INDIVIDUAL BIOLOGICAL ASSESSMENT REPORT

Site Name/Facility:	Nestor Creek Channel
Master Program Map No.:	131
Date:	November 1, 2017
Biologist Name/Cell Phone No.:	Jasmine Bakker / 619-708-5990

Instructions: This form must be completed for each storm water facility identified in the Annual Maintenance Needs Assessment report and prior to commencing any maintenance activity on the facility. The Existing Conditions information shall be collected prior to preparation of the Individual Maintenance Plan (IMP) to assist in developing the IMP. The remaining sections shall be completed after the IMP has been prepared. Attach additional sheets as needed.

EXISTING CONDITIONS

The City of San Diego (City) has developed the Master Storm Water System Maintenance Program (Master Maintenance Program, MMP; City 2011a) to govern channel operation and maintenance activities in an efficient, economic, environmentally, and aesthetically acceptable manner to provide flood control for the protection of life and property. This document provides a summary of the Individual Biological Assessment (IBA) for proposed maintenance activities within the Nestor Creek Channel Map 131. The IBA is prepared to comply with the MMP's Programmatic Environmental Impact Report (PEIR; City 2011b). Map numbers correspond to those contained in the MMP.

The IBA procedures under the MMP provide the guidelines for a site-specific inspection of the proposed maintenance activity site including access routes (i.e., loading areas), and temporary spoils storage and staging areas. A qualified biologist determines whether or not sensitive biological resources could be affected by the proposed maintenance and potential ways to avoid impacts in accordance with the measures identified in the Mitigation, Monitoring and Reporting Program (MMRP; Attachment 1) of the PEIR and the MMP protocols. This IBA provides a summary of the biological resources associated with the storm water facility, quantification of impacts to sensitive biological resources, and the nature of mitigation measures required to mitigate for those impacts, if found.

Survey Methods and Date(s)

Prior to performing field surveys, HELIX Environmental Planning, Inc. (HELIX) conducted a review of existing project documentation and permits as part of this IBA. Document review included the MMP PEIR (City 2011b) and Appendices.

Potential occurrence of special-status species within the project site was determined by a habitat suitability assessment, a review of records from the California Natural Diversity Database (CNDDB), species occurrence data from the U.S. Fish and Wildlife Service (USFWS) Carlsbad Office's Listing of Multiple Species Database, and the California Native Plant Society rare plant online inventory. A half-mile radius was used to specifically assess the potential for sensitive species for the Nestor Creek Channel maintenance areas.

Upon completion of the original research, HELIX conducted an initial biological survey and site assessment, including a California Rapid Assessment Method (CRAM) of wetland conditions, of the Map 131 segments (two reaches) of Nestor Creek Channel on October 7, 2015 (Attachment 2). HELIX also conducted seven surveys for least Bell's vireo (*Vireo bellii pusillus*; LBV) for all areas of suitable habitat within the Nestor Creek Channel between June 3 and July 29, 2016. Surveys were conducted on foot and achieved 100 percent visual coverage of all reaches.

Vegetation communities were mapped in accordance with the City's Biology Guidelines (City 2012) and following classifications described by Holland (1986). Data collected during surveys included comprehensive species lists, habitat suitability assessments for sensitive species, and data for completion of a CRAM following the methods outlined in the User's Manual: California Rapid Assessment Method for Wetlands and Riparian Areas v. 6.1 (California Wetlands Monitoring Workgroup [CWMW] 2013) and other training materials located on the CRAM website (www.cramwetlands.org). Vegetation communities and sensitive species were mapped on a 100-scale (1 inch = 100 feet) map with a 2012 aerial photograph base map. Representative photographs were taken during the survey

and are provided in this report. Plants were identified according to The Jepson Manual: Vascular Plants of California (Baldwin et al. 2012).

Project Location and Description

The purpose of the project is to maintain the existing storm water facilities by restoring the original design capacity to provide public safety and protection of property. The City is proposing to maintain the Nestor Creek channel through the removal of trash, debris, vegetation, and accumulated sediment.

The Nestor Creek channel is located in the Otay Mesa-Nestor Community Plan Area in the City of San Diego parallel to and bisecting Interstate 5, north of State Route 905 (Figure 1). The channel runs through an urban area and crosses Palm Avenue, Saturn Boulevard, Coronado Avenue, Hollister Street, Interstate 5, 27th Street, and the San Diego and Imperial Valley railroad tracks (Figures 2 and 3). The channel is located in un-sectioned lands in Township 18 South, Range 2 West on the Imperial Beach U.S. Geological Survey (USGS) 7.5-minute quadrangle map (Figure 2).

To facilitate the Individual Hydrology and Hydraulic Assessment (IHHA; Rick Engineering [Rick] 2017a) prepared for the maintenance, the Nestor Creek channel was subdivided into twelve separate "reaches". This IBA evaluates portions of two reaches (Reaches 11 and 12), including staging and loading areas, where maintenance is currently proposed by the City of San Diego. Both reaches are included in Map 131 and are located east of the San Diego and Imperial Valley railroad tracks. The San Diego Bay National Wildlife Refuge is located approximately 2 miles to the northwest of the maintenance area.

The channel, staging area, and loading area in Map 131 (Reaches 11 and 12) are zoned RM-1-1 (Residential-Multiple Unit), RS-1-6 (Residential-Single Unit), and IL-2-1 (Industrial-Light). Additionally, portions of the project are located within the Special Flood Hazard Areas Subject to Inundation by the 1% Annual Chance Flood as well as the 0.2% Annual Chance Flood areas. The channel is within the Otay Hydrologic Unit and Otay Valley Hydrologic Area. The site is not located within or adjacent to the City's Multiple Species Conservation Program's (MSCP) Multi-Habitat Planning Area (MHPA).

A more detailed discussion of the channel is provided below.

Nestor Creek, Map 131, Reaches 11 and 12

Reach 11 extends west from Reach 12 and is located east of Interstate 5 and the San Diego and Imperial Valley railroad tracks in the Otay Mesa West community. The channel runs west between Reach 12 and the railroad (north of the Trolley Industrial Center), and turns north parallel to the railroad tracks southeast to the end of the maintenance area. This section is channelized, trapezoidal, and primarily concrete-lined on the bottom and both banks. Reach 11 has dimensions of 6-10 feet wide at the bottom, 18-31 feet wide at the top, and 6-8 feet deep. The western 150 feet of the channel maintenance area in Reach 11 is earthen bottom instead of concrete-lined. Reach 11 receives storm flow from Reach 12 and adjacent areas. Reach 11 discharges to the west via a concrete pipe spanning below the railroad tracks. Dense marsh grasses and reeds covered the ground within and around the channel; other vegetation included willows and castor bean. The portion of Reach 11 crossing the railroad tracks is not proposed for maintenance.

Reach 12 runs between an undeveloped lot to the north and Trolley Industrial Center at 1330 30th St. to the south. It is channelized, trapezoidal, and concrete-lined on the bottom and both banks, with similar dimensions to that of Reach 12. Dense marsh grasses and reeds cover the ground within and around the channel; other vegetation includes willows (*Salix* spp.) and castor bean (*Ricinus communis*). Reach 12 receives storm flow from a culvert beneath 30th Street and adjacent areas, and flows into Reach 11. In total, the length of the channel maintenance area in Reaches 11 and 12 is approximately 1,150 feet.

Biological Resources: **Stream Type**: **Perennial ▣ Intermittent □ Ephemeral □**

Stream type designations are based on USGS topographical map stream designations and field visit review of the channels. Nestor Creek is shown on the USGS Imperial Beach quadrangle map. All three reaches are presumed to have perennial sources of water from urban runoff.

Vegetation:

For purposes of this IBA, only vegetation or land covers within the proposed maintenance areas, including associated work areas (i.e., loading and staging areas), are described below. The vegetation category disturbed wetland (arundo-dominated) was mapped within this maintenance area to distinguish stands of an invasive species, giant reed (*Arundo donax*). One of the purposes of this vegetation category is to identify invasive wetland vegetation that is exempt from mitigation requirements under condition 9e of the Master Coastal Development Permit (CDP), which is applied to all storm water facility maintenance per requirement 15 of Site Development Permit 1134892 related to the MMP.

A total of 9 vegetation communities or land cover types were identified during the initial biological survey and site assessment: developed land (concrete channel with or without surface water, parking lot, roads), Diegan coastal sage scrub (disturbed), disturbed land, disturbed wetland, freshwater marsh (including disturbed phases), non-native grassland, ornamental/non-native vegetation, southern willow scrub (including disturbed phase), and streambed (Table 1; Figure 4). See PEIR Appendix D.1 (Biological Resources Report) for general descriptions of vegetation communities/land cover types (City 2011b). A list of plant species observed during the October 7, 2015 survey is provided as Attachment 3.

Table 1
EXISTING VEGETATION COMMUNITIES (acre[s])[1]

MAP/REACH[2]	CHANNEL TYPE	WETLANDS[3]			NON-WETLAND[3]		TOTAL
		SWS	FWM	DW	STM/NFC		
Nestor Creek Map 131 (Reaches 11 & 12)	Earthen	0.07	0.01	0.01	0		**0.09**
	Concrete	0.03	0.06	0.06	0.06		**0.21**
	Wetlands Total	**0.10**	**0.07**	**0.07**	**0.06**		**0.30**
	UPLANDS[3]						
		TIER II	TIER IIIB	TIER IV			TOTAL
		DCSS	NNG	ORN	DL	DEV	
		0.02	0.78	0.24	0.18	0.35	**1.57**
	Uplands Total	**0.02**	**0.78**	**0.24**	**0.18**	**0.35**	**1.57**
						GRAND TOTAL	**1.87**

[1] Habitats are rounded to the nearest 0.01 acre; thus, totals reflect rounding.
[2] Map Numbers from the City's MMP (2011a); Reach from the IHHA (2017a)
[3]Habitat acronyms: DCSS=disturbed Diegan coastal sage scrub, DEV=developed land (includes unvegetated concrete-lined streambed), DL=disturbed land, DW=disturbed wetland, FWM=freshwater marsh (including disturbed), NNG=non-native grassland, ORN=ornamental/non-native vegetation, SWS=southern willow scrub (includes disturbed), STM/NFC= streambed/City natural flood channel (includes developed land)

The majority of Reach 11 and all of Reach 12 is concrete-lined on the bottom and both banks. Reach 11 is composed of freshwater marsh (disturbed), southern willow scrub (disturbed), disturbed wetland, and ornamental/non-native vegetation. Reach 12 is composed of freshwater marsh (disturbed), a few patches of southern willow scrub (including disturbed), and non-native vegetation (Figure 4a).

The staging and loading areas are located just outside of Reach 11/12 and consist of a loading area at 30th Street, and a staging area in the uplands and developed areas adjacent to Nestor Creek. This work area supports Diegan coastal sage scrub (disturbed), non-native grassland, native vegetation, disturbed land, and developed area.

Vegetation communities within Reaches 11 and 12 are described below.

Freshwater Marsh (disturbed, 0.07 acre)
Cattail (*Typha* spp.) is the dominant species present in this disturbed vegetation community. Other species in this community include Mexican sprangle-top (*Leptochloa fusca* ssp. *uninervia*), castor bean, umbrella plant (*Cyperus involucratus*), and bristly ox-tongue (*Helminthotheca echioides*).

Southern Willow Scrub (including disturbed; 0.10 acre)
Within Reaches 11 and 12, patches of this vegetation community are present along the concrete-lined and earthen channel, and are dominated by arroyo willow (*Salix lasiolepis*). Goodding's black willow (*Salix gooddingii*) is also present. In some places, there is a greater concentration of non-native species, including castor bean, umbrella plant,

and non-native grasses, and these areas are mapped as a disturbed phase.

Disturbed Wetland (0.07 acre)
This vegetation community occurs within the concrete-lined and earthen bottom channel in Reach 11. This disturbed wetland is characterized by a mix of native (cattail) and non-native plants, including umbrella plant and pampas grass (*Cortaderia selloana*).

Streambed (0.06 acre)
Unvegetated portions of the concrete-lined channel are mapped as streambed. Occasional umbrella plant is present in these areas; however, these areas are largely devoid of vegetation.

Ornamental/Non-native Vegetation (0.24 acre)
Ornamental/non-native vegetation grows along the southern bank of Nestor Creek, on the east side of Reach 12. This occupies 0.09 acre of the maintenance area and 0.002 acre of the adjacent loading area. Non-native vegetation also grows along 0.15 acre of the channel banks in Reach 11. This vegetation community is made up of predominantly non-native species, including fennel (*Foeniculum vulgare*), fountain grass (*Pennisetum setaceum*), castor bean, and Bermuda grass (*Cynodon dactylon*).

Disturbed Land (0.18 acre)
Disturbed land is present in the northeast corner of Reach 12 and comprises 0.01 acre of the maintenance area and 0.004 acre of the adjacent loading area. A 0.05-acre patch of this habitat is present in the northwest corner of Reach 11. Patches of this vegetation community are present in the staging area (0.11 acre) and loading area (0.003 acre). Disturbed land contains sparse vegetation that includes non-native species such as Russian thistle (*Salsola tragus*), oats (*Avena* sp.), and hottentot-fig (*Carpobrotus edulis*), castor bean, and fountain grass.

Developed Land (0.35 acre)
Developed land includes the 0.01-acre unpaved loading area adjacent to 30th Street and the 0.34-acre of the concrete-lined bank(s) of Reaches 11 and 12. Scattered individuals of upland weeds are present but the developed land is largely unvegetated.

Diegan coastal sage scrub (disturbed, 0.02 acre staging area)
A patch of disturbed Diegan coastal sage scrub occurs in the staging area adjacent to the Nestor Creek maintenance area. Native shrubs in this area were California buckwheat (*Eriogonum fasciculatum*), California encelia (*Encelia californica*), and California sagebrush (*Artemisia californica*). This area contains a fair amount of non-native species, and it is mapped as a disturbed phase.

Non-native Grassland (0.78 acre staging area)
This vegetation community comprises most of the staging area for Reaches 11 and 12. Common species in this area are Bermuda grass, fennel, dallis grass (*Paspalum dilatatum*), and curly dock (*Rumex crispus*).

Wildlife Value:

Several of the vegetation communities within the maintenance area provide habitat for wildlife, including potential nesting and foraging songbirds and small mammals. A list of the 39 wildlife species detected during the biological surveys and site assessment is provided as Attachment 4.

Agency Jurisdiction:

In addition to the general biological survey and site assessment, HELIX also conducted a preliminary jurisdictional delineation on October 7, 2015 (Attachment 5). The preliminary jurisdictional delineation was conducted visually (no soil pit was dug) to identify and map potential jurisdictional waters and wetlands, including waters of the U.S. (WUS) subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the federal Clean Water Act (CWA); pursuant to Section 401 of the federal CWA of the Regional Water Quality Control Board (RWQCB); streambed and riparian habitat subject to the regulatory jurisdiction of the California Department of

Fish and Wildlife (CDFW) pursuant to Section 1600 of the California Fish and Game Code; and wetlands pursuant to the City's Environmentally Sensitive Lands (ESL) regulations.

The USACE wetland boundaries were determined using three criteria (vegetation, hydrology, and soils) established for wetland delineations as described within the Wetlands Delineation Manual (Environmental Laboratory 1987) and Arid West Regional Supplement (USACE 2008). Areas were determined to be non-wetland WUS if there was evidence of regular surface flow (e.g., bed and bank) but either the vegetation or soils criterion was not met. Jurisdictional estimates for the RWQCB were based on the USACE boundaries.

The CDFW jurisdictional boundaries (i.e., Waters of the State) were determined based on the presence of riparian vegetation or regular surface flow.

City wetland boundaries were based on the definition of wetlands pursuant to the San Diego Municipal Code Section 113.0103, and include areas characterized by any of the following conditions: (1) All areas persistently or periodically containing naturally occurring wetland vegetation communities characteristically dominated by hydrophytic vegetation, including but not limited to salt marsh, brackish marsh, freshwater marsh, riparian forest, oak riparian forest, riparian woodlands, riparian scrub, and vernal pools; (2) Areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities because human activities have removed the historic wetland vegetation or catastrophic or recurring natural events or processes have acted to preclude the establishment of wetland vegetation as in the case of salt pannes and mudflats; (3) Areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands; and (4) Areas mapped as wetlands on Map C-713 as shown in Chapter 13, Article 2, Division 6 (Sensitive Coastal Overlay Zone).

The existing jurisdictional areas for the various agencies are illustrated in Tables 2 and 3 and depicted on Figure 6.

Table 2
EXISTING USACE AND RWQCB JURISDICTIONAL AREAS (WUS) (acre[s])[1]

MAP (REACH)[2]	CHANNEL TYPE	WETLAND WUS[3]				NON-WETLAND WUS[3]	TOTAL USACE
		SWS	FWM	DW	Total Wetland	STM	
Nestor Creek Map 131 (Reaches 11 & 12)	Earthen	<0.01[4]	0.01	0.01	**0.02**	0	**0.02**
	Concrete	0.03	0.06	0.06	**0.15**	0.06	**0.21**
	Total	**0.04**	**0.07**	**0.07**	**0.17**	**0.06**	**0.23**

[1] Habitats are rounded to the nearest 0.01 acre; thus, totals reflect rounding.
[2]Map Numbers from the City's MMP (2011a); Reach from the IHHA (2017a)
[3]Habitat acronyms: DW=disturbed wetland, FWM=freshwater marsh (includes disturbed), STM=streambed (includes developed land), SWS=southern willow scrub (includes disturbed).
[4]Impacts to southern willow scrub (earthen bottom channel) total approximately 130 square feet (0.003 acre).

Table 3
EXISTING CDFW AND CITY JURISDICTIONAL AREAS (acre[s])[1]

MAP (REACH)[2]	CHANNEL TYPE	WETLAND/RIPARIAN HABITAT[3]				DRAINAGE[3]				TOTAL	
		SWS	FWM	DW	Total Wetland/ Riparian	STM/ NFC	DL	ORN	DEV	CDFW[4]	CITY
Nestor Creek Map 131 (Reaches 11 & 12)	Earthen	0.07	0.01	0.01	**0.09**	0	0.03	0.06	0	**0.18**	**0.09**
	Concrete	0.03	0.06	0.06	**0.15**	0.06	0	0.09	0.30	**0.60**	**0.21**
	Total	**0.10**	**0.07**	**0.07**	**0.24**	**0.06**	**0.03**	**0.15**	**0.30**	**0.78[4]**	**0.30**

[1] Habitats are rounded to the nearest 0.01 acre; thus, totals reflect rounding.
[2]Map Numbers from the City's MMP (2011a); Reach from the IHHA (2017a)
[3]Habitat acronyms: DEV=developed land (concrete bank), DL=disturbed land (earthen bank), DW=disturbed wetland, FWM=freshwater marsh (includes disturbed), STM/NFC= streambed/City natural flood channel (includes developed land), ORN=ornamental/non-native vegetation (concrete/earthen bank), SWS=southern willow scrub (includes disturbed).
[4]CDFW jurisdictional area includes additional 0.48 acre of bank (City upland: developed land [concrete], ornamental, and disturbed land).

MAINTENANCE IMPACTS

Maintenance Methodology (based on IMP):

An IMP (Rick 2017b) was prepared for the proposed maintenance in accordance with the MMP. The IMP identifies the limits of maintenance and describes the methodology to be used within the channel. The maintenance methodologies are summarized below.

Maintenance in Map 131 includes 1,000 linear feet of concrete bottom channel and 150 linear feet of earthen bottom channel. Maintenance is expected to remove up to 1,290 cubic yards (1,120 cubic yards from concrete bottom and 170 cubic yards from earthen bottom) of material over a 14-day period in order to restore the original capacity of the channel to convey storm water. Equipment involved in the maintenance will include a front-end loader, track steer, excavator, and dump truck. Diversion pumps will be placed at the upstream and downstream ends of the maintenance area. Water will be pumped around the maintenance area in a pipe and discharged downstream of the maintenance area.

The front-end loader and track steer will be lowered into the channel by the excavator from a vacant lot located approximately mid-point on the north side of the drainage. This access and staging area would be accessed from 30th Street. The front-end loader and track steer will push material to the excavator operating in the central access point and staging area. The excavator will transfer the material to dump trucks for disposal at an authorized disposal site.

Street sweepers will sweep adjacent public rights-of-way and immediate truck loading sites nightly. Upon completion of the maintenance, any sandbags placed will be removed and the equipment will be transported back to the City yard.

Vegetation Impacts:

Wetland

The total project impacts on City wetlands associated with the proposed maintenance within Map 131 is 0.24 acre (Table 4). The wetland acreage is composed of 0.10 acres of southern willow scrub (including disturbed), 0.07 acre of freshwater marsh (including disturbed), and 0.07 acre of disturbed wetland. The project would also impact 0.06 acre of natural flood channel/streambed.

Upland

Overall, proposed maintenance impacts a total of 1.57 acres of upland communities (Table 4). This acreage consists of 0.02 acre of disturbed Diegan coastal sage scrub, 0.78 acre of non-native grassland, 0.24 acre of ornamental/non-native vegetation (including 0.15 acre of CDFW jurisdictional bank), 0.18 acres of disturbed land (including 0.03 acre of CDFW jurisdictional bank), and 0.35 acre of developed land (including 0.30 acre of CDFW jurisdictional bank).

Table 4
MAINTENANCE IMPACTS

TOTAL IMPACTS	
City Vegetation/Land Cover Impacts:	**1.87 acres**
City Wetland	0.24 acre
City Natural flood channel	0.06 acre
Upland (Diegan coastal sage scrub, non-native grassland, ornamental/non-native vegetation, disturbed land, and developed land)	1.57 acres[1]
USACE/RWQCB/CDFW Jurisdictional Areas:	
Wetland and Non-wetland Waters (USACE WUS, RWQCB)	0.23 acre
Wetland/Riparian habitat and Drainage (CDFW)	0.78 acre[1]

[1]1.57 acres of City upland and 0.78 acre of CDFW jurisdiction include 0.48 acre of bank (developed land, ornamental, and disturbed land).

Sensitive* Plant Species Observed: Yes ☐ No ▣ If yes, what species were observed and where? If yes, complete a California Native Species Field Survey Form and submit it to the California Natural Diversity Database. * Sensitive species shall include those listed by state or federal agencies as well as species that could be considered sensitive under Sections 15380(b) and (c) and 15126(c) of the CEQA Guidelines.	**Sensitive* Animal Species Observed/Detected:** Yes ☐ No ▣ If yes, what species were observed/detected and where? If yes, complete a California Native Species Field Survey Form and submit it to the California Natural Diversity Database. * Sensitive species shall include those listed by state or federal agencies as well as species that could be considered sensitive under Sections 15380(b) and (c) and 15126(c) of the CEQA Guidelines.

Plants

No federal or state-listed plant species, or other sensitive plant species, was detected during the biological survey. Three species have been reported within 0.5 mile of the maintenance areas: singlewhorl burrobush (*Ambrosia monogyra;* Rank 2B.2), San Diego barrel cactus (*Ferocactus viridescens*; Rank 2B.1), and golden-spined cereus (*Bergerocactus emoryi*; Rank 2B.2; Figure 5). Rank 2B.1 indicates species that are rare or endangered in California, but more common elsewhere, and seriously threatened in California. Rank 2B.2 indicates that they are rare or endangered in California, but more common elsewhere, and moderately threatened in California. None of these species were observed during the survey, and their potential to occur within the maintenance area is low.

Animals

No federal or state-listed animal species, or other sensitive animal species, was detected during the biological survey. Two special-status animal species have been reported within 0.5 mile of the maintenance areas as documented in CNDDB, USFWS, and SanBIOS databases: pallid bat (*Antrozous pallidus*; state Species of Special Concern [SSC]) and coast horned lizard (*Phrynosoma blainvillii*; state SSC; Figure 5). Neither of these species were observed during the survey.

Is any portion of the maintenance activity within an MHPA? Yes ☐ No ▣

Is there moderate or high potential for listed animal species to occur in or adjacent to the impact area?
Yes ☐ No ▣

If yes, which species (check all that apply) and describe any surveys which should be undertaken to determine whether those species could occur within the maintenance area:

☐ Least Bell's vireo
☐ Southwestern willow flycatcher
☐ Arroyo toad
☐ Coastal California gnatcatcher
☐ San Diego fairy shrimp
☐ Riverside fairy shrimp
☐ California least tern
☐ Light-footed clapper rail
☐ Western snowy plover
☐ Other: _____

Although there is not a moderate or high potential for LBV to occur, this species is listed as Endangered under the federal and state Endangered Species Acts, and inhabits mature riparian scrub and forest with a well-developed canopy and stratified understory.

The 2016 LBV survey report concluded that southern willow scrub within the work area was marginally suitable for this species because the potential habitat consisted of isolated patches of riparian vegetation (generally less than 0.5 acre) that are not connected to other larger, more contiguous patches of potential habitat, the vegetation communities occur along a narrow storm channel, and the area is interspersed with habitat not suitable for LBV (e.g., freshwater marsh and open water; HELIX 2016; Attachment 6). Although the potential for LBV to reside inside most of the work area is low and the work area is not conducive to LBV breeding due to extensive patches of ornamental/non-native vegetation, a poorly-developed understory, and immediate adjacency to commercial and residential development and busy roadway, there is potential for LBV to nest in patches of Reach 12 and for individuals to forage inside the work

area. Because of this potential, the 2016 survey was conducted according to the USFWS protocol for presence/absence surveys to comply with Applicable Maintenance Protocol BIO-5 and Specific Breeding Bird Mitigation Measures. Survey results were negative.

Attach documentation supporting the determination of the presence or absence of listed animal species with a moderate or high potential to occur (e.g. California Natural Diversity Database records searches).

No sensitive species have been reported within the work areas during previous surveys. Therefore, the potential for state and federally listed sensitive species other than Migratory Bird Treaty Act (MBTA) Protected Birds and raptors and coast horned lizard, which was reported within 0.5 mile, to occur within the work area is considered very low. Figure 5 depicts CNDDB, USFWS, and SanBIOS database records within one-half mile of the project sites. Two species have been documented within one-half mile of the three reaches. Coast horned lizard, a CDFW species of special concern, is typically found in areas with sandy soil, scattered shrubs, and ant colonies, such as along the edges of arroyo bottoms or dirt roads (Hollingsworth 2007). It is not expected in the more wet channel bottoms characteristic of the maintenance area but has moderate potential to occur along banks and in the loading and staging areas. Pallid bat, a CDFW species of special concern, is not likely to roost in the work area, but may use it to forage. Thus, the potential for impacts to pallid bat is low.

With respect to the parameter used to determine the need for a detailed Individual Noise Assessment (INA), no sensitive species are expected to occur within 750 feet of the proposed maintenance. Thus, a detailed INA is not required but an INA was prepared to document that no noise assessment was performed or required.

Is there moderate or high potential for a listed plant species to occur in or adjacent to the impact area?
Yes ☐ No ▣

If yes, identify which species may occur and describe any surveys which should be undertaken to determine whether those species could occur within the maintenance area:

No federal or state-listed plant species, or other sensitive plant species, were detected during the biological survey. The three species mapped within 0.5 mile of the project work areas are perennial species that would have been observed if present: singlewhorl burrobush, San Diego barrel cactus, and golden-spined cereus. The small, disturbed, patch of coastal sage scrub within the staging area for Reaches 11 or 12 is not likely to support this species, and it was not observed during surveys. Coast woolly-heads, an annual herb, is found in coastal strand and creosote bush scrub on dunes, habitats not present within the work area. Thus, no federal or state-listed plant species, or other sensitive species, have a moderate or high potential to occur within the maintenance area.

Attach documentation supporting the determination of the presence or absence of listed plant species with a moderate or high potential to occur (e.g. California Natural Diversity Database records searches).

See Figure 5.

Could maintenance disrupt the integrity of an important habitat (i.e., disruption of a wildlife corridor and/or an extensive riparian woodland: Yes ☐ No ▣

If yes, discuss which habitat could be impacted and how:

Could work be conducted during the avian breeding season (January 15 – August 31) without the need for pre-construction nesting surveys: Yes ☐ No ▣

Nesting birds have potential to occur within or adjacent to the area of the proposed channel maintenance. Thus, pre-construction nesting surveys by a qualified biologist are necessary to help ensure no impacts to avian species occur and that the project would comply with the MBTA and MMP's PEIR MMRP. The potential exists for birds protected by the MBTA to nest in trees in and adjacent to the maintenance area. The MBTA prohibits deliberate take of birds, eggs, and active nests without a permit from the USFWS. Permits are issued for specific categories of deliberate take (e.g., scientific collection, removal of depredating birds); however, not for incidental take (take that is the unintended

result of an otherwise lawful action). As no incidental take permits can be issued under MBTA, no conditions to avoid incidental take can be placed on discretionary permits pursuant to MBTA (such conditions would constitute a *de facto* incidental take permit). In practice, reasonable diligence to avoid take of birds and/or active nests, such as pre-construction nesting bird surveys, is considered sufficient to avoid prosecution under MBTA.

If yes, provide justification:

Is it anticipated that maintenance activities would generate noise in excess of 60 dB(A) L_{EQ}? Yes ☒ No ☐

Equipment used during maintenance may generate noise in excess of 60 dB(A)L_{EQ}.

If yes, what measures should be taken to avoid adverse impacts on avian bird breeding within or adjacent to the maintenance?

Although maintenance operations have potential to generate noise in excess of 60 dB(A)L_{EQ}, as described above, no sensitive wildlife is expected to occur in the vicinity of the work. Thus, maintenance activities would not cause a significant noise impact to sensitive breeding birds.

Biological Resource Conditions Relative to Original Survey Conducted for MASTER PROGRAM Final Program EIR (May 2010) (vegetation communities present, including adjacent uplands; general habitat quality/level of disturbance):

The majority of habitat mapping and programmatic jurisdictional delineation work (based largely on aerial and topographic interpretation combined with upstream and downstream observations) for the PEIR was conducted by HELIX in late winter and early spring of 2007 and 2008. Based on current aerial photographs and the site-specific field survey in October 2015, the following observations are different from the original survey:

- Reach 11: In 2007-2008, this reach was mapped as a mostly freshwater marsh channel bottom surrounded by developed habitat and, at the northwestern end, by disturbed land. The portions of the channel bottom have now developed into disturbed wetland, a willow tree had grown in the channel bottom, and portions of the channel edges had become ornamental/non-native vegetation.
- Reach 12: In 2007-2008, this reach was mapped as developed, with most of the channel bottom mapped as freshwater marsh. The patches of southern willow scrub (including disturbed) have now developed in the channel, and portions of the channel bottom were mapped as streambed. The staging area was originally mapped as mostly disturbed land with non-native grassland nearest the channel. The staging area has become non-native grassland, except for the northern end. A small patch of Diegan coastal sage scrub is mapped adjacent to the channel.

Between 2007-2008 and current conditions, vegetation communities developed and expanded in the maintenance areas (such as the growth of southern willow scrub in Reaches 11, and 12). Some transition of vegetation communities from a higher quality to a lower quality habitat was also noted, such as the freshwater marsh largely becoming disturbed wetland and non-native grassland becoming disturbed land and developed land. The channels are subject to the same levels of trash deposition, noise, and urban runoff as in 2007-2008, although urban runoff likely decreased during the years of drought.

Adjacent upland habitats have changed minimally since 2007, except for the small patch of Diegan coastal sage scrub in the staging area near Reach 12. The staging area for Reach 11/12 converted from disturbed land to non-native grassland. Except for the Diegan coastal sage scrub and disturbed wetland (arundo dominated), all adjacent uplands were non-native grassland, developed, or disturbed land in 2007-2008 and current conditions are generally consistent.

Is there a moderate or high potential for maintenance to impact an MHPA?
Yes ☐ No ▣

If yes, discuss the potential impacts that could occur from the portion within or adjacent to that MHPA:

The MHPA is approximately 1,250 meters (4,100 feet) southwest of the maintenance area in Map 131 (Figure 3). As the maintenance would not be adjacent to an MHPA, there would be no indirect impacts to an MHPA. Thus, no significant impacts would occur to the MHPA from the proposed maintenance.

Is there moderate or high potential for listed animal species to be impacted?
Yes ☐ No ▣

If yes, which species (check all that apply):

☐ Least Bell's vireo
☐ Southwestern willow flycatcher
☐ Arroyo toad
☐ Coastal California gnatcatcher
☐ San Diego fairy shrimp
☐ Riverside fairy shrimp
☐ California least tern
☐ Light-footed clapper rail
☐ Western snowy plover
☐ Other: _____

Protocol presence/absence surveys conducted in 2016 for LBV was negative and concluded that southern willow scrub in and near maintenance areas is marginally suitable for the species (HELIX 2016). Thus, LBV is not expected to be present, and there is low potential for maintenance impacts to this species.

MITIGATION

Applicable Maintenance Protocols from the MMP (list the applicable maintenance protocols based on the biological resources occurring or likely to occur on site --include any special protocols required):

The following protocols specified in the MMP will be carried out by individuals with qualifications approved by the City.

Water Quality (WQ)

WQ-5 Revegetate spoil and staging areas within 30 days of completion of maintenance activities. Monitor and maintain revegetated areas for a period of not less than 25 months following planting.

WQ-10 Inspect earthen-bottom storm water facilities within 30 days of the first two-year storm following maintenance. Implement erosion control measures recommended by the field engineer, such as fiber blankets, to remediate substantial erosion that has occurred and to minimize future erosion.

Biological Resource Protection (BIO)

BIO-1 Restrict vehicles to access designated in the Master Program.

BIO-2 Flag and delineate all sensitive biological resources to remain within or adjacent to the maintenance area prior to initiation of maintenance activities in accordance with the site-specific IBA, IHHA, and/or IMP.

BIO-3 Conduct a pre-maintenance meeting on site prior to the start of any maintenance activity that occurs within or adjacent to sensitive biological resources. The pre-maintenance meeting shall include the qualified biologist, field engineer/planner, equipment operators/superintendent, and any other key personnel conducting or involved with the channel maintenance activities. The qualified biologist shall point out or identify sensitive biological resources to be avoided during maintenance, flag/delineate sensitive resources to be avoided, review specific measures to be implemented to minimize direct/indirect impacts, and direct crews or other personnel to protect sensitive biological resources as necessary. The biologist shall also review the proposed erosion control methods to confirm that they would not pose a risk to wildlife (e.g., non-biodegradable blankets, which may entangle wildlife).

BIO-4 Avoid introduction of invasive plant species with physical erosion control measures (e.g., fiber mulch, rice straw, etc.).

BIO-5 Conduct appropriate pre-maintenance protocol surveys if maintenance is proposed during the breeding season of a sensitive animal species. If sensitive animal species covered by the PEIR are identified, then applicable measures from the MMRP shall be implemented under the direction of a qualified biologist to avoid significant direct and/or indirect impacts to identified sensitive animal species. If sensitive animal species are identified during pre-maintenance surveys that are not covered by the PEIR, the Storm Water Department shall contact the appropriate wildlife agencies and additional environmental review under CEQA will be required (Pre-maintenance surveys are not required within one year of a negative protocol survey).

BIO-6 Remove arundo through one, or a combination of, the following methods: (1) foliar spray (spraying herbicide on leaves and stems without cutting first) when arundo occurs in monotypic stands, or (2) cut and paint (cutting stems close to the ground and spraying or painting herbicide on cut stem surface) when arundo is intermixed with native plants. When sediment supporting arundo must be removed, the sediment shall be excavated to a depth sufficient to remove the rhizomes, wherever feasible. Following removal of sediment containing rhizomes, loose rhizome material shall be removed from the channel and disposed of off site. After the initial treatment, the area of removal shall be inspected on a quarterly basis for up two years, or until no re-sprouting is observed during an inspection. If re-sprouting is observed, the cut and paint method shall be applied to all resprouts.

BIO-7 Avoid mechanized maintenance within 300 feet of a Cooper's hawk nest, 900 feet of a northern harrier's nest, or 500 feet of any other raptor's nest until any fledglings have left the nest. Reduced setbacks shall be allowed if the biological monitor determines that the setbacks can be reduced based on the field observations, ambient conditions, life history of the affected birds, and type of maintenance proposed. In the event the biological monitor determines that a reduced setback is appropriate, the biologist shall prepare a letter summarizing the basis for the reduced setbacks and send it to the CDFW and USFWS for concurrence prior to invoking reduced setbacks.

Specific Breeding Bird Mitigation Measures

- In accordance with BIO-5, if work along Nestor Creek is proposed during the breeding season of the LBV (March 15 – September 15), USFWS-protocol surveys and noise analysis would be performed according to Land Use Mitigation Measures 4.1.2 and 4.1.3. HELIX conducted protocol presence/absence surveys for LBV in 2016 (HELIX 2016). Since the LBV was not observed, LBV are not presumed to be present, and a noise analysis is not required. However, an INA was prepared to document that no significant noise increase would occur, per Land Use Mitigation Measure 4.1.4, given that noise from maintenance activities would not exceed the allowed levels (60 dB(A) L_{EQ}, or ambient +3 dB if ambient is above 60 dB(A) L_{EQ}). Therefore, work does not need to be scheduled outside the breeding season.

- In accordance with BIO-5, if maintenance is planned during the avian breeding season (January 15 through August 31), pre-construction nesting surveys shall be conducted within three days of initiating maintenance activities and maintenance setbacks established around active nests in accordance with PEIR Mitigation Measures 4.3.13 and 4.3.16. Reduced setbacks shall be allowed if the biological monitor determines that the setbacks can be reduced based on the field observations, ambient conditions, life history of the affected birds, and type of maintenance proposed. In the event the biological monitor determines that a reduced setback is appropriate, the biologist shall prepare a letter summarizing the basis for the reduced setbacks, and send it to the CDFW and USFWS for concurrence prior to invoking reduced setbacks.

Applicable PEIR mitigation measures:

General Mitigation 1, 2, 3, and 4;

Biological Resources 4.3.1, 4.3.2, 4.3.3, 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.8, 4.3.9, 4.3.10, 4.3.11, 4.3.13, 4.3.14, 4.3.16, 4.3.18, 4.3.21, 4.3.22, 4.3.25

Land Use, 4.1.6, 4.1.7

Applicable PEIR MMs have been included in their entirety in Attachment 1.

Other mitigation measures: Regulatory permits, agreements, and/or authorizations may require additional conditions to avoid, minimize, and/or mitigate impacts to biological resources.

- The designated biological monitor shall be present throughout the first full day of maintenance, whenever mandated by the associated IBA (PEIR Mitigation Measure 4.3.13).
- Surveys for state or federally listed sensitive or MSCP-covered species older than 24 months must be updated, as appropriate, to accurately reflect resources on site (City Guidelines for Conducting Biology Surveys, 2002).

Environmental Mitigation Requirements (including wetland enhancement, restoration, creation, and/or purchase of wetland credits in a mitigation bank; off-site upland habitat acquisition/payment into the City's habitat acquisition fund):

Wetlands

Mitigation is generally required for impacts to wetlands associated with similar maintenance activities. The mitigation ratios for maintenance activities must be consistent with those identified in the Settlement Agreement related to the Final PEIR for the MMP.

Mitigation for jurisdictional impacts is also dependent upon the composition of the channel. Jurisdiction and mitigation ratios are different for earthen and concrete channels.

The following is a description of mitigation required for jurisdictional impacts:

USACE/RWQCB Jurisdictional Areas:

Earthen-bottom Channels

The USACE and RWQCB have jurisdiction over earthen channels within Nestor Creek, and will require compensatory mitigation for maintenance impacts to wetlands. Impacts to USACE and RWQCB jurisdictional earthen bottom channel from maintenance will amount to 0.02 acre. Mitigation is proposed at a 2:1 ratio for wetland impacts, and a 1:1 ratio for non-wetland impacts, resulting in a total mitigation requirement of 0.04 acre (Table 5).

Table 5
USACE/RWQCB PROPOSED MITIGATION FOR EARTHEN CHANNELS[1]

VEGETATION COMMUNITY	IMPACTS TO NATURAL-BOTTOM CHANNEL (ac)	MITIGATION RATIO	MITIGATION (ac)
Freshwater Marsh	0.01	2:1	0.02
Southern Willow Scrub	<0.01[2]	2:1	<0.01
Disturbed Wetland	0.01	2:1	0.02
Wetlands Subtotal	**0.02**	--	**0.04**
Streambed/Natural Flood Channel	--	1:1	--
Non-wetland Waters Subtotal	**--**	**--**	**--**
GRAND TOTAL	**0.02**	**--**	**0.04**

[1]Acreages are rounded to the nearest 0.01 acre; thus, totals reflect rounding.
[2]Impacts to southern willow scrub (earthen bottom channel) total approximately 130 square feet (0.003 acre).

Concrete-lined Channels

The USACE does not regulate activities that occur in concrete-lined channels unless the work involves the placement of fill. Per section 404 (f)(1)(b) of the CWA, the maintenance of serviceable structures is exempt from USACE regulation. Based on previous USACE determinations, this exemption covers concrete-lined facilities. Nestor Creek Reaches 11 and 12 qualify as serviceable structures.

Previous habitat mitigation required by the San Diego RWQCB for maintenance on concrete-lined MMP channels has been on a case-by-case basis, typically 1:1 or 2:1 enhancement for impacts to wetland habitat. No RWQCB mitigation for the disturbed habitats (0.06 acre disturbed FWM, 0.03 acre disturbed SWS, or 0.06 acre disturbed wetland) and unvegetated channel (0.06 acre) within the concrete portions is being proposed at this time. However, at the RWQCB's discretion, habitat mitigation can be accommodated with enhancement credit for higher quality wetlands within the 5.41-acre Otay Reed mitigation site. The proposed mitigation provided for the earthen-channel impacts noted above will still produce a higher-quality contiguous riparian environment by increasing hydrologic and water quality functions, decreasing the prevalence of invasive and exotic species, and allowing native plant communities to thrive and provide habitat for wildlife throughout the Otay River watershed.

CDFW Jurisdictional Areas:

The CDFW has jurisdiction over earthen channels within Nestor Creek, and will require compensatory mitigation for maintenance impacts to wetlands. While CDFW requires notification of activities within concrete-lined channels, it typically does not require compensatory mitigation for these activities. Impacts to CDFW jurisdictional earthen-bottom channel from maintenance will amount to 0.09 acre (Table 6). Mitigation for impacts to CDFW jurisdictional areas (riparian habitat and earthen-bottom streambed) is proposed at a 2:1 ratio for freshwater marsh, disturbed wetland, and southern willow scrub; and a 0:1 ratio for streambed (consisting of earthen banks characterized by upland vegetation/land covers) resulting in a total mitigation requirement of 0.18 acres (Table 6). No mitigation is proposed for indirect impacts to the 0.18-acre of earthen stream bank that is characterized by upland vegetation communities (developed, ornamental, and disturbed land).

Table 6
CDFW PROPOSED MITIGATION FOR WETLAND IMPACTS TO ALL CHANNELS[1]

VEGETATION COMMUNITY	IMPACTS (ac)	RATIO	MITIGATION (ac)
Freshwater Marsh	0.01	2:1	0.02
Southern Willow Scrub	0.07	2:1	0.14
Disturbed Wetland	0.01	2:1	0.02
Streambed[2]	0.18	0:1[2]	0
TOTAL	**0.09**	**--**	**0.18**

[1]Acreages are rounded to the nearest 0.01 acre; thus, totals reflect rounding.
[2] Ornamental and disturbed land on earthen stream bank. No mitigation is proposed for indirect impacts to these upland vegetation communities.

City Wetlands:

The City regulates both earthen and concrete-lined channels and requires compensatory mitigation for wetland impacts pursuant to the mitigation ratios specified in the modified Site Development Permit 1134892 and CDP for the Master Storm Water System Maintenance Program. As illustrated in Table 7, the proposed maintenance will require mitigation to compensate for a total of 0.30 acre of impacts consisting of 0.24 acre of impact to City wetlands, including freshwater marsh, southern willow scrub, and disturbed wetland, and 0.06 acre of impact to natural flood channel. Mitigation will also be required for impacts to 0.06 acre of natural flood channel. These include all impacts to such vegetation, including vegetation in concrete-lined channels. Impacts to disturbed wetland (disturbed land, non-native riparian, and ornamental/non-native vegetation) consisting of pure stands of non-native species such as Mexican fan palm, giant reed, and castor bean, do not require compensatory mitigation under condition 9e of the Master CDP, which is applied to all impacts under the terms of the Settlement Agreement, nor require mitigation under the City's Significance Determination Thresholds (2007, updated 2011). Concrete-lined channels without accumulated sediment and/or vegetation inside the project areas will not be affected by project activities and no impact to such areas will result from the project. Wetland mitigation will be provided at a 4:1 ratio for freshwater marsh and disturbed wetland, consisting of 1:1 restoration or creation and 3:1 acquisition and/or enhancement; and at a ratio of 3:1 for southern willow scrub, consisting of 1:1 restoration or creation and 2:1 acquisition and/or enhancement, to comply with the Settlement Agreement. Mitigation for impacts to natural flood channel is required at 2:1, and the City Biology Guidelines (City 2012) preference for these habitats is out-of-kind mitigation with better habitat. In-kind could be considered where it would clearly benefit sensitive species and result in a biologically superior alternative. The total mitigation requirement for City wetland and natural flood channel impacts is 0.98 acre (Table 7).

Table 7
CITY MITIGATION SUMMARY FOR WETLAND IMPACTS TO ALL CHANNELS[1]

VEGETATION COMMUNITY	IMPACT TO EARTHEN CHANNEL (ac)	IMPACT TO CONCRETE-LINED CHANNEL (ac)	TOTAL IMPACT (ac)	RATIO	MITIGATION (ac)
Freshwater Marsh	0.01	0.06	0.07	4:1	0.26
Southern Willow Scrub	0.07	0.03	0.10	3:1	0.31
Disturbed Wetland	0.01	0.06	0.07	4:1	0.29
Natural Flood Channel	--	0.06	0.06	2:1	0.12
TOTAL	**0.09**	**0.21**	**0.30**	**--**	**0.98**

[1]Acreages are rounded to the nearest 0.01 acre; thus, totals reflect rounding.

Uplands

The City regulates impacts to uplands and requires compensatory mitigation for upland impacts pursuant to the mitigation ratios specified in the San Diego Municipal Code Land Development Code's Biology Guidelines (City 2012). Impacts to sensitive uplands (Diegan coastal sage scrub and non-native grassland) would require a total of 0.41 acre of mitigation (Table 8), assuming mitigation occurs inside the MHPA. Should mitigation for both vegetation communities occur outside the MHPA, the total mitigation requirement would be 0.81 acre.

Table 8
CITY MITIGATION SUMMARY FOR UPLANDS

VEGETATION COMMUNITY	IMPACTS OUTSIDE THE MHPA (ac)	MITIGATION RATIO WITHIN THE MHPA[1]	MITIGATION (ac)
Diegan Coastal Sage Scrub	0.02	1:1	0.02
Non-native Grassland	0.78	0.5:1	0.39
Ornamental/Non-native Vegetation	0.24	0:1	--
Disturbed Land	0.18	0:1	--
Developed Land	0.35	0:1	--
TOTAL	**1.57**	**--**	**0.41**

[1] Assumes mitigation is occurring inside the MHPA. Mitigation outside the MHPA would occur at a 1:1 ratio (0.78 acre) for non-native grassland and at a 1.5:1 ratio (0.03 acre) for Diegan coastal sage scrub, for a total of 0.81 acre of upland mitigation.

Mitigation Description/Location:

Mitigation for wetland impacts from maintenance in Map 131 is proposed at the Otay Reed Mitigation Parcel in the Otay Valley Regional Park. The location of the mitigation site is shown on Figure 7. A wetland mitigation plan shall be prepared in accordance with the Conceptual Wetland Restoration Plan contained in Appendix H of the Biological Technical Report, included as Appendix D.3 of the PEIR. Per the City's Biology Guidelines (City 2012), mitigation may be provided within or adjacent to the MHPA.

Upland impacts shall be mitigated through payment into the City's Habitat Acquisition Fund for acquisition and preservation of specific land, or purchase of mitigation credits at an approved mitigation bank such as the Marron Valley Mitigation Bank.

California Rapid Assessment Method (CRAM) was used as an indicator of wetland condition in the Nestor Creek channel. The purpose of CRAM is to provide a rapid, standardized, and scientifically defensible assessment of the status of a wetland. The CRAM results are provided in Attachment 2. These CRAM scores will be used to document the condition of the Nestor Creek channel prior to maintenance and will be used for comparisons with restoration areas being used to mitigate for channel impacts.

ADDITIONAL COMMENTS OR RECOMMENDATIONS

Individual Biological Assessment Report Figures:

Figure 1: Regional Location Map
Figure 2: Project Vicinity Map (USGS Topography)
Figure 3: Project Vicinity Map (Aerial Photograph)
Figure 4: Vegetation and Sensitive Biological Resources, Nestor Creek Channel – Map 131/Reaches 11 & 12
Figure 5: Sensitive Species Occurrences within One-half Mile of Project Location, Nestor Creek Channel
Figure 6: Waters of the U.S./State and City Wetlands, Nestor Creek Channel – Map 131/Reaches 11 & 12
Figure 7: Project Site and Mitigation Location

Individual Biological Assessment Report Attachments:

Attachment 1: Applicable PEIR Mitigation Measures
Attachment 2: CRAM Data Sheets and Figures
Attachment 3: Plant Species Observed in the Nestor Creek Channel
Attachment 4: Wildlife Species Observed in the Nestor Creek Channel
Attachment 5: Preliminary Jurisdictional Determination Form
Attachment 6: 2016 Least Bell's Vireo Survey Report

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SITE PHOTOS

PHOTO NOTES:
Reach 11, looking upstream from the downstream end**.**

PHOTO NOTES:
Reach 11, looking downstream from the upstream end**.**

PHOTO NOTES:
Reach 12, looking upstream from the downstream end**.**

PHOTO NOTES:
Reach 12, looking downstream from the upstream end**.**

	
PHOTO NOTES: Reach 11/12, looking west/downstream at coastal sage scrub in staging area.	**PHOTO NOTES:** Reach 11/12, looking west at staging area.

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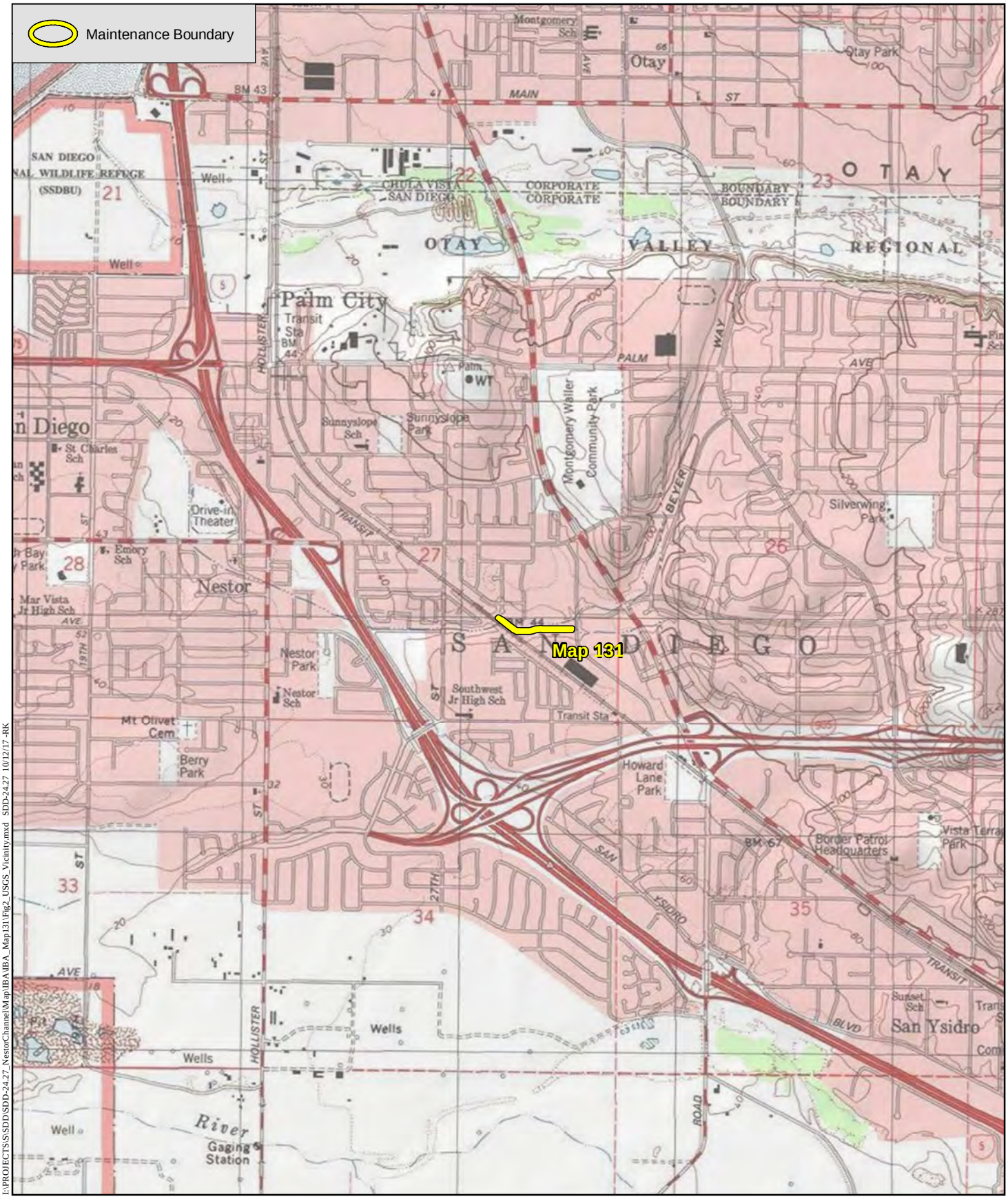
Regional Location Map

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

HELIX Environmental Planning

N 0 8 Miles

Figure 1



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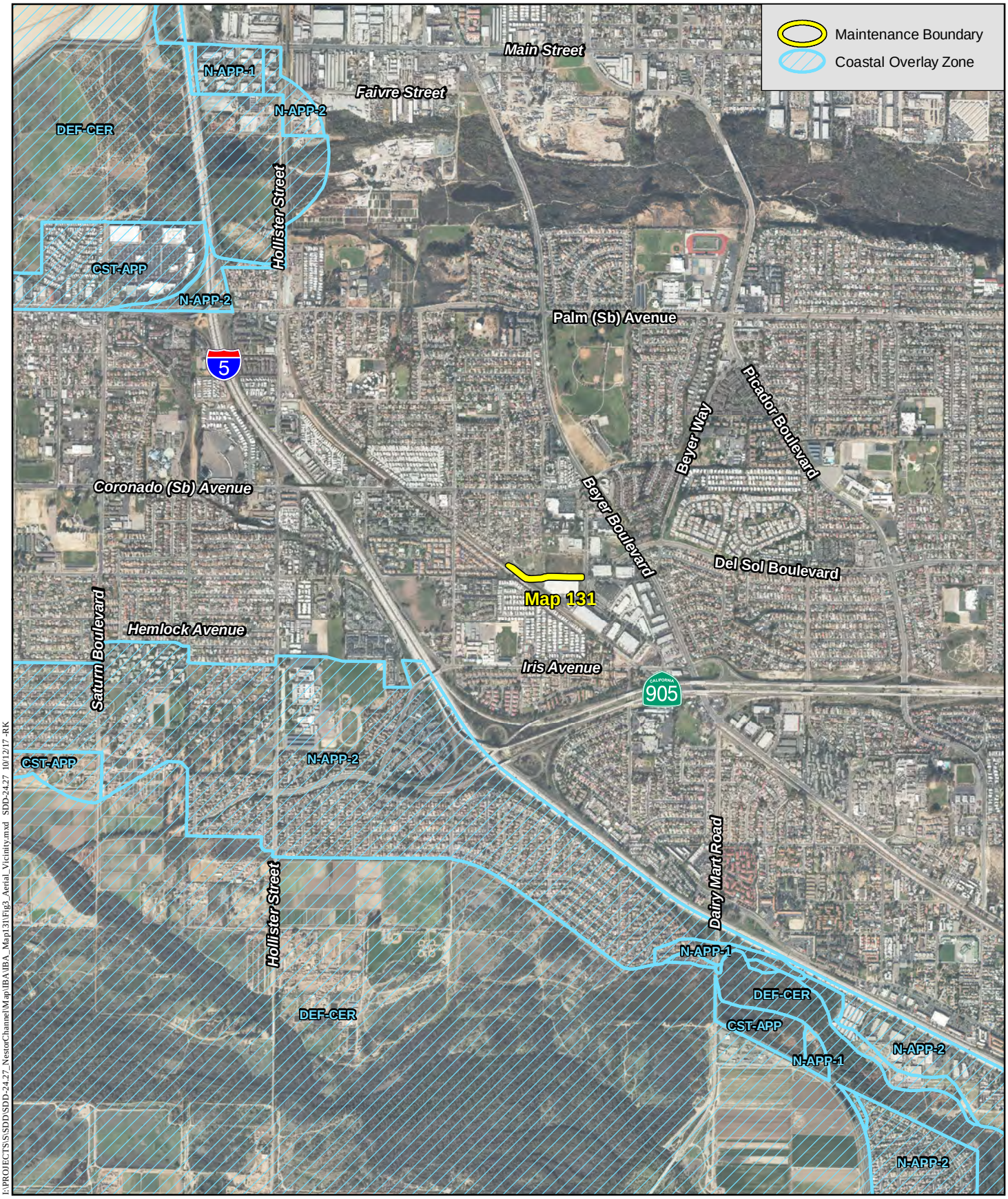
Project Vicinity (USGS Topography)

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

HELIX Environmental Planning

N 0 2,000 Feet

Figure 2



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Project Vicinity (Aerial Photograph)

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

HELIX Environmental Planning

N 0 2,000 Feet

Figure 3

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Vegetation and Sensitive Biological Resources, Nestor Creek Channel - Map 131/Reach 11 & 12

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

HELIX Environmental Planning

0 100 Feet

Figure 4

I:\PROJECTS\SDD\SDD-24-27_NestorChannel\Map\BA\BA_Map131Fig5_SensitiveSpecies.mxd SDD-24.27 10/12/17 -RK

Sensitive Species Occurrences within One-half Mile of Project Location, Nestor Creek Channel

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

HELIX Environmental Planning

N

0 1,200 Feet

Figure 5

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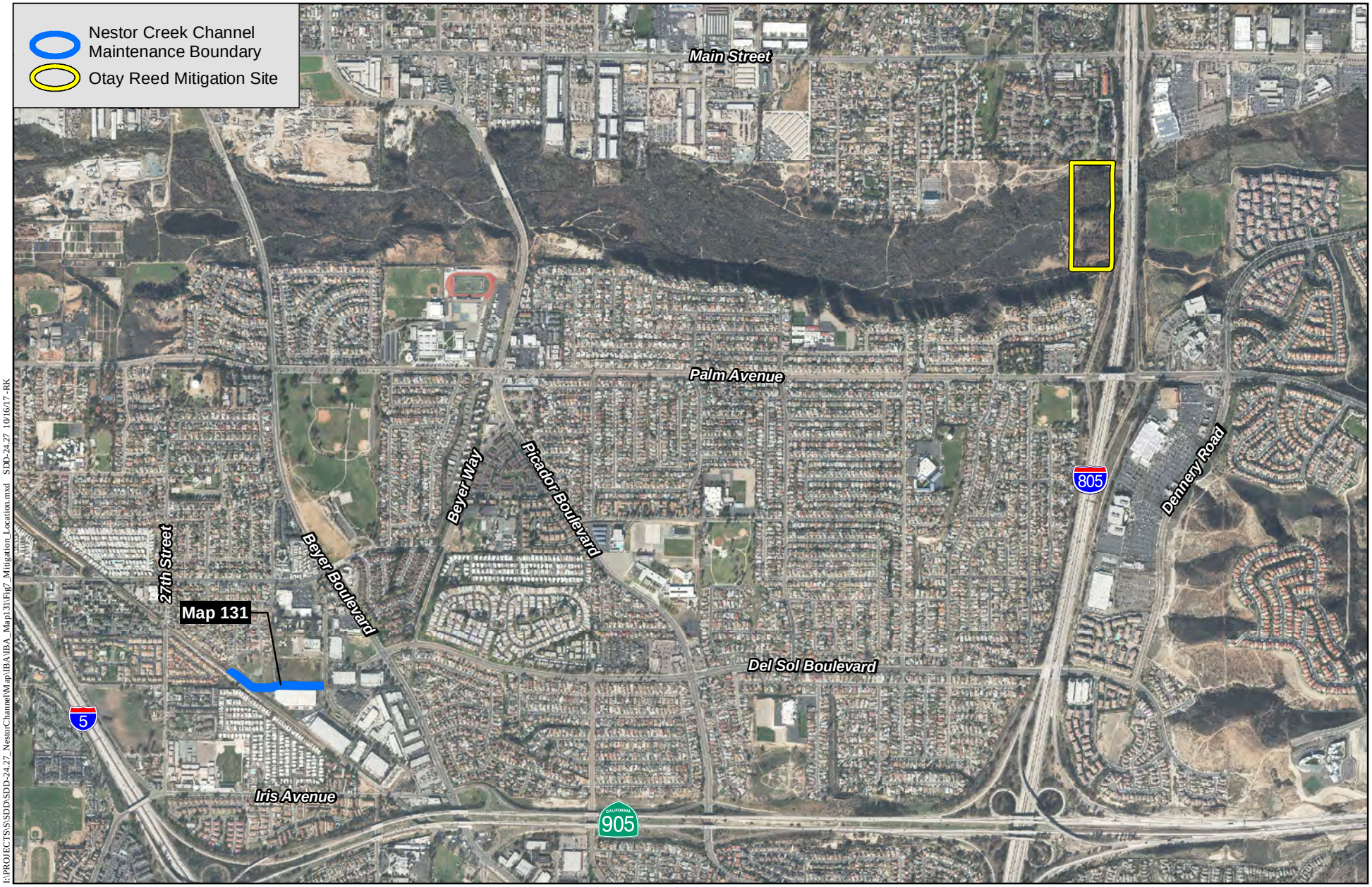
Jurisdictional Delineation, Nestor Creek Channel - Map 131/Reach 11 & 12

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

HELIX Environmental Planning

N 0 100 Feet

Figure 6



Project Site and Mitigation Location

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

HELIX Environmental Planning

N 0 1,700 Feet

Figure 7

Attachment 1

APPLICABLE PEIR MITIGATION MEASURES

Attachment 1
Applicable PEIR Mitigation Measures

GENERAL

General Mitigation 1: Prior to commencement of work, the Assistant Deputy Director (ADD) Environmental Designee of the Entitlements Division shall verify that mitigation measures for impacts to biological resources (Mitigation Measures 4.3.1 through 4.3.20), historical resources (Mitigation Measures 4.4.1 and 4.4.2), land use policy (Mitigation Measures 4.1.1 through 4.1.13), paleontological resources (Mitigation Measure 4.7.1), and water quality (Mitigation Measures 4.8.1 through 4.8.3) have been included in entirety on the submitted maintenance documents and contract specifications, and included under the heading, "Environmental Mitigation Requirements." In addition, the requirements for a Pre-maintenance Meeting shall be noted on all maintenance documents.

General Mitigation 2: Prior to the commencement of work, a Pre-maintenance Meeting shall be conducted and include, as appropriate, the Mitigation Monitoring Coordinator (MMC), Storm Water Division (SWD) Project Manager, Biological Monitor, Historical Monitor, Paleontological Monitor, Water Quality Specialist, and Maintenance Contractor, and other parties of interest.

General Mitigation 3: Prior to the commencement of work, evidence of compliance with other permitting authorities is required, if applicable. Evidence shall include either copies of permits issued, letters of resolution issued by the Responsible Agency documenting compliance, or other evidence documenting compliance and deemed acceptable by the ADD Environmental Designee.

General Mitigation 4: Prior to commencement of work and pursuant to Section 1600 et seq. of the State of California Fish & Game Code, evidence of compliance with Section 1605 is required, if applicable. Evidence shall include either copies of permits issued, letters of resolution issued by the Responsible Agency documenting compliance, or other evidence documenting compliance and deemed acceptable by the ADD Environmental Designee.

BIOLOGICAL RESOURCES

Mitigation Measure 4.3.1: Prior to commencement of any activity within a specific annual maintenance program, a qualified biologist shall prepare an Individual Biological Assessment (IBA) for each area proposed to be maintained. The IBA shall be prepared in accordance with the specifications included in the Master Program.

Mitigation Measure 4.3.2: No maintenance activities within a proposed annual maintenance program shall be initiated before the City's ADD Environmental Designee and state and federal agencies with jurisdiction over maintenance activities have approved the Individual Maintenance Plans (IMPs) and IBAs including proposed mitigation for each of the proposed activities. In their review, the ADD Environmental Designee and agencies shall confirm that the appropriate maintenance protocols have been incorporated into each IMP.

Mitigation Measure 4.3.3: No maintenance activities within a proposed annual maintenance program shall be initiated until the City's ADD Environmental Designee and MMC have approved the qualifications for biologist(s) who shall be responsible for monitoring maintenance activities that may impact sensitive biological resources.

Mitigation Measure 4.3.4: Prior to undertaking any maintenance activity included in an annual maintenance program, a mitigation account shall be established to provide sufficient funds to implement all biological mitigation associated with the proposed maintenance activities. The fund amount shall be determined by the ADD Environmental Designee. The account shall be managed by the City's SWD, with quarterly status reports submitted to Development Services Department (DSD). The status reports shall separately identify upland and wetland account activity. Based upon the impacts identified in the IBAs, money shall be deposited into the account, as part of the project submittal, to ensure available funds for mitigation.

Mitigation Measure 4.3.5*:* Prior to commencing any activity that could impact wetlands, evidence of compliance with other permitting authorities is required, if applicable. Evidence shall include copies of permits issued, letters of resolution issued by the Responsible Agency documenting compliance, or other evidence documenting compliance and deemed acceptable by the ADD Environmental Designee.

Mitigation Measure 4.3.6: Prior to commencing any activity where the IBA indicates significant impacts to biological resources may occur, a pre-maintenance meeting shall be held on site with the following in attendance: City's SWD Maintenance Manager (MM), MMC, and Maintenance Contractor (MC). The biologist selected to monitor the activities shall be present. At this meeting, the monitoring biologist shall identify and discuss the maintenance protocols that apply to the maintenance activities.

At the pre-maintenance meeting, the monitoring biologist shall submit to the MMC and MC a copy of the maintenance plan (reduced to 11"x17") that identifies areas to be protected, fenced, and monitored. This data shall include all planned locations and design of noise attenuation walls or other devices. The monitoring biologist also shall submit a maintenance schedule to the MMC and MC indicating when and where monitoring is to begin and shall notify the MMC of the start date for monitoring.

Mitigation Measure 4.3.7: Within three months following the completion of mitigation monitoring, two copies of a written draft report summarizing the monitoring shall be prepared by the monitoring biologist and submitted to the MMC for approval. The draft monitoring report shall describe the results including any remedial measures that were required. Within 90 days of receiving comments from the MMC on the draft monitoring report, the biologist shall submit one copy of the final monitoring report to the MMC.

Mitigation Measure 4.3.8: Within six months of the end of an annual storm water facility maintenance program, the monitoring biologist shall complete an annual report which shall be distributed to the following agencies: the City of San Diego DSD, California Department of Fish and Wildlife, Regional Water Quality Control Board, U.S. Fish and Wildlife Service (USFWS),

and U.S. Army Corps of Engineers. At a minimum, the report shall contain the following information:

- Tabular summary of the biological resources impacted during maintenance and the mitigation;
- Master table containing the following information for each individual storm water facility or segment which is regularly maintained;
- Date and type of most recent maintenance;
- Description of mitigation which has occurred; and
- Description of the status of mitigation that has been implemented for past maintenance activities.

Mitigation Measure 4.3.9: Wetland impacts resulting from maintenance shall be mitigated in one of the following two ways: (1) habitat creation, restoration, and/or enhancement, or (2) mitigation credits. The amount of mitigation shall be in accordance with ratios in Table 4.3-10 unless different mitigation ratios are required by state or federal agencies with jurisdiction over the impacted wetlands. In this event, the mitigation ratios required by these agencies will supersede, and not be in addition to, the ratios defined in Table 4.3-10. No maintenance shall commence until the ADD Environmental Designee has determined that mitigation proposed for a specific maintenance activity meets one of these two options.

Table 4.3-10
WETLAND MITIGATION RATIOS

WETLAND TYPE	MITIGATION RATIO
Southern riparian forest	3:1
Southern sycamore riparian woodland	3:1
Riparian woodland	3:1
Coastal saltmarsh	4:1
Coastal brackish marsh	4:1
Southern willow scrub	2:1
Mule fat scrub	2:1
Riparian scrub[1]	2:1
Freshwater marsh[2]	2:1
Cismontane alkali marsh	4:1
Disturbed wetland	2:1
Streambed/natural flood channel	2:1

[1] Mitigation ratio within the Coastal Zone will be 3:1
[2] Mitigation ratio within the Coastal Zone will be 4:1

Mitigation locations for wetland impacts shall be selected using the following order of preference, based on the best mitigation value to be achieved.

1. Within impacted watershed, within City limits.
2. Within impacted watershed, outside City limits on City-owned or other publicly-owned land.
3. Outside impacted watershed, within City limits.
4. Outside impacted watershed, outside City limits on City-owned or other publically-owned land.

In order to mitigate for impacts in an area outside the limits of the watershed within which the impacts occur, the SWD must demonstrate to the satisfaction of the ADD Environmental Designee in consultation with the Resource Agencies that no suitable location exists within the impacted watershed.

Mitigation Measure 4.3.10: Whenever maintenance will impact wetland vegetation, a wetland mitigation plan shall be prepared in accordance with the Conceptual Wetland Restoration Plan contained in Appendix H of the Biological Technical Report, included as Appendix D.3 of the PEIR.

Mitigation that involves habitat enhancement, restoration, or creation shall include a wetland mitigation plan containing the following information:

- Conceptual planting plan including planting zones, grading, and irrigation;
- Seed mix/planting palette;
- Planting specifications;
- Monitoring program including success criteria; and
- Long-term maintenance and preservation plan.

Mitigation that involves habitat acquisition and preservation shall include the following:

- Location of proposed acquisition;
- Description of the biological resources to be acquired including support for the conclusion that the acquired habitat mitigates for the specific maintenance impact; and
- Documentation that the mitigation area would be adequately preserved and maintained in perpetuity.

Mitigation that involves the use of mitigation credits shall include the following:

- Location of the mitigation bank;
- Description of the credits to be acquired including support for the conclusion that the acquired habitat mitigates for the specific maintenance impact; and
- Documentation that the credits are associated with a mitigation bank which has been approved by the appropriate Resource Agencies.

Mitigation Measure 4.3.11: Upland impacts shall be mitigated through payment into the City's Habitat Acquisition Fund, acquisition and preservation of specific land, or purchase of mitigation credits in accordance with the ratios identified in Table 4.3-11. Upland mitigation shall be completed within six months of the date the related maintenance has been completed.

Table 4.3-11
UPLAND HABITAT MITIGATION RATIOS[1]

Vegetation Type	Tier	Location of Impact with Respect to the MHPA	
		Inside	Outside
Coast live oak woodland	I	2:1	1:1
Scrub oak chaparral	I	2:1	1:1
Southern foredunes	I	2:1	1:1
Beach	I	2:1	1:1
Diegan coastal sage scrub	II	1:1	1:1
Coastal sage-chaparral scrub	II	1:1	1:1
Broom baccharis scrub	II	1:1	1:1
Southern mixed chaparral	IIA	1:1	0.5:1
Non-native grassland	IIIB	1:1	0.5:1
Eucalyptus woodland	IV	--	--
Non-native vegetation/ornamental	IV	--	--
Disturbed habitat/ruderal	IV	--	--
Developed	IV	--	--

[1]Assumes mitigation occurs within a Multi-Habitat Planning Area (MHPA)

(Mitigation Measure 4.3.12 not applicable)

Mitigation Measure 4.3.13: Prior to commencing any maintenance activity, which may impact sensitive biological resources, the monitoring biologist shall verify that the following actions have been taken, as appropriate:

- Fencing, flagging, signage, or other means to protect sensitive resources to remain after maintenance have been implemented;

- Noise attenuation measures needed to protect sensitive wildlife are in place and effective; and/or

- Nesting raptors have been identified and necessary maintenance setbacks have been established if maintenance is to occur between January 15 and August 31.

The designated biological monitor shall be present throughout the first full day of maintenance, whenever mandated by the associated IBA. Thereafter, through the duration of the maintenance activity, the monitoring biologist shall visit the site weekly to confirm that measures required to protect sensitive resources (e.g., flagging, fencing, noise barriers) continue to be effective. The monitoring biologist shall document monitoring events via a Consultant Site Visit Record. This record shall be sent to the MM each month. The MM will forward copies to MMC.

Mitigation Measure 4.3.14: Whenever off-site mitigation would result in a physical disturbance to the proposed mitigation area, the City will conduct an environmental review of the proposed mitigation plan in accordance with the California Environmental Quality Act (CEQA). If the off-site mitigation would have a significant impact on biological resources associated with the mitigation site, mitigation measures will be identified and implemented in accordance with the Mitigation, Monitoring and Reporting Program (MMRP) resulting from that CEQA analysis.

(Mitigation Measure 4.3.15 not applicable)

Mitigation Measure 4.3.16: Maintenance activities shall not occur within the following areas:

- 300 feet from any nesting site of Cooper's hawk (*Accipiter cooperii*);

- 1,500 feet from known locations of the southern pond turtle (*Clemmys marmorata pallida*);

- 900 feet from any nesting sites of northern harriers (*Circus cyaneus*);

- 4,000 feet from any nesting sites of golden eagles (*Aquila chrysaetos*); or

- 300 feet from any occupied burrow or burrowing owls (*Athene cunicularia*).

(Mitigation Measure 4.3.17 not applicable)

Mitigation Measure 4.3.18*:* If a subject species is not detected during the protocol survey, the qualified biologist shall submit substantial evidence to the ADD Environmental Designee and an applicable resource agency, which demonstrates whether or not mitigation measures such as noise walls are necessary between the dates stated above for each species. If this evidence concludes that no impacts to this species are anticipated, no mitigation measures would be necessary.

Mitigation Measure 4.3.19: If the SWD chooses not to do the required surveys, then it shall be assumed that the appropriate avian species are present and all necessary protection and mitigation measures shall be required as described in Mitigation Measure 4.3.21

Mitigation Measure 4.3.20: If no surveys are completed and no sound attenuation devices are installed, it will be assumed that the habitat in question is occupied by the appropriate species and that maintenance activities would generate more than 60dB(A) L_{eq} within the habitat requiring protection. All such activities adjacent to the protected habitat shall cease for the duration of the breeding season of the appropriate species and a qualified biologist shall establish a limit of work.

Mitigation Measure 4.3.21: If maintenance occurs during the raptor breeding season (January 15 to August 31), a pre-maintenance survey for active raptor nests shall be conducted in areas supporting suitable habitat. If active raptor nests are found, maintenance shall not occur within 300 feet of a Cooper's hawk nest, 900 feet of a northern harrier's nest, or 500 feet of any other raptor's nest until any fledglings have left the nest.

Mitigation Measure 4.3.22: If removal of any eucalyptus trees or other trees used by raptors for nesting within a maintenance area is proposed during the raptor breeding season (January 15 through August 31), a qualified biologist shall ensure that no raptors are nesting in such trees. If maintenance occurs during the raptor breeding season, a pre-maintenance survey shall be conducted and no maintenance shall occur within 300 feet of any nesting site of Cooper's hawk or other nesting raptor until the young fledge. Should the biologist determine that raptors are nesting, the trees shall not be removed until after the breeding season. In addition, if removal of grassland or other habitat appropriate for nesting by northern harriers, a qualified biologist shall ensure that no harriers are nesting in such areas. If maintenance occurs during the raptor breeding season, a pre-maintenance survey shall be conducted and no maintenance shall occur within 900 feet of any nesting site of northern harrier until the young fledge.

(Mitigation Measure 4.3.23 not applicable)

(Mitigation Measure 4.3.24 not applicable)

Mitigation Measure 4.3.25*:* In order to avoid impacts to nesting avian species, including those species not covered by the Multiple Species Conservation Program (MSCP), maintenance within or adjacent to avian nesting habitat shall occur outside of the avian breeding season (January 15 to August 31) unless postponing maintenance would result in a threat to human life or property.

LAND USE

(Mitigation Measure 4.1.1 not applicable)

(Mitigation Measure 4.1.2 not applicable)

(Mitigation Measure 4.1.3 not applicable)

(Mitigation Measure 4.1.4 not applicable)

(Mitigation Measure 4.1.5 not applicable)

Mitigation Measure 4.1.6: A pre-maintenance meeting shall be held with the Maintenance Contractor, City representative, and the Project Biologist. The Project Biologist shall discuss the sensitive nature of the adjacent habitat with the crew and subcontractor. Prior to the pre-maintenance meeting, the following shall be completed:

- The SWD shall provide a letter of verification to the Mitigation Monitoring Coordination Section stating that a qualified biologist, as defined in the City of San Diego Biological Resources Guidelines, has been retained to implement the projects MSCP monitoring Program. The letter shall include the names and contact information of all persons involved in the Biological Monitoring of the project. At least 30 days prior to the pre-maintenance meeting, the qualified biologist shall submit all required documentation to MMC, verifying that any special reports, maps, plans and time lines, such as but not limited to, revegetation plans, plant relocation requirements and timing, MSCP requirements, avian or other wildlife protocol surveys, impact avoidance areas or other such information has been completed and updated.

- The limits of work shall be clearly delineated. The limits of work, as shown on the approved maintenance plan, shall be defined with orange maintenance fencing and checked by the biological monitor before initiation of maintenance. All native plants or species of special concern, as identified in the biological assessment, shall be staked, flagged and avoided within Brush Management Zone 2, if applicable.

Mitigation Measure 4.1.7: Maintenance plans shall be designed to accomplish the following.

- Invasive non-native plant species shall not be introduced into areas adjacent to the MHPA. Landscape plans shall contain non-invasive native species adjacent to sensitive biological areas, as shown on the approved maintenance plan.

- All lighting adjacent to, or within, the MHPA shall be shielded, unidirectional, low pressure sodium illumination (or similar) and directed away from sensitive areas using appropriate placement and shields. If lighting is required for nighttime maintenance, it shall be directed away from the preserve and the tops of adjacent trees with potentially nesting raptors, using appropriate placement and shielding.

- All maintenance activities (including staging areas and/or storage areas) shall be restricted to the disturbance areas shown on the approved maintenance plan. The project biologist shall monitor maintenance activities, as needed, to ensure that maintenance activities do not encroach into biologically sensitive areas beyond the limits of work as shown on the approved maintenance plan.

- No trash, oil, parking, or other maintenance-related activities shall be allowed outside the established maintenance areas including staging areas and/or storage areas, as shown on

the approved maintenance plan. All maintenance related debris shall be removed off-site to an approved disposal facility.

- Access roads through MHPA-designated areas shall comply with the applicable policies contained in the "Roads and Utilities Construction and Maintenance Policies" identified in Section 1.4.2 of the City's Subarea Plan.

(Mitigation Measure 4.1.8 not applicable)

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Attachment 2

CRAM DATA SHEETS AND FIGURES

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619.462.0552 **fax**
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May 3, 2017

Ms. Christine Rothman
City of San Diego – Transportation & Stormwater/Operations & Maintenance
2871 Caminito Chollas, MS#44
San Diego, CA 92105

Subject: CRAM Analysis for the Nestor Creek Channel Maintenance Project

Dear Ms. Rothman,

This letter summarizes the results of a California Rapid Assessment Method (CRAM) analysis conducted for the Nestor Creek Channel Map No. 131 Maintenance Project (project) by HELIX Environmental Planning, Inc. (HELIX). This letter summarizes the methods and results of the CRAM assessment. The CRAM scores will be used to document the condition of the Nestor Creek Channel prior to maintenance and will be used for comparisons with the restoration areas being used to mitigate for channel impacts.

METHODS

The ecological and hydrological condition of the Nestor Creek channel was assessed using the CRAM Riverine Module according to methods outlined in the CRAM User's Manual (CWMW 2013a) and Riverine Field Book (CWMW 2013b). The purpose of CRAM is to provide a rapid, standardized, and scientifically-defensible qualitative assessment of the status of a wetland. Two trained CRAM practitioners (HELIX biologists Jasmine Bakker and Erica Harris) conducted the CRAM assessment on October 7, 2015 for Assessment Area (AA) 131. The CRAM assessment conducted within AA-131 represents Nestor Creek Map 131/Reach 12

An overall CRAM score was calculated by averaging the scores for each of the three CRAM Attributes. The CRAM score represents the percent of best achievable wetland conditions, and the overall CRAM score depends more on the diversity and levels of all its services than the level of any one service. The diversity and levels of services of a wetland increase with its structural complexity and size.

RESULTS

A summary of the CRAM results are provided in Table 1; the results are explained in text

following Table 1. The CRAM assessment data sheets and map are provided in Attachment A and explain how the scores were calculated.

Table 1*
CRAM DATA SUMMARY

CRAM ATTRIBUTES	METRICS		AA-131 SCORE*
Buffer and Landscape Context	Stream Corridor Continuity		3
	Buffer Sub-metrics:		
	– Percent of Assessment Area with Buffer		12
	– Average Buffer Width		6
	– Buffer Condition		6
	Attribute Score (Raw/Final)		**10.1/42.2**
Hydrology	Water Source		6
	Channel Stability		3
	Hydrologic Connectivity		6
	Attribute Score (Raw/Final)		**12.0/33.3**
Structure	Physical	Structural Patch Richness	3
		Topographic Complexity	6
	Attribute Score (Raw/Final)		**6.0/25.0**
	Biotic	Plant Community Sub-metrics:	
		– Number of Plant Layers Present	6
		– Number of Co-dominant Species	3
		– Percent Invasion	12
		Horizontal Interspersion	3
		Vertical Biotic Structure	3
	Attribute Score (Raw/Final)		**19.0/52.8**
	OVERALL AA SCORE		**38**

*Possible scores range from a low of 3 to a high of 12 (with scores of 6 and 9 considered moderate in this assessment). The Raw/Final Attribute Scores are explained in the following discussions of each CRAM Attribute.

Buffer and Landscape Context

Stream Corridor Continuity refers to the spatial association with other areas of aquatic resources, such as other wetlands, and it is assumed that wetlands close to each other interact and are benefited both ecologically and hydrologically. AA-131 received a low score for Stream Corridor

Continuity because the wetland areas are separated by non-wetland areas of concrete-lined channels and culverts, etc.

A buffer is the area adjoining an AA that is in a natural or semi-natural state and is currently not dedicated to anthropogenic uses that would severely detract from its ability to entrap contaminants, discourage visitation into the AA by people and non-native predators, or otherwise protect the AA from stress and disturbance. For the Buffer Sub-metrics, AA-131 scored highly because 100 percent of the AA has a buffer with an average width of 66 meters (217 feet) that is providing some wetland protection.

Hydrology

Water Sources include direct inputs of water into an AA, as well as any diversions of water from an AA. Water Sources directly affect the extent, duration, and frequency of saturated or ponded conditions within an AA. Consistent, natural inflows of water to a wetland are important for their ability to perform and maintain most of their intrinsic ecological, hydrological, and societal functions and services. AA-131 received a moderate score for Water Sources.

Channel Stability is assessed as the degree of channel aggradation (i.e., net accumulation of sediment on the channel bed causing it to rise over time) or degradation (i.e., net loss of sediment from the bed causing it to be lower over time). AA-131 received a low score for channel stability as the channel showed signs of aggradation.

Hydrologic Connectivity describes the ability of water to flow into or out of a wetland, or to accommodate rising flood waters without persistent changes in water level that can result in stress to wetland plants and animals. It promotes the exchange of water, sediment, nutrients, and organic carbon. Since AA-131 is a concrete-lined narrow channel containing steep slopes, and contains features that can impede the flow of water (such as plant hummocks), floodwaters can rise quickly and result in stress to wetland plants and animals. Therefore, AA-131 received a moderate score for Hydrologic Connectivity.

Physical Structure

Structural Patch Richness is the number of different obvious types of physical surfaces or features that may provide habitat for aquatic, wetland, or riparian species. This metric is different from Topographic Complexity (described below) in that it addresses the number of different patch types; Topographic Complexity evaluates the spatial arrangement and interspersion of the patch types. AA-131 received a low score for Structural Patch Richness due to the fact that it supported one patch type out of a total of 12.

Topographic Complexity refers to the micro- and macro-topographic relief within a wetland due to abiotic features and elevations gradients. AA-131 received a low score since it is a concrete-lined channel with little to no Topographic Complexity present.

Biotic Structure

Plant Community Sub-metrics

AA-131 scored moderately for the number of plant layers present (two layers) but low for the number of co-dominant species (i.e., the dominant plant species richness in each plant layer for the AA as a whole; two species for AA-131).

Horizontal Interspersion

Horizontal Interspersion refers to the variety and interspersion of plant "zones." The existence of multiple horizontal plant zones indicates a well-developed plant community and predictable sedimentary and bio-chemical processes. Richer native communities of plants and animals tend to be associated with greater zonation and more interspersion. AA-131 is represented by two plant zones and scored low for Horizontal Interspersion.

Vertical Biotic Structure

Vertical Biotic Structure is the degree of overlap among plant layers (i.e., those used to assess the Plant Community Sub-metrics described above). The overall ecological diversity of a wetland tends to correlate with the vertical complexity of the wetland vegetation. AA-131 demonstrated minimal plant layer overlap and received a low score for this CRAM attribute.

Overall CRAM Score

Overall CRAM scores are calculated by averaging the scores for each of the three CRAM Attributes. CRAM scores represent the percent of best achievable wetland conditions, and the overall CRAM score depends more on the diversity and levels of all its services than the level of any one service. The diversity and levels of services of a wetland increase with its structural complexity and size. Given the majority of the Nestor Creek channels are wholly or partially concrete-lined flood control channels within urbanized areas, the structural complexity and size of AA-131 is limited and thus, the AA scored low. The overall CRAM score for AA-131 was 34.

Please don't hesitate to contact me or Erica Harris at (619) 462-1515 if you have any questions.

Sincerely,

Jasmine Bakker
Senior Scientist

Enclosures:
Figure 1 CRAM Assessment – Map 131
Attachment A CRAM Worksheets

REFERENCES

California Wetlands Monitoring Workgroup (CWMW). 2013a. California Rapid Assessment Method (CRAM) for Wetlands, Version 6.1 pp. 67. April. Available at: http://www.cramwetlands.org/documents.

2013b *California Rapid Assessment Method (CRAM) for Wetlands, Riverine Wetlands Field Book* Version 6.1, 46 pp. January. Available at: http://www.cramwetlands.org/documents.

Basic Information Sheet: Riverine Wetlands

Assessment Area Name:	Map 131-West of 30th ST.
Project Name:	Nestor Creek Channel Maintenance
Assessment Area ID #:	AA131
Project ID #:	SDD-24.20 **Date:** 10/6/15
Assessment Team Members for This AA:	Erica Harris Jasmine Barker
Average Bankfull Width:	10 ft
Approximate Length of AA (10 times bankfull width, min 100 m, max 200 m):	152
Upstream Point Latitude:	32°34'22.62"N **Longitude:** 117°04'08.83"W
Downstream Point Latitude:	32°34.22.46"N **Longitude:** 117°04'15.02"W

Wetland Sub-type:

☒ Confined ☐ Non-confined

AA Category:

☐ Restoration ☐ Mitigation ☒ Impacted ☐ Ambient ☐ Reference ☐ Training

☐ Other:

Did the river/stream have flowing water at the time of the assessment? ☒ yes ☐ no

What is the apparent hydrologic flow regime of the reach you are assessing?

The hydrologic flow regime of a stream describes the frequency with which the channel conducts water. *Perennial* streams conduct water all year long, whereas *ephemeral* streams conduct water only during and immediately following precipitation events. *Intermittent* streams are dry for part of the year, but conduct water for periods longer than ephemeral streams, as a function of watershed size and water source.

☒ perennial ☐ intermittent ☐ ephemeral

Photo Identification Numbers and Description:

	Photo ID No.	Description	Latitude N	Longitude W	Datum
1	131-E	Upstream	32°34'22.62"	117°04'09.12"	
2	131-N	Middle Left	32°34'22.04"	117°04'11.84"	
3	131-S	Middle Right	32°34.22.08"	117°04'12.33"	
4	131-W	Downstream	32°34.22.49"	117°04'15.02"	
5					
6					
7					
8					
9					
10					

Site Location Description:

Concrete lined, earthen bottom channel east of railroad & west of 30th street

Comments:

mostly open water with patches of SWS & FWM; flooding to north of channel has undermined or eroded portions of concrete sides

Scoring Sheet: Riverine Wetlands

AA Name: Map 131				Date: 10/6/15
Attribute 1: Buffer and Landscape Context (pp. 11-19)				Comments
Stream Corridor Continuity (D)		Alpha. D	Numeric 3	upstream erd goes underground
Buffer:				
Buffer submetric A: Percent of AA with Buffer	Alpha. A	Numeric 12		100% buffer
Buffer submetric B: Average Buffer Width	C	6		Avg width = 66m
Buffer submetric C: Buffer Condition	C	6		Disturbed with high % of NN veg
Raw Attribute Score = D+[C x (A x B)$^{1/2}$]$^{1/2}$		10.1		**Final Attribute Score = (Raw Score/24) x 100** 42.2
Attribute 2: Hydrology (pp. 20-26)				
Water Source		Alpha. C	Numeric 6	Primarily urban run-off
Channel Stability		D	3	100% concrete lined
Hydrologic Connectivity		C	6	RATIO = 33.3
Raw Attribute Score = sum of numeric scores		12		**Final Attribute Score = (Raw Score/36) x 100** 33.3
Attribute 3: Physical Structure (pp. 27-33)				
Structural Patch Richness		Alpha. D	Numeric 3	1 patch type
Topographic Complexity		D	3	No berm, mainly on concrete
Raw Attribute Score = sum of numeric scores		6		**Final Attribute Score = (Raw Score/24) x 100** 25
Attribute 4: Biotic Structure (pp. 34-41)				
Plant Community Composition (based on sub-metrics A-C)				
Plant Community submetric A: Number of plant layers	Alpha. C	Numeric 6		2 layers
Plant Community submetric B: Number of Co-dominant species	D	3		2 co-dom
Plant Community submetric C: Percent Invasion	A	12		0% invasion
Plant Community Composition Metric *(numeric average of submetrics A-C)*		7		
Horizontal Interspersion		D	3	No interspersion
Vertical Biotic Structure		D	3	little overlap
Raw Attribute Score = sum of numeric scores		13		**Final Attribute Score = (Raw Score/36) x 100** 36.1
Overall AA Score (average of four final Attribute Scores)				34.15

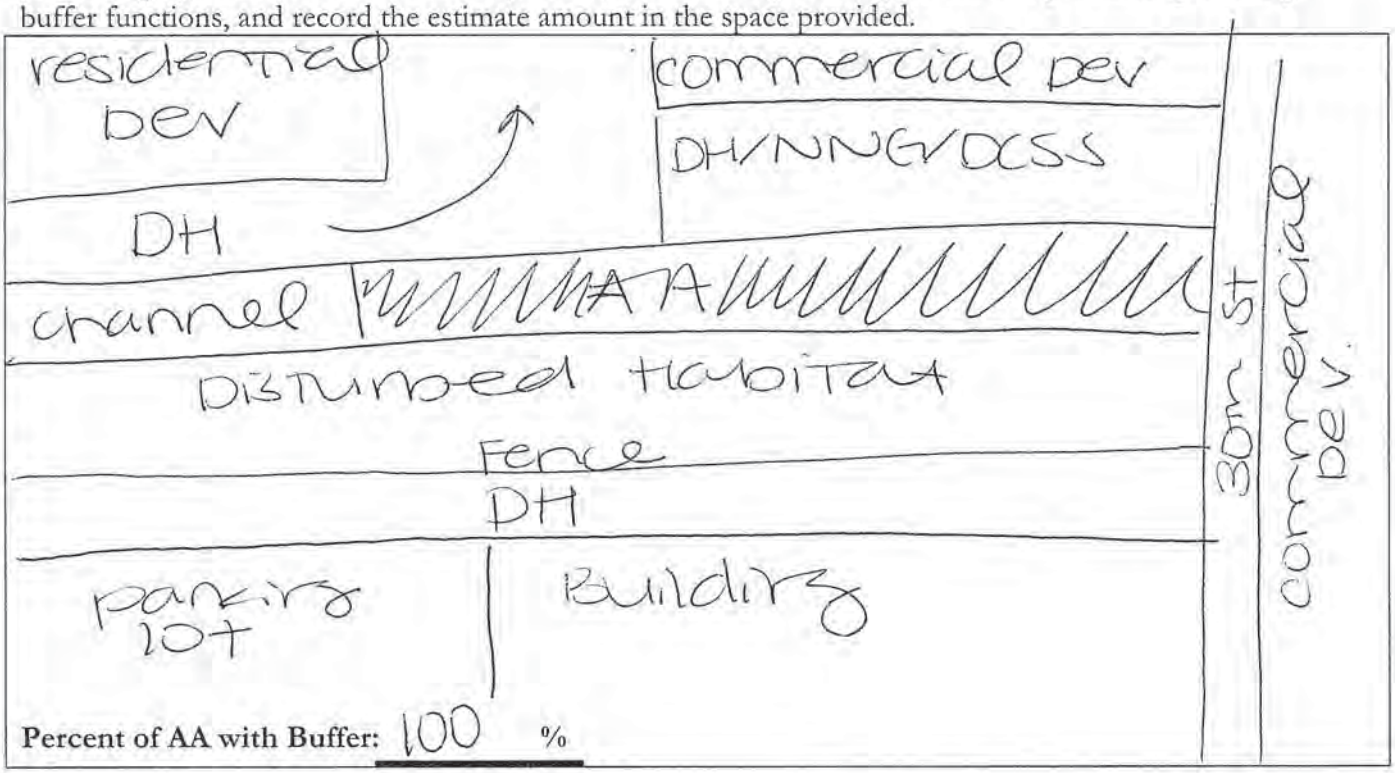
Worksheet for Stream Corridor Continuity Metric for Riverine Wetlands

Lengths of Non-buffer Segments For Distance of 500 m Upstream of AA		Lengths of Non-buffer Segments For Distance of 500 m Downstream of AA	
Segment No.	Length (m)	Segment No.	Length (m)
1	200	1	0
2	200	2	0
3	200	3	80
4	200	4	0
5	200	5	30
Upstream Total Length	800	Downstream Total Length	110

underground

Percent of AA with Buffer Worksheet

In the space provided below make a quick sketch of the AA, or perform the assessment directly on the aerial imagery; indicate where buffer is present, estimate the percentage of the AA perimeter providing buffer functions, and record the estimate amount in the space provided.



Percent of AA with Buffer: 100 %

Worksheet for calculating average buffer width of AA

Line	Buffer Width (m)
A	100
B	100
C	140
D	140
E	8
F	8
G	8
H	8
Average Buffer Width *Round to the nearest integer*	105.5

Worksheet for Assessing Channel Stability for Riverine Wetlands

Condition	Field Indicators (check all existing conditions)
Indicators of Channel Equilibrium	☐ The channel (or multiple channels in braided systems) has a well-defined bankfull contour that clearly demarcates an obvious active floodplain in the cross-sectional profile of the channel throughout most of the AA. ☐ Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it. ☐ There is leaf litter, thatch, or wrack in most pools (if pools are present). ☐ The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area. ☒ There is little or no active undercutting or burial of riparian vegetation. ☐ If mid-channel bars and/or point bars are present, they are not densely vegetated with perennial vegetation. ☐ Channel bars consist of well-sorted bed material (smaller grain size on the top and downstream end of the bar, larger grain size along the margins and upstream end of the bar). ☐ There are channel pools, the spacing between pools tends to be regular and the bed is not planar throughout the AA ☐ The larger bed material supports abundant mosses or periphyton.
Indicators of Active Degradation	☐ The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs. ☐ There are abundant bank slides or slumps. ☐ The lower banks are uniformly scoured and not vegetated. ☐ Riparian vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel. ☐ An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation. ☐ The channel bed appears scoured to bedrock or dense clay. ☐ Recently active flow pathways appear to have coalesced into one channel (i.e. a previously braided system is no longer braided). ☐ The channel has one or more knickpoints indicating headward erosion of the bed.
Indicators of Active Aggradation	☐ There is an active floodplain with fresh splays of coarse sediment (sand and larger that is not vegetated) deposited in the current or previous year. ☐ There are partially buried living tree trunks or shrubs along the banks. ☒ The bed is planar (flat or uniform gradient) overall; it lacks well-defined channel pools, or they are uncommon and irregularly spaced. ☐ There are partially buried, or sediment-choked, culverts. ☒ Perennial terrestrial or riparian vegetation is encroaching into the channel or onto channel bars below the bankfull contour. ☐ There are avulsion channels on the floodplain or adjacent valley floor.
Overall	☐ **Equilibrium** ☐ **Degradation** ☒ **Aggradation**

Riverine Wetland Entrenchment Ratio Calculation Worksheet

The following 5 steps should be conducted for each of 3 cross-sections located in the AA at the approximate midpoints along straight riffles or glides, away from deep pools or meander bends. An attempt should be made to place them at the top, middle, and bottom of the AA.				
Steps	**Replicate Cross-sections** ⟶	**TOP**	**MID**	**BOT**
1 Estimate bankfull width.	This is a critical step requiring familiarity with field indicators of the bankfull contour. Estimate or measure the distance between the right and left bankfull contours.	10	⟶	⟶
2: Estimate max. bankfull depth.	Imagine a level line between the right and left bankfull contours; estimate or measure the height of the line above the thalweg (the deepest part of the channel).	1	⟶	⟶
3: Estimate flood prone depth.	Double the estimate of maximum bankfull depth from Step 2.	2	⟶	⟶
4: Estimate flood prone width.	Imagine a level line having a height equal to the flood prone depth from Step 3; note where the line intercepts the right and left banks; estimate or measure the length of this line.	~~14~~	⟶	⟶
5: Calculate entrenchment ratio.	Divide the flood prone width (Step 4) by the bankfull width (Step 1).	14	⟶	⟶
6: Calculate average entrenchment ratio.	Calculate the average results for Step 5 for all 3 replicate cross-sections. Enter the average result here and use it in Table 13a or 13b.			1.4

*same bankfull throughout; concrete lined channel

Structural Patch Type Worksheet for Riverine wetlands

Circle each type of patch that is observed in the AA and enter the total number of observed patches in Table below. In the case of riverine wetlands, their status as confined or non-confined must first be determined (see page 6) to determine with patches are expected in the system (indicated by a "1" in the table below). Any feature onsite should only be counted once as a patch type. If a feature appears to meet the definition of more than one patch type (i.e. swale and secondary channel) the practitioner should choose which patch type best illustrates the feature. Not all features at a site will be patch types.

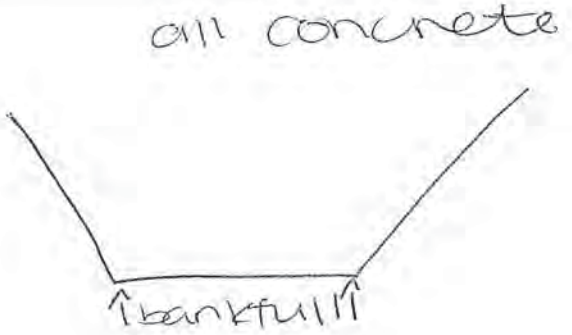
**Please refer to the CRAM Photo Dictionary at www.cramwetlands.org for photos of each of the following patch types.*

STRUCTURAL PATCH TYPE (circle for presence)	Riverine (Non-confined)	Riverine (Confined)
Minimum Patch Size	3 m^2	3 m^2
Abundant wrackline or organic debris in channel, on floodplain	1	1
Bank slumps or undercut banks in channels or along shoreline	1	1
Cobbles and/or Boulders	1	1
Debris jams	1	1
Filamentous macroalgae or algal mats	1	1
Large woody debris	1	1
Pannes or pools on floodplain	1	N/A
Plant hummocks and/or sediment mounds	1	1
Point bars and in-channel bars	1	1
Pools or depressions in channels (wet or dry channels)	1	1
Riffles or rapids (wet or dry channels)	1	1
Secondary channels on floodplains or along shorelines	1	N/A
Standing snags (at least 3 m tall)	1	1
Submerged vegetation	1	N/A
Swales on floodplain or along shoreline	1	N/A
Variegated, convoluted, or crenulated foreshore (instead of broadly arcuate or mostly straight)	1	1
Vegetated islands (mostly above high-water)	1	N/A
Total Possible	17	12
No. Observed Patch Types (enter here and use in Table 14 below)		1

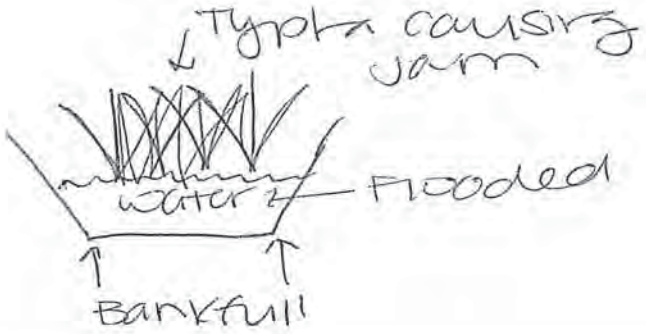
Worksheet for AA Topographic Complexity

At three locations along the AA, make a sketch of the profile of the stream from the AA boundary down to its deepest area then back out to the other AA boundary. Try to capture the benches and the intervening micro-topographic relief. To maintain consistency, make drawings at each of the stream hydrologic connectivity measurements, always facing downstream. Include the water level, an arrow at the bankfull contour, and label the benches. Based on these sketches and the profiles in Figure 10, choose a description in Table 16 that best describes the overall topographic complexity of the AA.

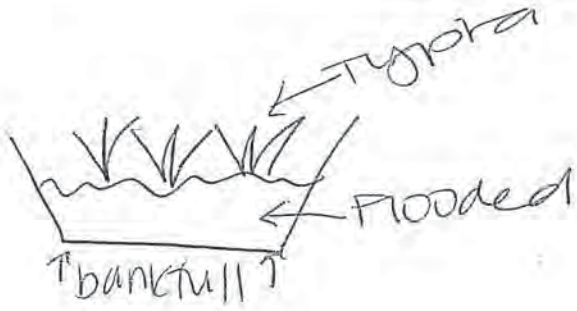
Profile 1



Profile 2



Profile 3



Plant Community Metric Worksheet: Co-dominant species richness for Riverine wetlands
(A dominant species represents ≥10% *relative* cover)

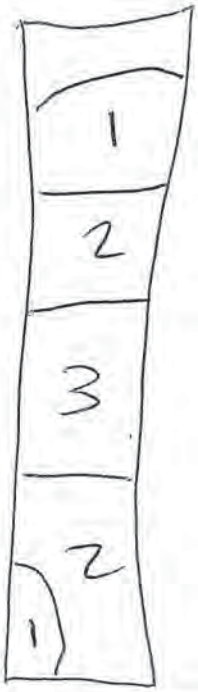
Special Note:

* *Combine the counts of co-dominant species from all layers to identify the total species count. Each plant species is only counted once when calculating the Number of Co-dominant Species and Percent Invasion submetric scores, regardless of the numbers of layers in which it occurs.*

Floating or Canopy-forming (non-confined only)	Invasive?	Short (<0.5 m)	Invasive?
Medium (0.5-1.5 m)	**Invasive?**	**Tall (1.5-3.0 m)**	**Invasive?**
		Typha	
Very Tall (>3.0 m)	**Invasive?**	**Total number of co-dominant species for all layers combined (enter here and use in Table 18)**	2
Salix			
		Percent Invasion *Round to the nearest integer* (enter here and use in Table 18)	0

Horizontal Interspersion Worksheet.

Use the spaces below to make a quick sketch of the AA in plan view, outlining the major plant zones (this should take no longer than 10 minutes). Assign the zones names and record them on the right. Based on the sketch, choose a single profile from Figure 12 that best represents the AA overall.



Assigned zones:

1) SWS
2) FWM
3) Open Water
4)
5)
6)

Worksheet for Wetland disturbances and conversions

Has a major disturbance occurred at this wetland?	Yes	No		
If yes, was it a flood, fire, landslide, or other?	flood	fire	landslide	other
If yes, then how severe is the disturbance?	likely to affect site next 5 or more years	likely to affect site next 3-5 years	likely to affect site next 1-2 years	
Has this wetland been converted from another type? If yes, then what was the previous type?	depressional	vernal pool	vernal pool system	
	non-confined riverine	confined riverine	seasonal estuarine	
	perennial saline estuarine	perennial non-saline estuarine	wet meadow	
	lacustrine	seep or spring	playa	

Stressor Checklist Worksheet

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)	X	
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)	X	
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)	X	
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
concrete line channel		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Significant negative effect on AA
Filling or dumping of sediment or soils **(N/A for restoration areas)**		
Grading/ compaction **(N/A for restoration areas)**		
Plowing/Discing **(N/A for restoration areas)**		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed	X	
Excessive runoff from watershed	X	
Nutrient impaired (PS or Non-PS pollution)	X	
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse	X	
Comments		
debris jam present in channel + subject to flooding from heavy storm flows		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., *Virginia opossum* and domestic predators, such as feral pets)	X	
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer	X	
Comments		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Significant negative effect on AA
Urban residential	X	
Industrial/commercial	X	
Military training/Air traffic		
Dams (or other major flow regulation or disruption)	X	
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor		
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)	X	
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments concrete-lined channel subject to maintenance; conveyed through culverts		

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CRAM Analysis - Map 131

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

HELIX Environmental Planning

N 0 250 Feet

Attachment 3

PLANT SPECIES OBSERVED IN THE NESTOR CREEK CHANNEL

Attachment 3
PLANT SPECIES OBSERVED
IN THE NESTOR CREEK CHANNEL MAP 131

FAMILY	SPECIES NAME	COMMON NAME	HABITAT[1]
Native Species[2]			
Asteraceae	*Artemisia californica*	California sagebrush	DCSS
	Baccharis salicifolia	mule fat	SWS
	Encelia californica	California encelia	DCSS
Poaceae	*Leptochloa fusca* ssp. *uninervia*	Mexican sprangle-top	FWM
Polygonaceae	*Eriogonum fasciculatum*	buckwheat	DCSS
Salicaceae	*Salix lasiolepis*	arroyo willow	SWS
Typhaceae	*Typha* sp.	cattail	FWM
Non-native Species[3]			
Aizoaceae	***Carpobrotus edulis***	hottentot-fig	DH
Apiaceae	***Foeniculum vulgare***	fennel	NNG, NNV
Arecaceae	***Washingtonia robusta***	Mexican fan palm	NNV
Chenopodiaceae	*Salsola tragus*	Russian thistle	DH
Cyperaceae	*Cyperus involucratus*	umbrella plant	FWS, SWS, Streambed, DW
	Cyperus sp.	flatsedge	SWS
Euphorbiaceae	*Ricinus communis*	castor-bean	FWM, SWS, NNV, DH
Fabaceae	*Acacia* sp.	acacia	NNV, DH
Poaceae	***Avena* sp.**	oats	DH
	Cynodon dactylon	Bermuda grass	NNG, NNV, DH
	Paspalum dilatatum	dallis grass	NNG
	Pennisetum setaceum	fountain grass	NNV, DH
Polygonaceae	*Rumex crispus*	curly dock	NNG

[1]Habitats: AR=Arundo-dominated Riparian; DCSS=Diegan Coastal Sage Scrub; DEV=Developed; DH=Disturbed Habitat; DW=Disturbed Wetland; EW=Eucalyptus Woodland; FWM=Freshwater Marsh; NNG=Non-native Grassland; NNV=Non-native Vegetation; SWS=Southern Willow Scrub
[2]Sensitive species in boldface
[3]Invasive species in boldface

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Attachment 4

WILDLIFE SPECIES OBSERVED IN THE NESTOR CREEK CHANNEL

Attachment 4
WILDLIFE SPECIES OBSERVED
IN THE NESTOR CREEK CHANNEL MAP 131

SPECIES NAME[1]	COMMON NAME
Invertebrates	
• Unidentified	Unidentified dragonfly
• *Limenitis lorquini*	Lorquin's admiral
• *Danaus plexippus*	monarch
Vertebrates	
• *Thryomanes bewickii*	Bewick's Wren
• *Sayornis nigricans*	Black Phoebe
• *Haemorhous mexicanus*	House Finch
• *Mimus polyglottos*	Northern Mockingbird
• *Agelaius phoeniceus*	Red-winged Blackbird
• *Sayornis saya*	Say's Phoebe

Attachment 4 (cont.)
WILDLIFE SPECIES OBSERVED
IN THE NESTOR CREEK CHANNELS MAPS 131 AND 133

SPECIES NAME[1]	COMMON NAME
Vertebrates (cont.)	
• *Melospiza melodia*	Song Sparrow
• *Pipilo maculates*	Spotted Towhee
• Unidentified	Swallow
• *Zonotrichia leucophrys*	White-crowned Sparrow
• *Setophaga coronata*	Yellow-rumped Warbler

Attachment 5

PRELIMINARY JURISDICTIONAL DELINEATION FORM

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

District Office: Los Angeles District | File/ORM #: | PJD Date: 10/7/2015

State: CA | City/County: San Diego, San Diego

Nearest Waterbody: Otay River/Pacific Ocean

Location: TRS, LatLong or UTM: Township 18 South, Range 2 West on the Imperial Beach USGS 7.5-minute quadrangle map

Name/ Address of Person Requesting PJD:
Jasmine Bakker
HELIX Environmental Planning
7578 El Cajon Boulevard
La Mesa, CA 91942

Identify (Estimate) Amount of Waters in the Review Area:

Non-Wetland Waters: linear ft | width | 0.06 acres | Stream Flow: Perennial

Wetlands: 0.17 acre(s) | Cowardin Class: Palustrine, scrub-shrub

Name of Any Water Bodies on the Site Identified as Section 10 Waters: Tidal: None | Non-Tidal: None

☐ Office (Desk) Determination
☑ Field Determination: Date of Field Trip: Oct 7, 2015

SUPPORTING DATA: Data reviewed for preliminary JD (check all that apply - checked items should 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: Figures 2 and 6 of the IBA
- ☐ 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:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☑ U.S. Geological Survey map(s). Cite quad name: Imperial Beach
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation:
- ☐ National wetlands inventory map(s). Cite name:
- ☐ State/Local wetland inventory map(s):
- ☐ FEMA/FIRM maps:
- ☐ 100-year Floodplain Elevation is:
- ☐ Photographs: ☐ Aerial (Name & Date): ☐ Other (Name & Date):
- ☐ Previous determination(s). File no. and date of response letter:
- ☑ Other information (please specify): See notes

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and Date of Regulatory Project Manager (REQUIRED)

Signature and Date of Person Requesting Preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

EXPLANATION OF PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS:

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

Appendix A - Sites

District Office	Los Angeles District	File/ORM #		PJD Date:	10/7/2015
State	CA	City/County	San Diego, San Diego	Person Requestinq PJD	Jasmine Bakker

Site Number	Latitude	Longitude	Cowardin Class	Est. Amount of Aquatic Resource in Review Area	Class of Aquatic Resource
131, R11	32° 34' 22.296"	117° 4' 15.708"	Palustrine, scrub-shrub	0.17	Non-Section 10 wetland
131, R12	2° 34' 22.58' N	117° 4'10.82"W	Riverine	0.06	Non-Section 10 wetland
			n/a		Non-Section 10 wetland
			n/a		Non-Section 10 wetland

Notes:

Reaches included in the above listed Map number:
Map 131: Reach 11 and 12 (910' long, mostly concrete-lined channel with 6-10' bottom width)

Cowardin class reported in above table is based on the habitat with the largest area in a particular reach. The other Cowardin classes that occur in the reaches include:

Map 131: Palustrine shrub-scrub & Riverine

Both Reaches are trapezoidal in cross-section. Reach 12 is concrete-lined and totals 1,000 feet in length. Reach 11 is soil-lined and totals 150 feet in length.

Attachment 6

2016 LEAST BELL'S VIREO SURVEY REPORT

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
Suite 200
La Mesa, CA 91942
619.462.1515 **tel**
619.462.0552 **fax**
www.**helixepi**.com

September 9, 2016 SDD-24.27

Ms. Stacey Love
U.S. Fish & Wildlife Service
2177 Salk Ave., Suite 250
Carlsbad, CA 92008

Subject: 2016 Least Bell's Vireo (*Vireo bellii pusillus*) Survey Report for the City of San Diego Nestor Creek Channel Maintenance Project

Dear Ms. Love:

This letter presents the results of a U.S. Fish and Wildlife Service (USFWS) protocol presence/absence survey for the least Bell's vireo (*Vireo bellii pusillus*; LBVI) conducted by HELIX Environmental Planning, Inc. (HELIX) for the City of San Diego Transportation and Storm Water Department's proposed Nestor Creek Channel Maintenance Project. This letter describes the survey methods and results and is being submitted to the USFWS in accordance with protocol survey guidelines.

PROJECT LOCATION

The approximately 7.9-acre Nestor Creek channel study area is located in the Otay-Nestor planning area in the City of San Diego (City), California (Figure 1). The study area is linear and extends west from 30th Street and the railway, continues along Grove Avenue and further northwest toward Coronado Avenue and Palm Avenue. The channel study area is situated in Township 18 South, Range 2 West on the Imperial Beach U.S. Geological Survey 7.5-minute quadrangle map (Figure 2). An aerial of the study area is shown in Figure 3. Elevations range from approximately five to 25 meters (15 to 80 feet) above mean sea level (amsl). The LBVI survey area encompassed all potentially suitable riparian habitat in the Nestor Creek Channel that occurred within the channel study area (Figure 4). The Nestor Creek Channel generally flows from the southeast towards the northwest, where it joins the Otay River.

METHODS

The survey consisted of seven site visits conducted by HELIX biologists Amy Mattson, Hannah Sadowski, Benjamin Rosenbaum, and Laura Moreton between June 3 and July 29, 2016 (Table 1) in accordance with the current USFWS survey protocol (2001). The eighth site visit was not conducted as it would have occurred outside the breeding season, prior surveys were negative, and there was low potential for LBVI. The survey was conducted by walking along the edges of, as well as within, potential LBVI habitat in the survey area while listening for LBVI and viewing birds with the aid of binoculars. The survey area consisted of approximately 2.1 acres of marginally suitable LBVI habitat within the study area, consisting of southern riparian forest and southern willow scrub (Figure 4). The rest of the habitat in the project site is not suitable for LBVI and was not surveyed during site visits nos. 3 through 7.

Table 1
LEAST BELL'S VIREO SURVEY INFORMATION

Site Visit	Date	Biologist	Time (start/stop)	Approximate Acres (ac) Covered*/ Survey Rate	Weather Conditions (start/stop)	Individual Survey Results
1	6/3/16	Amy Mattson, Hannah Sadowski	0935/1100	7.9/ 5.56ac/hr	67ºF, wind 0-1 mph, 20% clouds 69ºF, wind 0-3 mph, 5% clouds	negative
2	6/13/16	Benjamin Rosenbaum	0900/1100	7.9/ 3.95 ac/hr	67ºF, wind 0-3 mph, 100% clouds 71ºF, wind 0-3 mph, 70% clouds	negative
3	6/22/16	Benjamin Rosenbaum	0830/1100	2.1/ 0.84ac/hr	75ºF, wind 0-2 mph, 80% clouds 75ºF, wind 0-2 mph, 60% clouds	negative
4	7/1/16	Benjamin Rosenbaum	0845/1100	2.1/ 0.84 ac/hr	70ºF, wind 2-5 mph, 100% clouds 72ºF, wind 0-2 mph, 100% clouds	negative
5	7/11/16	Laura Moreton	0820/1055	2.1/ 0.81 ac/hr	70ºF, wind 1-2 mph, 20% clouds 76ºF, wind 2-5 mph, 0% clouds	negative
6	7/20/16	Laura Moreton	0830/1040	2.1/ 0.97 ac/hr	76ºF, wind 0-2 mph, 20% clouds 79ºF, wind 0-2 mph, 80% clouds	negative
7	7/29/16	Benjamin Rosenbaum	0745/1000	2.1/ 0.84 ac/hr	77ºF, wind 0-3 mph, 10% clouds 80ºF, wind 0-3 mph, 10% clouds	negative

*Includes time for travel between habitat patches

VEGETATION COMMUNITY DESCRIPTIONS

A total of 13 vegetation communities/land use types have been identified within the channel study area: southern riparian forest, southern willow scrub, freshwater marsh, emergent wetland, disturbed wetland (including Arundo-dominated), open water/pond, streambed, Diegan coastal sage scrub, non-native grassland, eucalyptus woodland, non-native vegetation, disturbed habitat, and developed lands (Figure 4). The channel study area is bordered by developed or disturbed habitat. The vegetation communities considered suitable LBVI habitat include southern riparian

forest and southern willow scrub. However, the survey areas were considered marginally suitable because the potential habitat consisted of isolated patches of riparian vegetation (generally less than 0.5 acre) that are not connected to other larger, more contiguous patches of potential habitat, and the vegetation communities occur along a narrow storm channel and the area is interspersed with habitat not suitable for LBVI (e.g., freshwater marsh and open water).

RESULTS

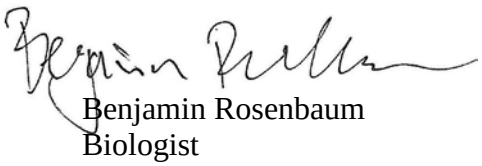
No LBVI were observed or detected within or adjacent to the channel survey area during the 2016 survey. No brown-headed cowbird (*Molothrus ater*), a known nest parasite of LBVI, was detected during the survey effort.

CERTIFICATION

I certify that the information in this survey report and enclosed exhibit fully and accurately represents our work.

Please contact Jasmine Bakker or Shelby Howard at (619) 462-1515 if you have any questions.

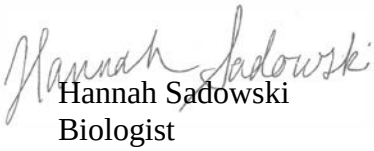
Sincerely,



Benjamin Rosenbaum
Biologist

Laura Moreton
Biologist

Amy Mattson
Biologist

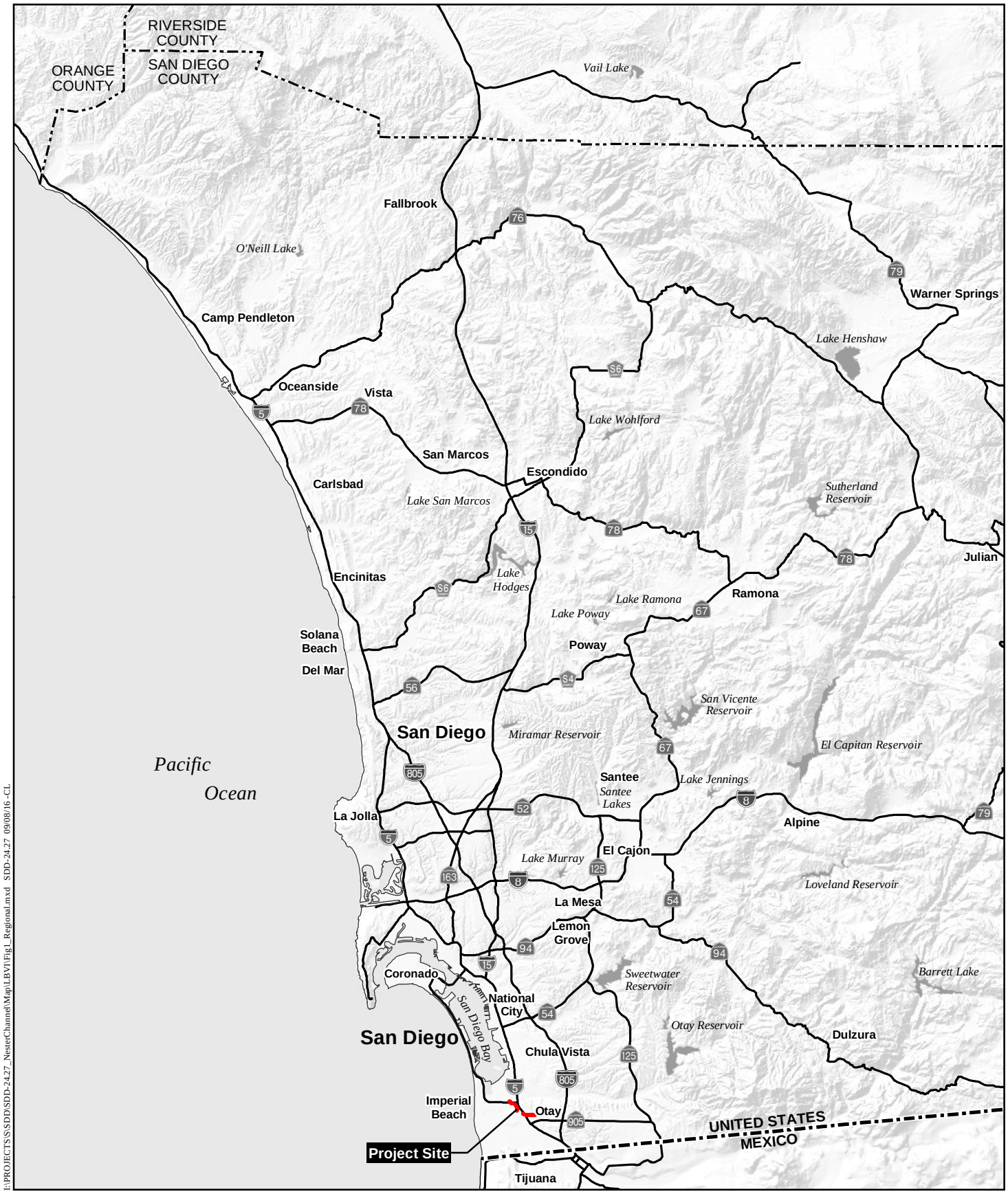


Hannah Sadowski
Biologist

Enclosures:
Figure 1 Regional Location
Figure 2 Project Vicinity (USGS Topography)
Figure 3 Project Vicinity (Aerial Photograph)
Figure 4 Vegetation/2016 Least Bell's Vireo Survey Results

REFERENCES

U.S. Fish and Wildlife Service (USFWS). 2001. Least Bell's Vireo Survey Guidelines. January 19.



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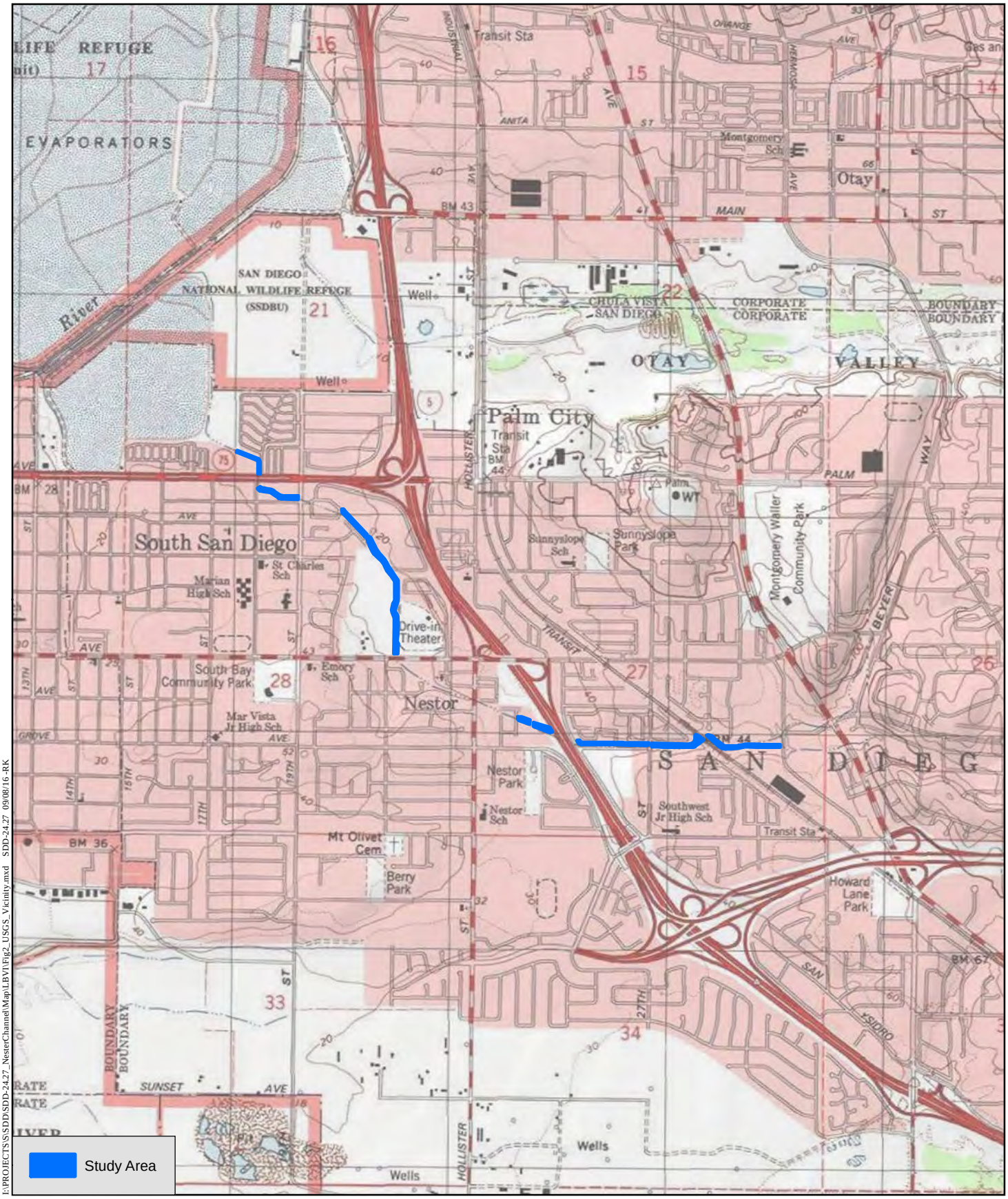
Regional Location Map

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

HELIX Environmental Planning

N 0 8 Miles

Figure 1



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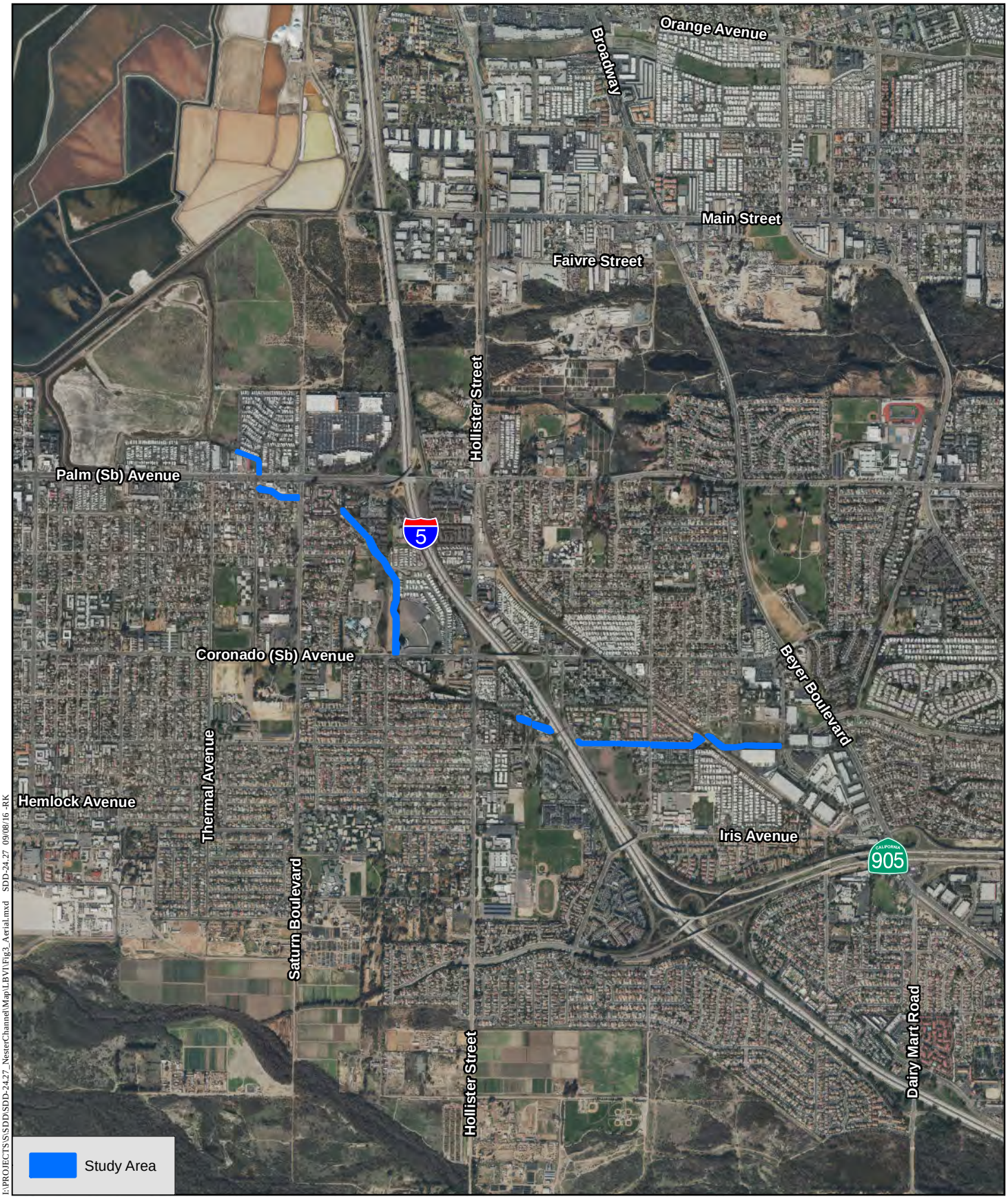
Project Vicinity (USGS Topography)

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

HELIX Environmental Planning

N 0 2,000 Feet

Figure 2



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Project Vicinity (Aerial Photograph)

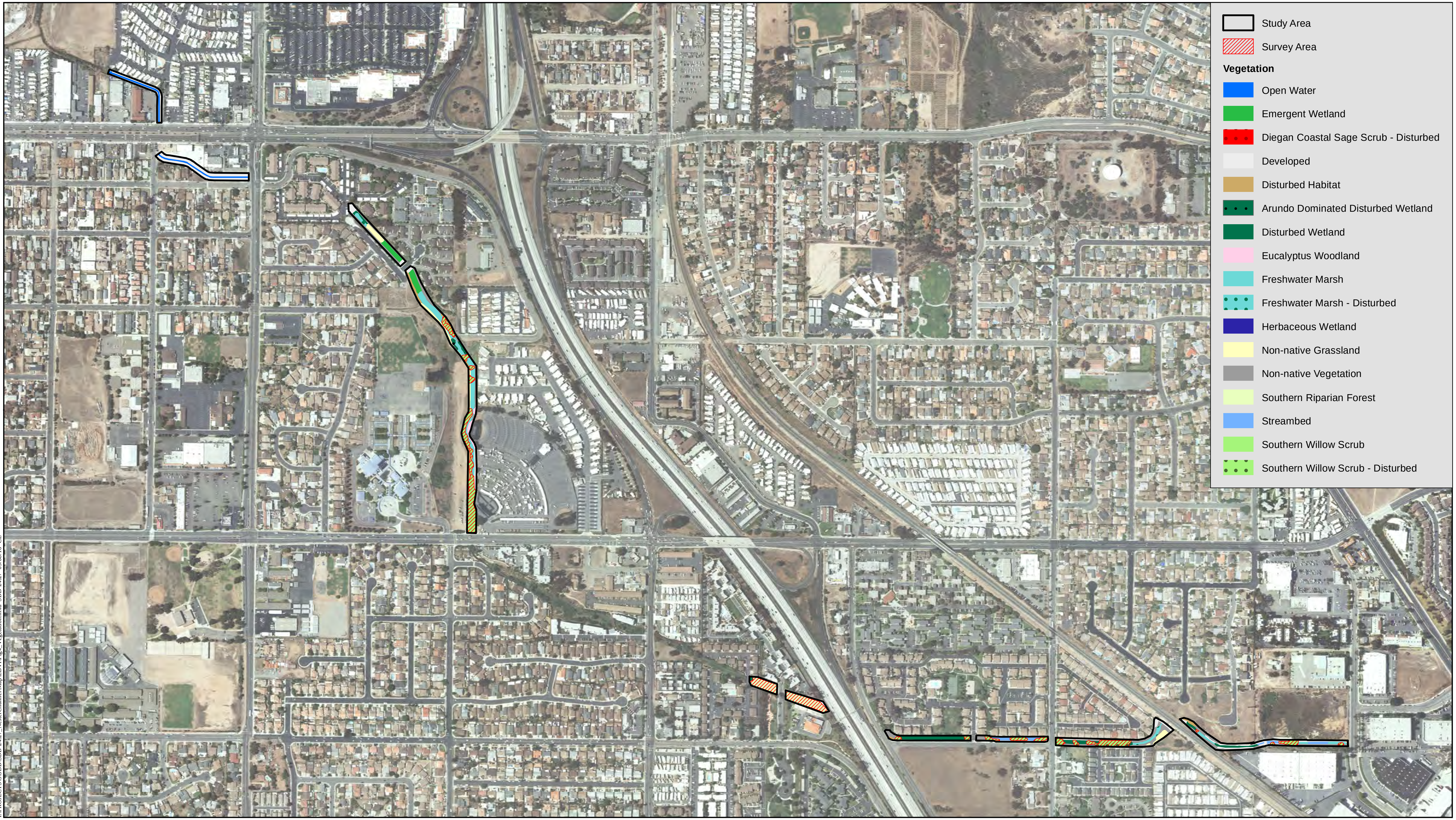
NESTOR CREEK CHANNEL MAINTENANCE PROJECT

HELIX Environmental Planning

N

0 2,000 Feet

Figure 3



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Vegetation/2016 Least Bell's Vireo Survey Results

NESTOR CREEK CHANNEL MAINTENANCE PROJECT

HELIX Environmental Planning

N 0 600 Feet

Figure 4