habitats where there is heavy brush, large rocks, or boulders	No / No	High potential	Although only a small amount of suitable habitat is present, brush piles that provide potential snake habitat are present near the agriculture fields.
Eumeces skiltonianus interparietalis Coronado skink	None/ CSC/ None/ Group 2	Grassland, riparian and oak woodland; found in litter, rotting logs, under flat stones	No / No	Low potential	Although grassland habitat is present, the habitat is not suitable due to lack of required moisture, litter, and shrub cover.
Phrynosoma coronatum (blainvillei population) Coast (San Diego) horned lizard	None/ CSC/ MSCP/ Group 2	Coastal sage scrub, annual grassland, chaparral, oak and riparian woodland, coniferous forest	No / No	Moderate potential	Although suitable habitat is present, the coastal sage scrub and grassland area is small.
Salvadora hexalepis virgultea Coast patch-nosed snake	None/ CSC/ None/ Group 2	Chaparral, washes, sandy flats, rocky areas	No / No	Moderate potential	Although suitable habitat is present, the coastal sage scrub and grassland area is small.
Thamnophis hammondii Two-striped garter snake	None/ CSC/ None/Group 1	Marshes, meadows, sloughs, ponds, slow-moving water courses	No / No	No potential.	No suitable habitat.
Birds					
Accipiter cooperii Cooper's hawk (nesting)	None/ CSC/ MSCP/Group 1	Riparian and oak woodlands, montane canyons	No / Yes	High potential to forage onsite, may nest in ornamental trees onsite.	Observed flying overhead about 1,000 ft.west of site (RECON 2005); not observed by Dudek in 2007; suitable nesting habitat present in tall trees near Edgemont Hospital and LCDF.
Agelaius tricolor Tricolored blackbird	BCC, USBC/ CSC/ MSCP/Group 1	Nests near fresh water, emergent wetland with cattails or tules; forages in grasslands, woodland, agriculture	No / No	No potential	No suitable habitat on site. May winter or breed within the San Diego River area (Unitt 2004).

Special Status Wildlife Species Detected or Potentially Occurring in Project Area

SCIENTIFIC NAME COMMON NAME	STATUS (FEDERAL/ STATE/ MSCP/ COUNTY GROUP)[1]	HABITAT PREFERENCES / REQUIREMENTS	VERIFIED ON SITE/ DOCUMENTED OFFSITE[2]	POTENTIAL TO OCCUR ON SITE	FACTUAL BASIS FOR DETERMINATION
Aimophila ruficeps canescens Southern California rufous-crowned sparrow	None/ CSC/ None/Group 1	Grass-covered hillsides, coastal sage scrub, chaparral with boulders and outcrops	No / No	Low potential	Although suitable habitat is present, the coastal sage scrub and grassland area is small.
Ammodramus savannarum Grasshopper sparrow	None/ None/ None/Group 1	Restricted to native grassland	No / No	Low potential	Although suitable habitat is present, the grassland area is small.
Amphispiza belli belli Bell's sage sparrow	BCC/ CSC/ None/Group 1	Coastal sage scrub and dry chaparral along coastal lowlands and inland valleys	No / No	Low potential	Although suitable habitat is present, the coastal sage scrub area is small and very disturbed.
Aquila chrysaetos Golden eagle (nesting and wintering)	BCC/ CSC, P/ MSCP/Group 1	Open country, especially hilly and mountainous regions; grassland, coastal sage scrub, chaparral, oak savannas, open coniferous forest	No / No	Low potential to forage onsite, no potential to breed onsite	Some suitable foraging habitat is present onsite. No suitable nesting habitat is present.
Athene cunicularia Burrowing owl (burrow sites)	None/CSC/ MSCP/Group 1	Grassland, lowland scrub, agriculture, coastal dunes and other artificial open areas	No / No	Low potential	Although suitable habitat is present, the coastal sage scrub and grassland area is small. No potential burrowing owl burrows or sign was observed during wildlife surveys of the site.
Branta Canadensis Canada goose	None/ None/ MSCP/ Group 2	Lakes, fresh emergent wetlands, moist grasslands, croplands, pastures, and meadows.	No / No	No potential	No suitable habitat on site.
Buteo regalis Ferruginous hawk (wintering)	BCC/ CSC/ MSCP/Group 1	Open, dry country, grasslands, open fields, agriculture	No / No	Low potential to winter onsite	Although suitable habitat is present, the coastal sage scrub and grassland area is small.
Buteo swainsoni Swainson's hawk (nesting)	BCC, USBC/ ST/ MSCP/Group 1	Open grassland, shrublands, croplands	No / No	Low potential to winter onsite	Although suitable habitat is present, the coastal sage scrub and grassland area is small.
Campylorhynchus brunneicapillus sandiegensis Coastal (San Diego) cactus wren	None/ CSC/ MSCP/Group 1	Southern cactus scrub, maritime succulent scrub, cactus thickets in coastal sage scrub	No / No	No potential	No suitable habitat on site.

Special Status Wildlife Species Detected or Potentially Occurring in Project Area

SCIENTIFIC NAME COMMON NAME	STATUS (FEDERAL/ STATE/ MSCP/ COUNTY GROUP)[1]	HABITAT PREFERENCES / REQUIREMENTS	VERIFIED ON SITE/ DOCUMENTED OFFSITE[2]	POTENTIAL TO OCCUR ON SITE	FACTUAL BASIS FOR DETERMINATION
Charadrius alexandrinus nivosus Western snowy plover (coastal population)	FT, BCC, USBC/ CSC/ MSCP/Group 1	Nests primarily on coastal beaches, in flat open areas, with sandy or saline substrates; less commonly in salt pans, dredged spoil disposal sites, dry salt ponds and levees	No / No	No potential.	No suitable habitat; outside of range.
Charadrius montanus Mountain plover	BCC, USBC/ CSC/ None/ Group 2	Nests in open, shortgrass prairies or grasslands; winters in shortgrass plains, plowed fields, open sagebrush, and sandy deserts	No / No	No potential	No longer winters in San Diego County.
Chlidonias niger Black tern (nesting colony)	None/ CSC/ MSCP/ Group 2	Freshwater lakes, marshes, ponds, coastal lagoons	No / No	No potential	No suitable habitat on site. Occurs in San Diego County as fall migrant. Does not nest in the County.
Circus cyaneus Northern harrier(nesting)	None/ CSC/ MSCP/Group 1	Open wetlands (nesting), pasture, old fields, dry uplands, grasslands, rangelands, coastal sage scrub	No / No	Low potential	Although suitable habitat is present, the coastal sage scrub and grassland area is small.
Coccyzus americanus occidentalis Western yellow-billed cuckoo (nesting)	FC, BCC/ SE/ None/Group 1	Dense, wide riparian woodlands and forest with well-developed understories	No / No	No potential	No suitable habitat on site. Doesn't nest in vicinity.
Dendroica petechia brewsteri Yellow warbler (nesting)	None/ CSC/ Group 2	Nests in lowland and foothill riparian woodlands dominated by cottonwoods, alders and willows; winters in a variety of habitats	No / Yes	No potential	No suitable habitat on site. Observed about 250 ft. north of site (RECON 2005).
Egretta rufescens Reddish egret	None/ None/ MSCP/ Group 2	Saltmarsh, mudflats, coastal lagoons	No / No	No potential	No suitable habitat on site. Outside of range.
Elanus leucurus (nesting) White-tailed kite	MNBMC/ P/Group 1	Open grasslands, savanna-like habitats, agriculture, wetlands, oak woodlands, riparian	No / No	Moderate potential to nest and forage onsite	Suitable nesting habitat present in tall trees near Edgemont Hospital and LCDF.

Special Status Wildlife Species Detected or Potentially Occurring in Project Area

SCIENTIFIC NAME COMMON NAME	STATUS (FEDERAL/ STATE/ MSCP/ COUNTY GROUP)[1]	HABITAT PREFERENCES / REQUIREMENTS	VERIFIED ON SITE/ DOCUMENTED OFFSITE[2]	POTENTIAL TO OCCUR ON SITE	FACTUAL BASIS FOR DETERMINATION
Empidonax traillii extimus Southwestern willow flycatcher (nesting)	FE, USBC/ SE/ MSCP/Group 1	Riparian woodlands along streams and rivers with mature, dense stands of willows or alders; may nest in thickets dominated by tamarisk	No / No	No potential	No suitable habitat on site. Not observed in this portion of San Diego River by RECON (2005). A willow flycatcher was observed (RECON 2005), however it was a migrant and was likely a different subspecies and did not breed on-site.
Eremophila alpestris actia California horned lark	None/ CSC/ Group 2	Open habitats, grassland, rangeland, shortgrass prairie, montane meadows, coastal plains, fallow grain fields	No / No	High potential	Suitable grassland and coastal sage scrub is present onsite, however only a small amount of habitat is present.
Falco mexicanus Prairie falcon (nesting)	BCC/ CSC/Group 1	Grassland, savannas, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs	No / No	Low potential	No suitable cliffs for nesting. May fly over during winter or migration.
Falco peregrinus anatum American peregrine falcon	BCC, (FD)/ SE, P/ MSCP/Group 1	Nests on cliffs, buildings, bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present	No / No	Low potential	No suitable habitat is present onsite, however, may fly over during winter and migration.
Haliaeetus leucocephalus Bald eagle (nesting & wintering)	FT/ SE, P/ MSCP/Group 1	Seacoasts, rivers, swamps, large lakes; winters at large bodies of water in lowlands and mountains	No / No	No potential	No suitable habitat on site.
Icteria virens Yellow-breasted chat (nesting)	None/ CSC/Group 1	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles and dense brush.	No / Yes	No potential	No suitable habitat on site. One chat observed during nesting season in willow scrub approx. 100 ft. north of site (RECON 2005).
Ixobrychius exilis Least bittern (nesting)	None/ CSC/ Group 2	Dense emergent wetland vegetation, sometimes interspersed with woody vegetation and open water	No / No	No potential	No suitable habitat on site.
Laterallus jamaicensis coturniculus California black rail	ST, BCC, USBC/ CSC, P/ Group 2	Saline, brackish, and fresh emergent wetlands	No / No	No potential	No suitable habitat in region.

Special Status Wildlife Species Detected or Potentially Occurring in Project Area

SCIENTIFIC NAME COMMON NAME	STATUS (FEDERAL/ STATE/ MSCP/ COUNTY GROUP)[1]	HABITAT PREFERENCES / REQUIREMENTS	VERIFIED ON SITE/ DOCUMENTED OFFSITE[2]	POTENTIAL TO OCCUR ON SITE	FACTUAL BASIS FOR DETERMINATION
Passerculus sandwichensis beldingi Belding's savannah sparrow	None/ SE/ MSCP/Group 1	Saltmarsh, pickleweed	No / No	No potential	No suitable habitat in region.
Passerculus sandwichensis rostratus Large-billed savannah sparrow (wintering)	None/ CSC/ MSCP/ Group 2	Saltmarsh, pickleweed	No / No	No potential	No suitable habitat in region.
Pelecanus occidentalis californicus California brown pelican (nesting colony and roosts)	FE/ SE, P/ MSCP/ Group 2	Open sea, large water bodies, coastal bays and harbors	No / No	No potential	No suitable habitat in region.
Phalacrocorax auritus Double-crested cormorant (rookery site)	None/ CSC/ Group 2	Lakes, rivers, reservoirs, estuaries, ocean; nests in tall trees, rock ledges on cliffs, rugged slopes	No / No	No potential	No suitable habitat on site
Plegadis chihi White-faced ibis (rookery site)	None/ CSC/ MSCP/Group 1	Nests in marsh; winter foraging in shallow lacustrine waters, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields and estuaries	No / No	No potential	No suitable habitat on site.
Polioptila californica californica Coastal California gnatcatcher	FT, USBC/ CSC/ MSCP/Group 1	Coastal sage scrub, coastal sage scrub-chaparral mix, coastal sage scrub-grassland ecotone, riparian in late summer	No / No	Low potential	Although a small amount of coastal sage scrub is present, the habitat is not very suitable due to low diversity and cover. Not detected during focused surveys.
Rallus longirostris levipes Light-footed clapper rail	FE/ SE, P/ MSCP/Group 1	Coastal saltmarsh	No / No	No potential	No suitable habitat on site or in vicinity.
Siala mexicana Western bluebird	None/None/ MSCP/ Group 2	Open forests of deciduous, coniferous or mixed trees, savanna, edges of riparian woodland	No / No	Low potential	No suitable habitat on site however could use landscape trees within the facility for foraging during winter
Sterna antillarum browni California least tern (nesting colony)	FE, USBC/ SE, P/MSCP/Group 1	Nests along the coast from San Francisco Bay south to northern Baja California	No / No	No potential	No suitable habitat on site.

Special Status Wildlife Species Detected or Potentially Occurring in Project Area

SCIENTIFIC NAME COMMON NAME	STATUS (FEDERAL/ STATE/ MSCP/ COUNTY GROUP)[1]	HABITAT PREFERENCES / REQUIREMENTS	VERIFIED ON SITE/ DOCUMENTED OFFSITE[2]	POTENTIAL TO OCCUR ON SITE	FACTUAL BASIS FOR DETERMINATION
Sterna elegans Elegant tern (nesting colony)	None/ CSC/ MSCP/Group 1	Coastal waters, estuaries, large bays and harbors, mudflats	No / No	No potential	No suitable habitat on site.
Vireo bellii pusillus Least Bell's vireo (nesting)	FE, BCC, USBC/ SE/ MSCP/Group 1	Nests in southern willow scrub with dense cover within 1-2 meters of the ground; habitat includes willows, cottonwoods, baccharis, wild blackberry or mesquite on desert areas	No / Yes	No potential	No suitable habitat is located onsite. Four territories with 2 nests observed about 1,000 ft. north of site (RECON 2005).
MAMMALS					
Antrozous pallidus Pallid bat	None/ CSC/ None/Group 2	Rocky outcrops, cliffs, and crevices with access to open habitats for foraging	No / No	Low potential.	No suitable roosting habitat on site.
Chaetodipus californicus femoralis Dulzura (California) pocket mouse	None/CSC/ None/ Group 2	Coastal sage scrub, chaparral, riparian-scrub ecotone; more mesic areas	No / No	Moderate potential	Although limited amount of habitat is present onsite, the species could occur within the coastal sage scrub and grassland areas.
Chaetodipus fallax fallax Northwestern San Diego pocket mouse	None/CSC/ None/ Group 2	Coastal sage scrub, grassland, sage scrub-grassland ecotones, sparse chaparral; rocky substrates, loams and sandy loams	No / No	Moderate potential	Although limited amount of habitat is present onsite, the species could occur within the coastal sage scrub and grassland areas.
Choeronycteris Mexicana Mexican long-tongued bat	None/ CSC/ None/ Group 2	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland. Roosts in caves, mines, and buildings.	No / No	Low potential.	No suitable habitat on site.
Eumops perotis Western mastiff bat	None/ CSC/ None/ Group 2	Roosts in small colonies in cracks and small holes, seeming to prefer man-made structures	No / No	Low potential.	No suitable roosting habitat on site.
Lassiurus xanthinus Western yellow bat	None/ None/ None	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland.	No / No	Low potential.	No suitable habitat on site.
Lepus californicus bennettii San Diego black-tailed jackrabbit	None/ CSC/ None/ Group 2	Arid habitats with open ground; grasslands, coastal sage scrub, agriculture, disturbed areas, rangelands	Yes / Yes	Observed on site in 2007	One individual observed in northern portion of site. Observed 200 feet west of site by RECON (2005).
Neotoma lepida intermedia San Diego desert woodrat	None/ CSC/ None/ Group 2	Coastal sage scrub, chaparral, pinyon-juniper woodland with rock outcrops, cactus thickets, dense undergrowth	No / No	Low potential.	No middens observed on site.

Special Status Wildlife Species Detected or Potentially Occurring in Project Area

SCIENTIFIC NAME COMMON NAME	STATUS (FEDERAL/ STATE/ MSCP/ COUNTY GROUP)[1]	HABITAT PREFERENCES / REQUIREMENTS	VERIFIED ON SITE/ DOCUMENTED OFFSITE[2]	POTENTIAL TO OCCUR ON SITE	FACTUAL BASIS FOR DETERMINATION
Nyctinomops macrotis Pocketed free-tailed bat	None/ CSC/ None/ Group 2	Rugged, rocky canyons	No / No	Low potential.	No suitable habitat.
Odocoileus hemionus Mule deer	None/ None/ MSCP/ Group 2	Coastal sage scrub, chaparral, riparian, woodlands, forest; often browses in open areas adjacent to cover	No / No	Low potential	Although some open areas are present onsite, cover is limited and the site is too small to support the species.
Puma concolor Mountain lion	None/ Regulated/ MSCP/ Group 2	Coastal sage scrub, chaparral, riparian, woodlands, forest; rests in rocky areas, and on cliffs and ledges that provide cover	No / No	Low potential	Although some open areas are present onsite, cover is limited and the site is too small to support the species.
Taxidea taxus American badger	None/ CSC/ MSCP/ Group 2	Dry, open treeless areas, grasslands, coastal sage scrub	No / No	Moderate potential	Soils onsite may be suitable, however no sign of badger activity was observed
INVERTEBRATES					
Branchinecta sandiogonensis San Diego fairy shrimp	FE/ None/ None/Group 1	Small, shallow vernal pools, occasionally ditches and road ruts	No / No	Low potential.	No vernal pools onsite.
Danaus plexippus Monarch butterfly (wintering sites)	None/ None Group 2	Overwinters in eucalyptus groves	No / No	No potential.	No suitable roosting habitat.
Euphydryas editha quino Quino checkerspot butterfly	FE/None/None/ Group 1	Sparsely vegetated hilltops, ridgelines, occasionally rocky outcrops; host plant *Plantago erecta* and nectar plants must be present	No / No	No potential.	Although coastal sage scrub is present, no host plant is present and habitat is very small.
Callophyrs (=Mitoura) thornei Thorne's hairstreak butterfly	None/ None/ MSCP/Group 1	Tecate cypress	No / No	No potential.	No suitable habitat.
Panoquia errans Wandering (= saltmarsh) skipper	None/None/ MSCP/Group 1	Salt marsh from Los Angeles to Baja, Mexico	No / No	No potential.	No suitable habitat.
Streptocephalus woottonii Riverside fairy shrimp	FE/ None/ None/Group 1	Deep, long-lived vernal pools, vernal pool-like seasonal ponds, stock ponds; warm water pools that have low to moderate dissolved solids	No / No	No potential.	No suitable habitat.

[1] Status Designations:

Federal

BCC	Fish and Wildlife Service: Birds of Conservation Concern
FC	Candidate for federal listing as threatened or endangered
(FD)	Federally-delisted; monitored for five years
FE	Federally-listed Endangered
FT	Federally-listed as Threatened
MNBMC	Fish and Wildlife Service Migratory Nongame Birds of Management Concern
USBC	United States Bird Conservation Watch List

State:

CSC	California Special Concern Species
P	California Department of Fish and Game Protected and Fully Protected Species
SE	State-listed as Endangered
ST	State-listed as Threatened

MSCP:

MSCP	Covered Species under MSCP

County Group:

Group 1	from County of San Diego Sensitive Animal List
Group 2	from County of San Diego Sensitive Animal List

[2] Observed on site in 2007 / Observed adjacent to but off site in 2004 (Recon 2005)

APPENDIX G

2007 California Gnatcatcher Report

DUDEK

CORPORATE OFFICE
605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 T 800.450.1818 F 760.632.0164

August 22, 2007 5302-01-03

U.S. Fish and Wildlife Service
Attn: Recovery Permit Coordinator
6010 Hidden Valley Road
Carlsbad, CA 92011

Subject: ***2007 Focused California Gnatcatcher Survey for the Las Colinas Detention Facility Project, County of San Diego, California***

Dear Recovery Permit Coordinator:

This report documents the results of three protocol-level presence/absence surveys for the coastal California gnatcatcher (*Polioptila californica californica*; gnatcatcher) that were conducted for the Las Colinas Detention Facility (LCDF) project site by Dudek in summer 2007. The surveys were conducted in all areas of suitable gnatcatcher habitat within and immediately adjacent to the project area.

The gnatcatcher is a federally-listed threatened species and a California Department of Fish and Game species of Special of Special Concern. It is closely associated with coastal sage scrub habitat and typically occurs below elevations of 950 feet above mean sea level (amsl) and on slopes less than 40%, but gnatcatchers have been observed at elevations greater than 2,000 feet amsl. The species is threatened primarily by loss, degradation, and fragmentation of coastal sage scrub habitat and is also impacted by brown-headed cowbird (*Molothrus ater*) nest parasitism.

LOCATION AND EXISTING CONDITIONS

The LCDF project site consists of 45.5 acres of County-owned property located within the City of Santee, in eastern San Diego County (*Figure 1*). The project site is mapped in unsectioned land in Township 15 South, Range 1 West on the El Cajon 7.5 minute U.S. G. S. quadrangle (*Figure 2*). The site is bounded by Magnolia Avenue to the east, Mission Gorge Road located 400 feet to the south, developing office/commercial uses associated with the City of Santee Town Center Specific Plan to the west, and the San Diego River 600 feet to the north.

The project site in the historic floodplain of the San Diego River and has flat topography at an elevation of approximately 350 feet above mean sea level.

Three soil types are mapped for the project area: Riverwash , Grangeville fine sandy loam, 0 to 2 percent slopes, and Visalia sandy loam, 0 to 2 percent slopes (Bowman 1973).

VEGETATION COMMUNITIES

Four plant communities or land cover types were identified within 45.5-acre project area. Acreages for all habitat types are presented in *Table 1*. Habitat types (including disturbed forms) suitable for coastal California gnatcatcher are described below and their locations are shown in *Figure 3*. All plant community descriptions follow Holland (1986) to accurately describe the vegetation communities that occur within the project area.

Table 1
Vegetation Community Types Present within the
Las Colinas Detention Facility Project

Habitat Type/Vegetation Community	Acreage
Disturbed Coastal Sage Scrub	0.6
Annual (non-native) Grassland	19.8
Disturbed Habitat	1.7
Developed Lands	23.4
Site Total	45.5

Disturbed Coastal Sage Scrub

Coastal sage scrub is a native plant community characterized by soft, low, aromatic, subshrubs that function mostly in the winter and early spring, with many plants being drought-deciduous. This community typically occurs on sites with low moisture availability, such as dry slopes and clay-rich soils that are slow to release stored water. Coastal sagebrush (*Artemisia californica*) and flat-top buckwheat (*Eriogonum fasciculatum*) commonly are the dominant plant species in this community, with other characteristic species including coast goldenbush (*Isocoma menziesii*).

Disturbed coastal sage scrub contains at least 20 percent cover of remnant native vegetation but over 50 percent non-native plants. The area mapped as coastal sage scrub on site is dominated by a relatively sparse cover of single spreading goldenbush (*I. m.* ssp. *menziesii*).

METHODS

Suitable habitat within and immediately adjacent to the project area was surveyed three times by Dudek wildlife biologist Paul M. Lemons (Permit # TE051248-2, PML) according to the schedule provided in *Table 2*. The surveys were conducted in conformance with the currently accepted protocol of the USFWS (1997).

Table 2
Survey Details & Conditions

Date	Biologist's Initials	Time	Survey Conditions (skies, wind, temp)
8/1/2007	PML	0720-1030	71-87 degrees Fahrenheit (F); 100- 40% cloud cover (cc), 0-3 mile per hour (mph) winds,
8/8/2007	PML	0740-1000	72-83 F; 0% cc; 0-4 mph winds
8/16/2007	PML	0730-1000	69-86 F, 0% cc, 0-1 mph winds

A tape of recorded California gnatcatcher vocalizations played approximately every 50-100 feet was used to induce responses from potentially present California gnatcatchers. If a California gnatcatcher was detected, tape-playback was terminated to minimize potential for harassment. A 250-scale (1"=250') digital ortho quarter quad map of the site overlaid with the site boundaries was used to map any California gnatcatchers detected. Binoculars (8x42) were used to aid in detecting and identifying bird species. Weather conditions, time of day, and season were appropriate for the detection of California gnatcatcher. The biologist's survey route was digitized by Dudek using ArcGIS.

SUMMARY OF RESULTS

No gnatcatchers were observed within the proposed LCDF project site over the course of the surveys. Thirty-two species of wildlife were observed during the surveys. A full list of wildlife species observed during the survey is provided in *Appendix A*. Please feel free to contact me at (760) 942-5147 with questions or if you require additional information.

I certify that the information in this survey report and attached exhibits fully and accurately represent my work.

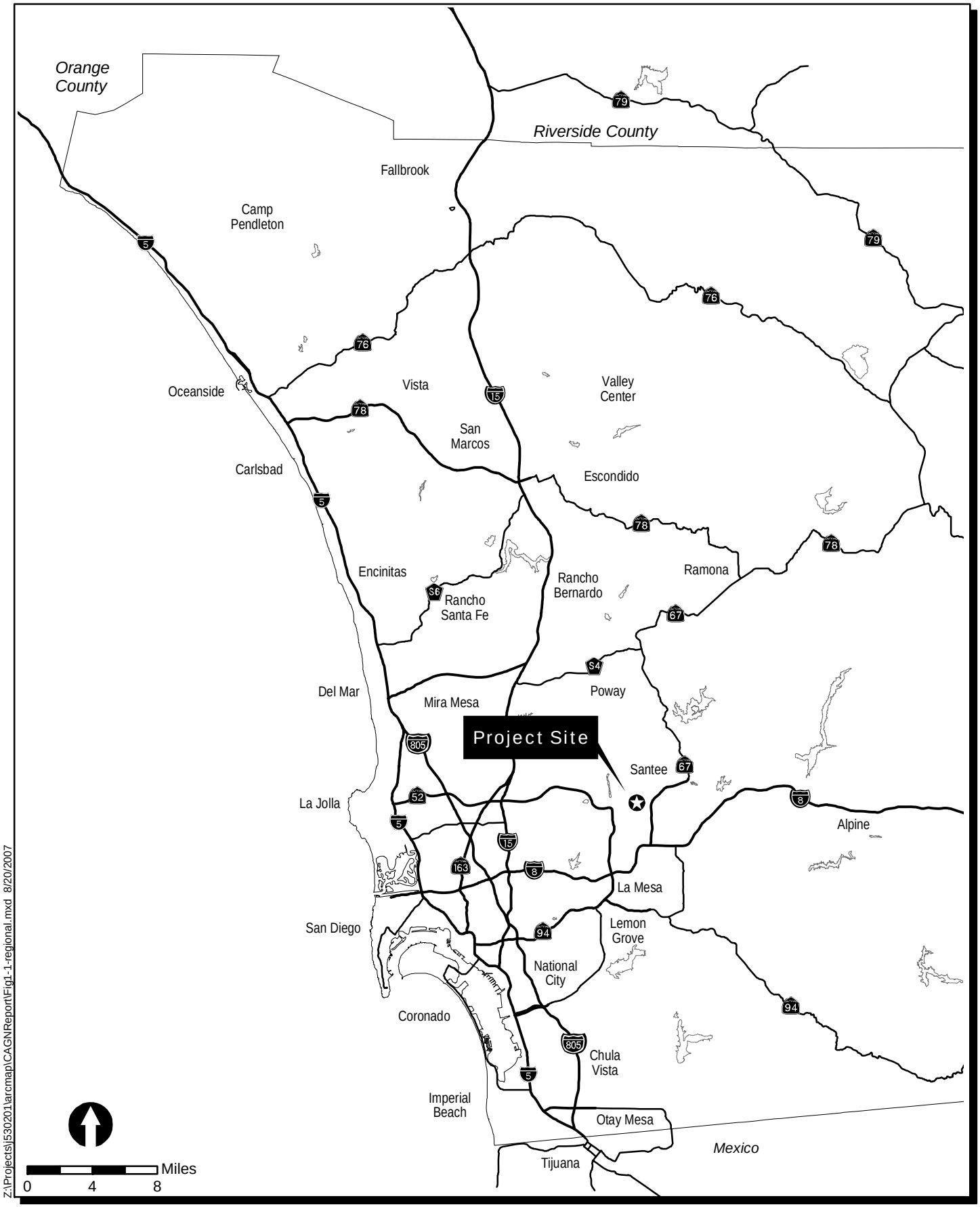
Very truly yours,

Dudek

Paul Lemons
Wildlife Biologist

Att: *Figures 1-3*
Appendix A

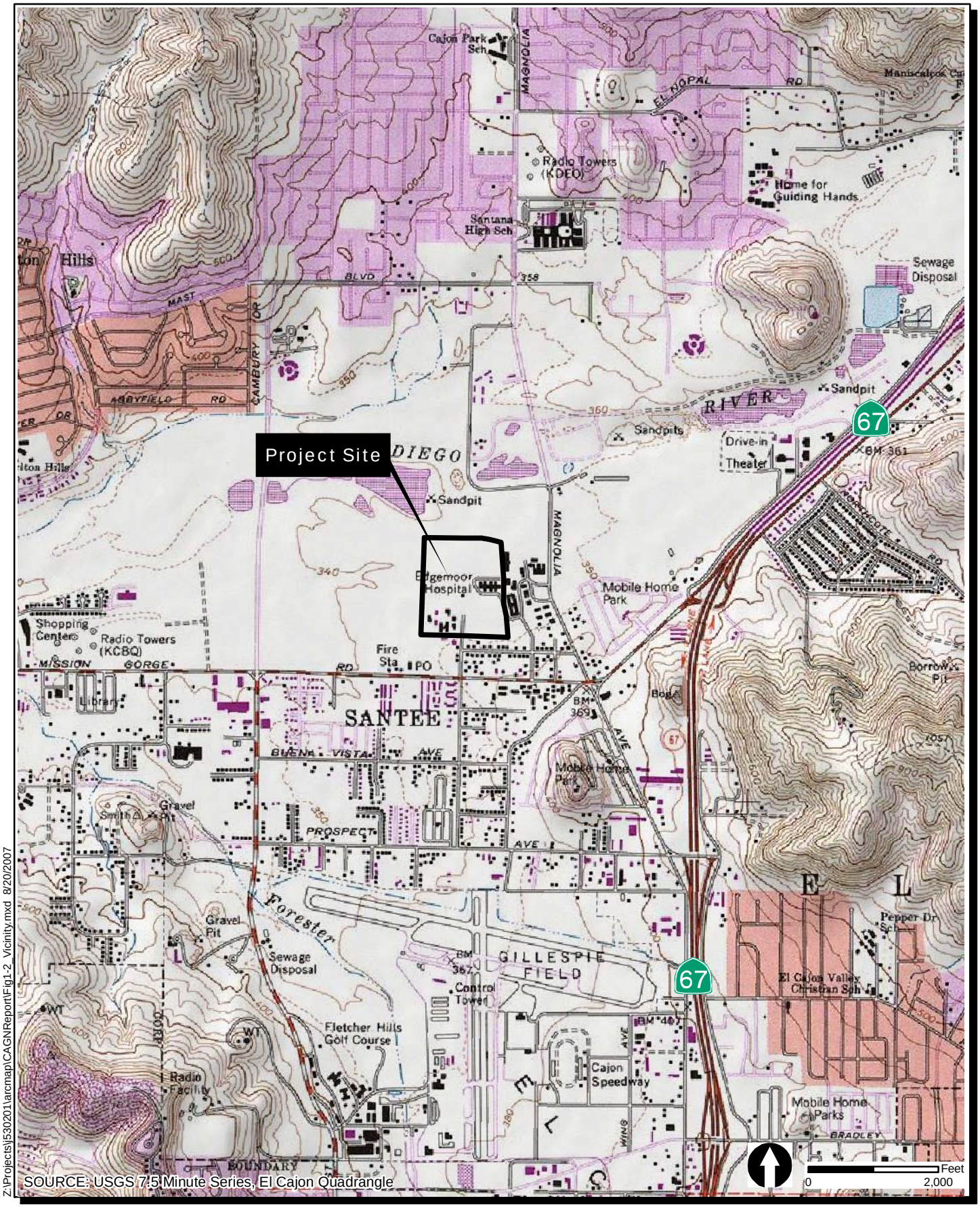
cc: *Esther Daigneault, County of San Diego DPW*
Shawn Shamlou, Dudek
Anita Hayworth, Dudek



Las Colinas Detention Facility - Focused California Gnatcatcher Survey Report

Regional Map

FIGURE 1



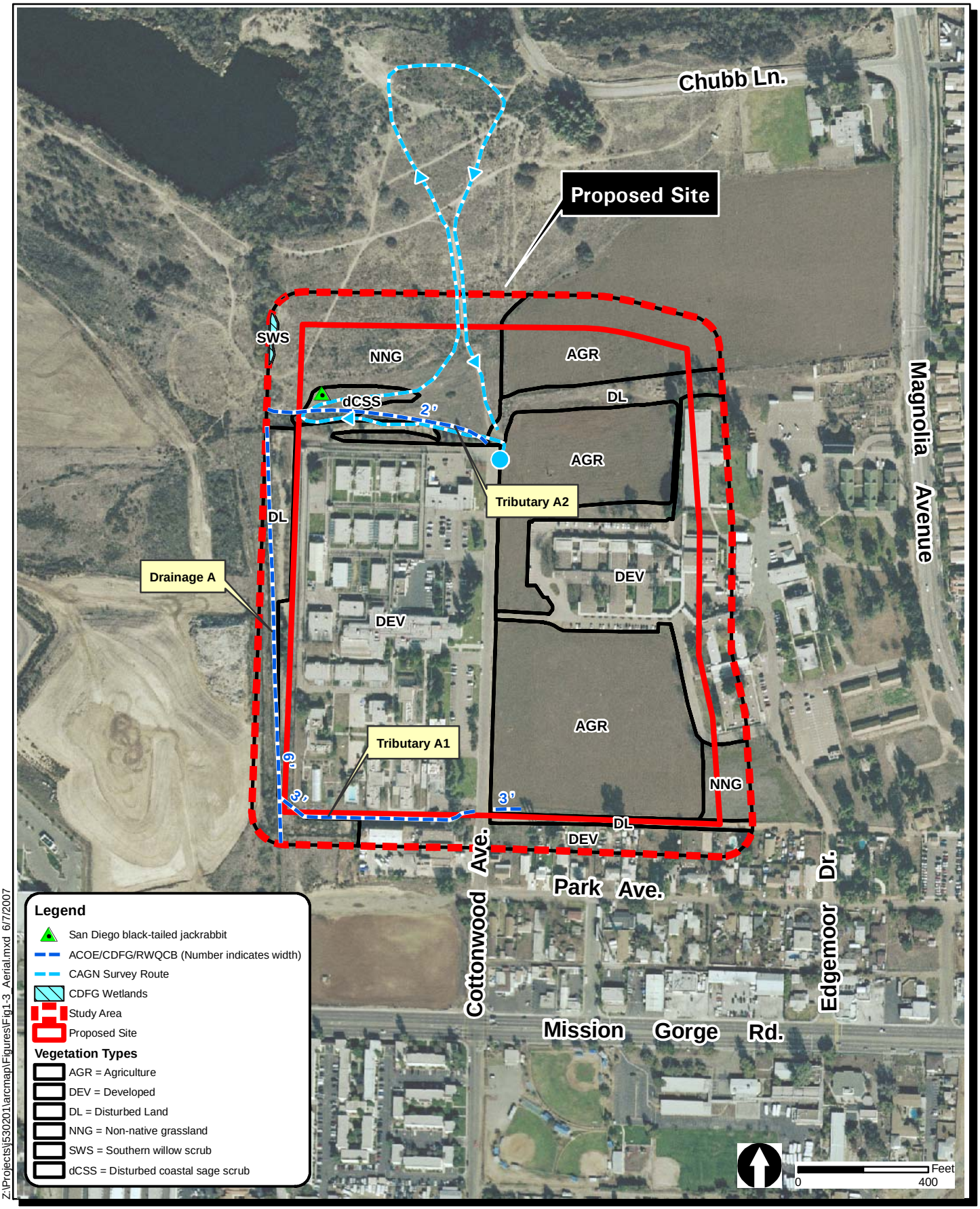
SOURCE: USGS 7.5 Minute Series, El Cajon Quadrangle

Z:\Projects\J530201\arcmap\CAGNReport\Fig1-2_Vicinity.mxd 8/20/2007

Las Colinas Detention Facility - Focused California Gnatcatcher Survey Report

Vicinity Map

FIGURE 2



SOURCE: AirPhoto USA, Jan 2006

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Biological Resources Map

FIGURE 3

REFERENCES

Bowman, R. H. 1973. Soil Survey, San Diego Area, California, Part 1. United States Department of the Agriculture. 104 pp. + appendices.

Holland, R. F. 1986. Preliminary descriptions of the terrestrial natural communities of California. Nongame-Heritage Program, California Department of Fish and Game.

USFWS. 1997. Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol. Provided by the USFWS Carlsbad Fish and Wildlife Office on July 28, 1997.

APPENDIX A

List of Wildlife Species Observed or Detected at the Project Site

APPENDIX A

WILDLIFE SPECIES -VERTEBRATES

AMPHIBIANS

RANIDAE - TRUE FROGS

* *Rana catesbeiana* - bullfrog

REPTILES

IGUANIDAE - IGUANID LIZARDS

Sceloporus occidentalis - western fence lizard

BIRDS

ARDEIDAE - HERONS

Butorides virescens - green heron

ANATIDAE - WATERFOWL

Anas platyrhynchos - mallard

ACCIPITRIDAE - HAWKS

Buteo jamaicensis - red-tailed hawk

RALLIDAE - RAILS & GALLINULES

Fulica americana - American coot

COLUMBIDAE - PIGEONS & DOVES

* *Columba livia* - rock dove

Zenaida macroura - mourning dove

TROCHILIDAE - HUMMINGBIRDS

Calypte costae - Costa's hummingbird

Calypte anna - Anna's hummingbird

PICIDAE - WOODPECKERS

Picoides nuttallii - Nuttall's woodpecker

TYRANNIDAE - TYRANT FLYCATCHERS

Sayornis nigricans - black phoebe
Tyrannus verticalis - western kingbird

HIRUNDINIDAE - SWALLOWS

Stelgidopteryx serripennis - northern rough-winged swallow

CORVIDAE - JAYS & CROWS

Corvus brachyrhynchos - American crow
Corvus corax - common raven

TROGLODYTIDAE - WRENS

Thryomanes bewickii - Bewick's wren

VIREONIDAE - VIREOS

Vireo bellii bellii - least Bell's vireo

PARULIDAE - WOOD WARBLERS

Geothlypis trichas - common yellowthroat

EMBERIZIDAE - BUNTINGS & SPARROWS

Pipilo crissalis - California towhee

ICTERIDAE - BLACKBIRDS & ORIOLES

Icterus cucullatus - hooded oriole

FRINGILLIDAE - FINCHES

Carpodacus mexicanus - house finch
Carduelis psaltria - lesser goldfinch

MAMMALS

LEPORIDAE - HARES & RABBITS

Lepus californicus - black-tailed jackrabbit
Sylvilagus bachmani - brush rabbit

SCIURIDAE - SQUIRRELS

Spermophilus beecheyi - California ground squirrel

GEOMYIDAE - POCKET GOPHERS

Thomomys bottae - Botta's pocket gopher

CANIDAE - WOLVES & FOXES

* *Canis familiaris* - domestic dog

Canis latrans - coyote

WILDLIFE SPECIES - INVERTEBRATES

BUTTERFLIES AND MOTHS

PAPILIONIDAE - SWALLOWTAILS

Papilio rutulus - tiger swallowtail

PIERIDAE - WHITES AND SULFURS

Pontia protodice - checkered white

NYMPHALIDAE - BRUSH-FOOTED BUTTERFLIES

Junonia coenia - buckeye

* signifies introduced (non-native) species